

WATER BOARD MEETING AGENDA

Tuesday, December 10, 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_Ranub-3FTO23Z5nVhU_BRg

A. MINUTES OF NOVEMBER 12, 2024, MEETING

B. MANAGING DIRECTOR'S REPORT

- PFAS 2024
- Drought Status
- Lead Service Renewal Status
- Fresh Pond Public Engagement Recap

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 November 2024
 - FY25 Consumption through November 2024
 - Water Fund Balance as of 6-30-2024

D. ACTION ITEMS

- Election of the Water Board President

E. MISCELLANEOUS CORRESPONDENCE and ITEMS OF INTEREST

- None

F. NEW BUSINESS

- None

G. NEXT MEETING DATES/AGENDA

- January 14, 2025: TBA/TBD

CAMBRIDGE WATER BOARD

MEETING MINUTES

November 12, 2024

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

This meeting was called to order at 5:00 p.m. Those in attendance via *Zoom* were:

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

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

A. MINUTES OF OCTOBER 8, 2024, MEETING

Mr. Kapoor moved, and Ms. Roosevelt seconded the motion to approve October 8, 2024, minutes as written. The vote was unanimous in favor of the motion.

B. MANAGING DIRECTOR'S REPORT

PFAS Update: Fourth quarter PFAS6 sample results came in as expected at 4ppt. We've scheduled the next carbon change out for January 2025. (Changing two filters in January, two in February and two in March.) This timing will bring us right up to our second quarterly sampling in April, which is where we typically start back at non-detects.

Questions/Comments: The PFAS is 4ppt now. How high do we anticipate the PFAS will go? We expect the numbers to be similar to last year when they were consistent in staying at 4ppt, increasing in smaller increments and never above 6ppt. We've never been to 10ppt which allows us to stay at the quarterly monitoring schedule. Results are consistent, and the carbon is working the way we had anticipated.

Questions/Comments: Do we know where PFAS is coming from? Can we look at the access points? Can we sample from up country reservoirs? That's our goal and the reason for buying the PFAS analyzer. It will help us to do those investigations. We want to pinpoint where PFAS might be originating from, or where concentrations are higher and see if we can mitigate it somewhere at the source. This will take some time. We are not state certified, but we will get there. The state labs are all backed up and it's expensive for them to test.

Questions/Comments: How far are we from the PFAS testing equipment certification? The employee in our lab who was heading this up just left and we're short staffed. It will take perhaps half a year until two rounds of performance testing are done. Onsite inspection must be done, and we are working towards 6-8 months after this. In the interim we do have the instrument, and although we can't use those results from a regulatory compliance standpoint, we are using it as a check.

Questions/Comments: The test method is reproducible, verified and validated.

The State certified lab and Mass DEP does QAQC on it for validation purposes. In addition to our regulatory sampling, we continue to take monthly non-regulatory samples from the combined filter effluent. We monitor all the time even though we are required to do only quarterly monitoring.

We are part of a nationwide class action suit against companies that produced/manufactured PFAS chemicals. That litigation is in process. These things can take quite a long time.

Drought: We had been in a mild Level 1 drought since October 11th. Currently we are in level 3/Critical. That triggers some responses from us. We must follow the state drought level and water restrictions regulating outdoor water usage. All non-essential outdoor water usage is banned for levels 3 and 4. This information is on our website. Some of our largest water consumers such as the colleges have been personally notified

The Water Management Program regulations, effective January 20, 2023, define nonessential outdoor water use as every use that is not required for essential purposes (310 CMR 36.02).

NONESSENTIAL OUTDOOR WATER USE RESTRICTIONS

State Drought Plan	Nonessential Outdoor Water-Use Restrictions
Level 1-Mild	1 day per week watering, before 9 a.m. or after 5 p.m.
Level 2-Significant	Hand-held hoses or watering cans only, before 9 a.m. or after 5 p.m.
Level 3-Critical	Ban on all nonessential outdoor water use
Level 4- Emergency	Ban on all nonessential outdoor water use

Fortunately, our water demand is dropping off and most irrigation systems are not in use due to freezing nighttime temperatures. This time of year, we average approximately 10MGPD (million gallons per day) and by January we typically average below 9MGPD. We are still well below our water withdrawal registration limit which is 16.2MGPD (average).

Questions/Comments: Construction sites are exempt from restrictions but are asked to be vigilant and check for water waste.

The Water Demand Study is done. It goes out to the year 2050. Results will be presented to the board in January or February. The board will receive a full copy of the demand study ahead of time.

Questions/Comments: Ms. Roosevelt thinks the waterboard has to be involved with this (drought) and suggests thinking about what the board could do. She said we should keep an eye on it right now and if the drought becomes an emergency situation we should reconvene. Ms. Lendorff feels it's the responsibility of the board to alert the City. Ms. Kelly feels we should acknowledge the change to the water restriction regulations.

Mr. Gallagher said we emailed the city council early last week to alert of the mild drought and alerted that if we didn't get significant rain in the next 30-days we may have to supplement our water with MWRA water.

The EPA guidelines set a goal for residential daily water use at 65 gallons per person per capita per day. Cambridge, for more than a decade, has been below 45 daily gallons per person per capita per day. We are doing a good job of being waterwise in Cambridge. Since the 1970's our average daily usage has gone down and has started to bottom out.

New 2029 Federal Regulations: The new EPA Federal PFAS Standard regulations were passed. These won't take full effect until 2029. If these regulations were passed and currently in place, we would be in full compliance.

Lead Service Replacement: EPA Lead and Copper Rule Revisions (LCRR) initiated by the EPA and the federal government.

Municipalities nationwide have until 2027 to have a lead service replacement plan in place. The federal government will give until 2037 to get all lead services out of distribution systems to be in full compliance with federal law. In addition, Mass DEP has required all Massachusetts municipalities to have their service line inventory complete and know where all their lead services are by October 16, 2024, and mail notifications to every property that has lead, galvanized needing replacement or unknown service by November 16th. As a result, we are receiving many inquiries from residents. Most of our galvanized service lines are lead lined. This prevented them from rusting and was considered the gold standard back in the day. If unknown they are given instructions on how to contact the water department so we can identify the material type of the unknowns.

Cambridge is fortunate that we have our own State certified lab and we offer free lead testing to all Cambridge residents. Lead sample kits are kept in the foyer of the front lobby. We can deliver sample kits if necessary. Results usually take 2-3 weeks.

Questions/Comments: What are landlords supposed to do, particularly if children live there? Fortunately, Cambridge has had a lead service replacement plan in place since the 1990's. There are approximately 2,100 lead services now (80% complete) from the original 11,000 lead services. Mr. Gallagher said we are preparing for responses and are prepared to schedule replacements.

Per City ordinance, property owners own the water service from the meter all the way out to the water main. They are responsible for installing, maintaining and repairing their service at their expense. In the 1990's the water department opted to expedite the removal of lead and opted to start replacing the lead service portion in the public right of way at our expense and splitting the cost with the property owner. Typically, we absorb about 80% of a lead service renewal cost. Replacement turnaround time can be two weeks for motivated homeowners.

The lead doesn't come from the water and often comes from the internal plumbing more so than from the water service. Water coming out of the plant has a PH of 9.2 which prevents lead and copper from leaching out of the pipe. Cambridge is well below what the future federal regulation will require.

If we are doing a watermain replacement project scheduled through DPW chapter 90 or from our internal list of mains that need to be replaced, the water department will cover the complete cost of replacing it all the way to the meter. We have a list of main replacement addresses and timelines which property owners may coordinate with.

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 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 the 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 to the old line as it is pulled out by the water department.

Questions/Comments: Ms. Lendorff asked for an Enbridge/Algonquin summary. Mr. Kaplan said they first proposed taking a large portion of our land. In the end, they scaled down their proposal to a smaller portion. We worked with them to minimize their impact and to restore the land after construction. A settlement was reached, and construction has begun. They will be paying for restoration. More information is available on the CWD website.

Questions/Comments: Re: Phosphorus Control Plan (Waltham). Where does phosphorous originate from?
There is no single source/non-point source. It comes from development and organic matter.

C. OPERATIONS

Transmission and Distribution:

No comments

Watershed:

Questions/Comments: Re: 604B Grant opportunity for Chloride Pollution at Hobbs Brook. Mr. Kaplan said we applied through the State/DEP to develop a watershed plan to reduce chloride and develop strategies that includes commercial lands and not just state and municipal roadways.

Questions/Comments: 104 Boston Post Road (Weston) Housing Appeals Committee (HAC) hearings concluded in April 2021. The HAC issued a decision on 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.

Questions/Comments: Re: 254 Cambridge Turnpike, Lincoln. Dumping on CWD property. A neighbor, without a wetlands permit, was encroaching on our land while doing some clearing.

Water Operations:

No comments

Engineering:

No comments

Business:

Questions/Comments: The water fund balance is \$6.2 million.

Questions/Comments: Water billing amounts may fluctuate due to quarterly sewer abatement accounts.

D. ACTION ITEMS

None

E. MISCELLANEOUS CORRESPONDENCE AND ITEMS OF INTEREST

None

F. NEW BUSINESS

None

G. NEXT MEETING DATES/AGENDA – Meetings via Zoom

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

Ms. Kelly moved, and Ms. Lendorff seconded the motion to adjourn the meeting at 6:26 pm. All were in favor of the motion.

B. MANAGING DIRECTOR'S REPORT

- PFAS 2024
- Drought Status
- Lead Service Renewal Status
- Fresh Pond Public Engagement Recap

C. OPERATIONS – Transmission and Distribution, November 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.
 - Lead Service Line Verifications** – Upon coordination with residents per the lead service line notices sent out, CWD staff began onsite inspections and verification of service line materials.

November 2024

2	Leaks Repaired
0	Services Reconnected
1	Lead Services Renewed
6	Hydrants Repaired/Replaced
2	Valves Replaced/Repaired
10	Miscellaneous Jobs Completed
29	Work Orders Completed
175	Valves Exercised
207	Inspections Performed
515	Digsafe Utility Mark Outs

C. OPERATIONS – Watershed, November 2024

1. *Fresh Pond Reservation:*
 - i. *Huron Pine Grove:* 20'x 20' plant protection fencing installed around 4 ecological restoration test plot locations.
2. *Cambridge Watershed:*
 - i. *Phase 1 Dam Inspections:* Inspections completed. Awaiting draft report from CDM Smith.
 - ii. *Winter Street Gatehouse Repairs:* Erosion controls installed. Downstream culvert repair work anticipated to start in December.
 - iii. *Stony Brook Gatehouse Masonry Repairs:* Work ongoing
 - iv. *Stony Brook Gatehouse Low Sluice Gate Repairs:* Parts on order.
3. *Grant Opportunities*
 - i. Submitted an “Expression of Interest” to EEA for their feedback on whether dredging Blacks Nook would qualify for Municipal Vulnerability Preparedness Action Grant funds. No updates.
 - ii. 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.
 - iii. Will continue to investigate open space and dam infrastructure grant opportunities as they arise.
4. *Reporting and Website:*
 - i. *Site Monitoring Program Tool:* Ongoing.
5. *Projects Overview:*
 - i. Construction projects in Waltham are ongoing at 305 Second Ave and 40 Sylvan Road. A redevelopment project at 305 Winter Street is complete.
 - ii. 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.
 - iii. Plans for redeveloping 1342, 1345 and 1486 Main Street, Waltham are in development.
 - iv. Bridge replacement and roadway construction at Rt 2A over I-95 in Lexington is ongoing.
 - v. MassDOT D4 Highway Depot redevelopment in Lexington is under construction. Bioretention basin media installation is ongoing.
 - vi. 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.
 - vii. 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.
 - viii. 149-151 Spring Street, Lexington parking lot expansion proposal is in permitting. No updates.
 - ix. 300 Conant Road, Weston – A proposed industrial leaf and yard waste compost facility on a currently forested parcel. The applicant decided to withdraw their Notice of Intent Application on 11/26/2024.

- x. Enbridge (Algonquin Gas Transmission, LLC) Route 2 Metering and Regulation Station replacement project is mechanically completed. Site restoration per agreement will begin in spring, 2025.
6. *Comment Letters/Hearings:* CWD submitted formal verbal and/or written comments regarding:
- i. *Route 20 and Wellesley Street Intersection, Weston* – Submitted comments to Weston DPW and Weston Conservation Commission requesting additional water quality treatment for the project. The design was modified to add leaching catch basins to multiple treatment trains.
7. *Communications:*
- i. Met with representatives from Algonquin Gas to discuss a proposal to relocate an existing gas main on Tower Road in Waltham due to anticipated roadway modifications on I-95 by MassDOT.
 - ii. *8 Hawk Hill Road, Lincoln* – Discussed potential issue with a proposed pasture for livestock in close proximity to a tributary to a water supply.
 - iii. *300 Conant Road, Weston* – Met with the applicant’s consultants to discuss CWD’s concerns with stormwater infrastructure proposed in the Zone A of a tributary to Cambridge’s water supply. The proposed stormwater system would serve a proposed compost facility.
8. *Site Visits:*
- i. *Regular watershed patrols by caretakers ongoing*
 - ii. *Other Visits:*
 - 1. *8 Hawk Hill Road, Lincoln* – Visited with Lincoln Conservation Staff on 11/26/2024 to review wetland delineation lines and investigate tributary hydraulic connectivity.
 - 2. *93 Weston Road, Lincoln* – Visited with Lincoln Conservation staff on 11/14/2024 to investigate whether Zone A exists that would prohibit a proposed new septic system. Determined that Zone A does not overlap with the proposed system.
 - 3. *38 Wimbledon Circle, Waltham* – CWD staff confirmed on 11/15/2024 that 3 white swamp oaks had been planted as required for mitigation related to upgrading the pump station on site.
 - 4. *Hobbs Brook Reservoir Shoreline Surveys* – Walked the Hobbs Brook Reservoir Middle and Upper Basins. No issues outside of the norm were observed. Areas for trash clean up and signs of fishing or trespassing were most frequently observed. All issues were mapped and flagged for follow up.
9. *Hazmat:*
- 1. *No events*



CITY OF CAMBRIDGE
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December 2, 2024

NOVEMBER 2024 WATER SUPPLY SUMMARY REPORT

Highlights

- The November percent water supply system capacity of 29% (based on 2.9BG usable capacity) is:
 - 4 percentage points lower than October 2024 (33%);
 - 54 percentage points lower than November 2023 (82%); and
 - 14 percentage points higher than November 2016 (15%, drought)

- Hobbs Brook Reservoir has started to recharge. The rate of recharge currently matches water year 2016 (October and November 2015). Reservoir recharge during water year 2016 peaked at only 65% in May. The 2016-2017 drought began in June 2016. The rate of reservoir recharge should be monitored closely throughout the winter and spring.

- Precipitation at the Lincoln Field Office in November 2024 totaled 4.05 inches, 0.33 inches above the National Climate Data Center (NCDC)'s monthly normal at Bedford Hanscom Field (3.72 inches).

- The current drought status from the MA EEA Secretary has been elevated to a Level 3 – Critical Drought

Storage

Figure 1: Hobbs Brook Reservoir Storage, November 2024

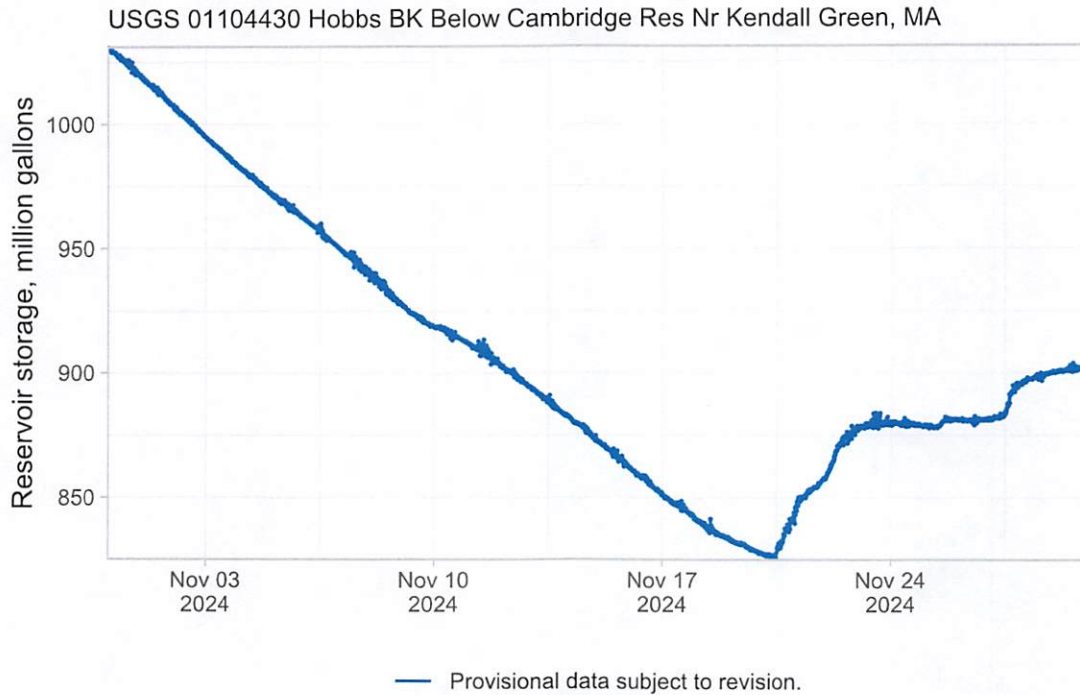


Figure 2: Stony Brook Reservoir Storage, November 2024

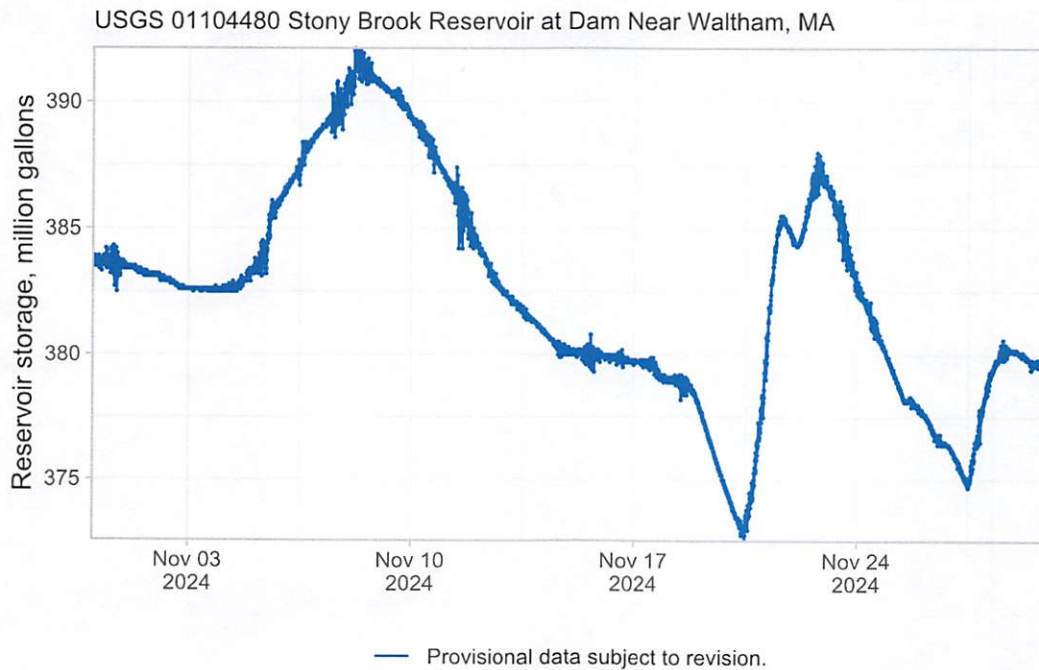


Figure 3: Fresh Pond Reservoir Storage, November 2024

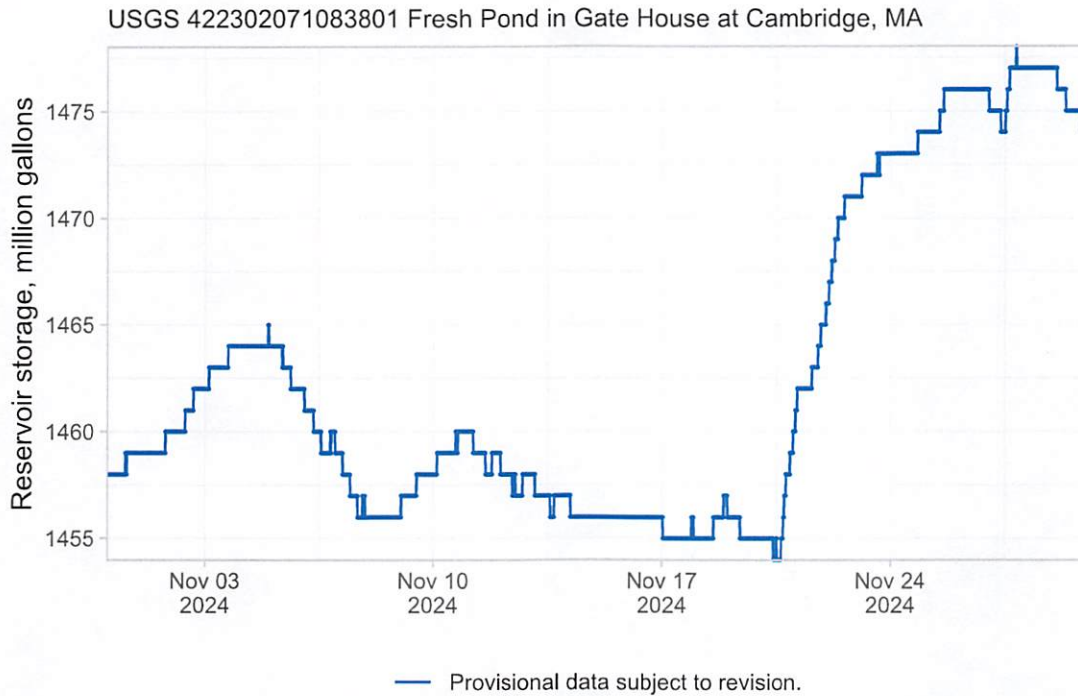


Figure 4: CWD % System Capacity, Water Years 2016 and 2017 (drought), 2024, and 2025

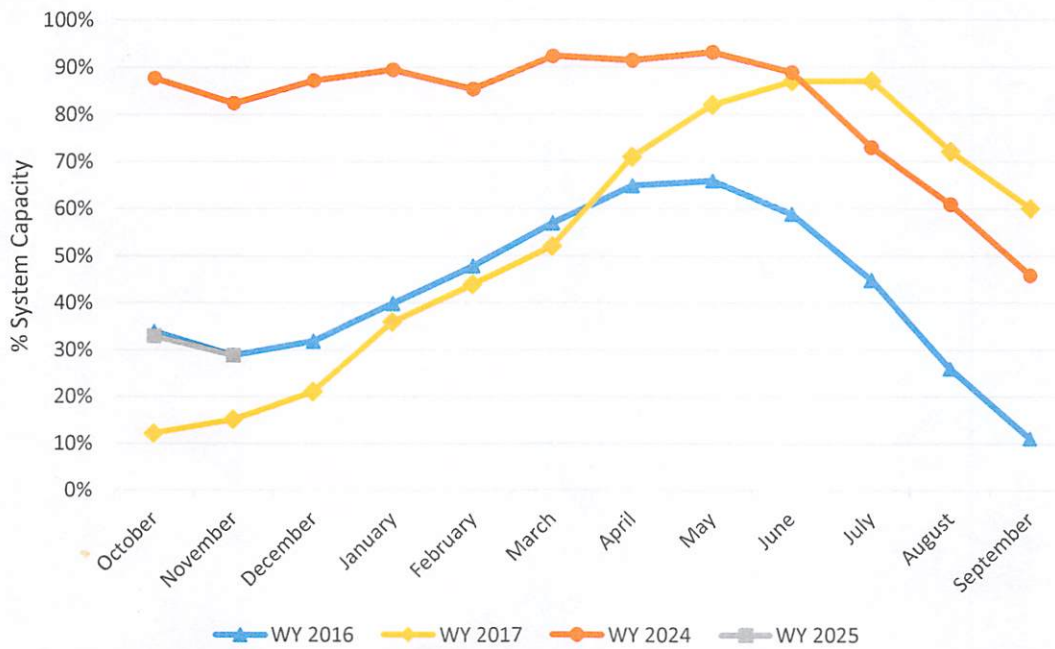
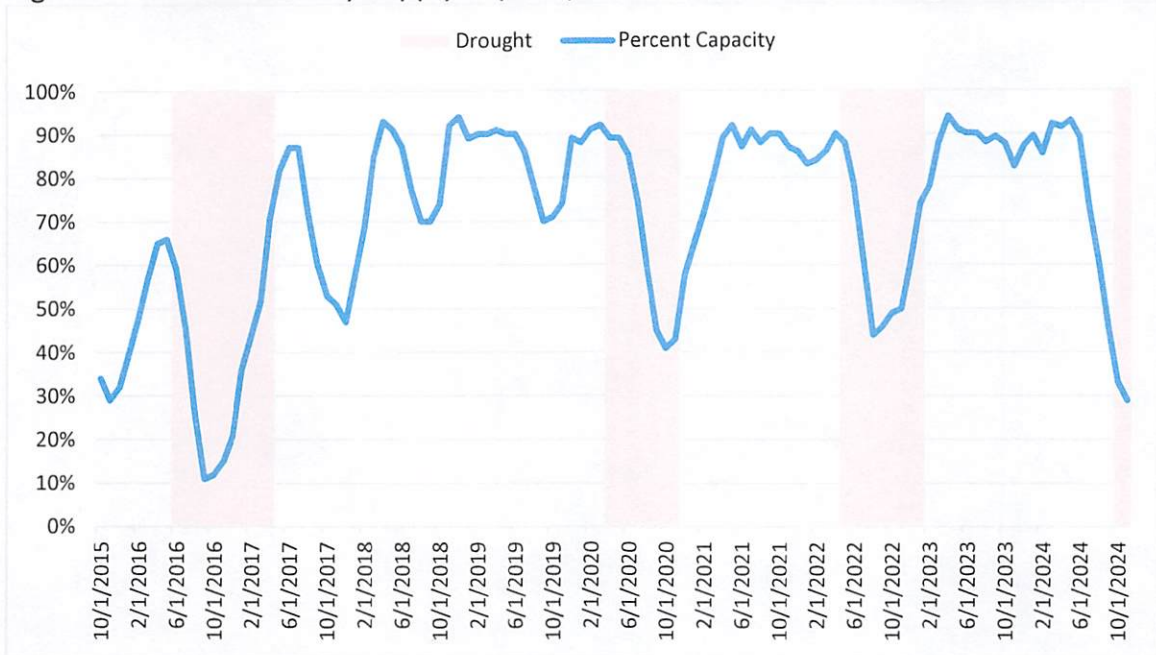
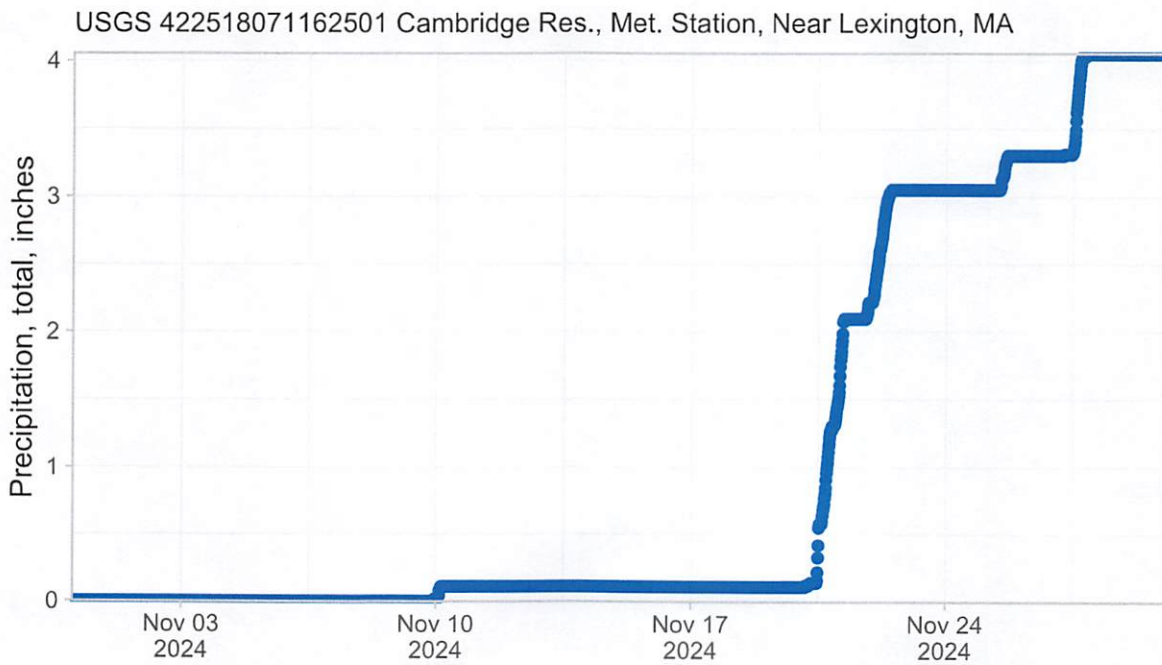


Figure 5. Percent Monthly Supply Capacity from October 2015 through November 2024



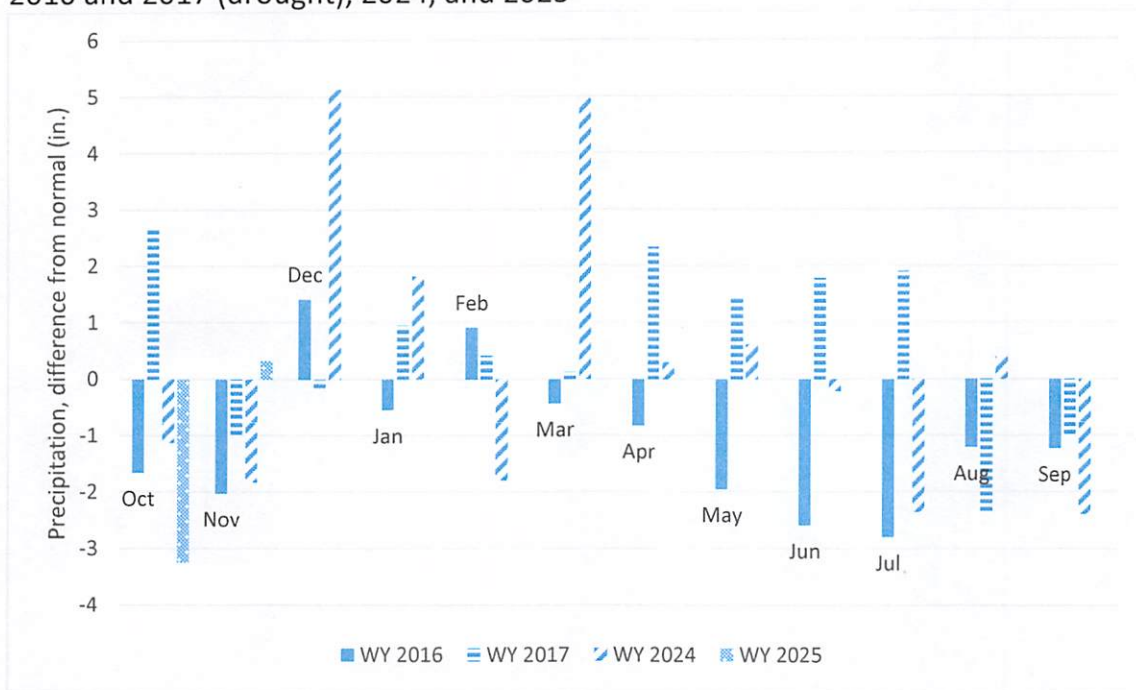
Precipitation

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



● Provisional data subject to revision.

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



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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

C. OPERATIONS – Water Operations, November 2024

Plant Operations: November 2024

- Production: 357.26 million Gallons with only scheduled shutdowns, the plant runs 24/7
- Monthly Average: 11.91 million Gallons per Day (MGD)
- Daily Maximum: 13.78 million Gallons (MG)
- Electrical Plant shut down for maintenance on the transformers

Water Quality/Laboratory

- There were 0 total coliform positives for November
November: 108 samples collected for compliance
- Rich Lagerholm was promoted to Lab Manager
- Homeowner lead testing - Dramatic increase in number of samples submitted due to recent lead service line notifications sent to residents
- PFAS - Next compliance sample to be collected in Quarter 1 (January 2025)

C. OPERATIONS – Engineering and Program Development, November 2024

- **MEETINGS ATTENDED:**

- River St WM (Water Main) Project

- **CONSTRUCTION/WATER USE PERMITS ISSUED:**

- 22 construction permits issued for November 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:** Project/Broadway WM Project, River St Streetscape Project Elm St WM Project
- **City Projects:** Eversource Gas reps for new city-wide utility replacement & Harvard Street WM Project, Willow St WM Project, Sciarappa & Dana St WM Project, Kelly Rd WM Project, River St WM Project & Mass Ave. 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 “ViewPoint Cloud” software for demolition permits.
- Hired two new Engineering Interns positions for the period beginning January till the end of June 2025.

C. OPERATIONS – Business
FY25 Billings

Month	Billed Water Consumption	Month	Billed Water Consumption	
July	707,653	January	0	
August	362,781	February	0	
September	314,330	March	0	
October	764,179	April	0	
November	366,975	May	0	
December	0	June	0	
		FY25		
		TOTAL	2,515,918	
		FY24		
		TOTAL	2,565,433	-1.93%

Cross Connection Program Results

November	
Total Tests	Fails
488	23

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

D. ACTION ITEMS

- Election of the Water Board President

E. MISCELLANEOUS CORRESPONDENCE and ITEMS OF NTEREST

- None

F. NEW BUSINESS

- None

G. NEXT MEETING DATE/AGENDA

- January 14, 2025: TBA/TBD