



City of Cambridge



Massachusetts Water Resources Authority

**JOINT PUBLIC NOTICE  
APRIL 2020**

**Charles River Basin 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 to improve the water quality of the Charles River Basin. The water quality in the Charles River Basin (from the Watertown Dam to the Charles River Dam) can be impaired due to bacterial and other pollutants from a number of sources, including CSOs, cross connections between sanitary sewers and storm drains, and stormwater runoff. According to the latest Charles River Report Card issued by the U.S. Environmental Protection Agency (EPA) (<https://www.epa.gov/charlesriver>), in 2018 during dry weather, 94% of the Charles River samples met the state's bacterial water quality standards for boating, and 66% of the samples met the state's criteria for swimming. In wet weather, 91% of the samples met the boating standards, and 47% met the swimming criteria.

Contaminant sources that contribute to water quality impairment include CSO, stormwater or other discharges from communities along the Charles River Basin, including Boston and Cambridge, as well as stormwater and other discharges from communities along the Charles River upstream of the Watertown Dam. All of these communities are undertaking programs to identify and control sources of pollution to the Charles River. Portions of Boston and Cambridge are served by combined stormwater and sanitary sewer systems common in older cities. Nine CSO outfalls permitted to the Massachusetts Water Resources Authority (MWRA) and the City of Cambridge on the Charles River Basin (see the map below) are designed to release CSOs (a mixture of wastewater and stormwater) during heavy rainfall to provide critical relief to the sewer system when flows exceed system capacity. While these discharges can contribute to the impairment of water quality, they are necessary to prevent sewer backups into homes, businesses and streets.

CSOs and contaminants that can get into separate stormwater pipes can include bacteria and other pathogens, oxygen-demanding pollutants, solids and other contaminants. Because of increased health risks associated with these contaminated discharges, public health officials recommend avoiding contact with the Charles River Basin during rain events and for a period of 48 hours following rainfall, as there may be increased health risks during these periods. Contact with floodwaters should also be avoided as they may contain similar contaminants and pose associated health risks. Proper precautions are necessary to minimize these risks during flooding events. DEP has developed guidance for homeowners for responding to flooding onto property from large storms 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>.

As part of the 35-year old Federal District Court Order in the Boston Harbor Case (D. Mass. C.A. No. 85-0489-RGS), MWRA is required to undertake certain corrective actions to reduce or eliminate CSO discharges to Boston Harbor, the Mystic, Charles and Neponset Rivers and Alewife Brook. MWRA and its communities with permitted CSO outfalls, including Boston, Cambridge, Chelsea and Somerville, have been reducing CSO discharges since the 1980s. Major improvements to the regional wastewater collection and treatment system by MWRA and local system improvements by the communities, including the separation of combined sewers with construction of new storm drain systems, have contributed to the closing of many CSO outfalls and a nearly 90% reduction in the total annual volume of CSO discharge region-wide.

In December 2015, MWRA, in partnership with its CSO communities, completed the last of the 35 projects in the Long-Term CSO Control Plan (LTCP) approved by the U.S. Environmental Protection Agency (EPA) and DEP and mandated in the federal court order. Eight of the 35 projects have contributed to the control of CSO discharges to the Charles River. Together, the eight projects and other efforts by Boston Water and Sewer Commission and the City of Cambridge have closed five CSO outfalls and tentatively closed two additional outfalls (CAM009 and CAM011) pending additional hydraulic evaluations by the City of Cambridge. MWRA and its communities have made great progress in achieving the LTCP goals which are predicted to reduce average annual CSO volume to the Charles River Basin from the 1987 level by more than 99% and comply with Class B "fishable/swimmable" water quality standards 99%

of the time. For more information about the Long-Term CSO Control Plan, the projects and their CSO control benefits, and Charles River water quality conditions and improvement, see MWRA's final CSO Annual Progress Report, filed with the Federal Court in March 2016, at <http://www.mwra.com/annual/csoar/2015/2015csoar-r4.pdf>.

#### Attainment of the Federal Court Mandated Levels of CSO Control

Since its CSO control program began in the mid 1980's, MWRA has effectively met more than 180 federal court schedule milestones related to CSO abatement. The last two milestones require MWRA to commence a 3-year CSO post-construction monitoring program and performance assessment by January 2018 and submit a related report to EPA and DEP by December 2021 intended to verify whether remaining CSO discharges meet the levels of control in the approved Long-Term Control Plan and court order.

On November 8, 2017, MWRA commenced post-construction monitoring and performance assessments in advance of and in compliance with the January 2018 milestone. The ongoing work includes CSO inspections, overflow metering, hydraulic modeling, system performance assessments and water quality assessments, which will be documented in the December 2021 report to EPA and DEP. MWRA has published three semiannual reports on the progress and interim results of this work, and will publish a fourth progress report on April 30, 2020. The progress reports are posted to MWRA's website, at <http://www.mwra.com/cso/pcmapa.html>. In addition, MWRA plans to hold its second annual public briefing on the progress of the CSO assessment in late May 2020. Notice of the public briefing will be published in the *Environment Monitor* (<http://eeaonline.eea.state.ma.us/eea/emepa/emonitor.aspx>) in late April 2020 and posted on MWRA's website ([www.mwra.com](http://www.mwra.com)).

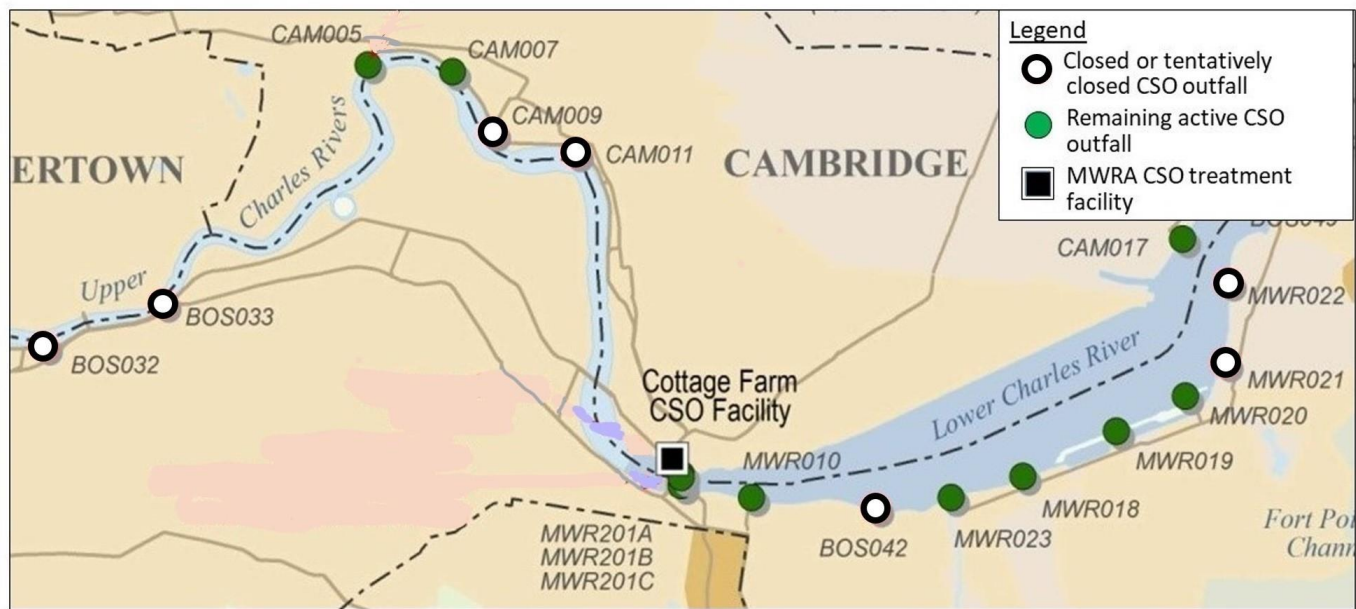
#### Water Quality Standards Variance for Lower Charles River/Charles Basin

Since 2000, DEP has issued a series of variances to Massachusetts Water Quality Standards that allow limited CSO discharges to the Charles River Basin pending completion and verification of MWRA's Long-Term Control Plan. On August 30, 2019, DEP issued to MWRA and the City of Cambridge a new, 5-year variance for their Charles River CSO discharges effective September 1, 2019 through August 31, 2024. The variance includes conditions requiring the CSO assessment reports and briefings mentioned above, public information and public notifications of CSO discharges, water quality sampling and modeling, proper sewer system operation and maintenance to minimize CSO discharges and their impacts, the evaluation of specific additional measures that may further lower CSO discharges, and an updated CSO control plan to be submitted at the end of the variance period. The variance and a supporting fact sheet can be found at <https://www.mass.gov/guides/sanitary-sewer-systems-combined-sewer-overflows#-2019-charles-river-basin-and-alewife/upper-mystic-river-final-combined-sewer-overflow-variances>.

For more information on CSOs and the CSO control program, visit MWRA's and Cambridge's websites, at:

<http://www.mwra.com>

<http://www.cambridgema.gov/Departments/publicworks/Services/combinedseweroverflows>



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