



October 19, 2018

Mary von Wergers, Esq.
Office of General Counsel
New York State Department of
Environmental Conservation
625 Broadway, 4th Floor
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Vincent Sapienza
Commissioner

**Re: CSO Order on Consent (DEC Case #CO2-20110512-25,
modifying #CO2-20000107-8)
Appendix A, XIV, Citywide CSO, Submittal Approvable LTCP
Milestone Modification Request**

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Dear Ms. von Wergers,

Pursuant to Article XIII of the above referenced CSO Order on Consent (the Order), and consistent with communications between the respective technical staffs of the New York State Department of Environmental Conservation (DEC) and the New York City Department of Environmental Protection (DEP), DEP hereby requests modification of the milestone to submit an approvable Citywide/Open Waters Long Term Control Plan (Citywide LTCP) from December 31, 2018 to March 31, 2020.

To date, DEP has submitted ten (10) LTCPs, which have proposed over \$5B in new projects to reduce combined sewer overflows (CSO) in addition to the \$4.2B already committed under the Order. However, as DEP first informed DEC at the technical meeting on January 20, 2017, and has discussed at subsequent meetings, additional time is needed to submit the Citywide LTCP. This modification request is driven by several factors encountered by DEP in developing and executing the data collection and evaluation necessary to produce a rigorous and informative Citywide LTCP to address water quality in the open waters and remaining water bodies for which DEP has not already submitted an LTCP, including:

1. Overall size and complexity of the Citywide LTCP that will include analysis on multiple waterbodies and evaluate nine (9) specific wastewater treatment plant (WWTP) drainage areas.
2. Coordination of the DEP Citywide LTCP with the NJDEP CSO LTCP for shared waterbodies. This collaboration includes sharing water quality sampling data and landside modeling outputs from DEP and multiple New Jersey CSO communities.
3. Review and modification of the public participation process in response to public requests to allow for a public review of the LTCP recommended projects prior to submittal to DEC along with a much more complex public outreach program due to the geographical extent of this Citywide LTCP.

4. The need to incorporate evaluation of early tipping regulators in the open waters that have been identified in accordance with the “Additional CSO BMP Special Conditions” section of DEP’s SPDES permits.
5. In development of the ten CSO LTCPs submitted to date, DEP has expended significant resources in consultation with the DEC including spending approximately \$7.2M on an extensive sampling and monitoring plan to verify the accuracy of landside and water quality models. To fully meet the resource needs required to develop the Citywide LTCP, DEP had to execute and fund a new contract to perform the data collection and analysis and develop the Citywide LTCP. The recent registration of this new contract, LTCP-03, on May 14, 2018, has been critical in identifying the full amount of additional time needed to compile and analyze the data for a comprehensive Citywide LTCP.

Each of these factors are discussed below.

1. Size and Complexity of the Citywide LTCP

This Citywide LTCP needs to characterize and evaluate alternatives for nine (9) WWTP drainage areas and corresponding water quality impacts for all the open waters. The drainage areas and open waters included in the Citywide LTCP are as follows:

- The Port Richmond, Owls Head, Red Hook, and Newtown Creek drainage areas that discharge into the Arthur Kill, Kill Van Kull, New York Bay, and Lower East River and include about 23,100 acres of combined sewered areas and 86 CSO outfalls;
- The Wards Island, Hunts Point, North River, and Newtown Creek drainage areas that discharge into the Harlem and Hudson Rivers and include about 14,900 acres of combined sewers and 94 CSO outfalls;
- The Tallman Island, Bowery Bay, Newtown Creek, Wards Island, Hunts Point drainage areas that discharge into the East River and Long Island Sound and include about 20,900 acres of combined sewers and 95 CSO outfalls.

Due to the geological extent of the watersheds and waterbodies, the characterization and evaluation of alternatives for the multiple watersheds will require additional time. DEP has completed an extremely large open waters sampling and flow monitoring program that included collecting comprehensive data from 43 open waters sampling stations and 14 landside stations along with performing some preliminary watershed and waterbody modeling analysis. However, additional data is needed for the Citywide LTCP including additional flow monitoring and, as discussed immediately below, the incorporation of updated New Jersey landside model outputs into the water quality model.

2. Incorporation of Water Quality Data and Modeling Outputs from New Jersey

Many of the waterbodies covered by the Citywide LTCP have shorelines in New Jersey (Hudson River, Arthur Kill, Kill van Kull, and New York Harbor). Numerous CSOs discharge directly from the New Jersey shoreline, as well as into smaller rivers and tributaries in New Jersey that flow into the Citywide/Open Waters waterbodies. In order to account for the pollutant loadings from these New Jersey CSOs, DEP continues to coordinate with the NJDEP and New Jersey CSO

communities to obtain CSO flow and pollutant loading data. The New Jersey CSO communities are generally not as far along in their CSO programs as DEP, and to date, DEP has not been able to obtain the needed model outputs that will be incorporated into the water quality model runs for gap analyses and alternative analyses.

3. Revising the Public Participation Process

Over the last few years, DEP has received significant feedback on the LTCP public participation process. One of the negative critiques consistently received at public meetings, in written letters, and at a related December 2017 New York City Council Hearing relates to the public comment period. Many stakeholders and elected officials have expressed their desire to review and comment on the recommended projects in the LTCP, prior to DEP's submission of the LTCP to DEC. The calls to expand the opportunity for public input were recently reiterated in the SWIM Coalition's comment letter on the Jamaica Bay LTCP.

In response to this feedback, DEP proposes to present the recommended projects of the Citywide LTCP to the public in advance of submitting the LTCP to DEC. DEP successfully employed this approach for the recently submitted Jamaica Bay and Tributaries LTCP as DEC provided additional time to accommodate this process by modifying the relevant Order milestone. This approach requires that the recommended projects of the LTCP be identified at least two months prior to submittal of the LTCP to DEC which accounts for: providing time for public review, developing responses to public comments, and, if appropriate, incorporating modifications into the LTCP based on the public comments.

To accomplish this, DEP intends to review and modify the 2012 Public Participation Plan to accommodate this timeline as well as lessons learned from the recently submitted NYC Stormwater Management Program Plan (SWMP). For example, as in the development of the SWMP, which also covered multiple waterbodies and had multiple outreach meetings, the Citywide LTCP would benefit from multiple outreach meetings. To this end, DEP held Citywide LTCP multiple kickoff meetings to better address specific community needs and reach watershed-specific stakeholders, consistent with the intent of the 2012 Public Participation Plan. As noted in the SWIM Coalition's comment letter for the Jamaica Bay LTCP, "[a]s a point of reference, the public participation model used by the DEP for the development of the MS4 Stormwater Management Plan has been exemplary and it is our hope that all DEP programs can follow suit going forward." DEP believes the LTCP process will benefit from the lessons learned through the SWMP public process.

DEP expects robust public participation on this Citywide LTCP given the scale of the area in question, and the prior two New York City Council hearings related to combined sewer overflows. Over 100 people attended the 2017 Annual LTCP meeting and DEP anticipates similar attendance rates going forward. A March 2020 submission deadline will allow the City to facilitate two 30-day public comment periods. The first 30-day period would follow the public meetings at which the retained alternatives are presented so that stakeholders can comment on such alternatives and the second public comment period would follow the public meetings at which the recommended projects for the Citywide LTCP are presented and discussed. With this timeline, and an LTCP submittal date of March 2020, DEP will be able to respond to public comments and submit them

with the Citywide LTCP. Consistent with stakeholder input, revising the 2012 Public Participation Plan and extending the Citywide LTCP due date will provide an opportunity to develop a watershed approach to outreach and engagement and a better opportunity to obtain, and consider, public feedback on the recommended projects in the Citywide LTCP prior to submittal of the LTCP to DEC.

4. Incorporation of the Early Tipping Regulators Evaluation into the Citywide LTCP

In accordance with the “Additional CSO BMP Special Conditions” section of the SPDES permits for DEP’s 14 WWTPs, on August 1, 2014 DEP began gathering data on certain key regulators to determine whether there were any that discharged CSO prior to the associated WWTP receiving the SPDES maximum wet weather flow. Regulators for which flow data indicated a potential discharge of CSO prior to the WWTP receiving the SPDES permit maximum wet weather flow were identified as known or suspected “early tipping regulators.” Following collection of data for twelve months, DEP submitted a report to DEC of known or suspected early tipping regulators on February 1, 2016. The February 2016 Report included analyses of the causes for the early tipping regulators, but did not identify any options for reducing or eliminating future similar events that could be completed within two years. Thus, the SPDES permit further requires DEP to consider other capital intensive projects for early tipping regulators as part of the LTCP process towards achieving the water quality goals of the Clean Water Act. Because the majority of the early tipping regulators that DEP has identified since 2014 occur in the open waters of New York City, the consideration of these regulators will thus be included in the Citywide LTCP.

DEP will include in the Citywide LTCP an evaluation of the early tipping regulators in the open waters of New York City identified in the February 2016 Report. To enhance the technical basis for these evaluations, flow metering is required at certain early tipping regulators where additional data is needed. This flow metering began in October 2018 and will continue for approximately six months. This flow metering serves two purposes: to confirm whether or not the initial determination that the regulator is properly categorized as an early tipping regulator, and to provide data to check and update, as necessary, the InfoWorks collection system model calibration of the flows at such early tipping regulators. In addition, DEP will need to compile WWTP flow data, radar rainfall data, perform QA/QC on the flow metering data and use such data to calibrate/validate the nine landside models used to evaluate early tipping regulators in the LTCP.

In order to evaluate alternatives to mitigate confirmed early tipping regulators in conjunction with assessing impacts to water quality as part of the LTCP process and in accordance with EPA guidance, DEP must conduct an extensive review of the hydraulic performance of any potential alternatives using the collection system model. It is thus necessary to first confirm that the collection system model appropriately represents the flows at the regulators to be assessed. To do this, DEP must check the model calibration against flow meter data. The current InfoWorks model will also be converted from the previous CS platform to the updated ICM platform and green infrastructure baseline conditions will be refined based on the most recent information.

As part of this process, DEP intends to utilize an innovative optimization software to efficiently evaluate a range of system optimization alternatives to address confirmed early tipping regulators. The optimization software will utilize the calibrated InfoWorks model as a basis for representing

the hydraulic capacity of the collection system. Once calibrated, this software, as an enhancement to the evaluation process, has the ability to screen tens of thousands of permutations of system optimization alternatives to identify and select the most optimum and cost effective regulator configurations that will not detrimentally impact the hydraulic capacity of the collection system. The importance of considering the hydraulic capacity of the collection system in selecting feasible optimization alternatives for confirmed early tipping regulators is to avoid causing upstream flooding or increasing CSO discharges at other regulators. It is not feasible to decouple the evaluation of potential and confirmed early tipping regulators from the Citywide LTCP alternatives as any optimization of the sewer system could substantially change the volume and distribution of any CSO discharges that would materially impact the evaluation and recommendation of CSO alternatives conducted as part of this Citywide LTCP.

5. New Contract Resources Required

The original contract for LTCP development had significantly exceeded its original budget prior to development of the Citywide LTCP, due in large part to additional expenses attributed to the extensive sampling and monitoring program that DEP undertook in consultation with DEC in development of the ten LTCPs already submitted. It was not possible to further modify that existing contract as it significantly exceeded its original allocated budget. A new contract was therefore required to fund the development of the Citywide LTCP, including the flow-metering program and analysis of early tipping regulators. In order to expedite that process and keep continuity in the contract, DEP proceeded via a negotiated acquisition that allowed DEP to retain the same consultant team to prepare the final Citywide LTCP. As a result of these efforts, the Notice to Proceed for the new contract was issued on May 14, 2018, however, progress on development of the LTCP, particularly the necessary data collection and analysis of early tipping regulators, was thus delayed and is now underway.

Given the range of issues identified above that will support the production of an enhanced Citywide LTCP, DEP is requesting an extension of the milestone to submit the Citywide LTCP from December 2018 to March 2020. The additional fifteen months is necessary due the combination of the reasons detailed above, the size and complexity of the Citywide LTCP, inclusion and analysis of NJDEP CSO data, the allowance for a more robust public outreach and comment program, the inclusion of the early tipping regulator analysis and the need for a new LTCP contract.

Please advise, at your earliest convenience, if a meeting to discuss this modification would be helpful. Should you require additional information in support of the requested, please do not hesitate to contact me at (718) 595-6606, or matthewr@dep.nyc.gov.

Sincerely,



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