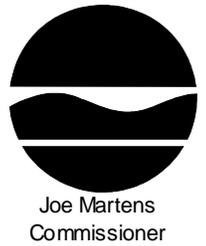


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**Albany Pool Combined Sewer Overflow (CSO) Long-Term Control Plan (LTCP) and
Consent Order
Frequently Asked Questions
January 16, 2014**

CSO BACKGROUND INFORMATION

(More information about CSOs is available on the New York State Department of Environmental Conservation (NYSDEC) website at <http://www.dec.ny.gov/chemical/48595.html>)

Question 1. What are Combined Sewers?

Answer 1. A combined sewer system (CSS) is a sewer system that is designed to collect storm water runoff, domestic sewage, and industrial wastewater in the same pipe and bring it to a publicly owned treatment works (POTW) facility.

During rain events, when storm water enters the sewers, the capacity of the sewer system may be exceeded and the excess water will be discharged directly to a waterbody (such as rivers, streams, estuaries, and coastal waters).

The untreated water may contain untreated sewage that may impact human health.

Question 2. What is a CSO?

Answer 2. A combined sewer overflow (CSO) is the discharge from a combined sewer system that is caused by snowmelt or storm water runoff.

Question 3. How Many CSS Communities are there in New York State?

Answer 3. Combined sewers systems are found across New York State, except on Long Island. However, most CSOs are found in large cities. Most large municipal sewer systems in New York State consist of combined sewers in older downtown urban areas with separate sanitary and storm sewers serving newer outlying suburban areas.

About ten percent of the CSOs in the United States are found in New York State. There are approximately 937 CSO outfalls in New York State. Each combined sewer system in New York State is required to have a State Pollutant Discharge Elimination System (SPDES) permit, which is issued by NYSDEC.

The number of CSO outfalls listed in the permits of POTWs has decreased from 1300 to 937 since 1993, due to CSO abatements completed by the permittees.

Question 4. What is Being Done to Identify CSO Problems?

Answer 4. NYSDEC enforces the requirements of the Wet Weather Water Quality Act and monitors SPDES permit compliance. SPDES permits must require Best Management Practices (BMPs) and a Long-Term Control Plan (LTCP) for combined sewer systems with CSOs.

Question 5. What is a CSO LTCP?

Answer 5. If the best management practices alone will not result in compliance with the federal Clean Water Act (CWA), NYSDEC includes additional controls through the requirement of a Long-Term Control Plan. A Long-Term Control Plan is a phased approach for control of CSOs that requires the permittee to develop and submit an approvable plan that will ultimately result in compliance with the New York State water quality standards and federal Clean Water Act requirements.

Question 6. What is the Wet Weather Water Quality Act?

Answer 6. In 1994, the United States Environmental Protection Agency (USEPA) issued a National CSO Control Policy. The Wet Weather Water Quality Act of 2000 requires each combined sewer system to conform to the requirements in the National CSO Control Policy. The requirements include implementing Nine Minimum Controls (NMC) and a Long-Term Control Plan (LTCP). The NMCs are technology-based controls that can be used to abate CSOs. The LTCP consists of more extensive characterization and monitoring of the combined sewer system and the receiving water, as well as selection and implementation of CSO control alternatives, with the intent of minimizing the impacts of CSOs on water quality.

Question 7. What is NYSDEC's Role in the LTCP?

Answer 7. The USEPA (National) CSO Control Policy is part of the National Pollutant Discharge Elimination System (NPDES). In 1975, NYSDEC received approval from USEPA to run New York State's Pollutant Discharge Elimination System and it is known as the State Pollutant Discharge Elimination System or SPDES. The SPDES program controls wastewater and storm water discharges in accordance with the federal Clean Water Act. Since USEPA gave NYSDEC the authority to run the SPDES program, NYSDEC is responsible for making sure that municipalities comply with the law. Part of ensuring compliance is to review, approve and enforce the LTCPs of New York municipalities. It is common for NYSDEC to provide a municipality with comments on its draft LTCP. The municipality must address the comments. Once NYSDEC approves an LTCP, the municipality can commence the necessary work to implement their LTCP.

ALBANY POOL LONG-TERM CONTROL PLAN

Question 8. What is the Albany Pool?

Answer 8. Albany Pool is a coalition of six local communities in the state's capital area that came together to address the environmental impacts caused by the combined sewage overflow from their wastewater collection and conveyance facilities. The Albany Pool members are: Cities of Albany, Cohoes, Troy, Rensselaer and Watervliet and the Village of Green Island.

Question 9. Is the Albany Pool required to complete an LTCP?

Answer 9. Yes. The New York State SPDES permits held by each of the Albany Pool Communities requires them to complete a single, joint LTCP. The SPDES permits of the two sewer districts (Albany County Sewer District and Rensselaer County Sewer District) require them to cooperate and assist in the Pool's work on the single LTCP. As referenced in Question # 4, above, LTCPs are generally required for combined sewer systems with CSOs. With project planning and coordination provided by the Capital District Regional Planning Commission ("CDRPC"), and with the assistance of environmental consultants, the Albany Pool Communities prepared a draft LTCP that was submitted to NYSDEC on June 30, 2011. NYSDEC disapproved the draft LTCP on December 5, 2012. After many improvements, DEC approved the final LTCP on January 15, 2014.

Question 10. How does the Albany Pool Final CSO LTCP Comply with the USEPA CSO Control Policy?

Answer 10. To meet the water quality objectives of USEPA's CSO Control Policy, the Final LTCP, would achieve the capture-and-treat of 85 percent of the CSO annual volume by:

- designing, building, operating and maintaining a new satellite treatment facility on the largest CSO outfall
- implementing multiple sewer separation projects that will eliminate some of the existing CSOs
- installing many projects to control discharges from CSOs of floatable solids
- optimizing the Albany County and Rensselaer County Sewer District wastewater facilities to capture and treat the maximum amount of combined sewage possible.

The major elements of the Final LTCP, include:

- The Albany Pool developed a Water Quality Model to predict the impact of CSOs in the region. This model was calibrated with in-stream monitoring data collected over a period of two years.
- After the implementation of all LTCP projects, the Water Quality Model predicts the Hudson River will meet the water quality standards for fecal coliform. Additionally, the CSS will capture-and-treat of 85 percent of the annual CSO volume. Because the CSS will capture and treat 85 percent of CSO volume, the USEPA CSO Control Policy assumes the receiving waters will meet water quality standards. Sampling of the receiving waters after full implementation of the LTCP is required to confirm this assumption.
- The LTCP projects would achieve the 85 percent CSO capture-and-treat criteria by
 - maximizing the flow of combined sewage from the Albany Pool communities to the Albany County and Rensselaer County WWTPs
 - sewer separation projects
 - sewer system optimization
 - construction of a satellite treatment facility at the largest CSO outfall in the system.

To provide the maximum pollution reduction benefits reasonably attainable by the communities, the Final LTCP, also commits the Albany Pool communities to construct additional facilities to control the discharge of floatable solids at several major CSO outfalls in City of Cohoes, and at the Corning Preserve in the City of Albany where it is most cost effective to remove floatables from entering the river via CSOs. There are other BMPs and pump stations upgrades throughout the Albany Pool communities that will result in the removal of floatable solids.

- After the LTCP projects are implemented, the Water Quality Model also shows the river returning to swimmable/fishable use within 10 hours after 90 percent of the rain events experienced in this area (up to 1 inch in 24 hours). Staff consulted with New York State Department of Health in deriving the acceptable bacteria concentration for contact recreational use in the River for model input. The modeling results would be confirmed by post-construction monitoring.
- The satellite treatment facility would be constructed at the largest CSO outfall that accounts for about 40 percent of the Pool-wide CSO discharge volume on an annual basis. This treatment facility would be designed to allow for cost-effective expansion if more CSO capture is needed to achieve the water quality standards and protect the designated uses of the River. Where possible, this cost-effective approach is employed in the design of the other CSO control projects.

Question 11. How does 85 percent capture and treat compare to other waterways?

Answer 11. The USEPA CSO Control Policy requires municipalities with CSOs to address the water quality issues caused by the CSOs. One option USEPA allows municipalities to select to address their CSO problems is to capture and treat 85 percent of the CSO. Nationwide this is the criteria that municipalities have to meet under USEPA’s CSO Control Policy. Many of the CSO LTCPs approved by NYSDEC use this option to meet the requirement of the CSO Control Policy.

Question 12. Does the Final Albany Pool LTCP, use Green Infrastructure (GI) to Mitigate CSO Impacts?

Answer 12. Yes, the final LTCP includes a strategy to maximize the benefits from green infrastructure (GI) in reducing the storm runoff to the CSS, thereby reducing the overall CSO volume and the frequency of discharges. The GI projects would not replace proven conventional CSO control technologies, called “gray” infrastructure projects, under the LTCP. Instead, the GI projects are supplemental offerings by the Albany Pool Communities to show a good faith effort to do more to mitigate the impacts of storm water runoff on the CSS.

The major elements of the GI strategy include:

- A review of municipal legal codes to identify provisions that could be amended to include and advance GI practices in all six communities.
- Develop a local technical guidance document for green practices to be applied in both public and private projects in all six communities. Development would include educational outreach with municipal leadership and decision makers.
- Implementation of five GI demonstration projects to collect and assess local performance data for future projects, similar to the approach taken in New York City.
- Documentation and reporting on new public and private green projects within the CSS, including the development of an annual estimated runoff volume reduction.
- Assess the feasibility of a GI banking and credit system.
- Coordinate public education and outreach with the Department’s MS4 program.

Question 13. What is the Cost and Duration of the Final Albany Pool LTCP?

Answer 13. The approximate cost of implementing the final Albany Pool LTCP is \$136 million. The Plan would take 15 years to implement. However, 90 percent of the LTCP projects would be completed in the first 10 years of the Plan. The cost of the final LTCP program in the first 5 years is approximately \$56 million.

Question 14. There are Eight Entities (six Albany Pool Communities plus the Rensselaer County Sewer District and the Albany County Sewer District) Collectively Responsible for Implementing the LTCP. How Does the Group Ensure that the LTCP is Implemented?

Answer 14. The eight entities entered into a Memorandum of Agreement that commits each entity to implement and fund the LTCP. Additional inter-municipal agreements will be needed and are expected to be in place by early 2015. In addition, by entering into a Consent Order with NYSDEC, the eight entities have made binding legal commitments to design, fund, build, operate and maintain the LTCP projects, and to undertake a post-construction monitoring program to determine whether applicable standards have been met or whether any additional work may be necessary.

Question 15. What Role do the County Sewer Districts Play in the Consent Order and LTCP?

Answer 15. The Albany County Sewer District and the Rensselaer County Sewer District would play a vital role in this collective effort to address the CSO impacts in the six Albany Pool communities. The three WWTPs in the two sewer districts collect and treat sewage generated from the six Albany Pool communities. The two sewer districts are parties on the Albany Pool final LTCP Consent Order with the Department because the sewer districts’ SPDES permits require them to cooperate and assist in the Pool’s work on the LTCP and because the sewer districts are responsible to implement some of the LTCP projects. Treatment plant, pump station, and trunk sewer upgrades and improvements are part of the overall LTCP strategy to maximize the flow of combined sewage to the treatment plants and thereby reduce CSO discharges. It is only with the cooperation from the two sewer districts that the Albany Pool Communities can achieve the water quality objectives of the USEPA CSO Control Policy in the most efficient and cost effective manner.

Question 16. How do the area wastewater disinfection projects complement the water quality objective of the LTCP?

Answer 16. As described in Question 10, part of the LTCP is to maximize wet weather flow to the wastewater treatment plants. The design of the disinfection system in all three wastewater treatment plants is

sized to disinfect the wet weather flow. The projects are in various stages of being built and the following is a list of the facilities and the status of their disinfection project.

- The Rensselaer County Sewer District installed equipment to disinfect its treated effluent in November, 2013. They are to begin seasonal disinfection of the plant's effluent on May 1, 2014.
- The Rensselaer County Sewer District and Cities of Troy and Rensselaer are addressing sewage discharges that can occur from the combined sewer system during dry weather under a separate consent order.
- The Albany County Sewer District is required by its SPDES permits to install disinfection systems by 2014 and is working to be able to begin seasonal effluent disinfection at their north and south plants as early as next summer.
- East Greenbush under a consent order is scheduled to complete improvements by December 31, 2014 at its wastewater treatment plant and within the sewer system to eliminate sewage overflows during wet weather conditions.

Question 17. What is the role of the Capital District Regional Planning Commission (CDRPC) in the LTCP?

Answer 17. The Albany Pool Communities entered into an Inter-Municipal Agreement to prepare and submit to NYSDEC an LTCP pursuant to the USEPA CSO Control Policy. On behalf of the Albany Pool Communities, the Capital District Regional Planning Commission (CDRPC) provided project planning and coordination among the municipalities, and was the lead contact with the Communities' environmental consultants who were tasked to prepare the final LTCP and with NYSDEC. More information on CDRPC is available at its website http://www.cdrpc.org/CDRPC_Home.html.

Question 18. How Will NYSDEC Know the Goals of the LTCP are Achieved?

Answer 18. The Consent Order specifies each of the projects in the LTCP and includes a compliance schedule. According to the terms of the Consent Order, the design for each project must be submitted to DEC on time and must be approved by DEC before construction may begin. Likewise certifications of on-time completion in accordance with the design must be submitted after the construction of each project, and NYSDEC inspections will follow. These are a few examples of the oversight tasks that will be undertaken by the Department to ensure compliance. In addition, under the terms of the Consent Order, engineering representatives of all eight entities must sit down with NYSDEC at least twice a year to monitor the progress of the LTCP projects and work out ways to minimize or eliminate any sources of potential delay. If any of the eight entities fails to adhere to the LTCP compliance schedule or otherwise violates the terms of the Consent Order, NYSDEC can take enforcement action. Once the LTCP has been implemented, a post-construction monitoring program will commence to assess if the control program is successful in achieving the water quality goals of the LTCP. If the goals are not reached, more control projects may be required under the terms of the Consent Order.

Question 19. Was there Public Input during the Development of the LTCP?

Answer 19. Yes. Under the USEPA CSO Control Policy local governments with CSOs must conduct a public outreach process to inform their constituents about the CSO problem in their community, discuss solutions and the cost of solutions. Between 2007 and 2011, on behalf of the Albany Pool, the Capital District Regional Planning Commission held six Citizen Advisory Committee Meetings and four public meetings to present to the public:

- findings of the early system characterization information,
- water quality problems that the LTCP would need to address,
- approach that the LTCP will take to address the water quality problems and
- solicit public input for a final draft plan.

Public input was sought at each of these sessions.

NYSDEC is required to review the LTCP to make sure it complies with USEPA's CSO Control Policy. This review is regulatory and therefore does not have a public input process.

Question 20. What are the Main Differences between the Final LTCP and the Draft LTCP Submitted on June 30, 2011?

Answer 20. The main differences are the addition of the satellite CSO treatment facility at the largest CSO outfall that accounts for 40 percent of the pool-wide CSO annual volume, the increased controls on CSO discharges of floatable solids, and the strategy to maximize the benefits of GI in the communities for CSO reduction. In addition, NYSDEC advised the Pool to include more aggressive schedules for implementation of the satellite CSO treatment facility and the Corning Preserve project for control of floatable solids; two projects with significant pollution reduction benefits.

Question 21. Will the LTCP Provide a Way to Measure CSOs in the Albany Pool?

Answer 21. The 85 percent capture and treatment for the Albany Pool CSO was determined by water quality model. The CSO volume will not be measured at the end of the pipe. Instead, according to the requirements of the USEPA CSO Control Policy, the post-construction monitoring will verify that the receiving waters meet the water quality objective of the LTCP. If the monitoring finds that the objectives have not been met, then the Albany Pool will be required to implement additional projects to reach the goals.