

**STATE OF NEW YORK  
DEPARTMENT OF ENVIRONMENTAL CONSERVATION**

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In the Matter of the Alleged Violations of Articles 17 and 71  
of the Environmental Conservation Law and Part 750  
et seq., of Title 6 of the Official Compilation of Codes, Rules  
and Regulations of the State of New York (6 NYCRR);

**ORDER ON  
CONSENT  
(CSO Order)**

-by-

The City of New York and the New York City Department  
of Environmental Protection,  
Respondents.

**DEC Case #  
CO2-20000107-8**

-----X  
**WHEREAS:**

1. The Department of Environmental Conservation (the "Department" or "DEC") is a Department of the State of New York with jurisdiction to enforce the environmental laws of the State, pursuant to the Environmental Conservation Law ("ECL"), Title 6 of the Official Compilation of the Codes, Rules and Regulations of the State of New York ("NYCRR"), and Orders issued thereunder.
2. The Department has jurisdiction over the abatement and prevention of pollution to the waters of the State pursuant to Article 17 of the ECL and 6 NYCRR Part 750, *et seq.* This jurisdiction also authorizes DEC, as a State agency with an approved program per Sections 318, 402 and 405 of the federal Clean Water Act ("CWA"), 33 U.S.C. Section 1251, *et seq.*, to regulate the discharge of pollutants from point sources into the waters of the State in conformity with the CWA.
3. Pursuant to its authority to protect the waters of the State, the Department administers the State Pollutant Discharge Elimination System ("SPDES") permit program, ECL §17-0801, *et seq.* In general, the SPDES program prohibits any discharge of pollutants to the waters of the State without a permit establishing pollutant limitations and treatment requirements. Thus, SPDES permits set certain effluent limitation parameters ("parameters"), determined according to ECL §17-0809 and 6 NYCRR §750-1.11, in order to avoid contravention of mandated water pollution control requirements and water quality standards ("WQS"). Those conditions address not only the allowable range of parameters for discharge of pollutants to the waters of the State, but also the manner in which the permittee is to operate, maintain, monitor, and report on its regulated facilities and activities.
4. Combined sewer overflows ("CSOs") are discharges of untreated domestic sewage, and industrial wastewaters, combined with stormwater. CSOs occur when wet weather flows are in excess of the capacity of combined sewer systems and/or the Publicly Owned Treatment Works they serve. CSO discharges may contribute to violations of State WQS. CSOs are "point sources" subject to NPDES permit requirements, including both water quality-based and technology-based requirements of the CWA.

5. The New York City Department of Environmental Protection (“DEP”), a municipal agency, and the City of New York (“the City”) (collectively referred to herein as “Respondents”) own, operate, and are responsible for the City’s 14 Municipal Water Pollution Control Plants (collectively referred to as the “WPCPs”), which process most of the sewage generated within the City, as well as the City’s combined sanitary sewage system, related pump stations, sewer regulators, CSOs, and other appurtenances related thereto. Respondents discharge wastewater combined with stormwater from approximately 450 CSO outfalls within the City of New York.

6. In 1974, pursuant to Section 208 of the CWA, 33 U.S.C. §1288, Respondent DEP began a program to evaluate abatement of CSOs and improve water quality conditions. The program included development of a water quality model based on monitoring of CSOs and their impacts. The program concluded that the CSOs had a minimal impact on dissolved oxygen in the open waters of the City such as the Hudson and East Rivers. The program further concluded that CSOs had a measurable adverse impact in the confined tributary waters around the City.

7. In the early 1980s, Respondents initiated planning projects for CSO abatement, incorporating specific assessments of CSO-impacted water bodies. These planning projects included the City-Wide CSO Study which began in 1985 and initiation of the development of the following CSO abatement facility plans: the Flushing Bay/Creek Water Quality Facility Planning Project (WQFP) (1983), Paerdegat Basin WQFP (1986), East River WQFP (1988), Jamaica Bay WQFP (1988), Inner Harbor WQFP (1988), Newtown Creek WQFP (1990), Outer Harbor WQFP (1990), Coney Island Creek WQFP (1990), and Jamaica Tributary WQFP (1994).

8. Respondents have SPDES permits for each of their WPCPs, issued by DEC on September 30, 1988, and periodically administratively renewed and modified, with the most recent modification on July 30, 2003 (“the SPDES Permits”). In general, these SPDES permits authorize Respondents to discharge sewage effluent treated by the WPCPs into waters of the State, and set limitations on the amount and concentration of certain pollutant parameters in such effluent.

9. Respondents’ SPDES permits contain conditions designed to provide for compliance with federal and State CSO requirements, including conditions requiring the planning and implementation of strategies designed to address CSOs.

10. Respondents were unable to comply with the permit imposed deadlines for initiating and/or completing four of the plans required under the 1988 SPDES permits. Accordingly, the Department and Respondent DEP entered into an Order on Consent dated June 26, 1992 (Case No. R2-3351-90-12)(CSO Abatement Order) (the “1992 Order”). The 1992 Order was subsequently incorporated into Respondents’ SPDES permits with a provision stating that the consent order governs the Respondents’ obligations for its CSO program and that any changes to schedules for compliance will be treated as permit modifications with the opportunity for public notice and comment. In Re Application of the New York City Department of Environmental Protection, Case No. 0026131, Third Interim Decision of the Commissioner, 1993 WL 267972 (N.Y.Dept. Env.Conserv. June 1, 1993).

11. In addition to providing that Respondent DEP perform the planning projects required under the 1988 SPDES permits, the 1992 Order required Respondent DEP to implement CSO abatement projects in nine facility planning areas specified in that Order, some of which were set forth in the 1988 SPDES permits. These projects were to proceed on two Tracks. "Track One" was to address the control of CSOs that are causing or contributing to contraventions of all applicable State WQS for dissolved oxygen and coliform. "Track Two" required the Respondents to implement projects to control CSO generated floatables causing or contributing to contraventions of State WQS from CSO outfalls not controlled under Track One.

12. The 1992 Order also required the implementation of certain interim measures to be implemented before construction of the required facilities under the Track One and Track Two programs. The interim measures included "booming, skimming, and netting" at key selected CSO outfalls in New York City. Respondent DEP commenced this work in the Spring of 1993 and continues to invest significant financial resources in the operation and maintenance of this program, which has been incorporated into, and is required under, CSO Best Management Practice ("BMP") number seven (#7) of Respondents' current SPDES permits. These programs have been successful, and have significantly reduced floatables in CSO discharges.

13. The 1992 Order also required Respondents to continue an evaluation of CSO contribution to violations of ambient water quality standards and receiving water designated use impairments, including post construction monitoring and determining the need for additional CSO controls. This requirement will now be conducted in accordance with the Drainage Basin Specific and City-Wide Long Term Control Plans ("LTCP") required pursuant to Appendix A of this Order.

14. On April 19, 1994, EPA officially noticed the *Combined Sewer Overflow (CSO) Control Policy*, 59 Fed. Reg. 18688 (April 19, 1994) ("CSO Control Policy"), to establish a consistent national approach for controlling discharges from all CSOs to the waters of the United States. The CSO Control Policy provides guidance to permittees and NPDES permitting authorities on the implementation of the required nine minimum controls and development and implementation of a LTCP, which includes measures to comply with the CWA including attainment of water quality standards.

15. In addition to the requirements set forth in the 1992 Order, the Department and Respondents entered into a Modification to the CSO Abatement Order on Consent dated September 19, 1996 (Case No. R2-3351-90-12) (the "1996 Order"), requiring Respondents to implement a catch basin cleaning, construction and repair program. Respondents have completed the initial catch basin program. Thereafter, the catch basin program set forth in the 1996 Order was incorporated into Respondents' SPDES permits, with the 1996 Order as modified continuing to govern Respondents' obligations for its CSO program. In Re Application of the New York City Department of Environmental Protection, Case No. 0026131, Fifth Interim Decision of the Commissioner, 1996 WL 753920 (N.Y. Dept. Env. Conserv. October 7, 1996).

16. On December 15, 2000, amendments to Section 402 the CWA (known as the Wet Weather Water Quality Act of 2000) were enacted. These amendments require that all permits, orders, or decrees for CSO discharges, issued pursuant to the CWA after December 15, 2000, be consistent with the CSO Control Policy, 33 U.S.C. §1342(q)(1).

17. ECL section 17-0815(7) authorizes the Department to include in SPDES permits any provisions necessary to meet the requirements of the federal CWA. This includes the CSO requirements contained at Section 402(q)(1) of the federal CWA. In New York State, EPA's nine minimum control measures are addressed pursuant to requirements set forth in SPDES permits, in accordance with the CSO Control Policy and State regulations (6 NYCRR Part 750, Sections 750-1.10-750-1.14 ).

18. In compliance with the CSO Control Policy requirements for permittees, in January 1997, Respondent DEP submitted, and DEC approved, a report entitled *CSO Abatement in the City of New York: Report on Meeting the Nine Minimum CSO Control Standards* detailing Respondent DEP's compliance with the nine minimum control requirements. Respondents' current SPDES permits require implementation of fourteen CSO BMPs to address the nine minimum controls consistent with CSO Control Policy.

19. The 1992 Order as modified in 1996, pre-dated the enactment of the Wet Weather Water Quality Act of 2000, particularly the amendments to Section 402(q) of the CWA. The CSO Control Policy recognizes that work had been done by states and municipalities to abate CSOs prior to the Policy's issuance. Further, the CSO Control Policy requires integration of existing CSO abatement projects into the development and implementation of the LTCPs while encouraging coordination with State WQS reviews.

20. The CSO Control Policy recognizes that the review and appropriate revision of WQS is a part of LTCP development. The Policy further recognizes that implementation of CSO controls may not result in attainment of WQS. In such circumstances, states may consider adapting their WQS, and implementation procedures to reflect site-specific conditions including those related to CSOs." 59 Fed. Reg. 18694.

21. DEP has submitted, and DEC has approved, CSO facility plans that set forth projects which, when built, will result in improvements to water quality, but will not result in attainment of WQS under all circumstances. As such, it is the intention of the Respondents and DEC to enter into a separate Memorandum of Understanding ("MOU") to establish a process to enable the WQS reviews to proceed on such projects in accordance with the CSO Control Policy. Such reviews will commence within 60 days of when Respondents issue the Notice to Proceed to Construction for all applicable construction contracts for each CSO Abatement Project required pursuant to Appendix A of this Order.

22. Any violation of a SPDES permit condition or Order entered under Article 17, constitutes a violation of ECL §§17-0701, 17-0803, 17-0807, 17-0815 and 6 NYCRR §750-1.4.

23. Respondents have failed to comply with numerous milestones set forth in the 1992 Order. Respondents' failure to comply with these milestones is a violation of the ECL.

24. ECL Section 17-0501 makes it unlawful for any person to discharges pollutants to the waters of the State that cause or contribute to a violation of WQS.

25. On numerous occasions, the discharges from Respondents' CSOs have caused or contributed to WQS violations in the receiving waters, in violation of ECL Section 17-0501.

26. Section 402(q)(1) of the CWA and ECL Section 17-0807(4) require that SPDES permits, Orders, or Decrees contain an LTCP to address CSOs.

27. Since December of 2000, Respondents are in violation of Section 402(q)(1) of the CWA and ECL Section 17-0807(4), for failure to have an approved LTCP consistent with the CSO Control Policy.

28. Pursuant to ECL §71-1929, a person who, prior to or on May 15, 2003, violates any of the provisions of, or who fails to perform any duty imposed by, ECL Article 17 or the rules or regulations of the Department promulgated pursuant thereto, or the terms of any certificate or permit issued thereunder, shall, *inter alia*, be liable for a penalty not to exceed twenty-five thousand dollars (\$25,000) per day for each violation, and may also be enjoined from conducting such activity. Any person violating these authorities after May 15, 2003, shall, *inter alia*, be liable for a penalty not to exceed thirty-seven thousand, five-hundred dollars (\$37,500) per day for each violation, and may also be enjoined from conducting such activity.

29. In order to address the violations noted above, the Department and Respondents agree to enter into this Order, which contains revised milestones and schedules governing Respondents' CSO abatement facility planning and construction activities, and the development and implementation of the LTCPs for Respondents' CSO discharges. Respondents' implementation of the fourteen CSO BMPs, as set forth in Respondents SPDES permits, and the requirements of this Order cumulatively address the relevant requirements of the ECL and Section 402(q) of the CWA.

30. Appendix A of this Order requires Respondents to plan, design, construct, operate and evaluate CSO abatement projects. Respondents have submitted documentation to the Department demonstrating that, on a cumulative basis, the projects to be constructed pursuant to Appendix A, will provide equal or better performance, in terms of CSO percent capture on a citywide basis, than what was required by the 1992 Order. (See Exhibit 1).

31. Appendix A further requires Respondents to develop Waterbody/Watershed Facility Plans. These Plans will evaluate the effects of implementing the approved or pending facility plans, identify the causes of non-attainment of WQS and identify the highest reasonably attainable uses of the water bodies.

32. Appendix A of this Order also requires Respondents to develop and implement drainage basin specific LTCPs for CSO impacted water bodies. The design and implementation of the CSO abatement projects set forth in Appendix A will be integrated into the development and implementation of the drainage basin specific and city-wide LTCPs.

33. Compliance with this Order, the SPDES Permits and the MOU requires Respondents to: (a) construct CSO abatement facilities to ensure that if CSOs occur, they are only as a result of wet weather; (b) bring all CSOs into compliance with the CWA and ECL, after review and, if appropriate, revision of WQS as set forth in the above-referenced MOU; and c) minimize adverse impacts to water quality, aquatic biota, and human health from CSO discharges pursuant to the compliance schedule in Appendix A.

34. The Department and the Respondents have each consented to the making of this Order which supercedes the 1992 and 1996 CSO Abatement Orders, without further action, litigation, hearing or adjudication of any issues of fact or law, and without this Order constituting an admission by the Respondents of any finding or alleged violation of federal or state law or regulation, and being duly advised, and it being in the public interest;

**IT IS HEREBY ORDERED:**

**I. EFFECT ON PREVIOUS ORDERS**

Respondents are bound by, and agree to follow and comply with, the terms, provisions and requirements set forth in this Order, including Appendix A, which is incorporated herein. This Order supersedes and replaces, in their entirety, the 1992 and 1996 CSO Orders. Upon the effective date of this Order, the 1992 and 1996 CSO Orders are considered null and void. The requirements set forth in this Order are additional to, and do not affect any requirements set forth in, any Orders on Consent between DEC and Respondents other than the 1992 and 1996 CSO Orders. The terms of this Order shall control the implementation of the CSO abatement program to be accomplished through the construction, operation and maintenance of the CSO abatement facilities, and pursuant to the CSO Facility Plans, the development and implementation of the LTCPs, as set forth in paragraph III. below.

**II. CIVIL PENALTY AND EBP**

A. In settlement of the violations of the 1992 Order of which the Department had actual knowledge or notice of as of the effective date of this Order, Respondents shall pay a civil penalty in the sum of two million dollars (\$2,000,000). The civil penalty shall be paid within 45 days of DEC's execution of this Order, by check made payable to the order of the "New York State Department of Environmental Conservation," which shall be forwarded to the Department of Environmental Conservation, 625 Broadway, 14<sup>th</sup> Floor, Division of

Environmental Enforcement, Albany, NY 12233-5500, attention: Elissa Armater, with a copy to Scott Crisafulli, Esq., at the same address.

## B. ENVIRONMENTAL BENEFIT PROJECT

1. In addition to the Civil Penalty set forth in paragraph II.A above, within 60 days of the effective date of this Order, Respondents shall pay the sum of one million, five hundred thousand dollars (\$1,500,000) to the Natural Heritage Trust (“NHT”), NY Art. & Cult. Aff. Law §§ 55.01 *et seq.* (McKinney’s 1984 & Supp. 2004), as an Environmental Benefit Project (the “EBP”). NHT shall hold the EBP funds in escrow in accordance with a separate Agreement (“the Agreement”) to be entered into between the Department and NHT, which shall provide, at minimum:

(a) The EBP funds shall be used solely for the costs of designing and implementing environmental improvement projects that capture, treat, or otherwise mitigate the impacts of stormwater and/or CSO discharges in the New York Harbor Estuary and Jamaica Bay areas.

(b) NHT may only release EBP funds pursuant to the written direction of the Department. Projects shall be selected as follows:

(I) Either party to this Order may propose projects to be funded by the EBP Funds.

(ii) The Department shall consider any projects proposed by Respondents in good faith.

(iii) All EBP projects shall adhere to the requirements of the Department’s EBP Guidance.

(c) The Agreement shall require NHT to submit to the Department and Respondent DEP an annual list of the projects it performed, the costs associated with those projects, and the remaining balance of the EBP Funds.

(d). The Agreement shall reflect the parties’ intent that the EBP funds, and any associated interest, be allocated, in their entirety, within five years of the date of the Agreement.

C. Consistent with the terms of the MOU referenced in paragraph 21, Respondents shall also pay the total costs, up to one million dollars, for DEC to hire outside consultants to perform the review, and if appropriate revision of WQS and/or use classifications as specified in the corresponding MOU. In the event the review and appropriate revision is not completed after one million dollars (1,000,000) is expended, additional payments may be made, at Respondents’ discretion, as set forth in the MOU.

### **III. COMPLIANCE SCHEDULE**

A. Respondents recognize that the CWA and the ECL mandate that all CSO controls meet all technology-based (i.e. implementation of the fourteen CSO BMPs to address the nine minimum controls) and water quality based requirements consistent with the CSO Control Policy. The CWA, ECL, and the regulations promulgated thereto, also make provision for the regulation of discharges from CSOs. To achieve that end, Respondents are permanently enjoined and directed to complete and/or implement the construction projects set forth in Appendix A of this Order, in accordance with the specified project descriptions and schedules set forth therein.

1. For the CSO abatement projects to be performed pursuant to the Flushing Bay, Paerdegat Basin, Alley Creek, Inner Harbor and Outer Harbor facility plans, as set forth in Appendix A, those projects shall be conducted in accordance with the Facility Plans approved by the Department in a May 15, 2003 letter from Joseph DiMura, P.E. to Warren Kurtz, P.E. (“the Approved Facility Plans”)(attached hereto as Exhibit 2). The CSO abatement projects shall be performed in accordance with the terms and schedules set forth in Appendix A and/or the Approved Facility Plans. The Approved Facility Plans are hereby incorporated into this Order by reference, and made an enforceable part herein. The Approved Facility Plans will become part of long term control planning, as set forth in paragraph III.E. below.

2. In accordance with the schedule set forth in Appendix A, Respondents must submit approvable facility plans for the Jamaica Tributaries, Coney Island Creek, Newtown Creek, Westchester Creek, Bronx River, Hutchinson River and Jamaica Bay CSO abatement projects (“the Pending Facility Plans”). Upon approval by the Department, these facility plans shall be incorporated into this Order by reference, and made an enforceable part herein. The construction required by Appendix A, shall be conducted in accordance with the Pending Facility Plans, as approved by the Department. All of these projects will contribute to the improvement of water quality, but, most will not meet current WQS under all circumstances.

a. For purposes of this Order only, a facility plan must be approvable by the Department upon submission or with only “minimal revision” in response to Department comments. Consistent with 6 NYCRR Section 750-1-2(8), minimal revision shall mean the facility plan can be revised and resubmitted to the Department within 60 days of notification by the Department that the revisions are necessary. Stipulated penalties pursuant to Section V. below, based on the failure to submit an approvable submittal, shall not begin to accrue unless 60 days after Respondents have received the Department’s comments on a submittal, Respondents have not submitted an approvable revised document. It is expressly understood that stipulated penalties begin to accrue upon day 61 after Respondents have received the Department’s comments on a submittal, if Respondents do not submit an approvable revised submittal by that date.

3. Pursuant to the milestones set forth in Appendix A, Respondents will submit Waterbody/Watershed Facility Plans that will support the Long Term Control Planning process on a site specific planning basis, and will briefly describe the status with the nine EPA recommended elements of a Long Term Control Plan for each waterbody. The Plans will also provide the technical framework to complete facility planning in those drainage basins (Westchester Creek, Hutchinson River, and Newtown Creek) contained in Appendix A, that do not have final conceptual designs. Subject to the Department's approval, the Waterbody/Watershed Facility Plans may refine, and/or propose minor modifications to, the existing approved and/or pending CSO facility plans. In the Newtown Creek, Westchester Creek and Hutchinson River drainage basins only, the Waterbody/Watershed Facility Plans may propose final modifications to the scope of the projects set forth in the existing Facility Plans. Upon DEC approval, the scope of the projects listed in Appendix A for those three basins will be as set forth in the approved Waterbody/Watershed Facility Plans. For all drainage basins the Waterbody/Watershed Facility Plans will also examine the extent to which additional cost effective CSO control measures may result in WQS being met.

B. Respondents shall comply with the milestones set forth in Appendix A. Appendix A and the Approved Facility Plans describe the specific construction and operation-related CSO Abatement Projects which must be done pursuant to this Order, and sets forth the milestones with which Respondents must comply in implementing the projects. To comply with the appropriate milestone, all documents must be submitted by the milestone dates set forth in Appendix A, in final form, and under the signature and seal of a professional engineer currently licensed to practice in New York State. All milestones for the Notice to Proceed to Construction ("NTPC"), the Completion of Construction, and the submittal of Drainage Basin Specific and City Wide LTCPs as set forth in Appendix A shall be Major Milestones, for purposes of paragraph V. below.

C. Respondents must submit an approvable Drainage Basin Specific LTCP for each of the water bodies governed by this Order, in accordance with the schedule set forth in Appendix A. The Drainage Basin Specific LTCPs shall be developed in accordance with the *Guidance For Long-Term Control Plan*, EPA, September, 1995 and submitted in accordance with the schedule set forth in Appendix A and be consistent with EPA's CSO Control Policy. The minimum elements of the Drainage Basin Specific LTCPs required by this paragraph are: (1) Characterization, Monitoring, and Modeling of the Combined Sewer System; (2) Public Participation; (3) Consideration of Sensitive Areas; (4) Evaluation of Alternatives; (5) Cost/Performance Considerations; (6) Operational Plan; (7) Maximizing Treatment at the Existing POTW Treatment Plant; (8) Implementation Schedule; and, (9) Post Construction Compliance Monitoring Program. Respondents shall integrate the CSO Abatement Projects required pursuant to Appendix A into the development and implementation of the Drainage Basin Specific LTCPs. Upon review and approval by the Department, Respondents shall implement the Drainage Basin Specific LTCPs.

1. For purposes of defining drainage basin specific LTCPs in this Order only, “drainage basin” refers to the areas for which Waterbody/Watershed Facility Plans are being prepared in accordance with Appendix A.

2. Once the Department approves a Drainage Basin Specific LTCP, the approved Drainage Basin Specific LTCP is hereby incorporated by reference, and made an enforceable part of this Order.

D. No later than December 2017, Respondents shall submit an approvable City-Wide LTCP to the Department. Once the Department approves the City-Wide LTCP, the approved City-Wide LTCP is hereby incorporated by reference, and made an enforceable part of this Order. The City-Wide LTCP shall incorporate elements of the individual Drainage Basin Specific LTCPs (as set forth in paragraph III.C), the post-construction water quality monitoring (as set forth in paragraph III.D.2), and the Waterbody/Watershed Facility Plans (as set forth in paragraph III.A.3).

1. The parties acknowledge that the CSO Control Policy, codified in the 2000 amendments to the CWA, recognizes that during the development of LTCPs, permittees may encounter situations where WQS and designated uses are not met because of natural background conditions or pollution sources other than CSOs, and cannot reasonably be met. 40 C.F.R. Part 131.10(g) lists and limits the circumstances under which modifications or variances from applicable WQS may be sought based on the site-specific conditions of the discharge and receiving water. It is the intent of the parties to address those situations in the MOU referenced in Whereas clause 21 of this Order.

2. Respondents will conduct CSO Abatement Project post-construction water quality monitoring. The approved Drainage Basin Specific and City-Wide LTCP shall contain schedules for the post-construction water quality monitoring required by this paragraph. This monitoring shall be done in accordance with the approved final drainage basin specific and final city-wide LTCPs, which will be consistent with the EPA guidance titled *Combined Sewer Overflows—Guidance for monitoring and Modeling*, USEPA 832-B-99-002 (January 1999).

E. All Final Design Documents submitted pursuant to paragraph III.B and Appendix A shall include a Critical Path Method (“CPM”) analysis of sequential and parallel tasks to be conducted pursuant to this Order, for the purposes of identifying critical junctions in the project schedule and avoiding conflicts that could lead to delays. To be approvable, the CPM shall evaluate Respondents’ ability to comply with the milestone dates set forth in Appendix A. The approved CPM shall address compliance with all applicable State/City Environmental Quality Review or other public notice requirements.

F. Upon approval by the Department, Respondents shall implement the studies, facility plans, engineering designs, facility construction and LTCPs, as submitted pursuant to paragraphs III.A- III.E above, in accordance with the schedules and terms of Appendix A, and the Approved Facility Plans. The Respondents shall submit a written certification of compliance to the Department regarding completion of every milestone set forth in or incorporated into Appendix A, in the Quarterly Reports required by this Order. Such written compliance notification shall be sent to the parties identified in paragraph XIV.E below. The wet weather operating plan that is required in the 14 WPCPs CSO Best Management Practices shall be required to be updated as a result of modifications made to the Combined Sewer System during the implementation of the LTCPs.

G. Any requests for modification made pursuant to paragraph XIII, that may materially affect the process, construction schedule, or performance of any CSO Abatement Project set forth in Appendix A, shall be submitted to the Department for approval 60 days in advance of implementation.

H. The following definitions shall apply to the implementation of, and compliance with, this Order:

1. "Design Completion:"

Design shall be considered complete upon the Respondents' submission of approvable plans and specifications to the Department and the New York State Environmental Facilities Corporation ("EFC") for review. Approval or disapproval of such submission by the Department shall be given in writing by either the Department or EFC within 60 days of the Respondents' submittal. If either the Department or EFC disapproves the Respondents' submittal, Respondents shall be in violation of this Order. In the event that the Department or EFC fails to respond in writing within 60 days of receipt, Respondents submission shall be deemed approved. For purposes of this provision, the date of the Department's or EFC's written response shall be the actual date of mailing, personal delivery or electronic transmission.

2. "Notice to Proceed to Construction" ("NTPC"):

Pursuant to the Wicks Law, all contracts consist of 4 elements: "G (general construction)," "P (plumbing)," "E (electrical)," and "H (heating, ventilation and air conditioning)." NTPC milestones shall be met when, at a minimum, the "G" element is noticed to proceed to construction. The noticing of any and/or all the other elements of a contract shall not be considered compliance with an NTPC milestone, until the "G" element is noticed.

### 3. "Construction Completion:"

Construction shall be considered complete when the process-related equipment and facilities are constructed in accordance with the approved plans and specifications, and are placed in operation to meet the applicable SPDES permit requirements. In addition to the foregoing, Respondents shall make all best efforts to place in operation all treatment units and associated automatic controls as soon as they are operable, to maximize CSO capture and treatment as soon as possible, up until the time the Facility complies with its SPDES permit requirements. Any dispute regarding Respondents' compliance with the best efforts clause shall be resolved in accordance with the Dispute Resolution procedure set forth in Paragraph VII below.

I. Respondents shall comply with, and be bound by, the schedules, timetables and requirements set forth in Appendix A, and the Approved Facility Plans, including the milestones incorporated therein, irrespective of the availability of financial assistance from Federal, State or other sources.

J. As required by Appendix A, Respondents shall submit a completed SPDES permit application for modification of the "receiving WPCP permit" for each CSO abatement project. The "receiving WPCP permit" shall mean the permit for the WPCP that receives flow from the combined sewer system where the CSO abatement project is located. Respondents shall not issue a Notice to Proceed to Construction on any CSO abatement project until after the modification of the receiving WPCP SPDES permit for that specific project has been issued by the Department.

## IV. PROJECT ADMINISTRATION

A. Respondents shall submit quarterly status reports to the Department ("Quarterly Reports"). The Quarterly Reports shall describe the actions that have been taken toward achieving compliance with this Order during the previous 3 month period, including all the following:

1. A list of the Respondents' construction contracts necessary to fulfill the requirements of this Order, including compliance with all milestones. This list will identify, by percentage, the amount of the contract that has been completed.
2. A detailed description of: (a) the work performed pursuant to this Order during the reporting period, including the status of all milestones, met or not met, (b) for any missed milestones an explanation of the noncompliance and how Respondents intend to return to compliance; and (c) all anticipated activities for the next 3 month period.

3. Information regarding unresolved delays encountered or anticipated that may affect the future schedule for implementation of the Respondents' obligations under the Order, and efforts made to mitigate and/or cure those delays or anticipated delays. Each quarterly report must provide an update on whether Respondent DEP is complying with the CSO Order by providing a comprehensive report, in the form of charts detailing compliance and non-compliance with each requirement in the CSO Order and the milestone dates listed in the appendix to this Order. These charts should also compare the dates in the CSO Order with the Respondent DEP's anticipated construction schedule, indicate how much time has been gained or lost, and also set forth Respondent DEP's plan for recovering lost time.
4. Description of community relations activities during the reporting period and the activities anticipated for the next three months.
5. Any changes in key personnel.
6. Any other issues with the potential to materially affect the work required under this Order, including any change orders that might materially affect the construction work required by this Order.
7. A description of the progress/status of the Drainage Basin Specific and City-Wide LTCPs development including the following elements: (1) Characterization, Monitoring, and Modeling of the Combined Sewer System; (2) Public Participation; (3) Consideration of Sensitive Areas; (4) Evaluation of Alternatives; (5) Cost/Performance Considerations; (6) Operational Plan; (7) Maximizing Treatment at the Existing WPCP Treatment Plant; (8) Implementation Schedule; and, (9) Post Construction Compliance Monitoring Program. This reporting on the progress of the Drainage Basin Specific and City-Wide LTCPs development shall be included in the first and third quarterly reports of each calendar year beginning in the year 2005 and continuing until all Appendix A requirements have been completed and approved.

B. The Quarterly Reports shall include an Executive Summary which summarizes the information required by sections 1-7 above. The Respondents shall choose the format for the first executive summary, and shall modify the format in accordance with subsequent reasonable requests by DEC following Respondents' submission of the first Quarterly Report under this Order.

C. From the effective date of this Order until all requirements of this Order have been met, Respondents shall submit these Quarterly Reports to the Department on the 30<sup>th</sup>

day of the month following the end of a quarterly period. The quarterly periods are defined as January 1<sup>st</sup>-March 31<sup>st</sup>, April 1<sup>st</sup>-June 30<sup>th</sup>, July 1<sup>st</sup>- September 30<sup>th</sup>, and October 1<sup>st</sup>-December 31<sup>st</sup>.

D. In addition to the Quarterly Reports, representatives of the parties shall hold quarterly progress meetings, to discuss and resolve any problems that may arise in the planning, design and construction of the CSO abatement facilities set forth in this Order. As necessary, responsible staff of the Respondents involved in any aspect of the Respondents' compliance with this Order shall attend progress meetings.

E. Within 30 days of the effective date of this Order, Respondents shall designate a Project Manager who reports to an executive officer of the Respondents. The Project Manager will be responsible for assuring that construction of the CSO abatement facilities proceeds as smoothly and efficiently as possible, and that Respondents comply with the terms of this Order (the "Project Manager"). Within thirty days of the effective date of the Order, Respondents shall notify the Department of such designation. The Project Manager shall have, at a minimum, the following duties:

1. Facilitating the coordination of the Respondents' activities among its departments and agencies in order to expedite compliance with the terms of this Order, and ensuring that appropriate representative of other Respondents' departments and/or agencies attend the quarterly meetings;
2. Facilitating the procurement of additional consultants;
3. Attending all quarterly meetings;
4. Filing all necessary reports in a timely manner;
5. Detecting problems that might delay implementation of this Order and taking all necessary steps to overcome the effects of such problems, including but not limited to, promptly notifying the Department; and
6. Pursuant to paragraph III.F, submitting to the Department a written certification of compliance, with the milestones set forth in Appendix A. These certifications shall be submitted in the Quarterly reports required by this Order.

## **V. STIPULATED PENALTIES**

A. Any judgment against Respondents pursuant to this Section shall be due and payable, and may be entered upon thirty days notice to Respondents. Interest shall accrue on

any stipulated penalty not paid when due, at a judgment rate not to exceed 9% per annum, non-compound, or such other judgment interest rate as General Municipal Finance Law §3-a or any successor law shall establish.

B. If Respondents fail to meet any of the milestone dates set forth in Appendix A the Department shall have judgment against Respondents, and Respondents consent to entry of judgment in this Court for a stipulated penalty in the amounts set forth below, for each day of violation:

<b><u>PERIOD OF NON-COMPLIANCE</u></b>	<b><u>PENALTY PER-DAY</u></b>
1 <sup>st</sup> day through 30 <sup>th</sup> day	\$ 3,500
31 <sup>st</sup> day through 40 <sup>th</sup> day	5,000
41 <sup>st</sup> day through 50 <sup>th</sup> day	7,500
51 <sup>st</sup> day through 60 <sup>th</sup> day	10,000
Each day beyond the 60 <sup>th</sup> day	25,000

The milestones set forth in Appendix A shall be classified as either major or minor schedule milestones. As set forth in paragraph III.B above, major schedule milestones shall be Notice to Proceed to Construction, Construction Completion and the submittal of the Drainage Basin Specific and City-Wide LTCP milestones set forth in Appendix A. Minor schedule milestones shall be all other milestones set forth in Appendix A. Stipulated penalties which accrue as a result of the Respondents' failure to comply with minor schedule milestones shall be paid into an interest bearing escrow account established by the Respondents with, and administered by, the Environmental Facilities Corporation ("EFC") (Minor Milestone Escrow Account). If Respondents comply with the next related Notice to Proceed to Construction milestone date, for the same water body, as set forth in Appendix A, and on or before that date Respondents complete the requisite work for which the stipulated penalty has been assessed, then, upon the written approval of the Department, the accrued stipulated penalty shall be released to the Respondents, however EFC shall keep an amount of the accrued interest equal to its administrative expenses for administering the Minor Milestone Escrow Account. Upon the withdrawal of these funds EFC will provide a written statement of its costs to Respondents. If Respondents do not comply with the next related Notice to Proceed to Construction schedule milestone date, for the same waterbody, set forth in Appendix A, then the stipulated penalty and any accrued interest shall be paid to the Major Milestone Escrow Account, as described below.

In the event of Respondents' non-compliance with any Notice to Proceed to Construction major milestone date set forth in Appendix A, Respondents shall pay the stipulated penalty amount into an interest bearing escrow account established with EFC for this purpose (Major Milestone Escrow Account). If Respondents comply with the final Construction Completion milestone date for which the related Notice to Proceed date as set forth in Appendix A was missed, then the accrued stipulated penalties, and interest, for

which payment has been made into the Major Milestone Escrow Account, shall be released to the Respondents. However, EFC shall keep an amount of the accrued interest equal to its administrative expenses for administering the Major Milestone Escrow Account. Upon the withdrawal of these funds EFC will provide a written statement of its costs to Respondents. If Respondents do not comply with the final Construction Completion milestone date for a specific project for which a related Notice to Proceed Milestone was violated, then upon written notice to Respondents the funds in the Major Milestone Escrow Account attributable to that related Notice to Proceed Milestone shall be paid to the Department in the same manner as the civil penalty set forth in paragraph II.A. above. Should Respondents fail to comply with any LTCP milestone, as set forth in Appendix A, the stipulated penalties due shall be paid by Respondents to the Department in the same manner as the civil penalty set forth in paragraph II.A. above.

C. For all events of non-compliance with any terms of this Order or its Appendices, other than those violations addressed by paragraphs VI.A or B above, the Department shall have Judgment against Respondents, and Respondents consent to entry of a Judgment, for a stipulated penalty in the amounts set forth below, for each day of violation:

<u>PERIOD OF NON-COMPLIANCE</u>	<u>PENALTY PER-DAY</u>
1 <sup>st</sup> day through 30 <sup>th</sup> day	\$ 1,000
31 <sup>st</sup> day through 40 <sup>th</sup> day	2,500
41 <sup>st</sup> day through 50 <sup>th</sup> day	3,500
51 <sup>st</sup> day through 60 <sup>th</sup> day	7,500
Each day beyond the 60 <sup>th</sup> day	15,000

D. In the event that a discharge, action or inaction by Respondents violates a requirement of this Order which is recited in both a decretal paragraph and corresponding appendix provision, Respondents shall only be liable, and subject to penalty for, a single violation.

## **VI. FORCE MAJEURE**

A. Respondents shall not be in default of the provisions of this Order, if their non-compliance is directly attributable to, an Act of God, war, insurrection, terrorism, strike, judicial injunction, failure of a federal or State agency or authority to issue any necessary permit or approval in a timely fashion where, in accordance with applicable law or regulations, Respondents have timely submitted a complete application and all necessary supporting information and are otherwise entitled to such permit or approval, catastrophic condition, or other circumstance that is entirely beyond their control, and where Respondents have made all good faith efforts to comply with the provisions of this Order at issue (“force majeure”). If such a force majeure event occurs, Respondents shall be entitled to an extension of the schedule milestone(s), limited to the period of time caused by such event that placed compliance with a provision of this Order beyond Respondents’ control.

Penalties for failure to satisfy any Order requirement, due to a force majeure event, can be excused only under the terms of this decretal paragraph, and only where Respondents took all steps reasonably necessary to avoid or mitigate the delay, and strictly complied with the notice requirements of this paragraph, and that the delay is limited to an amount of time equal to the period of delay directly attributable to the force majeure. As a condition precedent to obtaining any relief under this provision, Respondents shall notify the Department in writing that a force majeure event has occurred, no later than twenty days after the date Respondents knew or should have known of the occurrence of any force majeure event. Respondents shall include in such notice the measures taken and to be taken by Respondents to prevent or minimize any compliance delays and shall request an appropriate extension or modification of the applicable deadlines under this Order. Failure to give such notice within such twenty day period constitutes a waiver of the ability to evoke force majeure as a defense to stipulated penalties.

B. Whenever a milestone is missed, pursuant to a force majeure event or otherwise, the Respondents shall exercise their best efforts to recoup all lost time, including where appropriate, the payment of extraordinary expenses for overtime, double shifts, or additional contractors or consultants, or alternative methods to the extent allowable under local law.

C. If the Department determines, that no force majeure event occurred and a stipulated penalty is due, Respondents shall promptly pay the stipulated penalty plus interest from the date of the missed milestone, or invoke the dispute resolution provisions set forth in paragraph VII below.

## **VII. DISPUTE RESOLUTION**

DEC and the Respondents recognize that in the course of the design, construction and modification of the CSO Abatement Projects/tasks required by this Order, disputes may arise between the parties regarding the appropriateness of any disapproval by the DEC of a required submittal by the Respondents, conditions attached to the DEC's approval of a required submittal, whether DEC has appropriately rejected a modification requested by the Respondents pursuant to Paragraph XIII, whether a force majeure event has in fact occurred, any other determination by the DEC under this Order, or the Respondents' compliance with the terms of this Order. In the event such a dispute arises, it shall be resolved as follows:

A. If DEC disapproves a submittal required by the Respondents under this Order, approves a required submittal with conditions that the Respondents deem unacceptable, makes any other determination that the Respondents have violated this Order, or declines to agree to an Order modification requested by the Respondents pursuant to Paragraph XIII, then the DEC Region 2 Water Engineer shall issue a written determination ("DEC Determination") to the Respondents setting forth the basis for disapproval of the submittal, conditional approval of the submittal, other basis for determining that the Respondents have violated this Order, or basis for not agreeing to a requested Order modification. If the

Respondents dispute the DEC Determination, Respondents may seek to resolve the dispute by requesting informal negotiations with DEC. Upon such a written request by the Respondents, DEC and the Respondents shall make reasonable efforts to resolve the dispute through informal negotiations. DEC shall make all good faith efforts to meet with and/or discuss the dispute in question with the Respondents, as soon as practicable, and the parties shall make reasonable efforts to resolve the dispute through informal negotiations. Unless both parties agree in writing otherwise, the time to conclude informal negotiations shall terminate 45 days from the day Respondents receive the DEC Determination.

B. The Respondents shall also have the right to challenge a DEC Determination in an Article 78 proceeding in New York State Supreme Court for New York County. To do so the Respondents must commence the Article 78 proceeding within 45 days of receiving the DEC Determination. If such a proceeding is commenced, any DEC Determinations hereunder shall be deemed to be final agency actions. If the Respondents do not commence an Article 78 proceeding within 45 days of receiving the DEC Determination, then the Respondents shall waive the right to challenge the Determination and the assessment of any penalties associated with that Determination. The parties may agree, in writing and on a case-by-case basis, to extend the 45 day period within which the Respondents must commence an Article 78 proceeding to challenge a particular DEC Determination. The 45 day period for informal negotiation and for the Respondents to commence an Article 78 proceeding shall run concurrently. Respondents' remedies for dispute resolution under this Order shall be limited to the informal negotiations noted above and bringing an Article 78 proceeding in New York State Supreme Court for New York County. The Respondents shall have no right to any formal administrative review of a DEC Determination.

C. In any Article 78 proceedings challenging a DEC Determination, service of the petition and accompanying papers commencing the proceeding and all subsequent papers shall be made by the Respondents on the State in accordance with Paragraph XIV.E below or to such other individuals as the DEC shall designate pursuant thereto. Service on those individuals shall be deemed valid service on the State.

D. If, in the case of a challenge by Respondents to a DEC Determination disapproving a submittal required under this Order or approving a required submittal with conditions that the Respondents consider unacceptable, the submittal is found to have been approvable as submitted, then no penalties or interest may be assessed and subsequent milestone dates shall be extended appropriately, as agreed upon by the Respondents and State or as otherwise determined by the Court. If the submittal is found to have been properly disapproved, then penalties and interest shall be assessed from the date of DEC's Determination, subject to the minimum notice requirements of this Order, and the subsequent milestone dates shall not be extended, unless otherwise agreed upon by the State and Respondents, or ordered by the Court, for good cause shown by the Respondents.

E. If, in the case of a challenge by Respondents to a DEC Determination rejecting an Order modification requested by the Respondents pursuant to Paragraph XIII, the DEC Determination is found to be arbitrary and capricious, then no penalties or interest may be assessed and subsequent milestone dates shall be extended appropriately, as agreed upon by the Respondents and State or as otherwise determined by the Court. If the DEC Determination rejecting the modification is found to have been properly disapproved, then penalties and interest shall be assessed from the date of DEC's Determination, subject to the minimum notice requirements of this Order, and the subsequent milestone dates shall not be extended, except unless otherwise agreed upon by the State and Respondents, or ordered by the Court, for good cause shown by the Respondents.

F. If, in the case of a challenge by Respondents to a DEC Determination of violation predicated on a claim of force majeure by the Respondents, DEC's Determination is found to be arbitrary and capricious, then no penalties or interest may be assessed, and subsequent milestone dates shall be extended appropriately, as agreed upon by the Respondents and State, or as otherwise determined by the Court, if the Respondents demonstrate that the force majeure materially affects the Respondents' ability to meet subsequent milestones. If the Respondents do not demonstrate that the force majeure materially affects the Respondents' ability to meet subsequent milestones, then no subsequent milestone shall be extended, regardless of whether the DEC Determination is found to be arbitrary and capricious. If the Respondents' claim of force majeure is rejected, then penalties and interest shall be assessed from the date of DEC's Determination, subject to the minimum notice requirements of this Order, and subsequent milestones shall not be extended.

G. In the case of any other challenge by the Respondents to a determination by DEC issued hereunder (including, but not limited to, a challenge to a DEC Determination that the Respondents have failed to submit a quarterly construction report on time, failed to make a monitor payment, failed to submit any other report required hereunder on time, etc.), if DEC's Determination is upheld then penalties and interest shall be deemed due and payable when originally assessed by DEC, subject to the minimum notice requirements of this Order. Regardless of whether or not DEC's determination is upheld, the bringing of such a challenge by the Respondents, pursuant to this Paragraph G, shall in no way result in an extension of any milestone dates under this Order.

H. The State shall have the right to enforce any administrative judgment assessed against the Respondents pursuant to Paragraph V, and any other obligation of the Respondents hereunder, in New York State Supreme Court for New York County. The Respondents consent that the State may commence an action in that Court to enforce any such judgment or other obligation, and that service of the papers commencing the action in accordance with Paragraph XIV.E shall be deemed valid and complete service on the Respondents.

## **VIII. ENVIRONMENTAL MONITORS REQUIRED**

### **A. Independent Environmental Monitors Required**

Within 120 days of the effective date of this Order, Respondents shall, at their own expense, retain an Independent Environmental Monitor (IEM) to provide independent environmental monitoring services for the construction to be conducted pursuant to this Order. The monitoring services shall be performed by a minimum of one, and a maximum of four, full-time individuals employed by the IEM for each year this Order is in effect. The number of individual monitors may be adjusted as set forth in paragraph VIII.F below.

1. For purposes of paragraph VIII.A. only, should Respondents be unable to comply with the 120-day requirement set forth above, Respondents may invoke the force majeure provisions set forth in Paragraph VI. Provided Respondents otherwise comply with the force majeure provisions set forth in Paragraph VI., a force majeure event will be found if Respondents' noncompliance is directly attributable to either Respondents' procurement rules or otherwise reasonable delays resulting from contractual issues. Should a force majeure event make Respondents' compliance with the 120-day requirement impossible, for the reasons described above, Respondents shall diligently proceed with their procurement process to fulfill the requirements of Paragraph VIII. of this Order. Until this procurement process is complete and Respondents retain permanent IEMs, Respondents agree to fund temporary interim IEMs in accordance with paragraph VIII.F to be retained by the Department.

### **B. Selection of the IEM**

1. The IEM may be an individual(s), partnership, corporation, governmental or inter-state entity. Provided that Respondents comply with the requirements of paragraph VIII, the selection of the IEM shall be subject to approval by the Department in its sole discretion, consistent with Respondents contract procurement requirements. Engineering, consulting, and other types of firms and individuals who are currently performing consulting or contracting work for Respondent DEP in any other capacity, at any facility owned or operated by Respondents, are precluded from functioning as an IEM.

2. The IEM must have staff available that possess the requisite educational background, certifications, licenses and/or experience necessary to perform the various tasks outlined in the Work Plan described in paragraph VIII.D, below. It is permissible for the IEM to subcontract for specialized services (e.g., geologic or liner installation) with the prior written approval of the Department. The IEM, if an individual, must be a New York State licensed professional engineer, and if a partnership, corporation, or other type of entity, must have a New York State licensed professional engineer on staff who will be responsible for all environmental monitoring activities at Respondents' facilities.

### C. Agreement Between Respondents and the IEM

The monitoring services shall be conducted in accordance with an Independent Environmental Monitoring Service Agreement (IEM Agreement) described in paragraph VIII.C, below, between Respondents and the IEM. The IEM Agreement shall include the name(s) of the IEM's New York State licensed professional engineer(s) responsible for all facility environmental monitoring activities. The IEM Agreement shall be subject to the Department's approval. The Department may not unreasonably withhold its approval of the IEM Agreement. The Department shall provide a written explanation of its basis for any disapproval of an IEM proposed by Respondents. If Respondents do not agree with the Department's disapproval, Respondents may invoke the dispute resolution provisions set forth in paragraph VII. In addition, the IEM Agreement will set forth the parties' obligations as follows:

#### 1. Respondents' Obligations Under the IEM Agreement

a. The IEM will have the right to access any of Respondents' facilities that are addressed by this Order at all reasonable times;

b. The IEM will have the right to review any information located at the site that would otherwise be available to Department staff in the normal course of their duties; and

c. Respondents will provide the IEM with adequate office space at a location to be determined. This office space shall include, at a minimum: a lockable desk, chair, lockable file cabinet, telephone service, computer equipment, electricity, lights, heat and air conditioning.

#### 2. IEM Obligations Under the IEM Agreement:

a. The IEM must be available to Department staff at all times while at one of Respondents facilities, either by telephone, cell phone, e-mail, or other similar means;

b. The IEM and the IEM's staff must report directly to, and be directed by, the Department in all matters relating to the environmental monitoring described herein;

c. In the event that an IEM determines that a violation of this Order, or any other legal authority, exists, the IEM must notify the Department before the close of business the same day that the violation was discovered in accordance with procedures determined by the Department. The IEM shall assist the Department in any investigation or enforcement action that is taken against the Respondents for any violation(s) relating to the facility; and

d. The parties to the IEM Agreement may agree that the IEMs shall summarize the activities they conducted each quarter in a detailed quarterly summary which shall be provided to the Respondents within 60 days of the end of each quarter.

#### D. Work Plan

A Work Plan must be developed by Respondents and the IEM and approved by the Department. The Work Plan must include, but not be limited to, a detailed description of the following:

1. the monitoring of Respondents' facilities during construction to ensure the facilities are constructed in accordance with the design plans and the requirements of the permit;
2. the monitoring of soil borings, the installation of all monitoring wells or any other subsurface investigation conducted at or in proximity to the facility site;
3. the monitoring of Respondents' facilities during operation to ensure compliance with the requirements of this Order;
4. the conducting of inspections of Respondents' facilities and the completion of a Department approved inspection report noting all major activities that occurred during the day of the inspection, and documenting any violations of the Order;
5. all reports or other written materials that will be produced by the IEM along with the schedule of submission to the Department;
6. The review and comment to be done on all reports required to be submitted by the Respondents to the Department; and
7. The IEM Agreement between the Respondents and the IEM must specify the minimum time that individual monitors are required to be at one of the Respondents' facilities and for what activities. This schedule must be included in the Work Plan.

#### E. Further Conditions Relating To Materials Provided To Or Generated By IEMs

1. All documentation, inspection reports, logs, photos, and records developed, collected or generated by any IEM in connection with the monitoring of Respondents shall be the sole property of the Department and are not subject to prior review or approval by Respondents. Upon the written request of Respondents, the IEM may transmit copies of non-confidential documents and reports to Respondents. All IEMs shall retain all monitoring materials or copies of the monitoring materials at the location set forth in

paragraph VIII.A.3 above, and these monitoring materials shall remain at that location in the event that a new IEM assumes the environmental monitoring responsibilities.

2. Department staff or an IEM shall have the right to seek any other non-confidential and non-privileged information from Respondents pertaining to environmental compliance activities under this Order as needed, and all such information shall be supplied to Department staff or the IEM at a frequency to be determined by the Department.

F. Adjustments to the Number of Individual Monitors

1. Upon commencement of the agreement between the Respondent and the IEM, the monitoring services to be provided shall be the equivalent of two full-time employees of the IEM.

2. As of January 1, 2006, the IEM Agreement between the Respondent and the IEM, shall provide for monitoring services to be the equivalent to four full-time employees of the IEM. This number shall remain until such time as the Department issues a written determination that less monitoring services are needed.

a. If Respondents believe that there is insufficient work to occupy the IEM staff time called for under this Order, Respondents may provide to the Department a detailed written explanation (with relevant documentation) of its request to decrease the amount of IEM staff time. Upon receipt of such transmittal, the Department shall review such request in good faith and, if the Department concurs in writing, Respondents may decrease, or need not increase, the IEM staff time in accordance with their Agreement with the IEM.

G. Change in the IEM.

1. The discharge or replacement of an IEM shall be subject to the approval of the Department at its sole discretion. In the event that Respondents seek to replace the existing IEM with another IEM, Respondents must submit a written request to the Department at least 30 calendar days prior to the proposed termination date for the existing IEM. The request shall include information regarding the IEM being proposed as well as an explanation of the reasons for desiring the replacement of the existing IEM. The Department's written approval must be obtained prior to the termination of the existing IEM and the employment of a new IEM. The Department may not unreasonably withhold its approval of a request to discharge or replace an IEM. The Department shall provide a written explanation of its basis for any disapproval of a discharge or replacement request by Respondents. If Respondents do not agree with the Department's disapproval, Respondents may invoke the dispute resolution provisions set forth in paragraph VII.

2. A continuity of monitoring services between the old IEM and the new IEM must be maintained during any transition period in order to ensure appropriate facility monitoring, unless otherwise approved by the Department in writing.

## **IX. RESERVATION OF RIGHTS**

A. Nothing contained in this Order shall be construed as a release or waiver by the Department of its rights to: (1) seek injunctive relief to abate any violation of law or this Order; (2) seek stipulated penalties and entry of judgment as provided in Paragraph V of this Order; (3) seek penalties and other relief for any violations of law or, other orders and/or permits (other than those alleged herein), including but not limited to any violations at any of Respondents WPCPs, except to the extent that this Order supplants those orders or permits; (4) reallege the violations listed in this Order to obtain injunctive relief or damages in support of natural resource damage claims; (5) seek penalties and other relief for any criminal liability for any violations listed in this Order; or (6) seek to modify, suspend, or revoke any DEC issued permit.

B. Except as expressly set forth herein, nothing contained in this Order shall be construed as a release or waiver of Respondents' rights to oppose and defend against injunctive relief, imposition of penalties, damages or any other imposition of liability by the Department. Nothing contained in this Order shall be construed as a waiver by Respondents of their rights to seek a modification of any permit or order.

C. The Department reserves all such rights as it has to require Respondents to take any additional measures required to protect human health or the environment, including, but not limited to, the right of the DEC Commissioner or his/her designee to exercise any summary abatement powers, whether at common law, or granted pursuant to statute or regulation, against Respondents or any other party.

D. Except as expressly set forth herein, nothing set forth in this Order shall be read as relieving Respondents of any of its obligations pursuant to any permits, orders on consent, or consent decrees to which it is subject.

## **X. INDEMNITY**

Respondents shall indemnify and hold harmless New York State, the Department, EFC and any of their employees or contractors for any and all claims, actions, damages, and costs resulting from Respondents' acts, or from actions taken by the Department in fulfillment or attempted fulfillment of the provisions of this Order to the extent that they are not caused by intentional, negligent or reckless acts of New York State, the Department, EFC or any of their employees or contractors.

## **XI. ACCESS**

For the purpose of ensuring compliance with this Order, Respondents shall allow duly authorized representatives of the Department full access to the Facility without prior notice in order for the Department to inspect and determine the status of Respondents'

compliance with this Order. Upon the arrival of the Department's authorized representative, he or she shall contact the Facility's plant superintendent or his/her designee and shall allow the plant superintendent or his/her designee to accompany him or her on the inspection so long as that request does not delay the commencement of the inspection or otherwise interfere with such inspection.

## **XII. TERMINATION**

This Consent Order shall be deemed completely satisfied and shall terminate when each of the following conditions has been fully satisfied: (1) Respondents' payment of the civil penalty and EBP funds as set forth in Paragraph II above; and (2) Respondents' written certification and DEC's written verification, of timely completion of each compliance action required in Appendix A.

## **XIII. MODIFICATION**

A. If Respondents desire that any of the provisions, terms or conditions of this Consent Order be changed, they shall make timely written application setting forth the grounds for the relief sought to the individuals listed in paragraph XIV.E below. DEC shall not unreasonably withhold approval for any reasonably made application by Respondents. Any change to this Consent Order must be in writing and signed by the DEC Commissioner or his/her designee. DEC reserves the right to designate additional or different addressees for communication upon written notice to Respondent DEP. Modifications to this order will be published for notice and comment in accordance with 6 NYCRR Part 621.

B. This Order and its annexed Appendix constitute the entire agreement of the parties. No obligation of the Department or Respondents shall be deemed to have been waived or otherwise modified without the express written consent of the Department or Respondents, respectively.

## **XIV. GENERAL PROVISIONS**

A. All references to "days" herein are to calendar days unless otherwise specified.

B. The section headings set forth in this Order are included for convenience of reference only and shall be disregarded in the construction and interpretation of any of the provisions of this Order.

C. This Order and its Appendices shall apply to, and be binding upon the parties, their officers, agents, servants, employees, successors and assigns, and each of them, and upon all persons, firms and corporations acting under, through or for, in active concert or participation with, the parties.

D. No communication by the Department shall constitute a modification, approval or alteration of any obligation of, or required conduct by, Respondents under this Order, other than a formal written communication expressly identified by the Department as such.

E. All submittals to DEC required by this Order shall be made, one copy unless otherwise designated, as follows:

Director, DEC Division of Water  
DEC  
625 Broadway, 4<sup>th</sup> Floor  
Albany, NY 12233-3500  
(Two copies)

DEC, Division of Water  
Compliance Bureau Director  
625 Broadway, 4<sup>th</sup> Floor  
Albany, NY 12233-3500

DEC Region 2 Water Engineer  
47-40 21st Street  
Long Island City, NY 11101

Environmental Facilities Corporation  
625 Broadway, Albany NY 12207  
Att: Timothy Burns, P.E.

All communications and modification requests, other than technical submissions, to DEC under this Order shall be made to the above parties and also to:

Scott Crisafulli, Esq.  
Division of Environmental Enforcement  
625 Broadway, 14<sup>th</sup> Floor  
Albany, NY 12233-5500

The Department reserves the right to designate additional or different individuals or addressees for communication upon written notice to Respondents, or to request that technical submissions be additionally made to Mr. Crisafulli.

F. All responses to submittals, and any other correspondence regarding technical issues that are sent to Respondents, shall be provided to:

Warren Kurtz, P.E.  
Deputy Commissioner

NYCDEP, Bureau of Environmental Engineering  
59-17 Junction Blvd., Corona, NY 11368.

All other writings transmitted under this Order shall be submitted to:

Judah Prero, Esq.  
NYCDEP, Bureau of Legal Affairs  
59-17 Junction Blvd.  
Corona, NY 11368.

## **XV. RELEASE**

Subject to Paragraph IX, upon the completion of the work required by this Order the Department hereby releases Respondents for the violations of the 1992 Order of which the Department had actual knowledge or notice of as of the effective date of this Order.

## **XVI. PUBLIC NOTICE**

A. After the Respondents sign this Order, DEC shall publish notice that the Order has been proposed and that public review and comment is sought. Notice shall be published in the Environmental Notice Bulletin, and, with costs to be borne by the Respondents, in a newspaper(s) of general circulation in the New York City Metropolitan area, and shall specify where interested members of the public can obtain a copy of the complete Order. DEC shall additionally hold a public meeting to discuss and respond to questions about the Order. The places where the Order may be obtained shall include the offices of DEC Region 2, and the DEC website, where it will be posted. The public shall be given 30 days to submit comments to DEC.

B. After the Respondents sign this Order, DEC shall additionally submit a copy of it to EPA. The Order shall be submitted to the EPA Administrator for Region II.

C. DEC shall consider all comments submitted on the Order, and shall provide copies of the comments to the Respondents. If DEC determines that the comments do not warrant modification of the Order, then DEC shall sign the Order and send signed copies of the Order to the Respondents in accordance with Paragraph XIV.E. The Order shall be effective in accordance with Paragraph XVII below.

D. If DEC determines that any of the comments warrant modification of the Order, then DEC shall modify it accordingly and seek the Respondents' agreement to the modification or modifications.

1. If the Respondents agree to the modification(s), then DEC shall sign it upon receipt of written notice from the City in accordance with Paragraph XIV.E

that the modifications are acceptable. DEC shall send signed copies of the Order to the Respondents in accordance with Paragraph XIV.E. The Order shall be effective in accordance with Paragraph XVII below.

2. If the Respondents do not agree to the modification(s), if any, then the Order shall not be binding on the Respondents. The parties shall endeavor, in good faith, to resolve the Respondents' objections to DEC's proposed modifications. Should the parties resolve the Respondents' objections, then the Order shall be modified accordingly, and the Respondents' and DEC shall sign the modified Order.

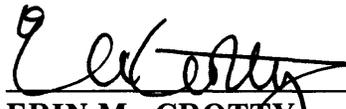
3. In the event of a substantive and significant modification to the construction compliance schedules provided for in this Order, the State shall provide public notice pursuant to this Paragraph.

#### **XVII. EFFECTIVE DATE**

The effective date of this Order is the date it is signed by the DEC Commissioner or his/her designee.

**DATED:**            **JAN 14 2005** , 2005  
                          ALBANY, NEW YORK

**New York State Department of  
Environmental Conservation by:**

  
\_\_\_\_\_  
**ERIN M. CROTTY**  
**COMMISSIONER**

EDMS#49542v10

**CONSENT BY RESPONDENTS**

The New York City Department of Environmental Protection hereby consents to the issuance and entry of the foregoing Order, waives its right to a hearing herein as provided by law, and agrees to be bound by the provisions, terms and conditions contained herein.



Christopher O. Ward, Commissioner  
New York City Department of  
Environmental Protection

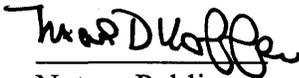
8.17.04

DATE

**ACKNOWLEDGMENT**

State of New York )  
County of QUEENS ) ss.:

On the 17th day of AUGUST, 2004 before me personally came CHRISTOPHER O. WARD to me known, who being by me duly sworn did depose and say that he maintains an office at 59-17 Junction Blvd. in the County of Queens and that he was duly authorized to execute the foregoing instrument and did so on behalf of the Respondents of New York.

  
Notary Public

**MARK D. HOFFER**  
NOTARY PUBLIC, State of New York  
No. 02HO4682255  
Qualified in Queens County  
Certificate Filed in New York, Nassau and Suffolk Counties  
Commission Expires March 30, 2006

**CONSENT BY NEW YORK CITY CORPORATION COUNSEL**

The New York City Corporation Counsel hereby consents to the issuance and entry of the foregoing Order without further notice, waives its right to a hearing herein, and agrees to be bound by the terms, conditions and provisions hereof.

Michael A. Cardozo,  
Corporation Counsel of the  
City of New York

BY: William S Plache  
Title: ASSISTANT CORPORATION COUNSEL

Date: August 2, 2004

**ACKNOWLEDGMENT**

State of New York    )  
County of New York ) ss. :

On this 2<sup>nd</sup> day of August, 2004, before me personally came William Plache, to me known, who being duly sworn, deposed and stated that (s)he maintains an office at 100 Church Street, NY, NY that (s)he is an Assistant Corporation Counsel, Environmental Law Section of The New York City Corporation Counsel, and that (s)he was authorized by said Department to execute the foregoing instrument.

[Signature]  
Notary Public

**HILARY MELTZER**  
Notary Public, State of New York  
No. 02ME5010465  
Qualified in New York County  
Commission Expires June 5, 20 07



**Department of  
Environmental  
Protection**

59-17 Junction Boulevard  
Flushing, New York  
11373-5108

**Christopher O. Ward  
Commissioner**

**Warren Kurtz, P.E.  
Deputy Commissioner**

Bureau of Environmental  
Engineering

96-05 Horace Harding Expwy  
Corona, NY 11358-5107

Tel. (718) 595-6002  
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warrenk@dep.nyc.gov

James DeZolt, P.E.  
Assistant Director, Division of Water  
NYSDEC  
625 Broadway  
Albany, NY 12233-1040

AUG 16 2004

**Re: NYCDEP's CSO Program**

Dear Mr. DeZolt:

This letter provides a comparison between the projected environmental benefits of the Combined Sewer Overflow ("CSO") program to be undertaken by the New York City Department of Environmental Protection ("DEP") under the accompanying Order on Consent, and the CSO program initially envisioned at the time the 1992 CSO Consent Order was entered into. The projections set forth below, for both the 1992 and the 2004 programs, are based on the information available to DEP at this time and the assumptions and analytic methodologies described below. This analysis demonstrates the comparative environmental benefits of the two programs. It does not, however, constitute a guarantee as to the absolute percentage of CSO flow that either the 1992 or the 2004 program would capture. The design and performance of each of the projects described in the 2004 CSO Order are governed solely by the milestones in that Order and required submissions.

***Technical and Regulatory Review***

This letter summarizes DEP's currently proposed CSO program and contrasts its projected environmental benefits to the program envisioned in the 1992 CSO Consent Order ("the original plan"). In addition, a description is provided for the regulatory issues as they have evolved since the signing of the 1992 CSO Consent Order, including NYC's actions to address these issues. In sum, DEP's currently proposed CSO program will result in additional environmental benefits beyond that committed to in the original plan as well as bring the CSO program in line with current EPA and DEC guidance on managing CSOs.

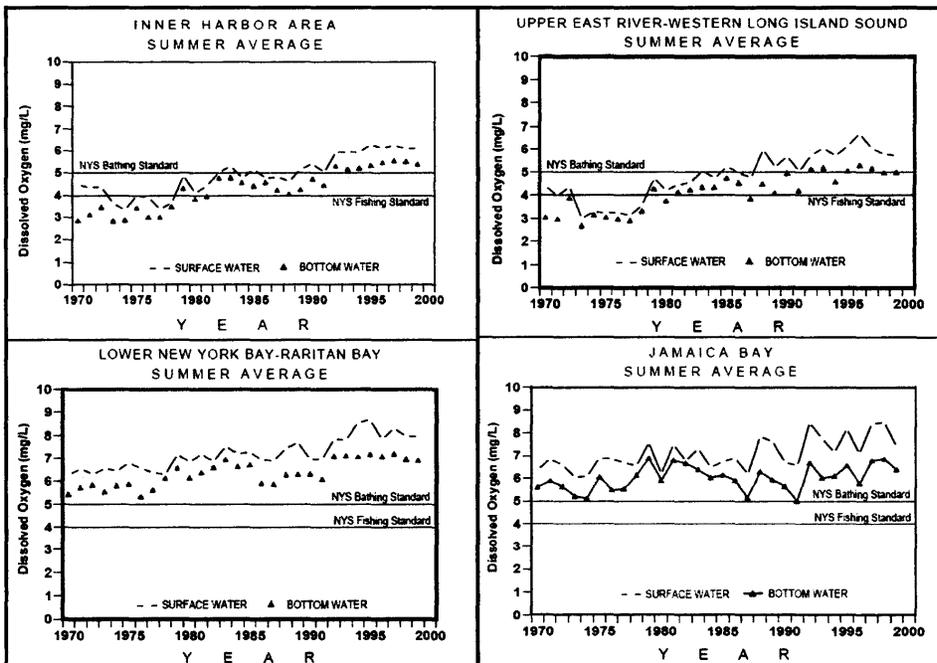
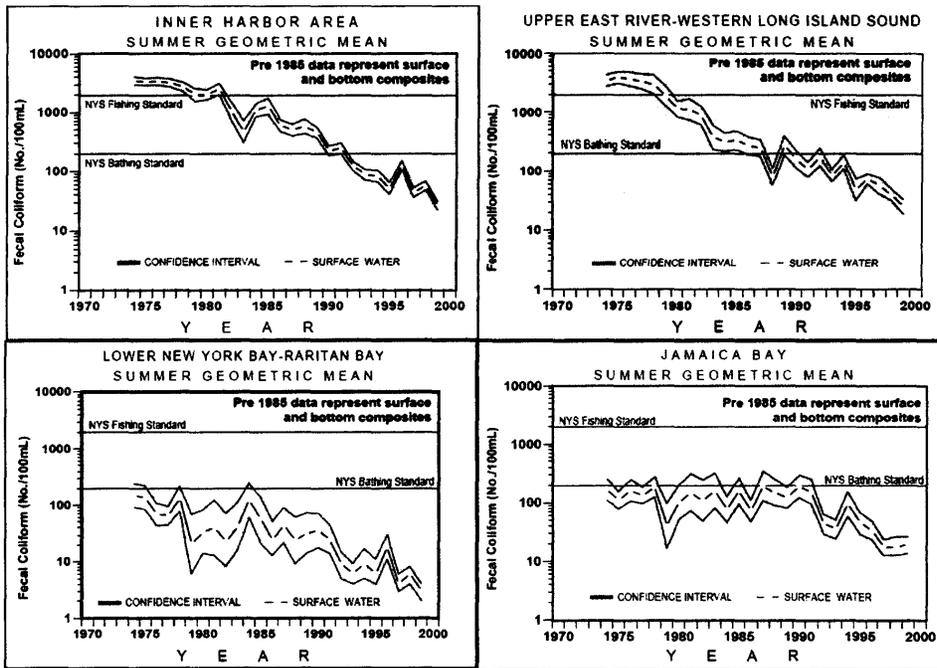
***Technical Review***

Since the 1970's tremendous progress has been made in improving water quality in NY Harbor. Open water pathogen concentrations have been steadily trending downward and dissolved oxygen concentrations have been trending upward. The increase in wet weather capture at the WPCPs to the current estimated level of 69% has been a contributing factor to this improvement, among other actions undertaken by the City since the 1992 CSO Consent Order was signed. Although the 1992 Order focused on CSO storage tank projects for eight (8) locations (Flushing Bay, Paerdegat Basin, Hutchinson River, Bronx River, Westchester Creek, Alley Creek, Fresh Creek and Newtown Creek), DEP has since expanded the program to a more robust, diverse and comprehensive program.



[www.nyc.gov/dep](http://www.nyc.gov/dep)

(718) DEP-HELP



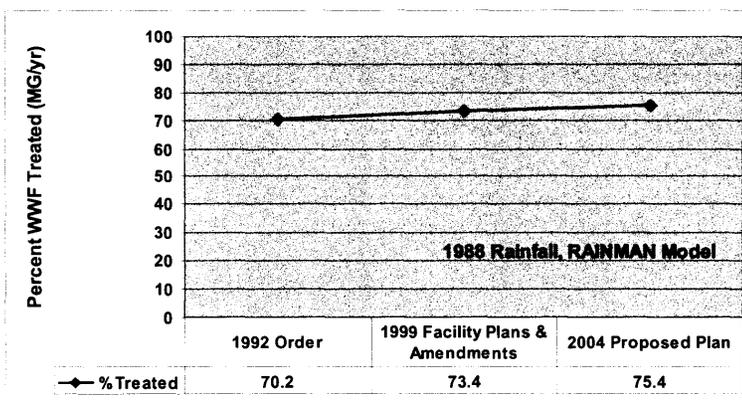
DEP's current approach to CSO abatement is not limited to designing tanks, but rather, is a key element of many of DEP's water pollution control initiatives. DEP now evaluates cost effective ways to control CSOs when evaluating upgrades to a WPCP or pump stations. This has resulted in plans to provide additional facilities at the Hunts Point, Newtown Creek, 26<sup>th</sup> Ward, and Jamaica WPCPs to treat more flow at the treatment plant. It has resulted in enlarging the Gowanus Canal and Avenue V Pumping Stations to direct more combined sewage into the interceptor and away from the local receiving waters. Further, DEP's efforts to provide centralized treatment of CSOs is the focal point of the wet weather operating plans for the WPCPs and the regulator automation efforts, the SCADA

efforts, the installation of throttling gates in interceptors and the inline storage and real time control activities.

In addition, DEP has evaluated and implemented other cost-effective methods to improve water quality including the use of flushing tunnels, sewer cleaning, in-stream aeration, sewer separation in large areas of Southeastern Queens, floatables containment booms, skimmer boats and catch basin modifications for hoods and hangars at over 130,000 locations citywide. The City's CSO control program now contains in excess of 30 different projects, a major increase in scope from the eight retention facilities anticipated when the 1992 CSO Consent Order was signed. The attached table outlining CSO program costs indicates which projects have been added to the program since the 1992 Consent Order was executed, as well as the resulting increased CSO capture.

When fully built-out, the program will cost the City considerably more than originally envisioned when the 1992 Order was signed and will provide more benefits to the environment. The program DEP is proposing is estimated to cost in excess of \$2.1 billion (see attached – all costs are in 2004 dollars). When DEP entered into the 1992 CSO Order, the estimated cost of the tank program was \$1.4 billion (escalated to 2004 dollars). Even when additional costs are included for project elements presented in the 1999 Facility Plans, DEP projected that the total cost of all the CSO controls would be \$1.6 billion (escalated to 2004).

The more extensive CSO program reflected in the draft 2004 Consent Order improves upon the City's previous commitments under the 1992 Consent Order by increasing the amount of wet weather flow being treated from an estimated level of 70.2% under the 1992 Consent Order to an estimated



73.0% under the draft 2004 Consent Order.<sup>1</sup> Moreover, when other programs above and beyond those set forth in the draft 2004 Consent Order are considered, the City's currently proposed CSO control program is expected to provide treatment for an estimate of 75.4 percent of the wet weather flow. This is also up from the estimated level of 70.2 percent wet weather treatment that was anticipated to be provided by the elements of the program known to the City when it entered into the 1992 Order.

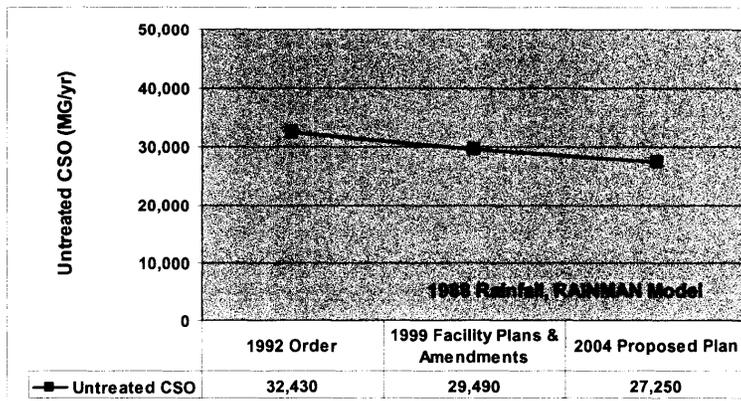
Additionally, the projects required under the draft 2004 CSO Consent Order, exclusive of other projects currently being undertaken by DEP, will reduce untreated CSOs to an estimated level of 29.65 billion gallons a year, compared to an estimate of 32.4 billion gallons of untreated CSO discharges under the 1992 program. Moreover, when the other projects DEP is undertaking, in addition to those required under the draft 2004 Consent Order, are considered, the currently proposed

<sup>1</sup> Future modifications to the design of CSO abatement projects, if such modifications are approved by DEC, may result in a decrease in the amount and/or percentage of citywide CSO capture, or an increase in the amount of untreated CSO discharge, from the current projections. Although DEP understands that this letter will be appended to the Consent Order between DEP and DEC, neither the amount nor the percentage of citywide capture projected in this letter is intended to represent a commitment by DEP to meet that amount or percentage if projects are modified in the future, and the amount and percentage of capture represented in this letter will not become a standard against which future project modifications will be assessed.

CSO program is expected to further reduce untreated CSOs to an estimated level of about 27 billion gallons a year.

There are other benefits that cannot be measured as wet weather capture that result from the currently proposed CSO program. For example, the flushing tunnel activation in Gowanus Canal, the aeration of Newtown Creek, the destratification of Shellbank Basin and the floatables controls in the Bronx River have all provided water quality benefits that are not quantified through the estimates provided herein as wet weather flow

capture or CSO volume reduction. In addition, the floatables controls already in place through catch basin hooding and the interim CSO boom and skimmer boat program, although not easily quantified, are estimated, when combined with the wet weather volume estimates above, to provide an overall reduction in the City's floatable load to the harbor of about 90 percent from the pre-1992 Order conditions.



Finally, many of NYC's planning initiatives originating from the CSO program have led to the development of regional water quality analyses and modeling tools such as the System-Wide Eutrophication Model (SWEM) and the NYC Tributary CSO models. The CSO model was the basis of a By-Pass Model that has been used by the IEC, NYS DEC and US EPA to predict the impacts of unanticipated discharges. The Long Island Sound Study (LISS) has adopted SWEM as the official water quality model for that program and is in the process of reevaluating trading ratios. The NY/NJ Harbor Estuary Program (HEP) is utilizing SWEM and the CSO Tributary Models to evaluate TMDLs for pathogens, toxics and nutrients. The investments that NYC made in data gathering and development of these analytical tools are now paying dividends to the entire region, including State and Federal regulators.

In summary, it is clear that NYC's currently proposed CSO program commits more money and achieves a greater environmental benefit through implementation of more comprehensive abatement and infrastructure improvements than ever envisioned by the 1992 CSO Order.

### ***Regulatory Review***

As the technical components of DEP's CSO program have continued to evolve, Federal regulations have also evolved starting with the EPA's CSO Control Policy which was finalized in 1994. The Clean Water Act was amended in 2000 to specifically incorporate the CSO Control Policy. With the codification of the CSO Control Policy, it is required that all CSO programs including NPDES permits and associated Consent Orders comply with the conditions of the CSO policy. This action occurred well after the 1992 consent order was signed and requires that NYC's CSO program be updated to reflect Federal CSO policy requirements. Significantly, the CSO Control Policy provides that a CSO Long Term Control Plan should be developed in conjunction with a Use Attainability Analysis (UAA). The Policy provides that if existing WQS would not be met even after full build-out of all CSO abatement projects contained in the Long Term Control Plan, as determined

by the UAA, the state water quality manager should review and revise WQS based on the findings of the UAA.

In recognition of this requirement and the fact that the approved levels of CSO abatement would not meet water quality standards, DEP initiated the Use and Standards Attainment (USA) project to bring the engineering program into compliance with regulatory requirements. This project was designed to follow the step-by-step process outlined in the CSO policy for the development of CSO abatement projects that includes water quality analysis, facility planning, water quality standards compliance determination, standards review and revision, as appropriate, public outreach and development of long term control plans. Both EPA and DEC have been active participants in the USA project through the government steering committee and EPA has endorsed the program as a cutting edge initiative and encouraged its development and implementation.

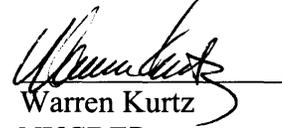
The result has been the development of holistic waterbody/watershed plans for Paerdegat Basin and the Bronx River that recommend implementation of engineering solutions based on the "knee-of-the-curve" approach for CSO storage (Paerdegat) and floatables control (Bronx River) as well as public outreach to support other waterbody or riparian improvements. In addition, it is recommended that Use Attainability Analyses (UAAs) be performed for each of these waterbodies and that a new water use classification be developed that recognizes the special nature of Urban Tributaries. EPA has encouraged the City and DEC to work together on the process of approving the Paerdegat UAA in order to serve as a model going forward for other tributaries in the Harbor that will require similar regulatory actions.

All of this previous work has served as the foundation for the development of a City-wide CSO Long Term Control Plan, as per the CSO Policy, that will integrate cost-effective engineering solutions consistent with regulatory requirements and community vision. The waterbody/watershed plans that are developed and finalized under the LTCP will serve as the basis for water quality standards review and revision, through the UAA process, for each waterbody that will not meet Clean Water Act - fishable/swimmable water quality uses, after all CSO abatement projects are completed. While the City recognizes the potential exposure to litigation by implementing projects before the regulatory process has been completed, DEP has committed to designing and commencing construction on all projects proposed under the 2004 Consent Order before the regulatory review process is complete. We understand that DEP and DEC have reached conceptual agreement on the CSO program as follows:

- 1) With respect to those projects that are already under construction or about to enter construction phases (Flushing Creek, Paerdegat Basin, Alley Creek, Inner Harbor and Outer Harbor), construction will continue as planned, even though the regulatory review prescribed under the CSO Control Policy has not yet taken place for those water bodies. We understand that, pursuant to a separate Memorandum of Understanding, DEC will begin the regulatory review processes for the basins affected by these projects, based on DEP's analyses, before construction is complete.
- 2) For Coney Island Creek, design and construction will continue as planned since this project is presumed to meet water quality standards based upon the presumptive approach.
- 3) For the rest of the projects that were identified in the 1992 CSO Consent Order as Track 1 Projects (Westchester Creek, Hutchinson River, Fresh Creek, Jamaica Tributaries and Newtown Creek) the City will commit to the phased construction of the recommendations made in the approved facility plans for these project areas as detailed in the revised Appendix

A of the proposed Consent Order. This phased implementation will include final design and the commencement of construction related to these five water bodies, with the understanding that DEC will undertake the WQS review and revision envisioned under the CSO Control Policy – based on the UAAs for those water bodies – once construction begins.

Very truly yours,

A handwritten signature in black ink, appearing to read "Warren Kurtz", written over a horizontal line.

Warren Kurtz

NYCDEP

Deputy Commissioner

Bureau of Environmental Engineering

**NYCDEP CSO Program Costs  
2004\$**

Projects	1992 Order	1999 Facility Plans & Amendments	2004 Proposed Plan	Non-Percent Capture Benefits
North River WPCP Construction				
Red Hook WPCP Construction				
<b>Flushing Creek</b>	\$320	\$291	\$291	
<b>Paerdegat Basin</b>	\$216	\$357	\$357	
<b>Westchester</b>	\$120	\$127		
-Phase 1			\$27	
-Future Phases			\$133	
<b>Alley Creek</b>	\$90	\$95	\$109	
<b>Bronx River</b>	\$85	\$85	\$11	
<b>Hutchinson River</b>	\$70	\$91		
-Phase 1			\$21	
-Future Phases			\$61	
<b>Catch Basin Hooding</b>	\$30	\$30	\$30	Reduce Floatables
<b>IFCP Booming/Skimming</b>	\$4	\$4	\$4	Reduce CSO Floatables
<b>CAVF</b>	\$33	\$33	\$33	
<b>Jamaica Bay</b>				
- 34 MG Fresh Creek Storage Tank	\$340			
-26th Ward WPCP Wet Weather Expansion			\$282	
-Sewer Cleaning		\$4	\$4	
-Dredging Hendrix		\$2	\$2	Improve Habitat
<b>Inner Harbor</b>				
- Gowanus Flushing Tunnel Activation			\$11	Meet WQS + Secondary
- Gowanus Canal PS/FM			\$51	Contact Recreation
-Regulator Improvements		\$10	\$10	
-Throttling Facilities		\$10	\$10	
-In-line Storage		\$4	\$4	
<b>Outer Harbor</b>				
-Regulator Improvements		\$5	\$5	
-Throttling Facility		\$2	\$2	
-In-line Storage		\$3	\$3	
<b>Coney Island Creek</b>		\$107	\$107	
<b>Newtown Creek</b>				
-Aeration Zone 1		\$1	\$8	Improve Dissolved Oxygen
-Aeration Zone 2			\$16	to > 1.0 mg/L
-Throttling Facility			\$2	
-Sewer Diversion		\$6	\$3.5	
-Regulator B1 Improvements			\$1.5	
-In-Line Storage		\$6		
-3.5 MG Storage Tank	\$69	\$69		
-9 MG Storage Tank			\$133	
<b>Jamaica Tribs</b>				
-Jamaica WPCP Wet Weather Expansion		\$100	\$100	
-Interceptor Cleaning		\$6	\$6	
-Carson Avenue Sewer(SE-152)		\$80	\$80	Eliminate CSOs
-Shellbank Destratification		\$1	\$1	Eliminate Odors
-Warnerville/Meadowmere DWO		\$6	\$6	Eliminate DWOs
-HRPCT Pilot/Demo Testing		\$20	\$20	
-Future Sewer Buildout				Eliminate CSOs
<b>Inter-Pier Skimmer Vessels</b>			\$9	Reduce Floatables
<b>Subtotal</b>	<b>\$1,378</b>	<b>\$1,556</b>	<b>\$1,954</b>	
<b>Wet Weather Capture (%)</b>	<b>70.2</b>	<b>73.4</b>	<b>73.0</b>	
<b>Untreated CSO (MG/year)</b>	<b>32,430</b>	<b>29,490</b>	<b>29,650</b>	
<b>Bowery Bay WPCP Main Sewage Pumps</b>			\$30	
<b>Hannah Street Pumping Station Upgrade and Diversion Sewer</b>			\$30	
<b>SCADA</b>			\$50	
<b>OMNIBUS IV Consent Order</b>				
-Hunts Point Headworks			\$26	
-26th Ward Bypass			\$0	
-Tallman Island Velocity Gates			<1	
-Tallman Island Interceptor Improvements			\$55	
<b>Newtown Creek Consent Order</b>				
-Newtown Creek to 700 MGD			\$12	
<b>Grand Total</b>	<b>\$1,378</b>	<b>\$1,556</b>	<b>\$2,157</b>	
<b>Wet Weather Capture (%)</b>	<b>70.2</b>	<b>73.4</b>	<b>75.4</b>	
<b>Untreated CSO (MG/year)</b>	<b>32,430</b>	<b>29,490</b>	<b>27,250</b>	

Note: costs are for the specific plan and not cumulative across plans.

### ***Quantification of CSO Reductions***

Quantification of these benefits has been computed recently using the RAINMAN Model for the various CSO control plans. RAINMAN is a computer program that was originally developed and applied City Wide during the NYC 208 Study in an earlier less sophisticated form. It is a Fortran program that is based on the rationale formula and does not employ any hydraulic equations. It simply performs a flow balance around sub-catchments within a given WPCP drainage area. Individual outfall overflows are calculated hourly, as is the flow to the WPCP. Since the model does not employ hydraulic calculations, it does require a high level of model calibration and knowledge about the conveyance system to provide reasonable estimates of flow volumes and pollutant loads. Before use in any applications, RAINMAN is cross-calibrated against the results of the more sophisticated models that simulate the detailed hydraulics of the sewer systems. Once that is accomplished RAINMAN is a very accurate tool for developing annual CSO volumes and loads. For the purpose of this analysis, the model was applied using the 1988 rainfall record. This year had a rainfall volume about at an average volume of rainfall but had higher than average storm intensities. These higher than average rainfalls would cause more overflows than would be expected in the average year. The larger overflows are more appropriate for use in planning for CSO facilities, in that planning for them would yield a slightly more protective control facility.

	<b>Total Volume (inches)</b>	<b>Average Intensity (inches/hour)</b>
<b>Citywide Long Term Average Rainfall Record</b>	<b>43.1</b>	<b>0.561</b>
<b>1988 JFK Airport</b>	<b>40.7</b>	<b>0.677</b>

File

**New York State Department of Environmental Conservation**  
**Division of Water, 4<sup>th</sup> Floor**  
Bureau of Permits  
625 Broadway, Albany, New York 12233-3500  
Phone: (518) 402-8111 • FAX: (518) 402-9029  
Website: www.dec.state.ny.us



May 15, 2003

Mr. Warren Kurtz, P.E.  
Deputy Commissioner  
Director, Bureau of Environmental Engineering  
NYC Department of Environmental Protection  
96-05 Horace Harding Expressway, 5<sup>th</sup> Floor Low Rise  
Corona, New York 11368

**Re: Modified CSO Facility Planning Reports**  
**CSO Abatement Consent Order**  
**Case # R2-3351-9012**

Dear Mr. Kurtz:

This correspondence addresses the Department's review of the following modified CSO abatement facility planning reports submitted on April 10, 2003 ("the Reports"): Flushing Bay, Paerdegat Basin, Alley Creek, Inner Harbor and Outer Harbor, Coney Island Creek, Jamaica Tributaries, and Westchester Creek. The Reports are required by the CSO Order on Consent entered into by the Department and NYCDEP (# R2-3351-9012) ("the Order") on June 26, 1992. Pursuant to a January 2, 2003 letter granting an extension pursuant to the Order, the Reports were due to be submitted by February 3, 2003. As noted above, NYCDEP actually submitted the Reports on April 10, 2003.

This correspondence is organized into the three following areas: 1. CSO Facility Plans Approved by the Department; 2. Unapproved Facility Plans that need additional information to obtain Department approval; and, 3. Notice of Violation for late submittal of reports beyond the February 3, 2003 extension approved by the Department.

**1 Approved Facility Plans:**

The Department hereby approves the following reports: Flushing Bay, Paerdegat Basin, Alley Creek, Inner Harbor and Outer Harbor. Enclosed is a stamped approved copy of each Facility Plan. One stamped approved copy will be kept by the Division of Water in Central Office, the Environmental Facilities Corporation, and the DEC Region 2 Office for future reference.

In addition to the requirements set forth in the approved plans, the NYCDEP must comply with the following conditions, when implementing the plans:

- a. The design and construction of these facilities must be under the direct supervision of a P.E. currently licensed to practice in New York State.
- b. The SPDES application Form 2-A Supplement must be submitted for new facilities concurrent with submittal of the final design report.
- c. In accordance with ECL §§ 17-0505 and 17-0701, construction of facilities cannot commence until after a SPDES permit has been issued. To do so otherwise is a violation of the ECL which will be enforced by the Department.
- d. In accordance with Clean Water Act, §402 (q)(1), the Department is reviewing the consent order for conformance with the USEPA Combined Sewer Overflow Control Policy. In accordance with the EPA "Demonstration Approach," which is set forth in the Overflow Control Policy, upon completion of construction, NYCDEP must conduct post-construction water quality monitoring to demonstrate compliance with water quality standards.
- e. NYCDEP must comply with the following compliance milestones specified in the approved facility plans for each project: 1. Start Design; 2. Complete Design with CPM Analysis and SPDES application; 3. Notice to Proceed to Construction, and 4. Complete Construction. These milestones are specified in the enclosed Table 1 and are hereby incorporated into, and made an enforceable part of, the Order.
- f. Integration of the operation of the Regional CSO Retention Facilities with the host Water Pollution Control Plant (WPCP) will be defined in the Wet Weather Operating Plan (WWOP) for such WPCPs in accordance with the SPDES permit requirements.

**2. Unapproved Facility Plans:**

Please find the enclosed Table 2 summarizing the Department's comments regarding the Coney Island Creek, Jamaica Tributaries, and Westchester Creek Reports and Table 3 responding to some of the comments in your April 9, 2003 letter. The Westchester Creek table reflects the Department discussions held on May 2<sup>nd</sup>, 2003 with your staff and the staff of Lawler, Matusky and Skelly (LMS) regarding the deficiencies in the Westchester Creek Report. In order for DEC to determine whether these reports are approvable, NYCDEP must respond to the comments in the attached table by June 30, 2003. We request that you incorporate your comments as an addendum to these reports. Please submit four (4) copies each to the Department by June 30, 2003 to be stamped for approval. Upon submittal, one stamped approved copy will be kept by the Division of Water in Central Office, the Environmental Facilities Corporation, and the DEC Region 2 Office for future reference.

The Department anticipates that ongoing discussion and meetings will continue on the remaining projects and facility plans that are required under the CSO consent order. After the submittal of the remaining Track One projects and schedules, the Department expects to provide NYCDEP with a draft modified consent order that is comprehensive, consistent with the current

EPA and Department CSO guidance and policies, and reflective of the current NYCDEP CSO abatement program.

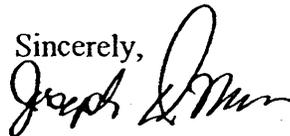
**3. Notice of Violation:**

The Department's approval and request for more information on the Reports notwithstanding, please be advised that this correspondence also notifies NYCDEP that it violated the Order by not submitting the Reports in a timely manner. As noted above, NYCDEP submitted the Reports on April 10, 2003, thereby missing the February 3, 2003 milestone by 66 days.

According to Section D of the Order, for failure to meet a specified milestone date, the stipulated penalties are \$3,500 for the 1<sup>st</sup> Day through 30<sup>th</sup> Day of non-compliance. Therefore, the Department could assess stipulated penalties under the Order in the amount of \$1,617,000.00 (7 reports x \$3500/day x 66 days late). However, in an effort to settle this matter the Department is willing, for settlement purposes only, to accept a penalty payment of \$24,500 (7 reports x \$3500 x 1/day late for each report. It is the Department's hope that the City is willing to settle for this reduced amount.

To discuss a possible administrative settlement of these violations and/or to discuss any efforts the City has taken or proposes to take to comply with the requirement of the Order, you should contact the Scott Crisafulli, Esq. at (518) 402-9507. If the City does not respond within 10 days, this notice may result in a civil enforcement proceedings against the City.

If you have any questions, please contact me at (518) 402-8117.

Sincerely,  


Joseph DiMura, P.E.  
Acting Director, Bureau of Permits  
Division of Water

**Attachments**

cc: Lenny Meyerson - Region 2  
Timothy Burns - EFC  
Brandon Chew - BWCP, w/o encl.  
Scott Crisafulli, w/o encl

bcc: Joseph DiMura  
Cheryle Merkley  
Dare Adelugba

Table 1.

## APPROVED COMPLIANCE MILESTONE DATES

CSO Project Area	Task Name	START DATE	COMPLETE DESIGN WITH CPM ANALYSIS & SPDES APPLICATION	NOTICE TO PROCEED TO CONSTRUCTION	COMPLETE CONSTRUCTION
Alley Creek	- Phase I, Stage 1 - Outfall and Sewer System Improvements	1/00	2/02	12/02	12/05
	- Phase I, Stage 2 - CSO Retention Facility	9/02	10/04	8/05	7/08
Outer Harbor	-Phase I - Regulator Improvements <i>Fixed Orifices</i> <i>Automation</i>	10/03 7/02	1/05 11/06	11/05 (1)	4/08 (1)
	Phase II -Port Richmond Throttling Facilities	6/04	8/05	6/06	12/08
	Phase III - In-Line Storage	6/04	9/05	7/06	2/09
Inner Harbor	-Phase I - Regulator Improvements: <i>Fixed Orifices</i> <i>Automation</i>	7/01 7/02	7/02 11/06	5/03 (1)	4/06 (1)
	Phase II -North River Throttling Facilities	9/02	3/04	N/A	N/A
	Phase III - In-Line Storage	6/04	9/05	7/06	2/09
Paerdegat Basin	Phase I - Influent Channel	10/95	3/97	7/97	2/02
	Phase II - Foundations and Substructures	9/99	8/01	6/02	12/06
	Phase III - Structures and Equipment	1/02	11/04	9/05	8/11
Flushing Bay	CS4-1 Reroute and Construct Effluent Channel	1/95		4/95	4/96
	CS4-2 Relocate Ballfields	9/94		1/95	6/95
	CS4-3 Storage Tank	10/96		5/96	8/01
	CS4-4 Mechanical Structures	10/00		4/02	7/04
	CS4-5 Tide Gates	12/99		4/00	3/02

(1) DEP must submit a letter by June 30, 2003 with a commitment to automate.

Table 2a. WESTCHESTER CREEK		
DECEMBER 9, 2002 REQUESTS	NYC DEP RESPONSES	CURRENT REQUESTS
<p>Results of sewer system analysis justifying the replacement of the flow-through tank with a dead-end tank including:</p> <p>a) Hydraulic configurations (length, depth and width) showing that the dead-end tank would not result in surcharging.</p> <p>b) Detailed explanation of hydraulic surcharging expected to cause street flooding or back-up into building laterals by operating the 12 MG flow-through tank.</p> <p>c) Detailed explanation of the necessary construction (including costs) to alleviate each of the surcharged conditions so that a 12 MG flow-through tank would be feasible and operable.</p> <p>A side-by-side comparison showing that the 12 MG dead-end tank will achieve the same removals and water quality benefits as the 12 MG flow-through tank.</p>	<p>None</p> <p>None</p> <p>None</p> <p>Unsatisfactory</p>	<p>DEP must respond as per the attached summary of the May 2<sup>nd</sup>, 2003 telephone conference between DEP, LMS and DEC representatives.</p> <p>DEP must respond as per the attached summary of the May 2<sup>nd</sup>, 2003 telephone conference between DEP, LMS and DEC representatives.</p> <p>DEP must respond as per the attached summary of the May 2<sup>nd</sup>, 2003 telephone conference between DEP, LMS and DEC representatives.</p> <p>DEP must provide updated water quality modeling results.</p>
DEP must install floatables removal capability at the bypass channel.	Satisfactory	None
Since there are no CSO abatement plans for outfalls HP-19, and HP-19A, what is the water quality condition downstream of these outfalls near the mouth of Pugsleys Creek?	Satisfactory	None
The proposed completion date for this project is October 2011. This date is 3 ½ years past the previous date submitted to DEC ( June 2008) for the flow-through tank back in May 2000. Please provide a satisfactory explanation for this delay.	Satisfactory	None

<b>Table 2b. COMPLETE CONSTRUCTION DATES</b>			
<b>CSO PROJECTS</b>	<b>PREVIOUS SUBMISSION</b>	<b>APRIL 2003 SUBMISSION</b>	<b>DEC's REQUESTS</b>
<u><b>CONEY ISLAND</b></u>			
Avenue V Pumping Station	10/10	12/10	DEP must justify the substantial extension to the milestone dates.
Ave V PS Force Mains	8/09	6/12	
<u><b>JAMAICA TRIBUTARIES</b></u>			
Warnerville PS	3/08	3/09	DEP must justify the substantial extension to each of these milestone dates and must also provide approvable milestone dates for the facilities where none have been provided.
HPRCT Demonstration	11/07	8/11	
Destratification Facility	8/07	1/09	
Thurston Basin - Eliminate dry weather overflows.	None	None	DEP must submit schedule to approved along with this project.
Thurston Basin - Evaluate CSO control vs. high level storm sewers in Laurelton area	None	None	DEP must provide the anticipation completion date to be approved along with this project.  DEP must submit schedule to approved along with this project.
Bergen/Thurston Basins in-stream aeration. (As related to the Schedule of Newtown Creek In-stream aeration study)	None	None	
Storm Sewer Buildout	TBD	TBD	

Table 3.

**RESPONSE TO April 9, 2003 COMMENTS  
NYCDEP CSO PROGRAM**

<b>DEP Comments</b>	<b>DEC Response</b>
<p>3a. <i>For Flushing Bay, Alley Creek, Paerdegat Basin Retention Facilities, and Corona Avenue Vortex Facility, the DEP is in the process of working with the NYSDEC on the Form 2-A for the facility and the draft SPDES permit for the respective drainage area WPCP. The DEP is under the assumption that a permit modification will not be required, and that the modification application will be the Form 2-A document itself.</i></p>	<p>Please be advised that an administrative permit modification will be required for the SPDES permit in that it will require the listing of new discharge outlets in the respective SPDES permit.</p>
<p>3b. <i>As for the Spring Creek CSO Retention Facility, it is already incorporated in the 26<sup>th</sup> Ward WPCP SPDES permit and therefore is not affected by this request by the NYSDEC. However, the DEP will still be providing the NYSDEC with a Form 2-A for this facility.</i></p>	<p>Although the Spring Creek Auxiliary Facility is referenced in the 26<sup>th</sup> Ward WPCP, monitoring requirements have not been listed for this facility. In compliance with the NYSDEC CSO TOGS 1.6.1 and to be consistent with the rest of the CSO Retention Facilities City-wide, a Supplemental Application Form 2-A must be submitted for this facility.</p>

## APPENDIX A

### I. Alley Creek CSO

### Milestone Date<sup>1</sup>

#### A. Facility Plan Development

1. Submit Modified Facility Plan Report
2. Submit Approvable Additional Modified Facility Plan Report
3. Submit Form 2A SPDES Application

Completed  
February 2004  
June 2003

#### B. Comprehensive Watershed Planning

1. Submit Approvable Alley Creek Waterbody / Watershed Facility Plan Report
2. Submit Approvable East River Waterbody / Watershed Facility Plan Report

June 2007  
June 2007

#### C. Outfall and Sewer System Improvements

1. Initiate Final Design
2. Final Design Completion Including CPM Analysis
3. Notice to Proceed to Construction
4. Construction Completion

May 1996  
March 2002  
December 2002  
December 2006

#### D. CSO Retention Facility

1. Initiate Final Design
2. Final Design Completion Including CPM Analysis
3. Notice to Proceed to Construction
4. Construction Completion

May 1996  
December 2005  
December 2006  
December 2009

#### E. Drainage Basin Specific LTCPs

1. Submit Approvable Drainage Basin Specific LTCP for Alley Creek
2. Submit Approvable Drainage Basin Specific LTCP for East River

6 months after approval of I.B.1.  
6 months after approval of I.B.2.

## II. Outer Harbor CSO

### A. Facility Plan Development

1. Submit Modified Facility Plan Report
2. Submit Additional Modified Facility Plan Report

Completed  
February 2004

### B. Comprehensive Watershed Planning

1. Submit Approvable Open Waters Waterbody / Watershed Facility Plan Report

June 2007

### C. Regulator Improvements - Fixed Orifices

1. Initiate Final Design
2. Final Design Completion Including CPM Analysis
3. Notice to Proceed to Construction
4. Construction Completion

January 2004  
April 2005  
February 2006  
July 2008

### D. Regulator Improvements - Automation

1. Initiate Final Design
2. Final Design Completion Including CPM Analysis
3. Notice to Proceed to Construction
4. Construction Completion

February 2005  
November 2006  
November 2007  
June 2010

### E. Port Richmond Throttling Facility

1. Initiate Final Design
2. Final Design Completion Including CPM Analysis
3. Notice to Proceed to Construction
4. Construction Completion

June 2004  
August 2005  
June 2006  
December 2008

### F. In-Line Storage<sup>2</sup>

1. Initiate Final Design
2. Final Design Completion Including CPM Analysis
3. Notice to Proceed to Construction

July 2005  
November 2006  
August 2007

4. Construction Completion

August 2010

G. Submit Approvable Drainage Basin Specific LTCP for Open Waters

January 2008

### III. Inner Harbor CSO

- |   |                |
|---|----------------|
| A. Facility Plan Development  |                |
| 1. Submit Modified Facility Plan Report                                       | Completed      |
| 2. Submit Additional Modified Facility Plan Report                            | February 2004  |
| B. Comprehensive Watershed Planning   |                |
| 1. Submit Approvable Gowanus Canal Waterbody / Watershed Facility Plan Report | June 2007      |
| C. Regulator Improvements - Fixed Orifices                                    |                |
| 1. Initiate Final Design  | March 2000     |
| 2. Final Design Completion Including CPM Analysis                             | September 2002 |
| 3. Notice to Proceed to Construction  | February 2003  |
| 4. Construction Completion  | April 2006     |
| D. Regulator Improvements - Automation  |                |
| 1. Initiate Final Design  | February 2005  |
| 2. Final Design Completion Including CPM Analysis                             | November 2006  |
| 3. Notice to Proceed to Construction  | November 2007  |
| 4. Construction Completion  | June 2010      |
| E. In-Line Storage <sup>3</sup>   |                |
| 1. Initiate Final Design  | July 2005      |
| 2. Final Design Completion Including CPM Analysis                             | November 2006  |
| 3. Notice to Proceed to Construction  | August 2007    |
| 4. Construction Completion  | August 2010    |
| F. Submit Approvable Drainage Basin Specific LTCP for Gowanus Canal           | January 2008   |

#### **IV. Paerdegat Basin CSO**

##### **A. Facility Plan Development**

- |  |               |
|--|---------------|
| 1. Submit Modified Facility Plan Report            | Completed     |
| 2. Submit Additional Modified Facility Plan Report | February 2004 |
| 3. Submit Form 2A SPDES Application                | July 2002     |

##### **B. Comprehensive Watershed Planning**

- |   |            |
|---|------------|
| 1. Submit Approvable Paerdegat Basin Waterbody / Watershed Facility Plan Report | March 2003 |
|---|------------|

##### **C. Influent Channel**

- |   |               |
|---|---------------|
| 1. Initiate Final Design                          | October 1994  |
| 2. Final Design Completion Including CPM Analysis | March 1997    |
| 3. Notice to Proceed to Construction              | February 1999 |
| 4. Construction Completion                        | February 2002 |

##### **D. Foundations and Substructures**

- |   |               |
|---|---------------|
| 1. Initiate Final Design                          | October 1994  |
| 2. Final Design Completion Including CPM Analysis | August 2001   |
| 3. Notice to Proceed to Construction              | June 2002     |
| 4. Construction Completion                        | December 2006 |

##### **E. Structures and Equipment**

- |   |                |
|---|----------------|
| 1. Initiate Final Design                          | October 1994   |
| 2. Final Design Completion Including CPM Analysis | November 2004  |
| 3. Notice to Proceed to Construction              | September 2005 |
| 4. Construction Completion                        | August 2011    |

- |   |               |
|---|---------------|
| F. Submit Approvable Drainage Basin Specific LTCP for Paerdegat Basin | November 2005 |
|---|---------------|

## V. Flushing Bay CSO

- |  |                |
|--|----------------|
| A. Facility Plan Development   |                |
| 1. Submit Modified Facility Plan Report  | Completed      |
| 2. Submit Additional Modified Facility Plan Report                             | February 2004  |
| 3. Submit Form 2A SPDES Application  | June 2003      |
| B. Comprehensive Watershed Planning  |                |
| 1. Submit Approvable Flushing Bay Waterbody / Watershed Facility Plan Report   | June 2007      |
| 2. Submit Approvable Flushing Creek Waterbody / Watershed Facility Plan Report | June 2007      |
| C. CS4-1 Reroute and Construct Effluent Channel                                |                |
| 1. Initiate Final Design   | October 1992   |
| 2. Final Design Completion Including CPM Analysis                              | September 1994 |
| 3. Notice to Proceed to Construction   | June 1995      |
| 4. Construction Completion   | June 1996      |
| D. CS4-2 Relocate Ballfields   |                |
| 1. Initiate Final Design   | October 1992   |
| 2. Final Design Completion Including CPM Analysis                              | September 1994 |
| 3. Notice to Proceed to Construction   | April 1995     |
| 4. Construction Completion   | August 1995    |
| E. CS4-3 Storage Tank  |                |
| 1. Initiate Final Design   | December 1993  |
| 2. Final Design Completion Including CPM Analysis                              | September 1996 |
| 3. Notice to Proceed to Construction   | July 1997      |
| 4. Construction Completion   | August 2001    |
| F. CS4-4 Mechanical Structures - Initiate Final Design                         |                |
| 1. Initiate Final Design   | December 1993  |

2. Final Design Completion Including CPM Analysis	February 2000
3. Notice to Proceed to Construction	March 2002
4. Construction Completion	December 2004
G. CS4-5 Tide Gates	
1. Initiate Final Design	August 1998
2. Final Design Completion Including CPM Analysis	November 1999
3. Notice to Proceed to Construction	December 2000
4. Construction Completion	April 2002
H. CD-8 Manual Sluice Gates	
1. Final Design Completion Including CPM Analysis	May 2003
2. Notice to Proceed to Construction	February 2004
3. Construction Completion	June 2005
I. Drainage Basin Specific LTCPs	
1. Submit Approvable Drainage Basin Specific LTCP for Flushing Bay	6 months after approval of V.B.1.
2. Submit Approvable Drainage Basin Specific LTCP for Flushing Creek	6 months after approval of V.B.2.

## **VI. Jamaica Tributaries CSO**

- A. Facility Plan Development
  - 1. Submit Modified Facility Plan Report April 2003
  - 2. Submit Additional Modified Facility Plan Report February 2004
  
- B. Comprehensive Watershed Planning
  - 1. Submit Approvable Bergen Basin Waterbody / Watershed Facility Plan Report June 2007
  - 2. Submit Approvable Thurston Basin Waterbody / Watershed Facility Plan Report June 2007
  
- C. Meadowmere & Warnerville DWO Abatement
  - 1. Initiate Final Design January 2004
  - 2. Final Design Completion Including CPM Analysis May 2005
  - 3. Notice to Proceed to Construction March 2006
  - 4. Construction Completion March 2009
  
- D. Expansion of Wet Weather Capacity of Jamaica WPCP
  - 1. Initiate final Design June 2007
  - 2. Submit Form 2A SPDES Application June 2010
  - 3. Final Design Completion Including CPM Analysis June 2011
  - 4. Notice to Proceed to Construction June 2012
  - 5. Construction Completion June 2015
  
- E. Destratification Facility
  - 1. Initiate Final Design January 2006
  - 2. Final Design Completion Including CPM Analysis October 2006
  - 3. Notice to Proceed to Construction August 2007
  - 4. Construction Completion December 2008
  
- F. Laurelton and Springfield Blvd.
  - 1. Submit Drainage Plan for Storm Sewer Buildout January 2008

G. Regulator Automation

1. Initiate Final Design
2. Final Design Completion Including CPM Analysis
3. Notice to Proceed to Construction
4. Construction Completion

February 2005  
November 2006  
November 2007  
June 2010

H. Drainage Basin Specific LTCPs.

1. Submit Approvable Drainage Basin Specific LTCP for Bergen Basin
2. Submit Approvable Drainage Basin Specific LTCP for Thurston Basin

August 2012  
August 2012

## VII. Coney Island Creek CSO

- A. Facility Plan Development
  - 1. Submit Modified Facility Plan Report April 2003
  
- B. Comprehensive Watershed Planning
  - 1. Submit Approvable Coney Island Creek Waterbody / Watershed Facility Plan Report June 2007
  
- C. Avenue V Pumping Station Upgrade
  - 1. Initiate Final Design April 1998
  - 2. Final Design Completion including CPM Analysis January 2005
  - 3. Notice to Proceed to Construction November 2005
  - 4. Construction Completion April 2011
  
- D. Avenue V Force Main
  - 1. Initiate Final Design April 1998
  - 2. Final Design Completion Including CPM Analysis September 2006
  - 3. Notice to Proceed to Construction July 2007
  - 4. Construction Completion June 2012
  
- E. Submit Approvable Drainage Basin Specific LTCP for Coney Island Creek September 2007

## VIII. Newtown Creek CSO

- |   |               |
|---|---------------|
| A. Facility Plan Development  |               |
| 1. Submit Modified Facility Plan Report                                       | October 2003  |
| B. Comprehensive Watershed Planning   |               |
| 1. Submit Approvable Newtown Creek Waterbody / Watershed Facility Plan Report | June 2007     |
| C. Aeration Zone I  |               |
| 1. Initiate Final Design  | March 2001    |
| 2. Final Design Completion Including CPM Analysis                             | December 2004 |
| 3. Notice to Proceed to Construction  | December 2005 |
| 4. Construction Completion  | December 2008 |
| D. Aeration Zone II   |               |
| 1. Initiate Final Design  | June 2007     |
| 2. Final Design Completion Including CPM Analysis                             | June 2010     |
| 3. Notice to Proceed to Construction  | June 2011     |
| 4. Construction Completion  | June 2014     |
| E. Relief Sewer / Regulator Modification                                      |               |
| 1. Initiate Final Design  | June 2007     |
| 2. Final Design Completion Including CPM Analysis                             | June 2009     |
| 3. Notice to Proceed to Construction  | June 2010     |
| 4. Construction Completion  | June 2014     |
| F. Throttling Facility  |               |
| 1. Initiate Final Design  | December 2005 |
| 2. Final Design Completion Including CPM Analysis                             | June 2008     |
| 3. Notice to Proceed to Construction  | June 2009     |
| 4. Construction Completion  | December 2012 |

G. CSO Storage Facility

- |   |               |
|---|---------------|
| 1. Initiate Final Design                          | November 2010 |
| 2. Submit Form 2A SPDES Application               | November 2013 |
| 3. Final Design Completion Including CPM Analysis | November 2014 |
| 4. Notice to Proceed to Construction              | December 2015 |
| 5. Construction Completion                        | December 2022 |

H. Submit Approvable Drainage Basin Specific LTCP for Newtown Creek

February 2016

## **IX. Westchester Creek CSO**

### **A. Facility Plan Development**

1. Submit Modified Facility Plan Report April 2003
2. Submit Form 2A SPDES Application June 2009

### **B. Comprehensive Watershed Planning**

1. Submit Approvable Westchester Creek Waterbody / Watershed Facility Plan Report June 2007

### **C. Phase I (Influent Sewers)**

1. Initiate Final Design January 2004
2. Final Design Completion Including CPM Analysis June 2010
3. Notice to Proceed to Construction June 2011
4. Construction Completion June 2015

### **D. CSO Storage Facility**

1. Notice to Proceed to Construction December 2015
2. Construction Completion December 2022

### **E. Submit Approvable Drainage Basin Specific LTCP for Westchester Creek**

February 2016

## **X. Bronx River CSO**

### **A. Facility Plan Development**

- |  |                |
|--|----------------|
| 1. Submit Modified Facility Plan Report            | September 2003 |
| 2. Submit Additional Modified Facility Plan Report | March 2004     |
| 3. Submit Form 2A SPDES Application                | July 2007      |

### **B. Comprehensive Watershed Planning**

- |   |           |
|---|-----------|
| 1. Submit Approvable Bronx River Waterbody / Watershed Facility Plan Report | June 2007 |
|---|-----------|

### **C. Floatables Control**

- |   |              |
|---|--------------|
| 1. Initiate Final Design                          | January 2006 |
| 2. Final Design Completion Including CPM Analysis | July 2008    |
| 3. Notice to Proceed to Construction              | June 2009    |
| 4. Construction Completion                        | June 2012    |

- |   |             |
|---|-------------|
| D. Submit Approvable Drainage Basin Specific LTCP for Bronx River | August 2009 |
|---|-------------|

## **XI. Hutchinson River CSO**

- A. Facility Plan Development
  - 1. Submit Modified Facility Plan Report July 2003
  - 2. Submit Form 2A SPDES Application June 2009
  
- B. Comprehensive Watershed Planning
  - 1. Submit Approvable Hutchinson River Draft Waterbody / Watershed Facility Plan Report June 2007
  
- C. Phase I of the Storage Facility
  - 1. Initiate Final Design April 2005
  - 2. Final Design Completion Including CPM Analysis June 2010
  - 3. Notice to Proceed to Construction June 2011
  - 4. Construction Completion June 2015
  
- D. Future Phases
  - 1. Notice to Proceed to Construction December 2016
  - 2. Construction Completion December 2023
  
- E. Submit Approvable Drainage Basin Specific LTCP for Hutchinson River February 2017

## **XII. Jamaica Bay CSO**

- A. Facility Plan Development
  - 1. Submit Modified Facility Plan Report December 2003
  
- B. Comprehensive Watershed Planning
  - 1. Submit Approvable Jamaica Bay Waterbody / Watershed Facility Plan Report June 2007
  - 2. Submit Approvable Creek Waterbody / Watershed Facility Plan Report June 2007
  - 3. Submit Approvable Fresh Creek Waterbody / Watershed Facility Plan Report June 2007
  - 4. Submit Approvable Hendrix Creek Waterbody / Watershed Facility Plan Report June 2007
  
- C. Spring Creek AWPCP Upgrade
  - 1. Initiate Final Design April 1998
  - 2. Final Design Completion Including CPM Analysis February 2002
  - 3. Submit Form 2A SPDES Application June 2003
  - 4. Notice to Proceed to Construction March 2003
  - 5. Construction Completion April 2007
  
- D. 26th Ward Drainage Area Sewer Cleaning and Evaluation
  - 1. Initiate Final Design January 2007
  - 2. Final Design Completion Including CPM Analysis June 2007
  - 3. Notice to Proceed to Construction June 2008
  - 4. Construction Completion June 2010
  
- E. Hendrix Creek Dredging
  - 1. Initiate Final Design January 2007
  - 2. Final Design Completion Including CPM Analysis June 2007
  - 3. Notice to Proceed to Construction June 2008
  - 4. Construction Completion June 2010

F. 26th Ward Wet Weather Expansion

- |   |               |
|---|---------------|
| 1. Initiate Final Design                          | June 2006     |
| 2. Final Design Completion Including CPM Analysis | June 2010     |
| 3. Submit Form 2A SPDES Application               | June 2009     |
| 4. Notice to Proceed to Construction              | June 2011     |
| 5. Construction Completion                        | December 2015 |

G. Drainage Basin Specific Long Term Control Plans

- |   |             |
|---|-------------|
| 1. Submit Approvable Drainage Basin Specific LTCP for Jamaica Bay   | August 2012 |
| 2. Submit Approvable Drainage Basin Specific LTCP for Spring Creek  | August 2012 |
| 3. Submit Approvable Drainage Basin Specific LTCP for Fresh Creek   | August 2012 |
| 4. Submit Approvable Drainage Basin Specific LTCP for Hendrix Creek | August 2012 |

**XIII. Citywide Comprehensive Floatables Plan**

**A. Facility Plan Development**

**1. Submit Modified Facility Plan Report**

December 2004

#### **XIV. Submit Approvable City-Wide LTCP**

December 2017

1. All milestone dates shall refer to the last day of the month indicated.
2. Construction of proposed in-line storage facility is contingent upon the success of the ongoing Hunts Point in-line Storage Prototype Facility as well as site specific sewer system hydraulic calculations to be reviewed and approved by NYCDEP's Bureau of Water and Sewer Operations.
3. Construction of proposed in-line storage facility is contingent upon the success of the ongoing Hunts Point in-line Storage Prototype Facility as well as site specific sewer system hydraulic calculations to be reviewed and approved by NYCDEP's Bureau of Water and Sewer Operations.