WATER BOARD MEETING AGENDA

Tuesday, January 14, 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 GPCtbc6NRyS2OaZ8u43nhw

A. MINUTES OF DECEMBER 10, 2024, MEETING

B. MANAGING DIRECTOR'S REPORT

- PFAS and Current Drought Status
- SCADA Upgrade Project Presentation by Allan Chueng

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 December 2024
 - FY25 Consumption through December 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

February 11, 2025: TBA/TBD

CAMBRIDGE WATER BOARD

MEETING MINUTES

December 10, 2024

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, Fred Centanni, Dave Kaplan, Tim Puopolo, Julie Greenwood-Torelli, Rich Lagerholm and Linda Vierboom.

A. MINUTES OF NOVEMBER 12, 2024, MEETING

Mr. Burruss moved, and Ms. Lendorff seconded the motion to approve November 12, 2024, minutes as written. The vote was unanimous in favor of the motion.

B. MANAGING DIRECTOR'S REPORT

<u>PFAS Update</u>: Fourth quarter PFAS6 sample results were 4ppt. We've scheduled the next carbon change out for January 2025. (Changing two filters in January, two in February and two in March.) The current vendor (Calgon) contract ends after this removal. Pending the upcoming signed vender contract (Calgon), we can apply for and will receive an additional one million dollars of ARPA funding (grant) for the next change out.

<u>Drought:</u> All of Massachusetts continues in Critical Drought except for the Cape and the islands which are in Mild Drought status. Our storage bottomed out in November (750MG/Hobbs Brook storage) and currently is seeing some recharge thanks to some rain events over the last couple of weeks. Storage is currently 900MG (Million Gallons). We are still drawing off of our storage at Hobbs Brook, but the rains are helping us to hold steady. More rain is anticipated next week, and precipitation patterns have somewhat normalized with average rainfall.

Questions/Comments: At our lowest, we had about 23 days of storage. Now, at current rate (if there was no more recharge) and if nothing changed, we have about 133 days of storage. We continue to monitor and to remind people they still need to conserve.

Questions/Comments: The Deputy City manager has asked Mr. Gallagher for weekly updates, and the Deputy City manager will update the City Council and City Manager.

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. 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. We sent out five thousand letters and have been inundated with responses. Our distribution staff have been doing a great job of responding to customers and working with property owners.

AI

The first step is to verify the service, either onsite or per photo sent in by customer. If the service type is listed as unknown, they are given instructions on how to contact the water department so we can identify the material type of the unknowns. We've found about 150 copper lines that we previously identified as "unknown" material type. Seven lead services have been updated in the last two weeks. We have about thirteen years to get this done per the federal regulations. We've applied for approximately 6.5M in state revolving funds and are trying to get all lead services removed in five years.

Questions/Comments: How long does it take to provide water sample results to customers? Mr. Gallagher said it takes approximately two to three weeks.

We explain to callers that 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. Typically, all of our water samples come back as non-detects for lead.

We provide free lead testing for all Cambridge residents. Lead sample kits are kept in the foyer of the front lobby. We can deliver sample kits if necessary. In the past three weeks we've tested 172 samples for lead. This equates to about a year's worth of sampling in just three weeks. Rich and his staff in the lab are doing an amazing job. Jeremy Halsdorff, who does a lot of in-house IT, has developed a QR code system which has been very efficient in processing sample requests.

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 lead service lines all the way to the meter. We have a list of main replacement addresses, and timelines which property owners may use to coordinate their replacement.

Fresh Pond Public Engagement Re-Cap: Presented in slide format by Ranger Tim Puopolo. Different events reach different people at different walks of life. Ranger Tim highlighted the following four large scale, festival styling program events.

14th Annual Fresh Pond Day, 2024: Goal~ Promote the water department, promote inter-City collaboration, share sustainability resources, community building, introduce Fresh Pond to the public. Attendance: 900

10th Annual Monarch Butterfly Release Celebration: Goal~ Promote restoration work, relate meadows to water quality, pollinator awareness. Attendance: 275

Questions/Comments: The Junior Ranger Badge Program uses an activity booklet with a series of activities to complete, including learning about the Monarch Butterfly. Upon completion, the junior rangers take their oath and receive a highly coveted plastic junior ranger badge.

Ms. Roosevelt said this is wonderful and is a great idea.

1st Annual Cambridge Mothball: Goal~ Promote restoration work, relate woodlands to water quality, pollinator awareness, launch monarch campaign. Attendance: 150

Questions/Comments: The event was held during national moth week. There is a dedicated crowd to moths, and several people came dressed as moths. There was a strong turn out from the LGBTQIA+ community.

Questions/Comments: What was the most interesting moth seen at the event? Ranger Tim said the "coolest" moths come out about 2 a.m. Our traps which were set out the evening prior failed due to rain that evening. Ranger Tim said that although there were no rare or magical moths observed that evening, it was a magical night overall.

<u>Total Eclipse of the Park:</u> Goal ~ City featured event, science of phenology. Elements: Live music, various optical experiments, 1,000 free commemorative viewing ISO glasses, popcorn, interspersed educational displays featuring community and wonder. This "City" featured event was the biggest event held at Fresh Pond in its history and had over 2,000 participants in attendance.

Questions/Comments: Ranger Tim is looking into the possibility of an indoor night sky projection system which could be used in our lobby.

Questions/Comments: Ms. Roosevelt was at the eclipse event and said it was an amazing event, and everyone was having a great time. She commented that Ranger Tim is doing a great job.

C. OPERATIONS

Transmission and Distribution:

No comments

Watershed:

Questions/Comments: Ms. Roosevelt said the watershed division is doing such a great job with funding through grants.

Questions/Comments: Are we doing the gatehouse masonry repairs in the winter? These contractors have a lot of experience. There is a temperature limit with grout work. They are using tenting and heating on exterior portions.

Questions/Comments: Industrial Leaf and Yard Waste Compost Facility: This was a proposed development on a parcel in Weston in zone "A" which required storm water management. This is prohibited in zone "A". The proponents withdrew their proposal upon realizing the conflict.

Questions/Comments: 8 Hawk Road, Lincoln proposed pasture for livestock. Is this in zone "A"? Mr. Kaplan said it's a residence that would like to keep a few goats on their property. We are trying to confirm wetland delineation and investigate tributary hydraulic connectivity. Mr. Kaplan said per regulations for livestock you can't stable or hitch animals within 100 feet of a tributary to a water supply.

It's good that we point out zone "A" restrictions so that conservation commissions and local reviewing agencies will be more aware of them.

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. This was inadvertently found while in process of removing deer stands on our property.

Questions/Comments: Is there a predictor for precipitation?

National and Oceanic Atmospheric Administration (NOAA) publishes 3- and 6-month seasonal forecasts. It deals with averages. We can't rely on this. We can put some graphics together and present this at the next waterboard. Ms. Roosevelt said the science of weather is making some strides and it be interesting to know what they think is going to happen over the next (3) months. Our system is small. It empties quickly but also re-fills quickly. If we don't recharge by the first of July, the system will fail (need to use MWRA water). If we are low, and need to preserve our storage, we could use MWRA water intermittently.

Storage is increasing and our watershed is starting to increase with recent rain events.

Water Operations:

Questions/Comments: November used 11.9 MGD. Typically, January has the lowest daily demand.

Engineering:

No comments

Business:

Questions/Comments: Why is November billed water consumption down by almost 2%. Mr. Centanni said this is due to the fluctuating nature of industrial sewer abatement accounts.

D. ACTION ITEMS

Election of the President:

Ms. Roosevelt was nominated to be the President of the Cambridge Water Board for 2025.

Ms. Kelly moved, and Mr. Burruss seconded the motion to elect Ms. Roosevelt as President of the Water Board for CY2025. The vote was unanimous in favor of the motion.

E. MISCELLANEOUS CORRESPONDENCE AND ITEMS OF INTEREST None

F. NEW BUSINESS

None

G. NEXT MEETING DATES/AGENDA – Meetings via Zoom

• January 14, 2025: Approved/TBD

Ms. Roosevelt moved, and Ms. Kelly seconded the motion to adjourn the meeting at 6:11pm. All were in favor of the motion.

B. MANAGING DIRECTOR'S REPORT

- PFAS and Current Drought Status
- SCADA Upgrade Project Presentation by Allan Chueng

C. OPERATONS – Transmission and Distribution, December 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.

Maple Avenue – Continuous work with Newport Construction in renewing lead lined water services. 6 total services renewed in December under Chapter 90 contract. Once completed a total of 7 lead services will be renewed and all residents on Maple Avenue will have non-lead services supplying their residents.

55 Broadway – Assisted contractor in the removal of an old 30" x 6" tee for demolition of 55 Broadway project. Numerous CWD personnel on hand to isolate a part of the 30" water main on Broadway. Shutdown and job were a success

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.

December 2024

- 4 Leaks Repaired
- 0 Services Reconnected
- 1 Lead Services Renewed
- 6 Hydrants Repaired/Replaced
- 2 Valves Replaced/Repaired
- 3 Miscellaneous Jobs Completed (Snow and ice removal for reservation)
- 18 Work Orders Completed
- 267 Valves Exercised
- 144 Inspections Performed
- 310 Digsafe Utility Mark Outs

C. OPERATIONS - Watershed, December 2024

- I. Fresh Pond Reservation:
 - 1. *Reservation:* Finalizing bid of our two Reservation landscape maintenance contracts.
 - 2. Kingsley Park: shared use off-leash area moved to the upper knoll.
- II. Cambridge Watershed:
 - 1. *Phase 1 Dam Inspections:* Inspections completed. Awaiting draft report from CDM Smith.
 - 2. *Winter Street Gatehouse Repairs*: Downstream culvert repair completed. Gatehouse repointing to begin in January.
 - 3. Stony Brook Gatehouse Masonry Repairs: Exterior work completed. Interior work ongoing.
 - 4. Stony Brook Gatehouse Low Sluice Gate Repairs: Parts on order.
- III. Reporting and Website:
 - 1. Site Monitoring Program Tool: Ongoing.
- IV. Projects Overview:
 - 1. Construction projects in Waltham are ongoing at 305 Second Ave and 40 Sylvan Road.
 - 2. 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.
 - 3. Plans for redeveloping 1342, 1345, and 1486 Main Street, Waltham are in development. A new redevelopment at 1362 Main Street has also been proposed.
 - 4. Bridge replacement and roadway construction at Rt 2A over I-95 in Lexington is ongoing.
 - 5. MassDOT D4 Highway Depot redevelopment in Lexington is under construction. Bioretention basin media installation is ongoing.
 - 6. 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.
 - 7. 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.
 - 8. 149-151 Spring Street, Lexington parking lot expansion proposal is in permitting. No updates.
 - 9. 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.
 - 10. 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.

- V. *Comment Letters/Hearings*: CWD submitted formal verbal and/or written comments regarding:
 - 1. 145 Conant Road, Weston Submitted emailed comments to the Weston Conservation Commission and Board of Health that CWD is comfortable with a proposed septic system repair, provided that all setbacks are maximized due to proximity to the Zone A. The septic design capacity will not increase.

VI. Communications:

- 1. 8 Hawk Hill Road, Lincoln Confirmed with Lincoln Conservation that the Applicant will be required to demonstrate that the ditch on site does not connect to the Cambridge water supply in order to graze livestock within 100 feet.
- 2. 60 Sylvan Road, Waltham Waltham Conservation will require ARE to submit a full Notice of Intent for the construction of two cabins ("remote conference rooms") on site.
- 3. Route 20/Wellesley Road Intersection, Weston Received confirmation that the project will include new leaching catch basins and a copy of the final design plan.

VII. Site Visits:

1. Regular watershed patrols by caretakers ongoing

VIII. Hazmat:

Stonegate SSO, Weston – Wastewater pumps at a subdivision stopped working leading to a sanitary sewage overflow (SSO) on 12/18/2024. Approximately 1,500 – 2,000 gallons of wastewater was discharged to pavement and entered a catch basin and wetland. The pumps were fixed, and the catch basin was vacuumed out the same day. The pavement was disinfected with lime and effluent in the wetlands was left to naturally attenuate. MassDEP was notified of the spill and the cleanup occurred according to their recommendations.



CITY OF CAMBRIDGE

MASSACHUSETTS
Water Department
250 Fresh Pond Parkway
Cambridge, MA 02138
617 349 4770
Fax 617 349 6616



January 3, 2025

DECEMBER 2024 WATER SUPPLY SUMMARY REPORT

Highlights

- The December percent water supply system capacity of 36% (based on 2.9BG usable capacity) is:
 - > 7 percentage points higher than November 2024 (29%);
 - > 51 percentage points lower than December 2023 (87%); and
 - ➤ 15 percentage points higher than December 2016 (21%, drought)
- The water supply system has started to positively recharge. If the December rate of recharge is maintained (0.242 percentage points/day), we will only fill 73% of our water supply capacity by June 1, 2025. However, this is a big improvement over the November recharge rate (-0.137 percentage points/day), which would have reduced our supply to only 4% of capacity by June 1st.
- Precipitation at the Lincoln Field Office in December 2024 totaled 4.69 inches, 0.93 inches above the National Climate Data Center (NCDC)'s monthly normal at Bedford Hanscom Field (3.76 inches).
- Despite above normal precipitation in November and December 2024, the drought status from the MA EEA Secretary remains at a Level 3 Critical Drought.

Storage

Figure 1: Hobbs Brook Reservoir Storage, December 2024

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

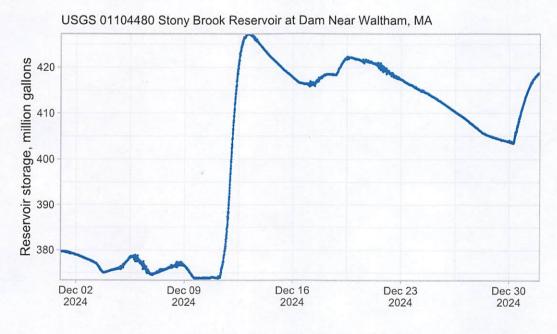
1050

950

Dec 02 Dec 09 Dec 16 Dec 23 Dec 30 2024 2024 2024 2024 2024

Provisional data subject to revision.

Figure 2: Stony Brook Reservoir Storage, December 2024



Provisional data subject to revision.

Figure 3: Fresh Pond Reservoir Storage, December 2024

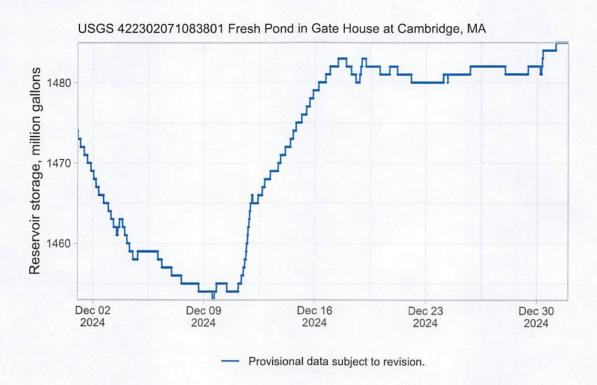


Figure 4: CWD % System Capacity, Water Years 2016 and 2017 (drought), 2024, and 2025 $\,$

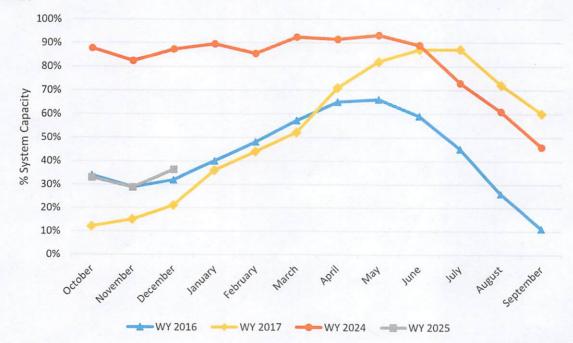
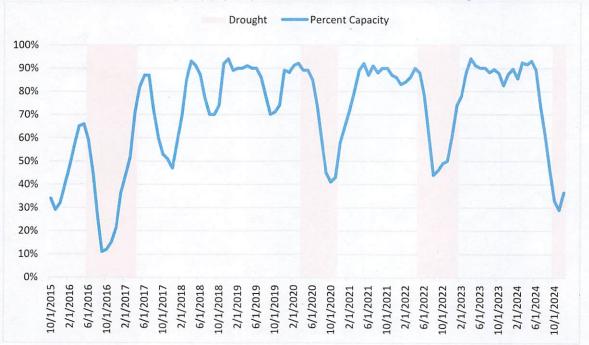


Table 1. Monthly Recharge Rates (% Water Supply Capacity/Day), Water Year 2025

Date	% water supply capacity	Monthly Recharge Rate (%/day)*	Days until June 1, 2025	Projected % Water Supply Capacity on June 1, 2025
10/31/2024	33.0			
11/30/2024	28.9	-0.137	183	4
12/31/2024	36.4	0.242	152	73

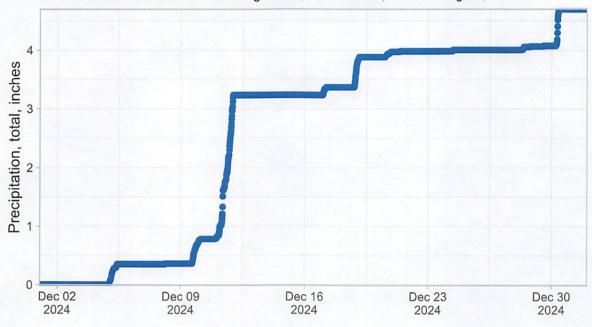
^{* %} water supply capacity gain or loss/day, calculated based on the difference in % water supply capacity at the start and end of each monthly interval

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



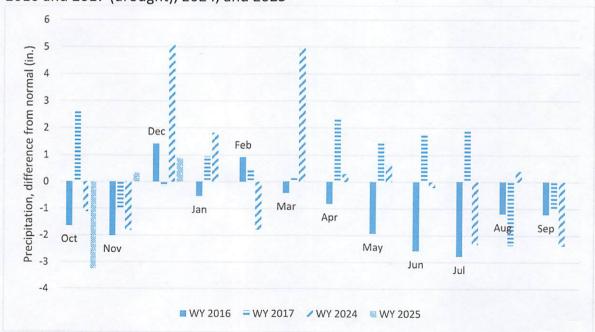
Precipitation

Figure 6: Precipitation measured at Lincoln Field Office, December 2024 USGS 422518071162501 Cambridge Res., Met. Station, Near Lexington, MA



Provisional data subject to revision.

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



Jamie O'Connell joconnell@cambridgema.gov 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

C. OPERATIONS – Water Operations, December 2024

Plant Operations:

- Production: 343.46 million Gallons with only scheduled shutdowns, the plant runs 24/7
- Monthly Average:11.08 million Gallons per Day (MGD)
- Daily Maximum: 13.08 million Gallons (MG) on December 6th
- Daily Minimum: 9.36 million Gallons (MG) on December 27th

Water Quality/Laboratory

- There were 0 total coliform positives for December

 December: 109 samples collected for compliance
- Homeowner lead testing The dramatic increase in the number of lead samples submitted, resulting from recent lead service line notifications sent to residents, has stabilized; the volume remains higher than usual.
- PFAS- Next compliance sample to be collected in Quarter 1 (January 2025)

MEETINGS ATTENDED:

River St WM Project & Watertown DCR Bikeway Connection Meetings

CONSTRUCTION/WATER USE PERMITS ISSUED:

18 construction permits issued for December 2024

OTHER ACTIVITIES INCLUDE: Provided feedback to utility design engineers re:

1688 Massachusetts Ave., 47 Eight St., 22 Wendell St., 38 Oxford St., 116 Norfolk St., 162 Massachusetts Av. (aka 4 Mellen St.), 11 Garfield St., 86 – 88 Holworthy St., 11 Inman St., 515 Putnam Ave., 469 Huron Ave., 583 Mt. Auburn St., 21 – 23 Hunting St., 4 – 6 Holworthy Terrace, 401 Concord Ave., 12 – 16 Ellery St., 326 Rindge Ave., 356 – 358 Western Ave., 36 Linnaean St., 1904 – 1910 Massachusetts Ave., 241 – 245 Monsignor O'Brien Hwy., 137 Mt. Auburn St., 56 – 58 Magoun St., 378 – 380 Rindge Ave., 1103 Cambridge St., 12 – 14 Seven Pine Ave., 66 Fayette St., 403 – 405 Walden St., 299 Broadway., 22 Corporal McTernan St., 52 – 56 Howard St., 38 Howard St., 6 Coolidge Hill Rd., 24 Bigelow St., 380 Rindge Ave., 700 Main St., 263 Monsignor O'Brien Hwy., 24 Wendell St., 1200 Massachusetts Ave., 187 Windsor St., 217 Western Ave., 35 Buena Vista Park, 63 Magazine St., 27 Hardwick St., 29 Sunset Rd. & 55 Broadway.

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 demolition permits software program called "ViewPoint Cloud".
- 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	259,807	June	0	
		FY25 TOTAL	2,775,725	
		FY24 TOTAL	2,819,779	-1.56%

Cross Connection Program Results

December

Total Tests Fails 342 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 DATES/AGENDA
 - February 11, 2025: TBA/TBD