

# CSOs

## Controlling Combined Sewer Overflows in the Lower Charles River Basin

### WHAT IS A CSO?

Some older sewer systems, like those in Boston and Cambridge, have "combined sewers" that carry both sanitary flows and stormwater runoff. During normal conditions, flows are delivered to treatment plants. During heavy rains, when flows can double and even triple, these systems become overloaded. In order to prevent sewer backups into homes or local roads, these systems were designed with built-in overflows (called combined sewer overflows or CSOs) that act as relief points by releasing excess flows into the nearest water body. These discharges can impact the water quality of the receiving water body.

### WHAT'S BEING DONE ABOUT CSOs IN THE CHARLES RIVER?

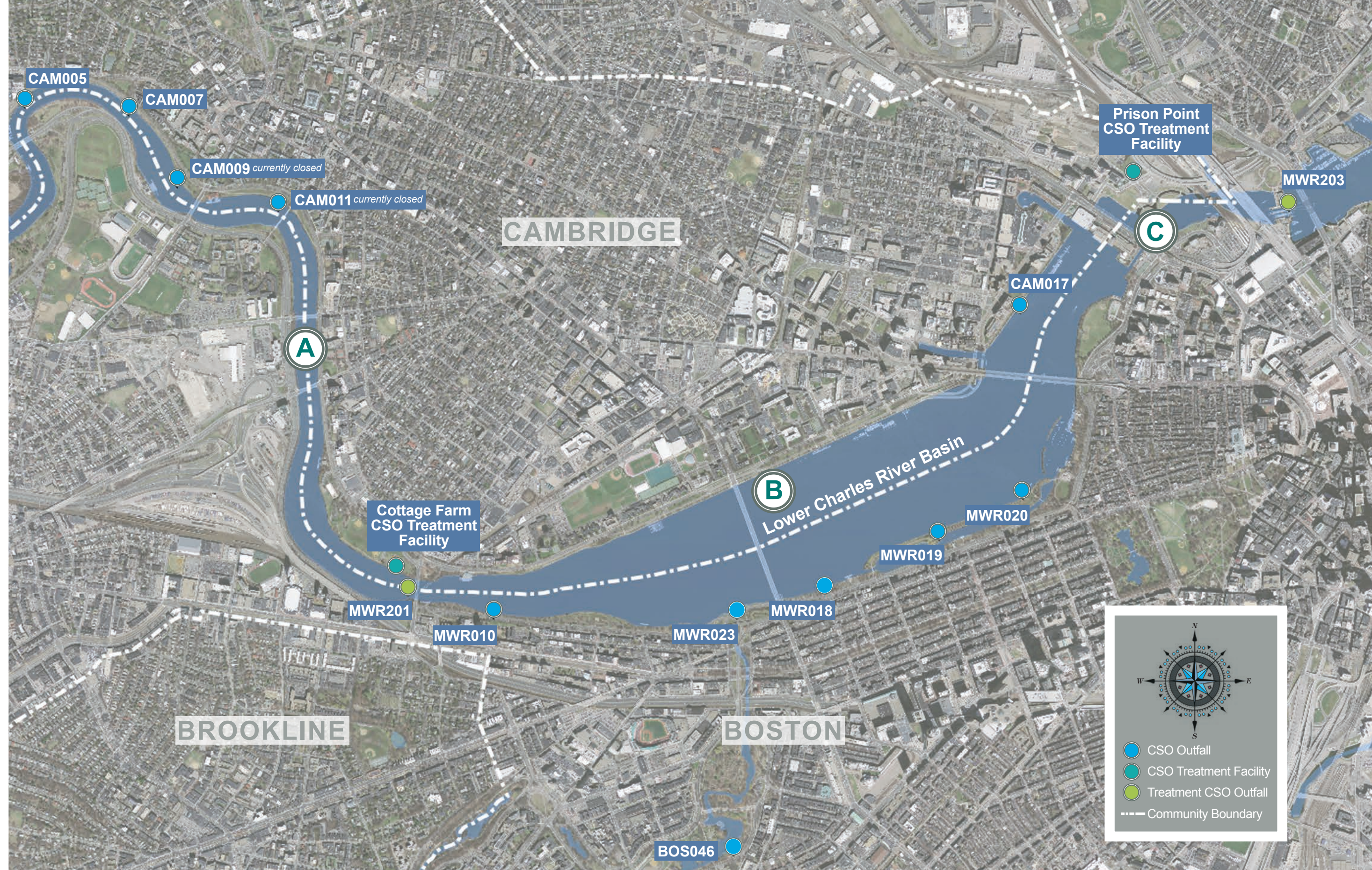
The Massachusetts Water Resources Authority, Boston Water and Sewer Commission, the City of Cambridge and the Town of Brookline have completed several wastewater system improvement projects that have reduced average annual CSO discharge volume to the Charles River Basin by 98% since 1988.

Other wastewater system improvements already completed have dramatically reduced combined sewer overflows to the Charles River by transporting much more flow to MWRA's Deer Island Treatment Plant. The MWRA's Cottage Farm CSO facility on the Charles River at the BU Bridge has been upgraded to optimize treatment system performance and minimize potential harm to aquatic life in the river.

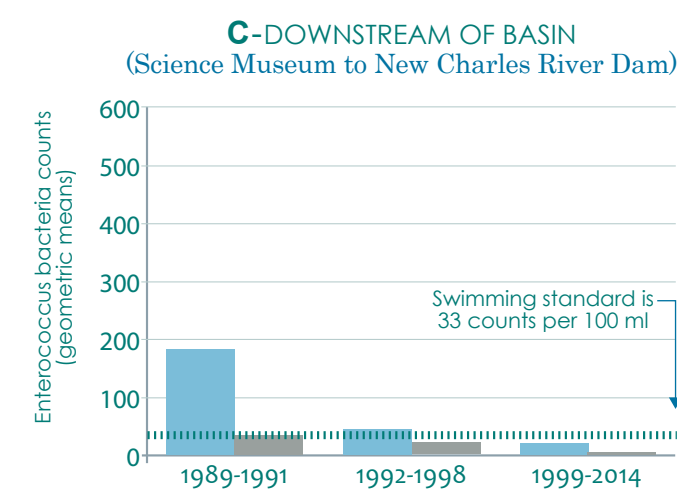
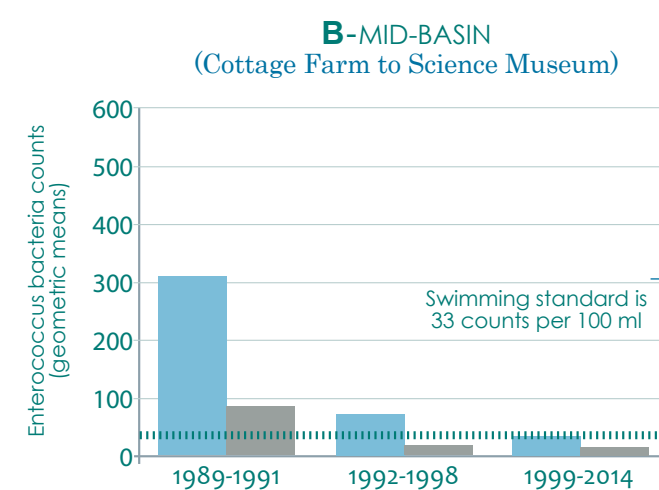
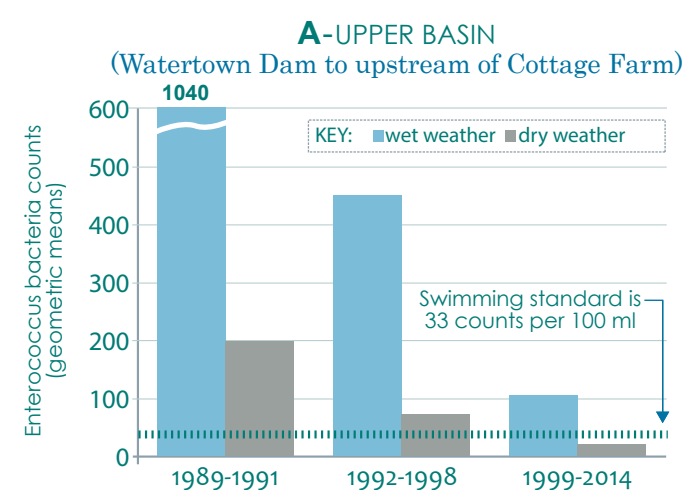
The CSO work is in part guided by the Lower Charles River Basin CSO Variance issued by the Massachusetts Department of Environmental Protection ([www.mass.gov/dep/water/wastewater/sewersys.htm](http://www.mass.gov/dep/water/wastewater/sewersys.htm)). Each year, EPA provides a detailed summary of the progress that has been accomplished toward cleaning up the lower Charles River. The "Charles River Report Card" has been released each year since 1995 ([www.epa.gov/region1/charles/](http://www.epa.gov/region1/charles/)). Since that time, the River's grade has gone from "D" to a "B+" for 2014.

### IMPORTANT HEALTH INFORMATION

During large storms, CSOs can still be released in the Charles River. Public health officials recommend avoiding contact with the river during rainstorms and for 48 hours afterwards, as there may be increased health risks due to bacteria or other pollutants associated with urban stormwater runoff and CSOs.



### IMPROVEMENTS IN Lower Charles River WATER QUALITY OVER TIME



### FOR MORE INFORMATION:

- Boston Water and Sewer Commission**  
Web: [www.bwsc.org](http://www.bwsc.org)  
E-mail: [www.bwsc.org/SERVICE/contact.asp](mailto:www.bwsc.org/SERVICE/contact.asp)  
Phone: 617-989-7000, 24 hours
- City of Cambridge Dept. Public Works**  
Web: [www.cambridgema.gov/TheWorks/](http://www.cambridgema.gov/TheWorks/)  
E-mail: [TheWorks@cambridgema.gov](mailto:TheWorks@cambridgema.gov)  
Phone: 617-349-4800, 24 hours
- Massachusetts Water Resources Authority**  
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