

## WATER BOARD MEETING AGENDA

Tuesday, November 12, 2024

5:00 – 6:30 pm

This meeting will be hybrid both in person at the Cambridge Water Department located at 250 Fresh Pond Parkway and available virtually on Zoom:

[https://cambridgema.zoom.us/webinar/register/WN\\_t-tj474bQdO2771feLighA](https://cambridgema.zoom.us/webinar/register/WN_t-tj474bQdO2771feLighA)

### A. MINUTES OF OCTOBER 8, 2024, MEETING

### B. MANAGING DIRECTOR'S REPORT

- PFAS
- Drought
- Lead Service Renewal

### C. OPERATIONS

- Transmission and Distribution
- Fresh Pond Reservation; Cambridge Watershed; Site Plan Review
- Water Operations
  - WTP Operational Status
  - Water Quality
- Engineering & Program Development
  - GIS
- Business
  - FY25 Cross Connection Program Results through October 2024
  - FY25 Consumption through October 2024
  - Water Fund Balance as of 6-30-2024

### D. ACTION ITEMS

- None

### E. MISCELLANEOUS CORRESPONDENCE and ITEMS OF INTEREST

- None

### F. NEW BUSINESS

- None

### G. NEXT MEETING DATES/AGENDA

- December 10, 2024: TBA/TBD/Election of the Water Board President

CAMBRIDGE WATER BOARD

MEETING MINUTES

October 8, 2024

*This meeting is available virtually on Zoom. This meeting is being recorded.*

This meeting was called to order at 5:05 p.m. Those in attendance in person or via Zoom were:

**Cambridge Water Board (CWB):** Ann Roosevelt, James Burruss, Tahir Kapoor and Kathleen Kelly.

**Cambridge Water Department (CWD):** Mark Gallagher, Fred Centanni, Jamie O'Connell, Dave Kaplan, Rich Lagerholm and Linda Vierboom.

**A. MINUTES OF SEPTEMBER 10, 2024, MEETING**

Mr. Burruss moved, and Mr. Kapoor seconded the motion to approve September 10, 2024, minutes as written. The vote was unanimous in favor of the motion.

**B. MANAGING DIRECTOR'S REPORT**

PFAS Update: Fourth quarter PFAS6 samples were taken last week. Results are pending.

Questions/Comments: The new EPA Federal PFAS Standard regulations were passed and won't take full effect until 2029.

Lead and Copper Rule Revision: Our updated full Water Service Inventory must be completed in the new DEP format by October 16th. All municipalities in Massachusetts (this will also be a federal standard) are required to fully identify all of their service line material. Mass DEP has set a five-year goal (not a requirement) for lead removal/copper replacement. Currently, 16% of our water services are lead. President Biden just announced the federal EPA 10-year standard for removal/copper replacement of every lead service. CWD has been doing this for years and are in good shape. We plan to submit our lead service replacement plan information by the end of the week. We have submitted applications and asked for 6.2 million in SRF (State Revolving Fund) funding. This equates to 1,600 lead replacements. SRF are zero percent interest loans and, sometimes based on the number of applicants, there is partial and even full loan forgiveness in the form of a grant. Cambridge is unique in that property owners own the service all the way out to the watermain. We are not responsible for replacing them. We are responsible to "identify lead" and work with property owners in helping by any means we can to reduce the costs to help get the lead services out. If we do the outside work replacing the water line within the public right of way from water main to the property line, and if the homeowners replace the section from the property line to the meter at the same time, typically their contractor only needs to break the existing service line free from the foundation wall/disconnect it and connect copper tubing the old line as it is pulled out by the water department. When done this way typically 80% of the cost is covered by the water department and there is minimal expense to the property owner.

CWD Source Water Protection Program Updates: Presented by Jamie O'Connell in slide format.

Staffing Update: Anna Van Dreser is now in her new role as Watershed Technical Supervisor. Emily Maynard is Watershed Management Assistant.

CWD Water quality monitoring includes twelve tributary sites and three reservoirs. Sampling is conducted 6-8x year per site, with the exception of Hobbs Brook and Stoney Brook, which are collected weekly. We have a joint funding agreement with the US Geological Survey. They have continuous monitoring stations at most of those sites and we receive real time continuous data. They will also collect some storm water samples so we can see what our water looks like during major storms.

**New and in Development:** Biological monitoring for algae and cyanobacteria, and Asian Clam Study. We have updated our Interactive Source Water Quality Report.

**Questions/Comments:** Do we test for pesticides in finished water?

Mr. Lagerholm said we do and test following the UCMR sampling frequency and DEP schedule.

We participate and voluntarily test periodically for emergent list of contaminants in the lab. This is not part of raw water sampling. If there were a spill or release in the watershed, the lab could test for contaminants. We also monitor testing that's going on at known contaminant sites and neighboring properties to make sure that there isn't any movement into our water.

**Cyanobacteria:** We haven't been able to check for cyanobacteria before. The consultant we've been working with did a study that found that 95% of the toxin got removed in treatment in a facility very similar to our facility.

CWD is proactive. We don't have any signs that it is of concern. The goal is to "anticipate" when a bloom "can" happen and be able to treat it at the source and not at the treatment plant.

Future goals:

- Engage consultant to help us:
  - Improve monitoring and analysis protocols
  - Understand impact on water treatment
  - Predict blooms and cyanotoxin levels
  - Develop action criteria
- Expand Program to additional Reservoirs
- Continue Developing In-House Algae, cyanobacteria, and phycocyanin analysis capacity

**Questions/Comments:** Possible reasons for algae: Temperature, nutrient availability, turbulence in the water.

**Questions/Comments:** Are we concerned about algae/cyanobacteria in Fresh Pond?

Currently, there is no impact on water treatment operations.

Fresh Pond has an aeration system, which is a tool to help prevent blooms.

Climate change could increase the risk of serious blooms due to warmer weather and more intense rainfall.

**Questions/Comments:** We are hoping the consultant can help with treatment criteria.

Algaecide treatments are approved and would be one option. Trying to understand where it's coming from is important.

**Questions/Comments:** Invasive Asian Clams are a concern because they tend to release phosphorous.

**Interactive Source Water Quality Report: Sodium and chloride concentrations** - The lack of rain in 2012-2017 may have caused salt concentrations to increase. Recent wet years most likely diluted salt in reservoirs; decreasing concentrations.

**Questions/Comments:** Ms. Roosevelt asked Ms. O'Connell to keep the board informed on cyanobacteria at every few water board meetings.

**Watershed Updates:** No further comments

## **C. OPERATIONS**

### **Transmission and Distribution:**

**Questions/Comments:** No comments

### **Watershed:**

**Questions/Comments:** There was only one bid for the Winter Street gate house repairs. It was asked if that was usual?

Mr. Kaplan said "Yes". We've had bids go out that returned without any bids. We will vet the bid as it was submitted and make a recommendation or not to award the contract.

**Questions/Comments:** All Glyphosate samples were non-detect. Volunteer testing was done by the department of agriculture and done in their laboratory. They tested once a month from our raw water tap in our lab. This spanned mostly the growing season.

**Questions/Comments:** Re: 604B Grant opportunity for Chloride Pollution at Hobbs Brook. Ms. O'Connell said we applied through the State/DEP to develop a watershed plan to reduce chloride and develop strategies. The primary source of chloride in our watershed is from deicing chemicals. That relationship has been established since the 1990's. DOT has implemented many management changes that reduce the amount of chloride they are putting down but depending on bad snow and ice year, it can add up to more salt put down in a year. There is also a lot of development/parking areas in the watershed that haven't been studied as thoroughly as our highway layouts.

We've proposed developing a steering committee to help us develop and write a watershed-based plan to develop some strategies to reduce it. We haven't heard back from the State if we've received it.

**Questions/Comments:** Re: Waltham Pump Station Repair. Lots of debris have been dumped. (Mostly, landscape debris.) Waltham will install a physical barrier of boulders at the roadway leading to the pump station area, thus keeping people off the road and going into our property to dump.

**Questions/Comments:** The Tracer Lane (solar property) closing is targeted for Thursday.

**Questions/Comments:** Ms. Roosevelt commented on the large number of development projects in our watershed and said there is not a lot we can do about it. Ms. Roosevelt asked how/can we keep up.

Ms. O'Connell said we have a very robust treatment process because we are in a developed watershed. State storm water regulations are in place to mitigate issues.

Mr. Kaplan said we focus on making sure that a developer is meeting all state standards to ensure water quality, and not prohibiting development. Our team is on it.

*Questions/Comments:* We are not in drought. Hobbs Brook Reservoir storage is down due to lack of precipitation. Our demand isn't any higher than usual this time of year.

**Water Operations:**

*Questions/Comments:* No comments

**Engineering:**

*Questions/Comments:* What is "feedback to utility design engineers"?

Any property that is being developed needs water and we need to work with other utilities such as gas and electric; making sure their layouts are not in conflict with our utility.

*Questions/Comments:* What is the Harvard Square Kiosk Project? What will it be once completed?

The City owns it and is proposing to lease it. The "who" and "why" are unknown at this point.

**Business:**

*Questions/Comments:* FY24 billings were smaller than FY25 because FY2025 is projected. The water fund balance is \$6.2 million. Some will be used to pay for land acquisition.

**D. ACTION ITEMS**

Non

**E. MISCELLANEOUS CORRESPONDENCE AND ITEMS OF INTEREST**

None

**F. NEW BUSINESS**

None

**G. NEXT MEETING DATES/AGENDA – Meetings via Zoom**

- November 12, 2024: Approved/TBD

Mr. Burruss moved, and Ms. Kelly seconded the motion to adjourn the meeting at 6:17 pm. All were in favor of the motion.

**B. MANAGING DIRECTOR'S REPORT**

- **PFAS**
- **Drought**
- **Lead Service Replacement**

**C. OPERATIONS – Transmission and Distribution, October 2024**

- Continue working with and supporting DPW regarding sewer separation, Chapter 90 Street and Sidewalk Reconstruction and Common Manhole Removal Contracts.
- Scheduling lead water service replacements within DPW Chapter 90 Contract 24.
- Working with DPW and contractors on several water main projects that include:
- **River Street-** Working with DPW Project Contractor on the replacement of 8000' of old 6-12" Cast Iron Pipe with new 8-12" Ductile Iron to include all services valves and hydrants.
- **Elm Street-** Working with DPW Chapter 90 Contract 24 Contractor on the replacement of 1500' of old 6" Cast Iron Pipe with new 8" Ductile Iron to include all services valves and hydrants.
- **Parks, Community Gardens and Irrigation** – CWD crews completed removal of water meters, back flow devices and turned the water off to all of the Cities parks, community gardens, and irrigation systems

**October 2024**

6	Leaks Repaired
0	Services Reconnected
0	Lead Services Renewed
5	Hydrants Repaired/Replaced
1	Valves Replaced/Repaired
8	Miscellaneous Jobs Completed
30	Work Orders Completed
245	Valves Exercised
274	Inspections Performed
532	Digsafe Utility Mark Outs

## C. OPERATIONS – Watershed, October 2024

- I. *Fresh Pond Reservation:*
  1. Business as usual
- II. *Cambridge Watershed:*
  1. *Tracer Lane II Land Acquisition:* The City closed on the approximately 30.8-acre property in Lexington, MA 10/10/24, and the Land Court case was dismissed 10/15.
  2. *Phase 1 Dam Inspections:* Bi-annual professional engineer dam inspections scheduled for October 31, 2024
  3. *Winter Street Gatehouse Repairs:* Contract with T. Ford Company, Inc. circulating for signatures.
  4. *Stony Brook Gatehouse Masonry Repairs:* Work ongoing
  5. *Stony Brook Gatehouse Low Sluice Gate Repairs:* Ordering parts, scheduling site visit.
- III. *Grant Opportunities*
  1. Submitted an “Expression of Interest” to EEA for their feedback on whether dredging Black’s Nook would qualify for Municipal Vulnerability Preparedness Action Grant funds.
  2. 604(b) Grant Application – CWD submitted an application for funding to develop a Watershed Based Plan (WBP) to reduce chloride pollution in the watershed. No updates.
- IV. *Reporting and Website:*
  1. *Site Monitoring Program Tool:* Ongoing.
- V. *Projects Overview:*
  1. Waltham pump station repair on Wimbledon Circle is nearly complete and mostly stabilized. Waltham will plant three white swamp oak trees on CWD property in the area of a former encroachment. Waltham will also bring in boulders to prevent dumping on CWD property.  
No updates.
  2. Construction projects in Waltham are ongoing at 305 Winter Street, 305 Second Ave, and 40 Sylvan Road.
  3. 1265 Main Street Phase II redevelopment received a permit from the Waltham Conservation Commission. The permit requires the developer to work with CWD to perform a hydrologic study of a downstream malfunctioning stormwater treatment basin (WA-17) and implement recommendations for water quality improvement. CWD is working with the developer to identify opportunities for construction. No updates.
  4. Plans for redeveloping 1342, 1345 and 1486 Main Street, Waltham are in development.
  5. Bridge replacement and roadway construction at Rt 2A over I-95 in Lexington is ongoing.
  6. MassDOT D4 Highway Depot redevelopment in Lexington is under construction. Bioretention basin media installation is ongoing.
  7. Multiple subdivision or multi-unit housing projects in Lexington and Weston are in the pipeline (Weston: 751-761 Boston Post Road, 0 Wellesley St, and 269 North Ave; Lexington: 15-17 Fairland St). Construction is currently ongoing for a small subdivision at 576 North Ave in Weston.
  8. 104 Boston Post Road (Weston) Housing Appeals Committee (HAC) hearings concluded in April 2021. The HAC issued a decision June 22, 2023, to overturn the Weston Zoning Board of Appeals denial of a comprehensive permit. CWD



is supporting the Law Department as the case moves through litigation. No updates.

9. 149-151 Spring Street, Lexington parking lot expansion proposal is in permitting. No updates.
10. 300 Conant Road, Weston – A proposed industrial leaf and yard waste compost facility on a currently forested parcel. The project is currently going through Wetlands Protection Act permitting.
11. Enbridge (Algonquin Gas Transmission, LLC) requested to cut trees ~55 trees (616” DBH total) on CWD property in Zone A for construction staging for a meter station improvement project. Algonquin filed a lawsuit against the City of Cambridge on May 7, 2024. Algonquin Gas v. City of Cambridge, et al. (24cv11220-ADB). A settlement has been reached and construction has begun. More information is available on the CWD website:
  - a. <https://www.cambridgema.gov/Water/watershedmanagementdivision/algonquingassettlement>
12. *Comment Letters/Hearings:* CWD submitted formal verbal and/or written comments regarding:
  - a. *Minor projects– emailed comments to Weston, Lincoln, and Waltham Conservation Commissions. Projects include:*
    1. Minor additions to single-family homes and septic system repairs
    2. New single-family home and septic system proposed in Lincoln near a tributary, possibly to the water supply. CWD has requested a site visit for verification of the Zone A extent on-site.
    3. UST for lab waste in Waltham (outside of Zone A)
  - b. *300 Conant Road, Weston* – CWD submitted emailed comments and attended the 10/22/2024 hearing. CWD expressed concerns about stormwater infrastructure that may be proposed in the Zone A as well as Riverfront Area disturbance. CWD will coordinate a site walk with the applicant to verify the extent of the Zone A on site.
13. *Communications:*
  - a. Review of long-term construction management reports in Lexington
  - b. *Phosphorus Control Plan (Waltham)* – Met with the City of Waltham and their consultants to discuss Waltham’s proposed Phosphorus Control Plan to meet EPA MS4 permit requirements. Specifically, Waltham plans to study phosphorus inputs and exports from the Stony Brook Reservoir to determine how this might impact their phosphorus load reduction requirements. Waltham also plans to study the efficacy of a continuous phosphorus water quality probe near the outlet of Stony Brook Reservoir.
14. *Site Visits:*
  - a. *Regular watershed patrols by caretakers ongoing*
  - b. *Other Visits:*
    1. *0 Cambridge Turnpike, Lincoln* – Removed 2 of 4 deer stands identified by CWD-on-CWD property (10/2/2024). Environmental Police notified.
    2. *254 Cambridge Turnpike, Lincoln* –
      1. *10/3/2024* - Vegetation disturbance and possible landscape debris dumping on CWD property in a hole; backhoe tracks also observed entering and exiting CWD

property. Lincoln Conservation Commission notified due to work near a resource area.

2. 10/15/2024 - A return inspection showed no additional disturbance on CWD land and that the hole had been filled in.

3. *Wagon Wheel Nursery, Lexington*

1. 10/15/2024 – A catch basin was removed from CWD property, but other materials and encroachments remain.
2. 10/23/2024 – Returned to flag potential illicit outfalls to Hobbs Brook Reservoir for removal.

15. *Hazmat:*

- a. *No events*



CITY OF CAMBRIDGE  
MASSACHUSETTS  
Water Department  
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November 4, 2024

## OCTOBER 2024 WATER SUPPLY SUMMARY REPORT

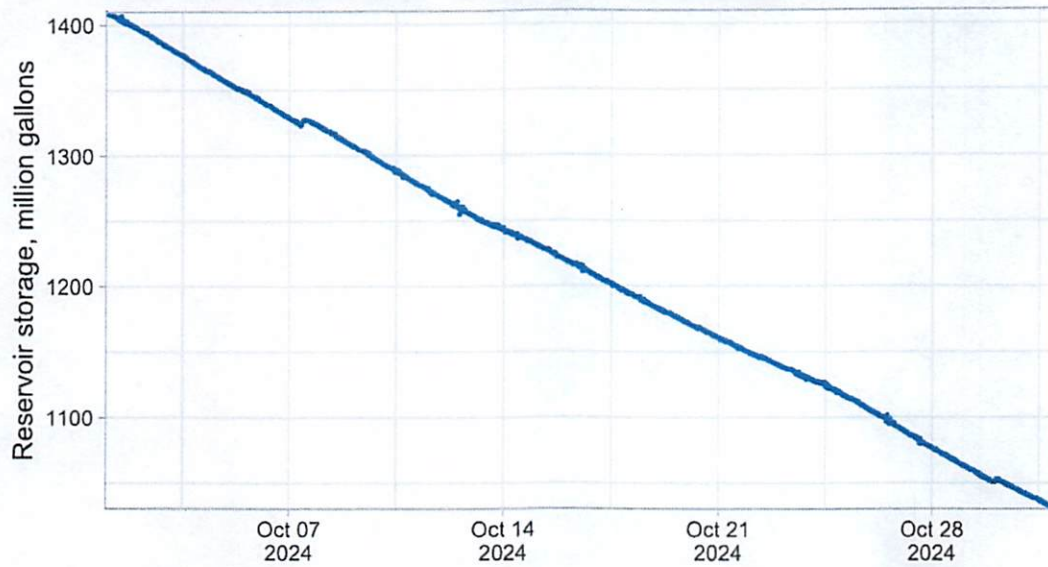
### Highlights

- The October percent water supply system capacity of 33% (based on 2.9BG usable capacity) is:
  - 13 percentage points lower than September 2024 (46%);
  - 55 percentage points lower than October 2023 (88%); and
  - 21 percentage points higher than October 2016 (12%, drought)
- Precipitation at the Lincoln Field Office in October 2024 totaled 0.99 inches, 3.25 inches below the National Climate Data Center (NCDC)'s monthly normal at Bedford Hanscom Field (4.24 inches).
- The current drought status from the MA EEA Secretary has been elevated to a Level 1 – Mild Drought

**Storage**

Figure 1: Hobbs Brook Reservoir Storage, October 2024

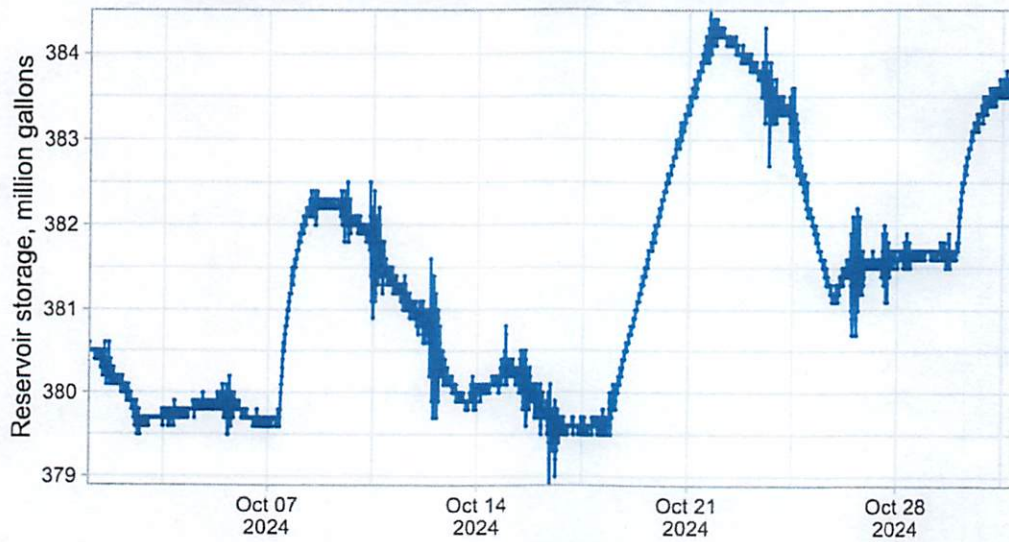
USGS 01104430 Hobbs BK Below Cambridge Res Nr Kendall Green, MA



— Provisional data subject to revision.

Figure 2: Stony Brook Reservoir Storage, October 2024

USGS 01104480 Stony Brook Reservoir at Dam Near Waltham, MA



— Provisional data subject to revision.

Figure 3: Fresh Pond Reservoir Storage, October 2024

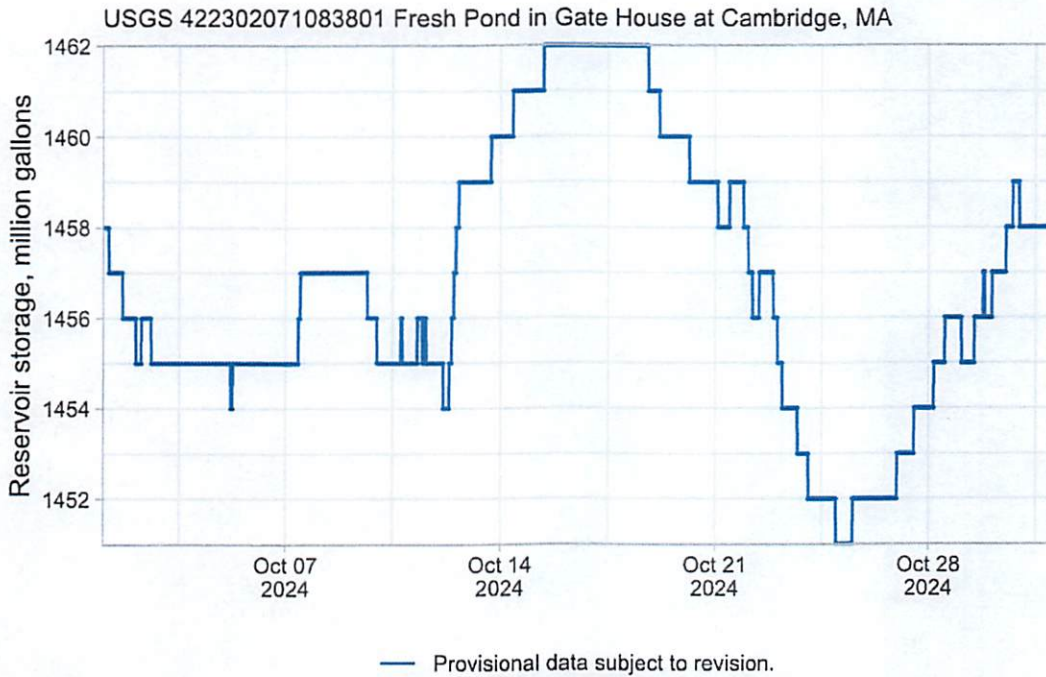


Figure 4: CWD % System Capacity, Water Years 2016 and 2017 (drought), 2024, and 2025

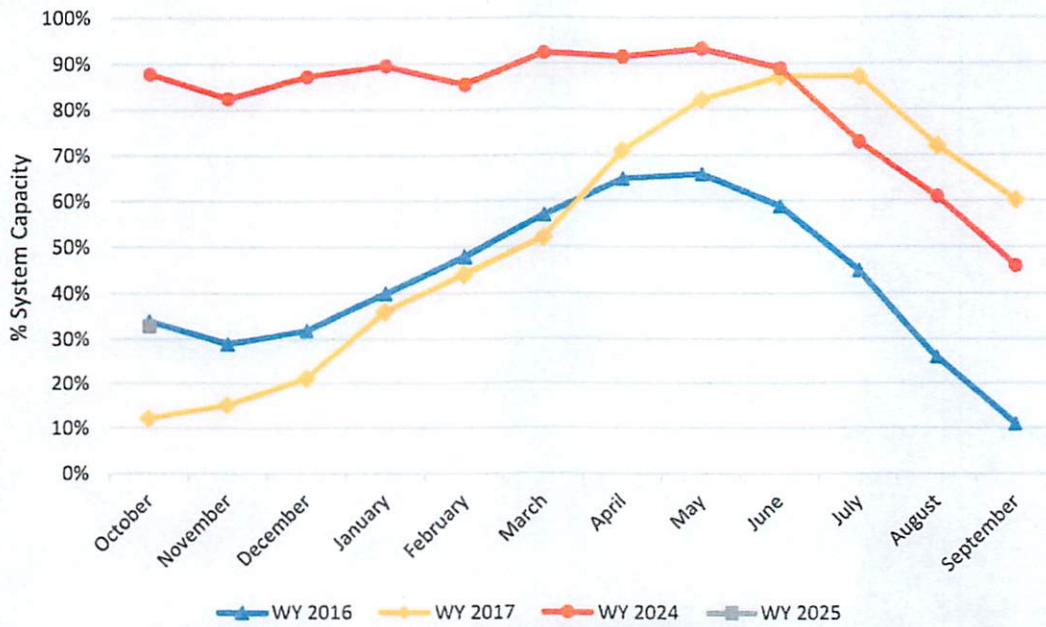
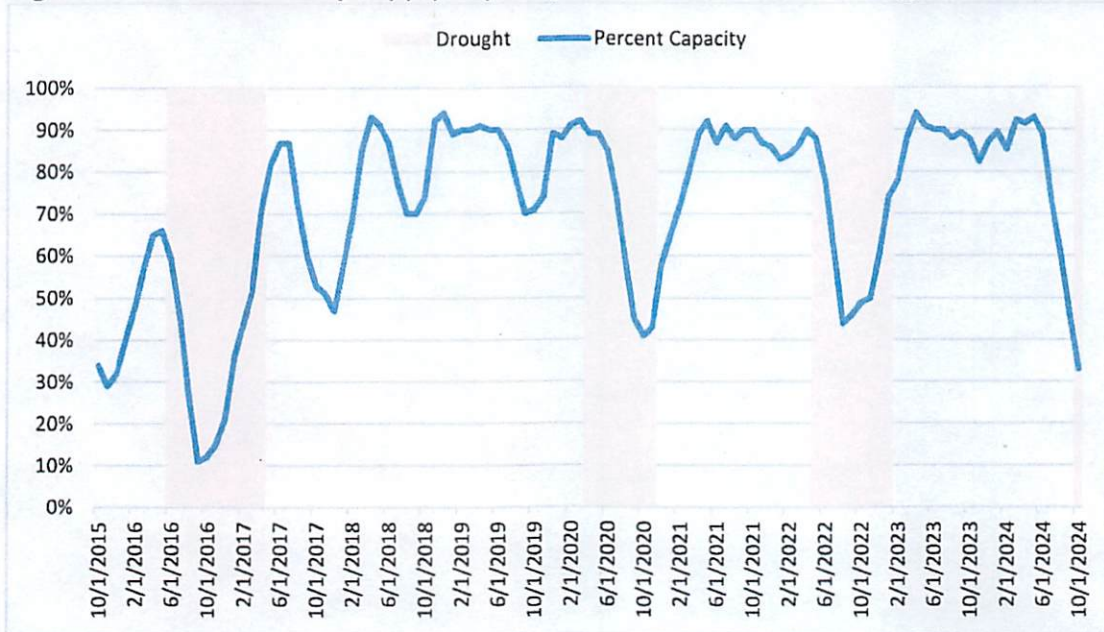


Figure 5. Percent Monthly Supply Capacity from October 2015 through October 2024



**Precipitation**

Figure 6: Precipitation measured at Lincoln Field Office, October 2024

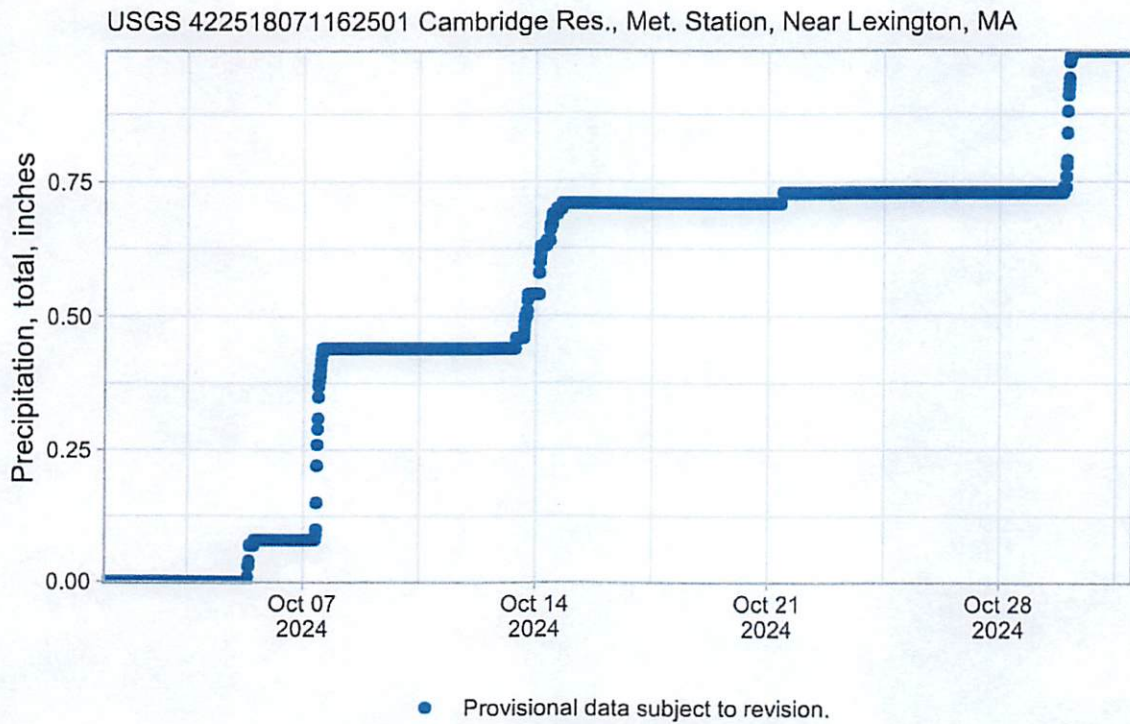
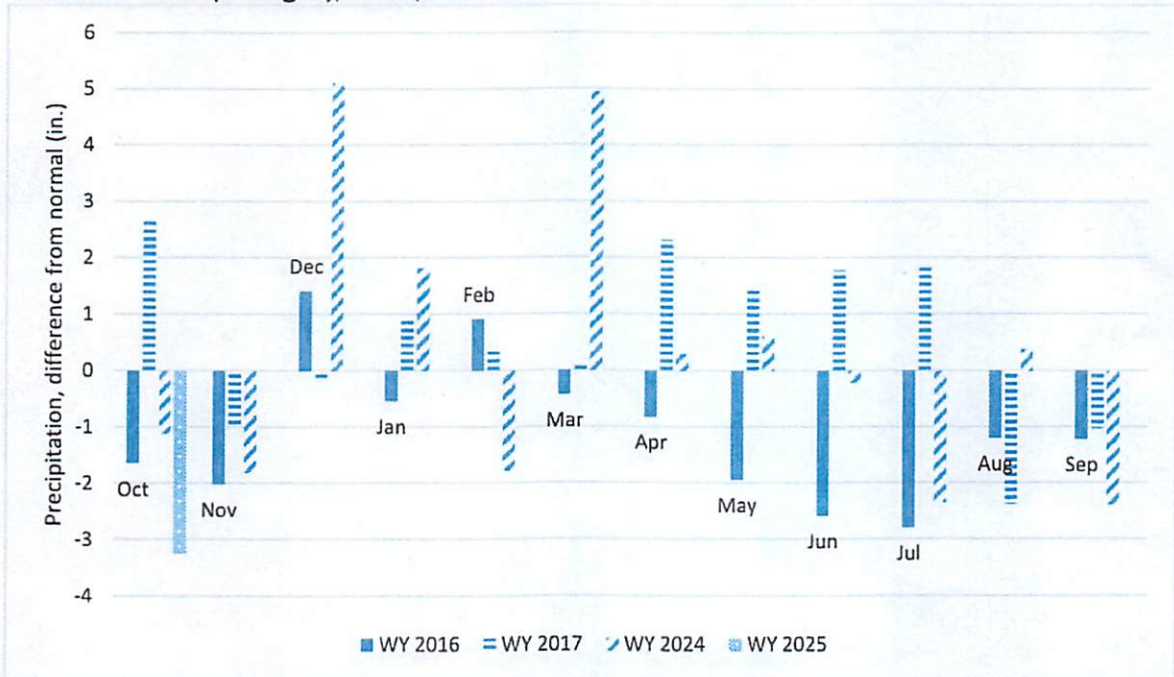


Figure 7: Monthly Precipitation (Lincoln Field Office) Relative to Normal, Water Years 2016 and 2017 (drought), 2024, and 2025



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 617-349-4781

Real-time data available on the web at  
[http://waterdata.usgs.gov/ma/nwis/current?type=cambrid&group\\_key=NONE&search\\_site\\_no\\_station\\_nm=&format=html\\_table](http://waterdata.usgs.gov/ma/nwis/current?type=cambrid&group_key=NONE&search_site_no_station_nm=&format=html_table)

**C. OPERATIONS- Water Operations, October 2024**

**Plant Operations: October 2024**

Production: 415.24 million Gallons with only scheduled shutdowns, the plant runs 24/7

Monthly Average: 13.39 million Gallons per Day (MGD)

Daily Maximum: 15.66 million Gallons (MG) on October 9<sup>th</sup>

Daily Minimum: 8.96 million Gallons (MG) on October 12<sup>th</sup>

Plant Shutdown on 10/12/24 for Electrical PM of the transformers

**Water Quality/Laboratory:**

There were NO total coliform positives for October: 109 samples collected for compliance

Added MassDEP Microbiology Certification for Source Water (Enumeration)

PFAS – 4th Quarter Compliance Sample collected in October - PFAS6 total 4.16 ppt  
Next compliance sample to be collected in Quarter 1 (January 2025)



### C. OPERATIONS – Engineering and Program Development, October 2024

- **MEETINGS ATTENDED:**  
River St WM (Water Main) Project & Watertown DCR Bikeway Connection Meetings
  
- **CONSTRUCTION/WATER USE PERMITS ISSUED:**
  - 14 construction permits issued for October 2024
  
- **PROJECTS/OTHER ACTIVITIES INCLUDE:**
  - **Provided feedback to utility design engineers Re:** 2 Corliss Place, 121 Rindge Ave., 2161 Massachusetts Ave., 36 – 42 Linnean St., 26 Foch St., 81 Dana St., 40 Royal Ave., 67 Smith Place., 138 Irving St., 44 JFK St., 1103 Cambridge St., 33 Mellen St., 106 Inman St., 35 Market St., 6 Kinnaird St., 24 Newell St., 21 Cottage St., 853 Main St., 303 Harvard St., 1 Gerry’s Landing, 21 Cottage Park Ave., 10 Hillard Place, 725 Concord Ave., 1375 Massachusetts Ave., 18 South Normandy St., 92 Normandy Ave., 73 Dudley St., 23 Reed St., 1093–1099 Cambridge St., 51 R.C Kelley St., 6 Irving Terrace, 33 Hancock St., 15 Hutchinson St., 208 Banks St., 22 White St. & 2 Livermore Place.
  - **Private Development Projects, Provided feedback to DPW Re:** Harvard Sq. Kiosk Project/Broadway WM Project, River St Streetscape Project & Willard WM Project
  - **City Projects:** Eversource Gas reps for new city-wide utility replacement & Harvard Street WM Project, Willow St WM Project, Suffolk WM Project & Belmont WM Project, Chestnut Street WM, Sciarappa & Dana St WM Project, Fulkerson St WM Project, Huron Ave WM Project, Kelly Rd WM Project, Willard St WM & River St WM Project & Mass Ave. WM Project, Main St. WM Project & Bates St WM Project, Elm St WM Project & Blackstone St. WM Project.
  
- **UPDATING DISTRIBUTION MAPS USING GIS TOOLS – STATUS:**
- Continue upgrading of the Fire Hydrant database and system valve IDs as part of valve exercising program and GIS edits from the GIS Map logbook.
- Continue updating the spreadsheet for tracking the remaining lead services in the system/Master service card spreadsheet.
- Continue to update “Service Cards” spreadsheet which compiles and links service card locations with sketches that show the proximity of all the tie-ins required to locate water service boxes and pipes going into each dwelling.
- Continue working on a “List of all Lead Services Report” as part of Monthly Lead Report. We have also created a spreadsheet that will assist in providing a summary report on how many lead services will be eliminated every month.
- Continue and completed working on city wide edits for maps; adding water service information; quality control; printing new GIS maps; gathering information for new water mains (WM) and other water infrastructure related upgrades and creation of WM Log spreadsheet.
- Continue updating WM/service leak layer based on the information gathered from 2013 to this

year Distribution Division work order list.

- Continue using software for "Demolition permits" called "ViewPoint Cloud".
- Continue interviewing for the two new Engineering Interns positions for the period beginning January till the end of June 2025. We have hired one & are still working on the second one.

**C. OPERATIONS - Business**

<b>FY25 Billings</b>			
<b>Month</b>	<b>Billed Water Consumption</b>	<b>Month</b>	<b>Billed Water Consumption</b>
July	707,653	January	0
August	362,781	February	0
September	314,330	March	0
October	764,179	April	0
November	0	May	0
December	0	June	0
		<b>FY25 TOTAL</b>	<b>2,148,943</b>
		<b>FY24 TOTAL</b>	<b>2,210,326</b>
			<b>-2.78%</b>

<b>Cross Connection Program Results</b>		
<b>October</b>		
<b>Total Tests</b>	<b>Fails</b>	
406	19	

Water Fund Balance: \$6.2 M (6-30-2024)

**D. ACTION ITEMS**

- None

**E. MISCELLANEOUS CORRESPONDENCE and ITEMS OF INTEREST**

- None

**F. NEW BUSINESS**

- None

**G. NEXT MEETING DATE/AGENDA**

- December 10, 2024: TBA/TBD/Election of the Water Board President