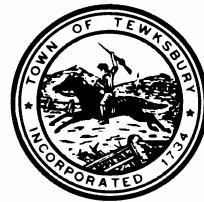


Water Update  
Select Board Meeting  
June 6, 2023



# Water Update

## **Brown water**

- Water that leaves the WTP is cleaner than most bottled water.
- Brown water is caused by residual iron in the system from metal fittings, valves, etc.
- Brown water is not due to a lack of treatment at the Filtration Plant.
- It is not harmful to drink; however, it can leave stains on lighter colored clothing.
- The iron deposits settle in the system over the course of the year, especially during the winter when water usage decreases.
- Brown water occurs when the water distribution system experiences higher than normal water usage/flows. This causes the iron deposits to be agitated in the water pipes.
  - Examples of higher flow include hot days when outdoor water usage increases and severe water main breaks that result in the loss of large volumes of water.
  - On hot days, such as last week, the Filtration Plant increased water production by 50%.
- The DPW implements an annual hydrant flushing program to reduce/eliminate brown water.
- If residents are experiencing brown water, then they should contact the DPW. They should also refrain from washing lighter colored clothes in the laundry and run their cold-water faucets to help clear the brown water.

# Water Update

## TTHMs

- Total trihalomethanes are a group of volatile and potentially toxic chemicals formed during the treatment of drinking water from the chemical reaction of the disinfectant chlorine and organic compounds.
- They are in our water because chlorine is utilized to disinfect our drinking water, and the raw water treated from the Merrimack River contains organic matter.
- They can be harmful if consumed at levels above the maximum contaminant level (MCL) over the span of many years or decades.
- They are measured through laboratory processes and testing of the river and raw water is quarterly.
- They cannot be eliminated entirely. Their presence and formation can be mitigated by efficient chlorine dosing, aerating treated water (agitating the drinking water with air) to remove organic compounds, and producing water at a pace that allows for quick consumption. THMs form as treated drinking water begins to age and the chlorine is given a chance to react with organics – the fresher the water the less THMs present.
- Additional information about TTHMs can be found from both MassDEP and US EPA:  
[www.mass.gov/doc/factsheet-total-trihalomethane-in-drinking-water-information-for-consumers/download](http://www.mass.gov/doc/factsheet-total-trihalomethane-in-drinking-water-information-for-consumers/download)
- <https://www.epa.gov/dwreginfo/stage-1-and-stage-2-disinfectants-and-disinfection-byproducts-rules>

# Water Update

## Water System Notification Messages

- Code Red system intended for emergencies.
- Social Media and Website posts for water outages
- Variability around water main breaks include:
  - Severity
  - Population impacted
  - Expected duration
  - Location
- Our ability to send out messages depends on the time of day because not all staff members have the authority to post to the Town's website
  - If a break occurs during the workday, it is easily posted to the website and social media.
  - If the break is resolved during the workday, then it is easy to post a follow-up to the website and social media.
  - The challenge occurs when the event straddles the beginning or end of the workday, which happens more often than it doesn't.
    - Initial notice may be delayed
    - Follow-up notice may not be provided

# Water Update

## Water Projects

Bay State Road Neighborhood Phase II: Awaiting Final Closeout.

Pike Street & Astle Street: Work completed; permanent trench paving remains; Punchlist items remaining.

Hood Road, Cleghorn Road, Trull Brook Lane, Guile Road: Construction Began 5/17/2023.

School Street: Punchlist Items Completed, Final Closeout Pending.

Whipple Road Work: Installation near complete and service connections will begin.

Victor Drive: Construction Anticipated during school summer break.

Fiske Street: Design underway.

Beech Street neighborhood: Design underway.