

Amended consent judgment (ACJ) — summary

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The Onondaga Lake Amended Consent Judgment (ACJ) stems from a 1989 Judgment on Consent settling litigation between the State of New York, the Atlantic States Legal Foundation, and Onondaga County in connection with alleged violations of state and federal water pollution control laws. The conditions of the Judgment on Consent required the County to perform a series of engineering and scientific studies to evaluate the need for upgrading the Metropolitan Sewage Treatment Plant (Metro) and for providing treatment of the combined sewer overflows (CSOs) that occur in the Metro service area.

Based on the results of those studies and in consultation with the State Department of Environmental Conservation (NYSDEC) and the U.S. Environmental Protection Agency (USEPA), the County developed a plan for upgrading the Metro plant and addressing the CSOs. The County submitted the proposed Municipal Compliance Plan (MCP) to the State and Atlantic States Legal Foundation on January 11, 1996. Following submission of the MCP, there were numerous discussions and negotiations with regard to the proposed MCP. The result was the execution of the Amended Consent Judgment (ACJ) which was signed in January 1998 by all the parties—NYSDEC, the State Attorney General, ASLF, and the County. The provisions of the ACJ resolve a number of controversies that grew out of the 1989 Consent Decree, and takes the place of what historically has been referred to as the "Municipal Compliance Plan" (MCP). The ACJ reflects, to a large extent, the objectives established by a policy resolution passed by the County Legislature in 1995 (Resolution 95-158) which was intended to guide negotiators in developing the Municipal Compliance Plan. The principles outlined in the policy resolution called for a plan based on the "phased implementation" of the various upgrades to Metro and combined sewer overflows (CSOs), and the measurement of water quality improvements to the lake resulting from each phase of construction.

Key provisions

The ACJ is designed to improve the water quality of Onondaga Lake and achieve full compliance with state and federal water quality regulations by December 1, 2012. The ACJ specifically includes a listing of over thirty projects to be undertaken over 15 years. Although completion of the entire project is not required until 2012, many of the projects will be completed by 2009. The ACJ describes the intent of each project and sets time schedules for specific work related to each project to be completed. These milestones relate to such activities as completion of environmental review, start of construction, and commencement of operation.

The projects can be divided into three main categories:

- Improvement and upgrading of the County's main

sewage treatment plant (Metro)

- Eliminating and/or decreasing the effects of the combined sewer overflows on the lake and its tributaries
- A lake and tributary monitoring program designed to evaluate the effects of the improvement projects on the water quality of the lake and tributary streams.

Improvements to Metro

The focus of the improvements slated for Metro relate to reducing the amount of ammonia and phosphorous currently discharged into Onondaga Lake from Metro. Although Metro currently provides a high level of treatment to the wastewater and combined sewage received from the sanitary district, the County must meet more stringent effluent limits for both ammonia and phosphorous under the ACJ. To meet these limits, the County is planning to build two new filtration facilities—one to address ammonia removal and the other to reduce the phosphorous levels in the Metro discharge. Additional filtration or other alternatives may be required to meet the ultimate ACJ effluent limits to be into effect December 1, 2012.

Under the ACJ, specific effluent limits concerning ammonia and phosphorous are called for in phases with a specified timetable.

Metro Phase I (current)

Phase I has the following requirements:

- "No net increase" on existing effluent limits for ammonia discharged from Metro until May 1, 2004
- "No net increase" on existing effluent limits for phosphorus discharged from Metro until April 1, 2006.

Metro Phase II

Beginning no later than May 1, 2004, Metro must meet an interim ammonia effluent limit of 2 milligrams per liter (mg/L) in the summer and 4 mg/L in the winter, measured as a 30-day average. To meet this limit an ammonia filtration facility will be constructed at an approximate cost of \$130 million.

Beginning no later than April 1, 2006, Metro must meet an interim phosphorus limit of 0.12 mg/L, measured as an average over 12 months. To meet this limit a single pass phosphorus filtration facility must be constructed at an approximate cost of \$70 million.

Metro Phase III

The effluent limits established for Phase III have been based on the assumption that the current water quality standards for the lake will not be met by the Phase II projects described above. The limits are based on calculations of acceptable wasteloads to the lake, and have been determined by NYSDEC using its best professional judgment after making use of water quality models developed by the Upstate Freshwater Institute and analyzing current water quality data.

Before Phase III construction begins, NYSDEC anticipates revising its calculations for acceptable wasteloads to the lake. Scheduled to occur no later than February 1, 2009, these revisions would partly be based on an assessment of the effects of the Phase II projects on the lake as measured by the ongoing monitoring program. NYSDEC is also planning to revise its ammonia standards in the near future. The existing ammonia standards are based on USEPA's 1984 criteria document. In 1992 and 1995, USEPA revised its ammonia criteria, and further revision

to the ammonia criteria are now under consideration. NYSDEC is awaiting the results of USEPA's current review of the ammonia standard before initiating its ammonia standards modification process.

As with the ammonia standard, NYSDEC is committed to a review of the appropriateness of the phosphorus guidance value for Onondaga Lake by February 1, 2009, before Phase III construction begins.

In the event existing standards and allowable waste load calculations are not revised as a consequence of the review described above, Phase III of the plan will require the following:

- No later than December 1, 2012 Metro will be required to meet a final effluent limit for ammonia of 1.2 mg/L in the summer and 2.4 mg/L in the winter, measured as a 30-day average.

- No later than December 1, 2012 Metro will be required to meet a final effluent limit for phosphorus of 0.02 mg/L.

The cost for upgrades to meet these Phase III limits, which may require an additional filter or a pipeline to divert the Metro discharge to the Seneca River, is estimated at \$65 million. Before making a decision on whether to divert the Metro discharge to the Seneca River, NYSDEC will be required to calculate allowable wasteloads and determine effluent limits that will not violate the water quality standards for that body of water.

It should be noted that effluent filtration and other projects required as part of the Phase II schedule, are necessary for either continued discharge into Onondaga Lake or a future discharge to the Seneca River.

CSO improvements

The CSO program consists of a number of projects designed to reduce the effects of the CSOs on the water quality of Onondaga Lake and three of its tributaries. Sixty-six overflow points contribute to the pollution of Onondaga Lake. All are located within the City of Syracuse along Onondaga Creek, Harbor Brook, and Ley Creek. The following goals are specified in the ACJ for the County's program to achieve:

- Elimination or 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
- Elimination or minimization of floating substances in the lake attributed to the CSOs
- Achievement of water quality standards for bacteria for that part of the lake classified as B (approximately the northern two-thirds of the lake for which New York State determined that swimming should be the designated best use).

Under the ACJ lake improvement program, the CSOs will be addressed through a combination of technologies. The four main types of projects are floatables control facilities, regional treatment facilities, sewer separation, and increased storage and transport capacity.

Fifteen projects will be completed under the CSO improvement part of the lake improvement program. Another thirteen sewer separation projects in the City of Syracuse may then be undertaken.

The cost of the proposed CSO program is approximately \$144 million. However, if the program does not meet the required objectives, or if New York State does not approve the Harbor Brook In-Water interim project on a permanent basis, additional construction may be required.

Ambient monitoring program

The ACJ requires the County to monitor conditions in the lake, its tributaries, and the Seneca River to evaluate the effects that improvements to Metro and the CSOs bring about on water quality. Although the County has been monitoring the water quality of Onondaga Lake since 1970, the ACJ required a more intensive program which would relate to the specific improvements planned and give statistical validity to their effectiveness. The County was required to implement this new program by August 1, 1998. The ACJ describes the objectives of the program, specifies types of monitoring, and sets a schedule for the program.

The ACJ requires that the program:

- Collect data at the temporal and spatial scale

required to assess compliance with ambient water quality standards and progress toward use attainment

- Expand the long-term monitoring program to

include assessment of the physical habitat available to stream and lake biota and indicators of the biotic response

- Incorporate sufficient flexibility so that

monitoring and assessment of additional chemicals or potential sources can be done as needed

- Concentrate data collection during critical

ecological periods

- Be an internal priority of the Department of

Water Environment Protection

- Include increased participation of outside

technical experts

- Use quality assurance and quality control

procedures

- Maintain data in an electronic format.

Other provisions

The ACJ includes a number of other provisions, including:

Oxygenation demonstration The County is required to implement a large-scale demonstration project to test the feasibility of technology to artificially oxygenate the lower waters of the lake. The possible need for this oxygenation is based on water quality model projections. New York State will provide the County with a work plan for the project.

NYSDEC monitor The County funds employment of a full-time monitor to work for NYSDEC on lake-related issues. The monitor provides NYSDEC oversight on the projects and serves as an intermediary between the County and NYSDEC.

A provision reserving the rights of all parties, including the County, to petition the Court for relief from the Judgment

A provision reserving to the County the right to seek contribution credit in the related Allied Action for expenses incurred pursuant to the proposed Agreement

A provision permitting the use of alternative technologies approved by New York State if such technologies could accomplish the goals of the settlement in a less costly manner.

Dispute resolution between the parties

Penalties and other payments The 1989 Consent Judgment included a provision for a monetary penalty of \$875,000 if the County failed to comply with the requirements of the Amended Consent Judgment. The full \$875,000 would have gone directly to the New York State Treasury. NYSDEC determined that the County did not submit an acceptable MCP on January 11, 1996 as required. The penalty paid to New York State has been reduced to \$50,000. The ACJ also required the County to provide \$387,500 (administered by the Central New York Regional Planning and Development Board) to be used for the implementation of an Environmental Benefit Project (EBP). The EBP will consist of non-point source projects (such as agricultural runoff) and management strategies intended to promote nutrient and other management practices to protect Onondaga Lake and its tributaries from non-point pollution. The County was required to pay Atlantic States Legal Foundation (ASLF) allowable costs that were incurred by ASLF in prosecuting the action they brought against the County and in reaching agreement on this Amended Consent Judgment. This amount was not to exceed \$200,000 and will be paid only after review of documentation of costs incurred. The County was also required to pay ASLF \$350,000 in a lump sum toward the costs and fees that ASLF will incur in fulfilling its future role over the next 15 years, as set forth in the Agreement. ASLF is required to file with the Court an annual accounting of its use of these funds and to return any unused sums at the close of the Agreement.

Further, the County will be required to pay stipulated penalties in the future if it fails to comply with any of the requirements in the proposed Agreement. Penalties vary depending upon the nature of the violation and its duration and whether the violation involves a Major or a Minor milestone project. The ACJ states that stipulated penalties that occur as a result of the County's failure to comply with a Minor milestone date will be paid into an escrow account established by the County. If the County complies with the next related Major milestone date, the funds would be returned to the County along with any accrued interest. Further, the Agreement includes a provision to reduce penalties for effluent violations if the County has complied with the effluent limit for 12 months.

It should be noted that the Agreement recognizes that construction associated with the plan will result in interruptions to the treatment process at Metro and exceedences of the permitted effluent limits. Modified interim effluent limits will be established for these periods.

Financial projections and funding

The improvements undertaken as a part of the ACJ are expected to cost \$380 million (in 1999 dollars) and will be undertaken over 15 years. In the event that future compliance determinations require the construction of additional filtering for phosphorous or a pipe to the Seneca River commencing in the year 2010, the cost of the project would be expected to increase by \$65 million.

Construction costs will be supported by direct aid from state and federal governments, low interest subsidized loans from the New York State Environmental Facilities Corporation, and user charges assessed to owners of property located in the Consolidated Sanitary District. The

County estimates receipt of direct state and federal aid totaling approximately \$260 million over the 15-year construction schedule. Sources of these funds include \$75 million in direct aid from State Environmental Bond Act funds and \$36 million in federal aid already appropriated for projects included in the lake plan.

Based on a model which assumes 3% average annual inflation and the aid levels discussed above, it is estimated that the lake project will add \$25 to the unit charge by the year 2000. By the year 2005, the cost of ACJ projects are projected to increase the current unit charge by \$91. By the year 2010 the increase is expected to be \$142, and by the year 2015, will be \$156.

August 1999

Amendment to ACJ, 2006

With agreement from all parties to the ACJ, the NYS Attorney General's office electronically filed a motion to amend the ACJ with U.S. District Court on December 13, 2006. The amendments reflect changes that have occurred since the original ACJ was ordered and signed in 1998.

Most of the changes relate to differences in field conditions experienced in the design or construction of certain ACJ projects. They include:

- Consolidation of the ammonia and phosphorus removal facilities
- Use of a skimmer boat in the Inner Harbor rather than a boom
- Design and construction of a CSO abatement plan for Harbor Brook that includes conveyances and RTFs rather than the previously proposed in-water system
- Suspension of a requirement for an oxygenation demonstration project.