IN THE UNITED STATES DISTRICT COURT
FOR THE NORTHERN DISTRICT OF NEW YORK

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ATLANTIC STATES LEGAL FOUNDATION, STATE OF NEW YORK and JOHN P. CAHILL, as Commissioner of the New York State Department of Environmental Conservation,

Plaintiffs,

-vs-

THE ONONDAGA COUNTY DEPARTMENT OF DRAINAGE AND SANITATION and ONONDAGA COUNTY, NEW YORK,

Defendants.

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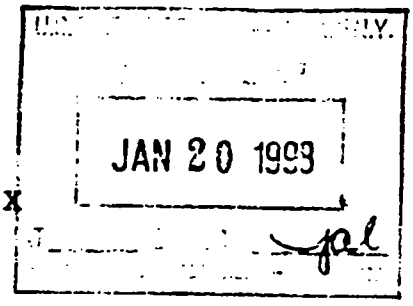
88-CV-0066

JUDGE McAVOY



AMENDED CONSENT JUDGMENT

The State of New York and John P. Cahill, as Commissioner of the New York State Department of Environmental Conservation (collectively, the "State of New York" or the "State"), Onondaga County and the Onondaga County Department of Drainage and Sanitation (collectively, "Onondaga County" or the "County"), and the Atlantic States Legal Foundation ("ASLF") agree as follows:

WHEREAS, plaintiff ASLF filed a complaint against the defendants Onondaga County alleging violations of 33 U.S.C. §§ 1311(a) and 1311 (b)(1)(B) in the discharge of sewage to Onondaga Lake from the County's Metropolitan Sewage Treatment Plant ("Metro") and various combined sewer overflow points ("CSOs"); and

WHEREAS, the State of New York intervened as plaintiffs alleging that the defendants had violated the New York State Environmental Conservation Law ("ECL") §§ 17-0509 and 17-0511 by failing to provide the level of treatment required under the law with respect to the discharge of sewage into Onondaga Lake and

its tributaries; and

WHEREAS, the County owns and operates Metro and the CSOs, and the County is responsible for ensuring that effluent discharges from Metro and the CSOs are in compliance with the limitations set in its State Pollutant Discharge Elimination System ("SPDES") permit and state water quality standards for the receiving waters; and

WHEREAS, a judgment on consent was entered on February 1, 1989 ("Consent Judgment") obligating the County to, inter alia, develop a plan ("Municipal Compliance Plan" or "MCP") that would bring the County's effluent discharges from Metro and the CSOs into compliance with the State's effluent limitations and water quality standards, and implement such plan; and

WHEREAS, effluent discharged into Onondaga Lake and its tributaries from Metro and the CSOs (1) contributes approximately 90% of the ammonia loading to the Lake; (2) contributes approximately 60% of the phosphorus loading to the Lake, which promotes the growth of algae that is one of the causes of turbidity; and (3) contributes to the dissolved oxygen deficit in the bottom waters of the Lake; and

WHEREAS, New York State Department of Environmental Conservation ("DEC") regulations, at 6 NYCRR § 703.5, Table 1, establish water quality standards for ammonia, and ammonia levels in Onondaga Lake violate that standard on a chronic basis; and

WHEREAS, turbidity in the Lake causes substantial visual impairment, thereby contributing to conditions that render the

Lake unfit for public bathing beaches pursuant to New York State Health Department regulations, at 10 NYCRR § 6-2.19 (4.11.3); and

WHEREAS, DEC regulations, at 6 NYCRR § 703.3, establish a water quality standard for dissolved oxygen ("DO") which, in part, requires that DO shall at no time be less than 4 mg/l, and levels of DO in Onondaga Lake have violated the water quality standard on numerous occasions, and in addition, the DEC regulations establish a narrative standard for phosphorus, at 6 NYCRR § 703.2, limiting phosphorus levels to concentrations that will not result in "growths of algae, weeds and slimes that will impair the waters for their best usages," and that standard is chronically violated in Onondaga Lake; and

WHEREAS, the discharge of untreated sewage to Onondaga Lake and its tributaries from the CSOs causes or contributes to conditions whereby bacterial levels in the Lake exceed standards set by DEC regulations, at 6 NYCRR § 703.4; and

WHEREAS, the discharge of untreated sewage to Onondaga Lake and its tributaries introduces floating solids into Onondaga Lake and its tributaries in violation of 6 NYCRR § 703.2; and

WHEREAS, pursuant to the 1996 Clean Water/Clean Air Act (also known as the "Bond Act"), seventy-five million dollars is to be made available for state assistance payments for the cost of any water quality improvement projects undertaken in furtherance of this Amended Consent Judgment; and

WHEREAS, the County submitted a proposed MCP to DEC and ASLF on January 11, 1996; and

WHEREAS, the Consent Judgment, in paragraph 6, provides for the payment by the County of a penalty of $875,000 that is suspended on condition that the County complies with the terms and conditions of Appendix A of the Consent Judgment, including submission of the MCP, and that the penalty is to be extinguished if the DEC determines that the County has performed the work in a satisfactory manner; and

WHEREAS, DEC and ASLF concluded that the proposed MCP contained certain deficiencies and, therefore, did not satisfy the requirements of the Consent Judgment, and have so informed the County; and

WHEREAS, the parties have agreed to the terms and conditions, set forth below, that would rectify the deficiencies in the proposed MCP and would establish a framework for the approval and timely implementation of the various upgrades and other measures that are needed to bring the County's effluent discharges from Metro and the CSOs into compliance with the State's effluent limitations and water quality standards; and

WHEREAS, it is the State's goal and intent that Onondaga Lake and its tributaries achieve the best usage designated for class "B" and "C" waters pursuant to 6 NYCRR Parts 701 and 703, as applicable to Onondaga Lake and its tributaries, and existing applicable State water quality standards and guidelines, in particular, achieve the standards and guidelines for dissolved oxygen (6 NYCRR § 703.3), ammonia (6 NYCRR § 703.5), turbidity (6 NYCRR § 703.2), floatables (6 NYCRR § 703.2), phosphorus (6 NYCRR

§ 703.2 and Technical and Operational Guidance Series ("TOGS") 1.1.1 Water Quality Standards and Guidance Values), nitrogen (6 NYCRR § 703.2), and bacteria (6 NYCRR § 703.4), subject of course to any subsequent amendment thereto made in accordance with state or federal law; and

WHEREAS, it is the State's intent to determine, as soon as sufficient data and other information is available, whether water quality standards and guidelines for Onondaga Lake can be achieved with the continued discharge of Metro's effluent into the Lake; and

WHEREAS, the effluent filtration and other projects constructed to comply with the Stage II Effluent Compliance Schedule are necessary for either a continued discharge into Onondaga Lake or a possible discharge to the Seneca River; and

WHEREAS, the parties are desirous of avoiding protracted litigation, and in consideration of their mutual desire to achieve compliance with water quality standards and guidelines applicable to Onondaga Lake and its tributaries for the benefit of all the residents of Onondaga County and New York State, they have consented to the entry of this judgment as evidenced by the signature of their representatives, permanently enjoining and restraining the defendant as specified below, without trial or adjudication of any issues of fact or law, and the Court having duly considered the matter and having been duly advised.

NOW THEREFORE, it is **ORDERED, ADJUDGED and DECREED** as

follows:

JURISDICTION

1. The Court has jurisdiction over the subject matter of this action pursuant to 28 U.S.C. § 1331 and 33 U.S.C. § 1365(a), and has jurisdiction over the parties to this Amended Consent Judgment.

2. The Amended Consent Judgment shall apply to and be binding upon the parties hereto, their successors and assigns. The undersigned representative of each party certifies that he or she is fully authorized to enter into the terms and conditions of the Amended Consent Judgment and to execute and bind the party to its terms.

3. The County is permanently enjoined and directed to comply with the terms and conditions set forth in this Amended Consent Judgment and the appendices annexed to and incorporated herein. The Amended Consent Judgment replaces and supersedes the Consent Judgment entered on February 1, 1989.

COUNTY'S OBLIGATIONS

4. Onondaga County shall comply with all effluent limitations and monitoring requirements set forth in its SPDES permit (Permit Number NY0027081) including renewals, modifications and revisions thereof, and shall not discharge effluent from Metro or the CSOs which causes or contributes to conditions in violation of water quality standards. Notwithstanding the foregoing, the County shall meet and maintain compliance with the effluent limitations for ammonia and

phosphorus, and the requirements applicable to discharges from the CSOs, and shall cease causing or contributing to the violation of the concomitant water quality standards, in accordance with the compliance dates and other requirements set forth below, including the Effluent Compliance Schedule, Metro Construction Compliance Schedule and the CSO Control and Upgrade Compliance Schedule.

EFFLUENT COMPLIANCE SCHEDULE -- STAGE I

5. Upon the Court's entry of the Amended Consent Judgment, and continuing until May 1, 2004, with respect to effluent discharges from Metro, the County shall not exceed an ammonia effluent limit measured as ammonia ("NH_3") of 8,700 pounds per day from July 1 through September 30, and 13,100 pounds per day from October 1 through June 30, measured as a 30 day average.

6. Upon the Court's entry of the Amended Consent Judgment, and continuing until April 1, 2006, with respect to effluent discharges from Metro, the County shall not exceed a phosphorus effluent limit of 400 pounds per day, measured as a twelve month rolling average.

EFFLUENT COMPLIANCE SCHEDULE -- STAGE II

7. Beginning no later than May 1, 2004, the County shall not exceed an ammonia effluent limit measured as ammonia ("NH_3") of 2 milligrams per liter ("mg/l") from June 1 through October 31, and 4 mg/l from November 1 through May 31, measured as a thirty day average.

8. Beginning no later than April 1, 2006, the County shall

not exceed a phosphorus effluent limit of 0.12 mg/l, measured as a twelve month rolling average.

EFFLUENT COMPLIANCE SCHEDULE -- STAGE III

9. Beginning no later than December 1, 2012, the County shall:

A. not exceed an ammonia effluent limit of 1.2 mg/l measured as ammonia ("NH_3") from June 1 through October 31, and 2.4 mg/l from November 1 through May 31, measured as a thirty day average, and

B. not exceed a phosphorus effluent limit of 0.02 mg/l, measured as a twelve month rolling average, or

C. in the event that DEC issues revised effluent limits for ammonia and/or phosphorus as provided in paragraph 12, then the County shall not exceed those limits instead of the limits set forth in subparagraphs A and B above.

ABILITY TO ACHIEVE EFFLUENT LIMITS AND WATER QUALITY STANDARDS

10. No later than July 1, 2007, the County shall submit to DEC a report containing the following:

A. The results of activities undertaken by the County to seek further ammonia reductions as described in Appendix A. Such report shall provide information that demonstrates the County's ability to achieve compliance with the effluent limitations specified in paragraph 9.A.

B. The results of the phosphorus removal pilot project

as described in Appendix A. Such report shall provide information that demcnstrates the County's ability to achieve compliance with the effluent limitations specified in paragraph 9.B.

11. In the event that the County is unable to demonstrate the ability to meet either the effluent limits set in subparagraphs 9.A and 9.B, or the effluent limits referred to in subparagraph 9.C by February 1, 2009, or such earlier date for demonstrating whether the effluent limits can be met as may be established by DEC by a Determination, then the County shall cease causing or contributing to the violation of water quality standards in Onondaga Lake by diverting Metro's effluent to the Seneca River or by implementing another engineering alternative which fully complies with the water quality standards no later than December 1, 2012.

TMDLs AND EFFLUENT LIMITATION REVISIONS

12. Pursuant to Section 303(d) of the Clean Water Act, 33 U.S.C. § 1313(d), states are authorized to promulgate Total Maximum Daily Loads ("TMDLs") for specific water bodies such as Onondaga Lake. Under the Clean Water Act, and guidance issued by the United States Environmental Protection Agency ("EPA"), TMDLs are to be used to establish comprehensive controls, by means of SPDES permits that limit the discharge of pollutants from multiple point sources and through implementation of best management practices to control non-point source loadings, so that the total daily discharge of pollutants does not cause a

contravention of surface water quality standards. As of the date of this Amended Consent Judgment, DEC has proposed draft TMDLs for ammonia and phosphorus in Onondaga Lake. DEC intends promulgating the proposed TMDLs subject to EPA's approval and consistent with applicable federal and state law. DEC anticipates promulgating revised TMDLs for Onondaga Lake on or about January 1, 2009, subject to EPA's approval as provided pursuant to Section 303(d) of the Clean Water Act, 33 U.S.C. § 1313(d). In the event that (a) TMDLs for Onondaga Lake are promulgated and take effect, (b) the TMDLs support a revision of the limitations for ammonia and/or phosphorus in the County's SPDES permit, and (c) the County's SPDES permit is revised accordingly, then, notwithstanding any other provision herein, the revised effluent limits for ammonia and/or phosphorus shall control the County's obligations under this Amended Consent Judgment in place of the effluent limitations set forth in subparagraphs 9.A and 9.B. In addition, DEC also anticipates promulgating a TMDL allocation for the Seneca River, subject to EPA's approval as provided pursuant Section 303(d) of the Clean Water Act, 33 U.S.C. § 1313(d), as soon as practicable, in accordance with the schedule for TMDL development to be generated pursuant to Section 303(d) of the CWA, 33 U.S.C. Section 1343(d).

METRO CONSTRUCTION COMPLIANCE SCHEDULE

13. To achieve compliance with the requirements of paragraphs 5 through 11, the County shall design, test, and construct modifications and additions to the Metro facility,

including diversion of Metro's effluent to the Seneca River or by implementing another engineering alternative which fully complies with the water quality standards, in accordance with the compliance dates set forth in the Metro Construction Compliance Schedule which is attached as Appendix A, and hereby made an enforceable part of this Amended Consent Judgment.

CSO CONTROL AND UPGRADE COMPLIANCE SCHEDULE

14. The County shall design, construct, maintain, and modify and/or supplement, as necessary, a CSO control and upgrade program in accordance with DEC CSO guidance, as set forth in TOGS 1.6.3 (CSO Control Strategy), which implements the "presumptive approach" in EPA's CSO control policy, as set forth in 59 F.R. 18688 (April 18, 1994). The County's program shall achieve the following:

A. elimination or the capture for treatment of no less than 85% by volume of the combined sewage collected in the combined sewer system during precipitation events on a system-wide annual average basis,

B. elimination or minimization of floating substances in Onondaga Lake attributed to the County's CSOs, and

C. achievement of water quality standards for bacteria for all portions of Onondaga Lake that are classified as "Class B" pursuant to 6 NYCRR Part 895.

To achieve compliance with the above requirements, the County shall complete the specific tasks by the applicable milestone compliance date set forth in the CSO Control and Upgrade Schedule

that is attached as Appendix B and hereby made an enforceable part of this Amended Consent Judgment. All elements of the CSO Control and Upgrade program shall be completed and in full operation on or before January 1, 2012. Consistent with the EPA's CSO Control Policy, the County shall implement such additional upgrades and other measures, subject to DEC's approval, as may be necessary to ensure that the CSO discharges remaining after implementation of the CSO Control and Upgrade Program do not cause or contribute to conditions in violation of water quality standards or impair the designated best uses of the receiving waters.

OXYGENATION DEMONSTRATION PROJECT COMPLIANCE SCHEDULE

15. The County shall develop and implement an oxygenation demonstration project in Onondaga Lake ("Oxygenation Demonstration Project") to determine whether lake-wide oxygenation can be used as an interim measure pending compliance by the County with the Stage III requirements set forth in paragraph 9 or the fulfillment of the obligations set forth in paragraph 11. The goals of the project will be (a) to determine and report on the feasibility and suitability of implementing a lake-wide system to supplement point and non-point source controls for the attainment and maintenance of in-lake dissolved oxygen standards, as an interim measure; and (b) to prevent oxygen depletion in the epilimnion, in the fall, after lake turnover and the associated migration of aquatic species from the Lake. To achieve compliance with this requirement the County

shall meet the compliance dates set forth in the Oxygenation Demonstration Project Compliance Schedule, which is attached as Appendix C, and hereby made an enforceable part of this Amended Consent Judgment. The final report on feasibility shall be submitted by the County in approvable form and content on or before April 1, 2003, and if lake-wide oxygenation is viable, the report will include a plan for such implementation. If lake-wide oxygenation is determined to be viable, DEC in consultation with EPA will endeavor to develop a long-term implementation plan and to identify any parties that may be liable for the implementation of such a plan.

LAKE MONITORING COMPLIANCE SCHEDULE

16. In order to monitor conditions in the Lake and its tributaries, and evaluate the effect that alterations in Metro's and the CSOs operations are having on water quality, the County shall, without limitation, perform the following tasks in accordance with the requirements and schedule set forth in the Lake Monitoring Compliance Schedule, which is attached as Appendix D, and is hereby made an enforceable part of this Amended Consent Judgment:

A. Collect water samples from Onondaga Lake and its tributaries and the Seneca River, and analyze the samples for relevant water quality parameters as provided in Appendix D. All sampling and analysis procedures shall be performed in accordance with quality assurance/quality control protocols approved by

DEC. DEC and ASLF shall be given written notice, reasonable under the circumstances and consistent with the provisions of Appendix D, of all sampling events planned by the County. DEC and ASLF may attend such sampling events and, upon request, the County shall provide either or both of them with duplicate samples.

B. Submit reports to DEC and ASLF evaluating the results of such sampling and analysis in accordance with requirements in Appendix D. All submittals are subject to review and approval by DEC in accordance with the provisions of paragraphs 19 through 23.

17. All data and other information concerning or related to compliance with effluent limitations and water quality standards, generated or developed by the County under this Amended Consent Judgment shall be submitted to the DEC in accordance with the compliance dates set forth in Appendix D, including, as may be required by DEC, raw data and information in draft form. At the same time that it submits the requisite information to DEC, the County shall submit such data and information to EPA and ASLF. The parties shall meet on no less than a quarterly basis to discuss progress and the status of the upgrade and other activities required under this Amended Consent Judgment. DEC shall advise the public of the status of such activities, as DEC deems appropriate.

18. The County shall fund an "Environmental Monitor," a full time position within DEC, in order to provide oversight of

the activities set forth above, in accordance with the provisions of Appendix E. The County shall fund the monitor for the period of time commencing with the entry of this Amended Consent Judgment by the Court and concluding with the termination of this Amended Consent Judgment as provided in paragraph 62.

TRANSMISSION, REVIEW AND APPROVAL OF SUBMITTALS

19. All work that the County is required to perform under this Amended Consent Judgment shall be subject to review and approval by DEC prior to the initiation of such work. The County shall submit to DEC for review and approval the proposals, plans, reports and other documents (the "Submittals") set forth in Appendices A, B, C, and D, in accordance with the compliance dates therein.

20. Each submittal shall be transmitted to DEC in approvable form and shall contain all of the information and evaluations required pursuant to the applicable Appendix. DEC shall review each submittal and shall notify the County in writing of its approval or disapproval. DEC will endeavor to complete its review of each submittal within forty-five days of receipt. In the event that DEC does not complete its review of a submittal within sixty days of receipt then the County can apply to the Court for relief.

21. If DEC disapproves of a submittal, DEC shall notify the County in writing specifying its objections. The County shall revise the submittal, which may require the re-performance and/or supplementation of field, laboratory or computer work and/or the

revision of designs, plans, assessments, evaluations and conclusions, in accordance with DEC's comments. The submittal shall be revised by the County within thirty days of receipt of DEC's comments, or within such other time period as agreed to, in writing, by DEC and the County. After receipt of the revised submittal, DEC shall notify the County in writing of its approval or disapproval of the revised submittal.

22. If DEC disapproves the revised submittal, then the State may either revise the submittal by a Determination made and transmitted in accordance with paragraph 38, which may include provision for the re-performance and/or supplementation of field, laboratory or computer work and/or the revision of designs, plans, assessments, evaluations and conclusions, as deemed necessary by the State; or the State may seek appropriate relief from this Court for Onondaga County's violation of this Amended Consent Judgment in failing to revise the submittal in conformity with DEC's comments. In the event that the State elects to revise the submittal, the County shall be deemed to have accepted and ratified the State's Determination that such revision was appropriate unless within ten calendar days from the day that the attorney of record for the County receives written notice of the State's Determination revising the submittal, the County invokes the dispute resolution provisions in paragraph 39.

23. DEC's approval of a submittal shall be a conditional approval subject to the requirements, if applicable, of the State Environmental Quality Review Act ("SEQRA"), Environmental

Conservation Law ("ECL"), Article 3. If DEC determines, based on further review and consideration pursuant to SEQRA, including consideration of public comments, that a revision of the submittal is necessary, then the State shall make the necessary revision by a Determination, made and transmitted in accordance with paragraph 38. In the event that the State revises the submittal, the County shall be deemed to have accepted and ratified the revision unless within ten calendar days from the day that the attorney of record for the County receives written notice of the State's Determination revising the submittal, the County invokes the dispute resolution provisions in paragraph 39.

PENALTIES AND OTHER PAYMENTS

24. Pursuant to paragraph 6 of the Consent Judgment, the County is subject to a monetary penalty if it fails to comply with the requirements of the Consent Judgment. DEC determined that the County did not submit an acceptable MCP on January 11, 1996, as required by the Consent Judgment. Consequently, in satisfaction of the provisions of paragraph 6, the County shall make the payments set forth in subparagraphs A and B, below.

A. Within thirty days of the entry of this Amended Consent Judgment, the County shall pay a penalty in the amount of fifty thousand dollars ($50,000) to the State for its failure to comply with the requirements of the Consent Judgment. Payment shall be made by check, payable to the "State of New York," and transmitted to the address set forth in paragraph 33.

B. In addition to the penalty provided in subparagraph 24.A above, the County shall pay within four months of the entry of this Amended Consent Judgment, three hundred and eighty-seven thousand five hundred dollars ($387,500) to the Central New York Regional Planning and Development Board ("CNYRP&DB") for deposit into an escrow account (the "Fund") established and administered by CNYRD&DB, pursuant to an agreement between the County and the CNYRP&DB as provided below. Payment shall be made by check, payable to the CNYRD&DB and transmitted to the following address: 126 North Salina Street, 100 Clinton Square, Suite 200, Syracuse, New York, 13202, with a copy of the cover letter and check transmitted to the parties. The Fund shall be used for the implementation of the Environmental Benefit Project ("EBP") described in subparagraph 25.C below, subject to the approval of DEC, with the concurrence of ASLF. The parties agree that the EBP is intended to promote significant environmental protection and public health concerns related to Onondaga Lake.

25. The EBP shall be administered and implemented as follows:

A. The County shall enter into a written agreement with the CNYRP&DB, subject to the approval of DEC with the concurrence of ASLF, for the administration and

disbursement of monies from the Fund. The agreement shall include the following terms and conditions: (i) CNYRP&DB will serve as program manager for the purpose of soliciting projects, and disbursing funds to pay for the projects, for which services the CNYRP&DB will not charge an administration fee that exceeds five percent (5%), provided and subject to the condition that programs and projects undertaken shall not entail activities that the County is obligated by law to undertake; (ii) within six months of the entry of this Amended Consent Judgment, the CNYRP&DB will submit to DEC for its review and approval, in concurrence with ASLF, a proposed scope of work and implementation schedule for the EBP, consistent with the description provided in subparagraph 25.C, below. The implementation schedule will not exceed five years from the date of entry of this Amended Consent judgment, and

B. CNYRP&DB will submit an EPB completion report to DEC and ASLF no later than five years and six months from the date of entry of this Amended Consent Judgment. The EBP completion report will contain, without limitation, a detailed description of the EBP as implemented and itemized and documented costs (purchase orders and receipts or cancelled checks). The report will be subject to review and approval by DEC in concurrence with ASLF. If the report is

disapproved, DEC in concurrence with ASLF may require that it be revised and resubmitted by CNYRP&DB in accordance with its comments.

C. The EBP shall consist of non-point source projects and management strategies for the Onondaga Lake Drainage Basin. The program shall provide for the disbursement of monies from the Fund for approved programs and projects intended to promote nutrient and other management practices that protect Onondaga Lake and its tributaries from run-off and pollution.

26. The County hereby certifies that as of the date it executes the proposed Amended Consent Judgment, it is not required pursuant to any federal, state or local law or regulation to perform or develop the EBP described above, or any element thereof; nor is the County required to perform or develop the EBP by agreement, grant, or any other obligation. The County certifies that it has not received, and is not currently negotiating to receive, credit in any other enforcement action for the EBP, or any element thereof.

27. It is further recognized and understood that the County has heretofore undertaken projects for the improvement of Onondaga Lake, including most recently the design and construction of a walking trail to enhance access and safety and these and other projects have cost the County in excess of four hundred and thirty-seven thousand dollars ($437,000).

STIPULATED PENALTIES

28. If the County fails to comply with any of the requirements in the Effluent Compliance Schedule, Stages I - III, set forth in paragraphs 5 through 11 above, and such failure is not excused under the provisions set forth in paragraphs 44 and 45, the County shall pay a stipulated penalty to the State in the amount of $10,000 for each calendar day, each such violation occurs, or, where the violation is determined based on a thirty day average, the stipulated penalty shall be one hundred thousand dollars ($100,000) for each thirty day period violation. Where compliance is determined on the basis of a twelve month rolling average, the stipulated penalty shall be one hundred thousand dollars ($100,000) for each month in which there is a violation. Notwithstanding the foregoing, in the event that the County does not exceed any of the effluent limits established for Stages I, II, or III respectively, for a period of no less than twelve consecutive months during such Stage, then for the remainder of such Stage the County shall pay a stipulated penalty to the State in the amount of five hundred dollars ($500) for each calendar day each such violation occurs, or, where the violation is determined based on a thirty day average or based on a twelve month rolling average, the stipulated penalty shall be five thousand dollars ($5000) for each thirty day period violation or month in which there is a violation, respectively.

29. The parties recognize that construction activities at Metro required pursuant to this Amended Consent Judgment may result in interruptions to the existing treatment plant unit

processes such that the Stage I and II effluent limits set forth in paragraphs 5, 6, 7, and 8, above, may be exceeded on a limited basis. The County shall, to the maximum extent practicable, take such measures as will minimize the process interruptions and any concomitant exceedence of effluent limits. Within six months of the entry of this Amended Consent Judgment, the County shall provide the DEC with a overall time schedule, based on available information, of anticipated treatment process interruptions and the expected effluent quality during the period of each such interruption on a parameter specific basis. Thereafter, and as soon as practicable but in no case later then ninety days prior to the interruption, the County will provide DEC a specific schedule of an anticipated treatment process interruption, the expected effluent quality during the period of interruption on a parameter specific basis, the reasons for the interruption, and the specific steps the County has taken to minimize the interruption. DEC will endeavor to notify the County within sixty days of its receipt of the information whether the County's request has been granted and the applicable effluent limitations during the respective periods of unit process interruption. Upon DEC's determination of the County's request(s), the modified interim effluent limits shall supersede the effluent limits otherwise applicable pursuant to paragraphs 5, 6, 7, and 8, respectively, for the approved applicable time schedule of the treatment process interruption. Modifications to all other requirements of the County's SPDES permit shall be reported to

DEC in accordance with the SPDES permit General Conditions, part II, section 11.

30. If the County fails to comply with any of the requirements in the Metro Construction Compliance Schedule, set forth in paragraph 13, the CSO Control and Upgrade Compliance Schedule set forth in paragraph 14, the Oxygenation Demonstration Project Compliance Schedule set forth in paragraph 15, or the Monitoring Compliance Schedule, set forth in paragraphs 16 through 18, including all submittals required pursuant to such compliance schedules, and such failure is not excused under the provisions set forth in paragraphs 44 and 45, the County shall pay a stipulated penalty to the State for each calendar day each such failure continues in the amounts set forth below:

Days After Compliance Date	Stipulated Penalties
1-10	$ 500
11-30	$ 1,500
greater than 30	$ 5,000

Compliance with the Submittal requirements of this Amended Consent Judgment shall mean, for purposes of this paragraph, the timely transmittal to DEC of a complete submittal, which submittal is subsequently approved by DEC.

31. Any stipulated penalty shall begin to accrue on the day completed performance is due or a violation occurs, and shall continue to accrue through the final day of correction of the noncompliance. Stipulated penalties which accrue as a result of the County's failure to comply with Minor compliance milestone

dates contained in Appendices A, B, C, D, and E shall be paid into an escrow account established by the County. If the County complies with the next related Major compliance milestone date set forth in the relevant appendix, and on or before that date the County completes the requisite work for which the stipulated penalty has been assessed, then, upon the written approval of the State, the accrued stipulated penalty shall be released to the County along with any accrued interest. If the County does not comply with the next related Major compliance milestone date, then the stipulated penalty and any accrued interest shall be paid to the State. "Major" compliance milestone dates and "Minor" compliance milestone dates are identified and denoted as such in the Appendices.

32. Following the State's determination that the County has failed to comply with the requirements identified above, the State shall give the County written notification of the same and describe the noncompliance. The notice shall also indicate the amount of penalties already due and the amount of penalties to be due.

33. All stipulated penalties owed under this Amended Consent Judgment shall be payable within forty-five calendar days of receipt of the notification of noncompliance, unless the County invokes the dispute resolution procedures of paragraph 39, in which event the stipulated penalties shall be paid into an escrow account as provided in paragraph 35. Penalties shall accrue from the date of violation or noncompliance regardless of

whether New York State has notified the County of a violation. Payment of stipulated penalties shall be made by check, payable to the "State of New York" and mailed to the following address:

New York State Department of Law
Environmental Protection Bureau
120 Broadway
New York, New York 10271
Attention: (Assistant Attorney General of record)

A copy of the check and covering letter shall be sent to the persons identified in paragraph 52.

34. The payment of stipulated penalties shall not alter the County's obligation to complete the performance required under the Amended Consent Judgment. Nor shall the payment of stipulated penalties by the County alter the State's right to seek to enjoin the continued violation of this Order which may include additional penalties as determined by the Court, or any other right at law or equity available to the State.

35. The County may dispute the State's right to the stated amount of penalties solely by invoking the dispute resolution procedures provided herein. If the County invokes the dispute resolution procedures of paragraph 39, the County shall deposit the stipulated penalties at issue into an escrow account as they accrue, unless the County secures a stay from the Court. If upon resolution of the dispute the County prevails then the penalties shall be returned to the County along with any accrued interest. If the State prevails, then the stipulated penalties and any accrued interest shall be released to the State.

36. Plaintiffs State and ASLF may, jointly or separately,

move the Court for enforcement of the terms of this Amended Consent Judgment, including stipulated penalties.

DISPUTE RESOLUTION

37. The State, County, and ASLF (the "parties") recognize that in the course of the design, demonstration, construction, and modification, if any, of the upgrades and other actions provided for above, disputes may arise between the parties, including disputes relating to the State's review and approval of the County's Submittals and compliance with the other requirements in this Amended Consent Judgment. In the event that a dispute arises, the parties shall make reasonable efforts, under the circumstances, to resolve such disputes through negotiations.

38. In the event that the parties cannot resolve their dispute by negotiations, after reasonable efforts, which in no event shall run for more than forty-five days, the State may resolve the dispute by making a determination ("Determination") with respect to the subject of the dispute. The State's Determination shall (a) be in writing and issued by DEC's Regional Director for Region 7, (b) reference this provision of the Consent Decree, (c) describe the matter in dispute and the State's determination resolving the dispute, and (d) be transmitted by the attorney of record for the State to the attorneys of record for the County and ASLF.

39. All Determinations by the State, including but not limited to approval or disapproval of submittals and requirements

for the revision of submittals, or the applicability and/or amount of stipulated penalties, shall be final and binding unless within ten calendar days of receipt of the State's Determination by its attorney of record, the County petitions this Court for review. The County shall bear the burden of proof before this Court with respect to all matters in dispute. In any such dispute, the State's Determination shall not be set aside except upon a finding that such Determination is arbitrary, capricious, or contrary to the terms of this Amended Consent Judgment. The filing of a petition by the County pursuant to this paragraph shall not stay or excuse the performance of work or the timely transmission of submittals with respect to the disputed issue, except by agreement of the State or by order of the Court upon the County's application. The County shall have the burden of establishing, before the Court, the necessity and appropriateness of such a stay or excuse.

40. Failure to comply with a Determination shall subject the County to the penalties and other relief provided in paragraphs 28 through 36.

41. This Amended Consent Judgment encompasses a series of scientific and engineering undertakings over a period of fifteen years which are based on currently available scientific information and technologies. The parties recognize that scientific knowledge and technology may advance over time. In the event that DEC concludes, based upon information obtained pursuant to this Amended Consent Judgment or from any other

source, that work required pursuant to the Metro Construction Compliance Schedule, the CSO Control and Upgrade Compliance Schedule, or the Oxygenation Demonstration Compliance Schedule is duplicative, unnecessary, will not achieve the effluent limitations and surface water standards provided for in paragraphs 5 through 11, or that there are proven technologies available that could satisfy the requirements of this Amended Consent Judgment in a less costly manner, then the State may by Determination, revise the County's obligations accordingly, provided that the Determination is consistent with the requirements, including compliance dates, set forth in paragraphs 5 through 11. Any Determination made pursuant to this paragraph is subject to review pursuant to the terms and conditions in paragraph 39, except that (a) in addition to the County, ASLF may also file a petition seeking review, and (b) the Determination shall not be set aside except upon a finding that such Determination is arbitrary or capricious or contrary to the terms of paragraphs 5 through 11.

MODIFICATIONS

42. The terms and conditions of this Amended Consent Judgment may be modified by the written agreement of all the parties, on notice to EPA, and the approval of the Court. Notwithstanding the foregoing, DEC and the County may modify by written agreement, with written notice to EPA and ASLF, Minor compliance milestone dates set forth in the Appendices. A Determination made by the State shall not constitute a

modification within the meaning of this paragraph.

PEER REVIEW

43. DEC, in consultation with EPA, shall establish independent peer review committees (PRCs) whose sole function shall be to provide scientific advice to DEC, as it makes its technical decisions, with respect to the following matters: (a) the selection and use of the appropriate water quality models and associated calibration program to be used in formulating new TMDLs for Onondaga Lake and its tributaries, and the Seneca River, (b) quality assurance/quality control and other protocols regarding sampling and analysis of water quality related parameters for such water bodies as Onondaga Lake and its tributaries, or the Seneca River to the extent such monitoring is undertaken pursuant to this Amended Consent Judgment; and (c) any formally proposed amendments to the State's water quality standards or guidelines for Onondaga Lake and its tributaries or the Seneca River. In developing new TMDLs, DEC may rely on existing or new water quality models; in either case, the PRC will review the sufficiency of both the existing and new models, if any, for meeting the intended TMDL development purposes. Conclusions drawn by each PRC shall be presented in written form to all of the parties to this Amended Consent Judgment and to EPA.

FORCE MAJEURE

44. The County's obligations under this Amended Consent Judgment shall be performed within the time limits set forth

herein unless performance is delayed by mutual agreement of the parties in writing, or by events which constitute a force majeure. Financial considerations of the County shall not be considered a force majeure. For purposes of this Order, a force majeure is defined as including (a) an act of God, war, riot, accident, labor dispute, and inability to obtain lawful access to locations required for performance or (b) without limiting the foregoing circumstances, any circumstances of like or different character beyond the control of the County or its agents, employees, consultants and contractors, and which cannot be overcome by their due diligence. In the event of a force majeure, the County shall be obligated to perform the affected activities within a time period which shall not exceed the time period of the delay reasonably attributed to the force majeure. In the event of a dispute, the County shall bear the burden of proving that any delay results from circumstances which constitute a force majeure, that the delay could not have been overcome by due diligence, and that the proposed length of the delay is reasonably attributed to the force majeure.

45. The County shall orally notify the State as soon as possible after the County becomes aware that circumstances constituting a force majeure have occurred or are likely to occur. In addition, the County shall notify the State and ASLF in writing, as soon as possible, but not later than ten (10) business days after the County becomes aware that circumstances constituting a force majeure have occurred or are likely to

occur. Such written notice shall be accompanied by all available pertinent documentation, and shall contain the following: (a) a description of the circumstances constituting the force majeure; (b) the actions (including pertinent dates) that the County has taken and/or plans to take to minimize any delay; and (c) the date by which or the time period within which the County proposes to complete the delayed activities. The County's failure to timely notify the State and ASLF as required by this force majeure section shall render the provisions of paragraph 44 null and void insofar as they may entitle the County to an extension of time.

FINANCIAL ASSISTANCE

46. The State will endeavor, consistent with its legal authority, and, where necessary, subject to appropriation, and consistent with its responsibility to promote the health and welfare of its citizens, to obtain state financial assistance to help the County meet its obligations under this Amended Consent Judgment. Nothing in this paragraph shall be construed to create an enforceable obligation on the part of the State of New York or any of its agencies to provide financial assistance to the County. The County's obligations under this decree are not conditioned on the availability or receipt of financial assistance from the State or any other entity.

PUBLIC PARTICIPATION

47. The State shall develop a public participation program. The public participation program shall provide for:

A. Notice to and an opportunity for the public to review the proposed Amended Consent Judgment and a financial plan prepared by the County describing the manner and methods that the County plans to employ in order to finance its obligations under this Amended Consent Judgment within fifteen days from the date that the Amended Consent Judgment is fully executed by all the parties;

B. A thirty day period for the public to submit written comments to the State;

C. A public meeting at which time the parties will explain the scope and purpose of the Amended Consent Judgment and Order; and

D. All written comments from the public and the State's responses to public comments, which will be developed in consultation with the other parties, including comments expressed during the course of the public meeting, shall be filed with the Court.

48. The State shall provide EPA and the United States Department of Justice ("DOJ") with such notice, and opportunity to comment and object, as is required under the Clean Water Act.

49. This Amended Consent Judgment shall be lodged with the Court but shall not be entered by the Court as an enforceable decree until the Court is advised by the State, in writing, no later than twenty days after the close of the thirty-day public comment period, and following the close of EPA's and DOJ's time

to comment and object, that the public participation procedures, set forth above, have been completed and that entry of the Amended Consent Judgment is in the public interest.

APPROVAL BY COUNTY LEGISLATURE

50. The County Legislature shall have thirty days from the date this proposed Amended Consent Judgment is approved by the County Executive in a letter, to approve the Amended Consent Judgment. In the event that the proposed Amended Consent Judgment is not approved by the County Legislature and executed by the County Executive within the above referenced thirty days then the proposed Amended Consent Judgment shall be void. In such event the State and ASLF may, jointly or separately, move this Court for relief, which may include a proposed amended consent judgment(s) to implement the County's obligations containing such terms and conditions as the plaintiffs deem appropriate.

COMPLIANCE WITH APPLICABLE LAW

51. All activities required under this Amended Consent Judgment shall be performed in compliance with all applicable laws and regulations.

COMMUNICATIONS

52. In addition to any other requirement set forth above, all written reports and communications required by this Amended Consent Judgment, including the State's Determinations, shall be transmitted to the addressees listed below:

A. State of New York

i. N.G. Kaul, Director Division of Water
NYSDEC
50 Wolf Road
Albany, NY 12233

ii. Steven Eidt, Regional Water Engineer
NYSDEC
615 Erie Boulevard West
Syracuse, NY 13204

*iii. Mary von Wergers, Esq., Counsel's Office
NYSDEC
50 Wolf Road
Albany, NY 12233

*iv. Norman Spiegel, AAG
Office of the Attorney General
Environmental Protection Bureau
120 Broadway
New York, NY 10271

B. Onondaga County

i. David Coburn, Director of the Office of Environment
421 Montgomery Street, 14th Fl.
Syracuse, NY 13202

ii. John M. Karanik, Commissioner of the Onondaga Department of Drainage and Sanitation
650 Hiawatha Boulevard West
Syracuse, NY 13204

*iii Luis A. Mendez, Deputy County Attorney
421 Montgomery Street, 10th Fl.
Syracuse, NY 13202

C. Atlantic States Legal Foundation

i. Samuel H. Sage, President
Atlantic States Legal Foundation
658 West Onondaga Street
Syracuse, NY 13204

*ii. Richard J. Lippes, Esq.
Allen, Lippes & Shonn
1260 Delaware Avenue
Buffalo, NY 14209

D. Environmental Protection Agency

i. Patrick Harvey, Chief Compliance Assistance
Div. of Enforcement & Compliance Assistance
USEPA -- Region II
290 Broadway
New York, NY 10007

*ii Diane T. Gomes, Assistant Reg. Counsel
USEPA -- Region II
290 Broadway
New York, NY 10007

Reports and other communications transmitted pursuant to this paragraph which are comprised of technical or scientific data and information need not be transmitted, except upon request, to the addressees denoted by an asterisk ("*"), however, cover letters shall be transmitted. A party or EPA may change its designated addressees by written notice to the other parties.

53. No informal notice, guidance, suggestions, or comments by DEC's agents, representatives or employees shall relieve the County of its obligation to obtain formal written approvals from DEC as required by this Amended Consent Judgment and the appendices hereto. The terms and conditions of this Amended Consent Judgment shall not be varied except by order of the Court, except as is otherwise provided in paragraph 42.

COSTS AND FEES

54. The County shall pay to ASLF Clean Water Act citizen suit allowable costs incurred by ASLF in prosecuting this action and reaching agreement on this Amended Consent Judgment, including but not limited to attorney's fees, professional consulting services, and preparation for, travel to and attendance at meetings with the parties. It is specifically understood that the negotiations undertaken at the request of the

Governor's Office were an integral part of the process of reaching agreement and costs and fees associated therewith shall be compensated. The County shall pay ASLF Clean Water Act citizen suit allowable costs, incurred by ASLF through the date of execution of this decree, in an amount not to exceed two hundred thousand dollars ($200,000), subject to ASLF's submission to the County of an itemized invoice for such costs. Said costs shall be paid by the County within thirty days of the approval and entry of this Amended Consent Judgment by the Court.

55. The County shall pay ASLF three hundred and fifty thousand dollars ($350,000) in a lump sum toward the costs and fees that ASLF will incur in fulfilling its role as set forth in the Amended Consent Judgment. In addition, the County will take such steps as appropriate and within its legal authority to support ASLF's efforts to seek additional funds as may be necessary for ASLF to fulfill its role under this Amended Consent Judgment. Although the parties recognize that this payment may not correspond to the total costs and fees which ASLF might have recovered pursuant to the Clean Water Act, 33 U.S.C. section 1365, ASLF accepts the payment as being in full and complete satisfaction of any and all County obligations in respect to payment to ASLF for such costs and fees. ASLF shall annually account to the Court for the expenditure of such portion of the lump sum payment at such times and in such manner as the Court shall direct. All such expenditures shall be in accordance with ASLF's role as set forth in the Amended Consent Judgment, and

consistent with the CWA, 33 U.S.C. section 1365. ASLF shall serve in respect to such funds in a fiduciary capacity and ASLF shall return any residue remaining at the termination of the Amended Consent Judgment. The County shall pay the above sum in full to ASLF within 60 days from the entry of this Amended Consent Judgment.

RESERVATION OF RIGHTS

56. The parties reserve any rights they may have to petition the Court for relief from the terms and conditions of this Amended Consent Judgment. The provisions of paragraph 59 are not in derogation of any rights reserved by the County under this paragraph.

57. The State reserves all powers and rights that it may have as against the County in order to protect public health and the environment from an imminent hazard, nor shall this Amended Consent Judgment be construed so as to prohibit the Commissioners of Environmental Conservation and Health and their duly authorized representatives from exercising any summary abatement powers against the County, either at common law or as granted by statute.

58. All factual statements and representations set forth in this Amended Consent Judgment are made solely for the purposes of settlement. The provisions of this Amended Consent Judgment shall not be construed or deemed an admission or acknowledgment by the County of any liability or fault or fact or of the application of any law with respect to any claim that may be

asserted against the County under federal or state law by any person or entity that is not a party to this action.

59. In the event that the County is required to implement an engineering alternative other than a continued discharge to Onondaga Lake or the diversion to the Seneca River in order to satisfy the requirements of paragraphs 9 and 11, and such alternative would result in a substantial increase in the costs of compliance to the County than it would otherwise have incurred, then the County reserves any rights it may have under the Clean Water Act, 33 U.S.C. 1251 et seq., or any other federal or state statute, to seek appropriate relief solely on the grounds that it is not or should not be liable for the additional costs.

60. This Amended Consent Judgment resolves only the claims asserted pursuant to the Clean Water Act, 33 U.S.C. §§ 1311(a) and 1311(b)(1)(B) as set forth in the complaint filed in this action and parallel state law provisions in ECL §§ 17-0509 and 17-0511. The parties reserve all other claims, rights, and defenses that they may have under federal and state law, including but not limited to, any right the County may have to seek contribution credit for the costs it will incur under this Amended Consent Judgment in AlliedSignal Inc. v. County of Onondaga, Index No. 94-CV-390, or any other action.

AMENDED CONSENT JUDGMENT CONTROLS

61. If there is a conflict or inconsistency between the Amended Consent Judgment and its appendices, then, the Amended

Consent Judgment shall control.

TERMINATION

62. Following the satisfactory completion of all actions required under this Amended Consent Judgment and compliance for twelve consecutive months with all Stage III effluent limitations, the parties may petition the Court, jointly or separately, for an order deeming this Amended Consent Judgment satisfied.

COURT RETAINS JURISDICTION

63. The Court retains jurisdiction of the subject matter of this action for the purposes of enforcing the terms and conditions of the Amended Consent Judgment.

SO AGREED:

DATED 8/21/97

JOHN P. CAHILL
COMMISSIONER OF ENVIRONMENTAL
CONSERVATION FOR THE STATE OF
NEW YORK

FOR THE STATE OF NEW YORK AND
JOHN P. CAHILL AS COMMISSIONER
OF THE NEW YORK STATE DEPARTMENT
OF ENVIRONMENTAL CONSERVATION,
PLAINTIFFS

DATED: 8-21-97

DENNIS C. VACCO
ATTORNEY GENERAL OF THE
STATE OF NEW YORK

DATED: 8/21/97

JAMES H. FERREIRA, ASSISTANT
ATTORNEY GENERAL

DATED: 8/21/97

NORMAN SPIEGEL, ASSISTANT
ATTORNEY GENERAL, Attorney of Record
Bar Roll Number 102652

FOR ATLANTIC STATES LEGAL FOUNDATION,
PLAINTIFF

DATED: 21 Aug 97

SAMUEL H. SAGE, PRESIDENT OF ATLANTIC STATES LEGAL FOUNDATION

DATED: 9/2/97

RICHARD J. LIPPES, Attorney of Record

FOR THE COUNTY OF ONONDAGA AND THE ONONDAGA COUNTY DEPARTMENT OF DRAINAGE AND SANITATION, DEFENDANTS

DATED: 1/19/97

NICHOLAS J. PIRRO, ONONDAGA COUNTY EXECUTIVE

DATED: 9/19/97

JOHN M. KARANIK, COMMISSIONER ONONDAGA COUNTY DEPARTMENT OF DRAINAGE AND SANITATION

DATED: 9/19/97

JON A. GERBER, ONONDAGA COUNTY ATTORNEY

SO ORDERED:

THOMAS J. McAVOY, U.S.D.J.

DATED: 1/20/98

Exhibit

A

PROVISIONS APPLICABLE TO APPENDICES A, B, C, D, and E

Paragraphs I through V set forth below shall apply to appendices A, B, C, D, and E and they are hereby incorporated, as applicable, into each respective appendix.

I. The term "approvable engineering report and plans" or "approvable report" shall mean a document that conforms with the requirements and contains the elements as provided in "Recommended Standards for Wastewater Facilities - Great Lakes Upper Mississippi River Board of State Sanitary Engineers," 1990 Edition, chapters 10 and 20.

II. The County shall submit to DEC no later then the tenth day of each month a monthly progress report covering each of the projects listed in Appendices A, B, and C. Appropriate representatives of the County shall be available to meet with DEC representatives no less than quarterly to discuss the status of the projects listed in Appendices A, B, and C.

III. The County shall comply with SEQRA, as and if applicable, within the time frames established by the milestone compliance dates for each of the projects and other activities set forth in the appendices.

IV. Major milestone compliance dates within the meaning of paragraph 31 of the Amended Consent Judgment are as follows:

A. Appendix A, paragraphs II. 2, 4, 7, 12, 16, 18, 19, 21, and 22 (a - f).

B. Appendix B, paragraphs IV. 1, 5, 9, 11, 13, and 15.

C. Appendix C -- see text of appendix.

D. Appendix D, paragraphs I. 1, 2, and 3.

E. Appendix E, paragraph I.A.

Milestone compliance dates not identified above are Minor milestone compliance dates within the meaning of paragraph 31 of the Amended Consent Judgment. For ease of reference all Major milestone compliance dates are denoted by an asterisk "*."

The project descriptions in the appendices are intended to provide basic information about each project and the descriptions are not intended to be exhaustive.

APPENDIX A

METRO CONSTRUCTION MILESTONE COMPLIANCE SCHEDULE

I. Project Descriptions

1. Ammonia Removal Demonstration Project – This project will develop design criteria and performance characteristics for year-round removal of ammonia using biological nitrifying filters. The demonstration project will involve the use of pilot-scale nitrifying filters similar to those used in connection with demonstration projects performed in New York City, New York and Arlington, Virginia. The goals and objectives of the demonstration project include the development of design criteria (nitrification rates, hydraulic loading rates, etc.) to be used in connection with the subsequent design of full-scale facilities (Full Scale Ammonia Removal Project). In addition, the results of the demonstration project will be used to assess the performance capabilities of the nitrifying filters including performance of the filters during cold weather conditions and rapid changes in hydraulic loading conditions resulting from the combined sewer system.

2. Full Scale Ammonia Removal Project - The design and construction of full-scale biological nitrifying filters will be based on the results of the Ammonia Removal Demonstration Project. The full-scale project will be designed to meet the requirements of the Stage II ammonia limits in paragraph 7 of the Amended Consent Judgment.

3. Phosphorus Removal/Effluent Filtration Project - This project will reduce phosphorus discharges using conventional tertiary wastewater filtration. The filter system will be designed to treat effluent from the nitrifying filters constructed as part of the Full Scale Ammonia Removal Project. Chemical storage and feed facilities will be provided for chemical precipitation of phosphorus using iron and/or aluminum salts. The design shall identify achievable effluent levels for 5-day carbonaceous biochemical oxygen demand ("CBOD5") and Total Suspended Solids. The project will be designed to meet the requirements of the Stage II phosphorus limits in paragraph 8 of the Amended Consent Judgment.

4. Ammonia Source Trackdown and Reduction Program - The County will develop a trackdown program to identify industrial sources of ammonia and reduce those sources through the County's Industrial Pretreatment Program.

5. Advanced Phosphorus Removal Pilot Project - The County will conduct a pilot-scale demonstration project to evaluate the feasibility of new and innovative technology for removal of

phosphorus from the Metro effluent. The goal of this pilot project is to achieve the requirements of Stage III phosphorus effluent limits in paragraph 9.B of the Amended Consent Judgment.

II. Compliance Milestone Schedule

The County shall comply with the compliance milestone schedule set forth in subparagraphs 1 through 21, below:

1. Submit an approvable engineering report and plans for the Ammonia Removal Demonstration Project to DEC by May 2, 1998.

2. Commence the operation of the Ammonia Removal Demonstration Project by November 1, 1998.

3. Conclude the operation of the Ammonia Removal Demonstration Project by March 1, 2000.

*4. Submit an approvable report detailing the results of the Ammonia Removal Demonstration Project including a description of the treatment process and schematic design to DEC by April 30, 2000.

5. Submit an approvable engineering report and plans for the Full Scale Ammonia Removal Project to DEC by April 1, 2001.

6. Commence construction of the Full Scale Ammonia Removal Project by October 1, 2001.

*7. Complete construction of the Full Scale Ammonia Removal Project by November 1, 2003.

8. Submit an approvable engineering report and plans for the Phosphorus Removal/Effluent Filtration Project to DEC by April 1, 2003.

9. Submit an approvable plan to DEC for an ammonia source trackdown and reduction program to further reduce ammonia discharges to Metro by July 1, 2000.

10. Commence implementation of the ammonia source trackdown and reduction program by January 1, 2002.

11. Commence construction of the Phosphorus Removal/Effluent Filtration Project by October 1, 2003.

*12. Complete construction and commence operation of the Phosphorus Removal/Effluent Filtration Project by April 1, 2005.

13. Submit an approvable engineering report and plans for the Advanced Phosphorus Removal Pilot Project to DEC by October 1, 2005.

14. Commence operation of the Advanced Phosphorus Removal Pilot Project by April 1, 2006.

15. Conclude operation of the Advanced Phosphorus Removal Pilot Project by April 1, 2007.

*16. Submit a report detailing the results of the Advanced Phosphorus Removal Pilot Project including, (1) achievable phosphorus limits, (2) preliminary process selection, and (3) schematic design to DEC by July 1, 2007.

17. Develop and commence implementation of an optimization program for the Full Scale Ammonia Removal Project by October 1, 2004.

*18. Submit a report detailing the results of the activities undertaken, including the optimization program for the Full Scale Ammonia Removal Project and the source trackdown and reduction program to achieve further reductions in ammonia loading to DEC by July 1, 2007.

*19. Submit to DEC by October 1, 2010 an approvable engineering report and plans (1) to achieve Stage III effluent limits; or, (2) achieve revised effluent limits issued by DEC pursuant to a revised TMDL, if any; or, (3) to implement the diversion of effluent to the Seneca River or to implement another engineering alternative which fully complies with water quality standards.

20. Commence construction of the full-scale projects referred to in paragraph 19, above, as approved by DEC, by April 1, 2011.

*21. Complete construction and commence full operations of the projects referred to in paragraph 19, above, by June 1, 2012.

*22. Complete construction and begin operation of all the interim projects set forth in subparagraphs a through f below by July 1, 2002:

a. METRO Digital System Improvements. Operation of the existing METRO plant requires additional process monitoring and the generation of additional operational data. The existing METRO digital system is outdated and does not have the capacity for expansion. A new computer system will be installed to expand process monitoring and control capabilities.

b. Residuals Handling and Odor Control Improvements. Modifications to grit collection and removal systems will be installed in both the existing and new screening and grit buildings. Construction of a centralized odor treatment system for emissions generated at the primary clarifiers and the existing and new screening and grit buildings. These areas will be ventilated to a fine mist scrubber system with sodium hypochlorite addition. Upgrading of the new screening and grit building for receiving and dewatering screenings generated at METRO. Construction of a new waste hauler receiving station designed to minimize odors.

c. Digester Modifications and Mechanical Sludge Thickening Improvements. This project will improve sludge stabilization and dewatering as well as provide flexibility in digester operation. The County will review and evaluate the need for modifying Digester #4. Subject to DEC approval, this modification could include either upgrading the digester to continue to function as a secondary digester or convert Digester #4 to a primary digester. The evaluation for the need for mechanical sludge thickening will be conducted simultaneously.

d. Permanent Support Facilities for Phosphorus Removal. Existing temporary above ground chemical storage tanks and associated controls for phosphorus removal will be replaced. The new permanent tanks will provide flexibility for the use of alternate chemicals (ferric chloride, ferrous chloride, ferrous sulfate, and alum) and alternate chemical feed points (single or dual-point addition to primary settling, secondary treatment, or tertiary treatment facilities). Modifications to provide a means for isolating the tertiary pump station wet well for maintenance without requiring a complete bypass of secondary treatment facilities.

e. Aeration System Upgrade. The County will evaluate alternatives for the replacement of the existing aeration tank aerators and replace them with the DEC approved alternative.

f. Other Plant Improvements. Onondaga County will perform other plant improvements necessary to correct design

deficiencies, improve worker safety, and replace or repair deteriorated equipment. These plant improvements include:

i. The installation of perimeter handrails to the floating cover of Digester No. 4 and to the fixed covers of Digester Nos. 1 and 2 in order to improve worker safety. The replacement of three existing digester waste gas burners and the installation of a fourth waste gas burner. Upgrading of ventilation systems serving the digester control house to reduce excessive heat gain resulting from operating equipment.

ii. Correction of groundwater infiltration into the main gallery, which contributes to the deterioration of structural steel supports for gallery walkway grating and process piping. Structural steel supports will be replaced or repaired as necessary.

iii. Replacement or repair of the existing screenings and grit building diversion gate and operator. The gate, which is presently inoperable, is used to isolate the existing screening and grit building for maintenance and operating flexibility.

iv. Modifications to the chlorination system to provide the ability to chlorinate the return activated sludge for control of filamentous microorganisms.

v. Addition of instrumentation to improve process monitoring and control.

vi. Insulation and re-roofing of Primary Digester Nos. 1 and 3.

vii. Improvements to the cover structure for the influent diversion chamber.

viii. Addition of fall protection for a ladder located on the roof of the digester control house.

ix. Addition of variable frequency drive controls for the roof-mounted exhauster for the digester control house.

Exhibit

B

APPENDIX B

CSO CONSTRUCTION MILESTONE COMPLIANCE SCHEDULE

I. Within sixty days of the entry of the Amended Consent Judgment, the County shall submit to DEC a schedule for each project listed in Appendix B, specifying dates for the performance of the following activities: (1) compliance with SEQRA, if required, (2) site acquisition, and (3) submittal of engineering reports and plans.

II. Upon approval by DEC and filing with the Court, the schedule shall be incorporated into and made an enforceable part of the Amended Consent Judgment. The dates in the schedule shall become minor milestone compliance dates within the meaning of paragraph 31 of the Amended Consent Judgment.

III. CSO Project Descriptions

Major CSO Projects

1. Midland Avenue Conveyances Project: The service area for this facility encompasses the majority of the combined sewer area on the southern end of the City of Syracuse. The pipelines and regulators will be sized on the basis of a one-year storm. Even above the one-year storm, the collection system will intercept a high percentage of the volume associated with these precipitation events.

2. Midland Avenue Regional Treatment Facility ("RTF") Project: The Midland Avenue RTF Project will be located near Oxford Street and Onondaga Creek. The proposed treatment facility will include coarse screening in front of the facilities pump station wet well. Pumps will be used to lift the flow from the CSO transmission pipelines up to the vortex device where floatables and gross solids will be removed. The flow will then proceed to the disinfection tank, where it will be disinfected with either sodium hypochlorite or another disinfectant recommended after completion of the Newell Street CSO disinfection demonstration project. All treatment and transmission processes will be sized to accommodate the one-year storm at this facility. Concentrated solids from the RTF will be discharged back into the Main Interceptor Sewer (MIS) for treatment at METRO. This facility incorporates an interconnection to the MIS to capture overflows from the MIS during intense rainfall events. The only time that the interconnection will be active is during MIS surcharging conditions, thereby ensuring that the more concentrated "first flush" of pollutants is retained within the MIS.

3. Clinton Conveyances Project: The interceptor pipelines will be designed to transmit the discharges associated with all

CSO events equal to or less than the one-year storm. The length and diameter of the associated pipelines also allows the capture and storage of an appreciable percentage of all wet weather discharges. Pipelines necessary to intercept the discharge from the above-noted overflows will be constructed first and will terminate at the wet well for the RTF. A floatables entrapment device will be installed within the wet well area until such time when the remainder of the RTF is constructed. Many of the floatable solids will be removed at the point of discharge rather than being captured by the Onondaga Creek boom located at the head of the Inner Harbor.

4. Clinton RTF Project - The Clinton RTF Project will abate those CSO discharges located within the downtown portion of the Onondaga Creek basin. The basis of design of the RTF will be the 90-percentile storm for the vortex device and one year storm for the disinfection facilities. The wet well and pumping capacity for the Clinton RTF, however, will be sized to accommodate the peak discharge of a one-year storm. This will provide disinfection for all flows up to a one-year storm event. The design of the Clinton RTF will allow for the expansion of the facility up to the one-year storm basis of design. Expansion of the facility for flows up to and including the one-year storm will require a second 48-foot diameter vortex.

The Clinton RTF Project will include coarse screening in front of the pump station wet well. Pumps will be used to lift the flow from the CSO transmission pipelines up to the vortex device where floatables and gross solids will be removed. The flow will then proceed to the disinfection tank, where it will be disinfected with either sodium hypochlorite or another disinfectant recommended after completion of the Newell Street CSO disinfection demonstration project. Concentrated solids from the RTF will be discharged back into the MIS for treatment at METRO. This facility, like that of Midland, will incorporate an interconnection to the MIS that will capture overflows from the MIS during intense rainfall events. The only time that the interconnection will be active is during MIS surcharging conditions, thereby ensuring that the more concentrated "first flush" of pollutants is retained within the MIS.

5. Franklin Floatables Control Facility and Conveyances Project: The Franklin FCF will be located near the intersection of Routes 690 and 81. At this location, the two tributary trunk sewers associated with this facility (Burnet Avenue and Butternut Street) are only 400 feet apart. These trunks serve the northeast portion of the city. The FCF will comprise connecting pipelines and a floatables containment structure.

6. Maltbie Street Floatables Control Facility: Maltbie Street will include a floatables containment structure. Many of the floatable materials will be removed at the point of discharge rather than being captured by the Onondaga Creek floatables trap located at the head of the Inner Harbor. Pipelines will be constructed and a floatables containment structure will be incorporated into the existing pumping station superstructure.

CSOs 065 and 066 are tributary to this facility. The interceptor pipeline for this facility has already been constructed due to a failed regulator sewer for CSO 065 in 1995.

7. Sewer Separation: Sewer separation is an effective approach for abating CSO discharges for a selected portion of the Onondaga Creek basin. It is less expensive to separate a number of small and remote CSO basins than to incorporate them into other RTFs or FCFs. The following sewers are selected for separation:

022, 024, 037, 038, 040, 045, 046A, 046B, 048, 050, 051, 053, 054 057, 058, and 059.

The 212.8 acres for separation represents 3.1 percent of the total combined area in the collection system. The above-noted combined basins will be separated through the construction of a new sanitary sewer system within these areas and through the conversion of the existing combined sewer into a storm sewer.

The County, with input as provided by the City of Syracuse, will review infrastructure needs, maintenance considerations, and potential opportunities for sewer separation prior to the commencement of the following activity for the identified projects:

a. design of the Midland Avenue Conveyances Project.

b. design of the Clinton Conveyances Project.

c. design of each of the RTF facilities within the Harbor Brook drainage area, should RTFs be necessary.

A cost evaluation of sewer separation projects proposed by the city, or by any party to this agreement and order, shall be implemented by the county. When doing this evaluation, the cost of separation shall be compared with the savings realized from the sum total of: a.) reduced CSO abatement project costs; b.) reduced operating costs at the Metro sewage treatment plant; and any other savings as applicable; and achieves comparable water quality benefits. The County is obligated to construct only those sewer separation projects for which the anticipated savings exceed expected costs.

Interim CSO Projects

8. Hiawatha Boulevard Regional Treatment Facility (RTF) Demonstration Project (Vortex and Storage). The project will be designed to demonstrate and test vortex separation, in-line and off-line storage and disinfection of CSO. This project includes construction of three primary elements:

a. A 30-inch diameter Combined Sewer Overflow Interceptor Sewer along Hiawatha Boulevard to relieve surcharging of the existing Hiawatha trunk sewer.

b. A Regional Treatment and Storage Facility. Wet weather CSOs from the new 30-inch interceptor sewer will be directed into a swirl concentrator, where heavier solids and floatables will be removed. The overflow from this facility will then either be directed into a storage basin or be disinfected with sodium hypochlorite and discharged to Ley Creek.

c. Underflow Force Main and Outfall Extension Pipeline. An underflow force main will be constructed from the facility to the Ley Creek force main.

9. Newell RTF. The Newell Street project will involve the testing of alternative disinfection technologies, and thereby sets the basis for the disinfection technology to be used at subsequent RTF facilities.

10. Harbor Brook In-Water System. The CSO abatement proposed on Harbor Brook will use an in-lake technology called the EquiFlow system. The intent of this project is to be a demonstration project to determine the technical applicability of its use in this location. The maximum term of the initial project is 15 years. This system will provide an opportunity to demonstrate abatement of CSO, urban storm water, and non-point pollution through a combination of floatable solids entrapment, in-water storage, pumpback, and treatment at METRO. The in-water system will also include the construction of a floatable solids netting device to remove CSO and stormwater floatables from Harbor Brook before they reach the EquiFlow system. The design basis for the demonstration facility is one-half of the one year design storm which equates to a storage volume of 13 million gallons.

Five years after commencement of operation, a technical evaluation shall be completed and submitted to the DEC for review and approval. If the project is not deemed technically acceptable, the County will proceed with the design and construction of the Delaware and State Fair RTFs at a construction schedule to be proposed by the County to DEC.

If DEC approves the project for the full fifteen years interim period then at the end of the fifteen years the County may propose a final alternative subject to applicable SEQRA and permitting requirements.

11. EBSS Storage Upgrade. The Erie Boulevard Storage System (EBSS) was constructed as part of BMP improvements in the early 1980s. The existing large diameter storm sewer running underneath Erie Boulevard (7.5 feet by 10.5 feet) has automated sluice gates to entrap CSOs that discharge to this structure. These discharges will be temporarily stored in the EBSS until METRO had capacity to accept the flow. The EBSS is adequate to totally contain the discharge from a 90-percentile storm from its tributary area.

Improvements will be made to this system so that it will function reliably, including the installation of aboveground sluice gate control structures, level sensors, an inflatable dam, and a state-of-the-art Supervisory Control and Data Acquisition (SCADA) control system.

12. Kirkpatrick Street Pumping Station Upgrade. The Kirkpatrick Street Pumping Station is the only large pump station in the combined sewer system. This facility was constructed in 1973 to pump flow from the Hiawatha trunk sewer into the MIS. A comprehensive wastewater facilities plan and sewer system evaluation survey will be developed for the proposed upgrade of this facility to address the wastewater transportation needs of the Hiawatha trunk sewer and Oil City redevelopment areas. The pump station discharge will be removed from the main interceptor sewer and redirected to the headworks at METRO. Additional measures will include refitting the pump station with new pumps, drives, and controllers, as well as modifications at CSO 075 as specified in the SPDES permit to eliminate discharges for storms up to the one-year storm.

13. Evaluation of Siphon Crossings. Approximately 20 siphons cross Onondaga Creek, conveying sewage from trunk sewers to the Main Interceptor Sewer. A smaller number also exist on the Harbor Brook interceptor. The dry weather bacterial concentrations and phosphorus loads observed in previous years in these streams may be an indication of problems with these siphons, many of which are 70 to 80 years old. These structures may be acting as sources of sewage discharge to these streams and Onondaga Lake during periods of low stream flow (exfiltration). These siphons will be evaluated by the County and any defects will be corrected.

14. Evaluation of CSO Toxicity. In 1989, NYSDEC measured evidence of pollution related stress on the macroinvertebrate populations of the principal tributaries of Onondaga Lake and concluded that the impacts appear to be a result of sewage discharges and toxic chemicals. In general, CSOs should not represent a significant source of potentially toxic material other than at certain locations where significant industries exist. The County will monitor the collection system adjacent to

industrial discharges and evaluate control methodologies to minimize or eliminate potential toxics from CSO discharges, including source control.

15. Onondaga Creek Floatables Control Facility (Boom with Collection Structure). The Onondaga Creek facility will be located downstream of all CSOs which discharge into the creek and above the Inner Harbor area. The best location appears to be in Onondaga Creek just downstream of the Kirkpatrick Street bridge and just upstream of the Inner Harbor. The County will implement the plan once developed and approved.

16. Harbor Brook Floatables Control Facility (FCF). The Harbor Brook floatables netting device will be located in the downstream reach of the brook between Hiawatha Boulevard and the outlet to Onondaga Lake. By placing the facility as close to the lake as possible, floatables capture will be most effective for the entire brook. The purpose of this facility is to capture most of the floatable material that is discharged to the lake from Harbor Brook. A secondary purpose of this facility is to capture floatables in the brook before they enter the proposed EquiFlow™ facility.

17. Teall Brook FCF. The Teall Brook FCF will be located downstream of the CSOs that are discharged into the brook. The optimal accessible location appears to be the outlet of the storm sewer at the origin of the brook at Teall Avenue. The purpose of this facility would be to capture floatable material discharged from the CSO system in this northern section of the City.

IV. CSO Compliance Milestone Schedule

The County shall implement the following projects in accordance with the compliance milestone schedule set forth in subparagraphs 1 through 15, below:

*1. Complete construction and begin operation of each and every CSO Interim Project by July 1, 2002.

2. Commence construction of the Midland Avenue Conveyances Project by May 1, 1999.

3. Complete construction and begin operation of the Midland Avenue Conveyance Project by May 1, 2004.

4. Commence construction of the Midland Avenue RTF Project by May 1, 2004.

*5. Complete construction and begin operation of the Midland Avenue RTF Project by May 1, 2007.

6. Commence construction of the Clinton Street Conveyances Project by May 1, 2003.

7. Complete construction and begin operation of the Clinton Street Conveyances Project by May 1, 2007.

8. Commence construction of the Franklin Floatables Control Facility and Conveyances Project by May 1, 1998.

*9. Complete construction and begin operation of the Franklin Floatables Control Facility and Conveyances Project by May 1, 2000.

10. Commence construction of the Clinton Street RTF Project by May 1, 2007.

*11. Complete construction and begin operation of the Clinton Street RTF Project by January 1, 2012.

12. Commence construction of the Maltbie Street Floatables Control Facility Project by May 1, 2001.

*13. Complete construction and begin operation of the Maltbie Street Floatables Control Facility Project by May 1, 2002.

14. Commence construction of the Sewer Separation Projects by May 1, 1999.

*15. Complete construction and begin operation of the Sewer Separation Projects by January 1, 2012.

Exhibit

C

APPENDIX C

OXYGENATION DEMONSTRATION PROJECT COMPLIANCE MILESTONE SCHEDULE

I. The County shall implement an in-lake oxygenation demonstration project. The goal of the project will be:

a. to determine and report on the feasibility and suitability of implementing a lake-wide system to supplement point and non-point source controls for the attainment and maintenance of in-lake dissolved oxygen standards; and

b. to prevent oxygen depletion in the epilimnion, in the fall, after turnover and the associated migration of aquatic species from the Lake.

II. A technical work group which includes representatives from DEC, EPA and outside experts (selected by DEC in consultation with EPA), will be established to provide peer review and develop the experimental design and demonstration project work plan by October 1, 1998. The County shall begin implementation in accordance with the work plan by May 1, 1999, which date shall be a Major milestone compliance date within the meaning of paragraph 31 of the Amended Consent Judgment.

A technical report shall be generated to determine whether implementing lake-wide aeration is a feasible interim remedy. If lake-wide oxygenation is viable, the technical report will include a plan for implementation, including:

- the recommended full-scale aeration program;
- the recommended implementation schedule; and
- the estimated costs

The report on the feasibility must be submitted to the DEC for review by April 1, 2003, which date shall be a Major milestone compliance date within the meaning of paragraph 31 of the Amended Consent Judgment.

Exhibit

D

APPENDIX D

AMBIENT MONITORING PROGRAM

I. The County shall:

*1. Submit an approvable ambient monitoring plan for Onondaga Lake, its tributaries, and the Seneca River to DEC by February 1, 1998. The monitoring plan shall be designed to meet the objectives outlined in II, III, IV, and V below.

2. Meet with the parties no later than June 1, 1998, and prior to DEC's approval or disapproval of the proposed ambient monitoring plan, to discuss the ambient monitoring plan.

*3. Commence implementation of the approved ambient monitoring program on August 1, 1998.

4. An approvable annual report of analyses computation and evaluation of the ambient monitoring program shall be submitted by December 1 of the following year. The raw data will be submitted to the DEC on a quarterly basis.

5. The approvable ambient monitoring plan submitted by the County by February 1, 1998, shall include a general six month sampling schedule for non-event related sampling, specifying locations and dates, and shall be updated every six months. The plan for event related sampling, shall specify a number of annual activities as well as a sampling/notification protocol related to event response. In the event of a need to alter that schedule due to unforeseeable circumstances such as adverse weather or equipment failure, DEC and ASLF shall be notified in writing as soon as practicable prior to the event. DEC and ASLF may attend such sampling events and, upon request, by either or both parties be provided with duplicate samples for up to 10% of the scheduled sampling events.

6. Starting in February of 2000 and continuing every two years thereafter the parties will meet to discuss changes which should be made to enhance and clarify the monitoring program. The County shall implement the changes, subject to DEC approval, by April 1 of the same year.

II. TRIBUTARY AND LAKE WATER QUALITY MONITORING PROGRAM

1. Structure monitoring programs to collect data at the temporal and spatial scale required to assess compliance with ambient water quality standards and progress toward use attainment.

2. Expand long-term monitoring programs to include assessment of the physical habitat available to stream and lake biota, and indicators of the biotic response.

3. Incorporate sufficient flexibility so that monitoring and assessment of additional chemicals or potential sources can be done as needed.

4. Concentrate data collection during critical ecological periods (e.g., spring spawning of dominant lake fishes, onset of thermal stratification, fall mixing).

5. Define monitoring as in internal priority at Department of Drainage and Sanitation; dedicate sufficient resources to enable necessary flexibility, responsiveness, and reporting requirements.

6. Increase participation of outside technical experts, such as the current County Lake Advisory Group, in the design and implementation of the monitoring program and the interpretation of results.

7. Utilize quality assurance/quality control (QA/QC) procedures in the field and laboratory programs. Draw on guidance developed by NYSDEC and USEPA for use in documenting quality of data collected under state and federal water programs.

8. Maintain data in an electronic format that facilitates summarizing data, graphically depicting results of ambient monitoring and results of the QA/QC program. Provide data to regulatory agencies and other interested parties on a quarterly basis. Acquire the necessary hardware, software and personnel training to meeting this objective.

III. OBJECTIVE OF THE TRIBUTARY MONITORING PROGRAM

1. Quantify external loadings of phosphorus, nitrogen, suspended solids, indicator bacteria, heavy metals, and salts. Utilize the software program FLUX to quantify external pollutant loadings, calculate the standard error of loading estimates, and continually refine the allocation of sampling resources to best estimate loads. Shift monitoring efforts from a scheduled to an event-based program to minimize the standard error of external load calculations.

2. Implement a tributary monitoring program that includes a sufficient number of samples collected during high flow conditions to enable a reliable partitioning of point and non-point sources of phosphorus to Onondaga Lake. A minimum of 5 days of tributary sampling should be conducted for predetermined high flow conditions.

3. Collect storm event data both upstream and downstream of the CSO discharges to Onondaga Creek , Harbor Brook and Ley Creek.

4. Gather data on an adequate temporal and spatial scale to assess compliance with ambient water quality standards in Onondaga Creek, Harbor Brook and Ley Creek.

5. Measure attributes of the physical environment in the lake tributaries, including velocity and cross-sectional area, to map erosional and depositional sections. Conduct field surveys for the presence and character of sludge deposits in depositional areas from above the CSO discharges to the tributary mouths. (Note that several of the lake tributaries have been physically altered and channelized in urban sections. The County is not proposing to alter the physical character of these stream segments, only to document existing conditions.) Map the physical characteristics of the stream bed that could affect spawning habitat from the tributary mouths upstream until a barrier to fish passage is encountered. Sample the streams' macroinvertebrate communities and calculate the NYSDEC's rapid field biotic index throughout the tributaries' length.

6. Continue cooperative arrangements with USGS to gauge stream flows for the major lake tributaries. Improve flow estimates (and therefore loading estimates) of Tributary 5A.

7. Continue data collection, analysis, and reporting consistent with the long-term tributary database (1970 to 1997), or the modified protocols established during that period, to enable statistical trend analysis. This recognizes that not all data gathered during that time frame will be useable.

IV. OBJECTIVES OF THE ONONDAGA LAKE MONITORING PROGRAM

1. Gather data on an adequate temporal and spatial scale to assess compliance with ambient water quality standards, including bacteria concentrations in near-shore areas following storm events. Sampling stations should be consistent with previous near shore sampling sites where possible.

2. Assess the trophic status of the lake.

3. Continue data collection, analysis, and reporting consistent with the long-term lake database (1970 to 1997), or the modified protocols established during that period, to enable statistical trend analysis. This recognizes that not all data gathered during that time frame will be useable.

4. Complement the chemical monitoring program with a biological monitoring effort to assess the densities and species composition of phytoplankton, zooplankton, macrophytes, macrobenthos, and fish.

5. Evaluate the success of walleye, bass, and sunfish propagation (quantitative lakewide nest surveys, recruitment estimates, and juvenile community structure) in the lake. Coordinate the frequency of the monitoring program with NYSDEC fisheries management activities on the lake.

6. Establish data sharing protocols with the NYSDEC to enable the County to track contaminant burden fish flesh.

7. Acquire and track data by others regarding the nature of the littoral (shallow area) sediments in Onondaga Lake.

V. OBJECTIVES OF THE RIVER MONITORING PROGRAM

1. Evaluate current water quality of the Seneca River and compliance with ambient water quality standards upstream and downstream of the Onondaga Lake outlet.

2. Evaluate and quantify the assimilative capacity of the Seneca River and quantify effects of zebra mussels.

3. Concentrate river monitoring during critical conditions of warm weather and low stream flows.

4. Design monitoring to test temporal and spatial variability (for example, diurnal variations in river water quality presence, and extent of chemical stratification).

Exhibit

E

APPENDIX E

ENVIRONMENTAL MONITOR

I. The County shall establish and maintain an account with DEC to fund the Environmental Monitor for the duration of all activities required in the Amended Consent Judgment as follows:

*A. The sum of seventy-five thousand dollars ($75,000) shall be submitted to DEC within 30 days of the entry of the Amended Consent Judgment. This sum is based on an estimate of annual Environmental Monitor program costs and is subject to quarterly revision. Subsequent quarterly payments shall be made for the duration of the Amended Consent Judgment to maintain an account balance sufficient to meet the next nine month's anticipated expenses. Quarterly payments shall be made for the duration of this order in accordance with the following provisions.

B. Costs to be covered by this fund include:

1. Direct personal service costs and fringe benefits of the full time Environmental Monitor including the costs of replacement personnel for the person regularly assigned to this position.

2. Direct non-personal service costs, including without being limited to purchase or lease of vehicle if necessary and its full operating costs.

3. Inflation increases and negotiated salary increase.

4. Indirect support or overhead costs at the New York State Department of Environmental Conservation Federally-approved Indirect Costs Rate.

C. Upon written request by Onondaga County, DEC shall make available to the County any records, e.g., vouchers, time records, relating to such Environmental Monitor costs, consistent with applicable law.

D. As noted, DEC may revise the required payment on a quarterly basis to include all costs of monitoring to the DEC. The quarterly revision may take into account factors such as inflation, salary increases, accrued interest to be applied to the balance, changes in operating hours and procedures and the need for additional Environmental Monitors and supervision of such Environmental Monitors by full-time Environmental Monitor supervisors. Upon written request by Onondaga County, DEC shall provide the County with a written explanation of the basis for any modification.

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