

## **Long Term Control Plan (LTCP) Flushing Creek Meeting #2 - Summary of Meeting and Public Comments**

On October 23, 2014 DEP hosted the second of three public meetings for the water quality planning process for long term control of combined sewer overflows (CSOs) in Flushing Creek. The two-hour event, was held at the AI Oerter Recreation Center on Fowler Avenue in Queens, and was preceded by a tour of the Flushing Creek CSO Retention Facility. The meeting provided information about DEP's Long Term Control Plan (LTCP) development for Flushing Creek. DEP presented information on the LTCP process, Flushing Creek watershed characteristics, and the status of engineering alternatives evaluations, and provided opportunities for public input. The presentation can be found at <http://www.nyc.gov/dep/ltcp>.

Approximately fifteen people from the public attended the event as well as representatives from the Department of Environmental Protection and the New York State Department of Environmental Conservation. The following summarizes the questions and comments from attendees as well as responses given.

**Q. An attendee asked if the new Whitestone Interceptor would allow for the CSO retention tank to dewater faster than it currently does.**

A. DEP replied that Whitestone Interceptor projects are intended to reduce CSOs to the East River and Flushing Bay. The tank dewatering time is a function of the size of the tank, its dewatering pump station capacity, the capacity of the conveyance system to the Tallman Island WWTP and the capacity of the WWTP itself, which are not materially impacted by the Whitestone projects. Therefore, the dewatering time will not be improved by that work.

**Q. A resident asked about the capacity of the Tallman Island WWTP.**

A. DEP replied that the design flow was approximately 110 million gallons per day (mgd). As a point of clarification, DEP would like to correct the statement: the design flow is 80 mgd.

**Q. An attendee asked if changing the hydrology of the drainage area, such as daylighting creeks, was considered.**

A. DEP indicated that projects similar to the Staten Island Blue Belt were not considered under the LTCP, but that green infrastructure projects, which modify

the hydrologic characteristics of the drainage area, are being planned and designed in the drainage areas tributary to CSO outfalls TI-011 and TI-022.

Q. An attendee observed that the water quality appears to improve as one progresses towards the mouth of the river but recalled that DEP stated that even complete elimination of CSO does not achieve water quality goals and asked why this might be the case.

A. DEP concurred with the premise of the question, and stated that this has to do with the physical characteristics of the river and tidal influence from the larger waterbody of the East River. DEP also noted that there is a balance that must be established between water quality goals and capital commitments in an era of tight budgets.

Q. An attendee asked for a clarification on the operation of the existing CSO retention tank. Specifically, does the tank bypass when it is full.

A. DEP stated that the tank does bypass when it is full. Referencing the schematic in the presentation, DEP indicated that there are weirs at the end of the tank and just upstream of the screens that allow bypassing to protect the tank and upstream sewer system from flooding. If the water level continues to rise once bypassing has begun, the sluice gates upstream of the screens will close to protect the facility.

Q. In reference to DEP noting high residual chlorine levels in disinfected CSO and its potential toxicity to aquatic species, an attendee commented that ultraviolet light (UV) disinfection would not have a residual.

A. DEP agreed that UV disinfection does not have the same toxicity concerns as chlorine. However, UV disinfection requires relatively clean water to be effective. Disinfecting lower quality water, such as a CSO requires much higher doses and energy consumption. Further, DEP uses sodium hypochlorite (chlorine solution similar to household bleach) for disinfection at its WWTPs, which means DEP's operations staff is already familiar with safety protocols, operation, and maintenance of sodium hypochlorite systems.

Q. An attendee asked why disinfection is only proposed to occur during the recreation season and if year-round disinfection is something that will be considered.

A. DEP explained DEC has provided guidance that disinfection will only be provided during the recreation season (May 1 to October 30). Additionally, disinfection is intended to reduce pathogen levels to make it safe for primary contact (immersion) recreation and primary contact generally only occurs in the recreation season. Disinfecting for the entire year would not improve recreation season water quality and would result in discharging more chlorine to the environment.

Q. Noting that DEP indicated that Flushing Creek does not meet water quality standards all of the time, an attendee asked if there was a specific time of the year that it does not meet water quality standards.

A. DEP explained there are a number of factors impacting water quality, including CSOs, and that reduced quality may occur at any time of the year. For example, CSOs can occur due to heavy rains in the spring or snow melt in the winter.

Q. While DEP was describing additional water quality sampling that was completed as part of the development of the Flushing Creek LTCP, a representative of the DEC recalled that during a meeting on the Hutchinson River, the DEP indicated that the wettest time of the year is from April and October.

A. DEP noted that the sampling completed under the LTCP was done from November 2013 to May 2014, including both historically wetter and dryer months. The timing of sampling for a particular waterbody is based on project schedules and available resources. Additionally, wet weather sampling requires sampling during and just after rainfall events and thus sampling events can only occur when certain weather dependent conditions occur.

Q. A representative from the DEC requested clarification regarding the City's position on the impact to water quality from dredging and wetland restoration.

A. DEP referenced the presentation slides on the dredging and wetland restoration project currently being coordinated with the Army Corps of Engineers (COE). The DEP noted several environmental and water quality benefits from dredging and wetland restoration and the DEP is currently moving forward with the planning and design of a joint dredging and restoration project with the COE within Flushing Creek.

Q. A representative of the Friends of Flushing Creek indicated that they have had conversations with the COE confirming that they are indeed moving forward with a project in conjunction with the DEP, but also noting a concern that CSOs will continue to discharge into Flushing Creek after the project is completed.

A. The DEP responded that alternatives to reduce CSO volumes discharged to Flushing Creek have been evaluated. The DEP is implementing green infrastructure projects which will manage approximately 8% of the first inch of rain that falls on impervious surfaces within the drainage area. The costs and benefits of other grey projects, aimed at providing additional CSO storage, were evaluated against the shortlisted alternatives but were eliminated because the benefits were small relative to costs and because of concerns over increased risk of upstream flooding.

Q. An attendee commented that City-wide, the City has more CSO than it can afford to eliminate.

A. DEP agreed.

Q. An attendee asked if the DEP had quantified the reduction in CSOs anticipated from the implementation of green infrastructure in the drainage area.

A. DEP stated that the green infrastructure projects are currently being planned and designed and that the anticipated reduction in CSO volume will be determined as the projects move into implementation. Referencing a bioswale on an information board, the DEP indicated that a single bioswale can prevent approximately 2,900 gallons from entering the combined system. The number of projects in the two targeted drainage areas tributary to Flushing Creek has not yet been determined.

Q. A representative of the Friends of Flushing Creek noted that the LTCP for Alley Creek was initially rejected because it was not robust enough.

A. DEP responded that the Alley Creek LTCP was rejected in part because the DEP had not proposed disinfection at the existing tank. The shortlisted alternatives for Flushing Creek include a number of disinfection options.

Q. As a follow up question, a representative from the DEC asked that if the DEC did not find the shortlisted alternatives acceptable, which of the previously screened alternatives would DEP most likely consider as their next option.

A. DEP indicated that system optimization would be given a second look even though it was eliminated over concerns of increased flooding risk.

Q. An attendee asked if an alternative did not achieve the forecasted goals, would DEP restart the process and identify a new alternative.

A. DEP stated that the process would not revert to the beginning, but design modifications would be considered that satisfy the requirements from DEC regarding CSO mitigation and address whatever problem was causing DEP to question the continuation of that alternative. DEP noted that anything they construct is going to be an improvement and because of the environmental review process would not be a detriment.

Q. An attendee inquired about the schedule for submittal of the Flushing Creek LTCP.

A. The LTCP will be submitted in December 2014.

Q. An attendee asked if dredging or wetland restoration can be completed separate from the other.

A. The DEP indicated that dredging is usually necessary as part of wetland restoration to remove exposed sediment and that it is more cost effective to install the wetland as part of the dredging project so the contractor does not have to re-mobilize to the site.

A representative of the DEC commented that floating wetlands are being considered elsewhere in the City and could be considered in Flushing Creek to extent the penetration of green infrastructure.

Q. An attendee asked if the minutes of the meeting would be available before the end of the comment period.

A. DEP indicated that the minutes will be up by then.