

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

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In the Matter of the Violations of Articles 17 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**
(Albany Pool
CSO LTCP)

-by-

City of Albany; SPDES Permit No. NY-002 5747
Albany Water Board
35 Erie Boulevard, Albany, NY 12204

City of Cohoes; SPDES Permit No. NY-003 1046
City Hall, 97 Mohawk Street, Cohoes, NY 12047

DEC Case #
CO 4-20120911-01

City of Rensselaer; SPDES Permit No. NY-002 6026
62 Washington Street, Rensselaer, NY 12144

DM# 447767

City of Troy; SPDES Permit No. NY-009 9309
Department of Public Utilities
25 Water Plant Road, Troy, NY 12180

City of Watervliet; SPDES Permit No. NY-003 0899
2 Fifteenth Street, Watervliet, NY 12189

Village of Green Island; SPDES Permit No. NY-003 3031
20 Clinton Street, Green Island, NY 12183

Albany County Sewer Districts (North and South)
SPDES Permit Nos. NY-002 6875 (Menands) and
NY-002 6867 (Albany)
P.O. Box 4187, Albany, NY 12204

Rensselaer County Sewer District; SPDES Permit No. NY-008 7971
Water Street, Troy, NY 12180,

Respondents.
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WHEREAS:

Jurisdiction

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 §§ 318, 402 and 405 of the federal Clean Water Act ("CWA"), 33 U.S.C. §1251, *et seq.*, to regulate the discharge of pollutants from point sources into the waters of the State in conformity with the CWA.

Law, Regulation and Guidance Applicable to CSO Long Term Control Plans

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 wet weather discharges from a Combined Sewer System ("CSS") of untreated domestic sewage, and industrial wastewaters, combined with stormwater and/or snow melt, at a point prior to reaching the Waste Water Treatment Plant ("WWTP"). CSOs are point sources subject to SPDES permit requirements including both technology-based and water quality-based requirements of the CWA, ECL Article 17, and 6 NYCRR Parts 703 and 750. CSO discharges may cause or contribute to violations of State WQS.

5. On April 19, 1994, EPA officially noticed the *Combined Sewer Overflow (CSO) Control Policy*, 59 Fed. Reg. 18688 ("*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 national and state permittees and permitting authorities on the implementation of the CWA with regard to CSOs, including its "nine minimum controls" and the development and implementation of Long Term Control Plans ("LTCPs"), which include measures to comply with the CWA including attainment of WQS.

6. To help permittees and SPDES permitting and water quality authorities implement the provisions of the *CSO Control Policy*, EPA issued several guidance documents including, without limitation, *Combined Sewer Overflows—Guidance for Long-Term Control Plan* (EPA, 1995a); *Combined Sewer Overflows—Guidance for Screening and Ranking* (EPA, 1995c), *Combined Sewer Overflows—Guidance for Monitoring and Modeling* (EPA, 1995d), *Combined Sewer Overflows—Guidance for Financial Capability Assessment* (EPA, 1995e), *Combined Sewer Overflows—Guidance for Permit Writers* (EPA 1995g), *Combined Sewer Overflows—Guidance for monitoring and Modeling* (USEPA 832-B-99-002 (January 1999)) and the more recent *CSO Post Construction Compliance Monitoring Guidance* (USEPA 833-K-11-001 (May 2012)).

7. On December 15, 2000, amendments to §402 the CWA (known as the Wet Weather Water Quality Act of 2000) were enacted. These amendments require that all permits or orders for CSO discharges, issued pursuant to the CWA after December 15, 2000, conform to the *CSO Control Policy*. Pursuant to 33 U.S.C. §1342(q)(1) [CWA §402(q)(1)], “[e]ach permit, order, or decree issued pursuant to this chapter after December 21, 2000, for a discharge from a municipal combined storm and sanitary sewer shall conform to the *Combined Sewer Overflow Control Policy* signed by the Administrator on April 11, 1994 (in this subsection referred to as the ‘CSO control policy’).”

8. ECL § 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 § 402(q)(1) of the federal CWA. Section 402(q)(1) of the CWA and ECL § 17-0807(4) provide that SPDES permits or orders for CSOs require an LTCP to address CSOs.

The Albany Pool SPDES Permits and Draft LTCP

9. Six municipalities in the greater Albany area of New York State refer to themselves as the Albany Pool Communities and consist of the Cities of Albany, Cohoes, Rensselaer, Troy and Watervliet, and the Village of Green Island. The Albany Pool Communities are referred collectively herein as the “Albany Pool” or “Communities” or “Albany Pool Respondents.”

10. The Communities, taken together, own, operate, and are responsible for over 90 CSO outfalls to the Hudson River and for collection and conveyance sewage infrastructure associated with CSO outfalls.

11. Each of the six Albany Pool Respondents has a SPDES permit with CSO outfalls and other CSS appurtenances specified in it. Each of these SPDES permits was issued by DEC, has been administratively renewed and modified by DEC, and is identified by its permit number in the caption of this Order on Consent and in Paragraph 12, below. Each SPDES permit authorizes the discharge of CSOs through the listed CSO outfalls to the Hudson River and its tributaries, but only from a “properly operating CSS.” Further, each SPDES permit includes conditions requiring the planning and implementation of strategies designed to control CSOs, including the development and implementation of an LTCP.

12. The number of CSOs listed in the SPDES permits of the Albany Pool Communities are as follows: eleven (11) CSOs in the City of Albany SPDES Permit No. NY-002 5747; seventeen (17) CSOs in the City of Cohoes SPDES Permit No. NY-003 1046; eight (8) CSOs in the City of Rensselaer SPDES Permit No. NY-002 6026; forty-eight (48) CSOs in the City of Troy SPDES Permit No. NY-009 9309; five (5) CSOs in the City of Watervliet SPDES Permit No. NY-002 0899; and three (3) CSOs in the Village of Green Island SPDES Permit No. NY-003 3031. The number of CSO outfalls, as currently listed in the respective SPDES permits, may be updated through the revision of the LTCP and permit modification process.

13. The LTCP provision in the SPDES permit of each of the Communities requires, without limitation, the development of an LTCP according to the above-referenced *CSO Control Policy* and relevant guidance, as follows:

"The development of a Long Term Control Plan (LTCP) for the abatement of combined sewer overflow (CSO) discharges shall be in accordance with the Phase I Long Term CSO Control Plan requirements specified in the United States Environmental Protection Agency's (USEPA) CSO Policy (Federal Register Vol. 59, No.75, 4/19/1994). This abatement plan shall contain the LTCP elements specified in Section II. C of the National CSO Policy, and further detailed in the USEPA Guidance Document, Combined Sewer Overflows, Guidance for Long-Term Control Plan, dated September 1995 (EPA 832-B-95-002) and as further summarized below."

14. The Albany Pool Respondents submitted a draft LTCP to the Department on June 30, 2011.

15. The Albany Pool Respondents met with the Department on numerous occasions during the development of the draft LTCP required by their SPDES permits; conducted detailed presentations to the Department of plans, modeling results and related information; and received written approvals by the Department of certain project elements required by the SPDES permits.

16. The Department disapproved the draft LTCP by letter dated December 5, 2012 based primarily on the absence of various elements required by the *CSO Control Policy* and its implementing guidance documents. The letter is attached hereto as **Appendix A** and is incorporated into and made a part hereof.

Albany Pool Violations

17. The Department determined the Albany Pool Respondents are each, respectively, in violation of § 402(q)(1) of the CWA, ECL § 17-0807(4), and the LTCP provision in their respective SPDES permits based on the failure to submit an LTCP that conformed to the *CSO Control Policy* and was "approvable" by the Department under 6 NYCRR § 750-1.2(a)(8). In so doing, the Albany Pool Respondents did not and have yet to meet the deadline in their SPDES

permits, as amended, for the submission of a draft LTCP that conforms to the *CSO Control Policy* and is "approvable." As is more fully set forth in the Department's December disapproval letter in Appendix A, the Department determined the draft LTCP was missing material elements of an LTCP, including the evaluation of a slate of CSO control alternatives, as distinct from non-CSO controls, along with the data and rationale supporting the recommendation of one CSO control alternative over the other alternatives.

18. The violation of a SPDES permit condition issued under ECL Article 17 constitutes a violation of ECL §§17-0701, 17-0803, 17-0807, 17-0815 and 6 NYCRR §750-1.4.

19. The Department determined the CSO discharges from the Albany Pool Respondents' CSOs have caused or contributed to the violation of WQS for floatable solids in the Hudson River in violation of ECL § 17-0501. ECL § 17-0501 makes it unlawful for any person to discharge pollutants to the waters of the State that cause or contribute to a violation of WQS. The Department determined the Albany Pool Respondents are in violation of ECL § 17-0501 for having caused or contributed to WQS violations.

20. Pursuant to ECL § 71-1929, a person who 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 permit or order issued there under, 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.

Albany Pool's Consent to Administrative Order

21. In order to address the violations noted above, the Albany Pool Respondents agree to enter into this Order on Consent, including the compliance schedule in **Appendix B** hereto, which together contain milestones and schedules governing their revision and implementation of the Albany Pool LTCP for CSO discharges.

22. Compliance with this Order on Consent requires the Albany Pool Respondents to, without limitation: (a) pay a civil penalty; (b) submit, prior to the effective date of this Order, a revised LTCP that is consistent with the *CSO Control Policy*, is fully responsive to DEC's December 5, 2012 comments as set forth in Appendix A hereto, and warrants final approval under the CWA; and (c) implement, construct, operate, maintain and monitor the facilities and projects that are called for in the LTCP, once approved, and this Order on Consent, including the attached Compliance Schedule (Appendix B hereto), in compliance with the terms thereof and the respective SPDES permits of the Respondents.

23. In settlement of the above-stated violations, each of the Albany Pool Respondents, having been duly advised, waives the right to a hearing concerning the violations set forth herein and the entry of this Order on Consent and, instead, consents to the making and execution of this Order on Consent and, upon full execution, agrees to be bound by the terms, provisions and conditions contained herein.

**The Waste Water Treatment Plant ("WWTP") Respondents,
Their SPDES Permits, and the Draft LTCP**

24. Respondent, Rensselaer County Sewer District ("RCSD"), is a "person" as defined in ECL § 17-0105.1 and in 6 NYCRR Subpart 750-1.2(64), and has offices located at the foot of Water Street, Troy, NY 12180.

25. Respondent RCSD owns and/or has responsibility for the Rensselaer County Sewer District No. 1 Waste Water Treatment Plant ("WWTP"), a POTW located on Water Street in Troy.

26. Respondent RCSD accepts combined sanitary wastewater and stormwater from two of the Albany Pool communities: The Cities of Rensselaer and Troy.

27. Respondent RCSD is responsible for the operation and maintenance of the WWTP, including its appurtenant disposal facilities located in the Cities of Rensselaer and Troy such as, without limitation, its interceptor line, pump stations, regulators, diversion dams and tide gates.

28. Respondent RCSD's SPDES permit is identified in the Department's records as SPDES Permit No. NY-0087971; DEC No. 4-3832-00011/00001.

29. Respondent RCSD is authorized to discharge treated sewage from the WWTP to the Hudson River from a single outfall by and in accordance with the terms of its SPDES permit.

30. The Director of RCSD is the responsible official designated by the SPDES permit for submitting required reports to the Department.

31. Respondent, Albany County Sewer District ("ACSD"), is a "person" as defined in ECL § 17-0105.1 and in 6 NYCRR Subpart 750-1.2(64), and has offices located at 1 Canal Road South, Menands, NY 12204 and at Church Street, Port of Albany, Albany, NY 12202.

32. Respondent ACSD owns and/or has responsibility for two Waste Water Treatment Plants ("WWTPs"), designated as the North Plant and South Plant, and located at the Menands and Albany addresses, respectively, set forth in Paragraph 31.

33. Respondent ACSD accepts combined sanitary wastewater and stormwater from four of the Albany Pool communities: The Cities of Albany, Cohoes, and Watervliet, and the Village of Green Island.

34. Respondent ACSD is responsible for the operation and maintenance of the North and South WWTPs, including the disposal facilities appurtenant to the North WWTP and located in the Cities of Albany, Cohoes, and Watervliet, and in the Village of Green Island, and further including the disposal facilities appurtenant to the South WWTP and located in the City of Albany.

35. Respondent ACSD's SPDES permits are identified in the Department's records as SPDES Permit No. NY-0026875, DEC No. 4-0126-00138/00001 for the North WWTP; and SPDES Permit No. NY-0026867, DEC No. 4-0101-0020-00001 for the South WWTP.

36. Respondent ACSD is authorized to discharge treated sewage from the North and South WWTPs to the Hudson River from a single outfall at each WWTP by and in accordance with the terms of the above-referenced two SPDES permits.

37. The Director of ACSD is the responsible official designated by the SPDES permit for submitting required reports to the Department.

38. ACSD and RCSD are not part of the Albany Pool and do not own or operate the CSOs. Instead, the ACSD and RCSD Respondents are responsible to properly intercept and divert most of the sewage, including combined sewage, generated within the Albany Pool Communities to the three WWTPs for treatment in accordance with applicable law and their respective SPDES permits of the ACSD and RCSD Respondents. The two county sewer districts, ACSD and RCSD, are referred to collectively herein as the "WWTP Respondents."

39. The SPDES permits of each of the respective WWTP Respondents, as captioned above in this Order on Consent, require them to "*participate in the development of the [Albany Pool] LTCP as delineated in this permit.*" The WWTP Respondents are, at a minimum, required to provide information requested by the Albany Pool and "*participate in the evaluation of all alternatives assessed by the Albany Pool, whether related to the District owned systems or not.*"

40. The Albany Pool Respondents and the WWTP Respondents worked together to produce the June 30, 2011 LTCP.

41. This Consent Order includes the WWTP Respondents with respect to the revision of the LTCP, as specified herein, and the construction of any projects expressly required of them under the LTCP, once approved, and such other functions as are expressly required of them there under.

WWTP Respondents' Consent to Administrative Order

42. The WWTP Respondents agree to enter into this Order on Consent, including the compliance schedule in Appendix B hereto, which together contain milestones and schedules governing the revision and implementation of the Albany Pool LTCP for CSO discharges.

43. Compliance with this Order on Consent and the SPDES Permits requires the WWTP Respondents to: (a) fully cooperate with the Albany Pool Respondents' work to submit, prior to the effective date of this Order, a revised LTCP that is consistent with the *CSO Control Policy*, is fully responsive to DEC's December 5, 2012 comments as set forth in Appendix A hereto, and warrants final approval under the CWA; and (b) implement or construct any projects and complete such other functions as are expressly required of them under the LTCP, once

approved, and this Order on Consent, including the attached Compliance Schedule (Appendix B) hereto.

44. The WWTP Respondents, having been duly advised, waive the right to a hearing concerning the entry of this Order on Consent and, instead, each consents to the making and execution of this Order on Consent and agrees upon its full execution to be bound by the terms, provisions and conditions contained herein.

THEREFORE, having considered this matter, and the Respondents having been duly advised, **IT IS HEREBY ORDERED:**

I. EFFECT ON PREVIOUS ORDERS

The requirements set forth in this Order on Consent are additional to, and do not affect any requirements set forth in, any Orders on Consent executed between the Department and any of the Respondents listed herein prior to the effective date of this Order on Consent.

II. CIVIL PENALTY

A. With respect to the violations set forth above, the Albany Pool Respondents are, collectively, hereby assessed a civil penalty in the amount of \$99,900 which shall be payable to the Department within thirty (30) days.

B. The Albany Pool Respondents shall pay the civil penalty amount, as identified in Subparagraph II.A in this Order on Consent, by one or more check(s) made payable to the "Department of Environmental Conservation," which shall be forwarded to the Department of Environmental Conservation, Office of General Counsel, 625 Broadway, 14th Floor, Albany, NY 12233-5500, attention: Elissa Armater. The DEC case number appearing on the first page of this Order on Consent shall be endorsed on the face of the check(s).

III. COMPLIANCE SCHEDULE

A. Each of the Respondents shall comply with the requirements and reporting deadlines set forth in this Order on Consent and, according to the designation of responsible parties in the Compliance Schedule in Appendix B, once approved, the construction project milestones contained in such Appendix. The Compliance Schedule shall set forth the deadlines and milestones with which designated Respondents must comply in implementing the LTCP. The Compliance Schedule shall consist of, and the designated Respondents shall comply with, the final compliance schedule contained in an approved LTCP which compliance schedule shall include design, construction, post-construction monitoring, and operation deadlines and milestones and shall be appended hereto and incorporated herein as the Compliance Schedule in Appendix B to this Order on Consent. The Compliance Schedule may be developed with the expectation that the Department's review of Completed Plans and Specifications would occur within sixty (60) days.

I. Respondents may revise the designations of responsible parties in the Compliance Schedule in Appendix B at their discretion and without modification of this Order on Consent on the condition that (1) the revised designation identifies one of Respondents; (2) every project listed in Appendix B shall have one or more designated responsible parties at all times during the term of this Order on Consent; (3) no revised designation shall become effective until notice of the same is provided to the Department under Article XIII (Communications) of this Order on Consent along with a certification by the Respondents to this Order on Consent that the revised designation has the consent of all Respondents to this Order on Consent and is in compliance with the applicable inter-municipal agreement(s) in effect between the parties concerning this LTCP; (4) such revised designation is accepted by the Department, which written acceptance shall not be unreasonably withheld, and a written denial, if any, will indicate the rationale therefore; (5) no such revised designation purports to change or has the effect of changing any deadline or milestone in the LTCP Compliance Schedule, once approved, or Appendix B hereto; and (6) within ten days of the Department's written acceptance of the revised designation of responsible parties, a revised LTCP Compliance Schedule and Appendix B to this Order on Consent shall be prepared to conform to the revised designation of responsible parties and submitted to the Department under Article XIII of this Order on Consent. A revised designation of responsible parties that does not satisfy the six elements herein set forth shall be a violation of this Order on Consent.

B. The Compliance Schedule in Appendix B is attached to and hereby incorporated into and made an enforceable part of this Order on Consent with respect to all Respondents. To comply with the appropriate deadline or milestone for a report or written submission, all documents must be submitted by the milestone dates set forth in Appendix B, in final form, and, unless otherwise agreed to in writing by the Department, which agreement shall not be unreasonably withheld, under the signature and seal of a professional engineer currently licensed to practice in New York State. Any violation of the terms, deadlines or milestones contained in Appendix B shall be a violation of the terms of this Order.

C. A schedule or deadline for submission of a report or submission under this Paragraph may be extended for good cause shown by written agreement of the Department and all Respondents. In order to request an extension of a deadline for a report or submission, Respondents shall submit a written request for extension to the Department in accordance with Paragraph XI herein at least 60 days prior to the date on which the report or submission is due. A request for an extension of a deadline for a written submission shall not alter any other milestones and deadlines in the Compliance Schedule in Appendix B unless specifically addressed in the request.

D. Compliance with the terms and requirements of this Order on Consent, including the schedules, timetables and requirements set forth in Appendix B and the LTCP, once approved, is required irrespective of the availability of financial assistance from Federal, State or other sources.

IV. WRITTEN SUBMITTALS TO THE DEPARTMENT OF PLANS, REPORTS AND COMPLIANCE CERTIFICATIONS

A. In order to be deemed in compliance with the deadlines and milestones in this Order on Consent, including those in Appendix B, all submittals of written work plans, reports and other deliverables required under this Order on Consent shall be:

1. (i) materially complete, (ii) submitted by the deadline set forth, and (iii) under the signature and seal of a professional engineer currently licensed to practice in New York State unless otherwise specifically agreed to in writing, which agreement shall not be unreasonably withheld;

2. in accordance with (i) the specified project descriptions and schedules set forth herein, (ii) the CWA and its relevant and applicable regulations, (iii) the *CSO Control Policy* as adopted at 33 U.S.C. §1342(q)(1), (iv) the ECL and its relevant and applicable regulations in 6 NYCRR Parts 750 and 703, and (v) the Respondents' respective SPDES permits; and

3. if the deadline or milestone referenced in Subparagraph A herein above pertains to the initial submission of a deliverable, then such submission shall be "approvable" by the Department with only "minimal revision" in response to Department comments. Consistent with 6 NYCRR § 750-1.2(8), minimal revision shall mean the submittal can be suitably revised and resubmitted to the Department within 60 days of notification by the Department that the revisions are necessary. Stipulated penalties pursuant to Paragraph XII in this Order on Consent and based on the failure to submit an approvable submittal, shall not begin to accrue unless, 60 days after the date of the Department's comments on a submittal, Respondents have not submitted a revised document that warrants final approval by the Department under the terms of this Order on Consent and pursuant to the requirements of the CWA and its applicable regulations, the *CSO Control Policy* as adopted at 33 U.S.C. §1342(q)(1) and the ECL and its applicable regulations in 6 NYCRR Parts 750 and 703. It is expressly understood that stipulated penalties begin to accrue upon day 61 after the date of the Department's comments on a submittal if Respondents did not submit a revised submittal that warrants final approval by the Department and on or before the close of the 60th day as herein described. For the purposes of this subparagraph, the submittal date must be verifiable by (i) electronic mail that has been properly addressed and transmitted on or before the close of the 60th day as herein described, or (ii) postmarked U.S. Certified Mail, return receipt requested, on or before the 60th day.

B. The date of a Respondent's submission to the Department must be verifiable by (i) electronic mail that has been properly addressed and transmitted on or before the close of the applicable deadline or milestone, or (ii) postmarked U.S. Certified Mail, return receipt requested, on or before the deadline.

C. After review of any plan, report, or other item that is required to be submitted pursuant to this Order on Consent, the Department may in writing: i) approve the submission or ii) provide comments to be resolved, explained and/or addressed in a single revised submittal that

shall warrant final approval by the Department under the terms of this Order on Consent and pursuant to the requirements of the CWA and its applicable regulations, the *CSO Control Policy* as adopted at 33 U.S.C. §1342(q)(1) and the ECL and its applicable regulations in 6 NYCRR Parts 750 and 703.

1. If the submission is approved, it will thereby be incorporated into and made an enforceable part of this Order on Consent with respect to all Respondents unless otherwise specifically limited in writing. Respondents shall take all actions required by the operative terms of the plan, report, or other document, in accordance with the schedules and requirements therein, as approved. Any violation of the operative terms of the approved submission shall be a violation of the terms of this Order on Consent by the responsible Respondent or Respondents.

2. If the submission is the subject of a comment letter from the Department, Respondents shall respond to all comments and correct all deficiencies in the submission in accordance with the Department's comments and resubmit the plan, report, or other item for final approval, in accordance with this Paragraph. If the resubmission is approved, the approved submission shall be incorporated and made an enforceable part of this Order, and Respondents shall proceed, as set forth in the preceding subparagraph IV.C.1 herein.

3. If a re-submitted plan, report, or other item, or portion thereof, is disapproved in whole or in part, (i) the Respondents shall be in violation of this Order on Consent, (ii) the Department may again demand that Respondents correct any deficiencies in accordance with this subparagraph, and (iii) the disapproved resubmission shall be subject to the accrual of and the Department's right to seek stipulated penalties as provided in Paragraph XIII herein.

D. Upon approval by the Department, Respondents shall implement and take all actions required by the studies, plans, engineering designs, facility construction and LTCP, as submitted pursuant to paragraphs IV.A-C above, in accordance with the schedules and terms of Appendix B and approved plans.

E. Up to 14 days following each date or milestone in Appendix B, Respondents shall submit to the Department a written Certification of Compliance or Non-compliance with the requirement.

F. In the Semi-annual Status Reports required in Paragraph VIII of this Order, Respondents shall include a copy of each written "Certification of Compliance" and "Certification of Non-compliance" regarding the every date or milestone set forth or incorporated into Appendix B during the reporting period. This includes the submission of a Certification of Compliance and Certification of Non-compliance for each Design Completion, Notice to Proceed to Construction, and Construction Completion, respectively. Such Certifications shall also be sent to the parties identified in Paragraph XII below.

G. To comply with the construction milestones in the Compliance Schedule in

Appendix B, all milestones for "Design Completion," the "Notice to Proceed to Construction," and the "Construction Completion," shall be met. 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 for review.

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, and subject to any schedule enforceable under this Order on Consent, Respondents shall make best efforts to place in operation all treatment units and associated automatic controls as soon as they are operable in order to maximize CSO capture and treatment consistent with compliance with the terms and conditions of the SPDES permits as soon as possible, up until the time the Respondents comply with their respective SPDES permit requirements.

H. Respondents shall submit a completed SPDES permit application for any SPDES permit modification that may be necessary with the design submissions. Respondents shall not issue a Notice to Proceed to Construction on any CSO abatement or other project under this Order until after the necessary modification of the SPDES permit(s) for that specific project has been issued by the Department.

I. Within 30 days of the effective date of this Order on Consent, the Respondents shall designate an entity which reports to the respective Respondents and will be responsible to the Respondents for coordinating the smooth and efficient implementation of the LTCP and assisting the Respondents in meeting their obligations to comply with the terms of this Order on Consent. The Respondents may at their sole discretion designate a different entity at any time during the term of the Order on Consent. The Respondents shall likewise notify the Department of such designation within such 30-day period or within 5 business days of any subsequent change of such designation.

The designated entity shall retain a Program Coordinator who shall have, at a minimum, the following functions:

A. Coordinate the Respondents' activities and those of its consultants in order to expedite compliance with the terms of this Order on Consent, and coordinate meeting schedules such that appropriate representatives of the Respondents are able to attend the semi-

annual status meetings set forth in Paragraph VIII herein;

- B. Assist as appropriate in the procurement of additional consultants for the Respondents;
- C. Attend all semi-annual status meetings;
- D. Submit or file all necessary reports in a timely manner;
- E. Track implementation of the LTCP with the purpose of detecting problems that might delay the Respondents' implementation of this Order on Consent, coordinate responses to such problems among the Respondents, and facilitate communication with the Department in connection with the same; and
- F. Submit to the Department the written certifications of compliance required by this Order on Consent
- G. The Program Coordinator shall be the Respondents' point of contact for the Department for technical matters arising under this Order on Consent.

V. DEVELOPMENT OF REVISED LTCP

A. Prior to the effective date of this Order on Consent, Respondents shall submit a revised LTCP that is fully responsive to the Department's written comments and in conformance with the terms of this Order on Consent, the Respondents' respective SPDES permits, the CWA and its applicable regulations, the *CSO Control Policy*, as adopted at 33 U.S.C. §1342(q)(1), and the ECL and its applicable regulations in 6 NYCRR Parts 750 and 703.

B. The revised LTCP shall properly evaluate CSO control alternatives, and provide for the construction and implementation of all Sewer System and WWTP improvements and other measures necessary to ensure the control of CSO discharges in compliance with the CWA and its applicable regulations, the *CSO Control Policy*, as adopted at 33 U.S.C. §1342(q)(1), and the ECL and its applicable regulations in 6 NYCRR Parts 750 and 703.

C. LTCP Schedule. The schedule included in the revised LTCP shall (i) prioritize projects in such a manner that the most significant human health and environmental needs are addressed first; (ii) set forth a deadline of no more than fifteen months following the effective date of this Order on Consent for the execution of a single inter-municipal agreement ("IMA") among the Albany Pool Respondents to this Order on Consent, and an additional IMA or IMAs between the Albany Pool Respondents and the WWTP Respondents on this Order on Consent; (iii) clearly set forth the specific tasks to be undertaken by each Respondent to this Order on Consent, indicate whether each such task is to be undertaken individually or jointly, and if jointly, specify each such Respondent that is jointly responsible for the task; and (iv) ensure the design, construction, and implementation of all control/treatment measures selected by Respondents are carried out as expeditiously as practicable, following any applicable

environmental impact assessment review pursuant to the New York State Environmental Quality Review Act ("SEQR review"), but, subject to the terms of this Order on Consent, not later than December 31, 2028.

D. Inter-municipal Agreement. There shall be a single fully-executed IMA among the Albany Pool Respondents to this Order on Consent, and an additional fully-executed IMA or IMAs between the Albany Pool Respondents and the WWTP Respondents. The IMAs shall be executed within the time frame required in Sub-paragraph V.C. The IMAs shall be enforceable as between the Respondents, meaning each IMA shall lay out the actions to restore compliance in the event of a breach of the respective IMA as well as immediate consequences that provide a deterrent effect in the event of a breach of the IMA by any one or more of the Respondent parties. The IMAs shall be submitted to the Department for review and acceptance six months in advance of the fifteen-month deadline under Sub-paragraph V.C unless a shorter time frame is specifically agreed to in writing with the Department. Each of the IMAs must be acceptable to the Department as satisfying the terms and purposes set forth in this subparagraph. Each IMA with a WWTP Respondent must further be acceptable to the Department under 6 NYCRR § 750-2.9(a)(4). The IMAs shall include all provisions necessary to allow the Albany Pool permittees to cooperatively control the CSO discharges from this inter-municipal CSS in accordance with law, including the implementation of an approved LTCP. The IMAs must address each Respondent's responsibility as required by their respective SPDES permits and this Order on Consent, and shall specify and designate, at a minimum, the ownership, operation, maintenance, funding, cost-sharing, indemnity, access and enforcement provisions necessary to finance and carry out the terms of the IMAs, an approved LTCP, and the requirements of this Order on Consent. The submission of the draft IMAs to the Department must include a schedule for the enactment of any ordinances necessary in order for the agreement to be carried out. The schedule will become an enforceable part of this Order following Department review and acceptance. In addition to the required IMAs, if the Respondents form a charitable organization under the section 501(c)(3) of the Internal Revenue Code, the formative documents that are relevant to carrying out the terms, conditions and requirements of this subparagraph shall also be submitted to the Department six months in advance of the fifteen-month deadline under Sub-paragraph V.C unless a shorter time frame is specifically agreed to in writing with the Department. IMAs and 501(c)(3) and other documents submitted pursuant to this Paragraph D shall not be subject to the terms of Article IV of this Order on Consent.

E. Green Infrastructure. The Department encourages Respondents to utilize Green Infrastructure Projects as appropriate to reduce or replace Gray Infrastructure Projects included in the draft LTCP, provided that any Green Infrastructure Project proposed is anticipated to provide substantially the same or greater level of control as the alternative Gray Infrastructure Project. Should Respondents rely on other entities to implement Green Infrastructure Projects, Respondents must have in place agreements as appropriate, to ensure proper operation and maintenance of the Green Infrastructure Project. The revised LTCP may also include Green Infrastructure Demonstration Projects. Such demonstration projects shall not be subject to the terms and conditions of this Section V(E).

1. For any Green Infrastructure Project submitted as part of the revised

LTCP, Respondents shall include a Green Infrastructure Project Proposal outlining each proposed project. This proposal shall be consistent with this Order on Consent and shall at a minimum include the following for each project:

(a) Data on location, sizing, design, and the performance criteria expected to be achieved with the implementation of the Green Infrastructure Project, where the performance criteria shall mean the standards of performance or performance levels that each control measure is designed to achieve for reductions in discharges or pollutants;

(b) A description of how the proposed project utilizes or relies on information and models that Respondents used in developing the LTCP, and any monitoring information used in formulating the proposal;

(c) A demonstration of the long term effectiveness and performance expected to be achieved with implementation of the project;

(d) A description of the work required to implement the Green Infrastructure Project and a schedule for completion of this work and implementation of the project that is consistent with this Order on Consent, its Appendices, and the date set forth herein in Paragraph V.C for completion of construction and full implementation of all remedial and control measures;

(e) A description of the proposed ownership of and access to the Green Infrastructure Project, and should Respondents rely on other entities to implement Green Infrastructure Project, Respondents must explain what agreements will be necessary to ensure proper operation and maintenance of the Green Infrastructure Project (i.e., permanent access, sufficient control over key aspects of the project), and how they will be enforced to ensure proper operation and maintenance of the Green Infrastructure Project; and

(f) A description of any post-construction monitoring and modeling to be performed that is necessary to determine whether the performance criteria set forth, as noted above, will be met upon completion and implementation of the Green Infrastructure Project.

2. Upon review of Respondents' Green Infrastructure Project proposal, the Department will comment, approve or disapprove the proposal. Each Green Infrastructure Project that is approved by the Department shall be incorporated into and made an enforceable part of this Order on Consent. Respondents shall implement each Green Infrastructure Project approved by the Department in accordance with the provisions and schedule in the approved Proposal.

3. In the event that Respondents implements an approved Green Infrastructure Project proposal that fails to meet the specified performance criteria set forth in the project proposal and LTCP, Respondents shall propose, within 180 days after submittal of the applicable post-construction monitoring report documenting said failure, an additional Green or Gray Infrastructure Project designed to achieve the performance criteria with a schedule for

completion of this work and implementation of the Project that is consistent with this Order on Consent, its Appendices, and the date set forth herein in Paragraph V.C for completion of construction and full implementation of all remedial and control measures. In the alternative, where Respondents have substantially met the performance criteria, Respondents may, within sixty (60) days after its knowledge of a Project's failure to meet the performance criteria, petition the Department for a change in the performance criteria. In the event that the Department disapproves of Respondents' request for a change in the performance criteria, Respondents shall, within 180 days after the Department's disapproval, propose additional control measures designed to achieve the performance criteria with a schedule for completion of this work and implementation of the Project that is consistent with this Order on Consent, its Appendices, and the date set forth herein in Paragraph V.C for completion of construction and full implementation of all remedial and control measures.

4. The Department encourages the Respondents to propose revisions to the approved LTCP to utilize green infrastructure as appropriate to reduce CSOs by modifying or replacing Gray Infrastructure Projects included in the final LTCP. If Respondents seeks to replace any Gray Infrastructure Projects provided in the LTCP, after its approval, Respondents shall submit to the Department a detailed Green Infrastructure Project proposal outlining each proposed project consistent with the requirements of Subparagraph V.E. Any proposal submitted under this subparagraph shall be subject to the provisions of Paragraph V.B, V.D and V.E.

F. The revised LTCP, once approved by the Department in writing, shall be thereby incorporated by reference and made an enforceable part of this Order on Consent. Upon issuance, an approval letter from the Department concerning the LTCP shall be attached hereto as **Appendix C** and incorporated into and made a part hereof. A Respondent's violation of the approved LTCP shall constitute a violation of this Order on Consent in addition to any related violation of the ECL, 6 NYCRR Part 750, and the respective SPDES permit(s). Such a violation may, under the circumstances, constitute a joint violation by two or more Respondents.

VI. IMPLEMENTATION OF AN APPROVED LTCP

Upon receipt of final written approval of the LTCP, the Albany Pool Respondents and the WWTP Respondents shall implement the LTCP subject to the terms and schedule in the approved LTCP, the terms of this Order on Consent, including Appendix B, their respective SPDES permits, and according to the requirements of the CWA and its regulations, *CSO Control Policy*, as adopted at 33 U.S.C. §1342(q)(1), the ECL and its applicable regulations in 6 NYCRR Parts 750 and 703.

VII. WET WEATHER OPERATING PLANS

The WWTP Respondents shall revise and resubmit their respective Wet Weather Operating Plans, required in the Best Management Practices of their respective SPDES permits, whenever any of the WWTPs or wet weather operations at any of the WWTPs is modified.

VIII. STATUS REPORT REQUIREMENTS

A. **Semi-Annual Status Reports.** Upon the Effective Date of this Order on Consent, until this Order on Consent terminates in accordance with Paragraph XX, Respondents shall submit written Semi-Annual Status Reports to the Department. These reports shall be submitted no later than March 1st of each year for the "reporting period" from July 1 through December 31 of the previous calendar year, and no later than September 15th of each year for the "reporting period" from January 1 through June 30 of the same year as the September 15th deadline. The Semi-Annual Status Reports may be provided either as paper documents or in electronic format, provided that the electronic format (i) is compatible with the Department software, (ii) is accompanied by a written certification on paper in accordance with Subparagraph XII.D, and (iii) and such written certification is sent via certified or overnight mail. In each written Semi-Annual Status Report, Respondents shall provide, at a minimum, the following:

1. A statement setting forth (i) the deadlines and other terms that Respondents have been required by this Order on Consent to meet since the date of the last statement; (ii) whether and to what extent Respondents have met those requirements; and (iii) the reasons for any noncompliance (notification to the Department of any anticipated delay shall not, by itself, excuse the delay);
2. A general description of the work completed within the prior reporting period, and, to the extent known, a statement as to whether the work completed in that period meets applicable design criteria;
3. A projection of work to be performed pursuant to this Order on Consent during the next six-month period;
4. A notification of any anticipated delays for the upcoming six month period of time; and
5. A summary of any activities conducted during the reporting period pursuant to the Public Participation Plan. If any public meeting were held, the report should include a copy of any advertisements placed for the meeting, any materials or handouts, formal meeting notes, and a summary of the meeting.

B. **Semi-Annual Status Meetings.** Representatives of the Respondents shall conduct semi-annual meetings with the Department to discuss Respondents' compliance status with the provisions of this Order on Consent. Respondents shall schedule these meetings to occur during the months of March or April to discuss the immediately-preceding reporting period, and September or October to discuss the immediately-preceding reporting period. The meeting can be conducted telephonically if agreed in writing (including electronic correspondence) by all parties in advance.

C. The frequency of the semi-annual status reports and meetings may be reduced upon written agreement (including electronic correspondence) from the Department.

D. Annual Post Construction Monitoring Report. Upon the Effective Date of this Order on Consent, until this Order on Consent terminates in accordance with Paragraph XX, Respondents shall submit annually with its September 1st Semi-Annual Report an Annual Post Construction Monitoring Report containing information generated in accordance with the Post-Construction Monitoring Program that is a required element for an approved LTCP. The Annual Post Construction Monitoring Report may be provided either as paper documents or in electronic format, provided that the electronic format (i) is compatible with the Department software, (ii) is accompanied by a written certification on paper in accordance with Paragraph XII.D, and (iii) and such written certification is sent via certified or overnight mail. The frequency of reports, and the reporting period, may be amended upon written agreement from the Department.

IX. NOTIFICATION OF NON-COMPLIANCE

In addition to the other reports required by this Order on Consent, if Respondents fail to comply with any requirement of this Order on Consent, Respondents shall notify the Department of such failure and the likely duration of the period of noncompliance in writing within ten (10) working days of the day Respondents first becomes aware of the noncompliance, with an explanation of the violation's likely cause and of the remedial steps taken, and/or to be taken, to prevent or minimize it. If the cause of the noncompliance cannot be fully explained at the time the report is due, Respondents shall include a statement to that effect in the report. Respondents shall immediately investigate to determine the cause of the noncompliance and then shall submit an amendment to the report, including a full explanation of the cause of the noncompliance, within thirty (30) days of the day Respondents becomes aware of the cause of the noncompliance.

X. COMPLIANCE WITH SPDES PERMITS

Every Respondent shall comply with the terms and conditions of its SPDES Permit. A Respondent's violation of a SPDES permit shall constitute a violation of this Order on Consent in addition to any related violation of the ECL and 6 NYCRR Part 750. Such a violation may, under the circumstances, be a joint violation by two or more Respondents. Approval of an LTCP shall constitute compliance with the SPDES terms and conditions requiring development of an approvable LTCP.

XI. PERMITS AND APPROVALS

Where any compliance obligation under this Order on Consent requires Respondents to obtain federal, state, or local permits or approvals, or triggers review under the State Environmental Quality Review Act (SEQRA), Respondents shall submit timely and complete applications, or timely perform the SEQRA review, and take all other actions necessary to obtain all such permits or approvals or to ensure compliance with SEQRA. Respondents may seek relief under the provisions of Paragraph XVI for any delay in the performance of any such obligation resulting from a failure to obtain, or a delay in obtaining, any permit or approval or the completion of a SEQRA review required to fulfill such obligation, if Respondents have submitted timely and complete applications and have taken all other actions required by

applicable law to obtain all such permits or approvals and to ensure compliance with SEQRA. The reporting requirements of this Order on Consent do not relieve Respondents of any reporting obligations required by the CWA or its implementing regulations, or by any other federal, state, or local law, regulation, permit, or requirement, including Respondents' SPDES Permits.

XII. COMMUNICATIONS

A. All correspondence, plans, reports, and any other written deliverables submitted to the Department under the terms and requirements of this Order on Consent shall be sent to the following contacts or their successors at the Department:

Original to:

Paul Kolakowski, P.E., Wastewater Permits Section
Division of Water NYSDEC, 625 Broadway, 4th Floor,
Albany, NY 12233-3506

With one copy to:

Joseph DiMura, P.E., Director, Bureau of Water Compliance Programs
Division of Water NYSDEC, 625 Broadway, 4th Floor
Albany, NY 12233-3505

Andrea Dzierwa, P.E., Regional Water Engineer
NYSDEC Region 4, 1130 North Wescott Road
Schenectady, NY 12306

Derek Thorsland, P.E., DEC Region 4
NYSDEC Region 4, 1130 North Wescott Road
Schenectady, NY 12306

and

Carol Conyers, Esq., Office of General Counsel
NYSDEC, 625 Broadway, 14th Floor
Albany, NY 12233-5500

Copies of all correspondence from the Department to Respondents required under this Order on Consent shall be provided to the following or their successors:

Original to: Mr. Rocco Ferraro, Executive Director
CDRPC, One Park Place, Albany, NY 12205
rocky@cdrpc.org

With one copy to: Project Coordinator, Albany Pool LTCP Project
CDRPC, One Park Place, Albany, NY 12205
c/o rocky@cdrpc.org.

Richard S. Davis, Esq., Principal
Beveridge & Diamond, P.C.
1350 I Street, NW Suite 700, Washington, DC 20005
RDavis@bdlaw.com

Mr. Anthony J. Ferrara, Albany Water Board
City of Albany, 15 Erie Boulevard, Albany, NY 12204
bellm@ci.albany.ny.us

Mr. Gary Nathan, P.E., City Engineer
City of Cohoes, City Hall, 97 Mohawk Street, Cohoes, NY 12047
gnathan@ci.cohoes.ny.us

Mike Brown, Engineering Aide
City of Rensselaer, 62 Washington Street, Rensselaer, NY 12214
Mike.Brown@rensselaerny.gov

Mr. Chris Wheland, Superintendent of Public Works
City of Troy, Department of Public Utilities, 25 Water Plant Road, Troy,
NY 12182
chris.wheland@troyny.gov

Mr. David Dressel, City Hall
City of Watervliet, Watervliet, NY 12182
ddressel@watervliet.com

Mr. Sean Ward
Village of Green Island, 20 Clinton Street, Green Island, NY 12183
seanw@villageofgreenisland.com

Mr. Richard Lyons, Executive Director
Albany County Sewer District, P.O. Box 4187, Albany, NY 12204
Richard.lyons@albanycounty.com

Mr. Gerard Moscinski, P.E., Administrative Director
Rensselaer County Sewer District, 1600 7th Avenue, Troy, NY 12180
GMoscinski@rensco.com

B. Any party may change its designee(s) under this paragraph upon written notice to the other parties.

C. Notices and submissions provided pursuant to this Paragraph shall be deemed effective upon receipt, unless otherwise provided in this Order on Consent or by mutual agreement of the Parties in writing.

D. Each notice, report or submission submitted by Respondents under this Order on

Consent shall be signed by an official of Respondents and include the following certification:

I certify under penalty of law that I have examined and am familiar with the information submitted in this document and all attachments and that this document and its attachments were prepared under my direction or supervision in a manner designed to ensure that qualified and knowledgeable personnel properly gather and present the information contained therein. I further certify, based on my inquiry of those individuals immediately responsible for obtaining the information, that I believe that the information is true, accurate and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fines and imprisonment.

XIII. STIPULATED PENALTIES

A. In the event that one or more Respondent(s) responsible for performance of an activity subject to a milestone set forth in Appendix B fail(s) to satisfy any milestone task or deadline for completion of any milestone task for which it or they are responsible as set forth in Appendix B to this Order on Consent, or violate(s) any term of this Order on Consent, the Department shall be entitled to judgment against that Respondent(s). Each Respondent, respectively, hereby consents to the entry of judgment against it in New York State Supreme Court, for a stipulated penalty encompassing each day of such violation of this Order. Said stipulated penalties shall be in the following amounts:

<u>PERIOD OF NON-COMPLIANCE</u>	<u>PENALTY PER DAY</u>
1st Day through 30th Day	\$ 500/day
31st Day through 60th Day	\$ 1,000/day
Each Day beyond the 60th Day	\$ 1,500/day

B. Any stipulated penalty judgment shall become due and payable, and may be entered, upon ten (10) calendar days notice to Respondent(s).

C. These stipulated penalties shall be in addition to the civil penalty already assessed by the Department as set forth in paragraph II, above.

D. All stipulated penalties shall begin to accrue on the day after the performance is due or on the day a violation occurs, whichever is applicable, and shall continue to accrue until performance is satisfactorily completed or until the violation ceases. Nothing herein shall prevent the simultaneous accrual of separate penalties for separate violations of this Order on Consent, except that when two or more violations are based upon the same noncompliance, the higher stipulated penalty shall apply.

E. **Payment of Stipulated Penalties to the Department.**

1. **Payment.** Stipulated penalties payable to the Department shall be paid by certified or cashier's check in the amount due, payable to the New York Department of Environmental Conservation@ delivered to the Office of General Counsel, 625 Broadway, 14th

Floor, Albany, NY 12233-5500, attention: Elissa Armater. The DEC case number appearing on the first page of this Order on Consent shall be endorsed on the face of the check.

2. Late Payment. Should Respondents fail to pay stipulated penalties and accrued interest payable to the Department in accordance with the terms of this Order on Consent, the Department shall be entitled to collect interest and late payment costs and fees, together with the costs (including attorneys fees) incurred in any action necessary to collect any such stipulated penalties, interest, or late payment costs or fees.

3. Respondents' payment of stipulated penalties under this Paragraph shall be in addition to any other rights or remedies available to the Department by reason of Respondents' failure to comply with any requirement of this Order on Consent or applicable law.

XIV. DEFAULT

The failure of one or more Respondents to comply fully and/or in a timely fashion with any provision of this Order on Consent shall constitute a default and a failure to perform an obligation under this Order and under the ECL by the Respondent(s), and shall constitute sufficient grounds for revocation pursuant to 6 NYCRR § 621.13 of any permit, license, certification or approval issued to the Respondent(s) by the Department unless said permit, license, certification or approval is completely unrelated to the facilities, requirements and obligations addressed in this Order on Consent.

XV. BINDING EFFECT

A. This Order shall be deemed to bind according to its terms each Respondent, its respective officers, directors, agents, employees, contractors, successors and assigns, and all persons, firms and corporations acting under or for each Respondent, respectively, including, without limitation, any subsequent operator of the facilities that are the subject of the respective, above-cited SPDES permits ("permitted facilities), who may carry on activities now conducted by any of the respective Respondents at the permitted facilities, and any successor in title to the respective permitted facilities or to any interest therein.

B. Each Respondent, respectively, shall provide a copy of this Order on Consent (including any submissions incorporated herein) to any contractor or subcontractor hired to perform work required under this Order on Consent, and shall require compliance with this Order on Consent as a term of any contract for performance of work under this Order on Consent. Respondents shall nonetheless be responsible for ensuring that all work performed under this Order on Consent is in compliance with the terms of this Order.

XVI. FORCE MAJEURE

A. A Respondent shall not be in default of the provisions of this Order on Consent if its non-compliance is directly attributable to an Act of God, war, insurrection, terrorism, strike, judicial injunction, catastrophic condition, or other circumstance that is entirely beyond its control and which Respondent's due diligence could not prevent (force majeure). If such a force majeure event occurs, Respondents shall be entitled to an extension of the Compliance 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.

B. As a condition precedent to obtaining a schedule extension under this provision, Respondents shall notify the Department in writing that a force majeure event has occurred, no later than fourteen (14) 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 the Respondents to avoid or mitigate the delay, and may request an extension or modification of the applicable deadline(s) under this Order equal to the period of delay directly attributable to the force majeure event. Failure to give such notice within such fourteen-day period constitutes a waiver of any claim that that a delay is not subject to penalties.

C. 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.

D. If the Department determines that no force majeure event occurred and a stipulated penalty is due, Respondents shall promptly pay the stipulated penalty pursuant to Paragraph XIII in this Order on Consent plus interest from the date of the missed milestone.

E. Regardless of any force majeure event asserted under this paragraph, nothing set forth herein relieves any Respondent of its respective obligations to provide 24-hour notices, file Non-compliance Reports and Certifications, and submit or issue any other notices and reports as required by law, its respective SPDES permit, or this Order on Consent.

F. Each Respondent shall have the burden of proving that its respective non-compliance with this Order, if any, is directly attributable to a force majeure event, and that its compliance with this Paragraph XVI constitutes a defense to compliance with this Order on Consent.

XVII. ACCESS

For the purpose of insuring compliance with this Order on Consent, each Respondent shall allow duly authorized Department representatives access to its respective facilities and any appurtenances involved herein, without prior notice, to enable Department representatives to inspect and determine the status of the Respondent's compliance with this Order on Consent.

XVIII. EFFECT OF SETTLEMENT

A. This Order on Consent is not a permit, or a modification of any permit, under any federal, State, or local laws or regulations. Respondents are responsible for achieving and maintaining complete compliance with all applicable federal, State, and local laws, regulations, and permits (including their respective SPDES Permits), and Respondents' compliance with this Order on Consent shall be no defense to any action commenced pursuant to any such laws, regulations, or permits, except as set forth herein. The Department does not, by its consent to the entry of this Order on Consent, warrant or aver in any manner that Respondents' compliance with any aspect of this Order on Consent will result in compliance with provisions of the CWA, or with any other provisions of federal, State, or local laws, regulations, or permits, including Respondents' respective SPDES Permits.

B. This Order on Consent does not limit or affect the rights of Respondents or of the United States or the State against any third parties, not party to this Order on Consent, nor does it limit the rights of third parties, not party to this Order on Consent, against Respondents, except as otherwise provided by law.

C. This Order on Consent shall not be construed to create rights in, or grant any cause of action to, any third party not party to this Order on Consent.

XIX. DISPUTE RESOLUTION

In the event of a dispute between the Department and one or more Respondents with respect to the performance under this Order on Consent, including, without limitation, a dispute arising under Subparagraphs IV.C.2 or IV.C.3 herein, the parties shall make reasonable efforts over the course of no more than 45 days to meet and confer in an effort to resolve such dispute. Such efforts to meet and confer are to be initiated by Respondent(s) in writing pursuant to Para XII (Communications). Review under New York Civil Practice Law and Rules Article 78 shall be available for all final agency actions under this Order on Consent. Should Respondents invoke Dispute Resolution under this Paragraph, stipulated penalties shall nonetheless continue to accrue and shall be payable either (i) not more than ten days after the informal resolution of the dispute in the Department's favor within the designated 45-day period or (ii) within ten days of the issuance of a civil order or judgment unless and to the extent that a civil order or judgment is issued in Respondents' favor.

XX. MODIFICATION

If a Respondent desires that any of the provisions, terms or conditions of this Order on Consent be changed, it shall make timely written application setting forth the grounds for the relief sought to Carol Conyers, Esq. or her successor in the Office of General Counsel, at the above address, and shall send a copy simultaneously to the other Respondents. Grounds for modification may include, without limitation, a review by the Department of Completed Plans and Specifications that extends beyond sixty (60) days. Any change to this Order on Consent must be in writing and signed by all of the Respondents and the Commissioner or the Commissioner's designee.

XXI. TERMINATION AND RESERVATION OF RIGHTS

A. This Order on Consent shall be deemed completely satisfied and shall terminate when each of the following conditions has been fully satisfied by all Respondents: (1) the Respondents have paid the civil penalty set forth in paragraph II above; (2) the Department has received from each Respondent written Compliance Certifications under Subparagraph IV.E of completion of the respective compliance actions required of each Respondent by Appendix B; (3) all stipulated penalties demanded, due and owing under this Order on Consent have been paid; and (4) the Department has provided each Respondent with a written verification of the Compliance Certifications received, which verification shall be timely provided by

Respondent(s) and not unreasonably denied by the Department.

B. Upon timely payment of civil penalty required under paragraph II, above, and the completion of the compliance items set forth in Appendix B, the Department shall release the Respondents from further liability for penalties under the ECL arising from the violations set forth herein. Approval of a revised LTCP hereunder shall constitute satisfaction of Respondents' obligations to develop an approvable LTCP.

C. However, nothing herein 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 on Consent; (2) seek stipulated penalties and entry of judgment as provided in paragraph XIII of this Order; (3) seek penalties and other relief for any violations not set forth in this Order on Consent, including its Appendices; (4) re-allege the violations listed in this Order on Consent to obtain injunctive relief or damages in support of natural resource damage claims; (5) seek to modify, suspend, or revoke any Department-issued permit; (6) seek any applicable criminal sanctions against any Respondent or any other party; or (7) seek issuance by the Commissioner or his duly authorized representative of a summary abatement order against any or all Respondents. In addition, 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.

XXII. SIGNATORIES TO ORDER

Each undersigned representative of Respondents certifies that he or she is fully authorized to enter into the terms and conditions of this Order on Consent and to execute and legally bind the Party he or she represents to this document. This Order on Consent may be signed in counterparts, and such counterpart signature pages shall be given full force and effect.

XXIII. INDEMNIFICATION

Each Respondent shall indemnify and hold harmless New York State, the Department, and any of its employees, contractors or representatives for any and all claims, actions, suits, damages, and costs of every name and description, arising out of or resulting from each respective Respondents' acts, or from actions taken by the Department in fulfillment or attempted fulfillment of the provisions of this Order on Consent to the extent that any such claims, actions, suits, damages, and costs are not caused by intentional or grossly negligent acts of New York State, the Department or any of their employees or contractors.

XXIV. ENTIRE ORDER

This Order on Consent and its Appendices, A and B, which are attached to and incorporated in this Order on Consent, constitute the final, complete, and exclusive agreement and understanding among the Parties with respect to the settlement embodied in the Order on Consent, and supersede all prior agreements and understandings, whether oral or written. Unless expressly incorporated herein, no other document, representation, inducement, agreement, understanding, or promise constitutes any part of this Order on Consent or the settlement it represents, nor shall it be used in construing the terms of this Order on Consent.

XXIV. EFFECTIVE DATE

The effective date of this Order is the date it is signed by the DEC Commissioner or the Commissioner's designee.

DATED: January 15, 2013

ALBANY, NEW YORK

New York State Department of
Environmental Conservation by:


JOSEPH J. MARTENS, Commissioner

EDMS# 447767

CONSENT BY RESPONDENT

Respondent hereby consents to the issuance and entry of the foregoing Order without further notice, waives its right to a hearing herein as provided by law, and agrees to be bound by the terms, conditions and provisions contained herein. The undersigned represents and affirms that they have the legal authority to bind Respondent to the terms and conditions of this Order.

CITY OF ALBANY

By:

Anthony J. Ferrara
(signature)

Name:

Anthony J. Ferrara
(print or type)

Title:

Chairman, Albany Water Board
(print or type)

Date:

12/30/13

ACKNOWLEDGMENT

STATE OF NEW YORK)

COUNTY OF Albany)

) ss:

On the 30th day of December, in the year 2013, before me, the undersigned, personally appeared Anthony J. Ferrara, personally known to me or proved to me on the basis of satisfactory evidence to be the individual whose name is subscribed to the within instrument and acknowledged to me that he/she/they executed the same in his/her capacity as shown in the instrument, and that by his/her signature on the instrument, the individual, or the person upon behalf of which the individual acted, executed the instrument.

Rose V. DeMarco
~~NOTARY PUBLIC~~

Rose V. DeMarco
Commissioner of Deeds
City of Albany
Term Expires Dec. 31 2014

Commissioner of Deeds

CONSENT BY RESPONDENT

Respondent hereby consents to the issuance and entry of the foregoing Order without further notice, waives its right to a hearing herein as provided by law, and agrees to be bound by the terms, conditions and provisions contained herein. The undersigned represents and affirms that they have the legal authority to bind Respondent to the terms and conditions of this Order.

CITY OF TROY

By: Louis A. Rosamilia
(signature)

Name: Louis A. Rosamilia
(print or type)

Title: MAYOR
(print or type)

Date: JAN 7, 2014

ACKNOWLEDGMENT

STATE OF NEW YORK)
) ss:
COUNTY OF Rensselaer)

On the 2nd day of January, in the year 2014, before me, the undersigned, personally appeared Louis A. Rosamilia, personally known to me or proved to me on the basis of satisfactory evidence to be the individual whose name is subscribed to the within instrument and acknowledged to me that he/she/they executed the same in his/her capacity as shown in the instrument, and that by his/her signature on the instrument, the individual, or the person upon behalf of which the individual acted, executed the instrument.


NOTARY PUBLIC

IAN H. SILVERMAN
Notary Public, State of New York
Qualified in Rensselaer County
No. 02SI6257313 Exp. 3/12/ 16

CONSENT BY RESPONDENT

Respondent hereby consents to the issuance and entry of the foregoing Order without further notice, waives its right to a hearing herein as provided by law, and agrees to be bound by the terms, conditions and provisions contained herein. The undersigned represents and affirms that they have the legal authority to bind Respondent to the terms and conditions of this Order.

CITY OF RENSSELAER

By: Daniel J. Dwyer
(signature)

Name: Daniel J. Dwyer
(print or type)

Title: Mayor
(print or type)

Date: 1/10/14

ACKNOWLEDGMENT

STATE OF NEW YORK)
) ss:
COUNTY OF Rensselaer)

On the 10th day of January, in the year 2014, before me, the undersigned, personally appeared Daniel J. Dwyer, personally known to me or proved to me on the basis of satisfactory evidence to be the individual whose name is subscribed to the within instrument and acknowledged to me that he/she/they executed the same in his/her capacity as shown in the instrument, and that by his/her signature on the instrument, the individual, or the person upon behalf of which the individual acted, executed the instrument.

Jennifer L. Moore
NOTARY PUBLIC

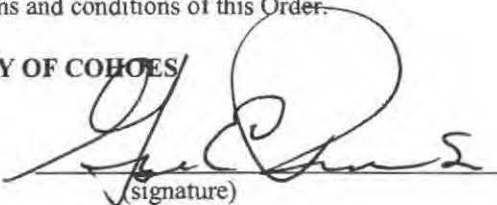
Jennifer L. Moore
01MA610573
Notary Public, State of New York
Qualified in Rensselaer County
My commission expires FEBRUARY 9th, 2016

CONSENT BY RESPONDENT

Respondent hereby consents to the issuance and entry of the foregoing Order without further notice, waives its right to a hearing herein as provided by law, and agrees to be bound by the terms, conditions and provisions contained herein. The undersigned represents and affirms that they have the legal authority to bind Respondent to the terms and conditions of this Order.

CITY OF COHOES

By:


(signature)

Name:

George E Primeau sr
(print or type)

Title:

Mayor
(print or type)

Date:

10/18/13

ACKNOWLEDGMENT

STATE OF NEW YORK)

) ss:

COUNTY OF Albany)

On the 18 day of October, in the year 2013, before me, the undersigned, personally appeared George E. Primeau, personally known to me or proved to me on the basis of satisfactory evidence to be the individual whose name is subscribed to the within instrument and acknowledged to me that he/she/they executed the same in his/her capacity as shown in the instrument, and that by his/her signature on the instrument, the individual, or the person upon behalf of which the individual acted, executed the instrument.

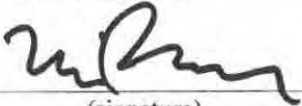

NOTARY PUBLIC

LORI A. YANDO
NOTARY PUBLIC - STATE OF NEW YORK
NO 01-YA6063542
QUALIFIED IN ALBANY COUNTY
MY COMMISSION EXPIRES 09-04-2017

CONSENT BY RESPONDENT

Respondent hereby consents to the issuance and entry of the foregoing Order without further notice, waives its right to a hearing herein as provided by law, and agrees to be bound by the terms, conditions and provisions contained herein. The undersigned represents and affirms that they have the legal authority to bind Respondent to the terms and conditions of this Order.

CITY OF WATERVLIET

By: 
(signature)
Name: MICHAEL P. MANNING
(print or type)
Title: MAYOR
(print or type)
Date: 10/25/13

ACKNOWLEDGMENT

STATE OF NEW YORK)
) ss:
COUNTY OF Albany)

On the 25th day of October, in the year 2013, before me, the undersigned, personally appeared MICHAEL P. MANNING, personally known to me or proved to me on the basis of satisfactory evidence to be the individual whose name is subscribed to the within instrument and acknowledged to me that he/she/they executed the same in his/her capacity as shown in the instrument, and that by his/her signature on the instrument, the individual, or the person upon behalf of which the individual acted, executed the instrument.

Bruce A. [Signature]
Notary Public, State of New York
Reg. No. 011118001621
Qualified in Albany County
Commission Expires January 20, 2014


NOTARY PUBLIC

CONSENT BY RESPONDENT

Respondent hereby consents to the issuance and entry of the foregoing Order without further notice, waives its right to a hearing herein as provided by law, and agrees to be bound by the terms, conditions and provisions contained herein. The undersigned represents and affirms that they have the legal authority to bind Respondent to the terms and conditions of this Order.

VILLAGE OF GREEN ISLAND

By: Ellen M. McNulty-Ryan
(signature)

Name: Ellen M. McNulty-Ryan
(print or type)

Title: Mayor
(print or type)

Date: January 7, 2014

ACKNOWLEDGMENT

STATE OF NEW YORK)
) ss:
COUNTY OF Albany)

On the 7th day of January, in the year 2014, before me, the undersigned, personally appeared Ellen M. McNulty-Ryan, personally known to me or proved to me on the basis of satisfactory evidence to be the individual whose name is subscribed to the within instrument and acknowledged to me that he/she/they executed the same in his/her capacity as shown in the instrument, and that by his/her signature on the instrument, the individual, or the person upon behalf of which the individual acted, executed the instrument.

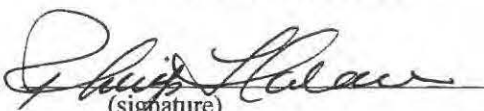
Anne M. Strizzi
NOTARY PUBLIC

ANNE M. STRIZZI
Notary Public, State of New York
Qualified in Albany County
Reg. No. 4694323
My Commission Expires Mar. 30, 2015

CONSENT BY RESPONDENT

Respondent hereby consents to the issuance and entry of the foregoing Order without further notice, waives its right to a hearing herein as provided by law, and agrees to be bound by the terms, conditions and provisions contained herein. The undersigned represents and affirms that they have the legal authority to bind Respondent to the terms and conditions of this Order.

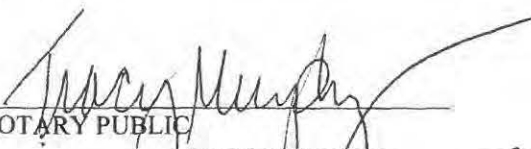
ALBANY COUNTY SEWER DISTRICT

By: 
(signature)
Name: Philip Calderone
(print or type)
Title: Deputy County Executive
(print or type)
Date: 1-10-14

ACKNOWLEDGMENT

STATE OF NEW YORK)
) ss:
COUNTY OF Albany)

On the 10th day of January, in the year 2014, before me, the undersigned, personally appeared Philip Calderone, personally known to me or proved to me on the basis of satisfactory evidence to be the individual whose name is subscribed to the within instrument and acknowledged to me that he/she/they executed the same in his/her capacity as shown in the instrument, and that by his/her signature on the instrument, the individual, or the person upon behalf of which the individual acted, executed the instrument.

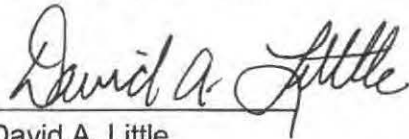

NOTARY PUBLIC
TRACY A MURPHY
Notary Public, State of New York
No. 02MU6263245
Qualified In Albany County
Commission Expires June 11, 2016

CONSENT BY RESPONDENT

Respondent hereby consents to the issuance and entry of the foregoing Order without further notice, waives its right to a hearing herein as provided by law, and agrees to be bound by the terms, conditions and provisions contained herein. The undersigned represents and affirms that they have the legal authority to bind Respondent to the terms and conditions of this Order.

RENSSELAER COUNTY SEWER DISTRICT NO. 1:

Approved as to Form

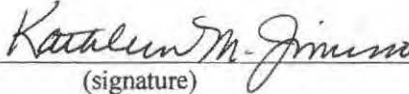


David A. Little

Legal Counsel

Rensselaer County Sewer District No. 1

By:


(signature)

Name: Kathleen M. Jimino

(print or type)

Title: County Executive

(print or type)


Date: January 10, 2014

ACKNOWLEDGMENT

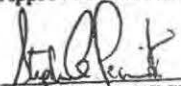
STATE OF NEW YORK)
) ss:
COUNTY OF RENSSELAER

On the 10th day of January, 2014, ~~XXXXXXX~~, before me, the undersigned, personally appeared Kathleen M. Jimino, personally known to me or proved to me on the basis of satisfactory evidence to be the individual whose name is subscribed to the within instrument and acknowledged to me that he/she/they executed the same in his/her capacity as shown in the instrument, and that by his/her signature on the instrument, the individual, or the person upon behalf of which the individual acted, executed the instrument.

Stephen A. Pechenik
Notary Public, State of New York
Registration No. 02PE4634612
Qualified in Rensselaer County
Commission Expires April 30, 2014


NOTARY PUBLIC

Approved as to form

 11/10/14
STEPHEN A. PECHENIK
Rensselaer County Attorney

Stephen A. Pechenik
Notary Public, State of New York
Registration No. 02PE4634612
Qualified in Rensselaer County
Commission Expires April 30, 2014

APPENDIX A
NYSDEC COMMENT LETTER of DECEMBER 5, 2012 on
ALBANY POOL DRAFT LTCP (DM # 458013)

New York State Department of Environmental Conservation

Division of Water,

Bureau of Water Permits, 4th Floor

625 Broadway, Albany, New York 12233-3505

Phone: (518) 402-8111 • Fax: (518) 402-9029

Website: www.dec.ny.gov



Joe Martens
Commissioner

December 5, 2012

Mr. Rocco Ferraro
Executive Director
CDRPC
One Park Place
Albany, NY 12205

Mr. Neil Bonesteel, P.E.
Chief Water Plant Operator
City of Troy Public Utilities
25 Water Plant Road
Troy, NY 12182

Mr. Sean Ward
Village of Green Island
20 Clinton Street
Green Island, NY 12183

Ms. Mary Bell
Albany Water Board
City of Albany
35 Erie Boulevard
Albany, NY 12204

Mr. David Dressel
City Hall
2 Fifteenth Street
Watervliet, NY 12182

Mr. Richard Lyons
Executive Director
Albany County Sewer District
P.O. Box 4187
Albany, NY 12204

Ms. Sarah Crowell
Director of Planning
City of Rensselaer
62 Washington Street
Rensselaer, NY 12214

Mr. Garry Nathan, P.E.
City Engineer
City of Cohoes
City Hall
97 Mohawk Street
Cohoes, NY 12047

Mr. Gerald Moscinski, P.E.
Administrative Director
Rensselaer County Sewer Dist
Water Street
Troy, NY 12180

Re: Albany Pool Long Term Control Plan, dated June 30, 2011
SPDES Permit No. NY-002 5747 (City of Albany)
SPDES Permit No. NY-002 6026 (City of Rensselaer)
SPDES Permit No. NY-009 9309 (City of Troy)
SPDES Permit No. NY-003 0899 (City of Watervliet)
SPDES Permit No. NY-003 1046 (City of Cohoes)
SPDES Permit No. NY-003 3031 (Village of Green Island)

Dear Sir/Madame:

As a follow-up to prior detailed technical discussions, this letter formally presents the New York State Department of Environmental Conservation's ("DEC's") technical assessment of the proposed June 30, 2011 Albany Pool Long Term Control Plan ("LTCP"). The short-hand phrase "Albany Pool" is used to reference the six permitted communities listed above that own or operate a Combined Sewer Overflow ("CSO") outfall. DEC continues to endorse and support the Albany Pool communities' collective approach to assessing and reducing the adverse impacts of CSOs so as to improve the shared waters and waterfronts of this stretch of the Hudson River.

The Albany Pool LTCP was evaluated under the standards of Section 402(q)(1) of the Clean Water Act and the specific terms of the State Pollutant Discharge Elimination System ("SPDES") permits that cover the Albany Pool communities. To be approvable, the LTCP also must conform to the U.S. Environmental Protection Agency ("EPA") Combined Sewer Overflow Control Policy (Federal Register Volume 59, Number 75, Pages 18688-18698) ("Policy"). EPA guidance documents also offer extensive information to those responsible for developing a compliant LTCP.¹ The technical comments in this letter incorporate the oversight comments of EPA.

At the outset, I would like to recognize your extensive good work toward the LTCP to date, including numerous technical studies and thoughtful submissions. DEC is seeking to continue to work in a collaborative fashion with the Albany Pool communities to finalize the LTCP, and assure active and cost-effective implementation.

The June 30, 2011 LTCP submitted by the Albany Pool Communities, however, does not meet some of the objectives and requirements specified in the Clean Water Act and EPA's Policy. The revised LTCP must address the comments provided by this letter and the enclosed attachment, and be re-submitted to DEC within 6 months of the date of this letter.

Intent of the Federal CSO Control Program.

The proposed LTCP strategy often focuses on controlling *non-CSO* sources of bacteria in the Albany Pool portion of the Hudson River. While containing useful elements, this strategy does not demonstrate that the LTCP will: (i) result in compliance with water quality standards in Hudson River tributaries impacted by CSOs; (ii) provide the maximum pollution reduction benefits reasonably attainable through CSO abatement; and (iii) be designed to allow cost effective expansion or cost effective retrofitting to address CSO flows should additional controls be determined necessary in the future (e.g., due to community growth accompanied by increased stormwater and sewage flows) to meet water quality standards. (See, EPA Policy Section II.C.4.b).

The LTCP must be revised to evaluate the effectiveness, costs and water quality impacts of a broader array of alternative programs to address the control of CSOs. The Albany Pool sewer systems contain flows from combined sewers that often exceed the interceptor and regulator capacity, resulting in raw sewage being discharged directly to the Hudson River before any treatment. The proposed abatement of CSOs proposed in the draft LTCP (i.e., the proposed approach of reducing non-CSO sources of bacteria levels in the Hudson River) is not a complete approach, necessitating the need for the Albany Pool communities to develop and evaluate a more stringent set of alternative CSO control programs for consideration by DEC, EPA and the affected community.

The LTCP must Adequately Address CSO Mitigation Alternatives as follows:

1. Alternatives screening process

Section 7.4 of the LTCP provides a summary of a screening analysis of CSO abatement technologies. For each potential individual control option, the LTCP indicates whether

¹ Many of the LTCP guidance documents may be accessed at: <http://cfpub1.epa.gov/npdes/cso/guidedocs.cfm>.

that technology should be included as part of the LTCP strategy. However, the LTCP provides no information on the screening process itself or the criteria used and data relied upon to determine whether an individual control option should be retained or rejected. Without such an evaluation, DEC cannot determine whether the recommended control alternative meets the regulatory standard of maximum pollution reduction benefits reasonably attainable.

2. *Maximize Capture for Treatment*

The LTCP should evaluate controls that achieve 100% capture, 90% capture, 85% capture, 80% capture and 75% capture of the CSO total annual volume for treatment at the three wastewater treatment plants in the Albany Pool. (See, Section II.C.4 'Evaluation of Alternatives' in the CSO Control Policy). The alternatives analysis must be sufficient to provide enough data to make a cost/performance curve to demonstrate the relationship between the cost and the benefits among the different level of CSO capture. The goal of this cost and performance assessment is to determine if the incremental reduction in the pollutant of concern, pathogen in this case, diminishes as cost increases. This comment is related to the "Knee of Curve" comment below.

3. *Tributary Water Quality Impacts*

The LTCP must include data and information concerning the water quality impacts from CSO outfalls to waters tributary to the Hudson River. The data must be presented, evaluated and incorporated into the LTCP's demonstration approach to the alternatives analysis under Section II.C.4.b of the Policy (e.g., Albany – Krumkill / Cohoes – Mohawk River, Salt Kill, Eagles Nest Ravine / Rensselaer – Mill Creek).

Green Infrastructure. The LTCP proposes very little Green Infrastructure as a means of controlling or reducing CSOs. A more substantive Green Infrastructure program is required. Properly planned green practices naturally manage stormwater and improve water quality by keeping water out of the CSO collection systems. EPA strongly promotes the use of green infrastructure to manage wet weather through infiltration, evapotranspiration and rain water harvesting.² The Albany Pool communities will need to address the use of public and private Green Infrastructure projects in the LTCP and identify the mechanisms for implementation (e.g., maintenance agreements for green controls on privately owned properties). State grant funding is currently available to assist in Green Infrastructure projects. Many communities, including Syracuse and New York City, are implementing extensive Green Infrastructure programs as part of their CSO abatement program.

Cost/Performance Considerations. The required cost/performance considerations lack sufficient information.

1. *Evaluation of Costs.*

Cost data for the various projects are provided in Chapter 7 of the draft LTCP and summarized in Table 7-2. These costs, however, are not related to performance. There is no comparison of different potential control scenarios that would allow the DEC to undertake a cost/performance analysis for the proposed control alternatives;

² *Protecting Water Quality with Green Infrastructure in EPA Water Permitting and Enforcement Programs*, April 20, 2011 memo. http://water.epa.gov/infrastructure/greeninfrastructure/upload/gi_memo_protectingwaterqualityv.pdf

2. *"Knee of the Curve" analysis.*

The LTCP does not provide the necessary "knee of the curve"³ analysis to evaluate the incremental costs of additional CSO controls to determine whether increased control can be achieved at a reasonable cost (See, Section II.C.5 of the Policy).

3. *Content of cost calculations.*

Some projects identified in the LTCP are already required by existing Consent Orders as well as other "non-LTCP" permit requirements. Inclusion of such projects in the cost calculations for the Albany Pool LTCP is inappropriate. The Department recognizes the Albany Pool Communities' effort to improve water quality of the Hudson River by implementing these projects. However, these projects need to be removed from the cost/performance calculations in the revised Albany Pool CSO LTCP because these are non-CSO sources of pollution. The following are examples of non-CSO projects that are already required: the disinfection upgrades at the three major sewage treatment plants under the respective county sewer district SPDES permits; the elimination of Dry Weather Overflows (DWOs) of raw sewage and the implementation of three green infrastructure Environmental Benefit Projects by the Rensselaer County Sewer District under a Consent Order (4-20091123-154).;

Implementation Schedule. The LTCP is also incomplete because it does not provide all pertinent information necessary to develop the construction and financing schedule for implementation of CSO controls. (See, Section II.C.8 of the EPA Policy). For example, the revised LTCP will need to separate all of the proposed projects by municipal/political entities (as between each of the six Albany Pool Communities and the county sewer districts) responsible for the implementation and payment of projects. The projects that are proposed to be shared by those entities must be specifically identified and their cost sharing arrangement detailed (see, Section 4.4, pg. 4-13 in *Combined Sewer Overflows, Guidance for Long-Term Control Plan (EPA 832-B-95-002)*, September, 1995: "It is important that the individuals and entities responsible for implementing each aspect of the program be identified in the LTCP"). The six municipalities and the county sewer districts will need to enter into inter-municipal agreement(s) ("IMA's") or equivalent legal mechanism that must be executed within the first year of the approved LTCP implementation schedule. The IMA's or equivalent legal mechanism need to document any agreement(s) between the Albany Pool Communities and county sewer districts concerning the specific municipal and inter-municipal responsibilities and commitments, funding responsibilities, and cost-allocation or cost-sharing arrangements.

Additional LTCP Comments Attached

In addition to the above items, a list of DEC comments on very specific aspects of the draft LTCP is attached. EPA's comments have been incorporated into the DEC's comments. However, a copy of EPA's comments is also enclosed to provide their complete context.

³ A Knee-of-the-Curve analysis is a management technique that optimizes pollution control versus cost with respect to diminishing returns. The Knee-of-the-Curve is the point at which incremental improvements become progressively smaller in relation to incremental increases in design size and cost.

Next Steps in LTCP Process

The anticipated LTCP schedule of 15 years exceeds the statutory maximum term for a SPDES permit of five years. It is therefore necessary to incorporate the revised LTCP into a Consent Order to make it enforceable and legally provide sufficient time for community implementation. DEC's Office of General Counsel will be forwarding a proposed Consent Order to you in the near future that will require the submittal of a revised LTCP, consistent with the above and enclosed comments, within six months of the date of this letter. Once the LTCP and its schedule are approved by DEC, the LTCP and its schedule will become enforceable under the Order. This is standard practice.

The requirement to submit the revised LTCP to DEC within six months of the date of this letter will be enforced pursuant to the SPDES permits and regulations, notwithstanding the execution of an Order on Consent by all parties. DEC will contact you in the near future to schedule meetings to discuss our comments and the process needed for obtaining approval of the LTCP.

If you have any questions regarding the comments or would like to set up a meeting or conference call, please contact Paul Kolakowski, P.E., Project Engineer at (518) 402-8104. Any questions about the proposed Order on Consent should be directed to Carol Conyers, Esq. at (518) 402-9512.

Sincerely,

A handwritten signature in dark ink, appearing to read 'Koon Tang', with a large, sweeping initial 'K'.

Koon Tang, P.E.
Director, Bureau of Water Permits

Enclosures

cc (w/ encls): Shayne Mitchell, NYSDEC, BWP
 Paul Kolakowski, NYSDEC, BWP
 Joe DiMura, NYSDEC, BWC
 Andrea Dzierwa, NYSDEC, R4
 Derek Thorsland, NYSDEC, R4
 Cheryle Webber, NYSEFC
 Carol Conyers, NYSDEC OGC
 Stan Stephansen, EPA, Region 2

**Attachment to the Department's December 5, 2012 comment letter on
the Albany Pool draft LTCP**

This Attachment provides detailed comments, as well as additional general comments, on the Albany Pool draft LTCP dated June 30, 2011. The comments are organized in the format of the LTCP. The Albany Pool needs to respond to the comments in the Department's letter and this Attachment, and address the comments in the LTCP as appropriate to generate an approvable LTCP.

Executive Summary (ALL)

Page ES-15, BMPs/System Optimization: The report states that projects within this category will focus on SPDES permit BMPs and maximizing the performance of the existing infrastructure through regulator and weir modifications, reduction of system inflow, capacity upgrades, and improved operations. The report should specifically identify what will be done for each of these categories. If any of the projects will be undertaken pursuant to the terms of a separate administrative consent order, that must be stated.

In general, the report shall provide more specific details/narrative on what each of the recommended projects will be.

Page ES-17, Green Projects: Incorporate more green infrastructure projects. The report lists a few green pilot or demonstration projects that have been completed or are presently under development but these are very limited.

Page ES-19, Governance: The report states that it is the intent among the Albany Pool communities to establish a Phase II inter-municipal arrangement for future governance of the Albany Pool CSO program. With regard to the anticipated application to the Department of State for a Shared Services Municipal Planning Grant, provide the status of this effort and time frame for completion.

Chapter 2

Page 2-21, Patroon Creek: This section states that there is a significant source of bacteria between Rensselaer Lake and the Fuller Road sampling location and additional investigations are ongoing with remedial actions proposed as part of the LTCP. Describe the investigations, and present and evaluate the proposed remedial actions. It is also stated that the Patroon Creek is negatively impacted by Sand Creek. The Department repeats the same comment: Describe the investigations and present and evaluate remedial actions for this area. (ALB)

Page 2-21, Normans Kill: The Krum Kill location showed exceedances of the bacteria standards. Same comment. (ALB)

Page 2-22, Mill Creek: Same comment. (REN)

Page 2-24, Wet Weather Conditions Observed in 2009: Patroon Creek, Normans Kill, Krum Kill, Wynantskill, Poestenkill, and Mill Creek results all showed exceedances of bacteria standards. Same comment. In particular, the Krum Kill may be impacted by the Woodville Pump Station overflow. An assessment needs to be done on the effect of overflows from this station on the water quality in the Krum Kill. (TROY, ALB, RCSD, ACSD)

2.5.3.5 The Department has identified an unpermitted CSO on Broadway to Mill Creek in the City of Rensselaer. This CSO was overflowing under dry weather during an inspection with City staff. The City of Rensselaer is required to eliminate this CSO under the terms of an existing Consent Order and so this project will occur regardless of the LTCP. However, the Albany Pool is to include the presence of this unpermitted CSO into Mill Creek among the contributing sources to the exceedances of water quality standards that must be analyzed and properly addressed by the LTCP. (REN)

2.5.4.3 Although no SSOs were reported to the Department during the time that sampling occurred, complaints from residents in the Brookside Avenue area have indicated that SSOs regularly occurred in that area during wet weather events. The Town of North Greenbush is required to eliminate the SSOs under the terms of an existing Consent Order. Detail in the LTCP how this is being investigated and resolved under the Consent Order. (REN)

Chapter 5

Page 5-10, Troy: Tide gates at most of the regulators north of the Federal Dam are susceptible to leakage under high stage conditions. The Rensselaer County Sewer District is required to investigate and address the impact of this leakage under the terms of an existing Consent Order (CO4-20091123-154). The LTCP must acknowledge this issue. (TROY)

Page 5-16, Table 5-3: Most Active CSOs by Volume: Identify in the LTCP which projects will address the most active CSOs. Highlight projects associated with these outfalls. (ALB, TROY)

5.3.1 through 5.3.3 Identify how often flows in the collection system exceed the flow capacity at the WWTPs and/or Pump Stations. Identify whether the model represents this condition (i.e. backup to first upstream CSO) at the Albany North and South WWTPs, and at the RCSD WWTP, and if so, describe how the model does so. (COHOES, WAT, GI, ALB, REN, TROY)

5.6.2 The LTCP must properly address the large volume of infiltration and inflow ("I/I") identified in the Albany South interceptor. (ALB)

5.8 DWOs must be eliminated. Identify whether the control alternatives (113th Street Stream Separation / Hoosick Street Storm Sewer Extension) are for the purpose of eliminating the DWOs at CSOs 013 & 024. If so, clarify that these control alternatives are under Consent Order (CO4-20091123-154). If these control alternatives serve a different purpose, fully explain as requested in the general comments. Priority must be given to completing these projects in the near term. (TROY)

Chapter 6

The wet weather capacity discussion must mention where collection system capacity limits flow delivery to the WWTPs. (Examples: 1. Influent flows to ACSD South are restricted by the sluice gates. 2. Influent flows to RCSD are restricted by pump station capacity.) (ALL)

6.2 and 6.3 Considering the capacities of ACSD North and South, it appears there may be an opportunity to divert some flow from the overburdened South sewershed to the North Plant. This could reduce the overall volume of CSO. This must be evaluated in the LTCP. (ALB, COHOES, GI, WAT, ACSD)

Chapter 7

7.3 Scenarios 2 and 2A presume that there will be improvements in headwaters and tributary water quality. Because the tributaries in questions flow through Albany Pool communities and improvements are required to ensure maintenance of water quality standards in the Hudson River, the LTCP must include the projects necessary to produce and maintain the improvements in order to support the recommended control strategy. (ALL)

7.3 The sanitary loading may be greater in the morning or evening based on a typical diurnal curve. The executive summary indicates that the noon value was compared to the daily average but was not compared to the value when the sanitary loading is greatest. Identify whether the number of exceedances increases if the geometric means are calculated based on values other than noon (12 pm). If so, evaluate compliance using the more conservative values. (ALL)

7.3 Determine whether water quality standards would be met year-round if disinfection was performed year-round. (ALL)

7.3 Identify the daily maximum fecal coliform concentration that could be achieved by the recommended alternatives. (ALL)

7.4 This subsection provides a summary of a screening analysis of CSO abatement technologies. The list includes quantity and quality source control measures; collection system controls; CSO storage technologies; and CSO treatment technologies. For each potential individual control option, the LTCP indicates whether that technology should be included as part of the LTCP strategy. The results of this evaluation included: the practice is already being implemented and it should be continued; the practice should be adopted as part of the LTCP; or the practice is "not feasible or appropriate." However, the LTCP provides no information on the screening process itself or the criteria to determine whether an individual control option should be retained or rejected. Therefore, the alternatives screening process is incomplete. Revise this subsection to include an approvable alternatives screening process. (ALL)

Pages 7-3 to 7-5, Identification and Screening of CSO Abatement Technologies: Table 7-2 provides a listing of CSO abatement technologies. For the technologies deemed not feasible or appropriate, ~~should~~ more justification shall be provided for each technology regarding why it is

not appropriate. Provide the information relied upon and the rationale supporting the rejection of each such CSO abatement technology. (ALL)

Page 7-6: Green Infrastructure Strategies: Explain the promotion of Green Infrastructure Practices within Municipal Capital Improvement Programs, and describe how such promotion efforts will be accomplished. (ALL)

7.9, Summary of Recommended CSO LTCP : More detail must be provided on each of the proposed projects. Include a narrative summary/description for each project. (Examples: 1. Explain if the RCSD Pump Station upgrade project increases Pump Station capacity to the 63.5 MGD plant capacity. 2.- Explain what the water quality webpage will include. (ALL)

Cost/performance considerations. Cost for the various projects is provided in Chapter 7 and summarized in Table 7-2. However, these costs are not related to performance. As with the evaluation of alternatives, there is no comparison of different potential control scenarios that would allow the reader to evaluate the tradeoffs in cost versus benefit of individual projects. There is also no “knee of the curve” analysis to show where increased CSO control yields diminishing incremental returns. Summarize the cost and potential benefits of all proposed projects in the form of a table. Information should be presented to demonstrate the following:

- Sufficient information to determine if the planned control program will provide the maximum pollution reduction benefits reasonably attainable.
- Cost/performance curves that demonstrate if the planned control program will provide the maximum pollution reduction benefits reasonably attainable.

(ALL)

Post construction compliance monitoring program. The LTCP proposes a robust post construction compliance monitoring program that is summarized in Section 7-11. The post construction compliance monitoring program focuses on evaluating the same beach sites monitored during the receiving water monitoring to ensure that water quality standards at sensitive areas are met. Clearly outline how the post construction information will be presented. (ALL)

Chapter 9

9.2 The water quality webpage should be implemented as soon as possible. Indicate when this can be developed. Explain why is there so much time (5 years) in the schedule for implementation of the WQ webpage. (ALL)

9.4.3 An additional river transect(s) should be considered in the Hudson River mid-pool to determine attainment throughout the Albany Pool. Sampling must cover the waters other than the Hudson River with CSO outfalls (see comments in this Attachment on Chapter 2, above). (ALL)

9.4.4 Sampling events must be coordinated to capture wet-weather events. Expand the subsection to confirm and describe how this will be accomplished. (ALL)

9.4.4.2 Clarify in this subsection that if wet-weather conditions are causing or contributing to non-attainment, existing information will first be used to try to determine which source(s) should be addressed prior to undertaking an additional monitoring and modeling study. (ALL)

Chapter 10

Discussion of public participation. Chapter 10 of the LTCP is devoted to public participation. The LTCP makes it clear that the stakeholders and the general public had multiple opportunities for becoming involved in the LTCP process. However, there does not appear to be a summary of any input that the public had into the process, and how any public input was addressed. Supplement this section to include this public input. (ALL)

Appendix J, Chapter 1

1.3.5.1 Wastewater Treatment Plant Improvements

Provide a thorough analysis of increasing the capacity of the Albany County Sewer District (ACSD) and Rensselaer County Sewer District (RCSD) Wastewater Treatment Plants to handle higher peak wet weather flows because this is one way to reduce the frequency and volume of untreated CSO discharges upstream in the collection system. A justification is required for the cut off point for secondary bypasses and/or a feasible alternatives assessment for the secondary bypasses. Appendix J of the LTCP addresses some WWTP improvements but does not mention anything about expansion of primary or secondary capacity. (ACSD, RCSD)

GENERAL COMMENTS: (ALL)

The Best Management Practices and implementation of the 9 minimum (or 15 minimum as numerated in the conditions in the permits) controls have not been fully developed. Many of the items in the LTCP should have been completed under a fully executed BMP. For example, the Dry Weather Overflows (DWOs) should have been addressed under the BMPs.

The projects identified are expected to meet water quality standards and attain the best usage for the Hudson River in the Albany Pool area. Revise the sequencing of the projects to address projects with the greatest benefit(s) first.

The Proposed Implementation Schedule (Figure 9-3), needs to be modified to group projects into sub-categories that can easily be put into a schedule of compliance/consent order for the individual permits for the communities.

Consideration of sensitive areas. There is no specific discussion of sensitive areas. However, the compliance strategy is based on achieving water quality standards at two potential beach sites during the recreation season. These beach sites could reasonably be assumed to be the sensitive areas of concern. The LTCP should refer to these sites as sensitive areas, and properly address them as such in accordance with the EPA CSO Policy and guidance.

Wet Weather Operational Plan. There is no explicit operation plan included in the LTCP, nor is their explicit discussion of the future operation of the collection system and the WWTPs to manage CSOs or minimize their impacts. The LTCP needs to refer to status of BMP #5 (an approved Wet Weather Operating Plan) for each of the three sewer districts. Additionally, there needs to be an inter-municipal wet weather operating plan for the CSS to control and minimize CSOs.

Justification for “laterally well-mixed” assumption. The Albany Pool LTCP treats the Hudson River as laterally well-mixed in the impact assessment and modeling and asserts that little lateral variation was observed for bacteria concentrations during dry and wet weather (see, for example, Executive Summary subsections 2.1.1.1 and 2.1.1.3 as well as Chapter 2 subsection 2.4.4 and 2.6). Provide additional explanation, analysis and justification of the adequacy of the laterally well-mixed approach for assessing river bacteria compliance.

KEY:

ALB – Albany
COHOES – Cohoes
GI – Green Island
REN – Rensselaer
TROY -- Troy
WAT – Watervliet

ACSD – Albany County Sewer District
RCSD – Rensselaer County Sewer District

DATE: October 13, 2011
FROM: Tim Schmitt, John Marr
PROJECT:

Memorandum

TO: Stan Stephansen, EPA Region 2

CC: Jim Collins, Tetra Tech

SUBJECT: Review of Albany Pool CSO LTCP

Background

As requested by EPA Region 2, LimnoTech has reviewed the Albany Pool CSO Long Term Control Plan (LTCP), dated June 30, 2011, and associated documents, including the SPDES permits for the Albany Pool facilities, EPA's 1994 CSO Control Policy, EPA guidance documents (Guidance for Nine Minimum Controls; Guidance For Long-Term Control Plan; Guidance For Monitoring and Modeling; Guidance: Coordinating Combined Sewer Overflow (CSO) Long-Term Planning with Water Quality Standards Reviews; Guidance for Financial Capability Assessment and Schedule Development; Combined Sewer Overflows Guidance For Funding Options; CSO Post Construction Compliance Monitoring; and LTCP Checklist Evaluation), and the New York State Department of Environmental Conservation Long Term Control Plan Guidance. LimnoTech completed a LTCP Checklist for the Albany Pool CSO Long Term Control Plan, and also developed this document to summarize our findings and recommendations regarding the LTCP.

Synopsis of Review

While the LTCP is comprehensive and includes most of the major elements required of a LTCP, it seems flawed with respect to the basic goal of controlling CSOs. The control strategy discussed in this document focuses on controlling non-CSO sources of bacteria such that CSOs will not preclude attainment of water quality standards in the mainstems of the Hudson or Mohawk Rivers. However, the LTCP will only result in a 25 percent reduction in CSO volume, and will not actually reduce the overall number of CSOs compared to the present. In addition, while the study focuses on attainment of water quality standards in the mainstems of the Hudson and Mohawk Rivers, CSOs also discharge into several tributaries of the Hudson and Mohawk Rivers, and this is not addressed. The document contains little information on how the controls that do focus on CSOs were chosen and what the goals are for CSO control as opposed to the goals for bacteria control). Finally, there is very little information presented regarding the selected control approach and any potentially feasible alternatives to this approach. There is no "knee of the curve" analysis to evaluate the incremental costs of additional CSO controls to determine whether increased control can be achieved at a reasonable cost.

LTCP Review

The remainder of this document discusses the LTCP and its specific elements, and how the LTCP conforms to expectations of the CSO Control Policy, LTCP requirements, and other guidance.

Elements of CSO LTCP

The Albany Pool CSO Long Term Control Plan contains most of the major required elements of a LTCP, including:

- Characterization, monitoring and modeling. The LTCP includes an abundance of information on this aspect of the LTCP. Chapter 2 includes discussions of receiving water monitoring; Chapter 3 discusses CSS mapping; Chapter 4 discusses CSS monitoring; and Chapter 5 discusses CSS, CSO, and receiving water monitoring. Modeling of the receiving waters is critical to predict compliance with water quality standards after implementation of the recommended control program.
- Discussion of public participation. Chapter 10 of the LTCP is devoted to public participation. The LTCP makes it clear that the stakeholders and the general public had multiple opportunities for becoming involved in the LTCP process. However, there does not appear to be a summary of any input that the public had into the process, and how any public input was addressed.
- Consideration of sensitive areas. There is no specific discussion of sensitive areas. However, the compliance strategy is based on achieving water quality standards at two potential beach sites during the recreation season. These beach sites could reasonably be assumed to be the sensitive areas of concern.
- Evaluation of alternatives. Section 7.4 of the LTCP provides a summary of a screening analysis of CSO abatement technologies. The list includes quantity and quality source control measures; collection system controls; CSO storage technologies; and CSO treatment technologies. For each potential individual control option, the LTCP indicates whether that technology should be included as part of the LTCP strategy. The results of this evaluation included: the practice is already being implemented and it should be continued; the practice should be adopted as part of the LTCP; or the practice is “not feasible or appropriate.” However, the LTCP provides no information on the screening process itself or the criteria to determine whether an individual control option should be retained or rejected. Therefore, it is difficult to determine whether the control plan chosen is the best option.
- Cost/performance considerations. Cost for the various projects is provided in Chapter 7 and summarized in Table 7-2. However, these costs are not related to performance. As with the evaluation of alternatives, there is no comparison of different potential control scenarios that would allow the reader to evaluate the tradeoffs in cost versus benefit of individual projects. There is also no “knee of the curve” analysis to show where increased CSO control yields diminishing incremental returns.
- Operational plan. There is no explicit operation plan included in the LTCP, nor is their explicit discussion of the future operation of the collection system and the WWTPs to manage CSOs or minimize their impacts.
- Maximization of treatment at the existing WWTPs. Chapter 6, Wastewater Treatment Plant Wet Weather Capacity Study, summarizes the capacity analysis for each WWTP that is required as part of the SPDES permit. The purpose of the studies was to determine process and hydraulic capacities and to identify cost effective alternatives to increase the

WWTP's ability to handle sustained wet weather flows while complying with the effluent limits specified in the plant's SPDES permits.

- Implementation schedule. Chapter 9 of the LTCP summarizes the proposed implementation schedule for the LTCP. The LTCP proposes an implementation schedule of 15 years for the CSO controls, with the WWTP disinfection projects (which are already required by the WWTP SPDES permits) at the beginning of the schedule. The proposed 15-year schedule is supported by a financial capability analysis, which is summarized in Chapter 8.
- Post construction compliance monitoring program. The LTCP proposes a robust post construction compliance monitoring program that is summarized in Section 7-11. The post construction compliance monitoring program focuses on evaluating the same beach sites monitored during the receiving water monitoring to ensure that water quality standards at sensitive areas are met.

Consistency with NYDEC LTCP Requirements

The Albany Pool LTCP is generally consistent with NYDEC LTCP requirements. The LTCP includes discussions of public participation, CSS characterization (including review of rainfall and CSS records; CSO and water quality monitoring; identification of sensitive areas; and CSS and receiving water monitoring); discussion of CSO control alternatives; evaluation of CSO control alternatives and selection of a strategy; inclusion of a schedule; and inclusion of a post construction compliance monitoring plan. Our review concludes that several of the NYDEC LTCP requirements were not met, including:

- Sufficient information to determine if the planned control program will provide the maximum pollution reduction benefits reasonably attainable.
- Cost/performance curves that demonstrate if the planned control program will provide the maximum pollution reduction benefits reasonably attainable.
- Discussion of a wet weather operating plan.

These specific requirements are also part of EPA's expectations for LTCPs, and so these deficiencies are discussed in other sections within this document.

Receiving Water Quality Assessment and Modeling

Lateral Well Mixed River System: The Albany Pool LTCP treats the Hudson River as laterally well-mixed in the impact assessment and modeling and makes repeated assertions that no significant lateral differences were observed for bacteria concentrations during dry and wet weather. The physical characteristics of the river and CSO discharges and the large apparent differences side to side shown in the 2008-2009 wet weather data (Figures 5-2 to 5-9 of *Receiving Water Quality Assessment*, February 2009) seem to conflict with this important modeling assumption. This particular situation, with surface and near surface CSO discharges to a 1,000-foot-wide river with non-turbulent river flow and negligible sinuosity, disfavors rapid lateral mixing, even with some tidal influence present. In addition, the wet weather fecal coliform and E.coli river data presented in a companion report (*Receiving Water Quality Assessment, Albany Pool Part B Long Term Control Plan*, dated February 2009) exhibit what appear to be significant lateral differences at locations downstream of CSOs - sometimes an order of magnitude and more. The general rule of thumb for determining a river situation to be laterally well mixed for chemical constituents (e.g. dye, salinity, conductivity, etc.) is no more than a 5 or 10 percent difference side-to-side, though the inherent imprecision of bacteria count

measurements warrants a less stringent application. Using laterally averaged forecasts from the one-dimensional river model combined with the 30 day geomean standard could, in LimnoTech's opinion, overestimate bacteria standard compliance along the east and west sides due to discharges from CSOs. Additional analysis and justification therefore should be provided confirming the adequacy of the laterally well-mixed approach for assessing river bacteria compliance. Additional justification could include some combination of the following approaches: detailed statistical and group comparisons of existing coincidental bacteria samples at CSO-impacted transects- especially at peak concentrations; analysis of the lateral homogeneity of available river conductivity and temperature measurements; a dye study during representative wet weather conditions; or river plume modeling of representative CSO discharges during typical wet weather conditions using a generally accepted model like CORMIX or VisualPlumes.

Tributary Impacts: There are several statements in the Albany Pool LTCP that suggest that there are CSO discharges directly into tributaries that each presumably have less dilution and assimilative capacity than the Hudson River. There were no data or evaluations presented of the CSO impacts on the tributaries or CSO controls to achieve compliance with the water quality standards therein. If indeed there are existing CSO discharges to the tributaries, then they should be evaluated and addressed as part of the overall Albany Pool LTCP. Bacteria and perhaps also dissolved oxygen water quality standard compliance might be issues for the tributaries receiving CSO discharges.

CSO Control Strategy

The primary strategy of the plan in the LTCP is to control WWTP and upstream sources of bacteria (both tributary sources and sources to the mainstem of the Hudson River) such that the remaining CSOs do not preclude the attainment of water quality standards in the Hudson River. However, LimnoTech is concerned about several ramifications of this strategy and the details leading to the formation of this strategy. First, this strategy actually has very little focus on CSOs, and instead focuses on other sources of bacteria. In that respect, this is really a watershed bacteria control plan, and not a CSO LTCP. For example, Table 5 in the Executive Summary shows that controls proposed in this LTCP will result in no reduction in the number of CSOs and will capture only about 25 percent additional volume of CSOs versus the current baseline. Table 7-4 lists projects recommended as part of the LTCP. Approximately \$31M are devoted to upgrading the three WWTPs in the Albany Pool system for disinfection and enhanced screening, degritting and settling. According to Section 9.2 of the LTCP, the Albany County Sewer District (ACSD) and Rensselaer County Sewer District (RCSD) SPDES permits include requirements for implementation of seasonal disinfection. ACSD is required to install and commence operation of disinfection facilities at their WWTPs within 30 months of approval of the LTCP, while RCSD is required to complete disinfection facilities by September 2012. Therefore, these facilities would implement seasonal disinfection regardless of the development and implementation of the CSO LTCP. The CSO LTCP also includes \$15.7M in system optimization and BMP implementation; \$32.1M in sewer separation and stormwater storage; \$25.8M in floatables control projects; \$2.8M in tributary enhancements (primarily trackdown of non-CSO bacteria sources); and \$1.5M in "additional poolwide projects," such as a water quality advisory webpage and an asset management plan. The total projected cost of the CSO LTCP is \$109.6M.

Analyzing the percentage of spending on different control types, the primary strategies of adding disinfection at WWTPs and reducing bacteria in tributary streams is approximately 17 percent of the cost of the LTCP (\$18.77M out of \$109.6M). Looking at the costs another way, WWTP and

tributary projects are approximately 31.5 percent of the cost of the LTCP (\$34.5M out of \$109.6M), while 14 percent is devoted to system optimization and BMPs (\$15.7M out of \$109.6M), 23 percent to floatables control (\$25.75M out of \$109.6M), 29 percent to sewer separation and stormwater storage (\$32.1M out of \$109.6M); and a little over one percent (\$1.5M out of \$109.6M) to Additional Pool-Wide Projects. Of these projects, the system optimization and BMPs and sewer separation and stormwater storage projects, which represent 43 percent of the cost of the LTCP, are the most directly applicable to addressing CSO frequency and volume, while the floatables control projects relate more directly to water quality.

Although 43 percent of the cost of the LTCP is devoted to system optimization and BMPs and sewer separation and stormwater storage projects to control CSO frequency and volume, there is almost no detail provided regarding the specifics of these projects. No information is provided on the details of these projects with respect to their impact on individual CSOs, the benefit versus the expense of the project, or how it was determined that this specific suite of projects provided the optimal amount of CSO control for the cost. At several points in the LTCP, the document refers to the increased percent capture of CSO volume that would occur as a result of the LTCP, but nowhere are other potential CSO control alternatives given to allow the reader to determine if the recommended scenario provides the most benefit for the dollars, or if other control alternatives should be explored.

In summary, the Albany Pool LTCP does not provide detailed information on the costs and benefits of individual projects, and so the reader cannot evaluate the potential benefits of projects to CSO controls versus non-CSO controls to determine the specific tradeoffs between reducing CSO impacts versus achieving improved water quality without CSO benefit.

Recommendations

The Albany Pool LTCP is a comprehensive, well-written document that appears to offer a strategy for achieving compliance with bacteria water quality standards at identified sensitive areas. However, the assumptions underlying the modeling of compliance scenarios are based on a well-mixed river system, and this may not be the case. We recommend that the LTCP be updated to provide more evidence that the assumptions of a well-mixed river system are valid.

The LTCP also seems to ignore CSO-related water quality concerns in the tributaries. There is no information on the water quality standards in the tributaries, how CSOs contribute to any impairments in the tributaries, and how this LTCP will achieve water quality standards in the tributaries. We recommend that the LTCP be updated to address these issues.

In addition, the LTCP seems to be more of a watershed-based strategy for achieving water quality standards, rather than a CSO control plan. Most of the plan is devoted to non-CSO controls (e.g., disinfection at WWTPs; control of upstream sources of bacteria), and the plan does not reduce CSO frequency at all, and only reduces overall CSO volume by 25 percent. While the main water quality goal of this document is clear, this goal is not specifically a CSO control goal, and the specific reasoning behind the chosen CSO control approaches is unclear. We recommend that the LTCP be updated to discuss various alternatives for CSO control (not non-CSO control approaches like disinfection at WWTPs), and that the discussion of CSO controls include a clear discussion of the goals of the CSO control program (e.g., reduce number of CSO discharges by X percent and reduce CSO overflow volume by x percent), and provide a “knee of the curve” analysis that shows incremental costs of increased CSO control. This type of discussion and analysis is critical for providing stakeholders with the data they need to help

make informed decisions about the level of CSO control that is technically and financially feasible.

APPENDIX B
CONSENT ORDER COMPLIANCE SCHEDULE

Albany Pool CSO LTCP Schedule of Compliance

Responsible Party has advanced construction plans and specifications, and in some cases, construction activities have commenced.

Responsible Party	Project Name	Project Milestones/Deadlines
Process Improvements at Wastewater Treatment Plants		
RCSD	Primary Sludge Degritting	Completed Plans & Specifications: 10/1/16 NTP to Construction: 4/1/17 Construction Completion Date: 12/15/18 Operational Start-Up Date: 12/15/18
RCSD	Evaluation of Secondary Clarification Improvements	Task Start Date: 6/1/19 Task Completion Date: 6/1/20
BMPs/System Optimization		
Albany Water Board	McCormack Pump Station Upgrades, City of Albany	Construction Completion Date: 9/30/14 Operational Start-Up Date: 9/30/14
Albany Water Board	Sewer Rehabilitation Projects Throughout the City of Albany	Construction Completion Date: 12/15/13 Operational Start-Up Date: 12/15/13
APCs	Remove Schyler Overflow, City of Albany	Completed Plans & Specifications: 10/1/26 NTP to Construction: 4/1/27 Construction Completion Date: 12/15/27 Operational Start-Up Date: 12/15/27
APCs	Remove Liberty Overflow, City of Albany	Completed Plans & Specifications: 10/1/25 NTP to Construction: 4/1/26 Construction Completion Date: 12/15/26 Operational Start-Up Date: 12/15/26
APCs	Modify Bouck Regulator, City of Albany	Completed Plans & Specifications: 10/1/26 NTP to Construction: 4/1/27 Construction Completion Date: 12/15/27 Operational Start-Up Date: 12/15/27
APCs	Improvements at up to Eleven Regulators, City of Cohoes	Completed Plans & Specifications: 10/1/16 NTP to Construction: 4/1/17 Construction Completion Date: 12/15/17 Operational Start-Up Date: 12/15/17
APCs	Swan Street and Hamilton Street Regulator Improvements, Village of Green Island	Completed Plans & Specifications: 10/1/16 NTP to Construction: 4/1/17 Construction Completion Date: 12/15/17 Operational Start-Up Date: 12/15/17
APCs	Improvements at Five Regulators, City of Watervliet	Completed Plans & Specifications: 10/1/16 NTP to Construction: 4/1/17 Construction Completion Date: 12/15/17 Operational Start-Up Date: 12/15/17
City of Rensselaer	Partition Street Trunk Sewer Evaluation, City of Rensselaer	Task Start Date: 9/1/13 Task Completion Date: 3/1/14
RCSD	Upgrade Pump Stations Located in Rensselaer	Completed Plans & Specifications: 3/1/14 NTP to Construction: 7/1/14 Construction Completion Date: 4/15/15 Operational Start-Up Date: 4/15/15
RCSD	Upgrade Pump Stations Located in Troy	Completed Plans & Specifications: 9/1/14 NTP to Construction: 3/1/15 Construction Completion Date: 4/1/16 Operational Start-Up Date: 4/1/16
RCSD	Regulator Capacity Improvements	Completed Plans & Specifications: 10/1/14 NTP to Construction: 4/1/15 Construction Completion Date: 12/15/15 Operational Start-Up Date: 12/15/15

Albany Pool CSO LTCP Schedule of Compliance

Responsible Party has advanced construction plans and specifications, and in some cases, construction activities have commenced.

Responsible Party	Project Name	Project Milestones/Deadlines
APCs	Outside Community Metering	Completed Plans & Specifications: 10/1/17 Construction Start Date: 4/1/18 Construction Completion Date: 12/15/18 Operational Start-Up Date: 12/15/18
APCs	18th Street and Avenue A Weir Improvements, City of Watervliet	Completed Plans & Specifications: 10/1/16 NTP to Construction: 4/1/17 Construction Completion Date: 12/15/17 Operational Start-Up Date: 12/15/17
Sewer Separation/Stormwater Storage		
APCs	Marietta Place Stormwater Storage Facility, City of Albany	Completed Plans & Specifications: 10/1/16 NTP to Construction: 4/1/17 Construction Completion Date: 12/15/18 Operational Start-Up Date: 12/15/18
APCs	Mereline Combined Sewage Storage, City of Albany	Completed Plans & Specifications: 10/1/18 NTP to Construction: 4/1/19 Construction Completion Date: 12/15/20 Operational Start-Up Date: 12/15/20
APCs	Upper Washington Avenue Groundwater Recharge, City of Albany	Completed Plans & Specifications: 2/15/14 NTP to Construction: 8/15/14 Construction Completion Date: 12/15/15 Operational Start-Up Date: 12/15/15
APCs	Melrose/Winthrop Groundwater Recharge Basins, City of Albany	Completed Plans & Specifications: 10/1/14 NTP to Construction: 4/1/15 Construction Completion Date: 12/15/16 Operational Start-Up Date: 12/15/16
APCs	Vliet Street Sewer Rehabilitation, Replacement and Separation, City of Cohoes	Completed Plans & Specifications: 10/1/21 NTP to Construction: 4/1/22 Construction Completion Date: 12/15/23 Operational Start-Up Date: 12/15/23
APCs	Manor Avenue Sewer Rehabilitation, Replacement and Separation, City of Cohoes	Completed Plans & Specifications: 10/1/26 NTP to Construction: 4/1/27 Construction Completion Date: 12/15/27 Operational Start-Up Date: 12/15/27
APCs	Columbia Street Phase II Separation, City of Cohoes	Completed Plans & Specifications: 10/1/21 NTP to Construction: 4/1/22 Construction Completion Date: 12/15/22 Operational Start-Up Date: 12/15/22
APCs	George Street Sewer Separation, City of Cohoes	Completed Plans & Specifications: 10/1/16 NTP to Construction: 4/1/17 Construction Completion Date: 12/15/17 Operational Start-Up Date: 12/15/17
APCs	Middle Vliet Street Sewer Separation, City of Cohoes	Completed Plans & Specifications: 10/1/16 NTP to Construction: 4/1/17 Construction Completion Date: 12/15/17 Operational Start-Up Date: 12/15/17
APCs	Partition Street/Broadway Sewer and Drain Improvements, City of Rensselaer	Completed Plans & Specifications: 3/1/14 NTP to Construction: 9/1/14 Construction Completion Date: 12/31/15 Operational Start-Up Date: 12/31/15

Albany Pool CSO LTCP Schedule of Compliance

Responsible Party has advanced construction plans and specifications, and in some cases, construction activities have commenced.

Responsible Party	Project Name	Project Milestones/Deadlines
APCs	123rd Street Stream Separation, City of Troy	Completed Plans & Specifications: 10/1/18 NTP to Construction: 4/1/19 Construction Completion Date: 12/15/20 Operational Start-Up Date: 12/15/20
APCs	Van Buren Street Stream Separation, City of Troy	Completed Plans & Specifications: 10/1/22 NTP to Construction: 4/1/23 Construction Completion Date: 12/15/24 Operational Start-Up Date: 12/15/24
APCs	Polk Street Stream Separation, City of Troy	Completed Plans & Specifications: 10/1/21 NTP to Construction: 4/1/22 Construction Completion Date: 12/15/22 Operational Start-Up Date: 12/15/22
APCs	Hoosick Street Storm Sewer Extension, City of Troy	Completed Plans & Specifications: 10/1/17 NTP to Construction: 4/1/18 Construction Completion Date: 12/15/18 Operational Start-Up Date: 12/15/18
Green Infrastructure Program		
APCs	Performance of a Codes and Local Law Review	Task Start Date: 8/1/15 Task Completion Date: 8/1/16
APCs	Green Infrastructure Technical Design Guidance	Task Start Date: 8/1/15 Task Completion Date: 8/1/17
APCs	Documentation/Reporting of New Public and Private Green Projects	Task Start Date: 8/1/14 Task Completion Date: 3/1/19
APCs	Completion of a Feasibility Assessment for a "Green Infrastructure Banking System"	Task Start Date: 8/1/15 Task Completion Date: 8/1/17
APCs	Quail Street Green Infrastructure Project, City of Albany	Completed Plans & Specifications: 10/1/14 NTP to Construction: 4/1/15 Construction Completion Date: 12/15/16 Operational Start-Up Date: 12/15/16
APCs	North Swan Street Park Revitalization, City of Albany	Completed Plans & Specifications: 12/15/13 NTP to Construction: 6/15/14 Construction Completion Date: 12/15/15 Operational Start-Up Date: 12/15/15
APCs	Route 32 Green Street Project, City of Watervliet	Completed Plans & Specifications: 10/1/15 NTP to Construction: 4/1/16 Construction Completion Date: 12/15/17 Operational Start-Up Date: 12/15/17
APCs	Monument Square Green Infrastructure Project, City of Troy	Completed Plans & Specifications: 10/1/15 NTP to Construction: 4/1/16 Construction Completion Date: 12/15/16 Operational Start-Up Date: 12/15/16
Village of Green Island	Albany Avenue Green Street Project, Village of Green Island	Construction Completion Date: 12/15/14 Operational Start-Up Date: 12/15/14

Albany Pool CSO LTCP Schedule of Compliance

Responsible Party has advanced construction plans and specifications, and in some cases, construction activities have commenced.

Responsible Party	Project Name	Project Milestones/Deadlines
Satellite Treatment and/or Floatables Control Facilities		
APCs	"Big C" Disinfection and Floatables Control Facility, City of Albany	Begin Preliminary Design Report: 8/1/15 Completed Preliminary Design Report: 8/1/16 Begin SEQR & Eminent Domain Process: 2/1/17 Completed SEQR & Eminent Domain Process: 2/1/21 Begin Final Design: 12/15/18 Completed Plans & Specifications: 10/1/20 NTP to Construction: 4/1/21 Construction Completion Date: 12/15/22 Operational Start-Up Date: 5/1/23
APCs	Floatables Control Facility for CSO 026 Outfall (Regulators Maiden, Stuben and Orange), City of Albany	Completed Plans & Specifications: 10/1/17 NTP to Construction: 4/1/18 Construction Completion Date: 12/15/19 Operational Start-Up Date: 12/15/19
APCs	Floatables Control Facility for CSO 030 Outfall (Regulators Quackenbush, Jackson and Livingston), City of Albany	Completed Plans & Specifications: 10/1/17 NTP to Construction: 4/1/18 Construction Completion Date: 12/15/19 Operational Start-Up Date: 12/15/19
APCs	"Little C" Floatables Control Facility, City of Cohoes	Completed Plans & Specifications: 10/1/24 NTP to Construction: 4/1/25 Construction Completion Date: 12/15/26 Operational Start-Up Date: 12/15/26
Tributary Enhancements		
APCs	Investigate Non-CSO Bacteria Sources Along Mill Creek, Poesten Kill, and Wynants Kill	Task Start Date: 4/1/16 Task Completed Date: 12/15/17
APCs	Cross Street Sewer Outfall Repairs and/or Replacement, City of Troy	Completed Plans & Specifications: 4/1/14 NTP to Construction: 8/1/14 Construction Completion Date: 12/15/14 Operational Start-Up Date: 12/15/14
City of Troy	Cross Street Trunk Sewer Rehabilitation Phase I, City of Troy	Construction Completion Date: 12/15/14 Operational Start-Up Date: 12/15/14
APCs	Cross Street Trunk Sewer Rehabilitation Phase II, City of Troy	Completed Plans & Specifications: 10/1/24 NTP to Construction: 4/1/25 Construction Completion Date: 12/15/25 Operational Start-Up Date: 12/15/25
Additional Pool-Wide Projects		
APCs	Discharge Notification System for Albany Pool CSOs	Task Start Date: 12/1/13 Task Completion Date: 12/1/14
APCs	Hudson River Water Quality Public Advisory	Task Start Date: 4/1/18 Task Completion Date: 4/1/19
APCs	Development of the Post-Construction Monitoring Program	Task Start Date: 4/1/14 Task Completion Date: 10/1/14
APCs	Implementation of the Post-Construction Monitoring Program	Task Start Date: 5/1/15 Task Completion Date: 10/1/27
APCs	Execution of IMA(s) in compliance with Section V(C) of the Order on Consent	Task Start Date: Effective Date of the Order on Consent Task Completion Date: 15 Months after the Effective Date of the Order on Consent
Albany Water Board, Cohoes, Watervliet, Green Island	Sewer System Operations, Maintenance and Inspection Plans	Task Start Date: 4/1/14 Task Completion Date: 12/1/15
Albany Water Board, Cohoes, Watervliet, Green Island	Asset Management Plans	Task Start Date: 4/1/15 Task Completion Date: 12/1/17

APPENDIX C
LTCP APPROVAL LETTER

New York State Department of Environmental Conservation

Division of Water,

Bureau of Water Permits, 4th Floor

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Joe Martens
Commissioner

January 15, 2014

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Re: Albany Pool Long Term Control Plan, as revised September 2013
SPDES Permit No. NY-002 5747 (City of Albany)
SPDES Permit No. NY-002 6026 (City of Rensselaer)
SPDES Permit No. NY-009 9309 (City of Troy)
SPDES Permit No. NY-003 0899 (City of Watervliet)
SPDES Permit No. NY-003 1046 (City of Cohoes)
SPDES Permit No. NY-003 3031 (Village of Green Island)
Order on Consent # CO 4-20120911-01

To the above-listed addressees:

The New York State Department of Environmental Conservation (NYSDEC) has reviewed your September 2013 Long Term Control Plan ("LTCP") Supplement that addressed the NYSDEC December 2012 comments on the draft LTCP dated June 30, 2011. The Supplement was

thereafter replaced with a document entitled, "October 2013 Albany Pool CSO Long Term Control Plan Supplemental Documentation." The proposed 2011 LTCP and its October 2013 Supplement are hereby approved as the Albany Pool LTCP.

The term "Albany Pool" refers to six communities (the cities of Albany, Cohoes, Rensselaer, Troy and Watervliet, and the Village of Green Island) that own or operate Combined Sewer Overflow ("CSOs") outfalls in the local reach of the Hudson River. The Albany Pool LTCP was prepared by the six Albany Pool Communities as well as the two above-listed county sewer districts under the project management and coordination of the Capital District Regional Planning Commission. NYSDEC evaluated the draft LTCP and Supplements under the standards of Section 402(q)(1) of the Clean Water Act and the specific terms of the New York State Pollutant Discharge Elimination System ("SPDES") permits that cover the Albany Pool communities and the two county sewer districts. To be approvable, the draft LTCP and Supplement also had to meet the U.S. Environmental Protection Agency ("USEPA") Combined Sewer Overflow Control Policy, enacted as federal law at Federal Register Volume 59, Number 75, pages 18688-18698 ("USEPA Policy").

The approved Albany Pool LTCP includes the following documents:

1. The June 30, 2011 Albany Pool CSO LTCP, including its appendices:
 - a. Appendix A - Receiving Water Quality Sampling Plan
 - b. Appendix B - Receiving Water Quality Report (2008 Sampling)
 - c. Appendix C - Albany Pool Tributary Water Quality Assessment Report (2009 Sampling)
 - d. Appendix D - DO Correspondence from DEC dated April 13, 2010
 - e. Appendix E - Combined Sewer System Monitoring Plan
 - f. Appendix F - Combined Sewer System Modeling Work Plan
 - g. Appendix G - CSO Model Development and Baseline Conditions Report
 - h. Appendix H - Receiving Water Quality Model Development Report
 - i. Appendix I - WWTP Wet Weather Capacity Study
 - j. Appendix J - Development and Evaluation of CSO Control Alternatives Report
 - k. Appendix K - Financial Capability Assessment
 - l. Appendix L - CAC Meeting Presentations
 - m. Appendix M - Public Meeting Presentations; and
2. The October 2013 Supplemental Documentation to the Albany Pool CSO LTCP, including its appendices:
 - a. Appendix N - Response to Comments
 - b. Appendix O - Program Definition
 - c. Appendix P - Program Implementation Schedule

In accordance with the terms of the above-referenced fully-executed Order on Consent, the approved Albany Pool LTCP is incorporated into and made an enforceable part of the Order on