

WATER BOARD MEETING AGENDA

Tuesday, February 11, 2025

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_VOosIyYjS5aseirY1VYShQ

A. MINUTES OF JANUARY 14, 2025, MEETING

B. MANAGING DIRECTOR'S REPORT

- PFAS
- Drought Status
- Presentation – Treatment Plant/Water Operations Overview Update – Julie Torelli/Katie Orciuch

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 January 2025
 - FY25 Consumption through January 2025
 - 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

March 11, 2025: TBA/TBD

CAMBRIDGE WATER BOARD

MEETING MINUTES

January 14, 2025

This meeting is available virtually on Zoom and in person. This meeting is being recorded.

This meeting was called to order at 5:03 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, Allan Cheung, Dave Kaplan, Julie Greenwood-Torelli, Fred Centanni, Jamie O'Connell, Rich Lagerholm and Linda Vierboom.

A. MINUTES OF DECEMBER 10, 2024, MEETING

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

Ms. Roosevelt suggested water board meetings be held in person April through June and again in the fall; with online winter meetings. There is a lot of value to it because it gets you to know your fellow board members a little bit better. Members appeared open to this idea with the exception of Mr. Kapoor. Mr. Kapoor would prefer hybrid meetings as it's difficult to arrive on time after work.

B. MANAGING DIRECTOR'S REPORT

PFAS Update: Sampling is currently at 4ppt. The next carbon change out is scheduled for this week, and we anticipate that our April sampling will be back at non-detect. The change out cost was estimated at 1.5M. Lately it's about 1.3M. We got the Calgon contract signed and pushed through purchasing in record time and applied for the ARPA Funds before the December 31st deadline. We received 1M of ARPA funds for the next carbon change out.

Drought: As of 1/8/2025 Massachusetts has decreased our drought status from Level 3 critical drought to a Level 2 significant drought. A city ordinance will go along with water bans to comply with Mass Clean Water Act regulation changes. To comply with the Mass Clean Water Act regulation changes, Mr. Gallagher has been working with the deputy city manager and the law department in creating a city ordinance to go along with water bans. The deputy city manager will reach out to the board president to discuss the ordinance change. This will be brought up to the city council at the city council meeting on 1/27/25.

Hobbs Brook is recharging and climbing slowly. It is currently at 1.2 billion gallons of storage. Precipitation in any form is a good thing. Last year at this time we were full at 2.58 billion gallons and held steady until 7/2024.

NOAA (National Oceanic and Atmospheric Administration): Seasonal data for our region towards March predicts/anticipates leaning 40-50% above normal temperatures. Models for precipitation indicate an equal chance for above or below average precipitation.

Key Topics: PFAS, Drought, SCADA Upgrade Project Presentation

SCADA Upgrade Project Presentation: As presented in slide format by project manager Allan Cheung. SCADA stands for “Supervisory Control and Data Acquisition” and is a way for the operator to control the plant through a graphical interface. The treatment plant has outgrown the current system. The new system will be faster, more capable and more cost-effective than the current system.

Comments: If a pump goes down. How does a pump alert the SCADA system that it is not working?

Pumps are hardwired for security issues. The SCADA system would ask the next pump to come online and sound an alarm over the intercom alerting the operator. The condition is rectified but the operator is notified anyway. Payson Park has its own security system for its doors.

Scope of the Project:

- Replace aging SCADA infrastructures
- SCADA software updates and enhancements
- Replace plant wide fiber optic and ethernet network
- Access and improve SCADA cyber-security
- Automate Regulatory water quality reporting

Project Timeline:

- Preliminary Study for the SCADA system began in 2018
- Project start date: May 2024
- Contract Expiration Date: May 2026
- Currently project is ahead of schedule and on budget

Project Completion:

- Project completion date May 2026
- Construction cost \$3.8M
- Design and Application engineering Cost: Estimate cost in 2021, \$2.7M
- Improved speed and efficiency
- Increase reliability and reduce downtime

Questions/Comments: Re: Cyber Security. Don't we have a closed system?

Our main system is an “island”. We do have remote sites that we have to connect to and access for cyber security.

Questions/Comments: What company is helping with the upgrade?

CDM Smith has a team of four engineers working on the project and who will be the “go to” people.

Questions/Comments: Re: SCADA Funding and the Water Fund.

The money is already appropriated/encumbered. That's not part of the current Water Fund.

C. OPERATIONS

Transmission and Distribution:

We've been busy scheduling lead service replacements. Since November we've done about 14 replacements. We continue to increase the amount to about 2-3 per week.

Questions/Comments: Ms. Lendorff asked about the Maple Ave work timeline.

Mr. Gallagher said this is a DPW Contract and we have already done the watermain work. Mr. Gallagher does not have the DPW schedule.

Watershed:

Questions/Comments: The Kingsley Park off leash area has moved for the winter to upper mall. Mr. Kaplan said this is usually a smooth transition and there are no issues at this time.

Questions/Comments: Site restoration is beginning in the spring at Enbridge. Ms. Roosevelt thanked Mr. Kaplan and his team for their efforts and for negotiating with them.

Questions/Comments: It was asked why wastewater pumps at a subdivision had stopped working. Mr. Kaplan said either mechanical or power failure resulted in an overflow into a catch basin and release into a wetland that borders a water supply tributary. This was far from the watershed. DPW did not recommend any mitigation/action.

Questions/Comments: Re: Water Supply Summary Report

Ms. O'Connell said a new table was added to help us better understand the longer-term impacts of where we are. Ideally, we should be at 90-95% in June. Ms. O'Connell will keep updating this.

Questions/Comments: Ms. Kelley asked what does the reservation have in place, or what preparation is there, for a fire on the reservation?

Mr. Kaplan said what we strive to provide, mostly, is access. This includes keeping a width of perimeter road that can support emergency vehicles, hydrants around Lusitania Meadow and quick connects to water at the golf course. We have a good connection with the Cambridge Fire Department, who use the reservoir for exercises. We also maintain those relationships with fire departments in our watershed area. We have key access points for vehicle access. There is one fire box on the building.

Questions/Comments: Ms. Kelly suggested a fire awareness public promotion/reminder in collaboration with the city or on our website to raise people's consciousness.

We do put this information out. During the drought, when fire danger was elevated, we included information on our website, and we worked with the public information office to add news bulletins and newsletters.

We have the ability to ban smoking on the reservation during times of drought when fire susceptibility is high. The City-wide ordinance governs smoking. Smoking ban is only around playgrounds and buildings.

Mr. Gallagher said we have an emergency response plan and do emergency training with the Cambridge fire department. The water department is the back up for their emergency center.

Water Operations:

Questions/Comments: December's monthly average was 11.08. The daily maximum was 13.08 MGD. These numbers all fall within normal range.

Engineering:

Questions/Comments: Huron Avenue and Chestnut Street watermain projects are complete. These projects haven't been closed out because Eversource sometimes goes before our work and sometimes after.

Business:

None

D. ACTION ITEMS

None

E. MISCELLANEOUS CORRESPONDENCE AND ITEMS OF INTEREST

None

F. NEW BUSINESS

None

G. NEXT MEETING DATES/AGENDA – Meetings via Zoom

- February 11, 2025: Approved/TBD

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

B. MANAGING DIRECTOR'S REPORT

- PFAS
- Drought Status
- Presentation – Treatment Plant/Water Operations Update Overview – Julie Torelli/Katie Orciuch

C. OPERATIONS – Transmission and Distribution, January 2025

- 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 25.
- Working with DPW and contractors on several water main projects that include:
- **River Street Sewer Separation Project**- 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.
- **DPW Chap 90 Contract 25** - Working with DPW Project Engineers and Contractor on water distribution infrastructure upgrades:
 - **Dana St** – Replace 2200 ft 10" unlined Cast Iron with 8" cement lined Ductile Iron to include all valves hydrants service connections and removal of all lead service lines.
 - **Sciarappa St** - Replace 1780 ft 6" unlined Cast Iron with 8" cement lined Ductile Iron to include all valves, hydrants, service connections and removal of all lead service lines.
- **DPW Sewer Separation Port Project** - Working with DPW Project Engineers and Contractor on water distribution infrastructure upgrades replacing 12509' of water main in the Port area to include all valves, hydrants, service connections and removal of all lead service lines.
- **DPW Mass Ave 4 Phase 1** - Working with DPW Project Engineers and Contractor on water distribution infrastructure upgrades within the Mass Ave bike lane project from the Cambridge Common to Alewife Brook Parkway. to include water main sections, valves, hydrants, service connections and removal of all lead service lines.
- Distribution staff continues fielding lead line calls from residents that received notices. (~10/day) Calls include notifying residents of the options to renew lead service lines.

January 2025

18	Leaks Repaired
0	Services Reconnected
1	Lead Services Renewed
1	Hydrants Repaired/Replaced
1	Valves Replaced/Repaired
14	Miscellaneous Jobs Completed
35	Work Orders Completed
279	Valves Exercised
167	Inspections Performed
467	Digsafe Utility Mark Outs

C. OPERATIONS – Watershed, January 2025

- I. *Fresh Pond Reservation:*
 1. *Reservation:* Landscape maintenance contract pre-bid meeting scheduled for 2/5
 2. *Golf Course:* Rangers helping to enforce proper seasonal public use.
- II. *Cambridge Watershed:*
 1. *Phase 1 Dam Inspections:* Inspections completed. Awaiting draft report from CDM Smith.
 2. *Winter Street Gatehouse Repairs:* South and east exterior above water joints completed.
 3. *Stony Brook Gatehouse Masonry Repairs:* Exterior work completed. Interior work ongoing.
 4. *Stony Brook Gatehouse Low Sluice Gate Repairs:* Repairs to be scheduled after interior pointing completed.
- III. *Reporting and Website:*
 1. *Site Monitoring Program Tool:* Ongoing.
- IV. *Projects Overview:*
 1. 6 Ballfield Road, Lincoln – The Town of Lincoln proposes to build a new community center within the Riverfront Area Stony Brook. The project will be a mix of new development and redevelopment. The project will add a new stormwater management system. Mitigation plantings are proposed to compensate for an increase in impervious cover that will result from the project.
 2. Construction projects in Waltham at 305 Second Ave and 40 Sylvan Road are ongoing.
 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, 1362, 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: 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. Construction of an apartment complex at 751-761 Boston Post Road is expected to begin in February or March 2025.
 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. Route 20/Wellesley Street Intersection, Weston – the roadway intersection will be reconfigured to improve safety. New leaching catch basins and deep sump

catch basins will be added to improve water quality. Construction is expected to begin in 2027, but MassDOT may be able to move the project up to FY2025 or FY2026. No updates.

11. 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. No updates.

V. *Comment Letters/Hearings:* CWD submitted formal verbal and/or written comments regarding:

1. *J-1 Pipeline Relocation, Waltham* – Provided feedback to ensure that a proposed pipeline relocation at 1265 Main Street won't impact proposed restoration/mitigation areas permitted under the 1265 Main Street Phase II project.
2. 133 Boston Post Road, Weston – A project to add indoor and outdoor amenities to an existing office building campus. CWD submitted emailed comments suggesting the removal of exposed plastic erosion control netting within a stream bed as part of the required mitigation for the project.

VI. *Communications:*

1. 6 Ballfield Road, Lincoln – Met with Lincoln Conservation staff to discuss preliminary comments on the project.

VII. *Site Visits:*

1. *Regular watershed patrols by caretakers ongoing*

VIII. *Hazmat:*

1. *No incidents*



CITY OF CAMBRIDGE
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February 3, 2025

JANUARY 2025 WATER SUPPLY SUMMARY REPORT

Highlights

- The January percent water supply system capacity of 36% (based on 2.9BG usable capacity) is:
 - About the same as December 2024;*
 - 54 percentage points lower than January 2024 (90%); and
 - The same as January 2017 (drought)
- The water supply system did not recharge in January, with an average daily recharge rate of -0.029 percentage points/day (%/day). If the January rate of recharge is maintained, the percent water supply capacity will drop to 32% by June 1, 2025.
 - To achieve 90% capacity by June 1st, the average daily recharge rate needs to be at least 0.74 %/day.
- Precipitation at the Lincoln Field Office in January 2025 totaled 2.00 inches, 0.9 inches below the National Climate Data Center (NCDC)'s monthly normal at Bedford Hanscom Field (2.9 inches).
- The drought status set by the MA EEA Secretary is currently a Level 2 – Significant Drought.

* Without rounding, the percent water supply capacity was 36.4% for December 2024 and 35.5% for January 2025.

Storage

Figure 1: Hobbs Brook Reservoir Storage, January 2025

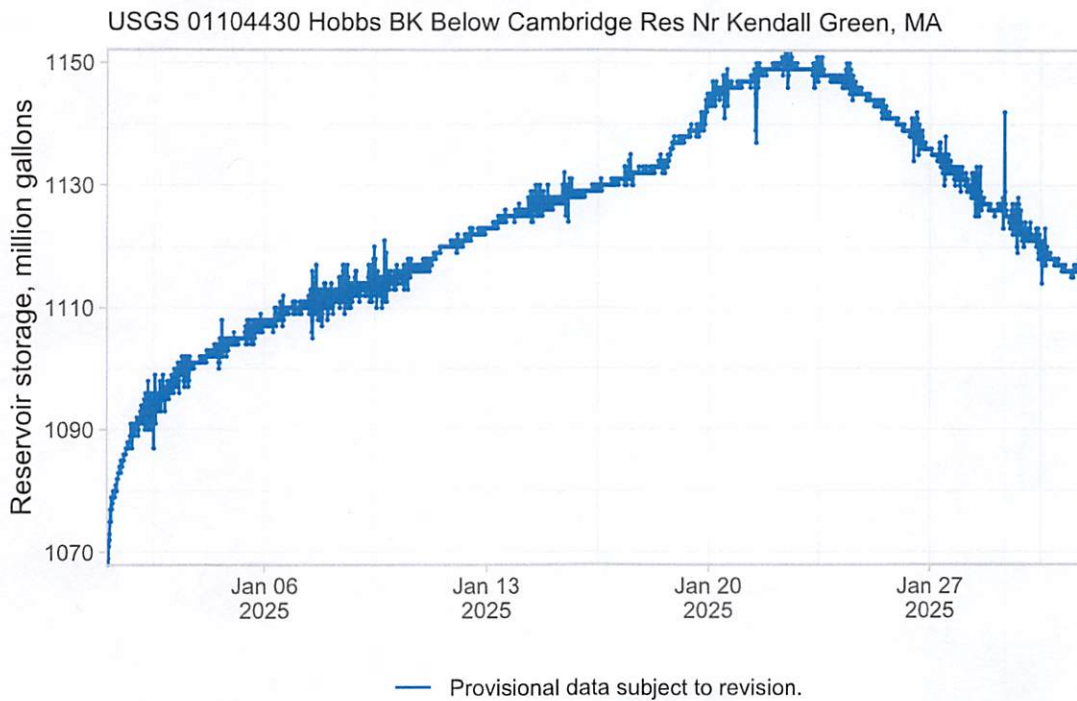
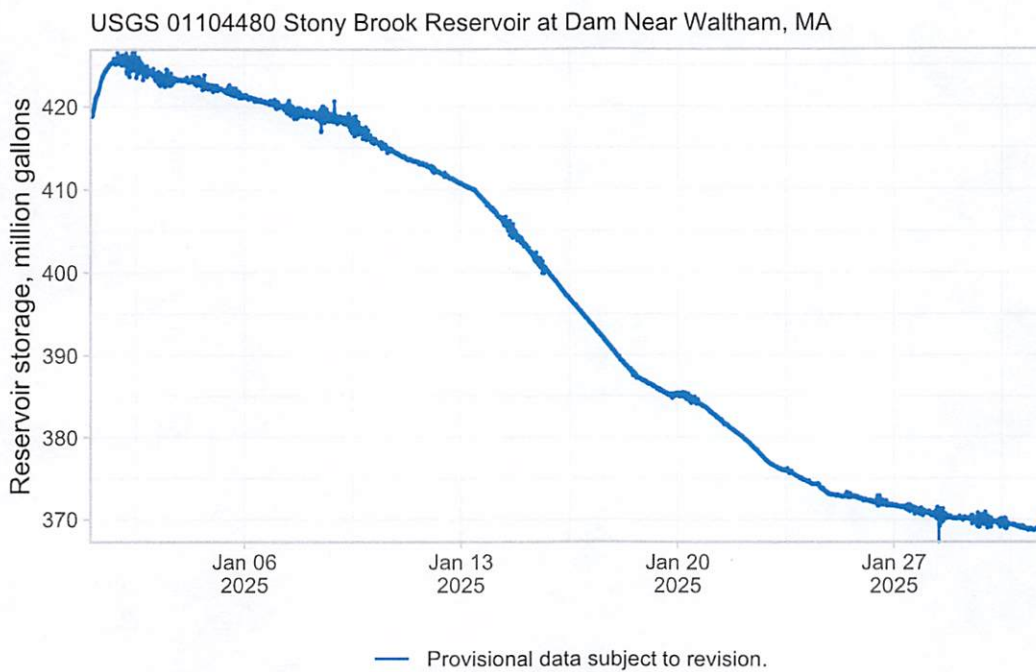


Figure 2: Stony Brook Reservoir Storage, January 2025



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Figure 3: Fresh Pond Reservoir Storage, January 2025

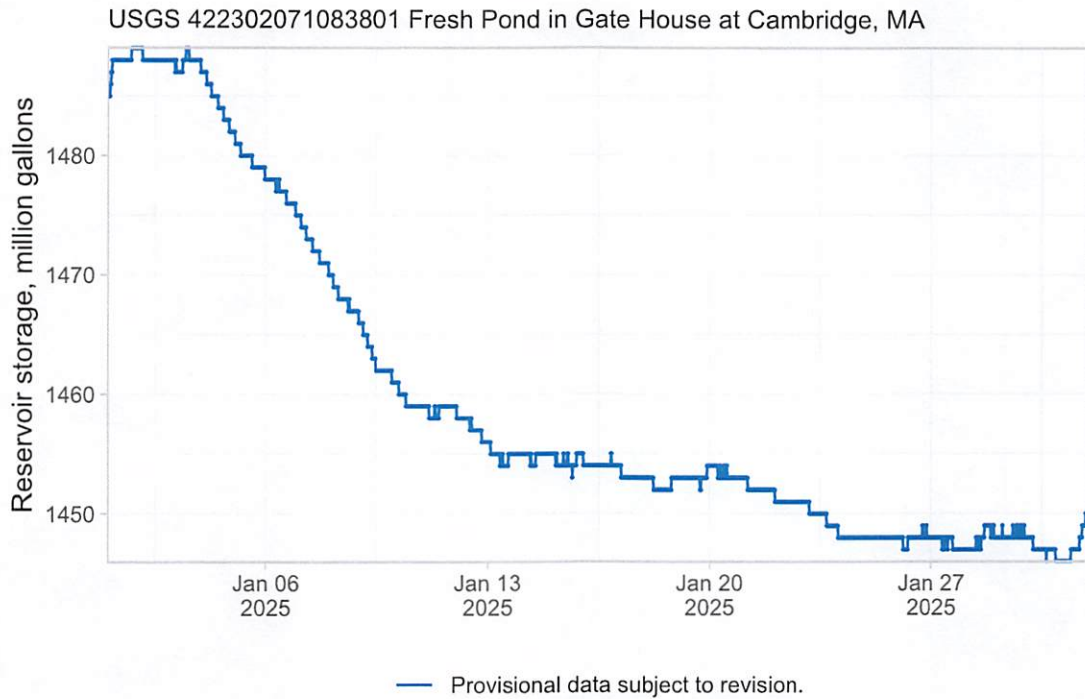


Figure 4: CWD % System Capacity, Water Years 2016 and 2017 (drought), 2024, and 2025

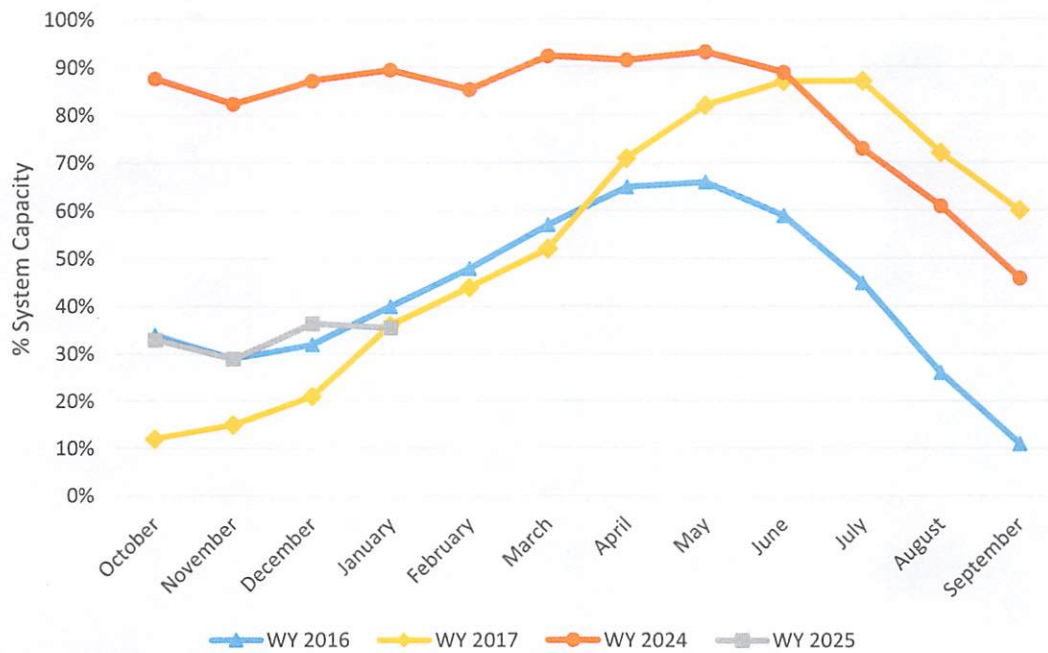
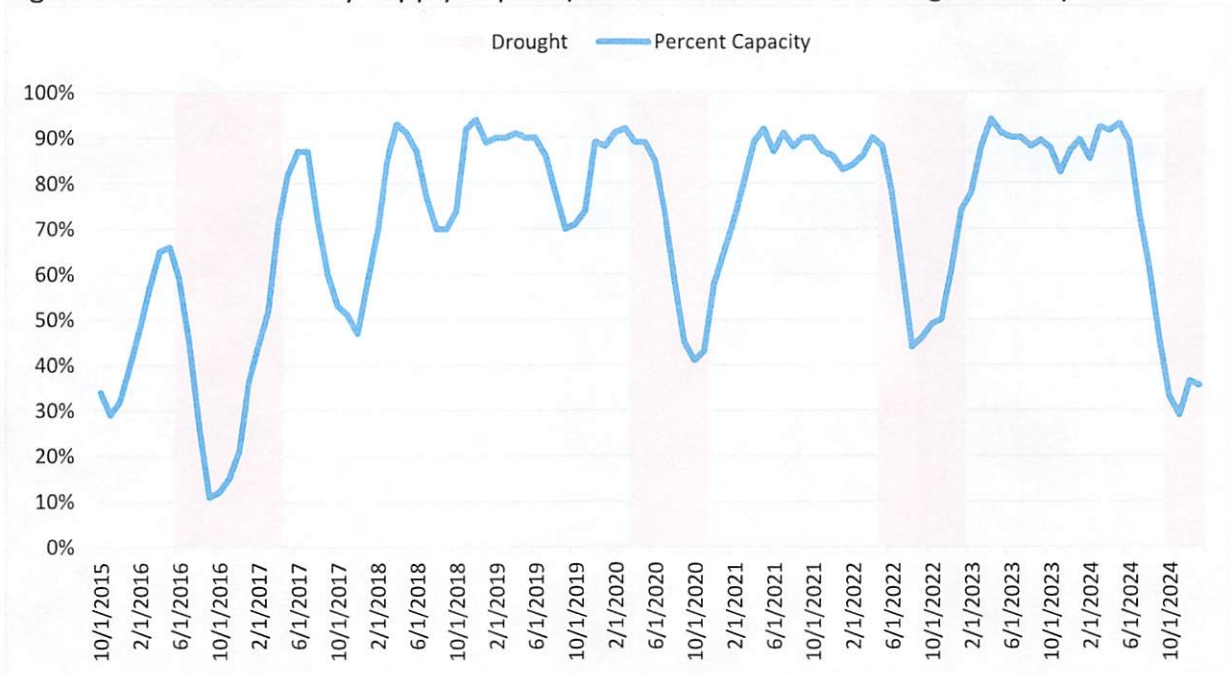


Table 1. Monthly Recharge Rates (% Water Supply Capacity/Day), Water Year 2025

Date	% water supply capacity	Monthly Recharge Rate (%/day)*	Days until June 1, 2025	Projected % Water Supply Capacity on June 1, 2025	Recharge Rate (%/day) Needed for 90% Capacity by June 1, 2025
10/31/2024	33.0	--	--	--	--
11/30/2024	28.9	-0.137	183	4	0.492
12/31/2024	36.4	0.242	152	73	0.592
1/31/2025	35.5	-0.029	121	32	0.744

* % water supply capacity gain or loss/day, calculated based on the difference in % water supply capacity at the start and end of each monthly interval

Figure 5. Percent Monthly Supply Capacity from October 2015 through January 2025



Precipitation

Figure 6: Precipitation measured at Lincoln Field Office, January 2025

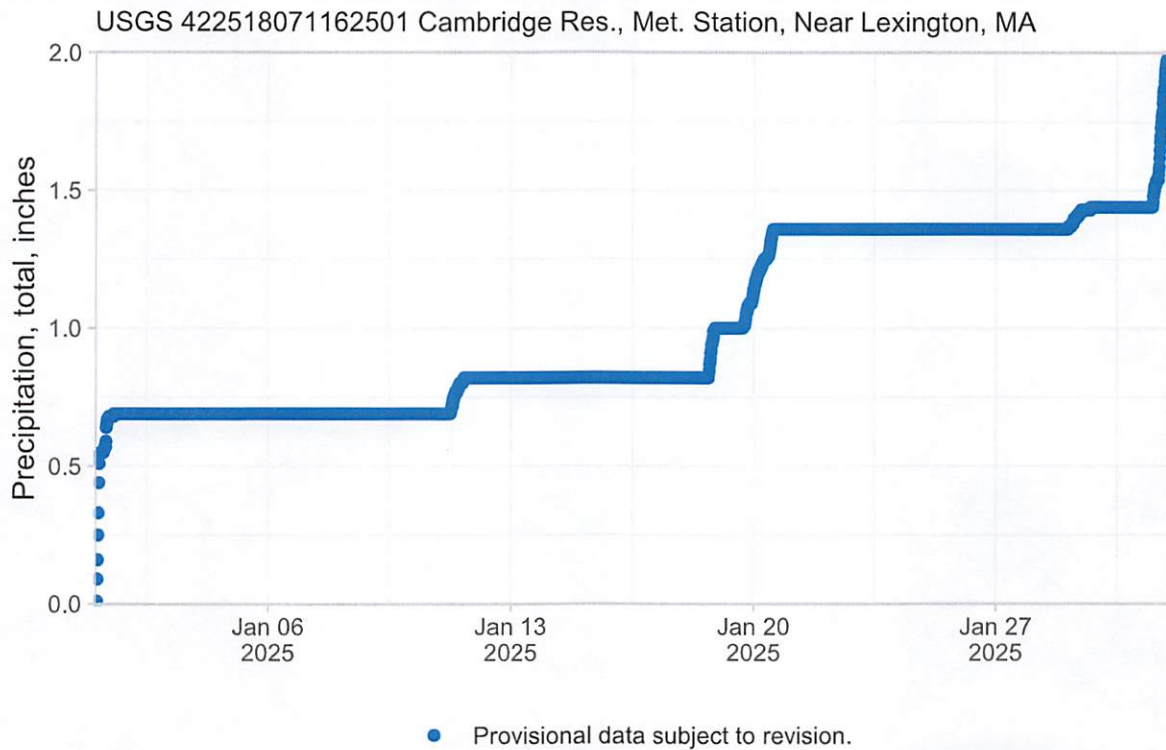
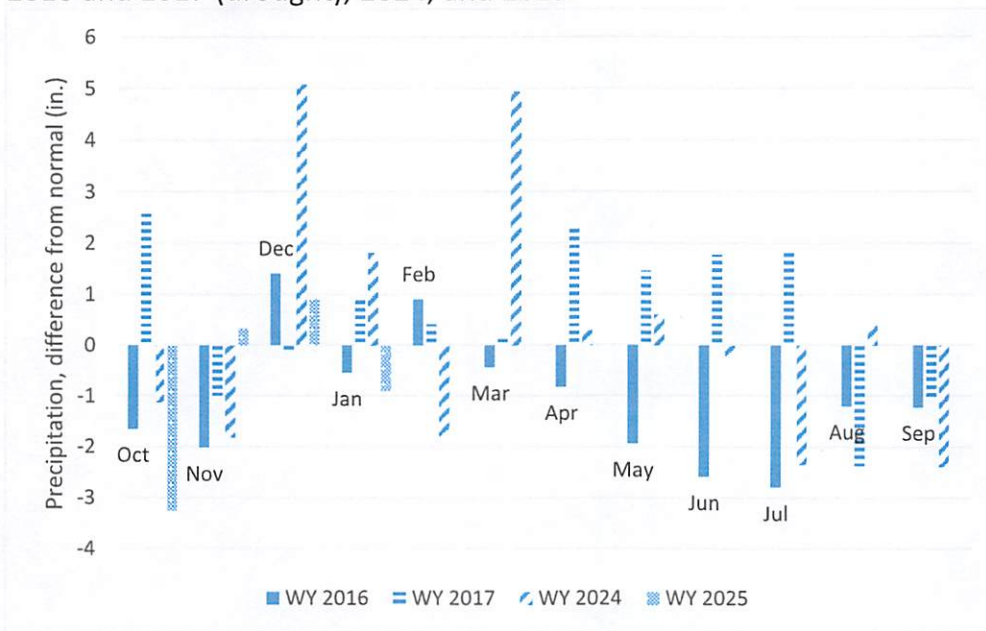


Figure 7: Monthly Precipitation (Lincoln Field Office) Relative to Normal, Water Years 2016 and 2017 (drought), 2024, and 2025



C-8

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Real-time data available on the web at
[Cambridge Water Supply Monitoring Locations - USGS Water Data for the Nation](#)

C. OPERATONS – Water Operations, January 2025

Plant Operations:

- Production: 366.5 million Gallons with only scheduled shutdowns, the plant runs 24/7
- Monthly Average: 11.82 million Gallons per Day (MGD)
- Daily Maximum: 13.7 million Gallons (MG) on January 23, 2025
- Daily Minimum: 10.0 million Gallons (MG) on January 5, 2025

Team Lead Operator, Paula Gates retired 1/31/2025

New Manager of Water Operations, Katherine Orciuch starts 2/5/2025

Water Quality/Laboratory

There were **0** total coliform positives for January

January: 109 samples collected for compliance

PFAS

- January 2025 Quarter 1 compliance sample PFAS 6 Total was 6.35 ng/L (ppt)
- Next compliance sample to be collected in Quarter 2 (April 2025)

C. OPERATIONS – Engineering and Program Development, January 2025

- **MEETINGS ATTENDED:**

River St WM (water main) Project & Watertown DCR Bikeway Connection Meetings

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

- 15 construction permits were issued for January 2025.

- **PROJECTS/OTHER ACTIVITIES INCLUDE: Provided feedback to utility design engineers Re:**

1 – 2 Norfolk Place, 27 Jay St., 21 – 23 Hunting St., 14 White St., 16 Divinity Ave., 60 Norris St., 4 – 6 Holworthy Terrace, 300 Bent St., 17 Smith Pl., 10 – 12 Kenwood, 2400 Mass Ave., 10 – 12 Huntington St., 50 Vassar St., 1904 – 1910 Mass Ave., 179 Appleton St., 1103 Cambridge St., 49 Sixth St., 871 Cambridge St., 55 Washburn St., 63 Gorham St., 28 DeWolf St., 922 Mass Ave., 808 – 812 Memorial Dr., 8 Thingvalla Ave., 40 Reservoir St., 1055 Cambridge St., 431 Concord Ave., 186 Alewife Brook Pkwy., 1200 Mass Ave., 47 Kinnaird St., 22 – 24 Wendell St., 6 Van Norden St., 30 Buena Vista Pk., 147 Sherman St., 121 Broadway, 300 Binney St., 7 Bryant St., 138 Irving St., 165 Brattle St., 123 Broadway, 86 – 88 Holworthy St., 259 Harvard St., 113 Walden St., 311 – 313 Broadway, 150 Albany St., 37 Cottage St. & 8 Holyoke St.

Private Development Projects, Provided feedback to DPW Re: Harvard Sq. Kiosk Proj/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 “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 program “ViewPoint Cloud” for demolition permits.
- Hired 1 new Engineering Intern & still working on hiring the second intern for the period beginning January till the end of June 2025.

C. OPERATIONS - Business, January 2025

FY25 Billings

Month	Billed Water Consumption	Month	Billed Water Consumption	
July	707,653	January	521,856	
August	362,781	February	0	
September	314,330	March	0	
October	764,179	April	0	
November	366,975	May	0	
December	259,807	June	0	
		FY25 TOTAL	3,297,581	
		FY24 TOTAL	3,411,691	-3.34%

Cross Connection Program Results

January	
Total Tests	Fails
866	77

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

- March 11, 2025: TBA/TBD