



**WATER SUPPLY CITIZENS
ADVISORY COMMITTEE**
to the Mass. Water Resources Authority

485 Ware Road
Belchertown MA 01007
(413) 213-0454
fax: (413) 213-0537
email: info@wscac.org

*WSCAC Virtual Meeting Minutes
Tuesday, February 13th, 2024*

WSCAC Members in Bold in Attendance:

William Copithorne, Town of Arlington
Steven Daunais, Tata & Howard
Gerald Eves, Trout Unlimited
Bill Fadden, OARS
Bill Kiley, BWSC

Paul Lauenstein
Martha Morgan, Nashua River Watershed
Martin Pillsbury, MAPC
Janet Rothrock, League of Women Voters
Bruce Spencer, retired DCR Chief Forester

Non-Members in Attendance:

Stephen Estes-Smargiassi, MWRA
Colleen Rizzi, MWRA
Christine Bennett, MWRA Advisory Board
Nathan Cote, MWRA Advisory Board
Matthew Romero, MWRA Advisory Board
Andreae Downs, WAC
Moussa Siri, WSCAC staff
Emily Brozski, WSCAC staff
Lexi Dewey, former WSCAC staff
Paul Rybicki – prospective member of WSCAC

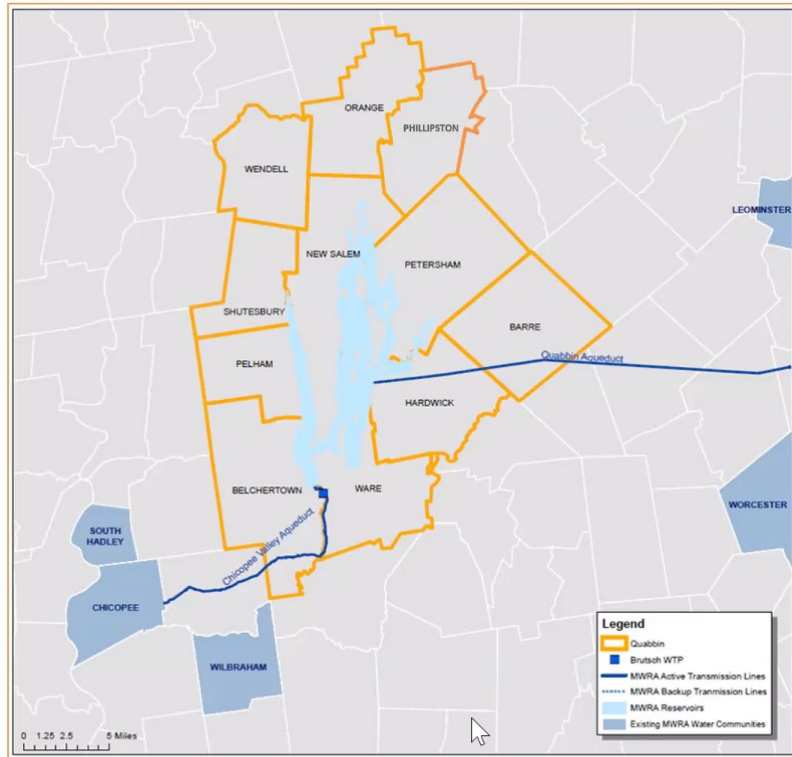
Introduction-Moussa Siri

Moussa welcomed members and presented the agenda. Paul Lauenstein, the WSCAC chair, welcomed Paul Rybicki, a potential new member who joined the meeting for the first time.

I. Updates on System Expansion and Donor's side feasibility study - Colleen Rizzi, MWRA

• Status of System Expansion Studies

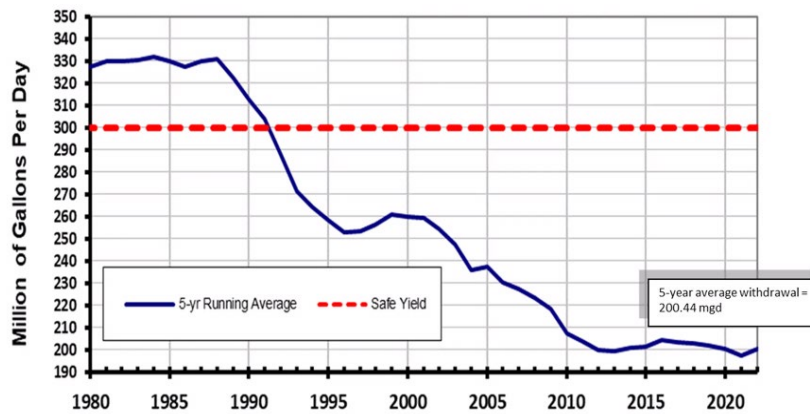
- Three (3) completed studies (2022)
 - Ipswich River Basin
 - South Shore Communities
 - MetroWest Communities
- Quabbin Reservoir Watershed Communities (in process)



- Diagram shows the eleven communities that are included in the study (Barre, Belchertown, Hardwick, New Salem, Orange, Pelham, Petersham, Phillipston, Shutesbury, Ware, Wendell) and shows current infrastructure.
- **Purpose of Quabbin Study**
 - Planning Level Study
 - Evaluate the feasibility and the viability of supplying these communities from the Quabbin Reservoir
 - Quabbin feasibility study is a little different than previous feasibility studies because there are no such large-scale infrastructures as seen in the other studies. This study would be looking for:
 - Water Supply alternatives
 - Costs and timeframes of supplying water
 - Additional work beyond the study would be required for any community to connect to MWRA
- **MWRA's Capacity to Provide Additional Water**
 - With a Safe Yield of **300 million gallons a day (MGD)**, the Quabbin and Wachusett can safely provide even during periods of extended drought
 - With an average 5-year reservoir withdrawal (2013-2018) = **203 MGD**, Quabbin, and Wachusett can accommodate **29 MGD for** increased population and employment, an additional demand of 17 MGD for existing partial and emergency users, and a conservative estimate of future use of **249 MGD**, leaving an average of **51 MGD (76.5 MGD on a maximum demand day)** available for new communities.



Reservoir Withdrawals from 1980 to 2022



- The diagram shows that the water demand on the MWRA system has decreased dramatically since the 1980s, despite increases in the regional population, employment, and even the addition of new communities since then. This is largely due to demand management programs and the use of water-efficient appliances.
- **Status of Recent Inquiries**
 - Partially Supplied Communities Considering Increasing Supply: Wellesley and Wilmington
 - Communities approval to Pursue Admission from Governing Body: Hopkinton, Lynnfield Center Water District (currently undergoing MEPA review), Natick, and Wayland
 - Various Stages in Decision-Making Process: Avon, Billerica, Select South Shore communities (Hingham, Norwell, Hanover, Abington, Rockland, Scituate, Cohasset), Weymouth/Former Naval Air Station, North Sherborn Water and Wastewater District (proposed), Select MetroWest Communities, and Walpole
 - **Question – Bruce Spencer:** There used to be a pumping station, or maybe there still is, on the Wachusett reservoir that would pump water north. Is that still active?
 - **Answer – Steve Estes-Smargiassi:** There are two pump stations on the shoreline:
 - The Leominster pump station is in poor shape and has not been used since around 1989, but Leominster is still a potential user of MWRA water.
 - Worcester has a pump station and a second pump station on the Quabbin aqueduct to supply Worcester with water, but no intention of ever using that pump station.
 - **Question – Bruce Spencer:** If they did use it, is there a limit on how much they can take?
 - **Answer – Steve Estes-Smargiassi –** Both communities have contracts with the MWRA, and the limits are defined in those contracts. It's a last resort and a very expensive option for them. Leominster would likely need to renovate the pump station and maybe even the pipeline completely to be able to use MWRA water.
 - **Question – Paul Lauenstein:** Earlier in the presentation, there was a map with a bunch of communities surrounding the Quabbin. Do any of those communities have problems the MWRA could solve, such as PFAS or population expansion? How many of them have municipal water distribution systems?
 - **Answer – Colleen Rizzi:** The first step with the consultant is to do that kind of data research. The majority of these towns are on private wells.
 - **Question – Paul Lauenstein:** Will the costs of connecting to the MWRA be compared to the costs of installing a municipal well?

- **Comments – Bruce Spencer:** Orange has a municipal water supply, but Orange is right on the watershed going north, so they don't have land in our water supply.
 - **Answer – Colleen Rizzi:** As we consider alternatives, some include additional groundwater sources. For feasibility reasons, it may make sense to have more localized sources rather than running a pipeline all the way from the southernmost area of Ware to Orange, for example.
- **Study Update and Next Steps**
 - **Next Steps:**
 - Continue with the Quabbin Watershed study
 - Continue working with interested communities in other study areas
 - **Completed Studies**
 - <https://www.mwra.com/02org/html/expansion.html>

For the complete presentation, check this link: <https://www.mwra.com/monthly/wscac/2024/021324-expansion.pdf>

Post-presentation Q&A

- **Question – Bill Kiley:** In the western area, where the pipeline runs right through some of the towns, is there much infrastructure they could use to make the connection without running a pipeline too long?
- **Answer – Colleen Rizzi:** I don't believe that going into the Quabbin aqueduct would be an option; that's meant to be a transition between the two reservoirs. We do have the Chicopee Valley Aqueduct (CVA), which heads south. One of the main questions in the feasibility study is where to tap into and what makes the most sense. Cost is also a major factor.
- **Comments – Paul Lauenstein:** Out of the 300 MGD of safe yield, releasing 50 MGD or 100 MGD, whatever is left after human use also has value. The Swift River is one of the premier trout fisheries in the state, and if we take all the water, we're jeopardizing that. Also, in regard to climate change, wetlands are very effective in sequestering carbon. When you lower the flow of the river, you're also depriving the riparian wetlands of water. The benefits of human use vs. environmental use should be considered. It's not necessarily a 1-to-1 trade-off since there's the potential for water conservation.
- **Answer – Colleen Rizzi:** We don't want to push up against the safe yield as water demands continue to decrease.
- **Question – Bill Kiley:** It seems that water main breaks have been more frequent lately. Are you predicting what that could mean for consumption?
- **Answer – Steve Estes-Smargiassi:** Doesn't agree with Bill's belief that there have been more breaks lately. The city of Boston has one of the lowest break frequencies of large systems within the country.
- **Question – Lexi Dewey:** Any updates on the MWRA's Comments on the EOEEA Forestry Report?
- **Answer – Steve Estes-Smargiassi:** The MWRA's comments on the Forestry Report were very similar to the draft comments. The MWRA pointed out the importance of the forest as a long-term resilient portion of our Watershed Protection Program. They also pointed out the consequences of failing to satisfy the state and federal regulators that we have an adequate protection plan in place. They will also be engaged with DCR staff as they go through responding to the requests that the report is likely to make.
- **Question – Lexi Dewey:** Are the filtration avoidance DEP reports available?
- **Answer – Steve Estes-Smargiassi:** These documents are not on the website, but they are all public documents. They review all eleven criteria on an annual basis and always have a list of items they want the MWRA to follow up on. They've been interested in forestry, public access, and staffing. If Lexi were to send an email, he would be happy to do so.
- **Comments – Lexi Dewey:** Inquired about all the WSCAC members having those reports.
- **Answer – Steve Estes-Smargiassi:** Have her send an email.

II. MWRA Advisory Board Briefs - Matthew Romero

- The MWRA Advisory Board's Executive Director, Matthew Romero, introduced the new Research and Policy Analyst, Christine Bennett. She is taking the lead on looking into the recent recommendations

issued by the Climate Forestry Committee from the Advisory Board's perspective. The MWRA Advisory Board anticipates that it will be a big policy discussion and recommendation this year. She will also be taking on the role that James Guiod used to fill representing the Advisory Board at WSCAC meetings.

- **Christine Bennett** – She is very pleased to have joined the Advisory Board and looks forward to getting to know WSCAC better. Christine Bennett is an economist by training but pursued a Master's degree in resource economics. Her interest has been throughout her career in the natural environment and also cost-benefit analysis. The past fourteen years of her career have been focused on land conservation, working for local land trusts and larger regional landscape initiatives. She lives in Elliot, Maine, and has been very active working with municipalities, specifically her local planning board, as well as with the Maine Municipal Association, tracking legislation on behalf of municipalities.
- This Wednesday, there will be an off-cycle meeting of the Water Supply Protection Trust to address a critical issue that has come up. After some of the most recent wet weather events, the roof of the Quabbin administration building was found to be in worse condition than previously thought. The condition has been deemed bad enough that if it is not fixed immediately, it could cause significant damage to the building. The MWRA currently has a Continuous Improvement Program (CIP). Still, this project will not begin construction until FY26, and the roof will not allow the building to remain unattended for that long. The Advisory Board will need to begin discussing moving that emergency repair into the division's work plan so that the repairs can be completed promptly. After this off-cycle meeting, the Advisory Board will return to its regular schedule for a budget hearing the following month.
- Thank you for demonstrating flexibility in rescheduling the joint meeting for the proposed Current Expense Budget (CEB). The MWRA had to move its meeting to the 21st, and they cannot present their CEB to the Advisory Board or WSCAC until the Board of Directors has voted to approve it and normally transmit it to the Advisory Board for its annual review. The joint meeting will now be on March 21st.
- Debt Service Assistance: In last month's briefs, it was mentioned that the governor had used her 9C authority to cut it from the FY24 budget. Unfortunately, given the economic outlook, considering some of the other line items that were also cut and the very high level of effort that would need to be taken to override that action, it's pretty much a done deal for this fiscal year. The Advisory Board will now look to FY25 to suggest changes. From the rate perspective, the MWRA does not assume that it will receive debt service assistance but wait until the money is actually received. In FY23, the MWRA did receive debt service assistance and still has a line of about 1.1 million.
- Retail Rate Survey: Something that fell behind after the passing of James Guiod was the Retail Rate Survey, on which he was the project lead. Fortunately, now that the Advisory Board has additional staff, they are moving forward, even if they are behind their usual schedule. The MWRA Advisory Board's summer intern was kind enough to come back and take a look through James Guiod's files and point them to the most up-to-date information that she could find. Nathan Cote is now beginning to crunch the numbers and is looking at how best to get the information out. Due to the timing, they are now prioritizing MWRA communities' data to help them as they begin to set their water and sewer rates.
 - **Question – Andreae Downs:** Is it more effective for the MWRA to allocate Debt Service Assistance towards rate relief or to put it towards defeasance?
 - **Answer – Matthew Romero:** The Advisory Board strongly feels that it should go towards rates relief, which feels more urgent and strategic to the legislator. The MWRA already has a very robust defeasance plan.
 - **Question – Lexi Dewey:** Is there an update on the New Salem building? Matt's comments on the EOEEA Forestry report?
 - **Answer – Matthew Romero:** You can find the Advisory Board's Forestry Report Comments on their website. They are pretty consistent with their draft comments and very much aligned with the DCRs and the BWSP's positions. They believe in a carefully considered and deliberately limited active forestry management plan in the watershed, which leads to a more diverse and robust forest as well as higher water quality.

- **Comments – Paul Lauenstein:** He welcomed Christine Bennet. He appreciates the Rate Survey of the Advisory Board; it provides much-needed context to water rates in many people's hometowns. Almost all of the MWRA communities are ascending block water rates, which creates an incentive to conserve water. This likely has something to do with the progress in water conservation in the MWRA communities, and thanks to the Advisory Board for doing that.
- **Answer – Matthew Romero:** Something to note about last year's survey: James Guiod and an assistant expanded the data they had collected to include pretty much all the MWRA communities in the Commonwealth. The data set is large and will likely not be ready for a while, but if WSCAC needs it, Nathan Cote could pull some data from WSCAC communities for WSCAC review.

III. WSCAC: Vote on January 9th meeting Minutes - Paul Lauenstein

- Bruce Spencer made the motion to approve the minutes
- Bill Kiley seconded the motion
- All in favor, voted unanimously

IV. WSCAC Report - Moussa Siri and Paul Lauenstein

- a. WSCAC Comments on Climate Forestry Report
 - i. WSCAC received comments from some members, and the final document was shared with all members. WSCAC received some feedback from the MWRA executive director, Fred Laskey, who was pleased by how thoughtful the comments were. Moussa Siri also received feedback from chief forester Ken Canfield, who found the comments useful and shared them with his foresters. Moussa Siri thanked those who contributed and encouraged all members to write comments next time.
 - b. WSCAC membership applications and feedback from our meeting with Steve Estes-Smargiassi on member recruitment
 - i. Moussa Siri announced that Michael Baram has decided to retire from his WSCAC membership. It was a pleasure having him, and he has brought much-needed contributions to the committee. He also wanted to acknowledge that Stephen Estes-Smargiassi and Janet Rothrock have been working hard to recruit new members, and he wanted to thank Janet specifically for bringing Paul Rybicki to WSCAC's attention. WSCAC will be working directly with the MWRA on member recruitment in the future.
- **Question – Bill Fadden:** Is WSCAC still looking for recruitment for new members?
 - **Answer – Moussa Siri:** Yes. If WSCAC members know anyone interested, please let that be known.
 - **Comments – Bruce Spencer:** Several WSCAC members documented what they saw in timber sales on the Quabbin and put together a report that didn't go anywhere. The land management plan is very specific about increasing diversity in the forest, but WSCAC members did not see that plan being successfully carried out in Lot 202. Since the head forester said the DCR was seeing diversity, it would be helpful for them to show WSCAC members where that is happening, especially in areas that aren't accessible to the public, like the Prescott Peninsula or deeper areas in Petersham.
 - **Answer – Moussa Siri:** There is a meeting scheduled in May where WSCAC can talk directly with staff from the DCR. A benefit of being in WSCAC is being able to give comments to the Board of Directors, of which the EEA Secretary is the chair.
 - **Comments – Paul Lauenstein:** Echoing what Bruce Spencer said, WSCAC is most concerned about the water supply, and the forests purify our water, sequester carbon, and contribute in terms of ecosystem services by providing habitat for wildlife. There are about 150 moose around the Quabbin, which is heartening. He looks forward to the meeting in May to talk about WSCAC's priorities and to see how the DCR's stated mission aligns with its current practices.
 - **Comments – Andreae Downs:** John Scannell, Director of Water Supply Protection, will present at an Advisory Board meeting next week. WSCAC members can attend and pose questions.

- c. **Moussa Siri** – Drought Task Force Meeting feedback
 - i. There is an improvement in rainfall on Massachusetts islands; groundwater is still below the ideal level. <https://www.mass.gov/doc/january-9-2024-dcr-dmtf-summary/download>

V. WAC Briefs – Andreae Downs

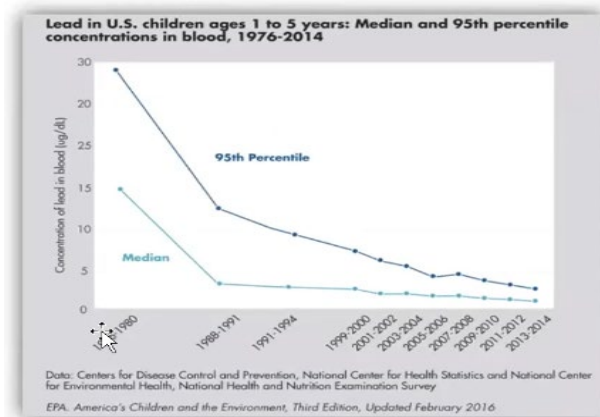
- a. Support request from Andreae about the wipes bill (Andreae)
 - WAC hasn't met since the last joint meeting. The wipes bill is just about labeling, not banning, although industries are already pushing back. Now is the time to reach out to representatives.
 - **Question – Paul Lauenstein:** Could Andreae send out another email with the Bill name and number?
 - **Answer – Andreae Downs:** Yes.

VI. Steve Estes-Smargiassi, Director of Regional Planning and Sustainability, MWRA, Lead and Copper rule changes and updates.

Two separate topics in one presentation:

- ✚ **The Lead and Copper Rule Changes that would impact MWRA and its communities**
- ✚ **Exploration of data analysis Results**

- **LCR Improvements – It's Been a Long and Torturous Road**
 - These Revisions Have Been Under Development since 2004
 - National Drinking Water Advisory Council Recommendations – December 2015
 - Draft LCR Revisions – October 2019; Final LCRR – January 2021; Final – December 2021
 - Compliance with LCRR – October 16, 2024
 - LCR Improvements – December 2023
 - Expected Final LCRI – October 2024



- **Public Water Suppliers – Protecting Public Health**
 - Managing the Risk of Lead in Water is a Shared Responsibility
 - Our Goal is public health protection
 - Long Term Goals: Reduce lead corrosion and remove lead from contact with our water
- **Major Changes**
 - Remove all lead service lines (including GRR) in 10 Years
 - Lowers Action Level to 10 ppb (from 15); Eliminates Trigger Level
 - Use higher of 1st and 5th Liter sample for 90th (LSL sites)

- Must document any legal barriers to replacing LSL
- Connectors added to Inventory Requirements
- Additional requirements for systems frequently over AL
- Many more outreach activities
- Incentives to replace LSL in 5 years – can defer changes to corrosion control

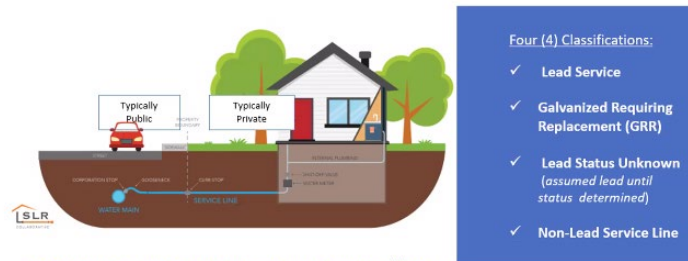
- **Complicated Compliance Schedule**

- “For the LCRI, EPA is proposing a compliance date of three years after promulgation of a final rule and is proposing that systems continue to comply with the LCR until that date, with the exception of the:
 - LCRR initial LSL inventory,
 - Notification of service line material, associated reporting requirements, and
 - The requirement for Tier 1 public notification for a lead action level exceedance...”
- Other aspects of LCRR deferred until the LCRI compliance date



LCRR Service Line Inventory

Must identify both Public side and Private side pipe material.

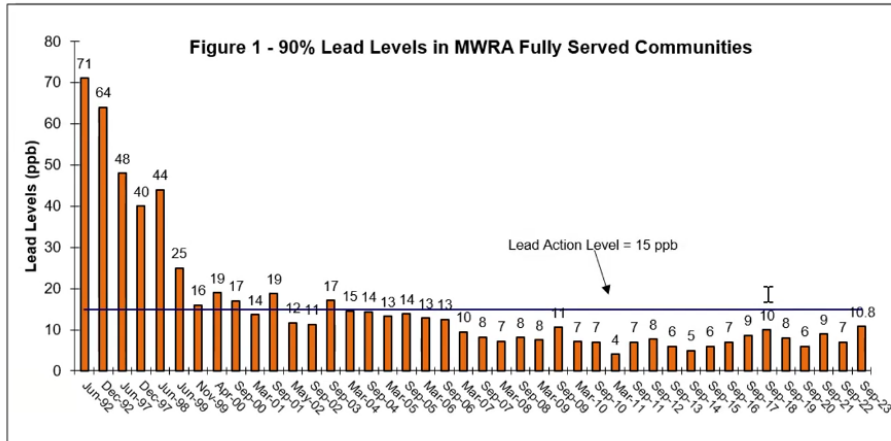


If a Galvanized service line is or ever was downstream of a Lead or Unknown = Galvanized Requiring Replacement.

- **Changes to LSL Replacement Plan – Now due October 2027**
- **Outreach and Education Requirements**
- **Monitoring Requirements – After October 2027**

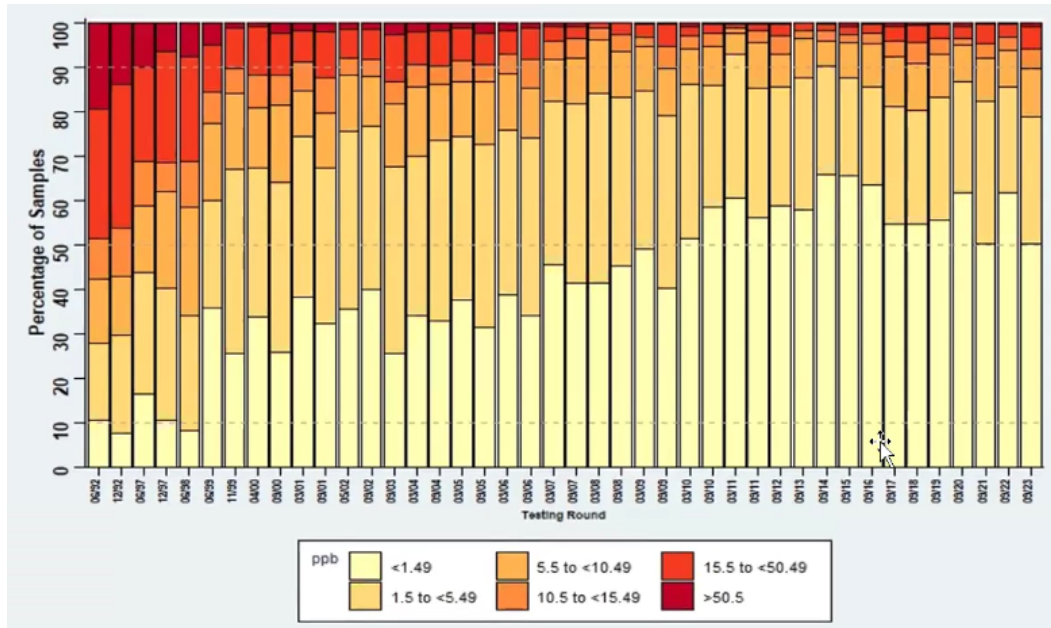
- School and Child Care Facility Sampling – Now Begins After 2027
- New requirements for Systems that Exceed the Action Level
- Flexibility

Note: see the link at the end for full presentation and to learn more



Significant Increase in Samples with Lowest Lead Levels (despite shift in sampling pool)

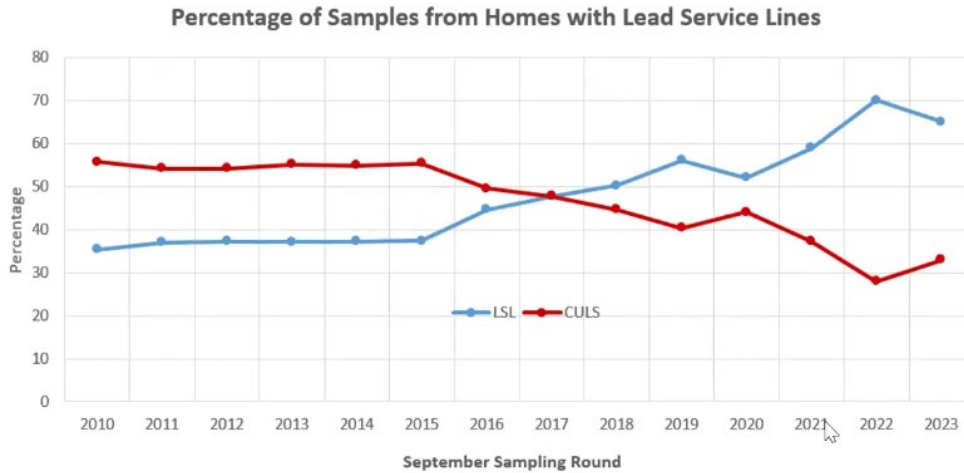




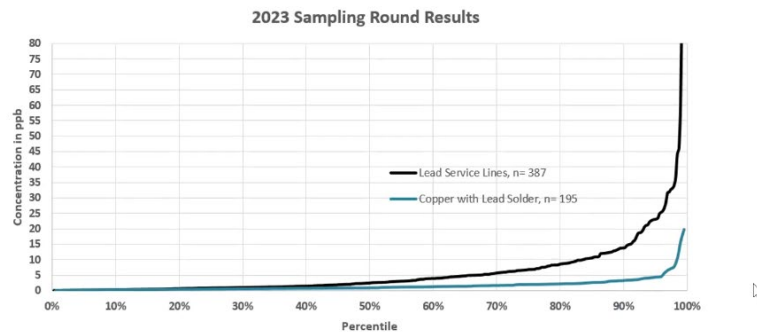
	2015	2016	2017	2018	2019	2020	2021	2022	2023
LTE one ppb	66 %	64 %	55 %	55 %	56 %	62 %	50%	54%	50%
LTE five ppb	87 %	85 %	80 %	79 %	80 %	86 %	82%	84%	79%
LTE ten ppb	95 %	95 %	92 %	90 %	93 %	95 %	92%	94%	90%
LTE fifteen ppb	98 %	98 %	96 %	94 %	96 %	96 %	95%	97%	94%
90 th percentile	6 ppb	7 ppb	9 ppb	10 ppb	8 ppb	6 ppb	8.6 ppb	7.3 ppb	10.8 ppb

- **Distribution and Site Assessment Optimum Water Quality Parameters (OWQP) Sampling**

- 2021 Full Round – 22 sites, all met OWQP limits
 - pH range = 9.3 - 9.7, average = 9.6
 - Alkalinity range = 40 - 42, average = 41 mg/l
- 2022 Spring “repeat round” – 4 sites, all met OWQP limits
 - pH range = 9.6 - 9.8, average = 9.7
 - Alkalinity range = 41 - 42, average = 41.5 mg/l
- 2022 Full Round – 18 sites, all met OWQP limits
 - pH range = 9.3 - 9.6, average = 9.5
 - Alkalinity range = 38 - 41, average = 40 mg/l
- 2023 Full Round – 35 sites, all met OWQP limits
 - pH range = 9.2 - 9.6, average = 9.45
 - Alkalinity range = 41.2 – 43.9, average = 42.3 mg/l
- All regular OWQP sampling taken at the same time as LCR samples met limits



2023 Sampling Results – 10.8 ppb - 65% LSL

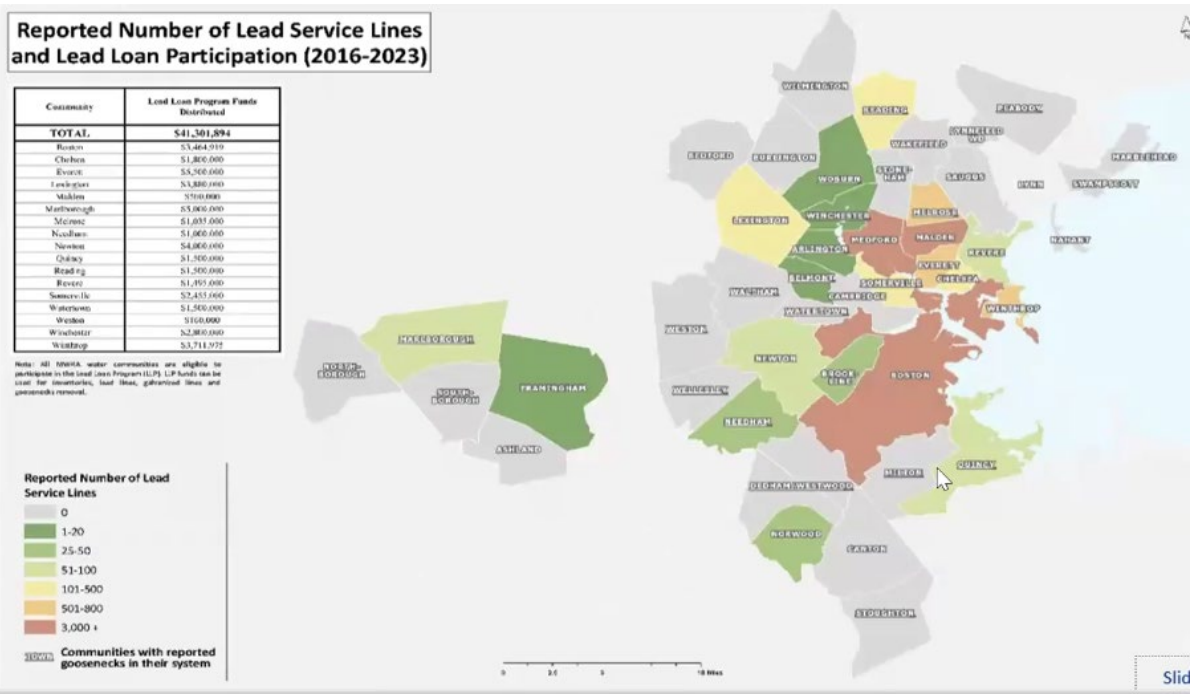


Type	Median	75 th Percentile	90 th Percentile	95 th Percentile	% of Total
LSL	2	7	13	23	65
CULS	1	2	3	4	33

- **Almost all high samples are from sites with lead service lines**
 - In the 2023 sampling round:
 - 35 of 595 samples were over the action level
 - 31 of the 35 were from sites with lead service lines
 - In 2022 sampling round
 - 18 of 595 samples were over the action level
 - 17 of the 18 were from sites with lead service lines

Over past 10 years – vast majority of sites over the AL were LSL (91%)

Action Level = 15		Action Level = 10
1028	Unique sites sampled	1028
101	# over AL	161
92	# that were LSL	147
6	# that were lead solder	9



- **MWRA Lead Loan Program**
 - \$100 Million for community projects
 - 10-year interest-free loans
 - Projects must replace ALL lead pipe within a service line – BOTH public and private portions
 - If any portion of the service is lead or brass, the entire service is eligible for replacement
 - Funding for inventory is an eligible cost
- **MWRA Lead Loan Program - \$41.3 Million to 17 Communities**
 - See the presentation link below for information about these communities

90th Percentile Results Significantly Lower for Non LSL Sites

Year	2018	2019	2020	2021	2022	2023
90th Percentile Full system	10	8	6	9	7	11
90th Percentile Just LSL	12	11	8	13	9	14
90th Percentile Just Lead Solder	3	3	2	3	2	3

Red shows results over proposed new Action Level of 10 ppb

For the complete presentation, check this link: <https://www.mwra.com/monthly/wscac/2024/021324-lead.pdf>

- **Question – Paul Lauenstein:** If lead were absent from Massachusetts's plumbing in an ideal world, would the MWRA still strive for a pH of around 9? If the target pH were lowered to ~8.5 or 8, we could save money on chemicals.
- **Answer – Steve Estes-Smargiassi:** There would need to be a thorough investigation before the MWRA could provide a clear answer to that question. Even after we remove all the lead service lines, there will still be home lead solder in the interior; there will still be old brass, so we still want water to reduce corrosion potential.
- **Question – Paul Rybicki:** In the last 30 years, what is the average percentage of time when the Quabbin has been in spill mode?
- **Answer – Steve Estes-Smargiassi:** If I call the spill around 528, it's not a huge amount. The information can be looked into.
- **Question – Paul Rybicki:** When you're shipping the water from the Quabbin to the Wachusett, is it Quabbin that has slightly higher quality readings?
- **Answer – Steve Estes-Smargiassi:** Quabbin has a detention time of about 5 or 6 years and a lower amount of carbon. Wachusett has a much shorter retention span (about six (6) months).
- **Question – Bruce Spencer:** They used to say that when diverting Quabbin to Wachusett, it would stay in something like a river; is that still the case?
- **Answer – Steve Estes-Smargiassi:** When the Wachusett reservoir is stratified, and the MWRA is making Quabbin transfers, the Quabbin comes in as, essentially, an interflow. It sits on top of the thermocline in a relatively narrow band (layer) across the reservoir, and it shows up at the intake much faster than it would if it were just diluted into the water.
- **Question – William Copithorne:** Is the galvanized pipe still allowed?
- **Answer – Steve Estes-Smargiassi:** It's complicated; simply put, if the public side is LsL and the public side is galvanized, it needs to be replaced. However, if it's all galvanized from the main to the house, it does not need to be replaced.
- **Question – Paul Lauenstein:** Does the amount of water flowing into the Nashua River mostly consist of Wachusett water?
- **Answer – Steve Estes-Smargiassi:** Unsure, but it might actually be mostly Quabbin water flowing into the Nashua.
- **Question – Janet Rothrock:** How do you choose houses to be sampled? Is it by age?
- **Answer – Steve Estes-Smargiassi:** In our region, if a community has LSLs, they are required to sample. They primarily sample single-family homes. If sampling copper, it's if it is fairly recent ('82 to '86 homes). Apartment complexes are less likely to have LSLs. It's always a good idea to use fresh vs. stale water. MWRA advises not to make formula in the middle of the night. The new rule requires buyers to know if they are buying a house with LSLs or if they do not know the material. Inventories need to be publicly available. It's very rare to have lead pipes within houses, more so in LSLs.

Note: The meeting ended abruptly due to technical difficulties after Steve Estes-Smargiassi's presentation. Members agreed to adjournment outside of the meeting as there was no other business.