



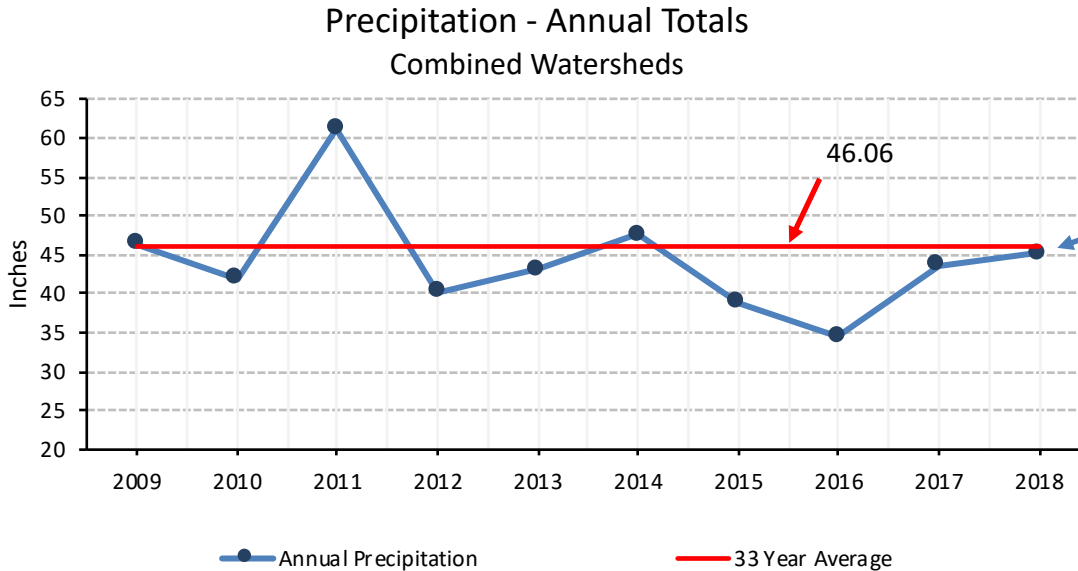
***Recent Weather Impacts on Water and
Wastewater Operations***

November 14, 2018



Higher Than Average Rainfall

2018 – will close as a wetter than normal year



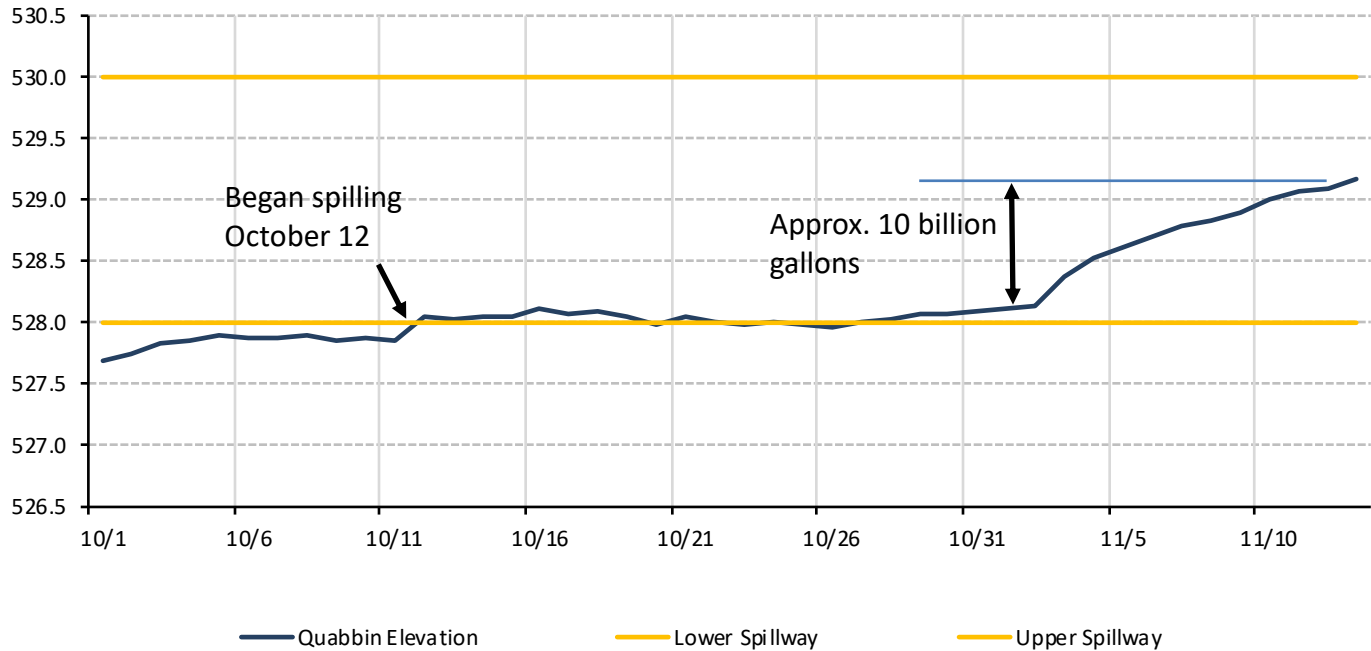
Through the end of
October 2018

Wachusett received 5.38" so
far in November and Quabbin
has received 4.12"



Quabbin Reservoir Level

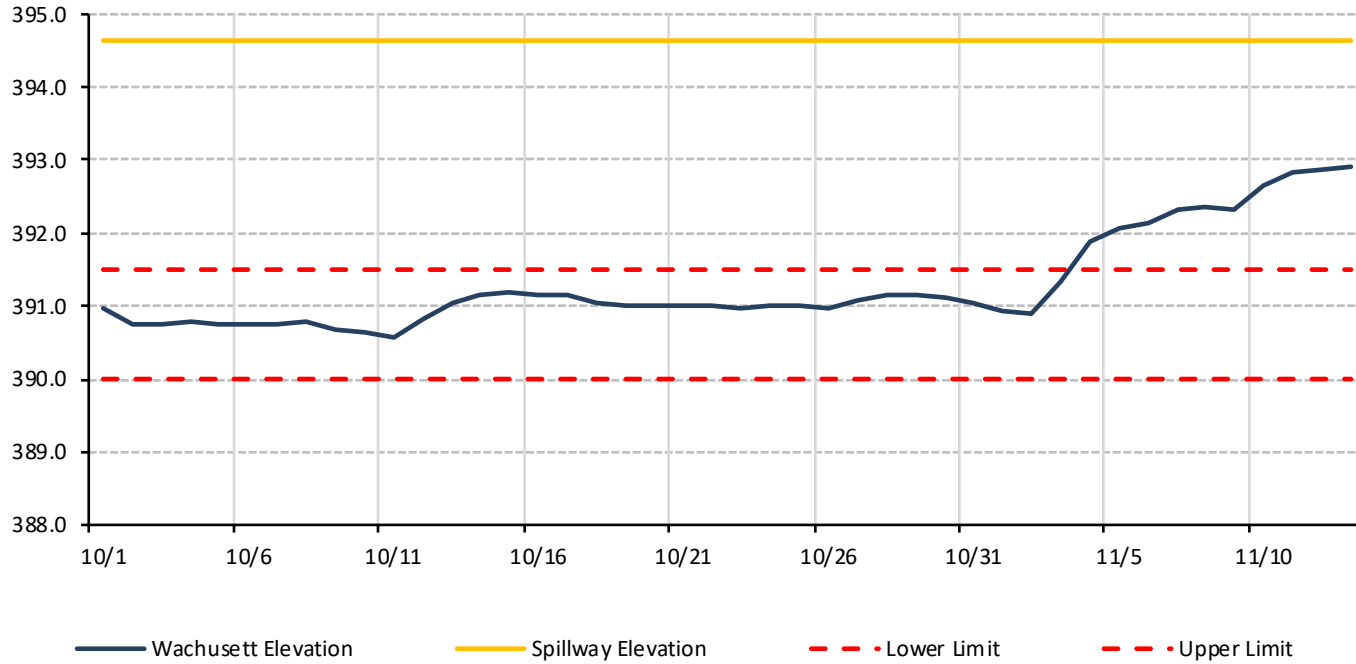
Quabbin Reservoir





Wachusett Reservoir Level

Wachusett Reservoir





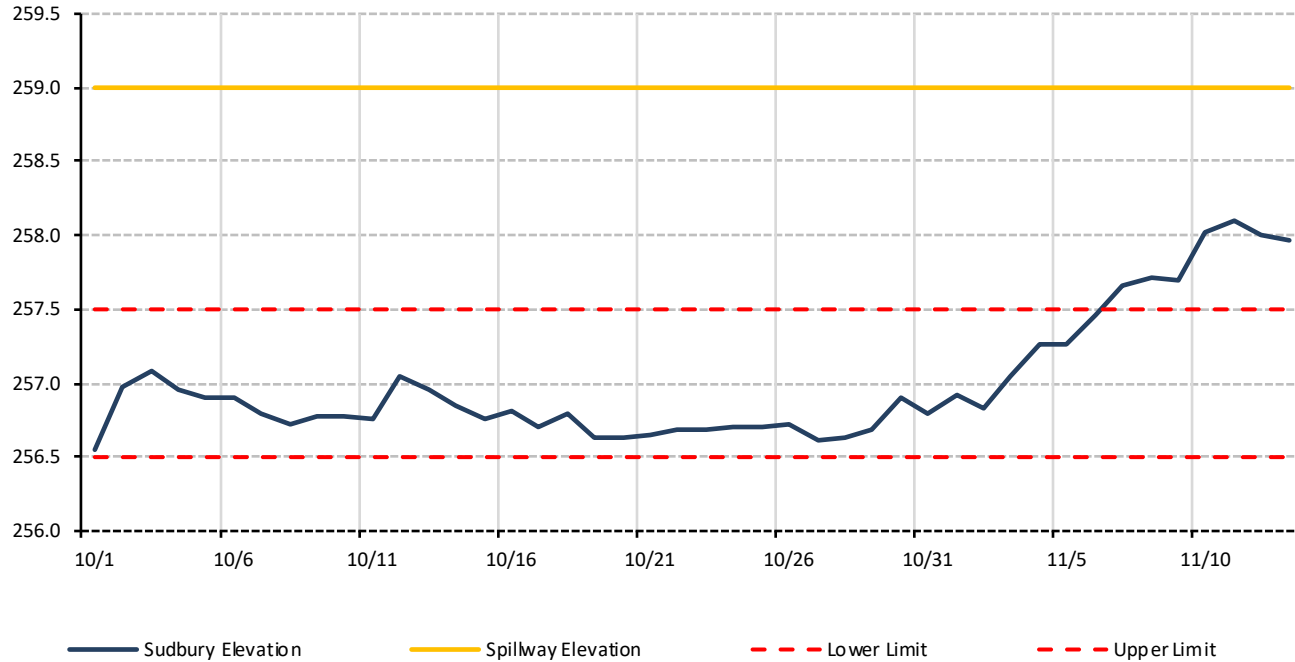
Crest Gate release to Nashua River





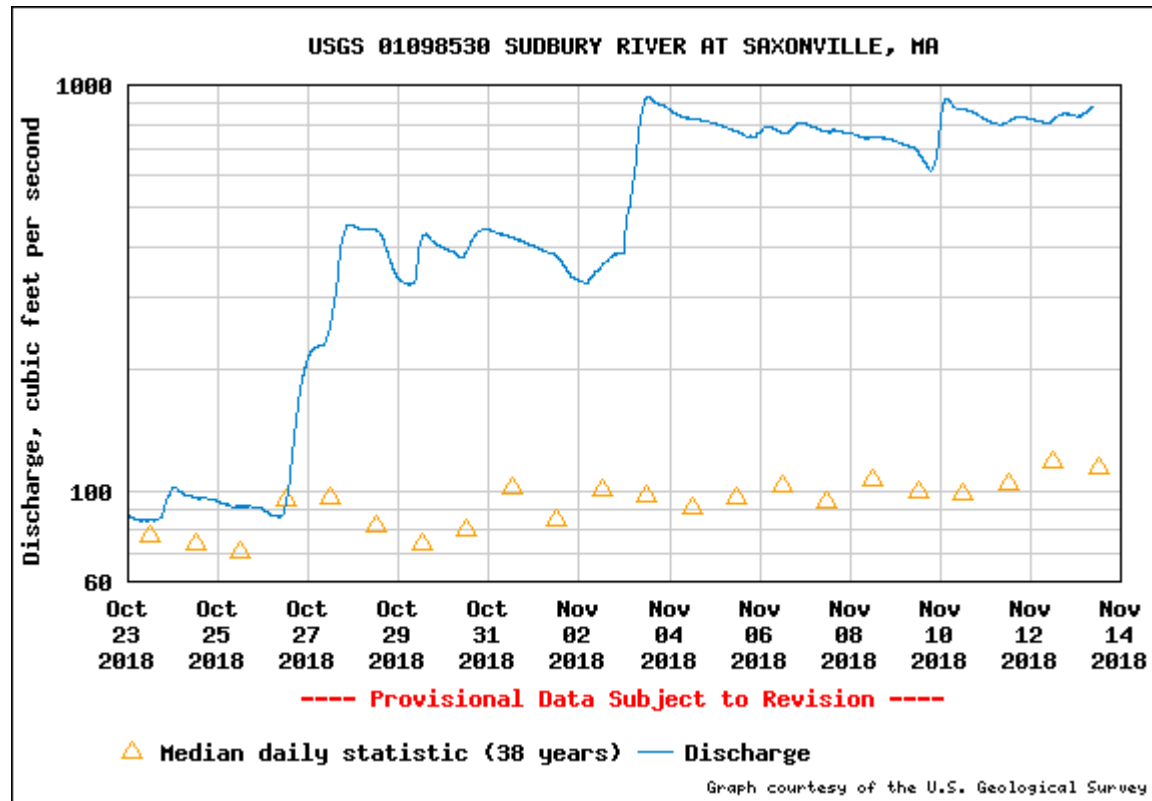
Sudbury Reservoir Level

Sudbury Reservoir





Sudbury River Flow





Wastewater Impacts

- Five storms since October 27, 2018:
 - Chelsea Creek = 8.51 inches
 - Columbus Park = 8.59 inches
 - Ward Street = 8.34 inches
- No issues operating MWRA's Combined Sewer Overflow facilities
- 'Real Time' Reporting of CSOs on MWRA Website
- No Sanitary Sewer Overflows occurred

Harbor and Bay
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MWRA CSO Reporting

Combined sewer systems, which capture both sewage waste and stormwater flows, are found in many older cities. Boston, Cambridge, Chelsea and Somerville have combined systems that connect to MWRA's system. During most rainstorms, these systems deliver combined flows to the Deer Island Wastewater Treatment Plant in Winthrop. However, the capacity of the sewer system can become overwhelmed during big storms causing a combined sewer overflow (CSO). During a CSO the excess combined flow is diverted into a nearby water body to avoid its backing up into homes and businesses. Through the efforts of MWRA and its communities, **annual combined flow has been reduced by 87% since 1987.**

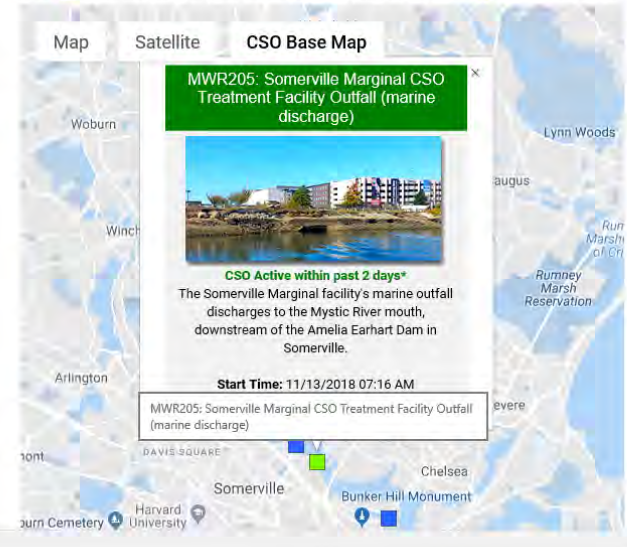
CSO Storage and Treatment: Most of the remaining CSO flow discharged in the MWRA service area receives treatment at MWRA facilities that provide screening, disinfection, and dechlorination of combined flow prior to discharge through CSO outfalls. In addition, two storage facilities capture CSO flow, pumping it to the treatment plant after the storm passes; there may be discharges from these facilities in the largest storms. **Map of active and closed CSO outfalls in MWRA's service area.**

Public Health Information: Because large storms can trigger CSOs in Boston Harbor, the Charles and Mystic Rivers and Alewife Brook, public health officials recommend avoiding contact with water bodies 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 CSO discharges.

Map of Discharges from MWRA's treated CSOs and Storage Facilities

On the map below, squares represent CSO facility outfalls. Click on each square to view more detail about the facility, including start and stop times for each recent discharge.

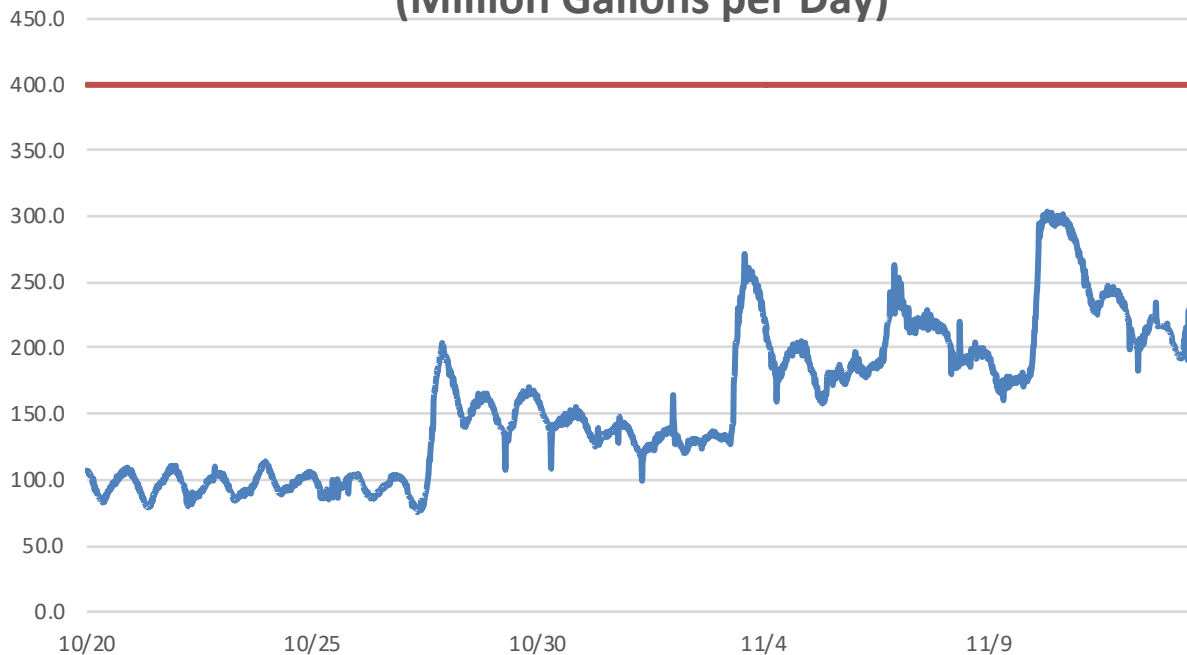
Green ■ shows that the facility has discharged in the past two days. Blue ■ means no discharge.





Flow Increasing

South System Flow to Deer Island (Million Gallons per Day)



— South System Flow, MGD

— South System Design Max, MGD