



Commonwealth of Massachusetts  
Executive Office of Energy & Environmental Affairs

## Department of Environmental Protection

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### **FINAL DETERMINATION TO EXTEND VARIANCE FOR COMBINED SEWER OVERFLOW DISCHARGES TO ALEWIFE BROOK/UPPER MYSTIC RIVER**

The Massachusetts Department of Environmental Protection (MassDEP) hereby extends the Variance for CSO Discharges to the Alewife Brook/Upper Mystic River from September 1, 2016 for a period of three years (to August 31, 2019). This action, which authorizes limited CSO discharges, is taken in connection with NPDES permit Nos. MA0103284, MA0101974, and MA0101982, issued to the Massachusetts Water Resources Authority (MWRA), the City of Somerville, and the City of Cambridge, respectively. The Variance extension is issued pursuant to the Massachusetts Surface Water Quality Standards at 314 CMR 4.00, and subject to the specific conditions which follow. This Variance is intended to provide for the completion of design, construction, and subsequent monitoring of CSO controls proposed in the MWRA revised Long-Term Control Plan (LTCP) mandated in the relevant orders of the United States District Court for the District of Massachusetts, Civil Action Nos. 85-0489-MA and 83-1614-MA, including amended Schedule Seven, dated October 19, 2011 (the "Federal Court Order")<sup>1</sup>.

MassDEP grants this Variance based on the technical and cost information in the 1997 MWRA CSO Facilities Plan, the July 1, 2003 MWRA Final Variance Report, and affordability analyses demonstrating that implementation of more stringent CSO controls at this time would result in substantial and widespread social and economic impact as specified in 314 CMR 4.03(4)(f). Issuance of this Variance for CSO discharges to the Alewife Brook/Upper Mystic River is consistent with EPA Guidance: *Coordinating CSO Long-Term Planning with Water Quality Standard Reviews* (July 31, 2001), which states that longer term variances and renewal of variances are warranted given the extended duration necessary for implementation of Long-Term Control Plan(s).

<sup>1</sup> The documents that complete MWRA's LTCP are identified in the Second Stipulation of the United States and the Massachusetts Water Resources Authority on Responsibility and Legal Liability for Combined Sewer Overflow Control dated March 15, 2006.

MWRA and the Cities of Cambridge and Somerville have implemented the Revised Recommended Plan included in the July 1, 2003 MWRA Final Variance Report for the Alewife Brook/Upper Mystic River. This construction work was completed in December 2015, per the Federal Court Order. MassDEP has determined that the extension of the CSO Variance for MWRA and the Cities of Somerville and Cambridge for their CSO discharges to the Alewife Brook/Upper Mystic River is warranted so that essential information can be collected and analyses performed in conjunction with the implementation of the LTCP, which will allow MassDEP to determine whether the Class B uses for the Alewife Brook/Upper Mystic River can be attained, or in turn, to make a determination on the highest feasible level of CSO control.

It is anticipated that this Variance and its conditions will be incorporated into NPDES permits for the MWRA and the Cities of Cambridge and Somerville. Failure by the MWRA and/or the Cities of Cambridge or Somerville to comply with the conditions of this Variance following its effective date and prior to and following permit modification or reissuance will constitute a violation of the permit in effect on the date of such violation, as well as the Massachusetts Surface Water Quality Standards (314 CMR 4.00) and Surface Water Discharge Permit Program Regulations (314 CMR 3.00).

## **VARIANCE CONDITIONS**

The CSO Variance is conditioned upon MWRA and the Cities of Cambridge and Somerville complying with the following requirements:

### **A. Implementation of the Revised Recommended Plan**

In December 2015, MWRA and the Cities of Cambridge and Somerville completed the construction outlined in the Revised Recommended Plan in the Alewife Brook/Upper Mystic River watershed to abate CSO discharges. By December 2020, MWRA shall submit the results of a performance assessment to EPA and MassDEP verifying that CSO discharges are consistent with the long-term levels of CSO control defined in Exhibit B of the Second CSO Stipulation incorporated into the Federal Court Order in the Boston Harbor Case on April 27, 2006 and amended on May 7, 2008.

### **B. Other Actions to Minimize CSO/Sanitary Discharges**

- i. MWRA and the Cities of Cambridge and Somerville shall continue to implement the Nine Minimum Controls (NMC), and monitor CSO activations and volumes. Cambridge and Somerville each shall submit a report to MassDEP on an annual basis that contains estimates of CSO activations and volumes in the Alewife Brook/Upper Mystic River. The report shall be submitted by April 30 for the preceding calendar year, and each permittee shall indicate the method of estimating CSO activations and volumes, either by metering data, CSO system model, or a combination of the two. On or before April 30 of each year, MWRA shall submit a report to MassDEP estimating the CSO activations and volumes for all CSO outfalls for the previous calendar year in the Alewife Brook/Upper Mystic River using the most recent MWRA sewer system model, supplemented by

metering data where such data are available.

- ii. MWRA shall continue to provide technical assistance related to the identification and removal of Infiltration/Inflow (I/I) to member communities. Where requested by any member community, or by MassDEP, MWRA shall provide information from MWRA metering data, including but not limited to:
  1. A system map showing locations of MWRA metering points;
  2. MWRA metering data by each MWRA member sewer community, broken down into estimates of average monthly sanitary flow, average monthly infiltration and average monthly inflow; and
  3. MWRA metering data by meter subarea correlating to a specific storm event.
- iii. The Cities of Cambridge and Somerville shall respond to any MassDEP information requests to clarify the conditions of the combined sewer system, the status of any CSO abatement work, or the frequency and volume of CSO discharges, within 90 days of receiving such comments.

### **C. Notification to the Public of CSO Discharges and Impacts**

- i. MWRA and the cities of Cambridge and Somerville shall maintain outfall signs that are visible both from the shore and from in stream locations for their permitted CSO discharges. Pursuant to the NPDES permit, the following language, at a minimum, shall be included:

WARNING:  
WET WEATHER  
SEWAGE DISCHARGE  
OUTFALL (discharge serial number)

- ii. MWRA and the Cities of Cambridge and Somerville shall maintain informational signs at John Waldo Park and other public access locations identified by MassDEP to advise the public of CSO discharges and potential public health impacts and to provide contact information and website links. The text of the notice shall be subject to prior approval by MassDEP.
- iii. MWRA and the Cities of Cambridge and Somerville shall issue a joint press release by April 15 of each year to watershed advocacy groups, local health agents, property owners subject to flooding in the Alewife Brook watershed (as defined by MassDEP in consultation with FEMA and DCR), and newspapers of local circulation in the Alewife Brook/Upper Mystic River watershed, which shall include general information on CSOs, their locations in the Alewife Brook/Upper Mystic River watershed, and potential health risks posed by exposure to CSO events.
- iv. The City of Cambridge, in collaboration with MWRA and Somerville, shall post notifications on their websites as well as provide email notice to EPA, MassDEP, local

health agents, and the Mystic River Watershed Association of CSO discharge events in the Alewife Brook from CSO regulator CAM002 within 24 hours of the onset of the discharge. Beginning October 17, 2017, the notification will be within 12 hours of the onset of the discharge.

- v. MWRA and the Cities of Cambridge and Somerville shall update and maintain their respective websites quarterly to include general information regarding CSOs, potential health impacts, locations of CSO discharges, the status of the CSO abatement program, web links to CSO communities and watershed advocacy groups, and information from the most recent information on CSO activations and volumes in the Alewife Brook/Upper Mystic River watershed.

#### **D. Receiving Water Quality Monitoring**

The MWRA shall continue and expand the water quality monitoring program in the Alewife Brook/Upper Mystic River to demonstrate the effectiveness of CSO controls implemented in the watershed. The work shall be adequate to assess the water quality impacts of remaining CSO pollutant sources and loads over a range of storms events, and the associated level of attainment of water quality standards in Alewife Brook and the Upper Mystic River. MWRA shall develop a scope of work for the water quality monitoring program in consultation with MassDEP, and submit the completed scope to MassDEP for review on or before December 1, 2016.

Each year, on or before July 15 for the duration of this Variance, MWRA shall submit to MassDEP and EPA a report on the previous year's sampling program. The report shall include a summary of the receiving water sampling data collected over the past calendar year, including sampling locations and parameters, and comparisons between results during wet and dry weather, a characterization of rainfall events for which wet weather sampling was done, and a correlation of the sampling data with CSO activations and volumes.

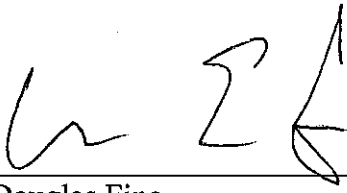
#### **E. Performance Assessment**

In accordance with the federal court order, under jurisdiction of the Federal District Court, MWRA is required to implement a three-year performance assessment of its LTCP beginning in January 2018, and to submit the evaluation of this assessment to MassDEP and EPA in December 2020. On or before May 1, 2017, MWRA shall submit a draft scope of work for the three-year performance assessment to EPA and to MassDEP. The draft scope of work will be published in the Environmental Monitor.

Subject to the conditions included in this Variance, MWRA, and the Cities of Cambridge and Somerville shall be authorized to have CSO discharges during wet weather events to the Alewife Brook/Upper Mystic River. CSO discharges shall be consistent with the performance of the Revised Recommended Plan, as characterized in the July 1, 2003 MWRA Final Variance Report, and upon implementation of the Revised Recommended Plan and after completion of subsequent monitoring to verify that the Long-Term CSO control goals are achieved.

8/31/16  
Date Issued

9/1/16  
Effective Date

  
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Douglas Fine  
Assistant Commissioner  
Bureau of Water Resources

