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Re: Review of Selection and Implementation of Alternatives Report
Bergen County Utilities Authority (BCUA), NJPDES Permit No. NJ0020028
Borough of Fort Lee, NJPDES Permit No. NJ0034517
City of Hackensack, NJPDES Permit No. NJ0108766
Village of Ridgefield Park, NJPDES Permit No. NJ0109118

Dear Permittees:

Thank you for your submission dated October 1, 2020 entitled "Selection and Implementation of Alternatives Report" for the BCUA, Borough of Fort Lee (Fort Lee), City of Hackensack (Hackensack) and Village of Ridgefield Park (Ridgefield Park) as submitted to the New Jersey Department of Environmental Protection (the Department or NJDEP). This report was submitted in a timely manner and was prepared in accordance with Part IV.D.3.b.vi of the above referenced New Jersey Pollutant Discharge Elimination System (NJPDES) permit. This submission was issued in response to the Long-Term Control Plan (LTCP) submittal requirements as due on October 1, 2020.

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 "Sewer System Characterization Report" (approved by the Department on March 5, 2019 for BCUA, June 29, 2019 for Fort Lee, March 19, 2019 for Hackensack, and March 11, 2019 for Ridgefield Park); the July 1, 2018 "Supplemental CSO Team Public Participation Process Report" for Fort Lee (approved by the Department on June 26, 2019); the June 27, 2018 "BCUA CSO Group Public Participation Process Report" (approved by the Department on June 26, 2019); the June 2018 "Identification of Sensitive Areas Report" (approved by the Department on April 8, 2019); the June 30, 2018 "NJCSO Group Compliance Monitoring

Program Report" (approved by the Department on March 1, 2019); and the July 1, 2019 Development and Evaluation of Alternatives (DEAR) (approved by the Department on February 12, 2020).

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

1 Certification

Comment 1: Part IV.D.1.b of your existing CSO permit states the following:

"b. All reports submitted to the Department pursuant to the requirements of this permit shall comply with the signatory requirements of N.J.A.C. 7:14A-4.9, and contain the following certification:

i. I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for purposely, knowingly, recklessly, or negligently submitting false information".

The Department acknowledges that a modified version of the above referenced certification statement is included in the report and has been signed by representatives for each permittee. These statements are consistent with the version utilized in other previous reports and are acceptable to the Department.

2 Executive Summary

Comment 2: The Executive Summary serves to provide a summary of the overall report. Comments have been incorporated on the specific report sections below; however, any changes as part of a revised LTCP should include revisions to the Executive Summary as appropriate.

Comments below are organized by report section where the majority of the specific subject matter is discussed. Similar to the Executive Summary, in order to address the comments below, this may require revisions to other sections of the report.

Comment 3: Section 2.1 BCUA LTCP Summary states the following:

"A key factor in making use of opportunities to treat more flow at the LF [Little Ferry] WPCF [Water Pollution Control Facility] is the current permit, which was modified in June of 2019, and limits the plant flow and effluent loads. Accepting additional flow at the existing WPCF is possible under low flow conditions, but under high flow condition (flow rates in excess of 120 MGD [million gallons per day]) the plant cannot accept additional flow. BCUA is currently preparing a Capacity Analysis Report that outlines a plan on how the facility could be modified to achieve the revised permit requirements at future higher influent flows. The anticipated load conditions will include dewatering flows from CSO facilities which BCUA has agreed to accept under specified conditions at the WPCF. BCUA worked with the municipalities and their consultants to develop criteria for allowable dewatering rates to the BCUA intercepting sewers to limit dewatering pumping to periods when the plant could accept the flow without exceeding their design capacity. The BCUA notes that this will require the acceptance of additional stormwater along with the sanitary sewage from storage tanks. This runs contrary to BCUA

extensive efforts to reduce inflows and the BCUA expects the NJDEP to acknowledge the greater benefit of CSO reduction and to make the necessary allowances to the BCUA's permit to accept this flow without penalty."

The Department is in receipt of the "Little Ferry WPCF Capacity Assurance Report" dated December 3, 2020 as prepared by the BCUA Special Engineer. This report was submitted to fulfill the requirements of N.J.A.C. 7:14A-22.16 and is currently pending review within the Department's Treatment Works Approval program. The Department did modify the NJPDES CSO permit for BCUA as referenced in this comment where the Department concurred that the diversion of additional CSO flows could justify alternate loading limits. Therefore, the Department has already acknowledged the benefit of CSO reduction and agreed to proposed a NJPDES permit modification if additional CSO flows were diverted to the plant. As stated within RESPONSE 7 of the June 28, 2019 final permit action:

"Nonetheless, the Department would need adequate justification under 40 CFR 122.44 (l) in order to consider any alternate limits based on a flow of 94 MGD or a higher flow if specified in the approved WMP [Wastewater Management Plans]. However, provided the permittee can justify that higher loadings are appropriate, in accordance with the criteria at Section 402(o)(2) of the Clean Water Act, the Department may consider adjusting these limitations. For example, if the permittee were to accept CSO flows from hydraulically connected communities, this may justify the inclusion of higher loading limitations as it would result in an overall decrease in pollutants discharged to the waterbody."

However, as noted within Section 2.1 of the LTCP, it appears that BCUA will not see a net increase in CSO flows which is described as follows:

"…In the typical year, it is anticipated that, due exclusively to the CSO LTCP projects, the BCUA will experience an annual reduction in flow of 0.6 MG [million gallons], or a decrease in average daily flow of 0.002 MGD. This change is made up of reductions of 15.3 MG from Fort Lee and 7.4 MG from Hackensack, which are offset by an increase of 22.1 MG from Ridgefield Park. The BCUA intends to apply the stormwater inflow reductions from sewer separation projects against its targeted inflow and infiltration reduction program, creating a win-win scenario."

While this comment does not necessitate a response at this time, the Department hereby notes this information for the Administrative Record.

Comment 4: Regarding Fort Lee, Section 2.2.2, Selected Plan includes Table 2-1 which shows the impact of sewer separation on CSO Volume and Number of Events as follows:

Table 2-1: Fort Lee CSO LTCP Impact on CSOs

Condition	Acres Separated	% CSO Capture	CSO Volume (MG)	Number of Events
Baseline (2045)	-	76.3	161.6	58
New Development [1]	16	79.1	142.5	58
Sewer Separation Phase 1	5	79.7	138.5	58
Sewer Separation Phase 2	10	81.0	129.6	58
Sewer Separation Phase 3	13	82.4	120.0	58
Sewer Separation Phase 4	15	84.0	109.1	58
Sewer Separation Phase 5	17	85.4	99.6	58

[1] Includes pump station modifications discussed in the DEAR report.

Please provide additional information to supplement Table 2-1:

a) Explain why the number of events remains the same throughout the five phases of sewer separation.
b) Provide additional justification as to how separation of 60 acres equates to the change in percent capture values.
c) Acknowledge that the separated stormwater will be managed in accordance with the Stormwater Management Rules at N.J.A.C. 7:8 as required under Fort Lee's NJPDES MS4 permit.

Comment 5: Section 2.2.2, Selected Plan includes Figure 2-1, Time Required to Reach 85% Capture With Separated Sewers, which is related to Table 2-1. Clarify what is intended by EDP + 5 years within this figure.

Comment 6: Section 2.2.4 , Operational Plan, Schedule, and Post Construction Compliance Monitoring includes Figure 2-2 namely a map of Fort Lee as follows:

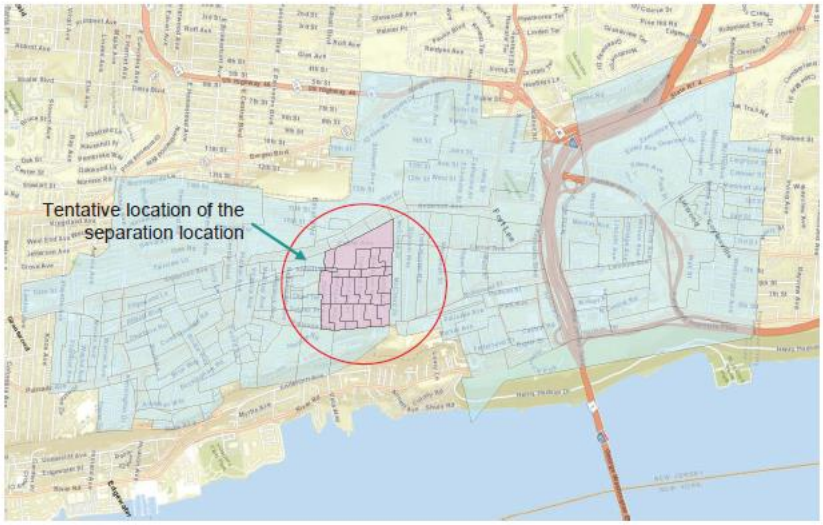

Figure 2-2: Example of the Delineation of the 60 Acre Sewer Separation Area

Provide additional information to supplement Figure 2-2:

a) In order to show the relative effect of sewer separation, revise Figure 2-2 to designate which portions of Fort Lee are currently served by a combined sewer system versus a separate sewer system. In addition, label the location of the existing CSO outfalls.
b) Expand and revise Figure 2-2 to indicate the locations of the five phases of sewer separation.
c) Figure 2-2 states "Tentative location of the separation location" and is labeled "Example of the Delineation of the 60 Acre sewer Separation Area." Given that this is an LTCP, it must include the selected alternatives and not indicate tentative locations. The Department is concerned that there is not a firm plan or commitment to sewer separation given these labeling designations. Please explain.

Comment 7: Regarding Ridgefield Park, as noted within Section 2.4.2, Selected Plan:

"…a 0.7 MG storage tank was selected as the preferred LTCP. The tank will be situated on the west side of the Village and collect overflow from the two largest outfalls by annual volume of discharge and the most active by frequency of overflow..."

Section 2.4.4, Operational Plan and Schedule then describes the schedule including a feasibility study for 2 years; property acquisition for 3 years; design permitting and funding for 3 years; construction for 5 years; and monitoring and model update for 2 years. This extensive period of time for a feasibility study for a final CSO control alternative has not been adequately justified.

In addition, while some detail is provided within Section 2.4.4, the Department questions why a feasibility study is being included. Given that this is an LTCP, it must begin with implementation of the final selection where a feasibility study was more appropriate for the Development and Evaluation of Alternatives phase which already occurred. Please explain.

Comment 8: Section 2.4.2, Selected Plan includes a summary of the Ridgefield Park LTCP including Table 2-3:

Table 2-3: Ridgefield Park LTCP Summary of Overflows

	2015 Baseline		LTCP 85% Capture	
Outfall	Overflow Volume (MG)	Overflow Frequency	Overflow Volume (MG)	Overflow Frequency
001A	6.0	19	6.0	19
002A	0.4	11	0.4	12
003A	15.2	45	2.4	11
004A	27.7	55	18.2	21
005A	3.4	25	3.5	26
0006A	0.5	12	0.5	15
Total	**53.2**	**55**	**31.1**	**26**

While the overflow volumes and frequency show a decrease for outfalls 003A and 004A through the implementation of the selected alternatives, there is a slight increase in the volume and/or frequency for outfalls 002A, 005A and 006A. Please explain.

3 Introduction

Comment 9: Section 3.1, General Introduction to System, Plant and Municipalities states the following:

"The BCUA and its WPCF now provide wastewater transportation and treatment services for 47 municipalities, serving a population of about 565,000 people…Forty-four municipalities in the service area have separate sewer systems, while three municipalities have combined sewer systems: Borough of Fort Lee, City of Hackensack, and Village of Ridgefield Park.

While the BCUA owns and operates the trunk/intercepting sewers (trunk sewers) that transport flows to the WPCF, it does not own or operate any of local collector sewers, which are owned and operated by each individual municipality, also, the BCUA does not own any CSO outfalls."

The Department agrees that BCUA does not own any CSO outfalls; however, BCUA does own/operate 3 internal regulators (also referred to as flow control structures) in Ridgefield Park. As described in Section 4.2 of the June 27, 2018 Sewer System Characterization Report, these control structures (R-1, R-2 and R5)

serve to prevent surcharge of the interceptor or trunk sewer by restricting or closing the regulator gate to the interceptor and diverting flow to an outfall during periods of rainfall. Please revise the above description.

4 System Characterization and Modeling

Comment 10: Section 4.1, Hydraulically Connected System Definition and Segmentation states the following:

> "Given that Fort Lee CSOs discharge into the Hudson River while Hackensack and the Village of Ridgefield Park discharge to the Hackensack River or Overpeck Creek just upstream from the Hackensack River, it was logical to consider segmentation of the hydraulically connected system. This concept was discussed with the NJDEP and a request to formalize the segmentation of the hydraulically connected system was provided to the NJDEP via letter on April 24, 2020 (see Appendix A). The letter requested segmenting the BCUA hydraulically connected system into the following two segments:
>
> - Hackensack and Ridgefield Park sewer systems which discharge CSO to the Hackensack River and Overpeck Creek
> - The Fort Lee sewer system which discharges CSO to the Hudson River."

A hydraulically connected system is defined within the NJPDES permit at Part IV.B.1.c as follows:

> ""Hydraulically connected system" means the entire collection system that conveys flows to one Sewage Treatment Plant (STP). On a case-by-case basis, the permittee, in consultation with the Department, may segment a larger hydraulically connected system into a series of smaller inter-connected systems, based upon the specific nature of the sewer system layout, pump stations, gradients, locations of CSOs and other physical features which support such a sub area. A hydraulically connected system could include multiple municipalities, comprised of both combined and separate sewers."

The STP and other CSO entities within each hydraulically connected system were required by the 2015 NJPDES permit to work together to develop a single, jointly-prepared LTCP in order to qualify for the extended 59 month LTCP schedule. A key objective of the single, jointly-prepared LTCP was to ensure that permittees within the hydraulically connected system worked together to guarantee robust coordination and communication. Given that operation and ownership responsibilities within the hydraulically connected system vary, this coordination was key to ensuring the development of a holistic LTCP for the various components of the system and in the ultimate selection of CSO control alternatives. Since the LTCP has now been submitted and the underlying elements of the LTCP (e.g., System Characterization Report, Development and Evaluation of Alternatives) have already been approved, this key objective of the 2015 NJPDES permit has been satisfied.

The Department acknowledges that Fort Lee has requested segmentation of their system separate from Hackensack and Ridgefield Park. At this point in the LTCP process, it appears that the primary implication of demarcating this system as an individual hydraulically connected system is related to the evaluation of percent capture on a municipality level. Another factor identified within the LTCP concerns the evaluation of costs of upgrading BCUA to accept more CSO flows which was not the selected option. In order to address this issue, please confirm that Fort Lee will attain 85% capture within its municipal boundary. Similarly, confirm that Hackensack and Ridgefield Park will attain 85% capture within each of their municipal boundaries.

Comment 11: Section 4.2.3, Representative Hydrologic Year selection (Typical Year) states the following:

"It is acknowledged that sea levels have been rising and are expected to continue to rise over the life of the project and beyond, however, the rate of change is uncertain. To overflow, the water level in the combined sewer must exceed the tide elevation. The rate of discharge is also related to the relative elevation difference between the water level in the combined sewer and the receiving water. Thus, increased sea levels would tend to reduce the volume of combined sewage overflow. There is potential for rising sea levels to impact the hydraulic performance of the combined sewer systems in Hackensack and Ridgefield Park. The potential for sea level rise to impact Fort Lee is very low. Fort Lee is located on the Palisades, a series of steep cliffs along the west side of the Hudson River. The systems have been assessed for flooding under current conditions and any future flooding, resulting from sea level rise, would need to be addressed independently. Existing tide levels were used to provide a conservative estimation of the alternatives' performance for CSO reduction."

The State of New Jersey and the Department are working to address and mitigate the impacts of climate change where additional information is available here: https://www.nj.gov/dep/climatechange/. Climate change can have an impact on the design for CSO control alternatives and resiliency requirements must be considered in the design of any infrastructure. Specifically, in accordance with the provisions of Executive Order 11988, the USEPA and the New Jersey Water Bank require that funded infrastructure be located outside of floodplains or elevated above the 500-year flood elevation. Where such avoidance is not possible, the following hierarchy of protective measures has been established:

1. Elevation of critical infrastructure above the 500-year floodplain;
2. Flood-proofing of structures and critical infrastructure;
3. Flood-proofing of system components.

Address how the selected CSO control alternatives address climate change and sea level rise for all three municipalities.

Comment 12: Regarding CSO related flooding specific to Fort Lee, the Department is aware of periodic overflows at the Bluff Road pump station when, during some storm events, flow cannot be processed through the netting chamber resulting in the influent chamber causing surcharging and, in some cases, overtopping the chamber. This uncontrolled flow is mostly intercepted by local stormwater catch basins along NJ State Highway Route 5 before being ultimately discharged to the Hudson River. Provide a status update on any work being done to rectify this issue as required by the September 18, 2018 Administrative Order CWA-02-2018-3048. The LTCP must address the elimination of CSO related flooding where this should be the utmost priority.

Comment 13: The 2015 NJPDES CSO permit requires selection of either the Presumption Approach or the Demonstration Approach. The Federal CSO Control Policy and the NJPDES permit at Part IV.G.4.f.ii specify that wet weather capture is a means of compliance under the Presumption Approach as follows:

"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;"

All permittees have selected the Presumption Approach namely 85% capture of combined sewage entering the collection system during wet weather. This is stated in Section 2.2 (Fort Lee LTCP Summary), Section 2.3 (Hackensack Summary), and Section 2.4 (Ridgefield Park LTCP Summary). Section 4.2.9, Baseline Conditions System Performance then includes the following table:

Table 4-1: 2015 Baseline Summary of Typical Year Performance

Outfall	Overflow Events	Overflow Volume (MG)	Wet Weather Inflow (MG)	% Capture
FL-001	58	124.5	NA	NA
FL-002	25	25	NA	NA
Fort Lee/Hudson River Total	**58**	**149.5**	**631**	**76.3%**
HK-001	56	105.3	NA	NA
HK-002	56	151.4	NA	NA
Hackensack Total	**56**	**256.7**	**814.8**	**68.5%**
RP-001	19	6.0	NA	NA
RP-002	11	0.4	NA	NA
RP-003	45	15.2	NA	NA
RP-004	55	27.7	NA	NA
RP-005	25	3.4	NA	NA
RP-006	12	0.5	NA	NA
Ridgefield Park Total	**53**	**53.2**	**216.0**	**75.4%**
Hackensack River Basin Total	**56**	**309.9**	**1031**	**69.9%**
BCUA Systemwide	**58**	**459.4**	**1662**	**72.4%**

The Department acknowledges that model updates were performed, as described in Sections 4.2.5, 4.2.6, and 4.2.8, and that the above values represent slightly more conservative baseline results for Ridgefield Park. Confirm that a consistent methodology was applied to calculate baseline percent capture for all three municipalities. In addition, confirm that Fort Lee, Hackensack and Ridgefield Park will attain 85% capture within the municipal boundaries. Finally, confirm that the BCUA Systemwide as well as the waterbody based percent capture values (i.e., Hackensack River Basin Total and Hudson River Total) are for informational use only.

Comment 14: Section 4.3.1, Baseline sampling program states the following:

> "The NJPDES CSO Permits, direct permittees to implement a Compliance Monitoring Program (CMP) adequate to verify existing ambient water quality conditions for pathogens and evaluate the effectiveness of future CSO controls related to compliance with water quality standards (WQS) and the protection of designated uses...Per the NJPDES CSO Permits, pathogens are the pollutant parameters of concern for ambient water quality monitoring and WQS compliance…"

While the Department agrees that pathogens are intended to serve as an indicator parameter for CSOs, note that the CSO Control Policy requires controls adequate to meet the water quality based requirements of the Clean Water Act. This should be clarified in the report.

Comment 15: Section 4.3, Receiving Waters and Water Quality Conditions includes Section 4.3.3, Hudson River which states the following:

> "The Fort Lee combined sewer system overflows flow during rainfall events to the Hudson River. NJDEP has designated the Hudson River as a Primary Contact, Saline Estuary with a SE2 Class…"

N.J.A.C. 7:9B-1.12(e) defines the designated uses for SE2 waters as follows:

> "(e) In all SE2 waters the designated uses are:
> 1. Maintenance, migration and propagation of the natural and established biota;
> 2. Migration of diadromous fish;
> 3. Maintenance of wildlife;
> 4. Secondary contact recreation; and
> 5. Any other reasonable uses."

Given that primary contact is not a designated use of SE2 waters, correct the above statement.

Comment 16: Section 4.3.3 states the following:

> "As described in the BCUA Sewer Characterization Report, monitoring of the receiving waters was done jointly with numerous permittees through the NJ CSO Group…Location 31…is located adjacent to Fort Lee's discharge and results are shown…Currently, the water is not impaired compared to the standards."

Section 4.3.4, Hackensack River then explains that the Baseline Compliance Monitoring Program (BCMP) also includes three monitoring locations immediately adjacent to Hackensack and the Village of Ridgefield Park namely sites B1 and B2 on the Hackensack River and site B11 on the saline estuary portion of Overpeck Creek.

The data collected for the June 30, 2018 BCMP was conducted to comply with the NJPDES permit requirement at Part IV.G.9. While the BCMP was deemed acceptable by the Department, it did not have sufficient data to conduct an analysis against water quality standards; therefore, a finding of "impaired" or "not impaired" can not be made utilizing this data. In fact, this is stated on page 35 of the June 30, 2018 "NJCSO Group Compliance Monitoring Program Report":

> "The BCMP was not designed to provide an adequate data volume for assessing attainment of water quality standards, which would have required five samples per month at each sampling location to compute monthly geometric means."

Given the limited data set for most months, the data set does not support an accurate assessment against water quality standards. As a result, please revise the statement above regarding data for Location 31 for Fort Lee.

5 Control Plan Approach and Compliance Strategy

Comment 17: Section 5.1, Background on Water Quality Objectives states the following:

> "To improve receiving water quality, the primary objectives of the CSO long term control program are to reduce pathogens and CSO volume. The goal is to select and implement a CSO control program to cost-effectively improve water quality of the receiving waters sufficient to meet the water-quality based requirements of the Clean Water Act."

The NJPDES CSO permit requires permittees to meet the water quality based and technology based requirements of the Clean Water Act (CWA) consistent with the National Combined Sewer Overflow Control Strategy issued on August 10, 1989 (54 Federal Register 37370). As stated in the March 12, 2015 NJPDES CSO permit:

> **"RESPONSE 63:** CSOs are subject to both the technology-based and water quality-based requirements of the CWA's discharge permitting system, National Strategy, 54 Fed. Reg. at 37371; National Policy, Part I.A, 59 Fed. Reg. at 18689, and permittees must satisfy the more stringent of the technology-based or water quality-based requirements of the CWA. N.J.A.C. 7:14A-13.2…"

Please revise this statement.

Comment 18: Section 5.1, Background on Water Quality Objectives states the following:

> "Pathogen Water Quality Model (PWQM) simulations were undertaken by the NJ CSO Group to understand the pollutant sources and their relative contributions for the affected study area. The results of this modeling are summarized in the "Calibration and Validation of the Pathogen Water Quality Model (PWQM) for the Passaic Valley Sewerage Commission", September 2020. The NJ CSO Group water quality model was used to provide insight into the applicability of either the Demonstration or Presumption Approach and which level of control for the CSO outfalls would be needed to demonstrate attainment of WQS and designated uses of the corresponding receiving waters…"

The Department is in in receipt of the "Calibration and Validation of the Pathogen Water Quality Model," September 2020 as submitted by the NJ CSO Group and it is currently pending review. Note also that the permittee is required to comply with the Federal CSO Control Policy and has elected to do so through the Presumption Approach. While the NJ CSO Group permittees have submitted a Pathogen Water Quality Model, a modeling approach is germane to the Demonstration Approach. The Department does not agree that the Pathogen Water Quality Model will define the level of control or the maximum pollutant reduction benefits reasonably attainable for the receiving waters rather compliance with the Presumption Approach will define the level of control. In addition, it is premature to draw conclusions regarding attainment of water quality standards as "Baseline % Attainment" and "100% Control % Attainment", as shown in Table 5-1, AU Attainment in SE2 Waterbodies under Baseline and 100% Control Conditions, since the PATH model is still pending review by the Department. Revise accordingly.

In addition, the selection of either the Presumption or Demonstration approach is required in the NJPDES CSO permit where the Presumption Approach has been selected. Note that it is not acceptable to switch between the Presumption Approach (85% wet weather capture) and the Demonstration Approach (modeling based approach) since a commitment was required as part of the 2015 NJPDES CSO permit requirement.

Comment 19: Section 5.5.1, Hudson River segment approach and level of control states the following:

> "The water quality modeling and sampling data shows that the Hudson River is consistently meeting the SE2 water quality standard of 770 cfu/100 ml, and the component analysis shows that the CSOs are a small portion of the pollutant loading. Therefore, the goals of the presumptive approach are already met; however, the CSO capture is at 76.3%, below the CSO policy goal of 85%..."

This excerpt states that "the goals of the presumptive approach are already met" where this statement is not appropriate at this time. In addition, the Presumption Approach is defined within the Federal CSO Control Policy as a program that would be presumed to meet the water quality-based requirements of the Clean Water Act where these criteria are provided in Part IV.G.4.f. Please revise this statement given that the wet weather capture goals have not yet been met.

Comment 20: Section 5.5.3, Percent Capture Definition states the following:

- "Wet weather flow contributions within CSO municipalities – The entire wet weather flow contribution from within each CSO municipality was used in the calculation of percent capture. This includes the separately sewered areas within Ridgefield Park and Fort Lee as they discharge to the BCUA at the same location as the combined sewage. Hackensack considered only the combined sewer area and sanitary sewers flowing into combined sewers. There is a distinct divide with the remaining sanitary sewers discharging to the BCUA branch interceptor north and west due to a ridgeline."

Section 5.5.3 also includes the following equation:

$$\% \ Capture = 1 - \left(\frac{Overflow \ Volume}{Total \ Wet \ Weather \ Capture \ Volume}\right)$$

Table 5-4 is then displayed as follows:

Table 5-4: Summary of 2015 Baseline Typical Year Municipal Percent Capture

Municipality	Wet Weather Inflow (MG)	Overflow (MG)	% Capture	Overflow @ 85% Capture (MG)
Fort Lee (Hudson River)	631	149.5	76.3%	94.7
Hackensack	814.8	256.7	68.5%	122.2
Ridgefield Park	216.0	53.2	75.4%	32.4
Hackensack River Total	1031	309.9	69.9%	154.7
BCUA Hydraulically Connected System	1662	459.4	72.4%	257

Provide additional information on the following:

a) Clarify what is meant by the inclusion of "separately sewered areas within Ridgefield Park and Fort Lee as they discharge to the BCUA at the same location as the combined sewage" and if these values are included in the total wet weather capture volume in terms of the percent capture results. Describe the locations of these areas and include a sensitivity analysis to document the relevance of separately sewered areas in this calculation.
b) Clarify if the above referenced values include only combined sewer areas within Fort Lee, Hackensack and Ridgefield Park.
c) Clarify if the fraction of the flow lost includes flooding such as flooding in the vicinity of the Bluff Road outfall.
d) Confirm that a similar methodology was utilized for all three municipalities.
e) Confirm that Fort Lee, Hackensack and Ridgefield Park will attain 85% capture within the municipal boundaries and that the BCUA Hydraulically Connected System information as well as the waterbody based percent capture values are for informational use only.
f) Provide a breakdown of results by outfall to supplement Table 4-1, 2015 Baseline Summary of Typical Year Performance.

Approval of this report hinges in part on the inputs and results of this equation being clearly demonstrated and reproducible.

6 Development of Alternatives

Comment 21: Section 6.1.2, Rankings states the following:

> "The BCUA does not own any CSO outfalls, but has agreed to work cooperatively with the municipal permittees, who will be responsible for bearing the costs for any expansion of transport and treatment facilities to accommodate additional combined flow conveyed to and treated by the BCUA. Accordingly, the municipal permittees will need to weigh the costs of CSO controls within the municipality against the costs to convey and treat the flow at the BCUA WPCF. Therefore, the selection of alternatives acceptable to the BCUA lies with the municipal permittees… The cost of blending is significantly less than full expansion of the treatment plant, however this does not appear feasible in light of the current plant permit, refer to Section 6.1.4 for applicability of blending under June 2019 permit revisions. …It is noted BCUA will need to agree to any municipal funded project that will result in changes to flow, transport, or treatment capacity, but has agreed to accept dewatering flows from municipal CSO storage facilities, within the control parameters specified by the BCUA and provided to the municipalities."

The Department acknowledges that the BCUA, Fort Lee, Hackensack and Ridgefield Park have worked cooperatively in developing CSO control alternatives. The municipalities own their collection system and BCUA owns the Main Trunk Sewer, Overpeck Valley Trunk Sewer and Overpeck Valley Relief Sewer, as indicated in Table 6-1, Summary of BCUA Trunk Sewer Capacities. BCUA also owns internal regulators in Ridgefield Park. The conclusion of the LTCP is then that an overall net increase in flow will not be diverted to BCUA. While there are several factors contributing to this conclusion, it is worth noting that the Federal CSO Control Policy does not mandate that costs be borne by the municipality. In addition, any or all of the permittees could evaluate the feasibility of forming a stormwater utility to help distribute costs. See https://www.nj.gov/dep/dwq/SWU_establishing_utility.html. The Department also maintains that the 2019 NJPDES permit modification does acknowledge that loading limits could be revisited if additional CSO flows were diverted to the plant. As a result, the Department maintains that blending or expansion could trigger modification to the NJPDES permit limits and it is inappropriate to state that these options are infeasible under the existing NJPDES permit. The above referenced description should also be revised to include the components of the system that BCUA owns. Please incorporate these changes.

Comment 22: Section 6.1.4, Expansion of Treatment Capacity and CSO Bypass at Regional WPCF includes a summary of the DEAR as well as the Department's comments on the DEAR. In its February 12, 2020 approval letter, the Department questioned BCUA's statement within the DEAR that "The BCUA has no CSO outfalls, and the flow from the municipal permittees is controlled by the regulators, so there is no impact on overflows due to expansion or bypass." In response to this statement, Section 6.1.4 states that BCUA has "carefully coordinated with the municipalities regarding plant and interceptor capacity" and included a supplemental analysis regarding directing more flow to the BCUA interceptors; conveying additional flow to the treatment plant; and plant capacity upgrades. This supplemental analysis serves to address the required elements at Part IV.G.4.e.iii namely STP expansion and/or storage at the plant as well as CSO related bypass of the secondary treatment portion of the STP. Specifically, Section 6.1.4.6, CSO Bypass at the Existing WPCF states the following:

> "There is no current means to bypass the primary or secondary treatment units to blend raw wastewater with treated effluent prior to discharge. The influent pumping station currently discharges directly into the grit removal facilities, after which, flow is split and flows by gravity to the primary clarifiers and subsequent treatment units in each of the four batteries.

Similarly, Section 6.1.4.7, Expansion of the Existing Regional WPCF states the following:

> "With the new effluent permit limits requiring nitrification and lower cBOD5 discharge concentrations, the existing facility would need to be de-rated to 60 MGD average annual flow and 120 MGD peak hydraulic flow. The BCUA is in the process of preparing a Capacity Analysis Report, that report evaluated a potential 60 MGD expansion of the treatment plant, providing levels of treatment as required by the current permit, and which would also be required to treat additional combined sewage flows at the LF WPCF, if any additional CSO are directed to the plant, however none are planned other than tank dewatering flows…"

The Department acknowledges that CSO related bypass is not the chosen method of CSO control for Fort Lee, Hackensack or Ridgefield Park. However, it is important to note that overall improvements are currently ongoing at the WPCF to improve total suspended solids (TSS) removal rates through the rehabilitation of the sixteen Final Sedimentation Tanks and the installation of polymer feed channels. These improvements are in addition to other planned treatment improvements, due in part to the effluent limitations in the June 28, 2019 permit modification, namely more stringent $CBOD_5$, ammonia and Dissolved Oxygen limitations. The NJPDES program routinely requires more stringent limitations in NJPDES permits based on ongoing regulatory changes such as the inclusion of criteria for ammonia for SE2 waters in NJSWQS rule amendments in January 22, 2002. CSO municipalities could have chosen to incorporate a CSO related bypass as part of these WPCF upgrades but instead decided on other alternatives. While this comment does not necessitate a response at this time, the Department hereby notes this information for the Administrative Record.

Comment 23: Section 6.3.2, Rankings states the following regarding Table 6-16, Alternatives Evaluation Matrix:

> "…These alternatives have since been further evaluated and added as potential projects for the City's LTCP. Section 0 further discusses the additional alternatives in detail.

Correct this reference to Section 0.

7 Selection of LTCP

Comment 24: Section 7.2.2, Selection Methodology states the following:

> …Green infrastructure was also selected in a secondary role. The technology is limited in its CSO flow reducing characteristics, however, it is a preferred technology to some members of the public because it is a visible technology. This visibility also requires that it be maintained."

In Table 7-1, Cost Schedule Percent Capture and CSO flows for Fort Lee's LTCP there is a $200,000 allocation for Green Infrastructure. However, the excerpt in Section 7.2.2 is the only detail regarding Green Infrastructure for Fort Lee. Provide additional information regarding any project(s) that was utilized to derive the $200,000 value including the project type and potential location. In addition, although green infrastructure has been included in the cost estimate and financial capability assessment, green infrastructure was not included in the Implementation Schedule in Section 10.2. Please rectify this omission.

Comment 25: Section 7.2.6, Opinion of Cost for LTCP states the following regarding Fort Lee:

> "The cost schedule with the impact on CSO percent capture and CSO flows is presented in Table 7-1. The sewer separation costs are based on $300,000 per separated acre developed by PVSC. A total cost of $23,000,000 will be spent in Fort Lee for CSO control to achieve 85.4% CSO reduction. $4,800,000 has been [spent] through 2017 on The Towers and Hudson Lights projects and $18,200,000 will be spent on sewer separation over 25 years. The Borough[']s portion is shown in Table 7-1…"

Table 7-1, Cost Schedule, Percent Capture and CSO flows for Fort Lee's LTCP shows a cumulative cost of $18,200,000. The Department acknowledges that Fort Lee has selected the Presumption Approach namely 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 baseline of 79.1% already includes the benefits attained from the 2017 sewer separation projects described above. It is the Department's understanding that these projects were funded by a private developer. Justify why the costs of these projects are included in the total price tag of costs for Fort Lee as part of the financial capability assessment since the costs have already incurred and since these costs were not borne by Fort Lee.

Comment 26: Section 7.2.7, Selected Plan states the following:

> "…Green infrastructure projects will be constructed on public property or rights of way. Selected Alternatives Performance."

It appears that the last statement is incomplete. Please revise.

Comment 27: Section 7.2.7.2, Adaptive Management states the following:

> "…The Borough recommends the LTCP be flexible and adaptable to changes during the implementation of the program…Additionally, the future requirements of the Borough's MS4 permit may also impact the Borough's LTCP."

Please describe what is intended regarding "future requirements of the MS4 permit" and how this may affect the LTCP given its pending finalization.

Comment 28: Section 7.3.6.1, Selected Alternatives Description includes detail regarding the stormwater infrastructure project within Hackensack's Selected Alternative:

> "The Court Street Stormwater Project was a study that the City undertook in 2019 just after the submission of the DEAR Report to examine problematic flooding issues in certain areas. This study evaluated different alternatives, conceptual designs, and cost estimates for the management of stormwater west of Railroad Avenue in the Court Street Subdrainage Area. This area is notorious for flooding during rainfall events and has been a longstanding issue for City residents...
>
> …The conclusion of the study recommended a dedicated stormwater interceptor sewer system with in-line storage underneath Railroad Avenue and a pump station located near a new stormwater outfall…The stormwater project would be able to drain approximately 200 acres of area west of Railroad Avenue. The stormwater system would be designed for a 25-year storm event at high tide with a sea level rise increase projected for the year 2050 to account for estimated climate change. The in-line storage would be capable of storing approximately 1.5 MG of stormwater, and the pump station near the outfall would be capable of pumping approximately 142 MGD…

…By undertaking the Court Street Stormwater Study, the City intends to create a project that assist in mitigating a City specific flooding issue as well as assists with the CSO reduction requirements in the City's NJPDES permit…"

The Department concurs with Hackensack's assessment that the LTCP should give the utmost priority to the elimination of ongoing flooding, which is a public health issue, and agrees that the stormwater infrastructure project in the Court Street Stormwater Project should be prioritized. The Department also acknowledges that this project has received public support through the public participation process as described in Section 7.3.3, Public Input. Provide additional detail as to whether or not this flooding is related to sewer backups, stormwater flooding or tidal inundation. In addition, please explain if flooding within Hackensack is limited to this area or if other areas are prone to flooding (including adjacent separately sewered areas) and the cause of such.

Comment 29: Section 7.3.6.1, Selected Alternatives Description includes detail regarding Green Infrastructure:

"…Therefore, the city intends to include a green infrastructure program within its selected plan. The green infrastructure program will set aside a specific amount of funds, including grant funding, per year of the LTCP implementation that will be allocated towards a green infrastructure program…The green infrastructure program would allow for the City to create and implement an ordinance to require developers to install, operate, and maintain green infrastructure as part of their developer agreement. The other function of the green infrastructure program is to serve as an educational program for the public…"

The Department acknowledges that Hackensack has included green infrastructure as part of its LTCP. However, note that if green infrastructure is installed due to the project qualifying as a major development program the Stormwater Management rule at N.J.A.C.7:8 now requires that a maintenance plan be submitted as part of the major development application that is reviewed and approved by the City. While this comment does not necessitate a response at this time, the Department hereby notes this information for the Administrative Record.

Comment 30: Section 7.3.6.1, Selected Alternatives Description includes detail regarding the Storage Tank at Anderson Street:

"The CSOs from the Anderson Street subdrainage area discharge to Outfall 001A. As the LTCP selected plan currently stands, a storage tank upstream of Outfall 001A may be required to achieve a minimum 85% system-wide capture in the City. The storage tank would have a storage capacity of approximately 0.85 MG. The tank can either be a deep vertical treatment shaft, 60 feet diameter by 40 feet deep, or a more conventional type of underground storage tank, 70 feet wide by 70 feet long by 23 feet deep. The current site for the storage tank would be underneath the parking lot near Johnson Park, across Anderson Street from Outfall 001A and the screening facility…

…

The size and necessity of a storage tank will be re[e]vaulated after the first phases of the City's LTCP are implement…""

The Department acknowledges that the Federal CSO Control Policy requires a minimum of 85% wet weather capture as one of the alternatives under the Presumption Approach. However, as currently written, the LTCP components focus on the Court Street sewershed and the only CSO control alternative targeted for the Anderson Street sewershed is this storage tank. As detailed in Table 7-3:

Table 7-3: Phased LTCP Selected Plan Alternatives Performance

Condition / Phase of LTCP	Outfall	City Overflow Volume (MG)	City Volume Captured to BCUA (MG)	City Storm water Volume Separated (MG)	City Overflow Frequency	City Percentage of CSO Volume Captured (%)
Baseline Condition prior to LTCP Implementation	Outfall 001A	105.3	162.3	N/A	56	60.7%
	Outfall 002A	151.4	395.8	N/A	56	72.3%
	Total System	256.7	558.1	N/A	56	68.5%
Localized Main Street Sewer Separation Projects	Outfall 001A	105.3	162.3	N/A	55	60.7%
	Outfall 002A	132.7	390.1	24.4	52	75.7%
	Total System	238.0	552.4	24.4	56	70.8%
Localized Main Street Sewer Separation Projects + Court Street Stormwater Project	Outfall 001A	105.3	162.3	N/A	55	60.7%
	Outfall 002A	37.5	353.6	156.1	23	93.1%
	Total System	142.8	515.9	156.1	56	82.4%
Full Recommended Plan: Localized Main Street Sewer Separation Projects + Court Street Stormwater Project + Anderson Street Storage Tank	Outfall 001A	70.5	197.1	N/A	30	73.6%
	Outfall 002A	37.5	353.6	156.1	23	93.1%
	Total System	108.0	550.7	156.1	30	86.8%

Given that inclusion of the Anderson Street Storage Tank in the CSO control strategy will attain 86.8%, it is likely that this storage tank will be needed to be implemented to meet the minimum value of 85%. The Department maintains that the purpose of the LTCP is to commit to selected projects and that this project is currently part of the CSO control strategy and costs have been included in the financial capability analysis. Please include this project in the selected alternatives in order to ensure a pathway to compliance with the minimum value of 85%. In the event that it is determined that the tank is not needed, any changes to the selected strategy must be approved by the Department.

Comment 31: Section 7.3.1, Summary of High Ranked Alternatives states the following for Hackensack:

> "…However, small scale partial sewer separation projects can help assist the City with achieving its percent capture goal, assist in localize[d] flooding, and reduce the quantity of combined sewers in the City. The City has two ongoing partial sewer separation projects in the vicinity of Main Street that will have an impact on the City's percent capture and LTCP. In addition to the two ongoing projects, the City will explore additional localized partial sewer separation projects to undergo as part of its LTCP."

Sewer separation is also described in Section 10.3 Implementation Schedule for Hackensack where it is stated:

> "Year 2019: Continue and complete the on-going Main Street partial sewer separation projects and outfall extension projects."

This project is also included in the chart entitled "City of Hackensack LTCP Implementation" where is shown that upon completion of this project the City will achieve a 70.7% CSO Capture Goal by the end of 2023.

Provide additional detail on the ongoing Main Street partial sewer separation project including what is meant by the term "partial", a map of the location, and the number of acres affected. In addition, provide a map of any potential future sewer separation projects although it is acknowledged that these projects have not yet been incorporated into the schedule or cost estimates.

Comment 32: Section 7.4.5, Cost and Performance Evaluation (Level of control vs. costs) states the following:

> "To achieve the selected level of control of 85% capture, a 0.7 MG tank is required to address overflow from Outfall RP-003A and RP-004A. The cost effectiveness of the recommended alternative was tested to see if additional benefits could be achieved at a low cost by expansion of the facilities. Figure 7-7 shows a plot of additional cost per gallon of CSO reduction versus different size tanks."

Figure 7-7, Incremental Cost per Gallon of Additional CSO Reduction (Construction Costs) depicts the various tank sizes and associated costs per gallon of additional overflow reduction ($/gallon). Clarify why the cost per gallon of a 1.0 MG is $1.33 which is greater than the cost of a larger 1.1 MG tank at $1.13. Please clarify. In addition, confirm that BCUA can accept this additional stored flow given the concerns raised in the report regarding WPCF upgrades and capacity assurance.

Comment 33: Section 7.4.1, Summary of High Ranked Alternatives includes the following:

> "…It is noted that outfalls are clustered into two sets of outfalls, those discharging to the Overpeck Creek (RP-001A and RP-002A) and those discharging to the Hackensack River (RP-003A, RP-004A, RP-005A, and RP-006A). There were no isolated bottlenecks identified in the system and the clustered discharge points are similar, therefore while many technologies and control programs were considered and approaches that consist of combinations of technologies applied to different locations is not likely to provide a superior outcome…"

Provide additional detail as to any issues related to CSO related flooding in the Village of Ridgefield Park and clarify if the inclusion of this storage tank will address any ongoing flooding concerns since flooding of combined sewage in streets is a public health concern and is not acceptable. Given that this project is central to the LTCP as the selected alternative, please revisit the timeline to expedite construction. Note that the LTCP must address the elimination of street flooding where this should be the utmost priority.

8 Financial Capability Assessment (FCA) and 9 Financing Plan

Comment 34: Section 8.2.3, Implications for the Long Term CSO Control Program states the following:

> "Given the current and likely continuing uncertainties as to the New Jersey and national economic conditions, the Permittees 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 based on emergent economic conditions beyond the permittees' control. …these provisions could including scheduling the implementation of specific CSO control measures to occur during the five year NJPDES permit cycles. Although a complete implementation schedule is being proposed as part of this SIAR, a revised affordability assessment should be performed during review of the next NJPDES permit to re-evaluate and validate

financial capability and to identify any revisions to the proposed controls that may or may not be are financially feasible during the 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/.

Adaptive Management is referenced within this section as well as in Section 7.2.2 and 7.2.4 for Fort Lee; Section 7.3.6.4 for Hackensack; and Section 7.4.6.6 for Ridgefield Park. Adaptive Management is also discussed at length in Section 12.6, Adaptive Management Plan. 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.

Comment 35: Section 8.3, FCA for Fort Lee; Section 8.4, FCA for Hackensack; and Section 8.5, FCA for Ridgefield Park references the Financial Capabilities Assessment for each of the municipalities in Appendices G, H and I, respectively. 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.

10 Implementation Schedule

Comment 36: Section 10.2, Implementation Schedule for Fort Lee states the following:

"The Fort Lee LTCP will be conducted through five phases over 25 years. 16 acres have been separated in two new developments, The Towers and Hudson Lights. 60 acres will be separated in the LTCPs five phases. The progression of these phases is presented in Table 10-1:

Table 10-1: Fort Lee Schedule

Condition	Schedule	Acres Separated per Year	Cumulative Acres Separated
Baseline	2015	-	
New Development(2045 Baseline)	2017	16	16
Sewer Separation Phase 1	EDP + 5 Years	5	21
Sewer Separation Phase 2	EDP + 10 Years	10	31
Sewer Separation Phase 3	EDP + 15 Years	13	44
Sewer Separation Phase 4	EDP + 20 Years	15	59
Sewer Separation Phase 5	EDP + 25 Years	17	76

"

Comments regarding the specifics and timeline for projects for Fort Lee are as follows:

a) Explain and justify why Phase 5 will address 17 acres whereas Phase 1 will only address 5 acres.
b) Identify which NJDEP permits will be required and add them to any timeline. This includes NJDEP Waterfront Development permits, compliance with the Stormwater Management Rules at N.J.A.C. 7:8 and issuance of any local permits.
c) Green infrastructure must be added to the schedule since it is a selected alternative.

This schedule must be revisited to ensure that additional work is done during the beginning years to ensure improvements to water quality.

Comment 37: Section 10.4, Implementation Schedule for Ridgefield Park includes a breakdown of Years 1-5; Years 6-10; Years 11-15; Years 16-20. Years 1-5 focus on a feasibility study for completing sewer separation upstream of Regulator 006 whereas property acquisition for an offline storage facility does not begin until Year 3. Comments are as follows:

a) The Department acknowledges that because the feasibility and hence benefits of the sewer separation of Regulator 006 are unknown, this alternative is not included in the percent capture analysis. While the Department agrees that this project should be pursued, it should be in parallel with the selected CSO alternative namely the construction of the offline storage facility.
b) The schedule for the selected CSO alternative, namely installation of an offline storage facility, must be revisited and expedited. It appears that the property acquisition process has not commenced. Given that this component is key to the overall CSO control strategy, this process should commence immediately and it is unclear why three years are allocated towards that process.
c) Fieldwork and design for construction of the offline storage facility are targeted for years 6, 7, 8 and 9. Construction of the offline storage facility is targeted for years Year 10, 11, 12, 13 and 14. This length of time is not justified and must be revisited.
d) The implementation schedule for Years 12 through 15 does not match the cost table. Please reevaluate.

11 Operational Plan

Comment 38: Section 11.1, Introduction states the following:

"Part IV G 6 requires that the municipalities update their combined sewer system operation and maintenance manuals to "to address the final LTCP CSO control facilities and operating strategies, including but not limited to, maintaining Green Infrastructure, staffing and budgeting, I/I, and Emergency plans". Since the LTCP facilities will be constructed over a period of decades the manuals cannot be updated until the facilities are completed. Accordingly, each municipality has identified the need for their LTCP facilities to be maintained and to update their manuals and that they understand the additional responsibilities."

As noted within the LTCP, Part IV.G.6 of the NJPDES CSO permit states the following regarding Operational Plan:

"a. Upon Departmental approval of the final LTCP and throughout implementation of the approved LTCP as appropriate, the permittee shall modify the O&M Program and Manual in accordance with D.3.a and G.10, to address the final LTCP CSO control facilities and operating strategies, including but not limited to, maintaining Green Infrastructure, staffing and budgeting, I/I, and emergency plans."

In accordance with N.J.A.C. 7:14A-6.12 of the NJPDES Rules, the permittee must maintain and operate the treatment works and facilities installed by the permittee to achieve compliance with the terms and conditions of the discharge permit. The rules provide that proper operation and maintenance includes, but is not limited to, effective performance; adequate funding; effective management; adequate staffing and training; regularly scheduled inspections and maintenance; and adequate laboratory/process controls. While you have provided information regarding the O&M Program and Manual and updates that will be performed in the future for CSO controls, expand upon this section as to how the Operational Plan for the LTCP, including the Emergency Plan and Asset Management Plan, will address effective performance; adequate funding; effective management; adequate staffing and training; regularly scheduled inspections and maintenance; and adequate laboratory/process controls. In addition, acknowledge that an operations and maintenance plan will be prepared for the operation and maintenance of green infrastructure.

12 Compliance Monitoring Plan

Comment 39: Section 12.5, Performance Assessment states the following:

"To demonstrate compliance under the Presumption Approach, members of the BCUA CSO Group will continue to update and calibrate the H&H model after the implementation of CSO control measures and post-construction monitoring phase data has been collected. The model will be used to simulate CSS performance in the BCUA system and to demonstrate compliance with the performance criteria identified, a minimum of 85% capture by volume of the systemwide, and by segment of the hydraulically connected system, wet weather volume during the Typical Year (2004). Where applicable a H&H model will also be used to assess the performance of control measures...An Adaptive Management Plan shall be developed in the event that CSO control measures exceed or do not meet the Performance Criteria…"

The Department concurs that a rerun of the model would be appropriate particularly after significant construction projects are completed. This will allow verification of the percent capture calculations as part of Adaptive Management to provide an assessment of compliance against 85% wet weather capture. However, note that any effort to recalibrate the H&H model should be performed after consultation with the Department. Clarify accordingly.

13 Public Participation

Comment 40: Section 13 includes subsections for the BCUA CSO Group, Fort Lee, Hackensack and Ridgefield Park namely a Summary of Public Participation prior to submittal of DEAR report; Public Participation since DEAR; and Planned Public Participation. Sections 6 and 7 also include summaries of public input on the DEAR as well as on the LTCP. Overall, the LTCP provides a robust summary of public participation activities and feedback to date.

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 as part of a stakeholder process. Future permit language will likely include specific requirements for advance advertisement of public meetings. Provide any suggestions as to how to better inform the public of meetings. Provide input on the viability of public input on this topic.

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

Sincerely,

Susan Rosenwinkel
Bureau Chief
Bureau of Surface Water & Pretreatment Permitting

C: Marco Alebus, Bureau of Surface Water Permitting
Nancy Kempel, CSO Team Leader, Bureau of Stormwater Permitting
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