



City of Cambridge



Massachusetts Water Resources Authority

JOINT PRESS RELEASE REGARDING CHARLES RIVER BASIN COMBINED SEWER OVERFLOW CONTROL APRIL 2025

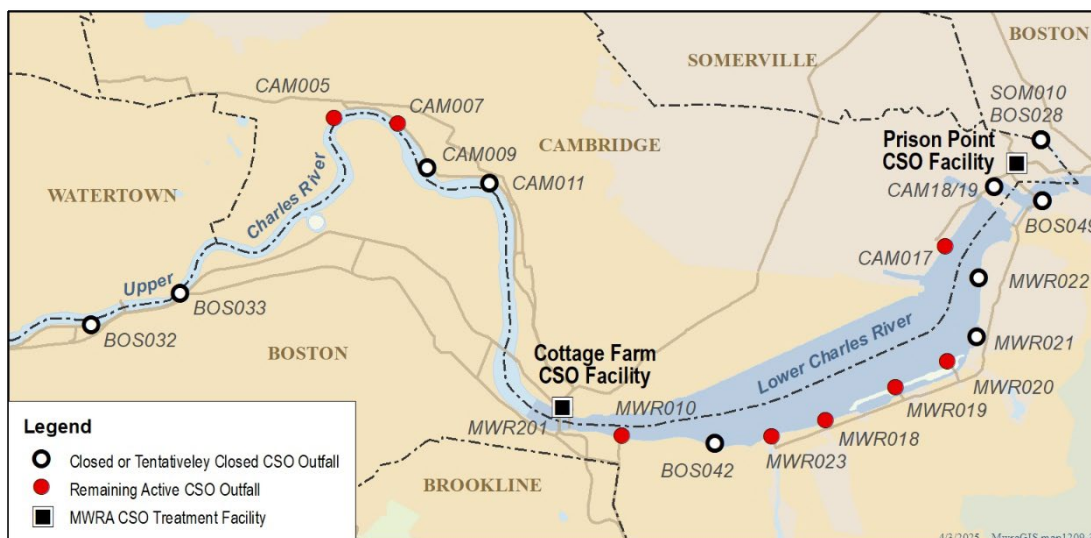
In September 2024, the Massachusetts Department of Environmental Protection (MassDEP) issued, a [Final Determination to Adopt a Variance for Combined Sewer Overflow Discharges to the Charles River Basin](#). The Variance is a short-term modification of the Massachusetts Water Quality Standards, which allows for limited combined sewer overflow (CSO) discharges from the outfalls along the Charles River Basin permitted to the Massachusetts Water Resources Authority (MWRA) and the City of Cambridge, subject to specific conditions. One of the conditions in the Variance requires the MWRA and the City of Cambridge to annually issue a press release, which includes: (1) general information on CSOs; (2) the location of outfalls in the Charles River watershed; (3) potential health risks posed by exposure to CSO events and, (4) and information on how to receive public notifications, as required by 314 CMR 16.00, about CSO discharges. The MWRA and the City of Cambridge also provide herein an update on the progress of CSO control measures to improve the water quality of the Charles River Basin.

I. General Information

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, stormwater runoff, and river flows from upstream of the Watertown Dam. According to the latest Charles River Report Card issued by the EPA in 2024 (<https://www.epa.gov/charlesriver>), the Charles River received a B- for compliance with swimming and boating standards.

Contaminant sources that contribute to water quality impairment include CSO, stormwater and 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. Six open CSO outfalls are permitted to the MWRA and three open CSO outfalls are permitted to the City of Cambridge in the Charles River Basin (see the map in Section II. below) and are designed to release CSO (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.

II. Location of Outfalls



III. Potential Human Health Risks

CSOs and contaminants that can get into separate stormwater pipes can include Microbial pathogens (i.e. bacteria, viruses, and parasites) and toxins (i.e. metals and synthetic organic chemicals). Some of the health risks associated with contact and ingestion of these discharges include: gastrointestinal illnesses, acute diarrhea, and skin irritation. 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. MassDEP has developed guidance for homeowners for responding to flooding onto property from large storms or sewer backups, which can be found at: <https://www.mass.gov/guides/flooding-and-sewage-back-ups-home-care-guide>.

MWRA and Cambridge have implemented a system for rapid reporting of CSO discharges to the Charles River. These subscriber-based systems provide timely information regarding a CSO activation including the start time and location of the discharge. To subscribe, sign up at these links:

Cambridge CSOs Subscriber: <https://www.cambridgema.gov/Subscribe>

MWRA CSOs Subscriber: <https://www.mwra.com/follow-us>

IV. MWRA and the City of Cambridge Actions to Address Charles River CSOs

As part of the 38-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, together with 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 88% reduction in the total annual volume of CSO discharge region-wide during an average/typical year.

To date, 35 projects in the Long-Term CSO Control Plan (LTCP) approved by the U.S. EPA and MassDEP, and mandated in the federal court order, have been completed. In December 2021 MWRA submitted the Final Post Construction Monitoring and Performance Assessment report, which provided an update on the progress made at 16 CSOs (including one in the Upper Charles and four in the Lower Charles) that did not meet the established CSO reduction goals. This report provided updated model predictions resulting from further completed and future CSO control work. Recent water quality modeling has shown that at current levels of control, if only CSOs were discharging to the Charles, the water quality standard for *E. coli* bacteria would be achieved 99.9% of the time in an average year. However, the water quality is greatly reduced when including all other pollutant sources (predominantly stormwater and upstream bacterial contributions), resulting in water quality standard for *E. coli* being met to only 48% of the time in an average/typical year. Although substantial progress has been achieved in reducing the number of activations and volume of CSO discharged to the Charles River, the activation and/or volume goals established many years ago have not entirely been met at five of the nine remaining CSO outfalls. However, system improvements implemented after 2021 resulted in lower volume and/or activation frequency at outfalls MWR201 (Cottage Farm) and MWR020 and those outfalls are now considered to materially meet the LTCP goals. In accordance with the Variance, MWRA is developing a project to reduce CSO activations at CAM005 including raising and lengthening the weir. Anticipated date of completion is December 2025. Pursuant to the terms of the Variance, MWRA completed its Annual Receiving Water Quality Monitoring report https://www.mwra.com/media/file/2024-06-Summary-of-CSO-Receiving-Water-Quality-in-Upper-Mystic-River/Alewife-Brook-and-Charles-River_2023 and the Annual CSO Discharge Report <https://www.mwra.com/media/file/2023-cso-annual-report>. MWRA and the Cities of Cambridge and Somerville have begun efforts to complete evaluations to determine the feasibility of installing real time notification systems, evaluation of existing floatables Control system and an evaluation of odors emanating from the collection system in the vicinity of CSO structures.

MWRA and Cambridge are collaborating to develop Updated CSO Control Plans for CSO outfalls owned by each agency that discharge to Variance waterbodies of the Alewife Brook/Upper Mystic and Charles River Basin. MWRA and Cambridge will continue to partner in this effort. More information regarding the joint planning efforts in the Lower Charles River/Charles Basin can be found at:

<https://voice.somervillema.gov/joint-cso-planning>.

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

<https://www.mwra.com/your-sewer-system/combined-sewer-overflows-csos>

<https://www.cambridgema.gov/cso>

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