



City of Cambridge



Massachusetts Water Resources Authority



City of Somerville

**JOINT PUBLIC NOTICE
APRIL 2014**

**Alewife Brook Combined Sewer Overflow Control
Progress Update**

This notice is required by the Massachusetts Department of Environmental Protection (DEP) as an annual update on the progress of Combined Sewer Overflow (CSO) control measures that are underway to improve the water quality of Alewife Brook. You are receiving this notice because your property lies within the extended 100-year floodplain of Alewife Brook as established and currently in effect by the Federal Emergency Management Agency (FEMA).

The water quality of Alewife Brook is often impaired due to bacteria and other pollutants from a number of sources, including cross connections between sanitary sewers and storm drains, urban stormwater runoff, and CSOs. During both wet and dry weather, the water quality of Alewife Brook can be impaired and fail to meet state bacteria standards for fishing and swimming.

Portions of Cambridge and Somerville are served by combined stormwater and sanitary sewer systems common in older cities. Seven CSO outfalls along Alewife Brook can release an untreated mix of stormwater and sanitary flow during large storms when stormwater can overwhelm the capacity of the combined sewers. While these discharges may impair water quality, they provide critical relief to the sewer system when flows exceed capacity, preventing sewage backups into homes, businesses and streets.

As part of the Federal District Court Order in the Boston Harbor Case (D. Mass. C.A. No. 85-0489-RGS), the Massachusetts Water Resources Authority (MWRA) is required to undertake certain corrective actions to reduce or eliminate CSO discharges along Boston Harbor, the Mystic, Charles and Neponset Rivers and Alewife Brook. MWRA, in cooperation with the cities of Cambridge and Somerville, is currently designing and constructing several projects that, when completed, will significantly reduce CSO discharges to the Alewife Brook.

Substantial design and construction progress has been made and significant work is underway to implement the six projects that comprise the long-term CSO control plan for Alewife Brook on schedules mandated by the Federal District Court Order, as follows:

1. CAM004 Stormwater Outfall and Wetland Basin (CambridgePark Drive Area Drainage Improvements and Stormwater Wetland Project) will convey stormwater flows removed from the combined sewer system to an innovative stormwater wetland. The constructed wetland basin, completed by the City of Cambridge in 2013, will attenuate the stormwater flows and provide an additional level of water quality treatment prior to draining the stormwater to the Little River and Alewife Brook. The wetland also contributes to the ecological, recreational and educational goals of the Department of Conservation and Recreation's (DCR) Master Plan for the Alewife Reservation.
2. CAM004 Sewer Separation (Alewife Sewer Separation Project: Huron A, Huron B and Concord Avenue) is installing new storm drain and sewer systems in neighborhoods along and near Huron and Concord Avenues to remove stormwater from the overburdened combined sewer system, protect Fresh Pond Reservoir, allow Cambridge to eliminate CSO discharges at CSO Outfall CAM004, and reduce CSO discharges at the other outfalls, thereby improving water quality in the Little River and Alewife Brook. Cambridge completed early work along Fresh Pond Parkway in 2000-02 and is now constructing the remaining, major elements of the project. Cambridge is nearing completion of the first of three planned construction contracts (Huron A) and commenced construction of the Huron B and Concord Avenue contracts in September 2013 and January 2014, respectively. Cambridge plans to complete all of the CSO related sewer separation work by December 2015, in compliance with MWRA's Federal Court Order. Street and sidewalk restoration will continue into 2016 in the Huron B and Concord Avenue contract areas.
3. CAM400 Manhole Separation removed stormwater from sewer systems in the Whittemore Avenue area by separating manholes that were common to the storm drain and sewer systems. Cambridge completed construction of this project in 2011, eliminating CSO discharges from CSO Outfall CAM400 and converting it to a dedicated stormwater outfall.

4. Interceptor Connection Relief and Floatables Control upgraded the connections between Cambridge's and MWRA's sewer systems to provide greater capacity and also fitted certain CSO outfalls with floatables control. Cambridge completed construction of this project near the intersection of Alewife Brook Parkway and Massachusetts Avenue in 2010.

5. Control Gate and Floatables Control at Outfall MWR003 and Rindge Ave. Siphon Relief will help minimize overflows while controlling sewer system flooding in very large storms. The outfall and siphon are located in the Alewife Reservation immediately behind the MBTA Alewife Station. MWRA commenced design of this project in March 2012 and recently brought the design to 100% completion. MWRA plans to commence construction in August 2014 and complete the project by October 2015, in compliance with the Federal Court Order.

6. Interceptor Connection Relief and Floatables Control at Outfall SOM01A reduces CSO discharges from Somerville's Tannery Brook Conduit and provides floatables control for remaining discharges. The outfall is located off the Alewife Brook Parkway just north of Massachusetts Avenue. MWRA completed construction of this project in December 2013, in compliance with the Federal Court Order. The full benefits of this project in reducing CSO discharges at Outfall SOM01A will be realized with completion of the CAM004 Sewer Separation project in December 2015.

Together, these projects are predicted to reduce average annual CSO volume to Alewife Brook by 85% (from 50 million gallons in 1997 to 7.3 million gallons), reduce the frequency of discharges from 63 times a year to seven times a year on average, eliminate discharges at two CSO outfalls, and bring the remaining CSO outfalls into compliance with Class B ("fishable/swimmable") water quality standards 98% of the time. Work already completed by MWRA, Cambridge and Somerville has significantly reduced the number of CSO events and the total volume discharged annually to the brook. The ongoing work is in addition to sewer separation work completed by the City of Somerville in the 1980s and 1990s that closed several other CSO outfalls.

MWRA estimates that the average annual CSO discharge volume to Alewife Brook is less than one-third what it was in 1997, primarily as a result of the work Cambridge has completed to date to implement MWRA's long-term control plan, as well as improvements completed by MWRA in 2008 to upgrade pumping capacity at its Alewife Brook Pump Station that directs wastewater flows from communities in the Alewife watershed to larger systems that convey the flows to the Deer Island Treatment Plant. The long-term CSO control plan projects are scheduled to be complete by December 2015, in compliance with the Federal Court Order.

It is important to understand that floodwaters in all cases can present health risks, and proper precautions are necessary to minimize these risks during flooding events. Public health officials recommend avoiding contact with the brook during rainstorms and for 48 hours afterwards, as there may be increased health risks due to bacteria or other pollutants. DEP has developed guidance for homeowners for responding to flooding or sewer backups, which can be found at:

<http://www.mass.gov/eea/agencies/massdep/water/wastewater/flooding-and-sewage-back-ups-home-care-guide.html>.

For more information on CSOs and the CSO control program, visit MWRA's, Cambridge's and Somerville's websites, at www.mwra.com, www.cambridgema.gov/theworks.aspx, and www.ci.somerville.ma.us. MWRA recently issued its CSO Annual Progress Report for 2013, which describes the projects and progress made with the regional long-term CSO control plan. The report also includes a summary presentation of water quality conditions in Alewife Brook and the Mystic River. The report can be found on MWRA's website at <http://www.mwra.com/cso/csoannualreports.htm>.

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