Key Topics: PFAS, Drought Treatment Plant/Water Operations Overview Update

CAMBRIDGE WATER BOARD

MEETING MINUTES

February 11, 2025

This meeting is available virtually on Zoom and in person. This meeting is being recorded.
This meeting was called to order at 5:04 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, Dave Kaplan, Julie Greenwood-Torelli, Katie Orciuch, Fred Centanni, Jamie O'Connell, Rich Lagerholm, Emily Maynard and Linda Vierboom.
Cambridge Day: Sue Reinert

Questions/Comments: Ms. Roosevelt asked if we have any grants that are only partially paid (outstanding). Mr. Gallagher said we are in the process of a state grant for Winter Street dam repairs which we haven't yet submitted for reimbursement. We are quickly getting to the full reimbursable amount, and we will be submitting in the next month. It is Mr. Kaplan's understanding that it is already appropriated and with the State and not subject to any kind of freeze.

A. MINUTES OF JANUARY 11, 2025, MEETING

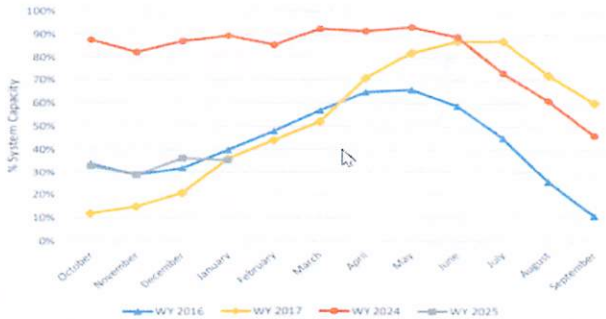
Mr. Burruss moved, and Ms. Lendorff seconded the motion to approve January 11, 2025, minutes as written. The vote was unanimous in favor of the motion.

B. MANAGING DIRECTOR'S REPORT

PFAS Update: 4th quarter sampling is currently at 6ppt. The next carbon change out is scheduled for next week; we anticipate that our April sampling will be back at non-detect.
All change outs are to be completed before our second quarter 2025 samples.

Drought: Last Friday the State Department of Energy and Environmental affairs increased the drought for the Northeast Region to Level 3 Critical Drought. Precipitation levels are still below normal. Our current reservoir level is right on the line exactly where we were in February 2017 as we were coming out of the 2016 drought. During that year our reservoirs got back to full capacity by June, and we were able to meet the warm weather increased water demands.
It is possible for us to recover before summertime.

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



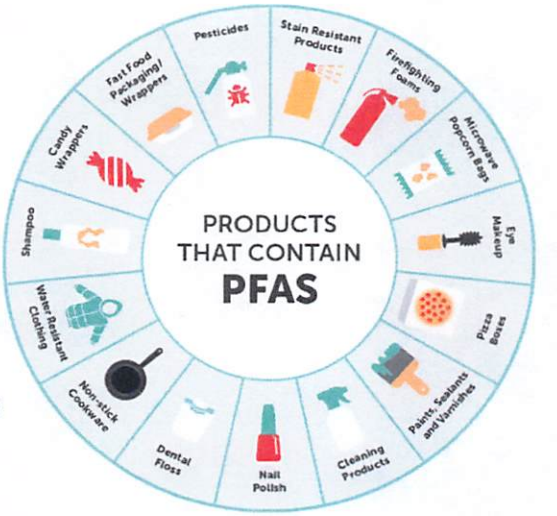
NOAA (National Oceanic and Atmospheric Administration): Re: Eastern Massachusetts outlook for the next three months. We are at equal chance of above normal, below normal or normal precipitation levels for the next 3 months. If we stay at normal or leaning above normal, our reservoir should be able to recover to the capacity that we can meet the summer demands. Our reservoir level is continuing to rise, and we are seeing recharge. Let's hope the models are accurate.

We put out a citywide press release this afternoon to let the public know we are back in a critical drought situation, and we are putting it out on all the public media formats; providing water conservation recommendations/guidelines. We will continue to monitor the situation and let the water board and public know of any changes. We've provided guidelines/recommendations links from our website, and the state and federal websites so that people have resources.

Treatment Plant/Water Operations Overview Update: Presented by Julie Torelli-Greenwood
What are PFAS? PFAS is a group of persistent synthetic compounds used to make fluoropolymer coatings and water repellent compounds. PFAS is known as a forever chemical.

What were/are PFAS used for?

- Cleaning products
- Water-resistant fabrics
- Grease-resistant paper
- Nonstick cookware
- Personal care products
- Stain-resistant coatings
- Fire-fighting foams



PFAS ANALYSIS

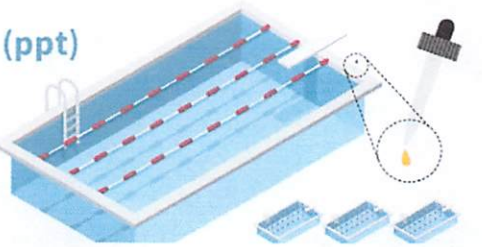
1 Part per trillion (ppt) = 1 nanogram per liter (ng/L)

1 nanogram per liter (ng/L) = 1/1000th of a part per billion (ppb)

1 part per trillion (ppt)

IS EQUIVALENT TO A SINGLE DROP OF WATER IN

20 olympic-sized swimming pools



In Massachusetts there are maximum PFAS contamination levels (MCL) in place. The MCL is 20ppt for the quarter. This is still in play even though the EPA has a final regulation. We've had a plan in place, and we've implemented it. Cambridge is proactive and has been in full compliance and has not had an MCL exceedance. The EPA announced their strategic roadmap in October of 2021 which had proposed a rule for fall 2022. This did not happen. In April 2024 the EPA issued the final rule which established drinking water standards for PFAS and set deadlines to public water suppliers to comply with. The final MCL that's enforceable is 4ppt for both PFAS and PFOA. The good news is that we have been actively looking at our numbers and we are testing well within the final rule. We've set ourselves up for success.

Our carbon filters now have timers on them that shows the hours online and we get a little over one year out of the carbon before we see it break through. Those timers restart when the filters are changed and go back online again. We take individual samples from each filter. Every time we do change outs we learn something new.

2/12/2025: Filters 3 and 5 GAC (Granular Activated Carbon) changeout completed
2/24/2025: Filters 1 and 6 scheduled for change out
3/2025 Filters 2 and 4 (Date to be determined)

Questions/Comments: A Tnemec coating on of the filters is starting to degrade. What is the schedule for the Tnemec coating?
We have to develop a scope of work and a schedule and will have to take the filter out of service for several weeks to a month. We will start probably next year while we are doing a carbon change out.

Questions/Comments: What is the schedule for GAC change out? How many months are we operating on?
We operate on about 12 months. We can go longer (12-14 months), if we staggered how we did our change outs. But the way we are trying to budget it made sense to do it this way and we are trying to get it done before the warm weather. We need more water to do this because we need to do more backwashes. It's the best bet to get it done in February and March.

Questions/Comments: How is flow managed? Is it evenly split?
The plant has two trains (three filters on one side of the plant and three filters on the other side). Established through SCADA, we can divert flow how we want to. Flow can be evenly controlled to flow out to all 6 filters individually. We always have unexpected pump failures and it's not always something that we can build into the schedule.

Questions/Comments: Is monthly PFAS analysis sufficient to accurately determine status of the filters or would continuous monitoring be more efficient?
It would be ideal to have continuous monitoring. Right now, monthly monitoring is as frequent as we can do it based on manpower and funds. If there is technology out there that we could test or pilot, we would be interested at looking into if Mass DEP would approve it.

Questions/Comments: Has someone done modeling on water production versus PFAS measurements across these six filters to have a predictive model on total throughput in the plant?
CDM house doctor engineer (Carol Rego) has been working with us on this and wants more data. We have been trying to build a model. We are using LCMS to test for this.

C. OPERATIONS

Transmission and Distribution:
Questions/Comments: Ms. Roosevelt asked Mr. Gallagher to discuss DPW Mass Avenue 4 Phase 1 infrastructure upgrades.
Re: Infrastructure to bike lines: This is part of the council order to create bike lanes for the full length of Mass Ave. In order to do this, there has to be other infrastructure changes. This will include removal of the island from the Cambridge common to the Arlington line, starting some of the utility work, including water work upgrades in critical locations. Floating bus stops will be created about 10 feet out from the curb; which will include a shelter and place for people to stand. Because they are located 10 feet out, these often land over utilities, so those utilities will have to be moved. There will be sidewalk and street upgrades. All intersections will have good valving and good piping enabling them to be isolated if need be. All old 6" cast iron will be upgraded with 8" cement lined ductile iron; removing any lead services along Mass Ave.

Watershed:
Questions/Comments: Re: Landscape Maintenance Pre-Bid Meeting.
Our standard mow and blow contract has been held by Shumacher for the last 9 years and goes out to bid every 3 years. It's still open. Bids are due and closing next week.
This contract is not for our specialized contract for invasive species control.

Questions/Comments: Re: 6 Ballfield Rd Lincoln, Community Center Proposal Build.
Mitigation plantings are required to meet a statutory requirement under the Rivers Protection Act. We submitted comments that will show up at the next water board meeting. The area is already a degraded area, and we've asked if they can reduce the footprint a bit or add some trees since Stoney Brook is a cold-water fishery and it is temperature impaired downstream of the site. We feel it's an important area to maintain thermal protection.

Questions/Comments: Mr. Tapoor asked if Ms. O'Connor could clarify what "Temperature Impaired" means.
It means that the stream has been listed under the integrated list of waters under the Clean Water Act as being impaired for temperature. Mass DEP makes that designation. This particular part of Stoney Brook is listed as impaired for temperature. There is a standard range set for cold water fish resources and the sampling exceeds the range.

Questions/Comments: Is the root cause (temperature impaired) usually from a reduction of trees around the area, or because water runoff is going through hot surfaces?
Ms. O'Connell said it is often seen in urban areas - Heated run off, fewer trees, impoundments (small dams), or industrial source discharging warm water (but that is not the case in our watershed.).

Questions/Comments: Re: Status of HAC Decision (To overturn the Weston Zoning Board of Appeals denial of a comprehensive permit)
Mr. Kaplan said there is no significant movement in the litigation. No updates at this time.

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Questions/Comments: Re: 133 Boston Post Road, Weston regarding plastic netting for erosion control. Is netting allowed?
It's an erosion control method that was used during the original redevelopment. Overtime it's been eroded and has been washing downstream. CWD is asking for removal. They haven't gotten back to us yet

Water Operations:
Questions/Comments: The Demand Study should be completed and in by the next water board meeting. If not, then at the April meeting. It will be presented in a PowerPoint presentation.

Engineering:
Questions/Comments: Are the Chestnut Street and Huron Avenue watermain projects finished? These projects haven't been closed out because Eversource sometimes goes before/ or after our work. Technically the water portion is closed, and we keep it open until all utility work is closed.

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

- March 11, 2025: Approved/TBD

Ms. kelly moved, and Mr. Burruss seconded the motion to adjourn the meeting at 6:20 pm. All were in favor of the motion.