



THE COMMONWEALTH OF MASSACHUSETTS  
WATER RESOURCES COMMISSION  
100 CAMBRIDGE STREET, BOSTON MA 02114

**Meeting Minutes for July 11, 2024**

Meeting conducted remotely via Zoom meeting platform, 1:00 p.m.

*Minutes approved October 10, 2024*

**Members in Attendance:**

Vandana Rao	Designee, Executive Office of Energy and Environmental Affairs (EEA)
Chris Kluchman	Designee, Executive Office of Housing and Livable Communities (EOHLC)
Duane LeVangie	Designee, Department of Environmental Protection (MassDEP)
Tyler Soleau	Designee, Massachusetts Office of Coastal Zone Management (CZM)
Anne Carroll	Designee, Department of Conservation and Recreation (DCR)
Todd Richards	Designee, Department of Fish and Game (DFG)
Sarah Miller	Designee, Department of Agricultural Resources (DAR)
Thomas Cambareri	Public Member
Christine Hatch	Public Member
Kenneth Weismantel	Public Member
Samantha Woods	Public Member

**Members Absent:**

Vincent Ragucci	Public Member
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**Others in Attendance:**

Aaron Kaczowka	MassDEP	Kate Bentsen	DFG, DER
Alex Strysky	MEPA	Katharine Lange	Mass Rivers Alliance
Amanda Mcleod	DPU	Kathleen Baskin	MassDEP
Amita Naik	MassDEP	Katie Paight	DCR FHMP
Andreae Downs	WAC	Katie Ronan	MWRA
Andrew Fowler	MassDEP	Kenneth Peterson	DPL
Antonia Massinger	MassDEP	Kerry Reed	Hopkinton DPW
Areeg Abd-Alla	MassDEP	Kevin Pelosky	DFW
Belinda Stansbury	MassDEP	Lisa Dallaire	MassDEP
Caitlin Spence	EEA Office of Climate Science	Lisa Jordan	MassDEP
Caleb Slater	DFG, DFW	Lori Foley	MWRA
Capria Curtin	MassDEP	Marcel Belaval	USGS
Caredwen Foley	OTA	Mark Stinson	MassDEP
Caroline Anderson	Mass DCR	Marnie Spadoni	MassDEP
Catherine Skiba	MassDEP	Martha Grover	EEA
Christos Saledas	MassDEP	McKayla Olig	MassDEP
Colleen Rizzi	MWRA	Meaghan Olejarz	DEP
Danielle Mucciarone	MassDEP	Michelle Morris	MassDEP
David Hilgeman	MassDEP	Mike Delaney	MassDEP
David Wong	MassDEP	Moussa Siri	WSCAC
Denise Ellis-Hibbett	MWRA	Nadia Madden	DCR FHMP
Drew Grenier	MassDEP	Natalie Johnson	MassDEP

Earl Todd	MassDEP	Nichola Meserve	MA DMF
Edwin Sumargo	EEA	Nick Shuler	MassDEP
Ella Regan	Mass DEP	Nicole Galambos	MassDEP
Ellen Douglas	AECOM	Nicole Moody	MassDEP
Elliott Jacobs	MassDEP	Nicolina Fraietta	MassDEP
Emily Blumsack	MassDEP	Nishaila Porter	MassDEP
Emily Luksha	MA DPU	Paul E. Osborne	DPU
Emily Wilcox	MassDEP	Paul Lopes	MA DER
Erin Graham	MA OWR	Paula Caron	MassDEP
Gerard Martin	MassDEP	Peter Richards	MassDEP
Greg Braun	MassDEP	Purvi Pate	EEA
Hannah Wait	DCR	Rachel Stevens	MassDEP
Hillary Monahan	MWRA	Rama Pulicharla	MassDEP
Hillary Siener	DCR	Rebecca Weidman	MWRA
Holly Brown	MassDEP	Rebekah Lacey	MassDEP
Jacqueline Brabants	MassDEP	Sage Grace	MassDEP
James Laughlin	MassDEP	Sara Wolanski	MassDEP
Jason Brown	MassDEP	Sarah Miller	MDAR
Jason Duff	DCR OWR	Sefatia Romeo Theken	DFG
Jason Perry	MassDEP	Shelda Dewitt	DEP
jeffrey gould	MassDEP	Shi Chen	MassDEP
Jennifer Durso	MassDEP	Tara Manno	MassDEP
Jennifer Hughes	MassDEP	Taylor Perrodin	DEP
Jennifer McGuinness	DCR ONR	Tayo Akinbola	MassDEP
Jennifer Pederson	MWWA	Tenzin Lama	MassDEP
Jennifer Wood	MassDEP	Tiffany Duhl	MassDEP
Jessica November	DCR WSP	Timothy Fox	MassDEP
Joan Pierce	DFG	Timothy Mcglinchy	CMMCP
Joanne Zygmunt	Old Colony Planning Council	Toni Stewart	DCR
John Scannell	DCR	Vanessa Curran	DCR OWR
Joshua Freniere	DFG, DER	Viki Zoltay	OWR
joshua Wood	MassDEP	Vivian Wells	DCR
Julie Hutcheson	MassDEP	W. Jay Lee	DPU
Julie Sullivan	MWRA	Wayne Castonguay	DMF
Justin Guerra	DCR	William Schwartz	MassDEP
Kaley Fournier	MassDEP	Yvonne Jones	DCR
Kaley Towns	MassDEP	Zoe Mitchell	DOER
Kari Sasportas	OTA		

Rao called the meeting to order at 1:04 p.m.

**Agenda Item #1: Welcome and Introductions**

Rao introduced herself, welcomed attendees, and reminded attendees to put their name and affiliation in the chat for the meeting minutes. A roll call of members in attendance was taken by Duff; a quorum was present. Rao mentioned that the meeting was being recorded for the purposes of the meeting minutes. She reminded attendees that Water Resource Commissioners

have the first opportunity to ask questions and discuss agenda items, after which members of the public could do so. She asked attendees to use the chat for any questions or comments.

**Agenda Item #2: Executive Director's Report**

Rao called attention to the contents of the meeting packet. This included the agenda, minutes from the April Meeting, quarterly report with project updates, and several letters that were submitted on various MEPA projects on behalf of the Commission. As the Commission is the coordinating body of the National Flood Insurance Program in MA, most of the letters are for projects located in the 100-year floodplain and comments are related to regulatory requirements located in both the State Building Code and in the Code of Federal Regulations. Rao noted that letters submitted moving forward will be shared in a timely manner with Commissioners.

Also in the meeting packet was the Interbasin Transfer Act and Regulations review status. It was noted that there are several ongoing conversations with project applications, including one with the Town of Littleton, which has a public hearing scheduled for the coming weeks. The Town of Plainville and the Town of Weymouth are both actively working on their applications. The Town of Groton's Water Department has approached for an application, and staff are currently reviewing for completeness. If complete, it will most likely be added to the Commission's August agenda.

Rao provided an update on ongoing special projects and shared the document "Quarterly Update on WRC Special Projects – July 2024" on the screen. The following updates were provided:

- **Climate-Hydro Risk Study:** This project is currently in phase two where state climate projections are being updated, which includes developing detailed models that will predict climate change and stream flows. This project is with the USGS, Tufts University, and Cornell University.
- **Low-flow Study:** The project is with the USGS. The Commission has received a presentation on this project in the past.
- **Groundwater Flooding Vulnerability Mapping:** This project is in coordination with UMass Amherst. The Commission has received a presentation on this project in the past. The third phase of this project will be soon underway, which includes development of a more dynamic model that will predict groundwater conditions across the Commonwealth. This will help to inform implications for septic tanks and other underground infrastructure.
- **Drivers of Low Flow:** Over the last month, many locations are seeing record low flow even though precipitation is not a record low. This project is investigating what is causing stream flows to be low and includes coordination with the USGS.
- **Monitoring Network Analyses:** Zoltay is leading this project, which will include an interagency group that will work to prioritize a list of where to expand streamflow and groundwater networks. This is in collaboration with USGS who is completing the analysis, and Commission staff will be identifying opportunities to expand the network.
- **National groundwater monitoring network grant work:** This project is intended to replace aging equipment. Strong coordination is ongoing with private property owners, many who may not be aware of the well on their property.

- **Evaluation of lakes and impoundments drought index for the MA drought management plan:** This project will be presented to the Commission in the coming months.
- **Guidance for local water suppliers:** As many communities have local drought management plans, this project is to provide guidance to municipalities for different types of water supply systems. This project is nearing completion and additional information will be shared later this year.
- **Drought retrospective:** This report is nearing completion and additional information will be shared later this year.
- **Updated drought outreach materials:** A native plant app has been developed and is in final stages of development. It is expected to be available later this year.
- **Environmental Justice and Flooding:** The first part of this project is complete, with the second part underway and slated for completion at the end of the current Fiscal Year. The project is assessing vulnerability of 30 cities and 187 EJ areas across the state to flooding. More information will be shared with the Commission in the near future, including information on the community engagement component.
- **State Floodplain Framework:** The Flood Hazard Management Program has been working with other agency staff to develop a State Floodplain framework. This project is still underway, with the next meeting scheduled for August.

Rao mentioned that the ITA performance standards presented at the June meeting are currently open for public comment until July 12, 2024. This deadline will be extended until Wednesday, July 17, 2024 and the final draft will be presented at the August meeting for Commissioner review and vote. Kluchman inquired if a summary of input received would be shared, which will be sent to commissioners prior to the August meeting.

Rao mentioned that the Drought Management Task Force met earlier in the week. Starting in late spring, multiple indices have gone below normal in the Western Region. The Task Force recommended Level 1 – Mild Drought for the Western Region to the Secretary of EEA. This will be announced by the Secretary in a press release.

### **Agenda Item #3: Update: Hydrologic Conditions**

Rao introduced Graham to present the Hydrologic Conditions Report for June 2024.

- **Temperature:** Monthly average temperatures were above normal. According to the Northeast Regional Climate Center (NRCC), Massachusetts had its second warmest June on record.
- **Precipitation:** June regional precipitation was below normal in the Western Region and normal in all other Regions. The Northeast Region was at the low end of normal. The Western Region is at Index Severity Level (ISL) 1 for the 1-mos to 3-mos lookback periods.
- **Snow Cover:** Reported seasonally.
- **Evapotranspiration:** As of June 30, 2024, the 1-month EDDI percentiles were below normal in all Regions i.e. the EDDI index was high. The 2-month EDDI percentiles, which are used in the MA Drought Plan monitoring, were below normal in the Western, CTRV, and Cape Cod Regions, which are at ISL 1, and the Islands Region, which is at ISL 2. The Central, Northeast, and Southeast Regions are normal.

- *Keetch-Byram Drought Index*: The Keetch-Byram Drought Index values were elevated in all Regions except the Southeast and Islands Region at the end of June. The Western, CTRV, and Cape Cod Regions are at ISL 1, and the Central and Northeast Regions are at ISL 2.
- *Streamflow*: The medians of individual stream gages ranged from below normal in the Western, CTRV, Central, and Northeast Regions to above normal in the Southeast and Cape Cod. The Western Region is at ISL 1, and the CTRV median is at the low-end of normal.
- *Flooding*: The Norton/Boston and Albany NWS E-5 Monthly Reports of Hydrologic Conditions did not indicate river flooding at forecast points in Massachusetts during June nor were there any warnings issued for forecast points. There were several weather systems that triggered areal and flash flood warnings June 19<sup>th</sup>, 20<sup>th</sup>, 26<sup>th</sup>. Storm reports of urban flooding occurred on June 21<sup>st</sup> and 26<sup>th</sup>.
- *Groundwater*: Levels of individual wells ranged from below normal to much above normal. Regional medians were all in the normal range.
- *Lakes & Impoundments*: Reported lake and impoundment levels were above their 30th percentile and/or were at or near 100% full except for one system in the Western Region, which is below normal. As a result, the Western Region is at ISL 2.
- *MA Drought status*: The Drought Management Task Force met July 10<sup>th</sup>, which recommended Level 1 for the Western Region. As of this meeting, the Secretary's declaration has not been issued.
- *US Drought Monitor (USDM)*: At the end of June, the USDM showed areas of abnormal dryness in the Western and CTRV Regions. The June 11<sup>th</sup> map introduced D0 to parts of the Western and CTRV Regions. This area expanded June 18<sup>th</sup>, contracted very little next week, which is the map shown in the Hydrologic Conditions Report. The first map in July added some D0 in the Northeast Region, and today's map expanded both areas in the Western and Northeast Regions.
- *NOAA Climate Prediction Center outlooks*: Both the monthly and the seasonal outlooks shows chances likely for above-normal temperatures and chances leaning for above-normal precipitation. Neither the monthly nor the seasonal drought outlooks show drought development.

Cambareri asked about the groundwater levels on Cape Cod. There was a discussion about how to present the groundwater data in the table, especially the high levels. Bentsen suggested adding another column to show how many wells are in the normal range. Staff will consider alternate ways of presenting the data in table.

**Agenda Item #4: Vote on Meeting Minutes, April 2024**

Rao invited a motion to accept the meeting minutes for April 11, 2024.

V O T E	A motion was made by Weismantel with a second by Baskin to approve the meeting minutes for April 11, 2024.
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Kluchman asked if she was allowed to vote despite there being a different designee for EOHLC at the April 11, 2024 meeting. Rao clarified that Kluchman could vote.

**Agenda Item #5: MassDEP PFAS Update**

Rao introduced Kathy Baskin to give an overview of the work that the Bureau of Water Resources at MassDEP is doing on PFAS. The presentation is available online at:

<https://www.mass.gov/info-details/review-the-meetings-of-the-water-resources-commission>.

Highlights of the presentation included:

- Background on PFAS chemicals including the types of products that include these chemicals, how they move through the environment, and why they are such an issue for public health and the environment.
- MassDEP was one of 16 states in the country that developed PFAS standards in advance of EPA. They currently regulate six PFAS chemicals, and they are required to review their regulations every three years to ensure consideration of latest science.
- EPA published national updated drinking water standards in April of 2024. EPA's rules include maximum contaminant levels for individual and combinations of PFAS chemicals. The six that EPA regulates include four that overlap with MassDEP, but there are two that are different. MassDEP is still evaluating how to regulate in comparison to EPA, but they will have to be at least as strict.
- MA currently has approximately 85 public water systems that are currently in the process of updates to treat for PFAS. There will most likely be 90-100 more systems that will have to do upgrades in the near future.
- EPA's schedule includes initial monitoring within three years, and then compliance with MCLs in five years. MassDEP's schedule includes promulgating new regulations at least as stringent as EPA by May 1, 2026.
- EEA publishes public water system water quality testing results at: <https://eeaonline.eea.state.ma.us/Portal/#!/search/drinking-water>
- MassDEP did a study of private wells and found that 95% of wells tested were below the MCL for the sum of the six currently regulated PFAS chemicals. The well owners that were above the MCL were notified.
- PFAS in wastewater residuals are an emerging concern because there are no established land application standards for PFAS. MassDEP does require PFAS testing for residuals that are land applied.
- MassDEP has two ongoing studies: Part 1) focusing on current/near-term sludge and septage disposal, and Part 2) focusing on the future of PFAS management in sludge and wastewater.
- MassDEP has also done studies on PFAS and river water. They found that 43 out of 64 total sites had PFAS6 concentrations greater than 20 ng/l. PFAS24 concentrations were greater than 50 ng/l at 41 out of the 64 sites. A follow up study was conducted to evaluate concentrations in edible portions of fish tissue. All but one waterbody had at least one fish tissue sample with a concentration above DPH's draft action limit of 0.22 ng/g for at least one of the seven PFAS for which DPH issues fish consumption advisories. All surface water concentrations of PFOS and PFOA were well below EPA's draft acute and chronic water column Aquatic Life Ambient Water Quality Criteria values.
- There has been a lot of money available for PFAS remediation through the state revolving fund. To date, \$457 million in loans has been distributed to address PFAS. There is concern

that most of the money is going toward PFAS treatment, despite there being many other things that systems need to address.

Baskin ended by stating that she would be happy to return to talk again about PFAS when more information is available about next steps and when further data is available.

Discussion:

Hatch asked what current technology removes PFAS from drinking water. Baskin explained that there are three accepted technologies: 1) granular activated carbon, 2) resins, and 3) reverse osmosis.

Pulicharla asked if the PWS PFAS results would be re-evaluated based on the new EPA regulations. Baskin replied that they have done that already and notified the potentially affected suppliers.

Downs asked about the environmental cost of incineration and exporting residuals. Baskin responded that there is a huge impact on the environment and public health. The EPA has said there is no safe level of PFOA and PFOS. The MCL goal is "0" for both. The health advisories for these chemicals are also below levels that are currently able to be measured. She reiterated that PFAS are not just in drinking water but are in many other consumer products.

Manno asked if higher levels of PFAS are found in wastewater or dewatered residuals, and if sludge is filtered before being dewatered. Baskin said that dewatering is typically done before sludge gets transported. MWRA has a facility that creates pellets out of sludge, for example. There is also an anaerobic digestion plant planned for Fitchburg to reduce the volume of sludge. Pollutants are technically filtered during the primary and secondary treatment of the wastewater prior to sludge being formed.

Foley asked when the sludge is dewatered, how is the resulting water treated, since especially short-chain PFAS will remain in the water? Baskin replied that the water would probably go back into the treatment plant. There is no requirement for PFAS removal from wastewater sludge or effluent.

Woods commented that this was one of the best overviews of the PFAS issue that she has seen and thanked Baskin for presenting. She asked to what extent are the manufacturers who put PFAS into the environment going to be held accountable financially for helping to remediate the issue. Baskin agreed that this is a really important question and that the manufacturers should be held more accountable. She explained that there is some litigation taking place, but that she has not personally been involved. Baskin also agreed that it is not fair that ratepayers have to pay for the issue that the manufacturers profited from.

Hatch thanked Baskin for her incredibly thorough presentation. She commented that she saw a New Yorker article recently that made her think about the potential for using protein adsorption to treat PFAS.

Cambareri also thanked Baskin for her presentation and for everything MassDEP is doing on PFAS. He provided an update on the Silent Spring study, which involved sampling blood from people in the Hyannis area. Preliminary results indicate high levels of PFAS in residents of this

community. He also commented that in addition to cleaning up PFAS in the environment, there is work that needs to be done to help people who have already been exposed. Lastly, he asked about the posting of surface waters for PFAS concentrations. Baskin answered that MassDEP coordinated with Mass Wildlife and other partners during their studies, but that DPH makes the decisions for posting. She also explained that DPH regulates bottled water and uses MassDEP's drinking water standard. She commented on Cambareri's experience with the Silent Spring study and stated that Westfield residents have also been found to have high levels of PFAS in blood serum. She also provided an anecdote about a farmer she met who had high levels of PFAS who is now an informed activist and suggested that more work needs to be done to assess the full impact for people and the environment.

Weismantel asked what private wells should be doing to remediate PFAS. Hopkinton has subdivisions that have many homes that are likely in a plume from an old firefighting testing area. He said people are being directed to not test for PFAS because then they may have to disclose it if they sell their house. Baskin answered that there are a couple of types of treatment for homes. One is a point of entry system, which treats the water where the water is coming into the house and is more expensive. There is also point of use treatment, which just treats at certain places inside of homes and is less expensive. Britta filters and similar products also are supposed to be able to remove PFAS. She said it is not clear which systems are the best for treatment, but residents might be better off to do something to treat. She agreed that it is also unclear how this issue is going to affect property values if testing of private wells becomes more regular, and suggested Hopkinton look into the "small and disadvantaged communities" grant program for infrastructure costs to connect to a public water system.

Woods asked if there has been any data collected on saltwater fish. Baskin responded that DMF has done shellfish monitoring and there may be advisories through DPH. MassDEP has proposed a FY25 project to do testing for marine waters and marine fisheries for PFAS, but they have not yet received their capital budget.

Lange asked if MassDEP is interested in doing further studies on aquatic life. Baskin said they are looking toward EPA's leadership because determining what concentration of PFAS affects aquatic life is very difficult.

Castonguay asked if MassDEP can help with the effort to connect communities struggling with PFAS to MWRA to prevent wasting public dollars. Baskin answered that the cost comparison would need to be done to determine if that money was really being wasted because someone would have to pay for either option. She agreed that it is reassuring to have a clean water supply owned by the Commonwealth that comes through the MWRA system as an option, and that it is also reassuring to have great engineers that can design treatment plant upgrades and neighboring communities that have PFAS-free water as additional options.

Sasportas commented that many PFAS are covered under the MA Toxic Use Reduction Act, and that PFAS tracking and reporting for certain manufacturers covered under the Act are listed here: <https://www.mass.gov/doc/pfas-tracking-and-reporting-under-tri-and-tura/download>.

Pederson provided an anecdote that she had PFAS treatment installed at her house because she has a private well and explained that she has to change out the filter once per year. She also said



that the system is fairly complicated and has costs associated with it, so although she doesn't have a water bill, she is still paying for access to clean water.

Hatch suggested that DPH do a presentation at a future meeting to give their perspective and regulatory work on PFAS.

Rao thanked Baskin for her great presentation and for everything MassDEP is doing to help communities and individuals handle the PFAS issue. There were no other questions or comments.

Rao asked for a motion to adjourn the meeting.

V O T E	A motion was made by Weismantel with a second by Woods to adjourn the meeting.
	The roll-call vote to adjourn was unanimous of those present.

Meeting adjourned, 3:07 p.m.

**Documents or Exhibits Used at Meeting:**

1. WRC Meeting Minutes: April 11, 2024
2. Quarterly Update on WRC Special Projects
3. Notice of Public Hearings Relating to the Interbasin Transfer Application for the Littleton Electric Light and Water Department's Proposal for a Water Supply Connection with Boxborough
4. Notice of Receipt of a Request from the Groton Water Department for Determination of Insignificance under the Interbasin Transfer Act, MGL Chapter 21 Sections 8b-8d
5. Correspondence dated June 21, 2024 from the WRC to MEPA regarding the Notice of Project Change/Draft Environmental Impact Report (NPS/DEIR) for the Reservoir Dam Water Storage and Fish Passage Improvements Project in the Town of Scituate
6. Correspondence dated June 7, 2024 from the WRC to MEPA regarding the Single Environmental Impact Report (Single EIR) for Horn Pond Brook and Fish Passage Project in the City of Woburn
7. Correspondence dated June 7, 2024 from the WRC to MEPA regarding the Single Environmental Impact Report (Single EIR) for Shaker Glen Extension Floodplain Improvement Project in the City of Woburn
8. Correspondence dated February 9, 2024 from the WRC to MEPA regarding the Expanded Environmental Notification Form (EENF) for the Providence Pier Hotel in Provincetown
9. Correspondence dated March 14, 2024 from the WRC to MEPA regarding the Environmental Notification Form (ENF) for Crowley Road Wellfield in the Town of Sterling
10. Correspondence dated April 8, 2024 from the WRC to MEPA regarding the Expanded Environmental Notification Form (EENF) for 125 Union Street Chick-Fil-A and Brookline Bank in the Town of Braintree
11. Correspondence dated June 7, 2024 from the WRC to MEPA regarding the Expanded Environmental Notification Form (EENF) for Meadow Brook Channel Improvements Project in the Town of Norwood

12. Correspondence dated June 7, 2024 from the WRC to MEPA regarding the Expanded Environmental Notification Form (EENF) for the Charles River Dam Decommissioning and River Restoration Project in the Town of Natick
13. Correspondence dated March 14, 2024 from the WRC to MEPA regarding the Notice of Project Change (NPC) for the 2 Harbor/Building 2 project in Boston
14. Interbasin Transfer Act project status report, June 27, 2024
15. Hydrologic Conditions in Massachusetts, June 2024 (available at <https://www.mass.gov/doc/2024-june-hydrologic-conditions/download>)

*Compiled by: WRC staff*

*Agendas, minutes, and other documents are available on the web site of the Water Resources Commission at <https://www.mass.gov/water-resources-commission-meetings>. All other meeting documents are available by request to WRC staff at 10 Park Plaza, Suite 6620, Boston, MA 02116.*