

WATER BOARD MEETING AGENDA

Tuesday, October 8, 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_HafeIG4PTAScMYnI9CH6kA

A. MINUTES OF SEPTEMBER 10, 2024, MEETING

B. MANAGING DIRECTOR'S REPORT

- PFAS
- Lead and Copper Rule Revision – Service List Requirements
- Lead Service Line Replacement - SRF Funding Application
- Presentation - Source Water Protection Program Update – Jamie O'Connell

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 September 2024
 - FY25 Consumption through September 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

- November 12, 2024: TBA/TBD

CAMBRIDGE WATER BOARD

MEETING MINUTES

September 10, 2024

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

This meeting was called to order at 5:01 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, Anna Van Dreser, Rich Lagerholm and Linda Vierboom.

A. MINUTES OF JUNE 11, 2024, MEETING

Mr. Burruss moved, and Mr. Kapoor seconded the motion to approve the June 11, 2024, minutes as written. The vote was unanimous in favor of the motion.

B. MANAGING DIRECTOR'S REPORT

PFAS Update: Third quarter (July) PFAS6 results were non-detects at 1.8ppt.

Non-Detects measure less than 2ppt and are below the reading range of the testing instruments.

Questions/Comments: The EPA new Federal PFAS Standard regulations were passed and won't take full effect until 2029. The EPA standard numbers are lower for Perfluorooctanesulfonic Acid (PFOS) and Perfluorooctanoic Acid (PFOA). These numbers can't go above 4ppt on a running "annual" average. Because it's an "annual" average of the results of the whole year, if Mass DEP sticks with the EPA regulation, we feel we will stay in compliance longer and get more life out of our carbon beds before change outs are needed. The Mass DEP PFAS standard is 20ppt. Fortunately, because MASS DEP has been so strict, we would already be in 100% compliance if it took place today. If DEP makes the standard stricter, such as results based on actual "quarterly" sample results instead of a running "annual" average, we may have to change out the carbon sooner at 10 months instead of the 14 months we change out now. We will need to wait and see what Mass DEP decides to do with the new EPA standard.

Questions/Comments: What are the health effects between the 4ppt and 10 ppt? Has there been any kind of study?

Mr. Gallagher said we have to go by the EPA and DEP for what is and what is not acceptable. Parts per trillion are extremely small amounts and the data is still somewhat inconclusive. There is still a 30% degree of error on the reading because it's hard for the instruments to be extremely accurate for such small measurements.

The MWRA is not PFAS free, and they don't have to sample that often. They call their amounts "trace" instead of providing the actual number. They don't have a filter plant and have no way to treat for PFAS. Depending how the DEP handles the new EPA guidelines, it could be a gamechanger for the MWRA.

Questions/Comments: Ms. Roosevelt said PFAS is an ongoing issue, and we have to keep it at non-detect as long as we can. Mr. Gallagher said you can find PFAS in rainwater.

ARPA funding is gone so we will have to roll carbon change outs into our annual operating costs. Each carbon change out costs 1.5 million dollars.

Questions/Comments: Ms. Roosevelt suggests any rate increases to consumers (due to PFAS removal costs) be approached as a public health and safety issue.

Questions/Comments: What is the frequency of PFAS testing?

We are required to take PFAS samples on the first month of each quarter. Initially we were on a monthly sampling schedule. Staying under 10ppt allows for quarterly sampling instead of monthly. Our running annual average is 2.8.

Supply, Demand and Distribution Update: Presented by Mark Gallagher in PowerPoint

Presentation: To view the presentation, use the link below:

<https://www.cambridgema.gov/>

[/media/Files/waterdepartment/waterboardminutes/sept24waterboardpresentation.pdf](https://www.cambridgema.gov/media/Files/waterdepartment/waterboardminutes/sept24waterboardpresentation.pdf)

Our Total Watershed area is approximately 24 square miles. Cambridge ownership is 2.4 square miles. About 10 percent is owned/controlled by the City. Only 25 % of our watershed area is protected.

“Recent” Land Acquisitions:

- Harrington Property (2005) ~ 16 Acres. Acquired/ and surrounding conservation parcels (54 acres total).
- DeNormandie & Flint (2012) ~ 74 Acres
- Rando/Stankard (Jerodel) Parcel (2015) ~ 54 Acres
- Twin Pond Lane Parcels (2022) ~ 8 Acres

Land Acquisition Opportunity: The proposal to build a large one-megawatt solar array on the Tracer property in Lexington abutting our watershed has been cancelled by the owner.

Questions/Comments: What made the owner change his plans to build a solar array?

Mr. Gallagher surmises that Zone “A” restrictions and clarifications as to where Zone “A” was located, legal fees and the appeals process were most likely the reasons. Eventually we asked to purchase the property which was assessed at \$1M (million). The owner wanted \$15M for the property. With that figure out of sight for us we said we would continue with the solar array litigation at Superior Court. We met and negotiated and came to agreement to purchase at \$3M. The City did an assessment and agreed the price was an appropriate assessment for the land at this time. We are currently in the process of purchasing the property.

After meeting with the city council, we went to the CPA (Community Preservation Association) and asked for \$1M. They will bring this up at their upcoming meeting this month. The other \$2M is slotted to come from the Water Fund. We are working with the Town of Lexington and Boston Properties, who abuts the property. Boston Properties have offered to donate to the land purchase with no strings attached. The land being undevelopable is attractive to them. This is still in negotiation. This will complete protected area in perpetuity.

Questions/Comments: Is there a plan to do anything with the stretch of land that looks like it is clear cut?

No. Eversource has an easement for power lines. The contingency of the sale is that it has to remain open space. The area will be registered as Town of Lexington conservation/watershed protection and protected in perpetuity.

Enbridge/Algonquin Gas Update: Re-cap/update: Federal suit for temporary land taking and tree removal on CWD Watershed land for staging at a meter station improvement project. In early April their (the utility) response to our request for a work proposal and timeline was what they deemed a "Final" offer packet, offering \$10,000 to use the land (timber value of the trees) and stated that if we didn't agree they would file an injunction against us in federal court under the Natural Gas Act. Our request for an extension was declined by the utility. We declined to accept their "final offer", and they immediately filed an injunction against us in court. (Temporary land taking for an easement for construction purposes.)

The federal judge said she understood the utility has the right under the Natural Gas Act to work on their infrastructure but would not issue a federal order. She said CWD requests are reasonable and commonsensical, and the utility should work with the City and come up with an approach that is amendable and reasonable to protect the interests of the citizens of Cambridge. We went to a second court date. The judge was sympathetic to us and said the water was more important and asked them to work with us. The utility was amenable and began to work with us. We are working on some of the language and specific details, and we will be getting the best deal we can. 24 trees will be removed (55 were planned), deer fence installed, trees and understory will be replanted and maintained for three years starting from the completion of the project. Any trees/shrubs that die in that period will have to be replanted. Work will start in November.

Questions/Comments: Ms. Roosevelt said it's an amazing win for the department and for Cambridge.

Questions/Comments: Who is going to follow through with the restoration efforts? They are obligated under federal law to follow the restoration plan. Once the construction is over the water department has jurisdiction over their restoration efforts.

Watershed Updates:

The Stony Brook Gatehouse masonry repairs contract was awarded. Repairs are underway. The Hobbs Brook Gatehouse and dam repair project is anticipated to start late fall/winter. The Little Fresh Pond Shoreline Restoration Project has been completed.

Questions/Comments: The Cambridge Open Data Program can be found via the link to the open data in the packet or via Google search for Cambridge Open Data Portal (search for Fresh Pond Usership). Our website has a census program page, and the report can be clicked/opened.

Questions/Comments: Re: EV "universal" vehicle charging stations at the Fresh Pond parking lot. 10 EV stations will be designated for CWD city fleet vehicles, 6 for the public; 2 of those are ADA accessible. Tesla operators will need an adapter. We are waiting on the delivery of charging pads and hoping to see installation/operable sometime this fall.

Water Main Replacement: 2024 Water Main Replacement total thus far is about 2 miles. Some watermain work is done in house and some is outsourced. We typically piggyback onto chapter 90 (DPW) projects because it is the most cost-effective way.

SCADA: The SCADA contract has been awarded and work has started. We will be able to continue to operate during the upgrade. The project is funded by the water department fund. The idea is that monies are set aside for big projects.

C. OPERATIONS

Transmission and Distribution:

Questions/Comments: How many lead services are left?

We are at 2,500. Galvanized steel must be listed as lead. Any "unknowns" have to be assumed as lead until verified.

Years ago, lead lines were replaced up to the property line only and we took it off the Lead List". Now the DEP wants those added back on because they are deemed only "partially" done. We were down to 1,300 before this.

Watershed:

Questions/Comments: What is the grant opportunity for Chloride Pollution.

Ms. O'Connor said we applied through the State/DEP to develop a watershed plan and develop strategies. We haven't heard back from the State if we've received it.

Questions/Comments: What is the Phosphorous control plan?

This is related to the clean water act and the permit that governs public storm drains. Towns that hold elimination (public storm drains) permits must comply with the permit conditions. The permit is getting more stringent, and we are looking to see if any towns are willing to collaborate.

Questions/Comments: Are the patrols by upcountry staff enough to protect our watershed?

Ms. O'Connell said they are doing a great job and are pro-active.

Questions/Comments: We are currently not in a drought.

Water Operations:

Questions/Comments: The plant daily maximum capacity is 24mg (million gallons) per day.

Engineering:

Questions/Comments: No comments

Business:

Questions/Comments: The water fund balance is \$5.08M

D. ACTION ITEMS

None

E. MISCELLANEOUS CORRESPONDENCE AND ITEMS OF INTEREST

None

F. NEW BUSINESS

None

G. NEXT MEETING DATES/AGENDA – Meetings via Zoom

- October 8, 2024: Approved/TBD

Mr. Burruss moved, and Ms. Roosevelt seconded the motion to adjourn the meeting at 6:27 pm.
All were in favor of the motion.

B. MANAGING DIRECTOR'S REPORT

- **PFAS**
- **Lead and Copper Rule Revision – Service List Requirements**
- **Lead Service Line Replacement - SRF Funding Application**
- **Presentation - Source Water Protection Program Update – Jamie O'Connell**

C. OPERATIONS - Transmission and Distribution, September 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.
- **Huron Avenue (Phase 2) Completed -** Working with CWD on-call contractor to replace 1000' of old 8" Cast Iron main with 12" Ductile Iron pipe to include all services valves and hydrants.
- **Parks, Community Gardens and Irrigation –** CWD crews completed installation water meters, back flow devices and turned the water on to all of the Cities outdoor water sites

September 2024

7	Leaks Repaired
0	Services Reconnected
4	Lead Services Renewed
8	Hydrants Repaired/Replaced
1	Valves Replaced/Repaired
8	Miscellaneous Jobs Completed
27	Work Orders Completed
221	Valves Exercised
198	Inspections Performed
718	Digsafe Utility Mark Outs

C. OPERATIONS – Watershed, September 2024

1. *Fresh Pond Reservation:*
 - i. Business as usual
2. *Cambridge Watershed:*
 - i. *Phase 1 Winter Street Gatehouse Repairs:* One bid received. Currently under review.
 - ii. *Stony Brook Gatehouse Masonry Repairs:* Work ongoing
 - iii. *Stony Brook Gatehouse Low Sluice Gate Repairs:* CWD re-advertised a project to repair the Stony Brook low gate stem. Apparent low bidder has been identified and the contract recommended for award.
 - iv. *Glyphosate and AMPA (a metabolite of glyphosate) testing* – CWD received a final report of raw water glyphosate and AMPA testing at Fresh Pond in 2023. These voluntary samples were analyzed by MDAR (Mass Dept. of Agricultural Resources) monthly between April and October 2023 (n=7). All samples were ND (< 0.1µg/L).
3. *Events*
 - i. Another successful “Cycle to the Source” bicycle ride was held on 9/22
4. *Grant Opportunities*
 - i. 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.
5. *Reporting and Website:*
 - i. *Site Monitoring Program Tool:* Ongoing.
6. *Projects Overview:*
 - i. Waltham pump station repair on Wimbledon Circle is near complete and mostly stabilized. Waltham will plant three swamp white oak trees on CWD property in the area of a former encroachment. Waltham will also bring in boulders to prevent dumping on CWD property.
 - ii. The Cambridge City Council approved approximately \$3M in appropriations to purchase the site of a proposed solar farm in Lexington. The land is ~30.7 acres abutting existing water supply protection lands bordering the Hobbs Brook Reservoir. The City hopes to close on the property in October.
 - iii. Construction projects in Waltham are ongoing at 305 Winter Street, 305 Second Avenue, and 40 Sylvan Road.
 - iv. 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.
 - v. Plans for redeveloping 1342, 1345 and 1486 Main Street, Waltham are in development.
 - vi. Bridge replacement and roadway construction at Rt 2A over I-95 in Lexington is ongoing.
 - vii. MassDOT D4 Highway Depot redevelopment in Lexington is under construction. Bioretention basin media installation is ongoing.
 - viii. 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.
- ix. 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.
- x. 149-151 Spring Street, Lexington parking lot expansion proposal is in permitting. No updates.
- xi. 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:
1. <https://www.cambridgema.gov/Water/watershedmanagementdivision/algonquinassettlement>
- xii. *Comment Letters/Hearings*: CWD submitted formal verbal and/or written comments regarding:
1. *Minor projects– emailed comments to Weston, Lincoln, and Waltham Conservation Commissions. Projects include:*
 - Minor additions to single-family homes and septic system repairs
 - Culvert/pipe installation at Lincoln Station
- xiii. *Communications*:
1. Review of long-term water quality and construction management reports in Waltham and Lexington
- xiv. *Site Visits*:
1. *Regular watershed patrols by caretakers ongoing*
 - Added new irregular shifts to better patrol Cambridge properties.
 - Made contacts with state Environmental Police to help enforce rules
 2. *Other Visits*:
 - *40-60 Sylvan Road, Waltham* – Visited the site on 9/17/2024 to investigate a report submitted to MassDEP about a potential illicit sewage discharge. CWD did not see signs of sewage and believes the individual witnessed catch basin cleaning.
 - *Wimbledon Circle Pumps Station, Waltham* – Visited site on 9/20/2024 to inspect construction progress and advise on tree restoration plantings.
- xv. *Hazmat*:
1. *Car fire on I-95 South near Stony Brook Reservoir* – A car fire on 9/17/2024 resulted in the use of firefighting foam. Some water and foam entered a stormwater basin but did not discharge directly to the reservoir. The foam product safety data sheet reads that it is PFOS and PFOA free.



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October 1, 2024

SEPTEMBER 2024 WATER SUPPLY SUMMARY REPORT

Highlights

- The September percent water supply system capacity of 46% (based on 2.9BG usable capacity) is:
 - 15 percentage points lower than August 2024 (61%);
 - 43 percentage points lower than September 2023 (89%); and
 - 35 percentage points higher than September 2016 (11%, drought)

- Precipitation at the Lincoln Field Office in September 2024 totaled 1.15 inches, 2.39 inches below the National Climate Data Center (NCDC)'s monthly normal at Bedford Hanscom Field (3.54inches).

- The current drought status from the MA EEA Secretary remains at Level 0 – Normal

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Storage

Figure 1: Hobbs Brook Reservoir Storage, September 2024

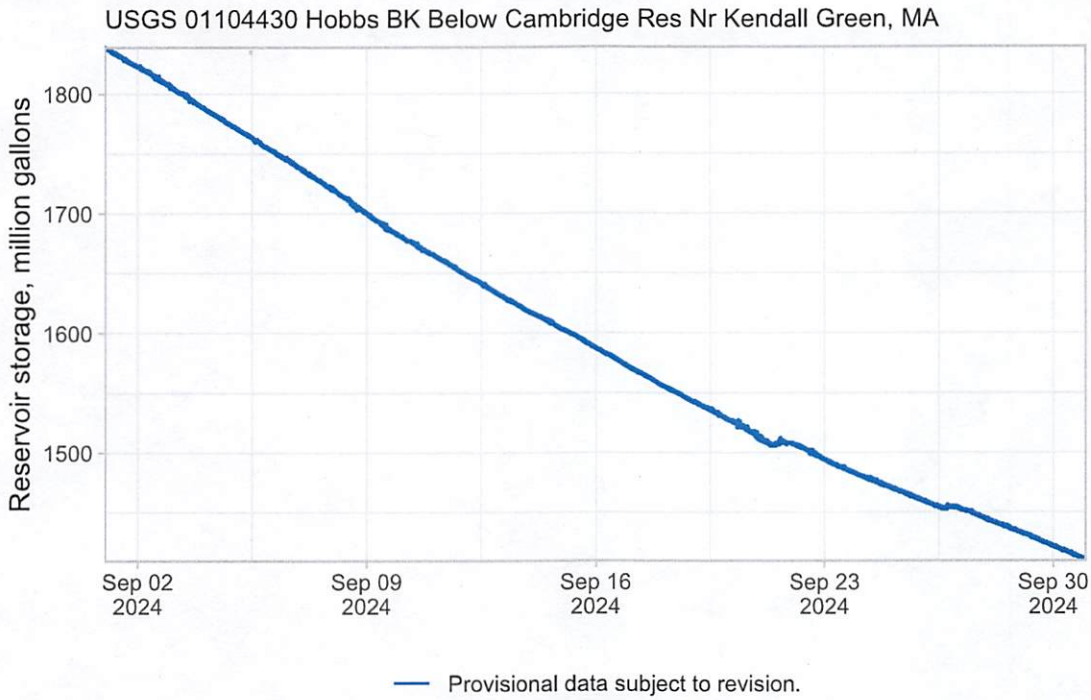
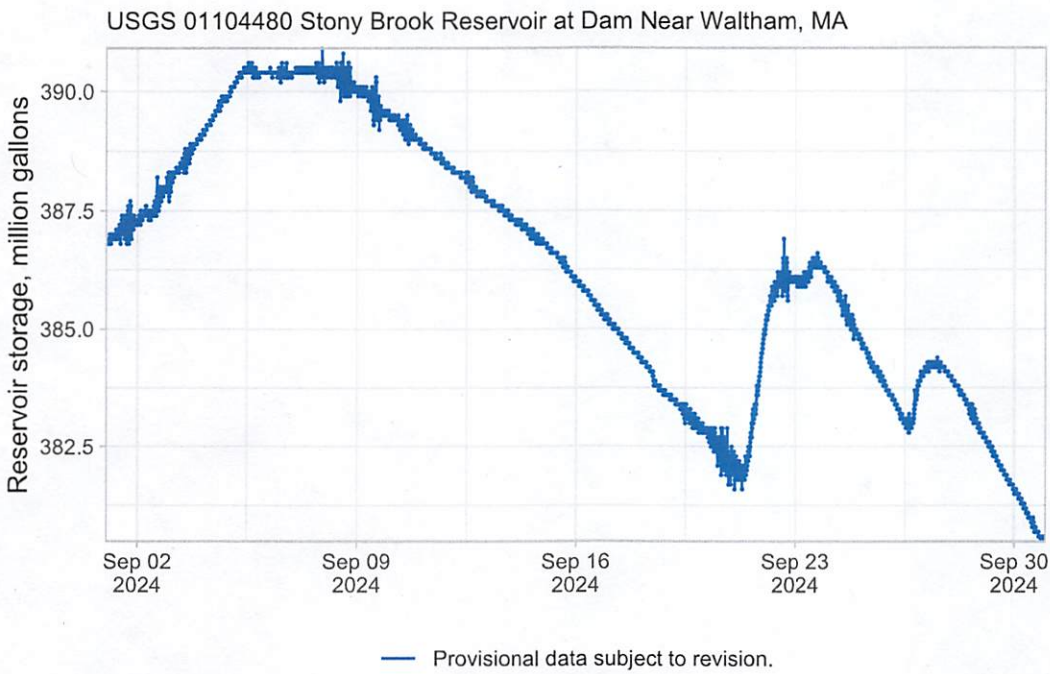


Figure 2: Stony Brook Reservoir Storage, September 2024



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Figure 3: Fresh Pond Reservoir Storage, September 2024

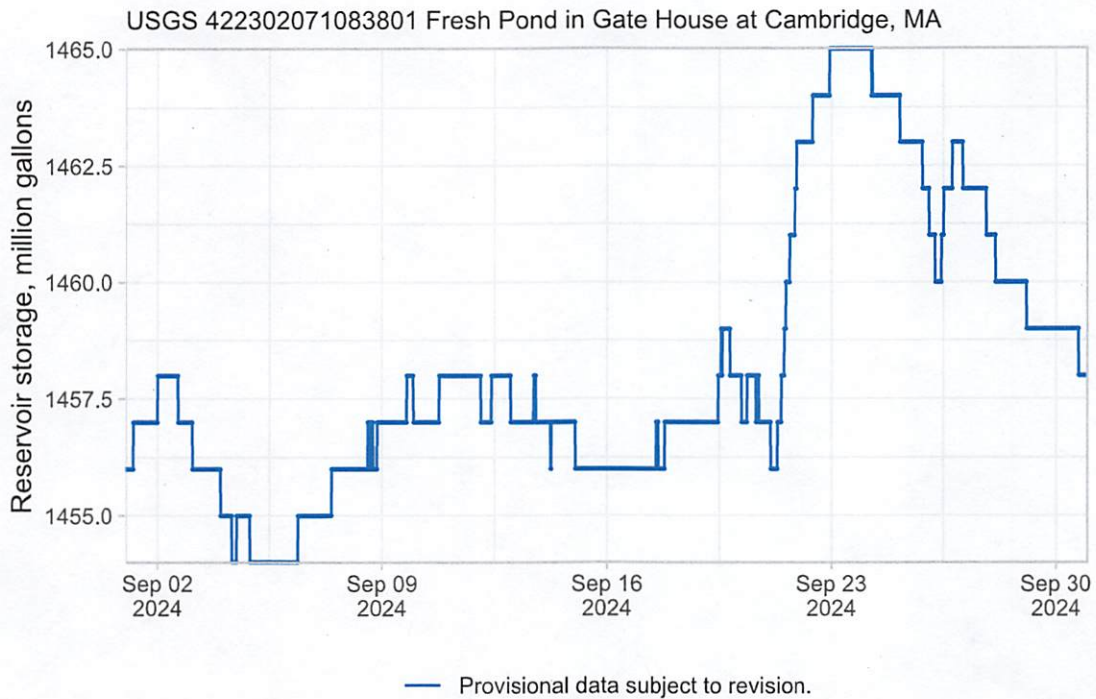
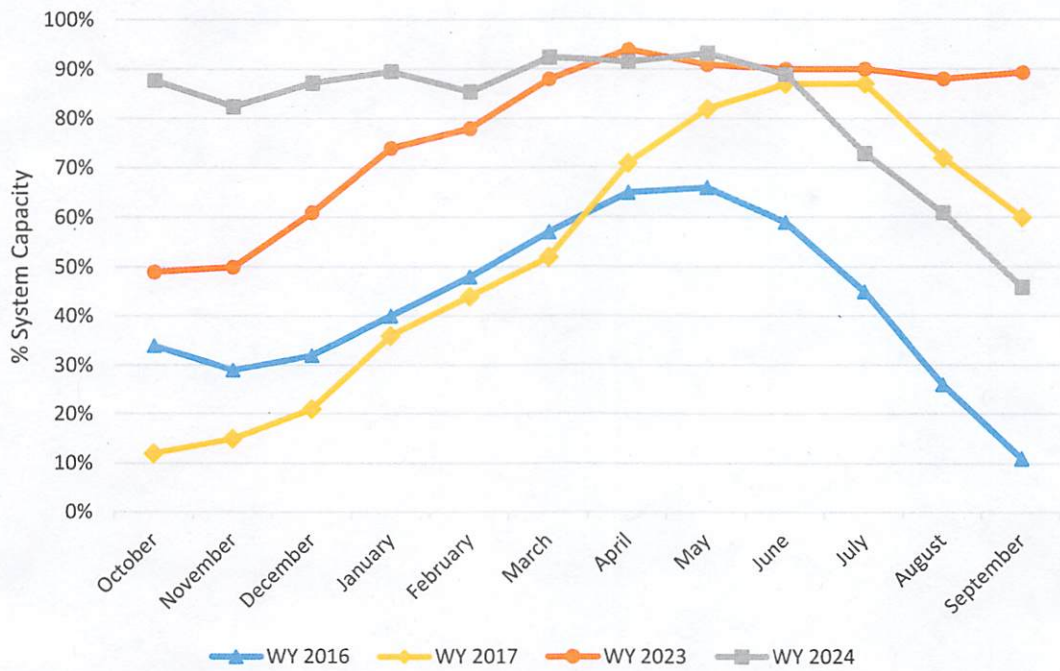
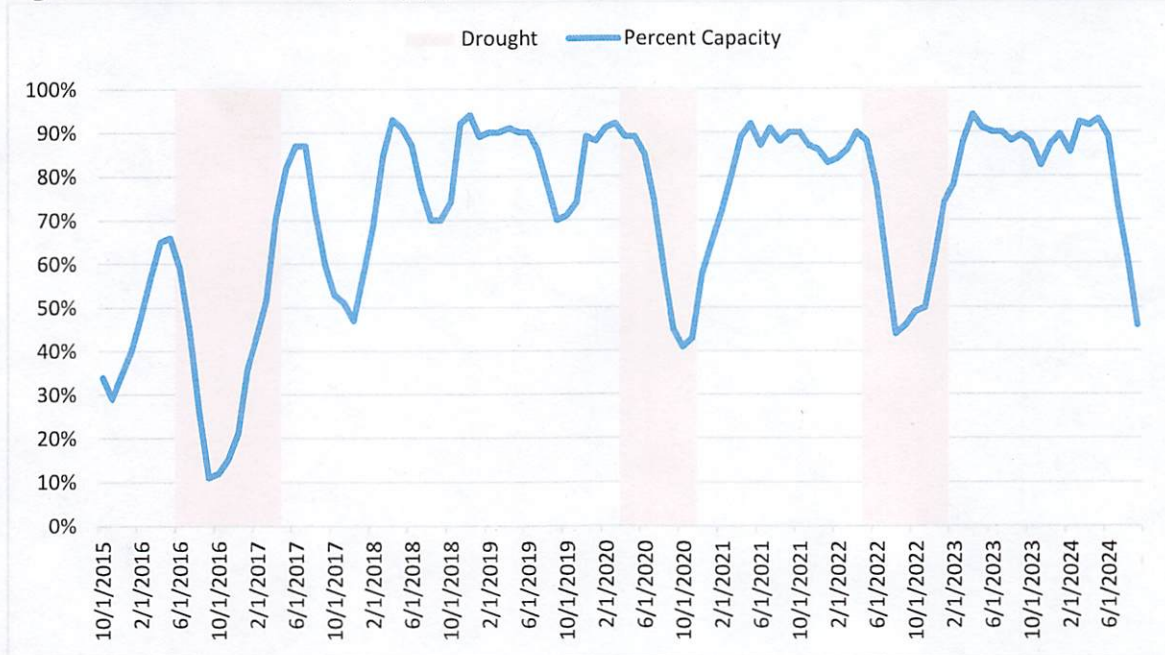


Figure 4: CWD % System Capacity, Water Years 2016 and 2017 (drought), 2023, and 2024



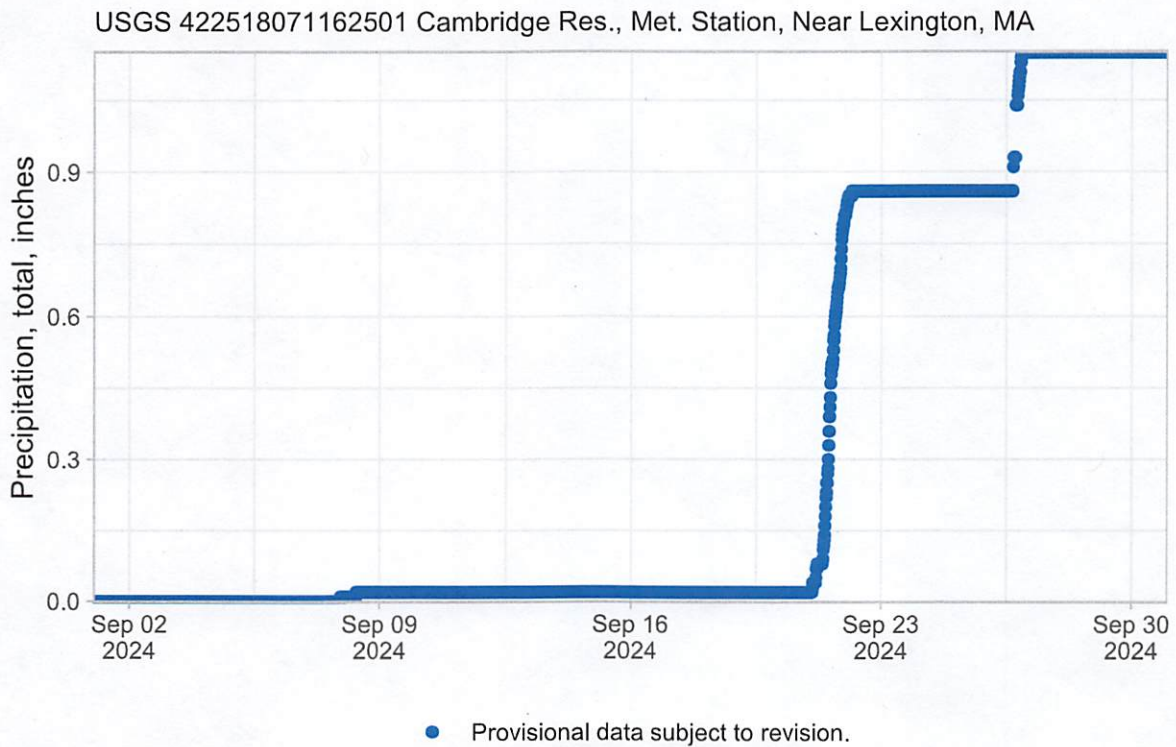
C-6

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



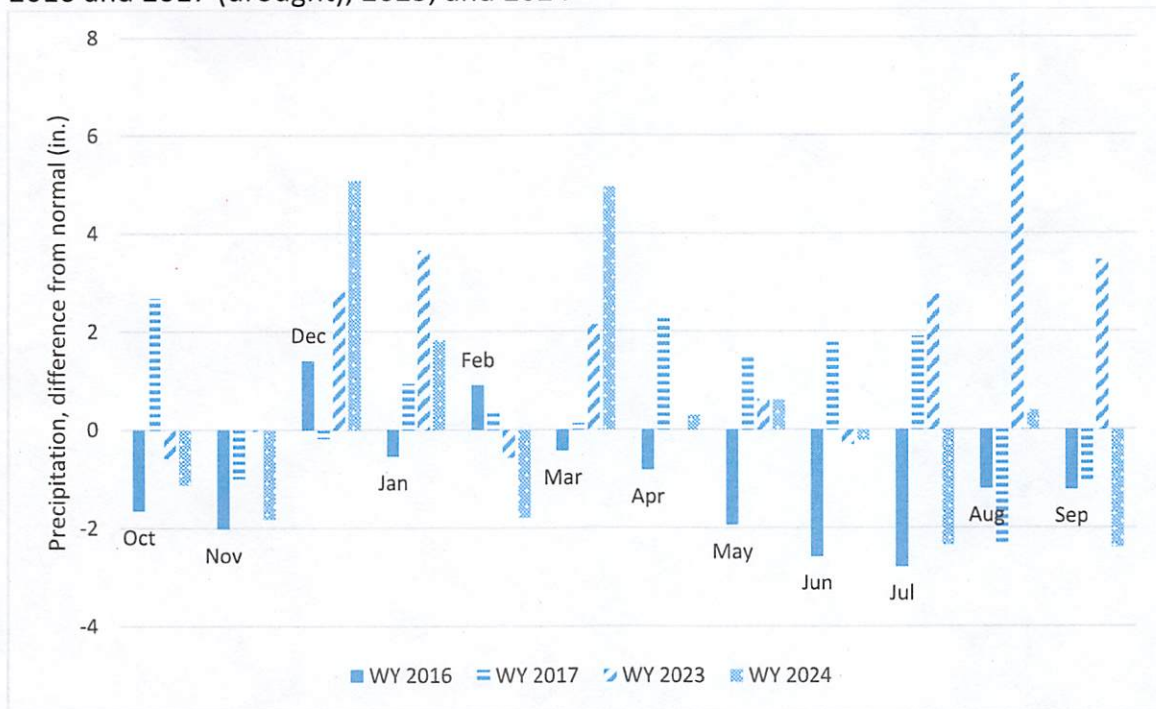
Precipitation

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



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Figure 7: Monthly Precipitation (Lincoln Field Office) Relative to Normal, Water Years 2016 and 2017 (drought), 2023, and 2024



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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

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C. OPERATIONS – Water Operations, September 2024

Plant Operations: September 2024

Production: 460.18 million Gallons with only scheduled shutdowns, the plant runs 24/7

Monthly Average: 15.34 million Gallons per Day (MGD)

Daily Maximum: 16.73 million Gallons (MG)

Water Quality/Laboratory:

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

PFAS – Next compliance sample to be collected in October for the 4th Quarter

C. OPERATIONS – Engineering and Program Development, September 2024

- **MEETINGS ATTENDED:**
River Street watermain (WM) Project & Watertown DCR Bikeway Connection
- **CONSTRUCTION/WATER USE PERMITS ISSUED:** 15 construction permits
- **PROJECTS/OTHER ACTIVITIES INCLUDE:**
 - **Provided Feedback to Utility Design Engineers Re:** 315–317 Webster Ave., 6 Irving St., 2 Livermore Pl., 8–10 Essex St., 106 Inman St., 70 Thorndike St., 20 Wendell St., 745 Concord Ave., 327 Webster Ave., 24 Newell St., 23 Reed St., 62 Fifth St., 88 Holsworthy St., 60 Norris St., 18 Craigie St., 6 Coolidge Hill Rd., 871 Cambridge St., 1093–1099 Cambridge St., 146 Spring St., 333 Webster Ave., 101 Smith Place., 22 White St., 11 Sacramento Pl., 33.5 Mellen St., 20 Ware St., 6 Sacrament St., 4 Griswold St., 200 Main St., 59 Seventh St., 76 Brattle St., 130 Cushing St., 49 Reservoir St., 14 Story St., 14 White Pl Somerville., 45 Reservoir St., 1627 Mass Ave., 315 Rindge Ave., 55 Washburn St., 35–37 Gore St., 55 Harvey St., 35 Standish St., 47 Eighth St., 10 Holsworthy St., 11–13 Mellen St., 98 Prospect St., 2 Garden St., 98 Putnam Ave., 147 Brattle St., 15 Hutchinson St., 1–13 Dover St., 1674 Cambridge St (aka Cambridge Rindge & Latin School Plaza), 3 Concord Ave., 201 Amherst St. & 8 Thingvalla Ave.
 - **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 St. WM Project, Willow St. WM Project, Suffolk WM Project & Belmont WM Project, Chestnut St. 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 Fire Hydrant database upgrades 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 “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 program for “Demolition permits”.
 - Start interviewing the 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	0	April	0	
November	0	May	0	
December	0	June	0	
		FY25 TOTAL	1,384,764	
		FY24 TOTAL	1,311,779	5.56%

Cross Connection Program Results

September

Total Tests	Fails
473	27

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

D. ACTION ITEMS

- None

E. MISCELLANEOUS CORRESPONDENCE and ITEMS OF NTEREST

- None

F. NEW BUSINESS

- None

G. NEXT MEETING DATE/AGENDA

- November 12, 2024: TBA/TBD