

CSO Plan does not keep up with Climate Change at Alewife Brook.

The Draft CSO Plan is designed so that a single, common 2050 5-year storm will still discharge **15.6 million gallons** of untreated sewage and stormwater into Alewife Brook. That is the result after \$340 million is spent constructing projects in the Draft Plan at Alewife Brook.

According to MWRA's Unified Typical Year Model, a 5-year storm under baseline conditions today discharges 10.53 million gallons into the Brook.¹ The Draft Plan therefore results in Alewife Brook receiving nearly **50% more** CSO volume in a common future 5-year storm than it receives today. The Draft Plan does not keep up with climate change.

MWRA's own baseline for a 2050 5-year storm at Alewife Brook is 20.9 million gallons. The Plan proposes 5.3 million gallons² of new storage against it, capturing roughly one quarter of the volume and leaving 15.6 million gallons of CSO in the Brook.

TABLE 1 · BASELINE CSO DISCHARGE TO ALEWIFE BROOK, BY OUTFALL

What this table shows: MWRA's modeled discharge from each of the six Alewife Brook outfalls under baseline conditions. Read the right-hand pair of columns, headed "5-Year, 24-hour Storm." The six outfalls sum to **10.53 MG**. This is the present-day starting point against which the Draft Plan must be measured. "Future Conditions Baseline" is MWRA's label for the Unified Model's baseline system, not a future storm.

Table 1-2. Predicted Annual CSO Activation Frequency and Volume for the Future Conditions Baseline: Typical Year, and 2-year and 5-year, 24-hour Storms

Outfall	Regulator	Future Conditions Baseline					
		Typical Year		2-Year, 24-hour Storm		5-Year, 24-hour Storm	
		Activation Frequency	Volume (MG)	Activation Frequency	Volume (MG)	Activation Frequency	Volume (MG)
Alewife Brook							
CAM001	RE-011	1	0.02	1	0.07	1	0.10
CAM002	RE-021	0	0.00	0	0.00	1	0.09
MWR003	RE-031	3	0.61	1	1.51	1	3.03
CAM401A	RE-401	5	0.66	1	1.36	1	2.16
CAM401B	RE-401B	4	0.50	1	0.71	1	0.99
SOM001A	RE-01A	8	4.47	1	2.78	1	4.16
SUM		8 (max)	6.26		6.43		10.53

MWRA's December 2022 Alewife Brook and Lower Charles River System Optimization Evaluations Report, Table 1-2.¹

TABLE 2 · CSO VOLUME AT ALEWIFE BROOK BEFORE ANY NEW STORAGE IS BUILT

What this table shows: The volume MWRA projects for each design storm under baseline conditions, before the Draft Plan's storage is subtracted. In the **Alewife Brook** row: **20.9 MG** in a 2050 5-year storm. "LOC" means Level of Control, the discharge target the Plan is designed to meet.

Table 10-21. Total Regional CSO Volume by Waterbody for Each LOC under Baseline Conditions

Waterbody	Largest Storm in 2050 TY ⁽¹⁾ CSO Volume	2050 5-Year LOC ⁽²⁾ CSO Volume	2050 25-Year LOC ⁽³⁾ CSO Volume
Alewife Brook	4.8 MG	20.9 MG	40.1 MG
Mystic River	10.5 MG	17.4 MG	27.2 MG
Charles River	16.6 MG	65.6 MG	120.6 MG

Notes:

- (1) Largest storm in the 2050 TY is 3.3 inches of rainfall in 21 hours
- (2) 2050 5-year storm is 5.3 inches of rainfall in 24 hours
- (3) 2050 25-year storm is 7.8 inches of rainfall in 24 hours

Draft Updated CSO Control Plan, dated April 30, 2026, Table 10-21, page 10-25.²

HOW THE 15.6 MILLION GALLON FIGURE IS DERIVED

- 1. MWRA baseline volume, Alewife Brook, 2050 5-year storm: **20.9 MG** (Table 2 above)²
- 2. New storage proposed in the Draft Plan: **5.3 MG** total, in three separate structures
 - a. 1.5 MG storage tank at CAM401A, Sherman Street, Cambridge³
 - b. 1.5 MG storage tank at MWR003, Cambridge³
 - c. 2.3 MG microtunneled storage conduit, 9-foot internal diameter, approximately 5,400 feet, serving CAM401B and SOM001A⁴

1.5 MG + 1.5 MG + 2.3 MG = **5.3 MG** storage capacity
- 3. Discharge remaining after the Plan is built: 20.9 – 5.3 = **15.6 MG**

Result: the Draft Plan captures 25% of the 2050 5-year storm volume and discharges the remaining 15.6 MG into a Class B water. Measured against today's 10.53 MG, that is an increase of about **48%**.

A note on the two storms. The 10.53 MG figure is a 5-year storm under today's rainfall. The 15.6 MG figure is a 5-year storm in 2050, which the Plan defines as 5.3 inches of rain in 24 hours. The rainfall depths are different because that is precisely the point: the 5-year storm grows, and the Plan is not sized to keep pace with it. The Plan defines the 2050 25-year storm as 7.8 inches in 24 hours.²

FOOTNOTES

- 1. Source: MWRA's December 2022 Alewife Brook and Lower Charles River System Optimization Evaluations Report, Table 1-2.
[https://www.mwra.com/sites/default/files/2024-08/Alewife Brook and Charles River System Optimization Evaluations report 2022.pdf](https://www.mwra.com/sites/default/files/2024-08/Alewife%20Brook%20and%20Charles%20River%20System%20Optimization%20Evaluations%20report%202022.pdf)
- 2. Source: MWRA, Massachusetts Water Resources Authority, City of Cambridge and City of Somerville, Draft Updated Combined Sewer Overflow Control Plan, submitted to the Massachusetts Department of Environmental Protection April 30, 2026, Table 10-21, page 10-25.
https://savethealewifebrook.org/wp-content/uploads/2026/07/DraftUpdatedCSOControlPlan_4_30_2026.pdf
- 3. Source: Draft Updated CSO Control Plan, April 30, 2026, Chapter 12, Section 12.1, printed pages 12-3 to 12-4, and Chapter 9, Section 9.5.3.1, printed page 9-52.
https://savethealewifebrook.org/wp-content/uploads/2026/07/DraftUpdatedCSOControlPlan_4_30_2026.pdf#page=465
- 4. Source: Draft Updated CSO Control Plan, April 30, 2026, Chapter 12, Section 12.1, "CAM401B/SOM001A Storage Conduit," printed page 12-5, with conceptual layout at Figure 12-4. Same 2.3 MG capacity stated in the alternatives analysis at Chapter 9, Section 9.5.3.1, "Component Descriptions," printed page 9-52, and Table 9-25, "Alternative 3.AB Hybrid 2 (0 CSOs in 2050 TY) Summary," printed page 9-51.
https://savethealewifebrook.org/wp-content/uploads/2026/07/DraftUpdatedCSOControlPlan_4_30_2026.pdf#page=467