



State of New Jersey

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Via E-mail
June 11, 2021

Bridgite Goncalves, Chief Financial Officer
Borough of East Newark
34 Sherman Avenue
East Newark, NJ 07029

Re: Review of Selection and Implementation of Alternatives Report for Township of East Newark –
Appendix H
Borough of East Newark, NJPDES Permit No. NJ0117846

Dear Ms. Goncalves:

Thank you for your submission dated September 2020 entitled “Review of Selection and Implementation of Alternatives Report for Township of East Newark”, as submitted, in a timely manner, to the New Jersey Department of Environmental Protection (the Department).

This report was submitted by the Passaic Valley Sewerage Commission (PVSC) on behalf of the Borough of East Newark as “Appendix H” in the “Selection and Implementation of Alternatives for Long Term Control Planning for Combined Sewer Systems – Regional Report” (Regional Report), where it was prepared in accordance with Part IV.D.3.b.vi of the above referenced New Jersey Pollutant Discharge Elimination System (NJPDES) permit. The Regional Report serves to comply with the Long-Term Control Plan (LTCP) submittal requirements as due on October 1, 2020.

The Regional Report presents a “Regional Alternative” for all PVSC’s combined sewer communities as well as a “Municipal Alternative” which is shown in the individual appendices for each of its eight (8) member combined sewer municipalities. This subject letter serves to provide a response to Appendix H which is specific to the Borough of East Newark whereas a response to the Regional Report is provided under separate cover.

The overall objective of the LTCP is to identify and select CSO control alternatives that meet the requirements of the Federal CSO Control Policy Section II.C.4, N.J.A.C. 7:14A-11, Appendix C, and the USEPA Combined Sewer Overflows Guidance for Long-Term Control Plan (EPA 832-B-95-002). The Federal CSO Policy establishes a framework for the coordination, planning, selection, and implementation of CSO controls required for permittee compliance with the Clean Water Act. This subject report builds on other previously submitted LTCP reports referenced in Part IV.D.3.b of the NJPDES permit, which includes an approved hydrologic, hydraulic and water quality model and other information in the June 2018 “System Characterization Report” (approved by the Department on April 12, 2019); the June 30, 2018 “NJCSO Group Compliance Monitoring Program Report” (approved by the Department on March 1, 2019); the June 2018 “Public Participation Process Report” (approved by the Department on March 29, 2019); the

June 2018 “Identification of Sensitive Areas Report” (approved by the Department on April 8, 2019) and the June 2019 Development and Evaluation of Alternatives Regional Report (DEAR) (approved by the Department on January 17, 2020).

The below represents the Department’s initial comments. The Department reserves the right to further comment on these issues. Comments are as follows.

Table of Contents

Comment 1: The Table of Contents contains erroneous references shown as “Error Bookmark not defined” for Section E. Revise accordingly.

Section A, Introduction

Comment 2: Section A, Introduction states the following:

“The Borough of East Newark is a densely populated town in Hudson County, New Jersey. The town comprises an area of approximately 0.1 square miles and is boarded by the Town of Kearny in the north and Harrison in the south. It is located by the Passaic River and has one CSO regulator that discharges CSO to the river through an outfall as shown in Figure A-1. All combined sewer flows within the regulators capacity is conveyed to the PVSC wastewater treatment plant through PVSC interceptor.”

It is then further stated:

“The planned projects in the Borough of East Newark is the remediation of the 7 acre BASF property and the redevelopment of the site of the former 13 acre Clark Thread Mill. Plant shown in Figure A-2. Plans for these private properties are still evolving however it is believed that both properties will be redeveloped as separately sewers areas. The BASF property is to be remediated and redeveloped for ecological purposes with no residences. The Clark Thread Mill site is to be redeveloped as a residential development with separate sewers. For now we are assuming that storm water and wastewater will be separately sewered. This will reduce the CSO drainage area from 62 acres to 42 acres, a reduction of 20 acres. It will also result in a new storm water outfall.”

The Department maintains that this LTCP is incomplete as the LTCP does not provide certainty as to whether or not these sewers will be separated as part of any redevelopment. As such, the LTCP is unacceptable without agreements or other assurances to show that there are commitments for these areas to be separately sewered. Part IV.D.3.b.vi of the NJPDES CSO permit requires submission of an approvable LTCP.

If the above assurances can not be provided, an amended LTCP with selection of a different alternative needs to be submitted. We note that a storage tank was evaluated in the June 2019 Appendix C of the “Development and Evaluation of Alternatives for Long Term Control Planning for Combined Sewer Systems – Regional Report” where this appendix was specific to East Newark. Specifically, Table D-5, Storage Tank Size (MG) documents consideration of storage tanks as part of that alternative. In addition, Section D.2.1, Controls of the June 2019 report states that regulator modifications at the outfall to increase the weir height by 6 inches could result in an overall volume reduction of 9% from the baseline. Since a regulator modification is a low cost option that can be implemented in the short term, additional detail should be provided on this option.

Comment 3: Section A, Introduction states the following:

“A 25 to 35 year planning horizon is being assumed for implementation of the CSO LTCP.”

In addition to the uncertainty of the sewer separation project described above, it is unclear how a 25 to 35 year planning horizon was derived for sewer separation. This length of time is excessive given the limited rationale. Please revisit this issue.

Comment 4: Section A, Introduction states the following:

“In consistency with the 1994 USEPA’s CSO Control Policy, the NJPDES permit requires implementation of CSO controls through development of a Long-Term Control Plan (LTCP). The permit includes requirements to cooperatively develop the LTCP with PVSC and its hydraulically connected CSO permittees. Each permittee is required to develop all necessary information for the portion of the hydraulically connected system they own.”

The Department acknowledges that East Newark has selected the regional approach yet has prepared this report detailing the municipal approach to document a method for 85% capture to be attained within the boundaries of East Newark. The Department also acknowledges that the municipal approach and the regional approach include the same selected alternative.

In order to ensure that all nine components of the LTCP within this specific appendix are addressed for compliance purposes as well as for transparency for public review, supplement this section or Section D with a chart of each of the LTCP elements included in Part IV.G of the NJPDES CSO permit along with the relevant section of the subject report. Below is a section from Appendix F of the Regional Report which can be used as a model:

Table A-1: Review of Major Requirements of the SIAR

Permit Section	Permit Requirement	SIAR Section Reference
Part IV G1	Characterization Monitoring and Modeling of the Combined Sewer System	Presented in the Regional LTCP as Appendix A
Part IV.G2	Public Participation Process	Presented in the Regional LTCP as Appendix E
Part IV G3	Consideration of Sensitive Area	Presented in the Regional LTCP as Appendix C
Part IV G4	Evaluation of Alternatives	Presented in the Regional LTCP as Appendix D and summarized in Section C of this SIAR
Part IV G5	Cost/Performance Considerations	See Section D.3 of this SIAR
Part IV G6	Operational Plan	See Section F.6 of this SIAR
Part IV G7	Maximizing Treatment at the Existing STP	See Appendix A of this SIAR
Part IV G8	Implementation Schedule	See Section F.5 of this SIAR
Part IV G9	Compliance Monitoring Program	Presented in Section K of the Regional LTCP

Section C, Evaluation of Alternatives

Comment 5: Section C.1, Introduction states the following:

“Siting of CSO control alternatives is commonly a subject of most public debate on CSO control projects. Therefore, one of the key considerations in assessing the overall feasibility of a CSO control alternative is the identification of appropriate sites for new facilities. The Borough of East Newark is fully developed with not much available open space. Land availability can be an issue as most of the controls are preferred to be located near the waterfront, which is expensive and privately owned in the borough. It is recognized that issues involving facility location, land takings, and easements in both public and private lands can lead to disagreements among various stakeholders. Therefore, this alternative evaluation focuses on the use of the city-owned available sites which have minimal impact on sensitive stakeholders and are less likely controversial. The environmental, political, socioeconomic, and regulatory impacts of locating a facility at a designated site will need to be evaluated in detail during the facilities planning and design phase. For private property to be remediated or redeveloped (BASF and Clark Thread Mill Sites) sewer separation will be considered.”

Public participation is a required component of the NJPDES permit so additional detail regarding the most recent public participation needs to be included. The Department acknowledges that public participation and public outreach has taken place through the PVSC Supplemental CSO Team. Provide a brief summary of public participation activities to date subsequent to the submission of the June 2018 Public Participation Process Report. This may also include any town council or municipality government meetings where CSO alternatives were discussed.

Public participation will continue in the next NJPDES permit and could include three primary goals: inform, educate and engage. The Department is evaluating this issue and is in the process of preparing updated NJPDES permit language to advance this issue for the next permit renewal.

Comment 6: Section C.2, Development and Evaluation of Alternatives provides an overview of this June 2019 report. Under Section 6) Treatment – PAA Disinfection, the following is stated:

“...Where full treatment is achieved, disinfection is assumed to remove 99.9% of pathogens (a “3-log kill.”)...”

This section further states that PAA disinfection will not be considered for East Newark’s CSO. As stated in its September 25, 2019 comments on the Development and Evaluation of Alternatives Report (DEAR), additional documentation would need to be provided in order to justify this assertion. While the Department acknowledges that PAA is not a selected technology, the Department notes this for the Administrative Record.

Comment 7: Section C.2, Development and Evaluation of Alternatives has multiple references to Table D-10; however, there is no Table D-10 within the report. Correct accordingly.

Comment 8: Section C.2, Development and Evaluation of Alternatives states the following:

“...This leave[s] sewer separation, CSO storage tanks and green infrastructure as viable alternatives for consideration. 85% CSO reduction will be the control target.”

While the June 2019 DEAR stated that green infrastructure can be used as a complementary CSO control technology, that it is a viable alternative, and included a reference to the “Green Infrastructure Feasibility Study, East Newark” (as prepared by Rutgers University), there is no mention of green infrastructure in Section D, Selection of Recommended LTCP or elsewhere in this report. Please explain.

Comment 9: Section C.2, Development and Evaluation of Alternatives includes Figure C-1:

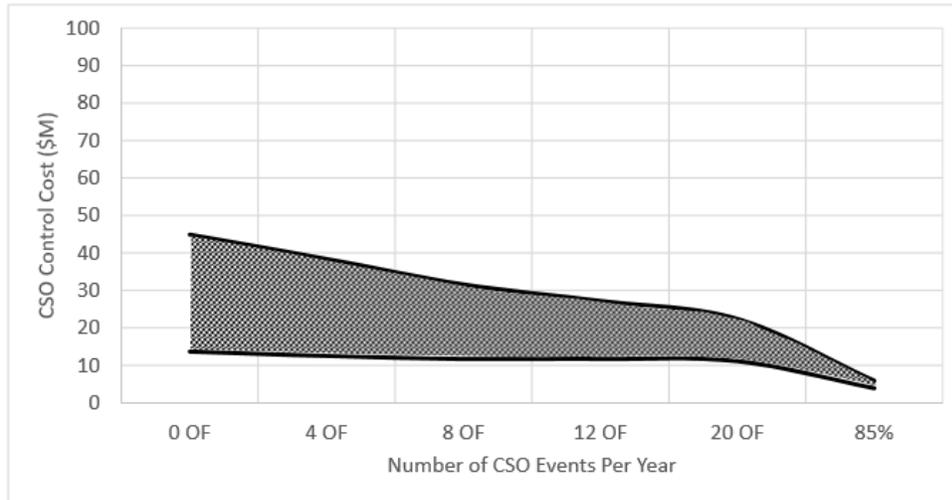


Figure C-1: East Newark Knee of the Curve for CSO Control

As discussed in Comment 13 below, it is unclear how the “Knee of the Curve” applies if East Newark is contending that they will not be paying for the cost of sewer separation. In addition, this graph is not supported by detail or any data to show how the results are derived. Remove or revise accordingly.

Section D, Selection of Recommended LTCP

Comment 10: Section D.1, LTCP Selection Process states the following:

“East Newark has selected the Presumptive Approach for their CSO LTCP program...”

Section D.2.6, Selection of Recommended Alternative then states the following:

“The percent CSO capture will increase from 76.6% to 82.5% when the thread mill development is built. It will then increase to 85.2% with remediation of the BASF property. Table D-1 presents CSO reductions.

Table D-1: East Newark’s LTCP

Alternatives	(Acres)	Frequency	CSO (MG/yr)	% Capture
Baseline	-	32	17.2	76.3%
Sewer Separation Thread Mill	13	31	12.8	82.5%
Sewer Separation Thread Mill + BASF	13+7	31	10.9	85.2%

“

The Department acknowledges that the permittee has selected the Presumptive Approach in Section D.1 with the following option under the Presumption Approach as a means of compliance:

“ii. The elimination of the capture for treatment of no less than 85% by volume of the combined sewage collected in the CSS during precipitation events on a system-wide annual average basis;”

As a result, the derivation of percent capture is central to a review of this report. Supplement this report with the percent capture equation including a detailed table of the numerical values utilized within the equation that was used to derive these results in Table D-1. Approval of this report hinges in part on the inputs and results of this equation being clearly demonstrated and reproducible.

Comment 11: Section D.2, Selection of Alternatives states the following:

“Sewer Separation of the BASF and Clark Thread Mill properties will increase CSO capture from 76.6% to 85%. However these sites are privately owned and a firm schedule has not been determined yet for the redevelopment. Also, the final land area has been corrected to 7 acres for the BASF property and 13 acres for the Clark Thread Mill, 20 acres in total.”

Similarly, Section D.2.1, Description states the following:

“Sewer separation is a disruptive technology, however, the separation would be done as the sited are developed (thread mill) or remediated (BASF). Therefore, disruption to the public should be minimal. Both properties boarder the Passaic River and a new stormwater outfall could be constructed on the property. The construction schedule, however, is not known at this time. It is assumed that both projects will be constructed within 10 years however a firm schedule is not known at this time.”

The implementation schedule is a core component of the LTCP and is required by the NJPDES CSO permit as per Part IV.G.8. Submission of an LTCP without this schedule means that the LTCP is not acceptable. Address accordingly.

In addition, describe the areas prone to flooding and explain if this flooding is strictly related to sewer backups, stormwater flooding or tidal inundation. Flooding of combined sewage in streets is a public health concern and is not acceptable. The LTCP must address the elimination of street flooding where this should be the utmost priority.

Comment 12: Section D.2.5, Cost Opinion states the following:

“The planning cost of sewer separation is based on \$300,000 per acre separated as discussed in the Regional Report. This has been an updated cost from the DEAR report. The cost for the two properties is as follows:

Clark Thread Mill	13	\$3,900,000
BASF	7	\$2,100,000
Total	20	\$6,000,000

The actual cost will likely be less than this because they are undeveloped (BASF) and vacant (Tread Mill).”

Provide additional detail as to how these cost values were derived and who is assuming ownership for such costs. In addition, it is suggested that this information be provided in tabular format with headers for ease of understanding.

Section E, Financial Capability

Comment 13: Section E.1, Introduction includes the following excerpt:

“The Financial Capability assessment is a two-step process including Affordability which evaluates the impact of the CSO control program on the residential ratepayers and Financial Capability which examines a permittee’s ability to finance the program. Affordability is measured in terms of the Residential Indicator (RI) which is the percentage of median household income spent on wastewater services. Total wastewater services exceeding 2.0% of the median household income are considered to impose a high burden by USEPA. The financial capability analysis uses metrics similar to the municipal bond rating agencies.”

To supplement this section the Department requests to see in table format in an Excel spreadsheet showing calculations, a year-by-year listing of (1) existing O&M costs and debt service; (2) CSO control program additional O&M costs, capital outlay and loan amounts, additional debt service and other additional costs; (3) current and projected wastewater treatment and CSO costs including residential share, number of households, cost per household; and (4) median household income and resulting residential indicator. A review of the financial capability analysis can not be conducted until this information has been provided.

Comment 14: Section D.2.4, Non-Monetary Factors states the following:

“The advantage of selecting sewer separation over other technologies is that the cost of separating the sewers could be paid for in full or in part by the developer. Plans have been approved for the remediation (BASF) and property development (Thread Mill). East Newark will now negotiate with the developers for the sewer separation work. If satisfactory terms with the developer cannot be reached or the project is not constructed for any reason, East Newark will separate the sewers, however, a longer period will be required.”

As noted in Comment 2, the report cites uncertainty regarding the sewer separation project. Given that East Newark is the NJPDES CSO permittee, East Newark is responsible for ensuring that this requirement is satisfied. It is also unclear how East Newark is eligible for an implementation schedule under the Financial Capability component of the Federal CSO Control Policy if they are contending that they will not be responsible for funding this project. Section E should be revised accordingly.

Comment 15: Section E.3.4, Potential Impacts of the COVID-19 Pandemic in Affordability includes the following excerpt:

“Given the current and likely continuing uncertainties as to the New Jersey and national economic conditions, East Newark will be reticent to commit to long term capital expenditures for CSO controls without the incorporation of adaptive management provisions, including provisions to revise and reschedule the long term CSO controls proposed in this SIAR [Selection and Implementation of Alternatives Report] based on emergent economic conditions beyond the permittees’ control. These provisions could include scheduling the implementation of specific CSO control measures to occur during the five year NJPDES permit cycles. A revised affordability assessment should be performed during review of the next NJPDES permit to identify controls that are financially feasible during that next permit period.”

The Department agrees that financial capability and economic conditions are critical components of the LTCP review. As a separate process, the Department is currently conducting rulemaking for New Jersey’s Environmental Justice Law (N.J.S.A. 13:1D-157) as signed by Governor Murphy on September 18, 2020, as indicated on the Department’s website: <https://www.nj.gov/dep/ej/>

The Department agrees that an Adaptive Management approach could serve as a compliance “check in” as the projects proceed and an Adaptive Management requirement could be a component of a future NJPDES permit action. The Department agrees that Adaptive Management could also allow flexibility from the perspective of treatment technology advancements and compliance provided the resultant percent capture requirement is attained. However, while flexibility can be a component of each five year permit cycle, the permittee is obligated to set forth a path for compliance with the Federal CSO Control Policy through measures set forth in the LTCP. Note that any changes to projects set forth in the NJPDES permit as part of the LTCP will require a NJPDES permit modification or renewal. While this comment does not necessitate a response at this time, the Department hereby notes this information for the Administrative Record.

Please incorporate these changes to the report and submit a revised version of Appendix H to the Department no later than 60 days from the date of this letter. Thank you for your continued cooperation.

Sincerely,



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CSO Team Leader
Bureau of Surface Water & Pretreatment Permitting

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