



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

Meeting Minutes for April 11, 2024

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

Minutes approved July 11, 2024

Members in Attendance:

Vandana Rao	Designee, Executive Office of Energy and Environmental Affairs (EEA)
Kathy Baskin	Designee, Department of Environmental Protection (MassDEP) replaced by Duane LeVangie at 1:30 PM
John Scannell	Designee, Department of Conservation and Recreation (DCR)
Becca George	Designee, Executive Office of Housing and Livable Communities (EOHLC)
Todd Richards	Designee, Department of Fish and Game (DFG)
Tyler Soleau	Designee, Office of Coastal Zone Management (CZM)
Hotze Wijnja	Designee, Department of Agricultural Resources (DAR)
Christine Hatch	Public Member
Kenneth Weismantel	Public Member
Samantha Woods	Public Member
Vincent Ragucci	Public Member
Thomas Cambareri	Public Member

Others in Attendance:

Abigail Anderson	MassDEP	David Butler	MassDEP
Aimee Graeber	DCR	David Hilgeman	MassDEP
Albelee Haque	MassDEP	Dominique Pahlavan	EEA
Alex Silveri	Kleinfelder	Elizabeth Lee	MassDEP
Andreae Downs	Wastewater Advisory Committee	Emily Wilcox	MassDEP
Andrew Brolowski	MassDEP	Erin Graham	DCR OWR
Andrew Fowler	MassDEP	Hillary King	EEA
Anne Donovan	CZM	Hong-Hanh Chu	EEA
Balakrishnan	Sustainable Solutions	Jason Duff	DCR OWR
Balachandran	Lab, UMass Boston	Jennifer Durso	MassDEP
Becca George	EOHLC	Jennifer Pederson	MWWA
Bonnie Heiple	MassDEP	Jim Hartnett	Town of Westport
Caitlin Spence	EEA	John Scannell	DCR
Cayla Paulding	MassDEP	Joy Duperault	DCR FHMP
Christian Pasichny	MassDEP	Julia Knisel	CZM
Christina Wu	MassDEP	Justin Guerra	DCR
Colleen Rizzi	MWRA	Kara Runsten	EEA
Conrad Crawford	DFG	Kara Sliwoski	DCR OWR
Daniel Crocker	DCR DWSP	Karen Wong	MassDEP
Danielle Desmarais	RCAP Solutions	Kate Bentsen	DER
Danilo Morales	DOER	Katharine Lange	Mass Rivers
Darya Mattes	DCS	Kathleen Baskin	MassDEP
		Katie Paight	DCR FHMP

Kristen Weir	DCR	Read Porter	EEA
Loni Fournier	DCR	Rebecca Quinones	MDFW
Lyn Watts	UMass Amherst	Robert Kearns	DER
Malcolm Harper	MassDEP	Robyn Gibson	R.E.G. Solutions
Margot Mansfield	CZM	Sara Cohen	DCR OWR
Martin Pillsbury	MAPC	Sarah Bower	MassDEP
Mia Mansfield	EEA	Sarah White	DCR
Moussa Siri	Water Supply Citizens Advisory Committee	Tara Manno	MassDEP
Nadia Madden	DCR FHMP	Tessa Dassatti	DCR
Nicholas Moreno	MEPA	Timothie Biggs	DCR
Nishaila Porter	MassDEP	Vandana Rao	EEA
Paul Barlow	USGS	Vanessa Curran	DCR OWR
Pine duBois	Jones River Watershed Association	Viki Zoltay	DCR OWR
Purvi Patel	EEA	Viva Itemere	EEA
		Xingmei Liu	MassDEP

Rao called the meeting to order at 1:05 p.m.

Agenda Item #1: Welcome and Introductions

Rao introduced herself, welcomed attendees, mentioned the meeting was being recorded for the purpose of the meeting minutes, reminded all to put their name and affiliation in the chat for the meeting minutes, and to use the chat for any questions. She reminded everyone that Water Resource Commissioners will get the first opportunity to ask questions and discuss, followed by members of the public. A roll call of members in attendance was taken by Cohen; a quorum was present.

Agenda Item #2: Executive Director's Report

Rao reviewed the materials that were provided in the meeting packet. The agenda, January meeting minutes, a quarterly update on WRC special projects, the Westport staff recommendation, other interbasin transfer project updates, information about the ongoing groundwater flooding survey, and links to DEP 319 grant funding information were provided.

April 20th is Earth Day, with many events occurring across the state. The Massachusetts Environmental Trust is now under Rao's oversight. The MET program will be celebrating Right Whale Day on April 24, 2024 with an event at the New England Aquarium. It will commemorate the second anniversary of Right Whale Day and 30 years of the right whale license plate, which was the first Registry of Motor Vehicles' specialty plate.

The June WRC meeting will be held in person in either Southborough or Westborough. It is anticipated to have a field trip component and also likely start earlier than 1:00 pm. More details will be provided in the coming weeks. Commissioners were asked to send any requests for discussion topics to Rao. Rao introduced Purvi Patel as Assistant Director of Water Policy at EEA and welcomed her to the team.

An agenda change swapping agenda items 6 and 7 was noted for attendees. Rao invited Commissioners to provide any updates or announcements.

Richards said that MassWildlife is hosting many events for school vacation week, including fish stocking events, with details available on their website. Bentsen added that the culvert replacement municipal assistance grant closes tomorrow (April 12, 2024) at 4:00 pm, and the state also has other open grant opportunities right now.

Pederson wrote in the chat that EPA released its new PFAS standards. Baskin added that MassDEP would be happy to present on this topic soon, but is currently reviewing the final rule. Four of the 6 PFAS compounds overlap between MA and EPA standards, so MassDEP needs to determine how to handle the other 2. Both standards are in effect at this time. EPA also announced a grant program for emerging contaminants for small and disadvantaged public water systems. When MassDEP revises its PFAS regulations they will have to be at least as strict as the federal government. MassDEP has also required for itself a triennial review of the science around PFAS. Other sectors aside from drinking water could be affected such as waste site cleanup, wastewater, wastewater residuals, and surface water quality standards.

The Drought Management Task Force met on Tuesday. The Islands Region continued to experience traces of a drought and was drier than other parts of the state. The recommendation to the Secretary of EEA was to remove Level 1 mild drought from the Islands.

Agenda Item #3: Update: Hydrologic Conditions

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

- *Temperature*: Monthly average temperatures were above normal. According to the Northeast Regional Climate Center (NRCC), Massachusetts had its 9th warmest March on record. An average temperature map was added to the March report per a request at the previous meeting.
- *Precipitation*: was above normal. According to the NRCC, Massachusetts had its 3rd wettest March on record.
- *Snow Cover*: There was minimal snow cover remaining at the end of March in the western part of the state.
- *Evapotranspiration*: not reported during the winter season
- *Keetch-Byram Drought Index*: not reported during the winter season
- *Streamflow*: was above normal across the state except one gage in the Cape Cod Region that was below normal. The time series showed storm systems early in the month, 7th and 10th, and then later in the month, 22nd and 27th.
- *Flooding*: Overall March was a very wet month and, with streamflows already in the normal to above-normal range, there were three storms that resulted in flood warnings and three forecast points reaching flood stage.
- *Groundwater*: Groundwater levels ranged from below normal to above normal. Regional medians were normal to above normal except for the Islands Region, which was Index Severity Level 1. Although the well on Nantucket is improving, it has not fully recovered.
- *Lakes & Impoundments*: above their 30th percentile and/or were at or near 100% full. The Quabbin's upper spillway started spilling in early March.
- *Drought status*: The press release is expected today with the latest declaration for the Islands Region, which will likely be Level 0 Normal Conditions similar to all the other Regions.

- *US Drought Monitor (USDM)*: At the end of March, the USDM showed D1 Moderate Drought on Nantucket. DO Abnormally Dry was removed from Martha’s Vineyard at the beginning of the month.
- *NOAA Climate Prediction Center outlooks*: For March, the outlook shows chances likely for above-normal temperatures and equal chances for above-normal, normal, or below-normal precipitation. The seasonal outlook March through May shows chances likely for above-normal temperatures, chances leaning for above-normal precipitation in the southern part of the state, and equal chances for above-normal, normal, or below-normal precipitation for the northern part of the state. The monthly drought outlook shows drought persisting on Nantucket. The seasonal drought outlook shows drought removal on Nantucket.

Agenda Item #4: Vote: Meeting Minutes, January 2024

V O T E	A motion was made by Weismantel with a second by Hatch to approve the meeting minutes from the January WRC meeting. The roll-call vote to approve was unanimous of those present.
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Agenda Item #5: Presentation and Vote: Staff Recommendation on the Town of Westport’s Request for Determination of Insignificance under the Interbasin Transfer Act

Rao introduced the agenda item and reminded Commissioners that this had been brought before them last month. Some additional visuals were requested at that time which are now included in this presentation. There were also follow-up conversations with Richards who sought additional information from staff, some of which has been provided and more will be provided over the next month. This information does not relate to criteria under Insignificance but rather a longer conversation that will be looked into during the next revision of the ITA regulations. Rao introduced Curran to provide the presentation.

Curran acknowledged that Alex Silveri, the town’s consultant, and Jim Hartnett, the town administrator, are both present and are invited to make comments. Jim Hartnett thanked the staff for working with the town on this project. He noted the extensive work that was put in to find documentation and in completing the application for an insignificant transfer. The need for this water has become a public health issue including PFAS and manganese exceedances. The water will also help the nitrogen impacts and meeting the town’s Total Maximum Daily Load (TMDL) limit for nitrogen.

Curran reviewed the spatial layout of the towns and major basins involved with the project. Westport has a dense concentration of development in the north with septic systems contributing to a nitrogen TMDL regulation and water quality impairments in private wells. The total request is 772,600 gallons per day (gpd) of which about half is jurisdictional. Curran summarized the existing conditions for water and wastewater including an exemption for existing wastewater transfer prior to the ITA. In addition, there are some existing flows that were not brought before the WRC since the passage of the ITA and therefore did not receive WRC approval. These unapproved volumes are included in the total request. Fall River’s water system is sourced from two major basins – the Narragansett and Buzzard Bay Basins – with a total yield

of 18.2 MGD. Curran reviewed Westport's map of existing and proposed water and wastewater system and a diagram of the transfers between the towns and the basins.

Richards expressed his thanks for the diagram of flows and suggested superimposing them on a map next time. Woods asked about the location of the Massachusetts Coastal Basin. Curran explained that it is the ocean which in this case is at the mouth of the Taunton River. Rao added that this delineation is specified in the ITA regulations that any discharge below the mean high tide is considered to discharge into the ocean which is the Massachusetts Coastal Basin. Cambareri asked about the breakout of the demand that was shown. Curran stated that the map shows both residential and commercial areas. The water will ease water quality issues for residential lots and allow for some development of the commercial areas. Cambareri asked specifically about the demand estimate breakout. Curran said that the consultant had done a detailed analysis of the lots that would be served by the water and wastewater services but it is more detail than the Determination of Insignificance examines.

Curran continued by reviewing a summary table of the transfer flows and which are jurisdictional. The total request is 772,600 gpd and the jurisdictional amount is 385,160 gpd. Hatch asked for a definition of bleeding. Curran and Graham explained that the water delivery pipe is a dead-end pipe and the town must release water to keep the water age low and quality high. Woods asked about the exempt quantity of 235,200 gpd and what it was given for. Curran answered that there was documentation of a wastewater transfer in that amount that existed prior to the ITA. Next, Curran reviewed each applicable ITA Insignificance Criteria and how the project meets each criterion. Next steps are to vote today in order to meet the ITA deadline of 90 days for responding to an applicant.

Woods asked about the definition of the 5 percent of drought year inflow threshold. Zoltay explained that drought year inflow is taking the 10th percentile flow for each month over the period of record to create a synthetic dry year. It is a very low flow and the criteria takes five percent of that value. Woods asked about the close proximity of the request relative to the thresholds for Insignificance. Rao noted that applicants sometimes look at the Insignificance thresholds to see if their needs might be under the thresholds and request close to that amount. Hatch also noted the close numbers and emphasized the importance of making sure that criteria are protective enough given that applicants will go up to the threshold. For future reference, staff may want to look at the extremes of floods and droughts and how those thresholds might change. Zoltay noted that it is important to keep the thresholds updated. The precipitation values have been updated and revising the drought year inflow is in progress.

Ragucci thanked Curran for spending time with him last week to catch him up on the presentation done last month that he missed. Weismantel also appreciated the well written and well analyzed Staff Recommendation. He also stated that he was ready to make a motion to approve. Woods asked to confirm that there are no streamflow releases required from the reservoirs. Rao and Curran both said that that was correct Woods would like to see releases being required in future requests even understanding that this was an insignificant volume. Curran noted that for these basins these were the last remaining volumes under Insignificance.

V O T E	A motion was made by Weismantel with a second by Ragucci to approve the Staff Recommendation on the Town of Westport's Request for Determination of Insignificance. The roll-call vote to approve was unanimous of those present.
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Agenda Item #6: Presentation: Development of a Framework for *ResilientCoasts*

Rao introduced Tyler Soleau, Acting Director of CZM, and Julia Knisel, Coastal Shoreline Floodplain Manager of CZM. Soleau explained that the ResilientCoasts initiative was launched by Governor Healy in November 2023 as a holistic strategy for addressing the impacts of climate change along the coastline of Massachusetts. In collaboration with the state's 78 coastal communities, and led by CZM and EEA, the initiative will help to identify regulatory, policy, and funding mechanisms for focused long-term solutions.

Knisel then presented the details of the initiative. The full presentation is available at: <https://www.mass.gov/doc/april-11-2024-wrc-meeting-presentation-development-of-a-framework-for-resilient-coasts/download>

Presentation highlights include:

- Massachusetts was ahead of other states when it released its 2018 State Hazard Mitigation and Climate Adaptation Plan, which was followed in 2019 by the development of the ResilientMass Action Team (RMAT), the entity responsible for implementation, monitoring, and maintenance of the Plan.
- An early initiative of RMAT was the development of the climate resilience design standards tool (2021-2022), which integrates climate change projections into planning and design for infrastructure, buildings, and natural resources.
- The next RMAT effort was the MA Climate Change Assessment (December 2022), which highlighted vulnerabilities to people and ecosystems as well as to infrastructure and neighborhoods in coastal communities. This assessment was the foundation of an update to the State Hazard Mitigation and Climate Adaptation Plan, which was re-branded as the ResilientMass Plan in September 2023.
- ResilientMass identified actions to address the risks to human health and safety, communities, infrastructure, natural resources, governance, and the economy with strategies for equitable coordination with coastal municipalities and other stakeholders.
- ResilientCoasts was launched in November 2023 to guide coastal resilience policy and management, including articulating goals tied to specific metrics that can show progress.
- Government and non-government stakeholder engagement is central to the initiative.
- Equity is central to the community engagement, and the plan allows for paid positions in the form of community-based leaders and organizations who can liaise with communities and community members historically left out of decision-making.
- The initiative will analyze information and identify actions to address the 6 goals of ResilientCoasts. Metrics and indicators will help evaluate progress toward the goals.
- A key element of the initiative is providing useful information to the 78 coastal communities that have current interactions with tidal water *plus 20 additional communities* that will be vulnerable to coastal river flooding by 2070, as a result of coastal storms and climate change. The focus is on resilience planning, including mapping "coastal resilience districts", the areas anticipated to be vulnerable to coastal and tidal river flooding during storm events by 2070.

- The initiative also includes recommendations for new funding and finance mechanisms for resilience actions.
- Due to the transition in the position of CZM Director, the team is looking to extend the project timeline from the end of the fiscal year to the end of the 2024 calendar year.

Discussion:

Rao commended the team for the excellent project and commented that this project may increase the number of property owners who carry appropriate flood insurance.

Hatch appreciated the presentation and all the resources that are part of the project.

Agenda Item #7: Presentation: Flood Vulnerability Assessment for Environmental Justice Communities

Rao reminded everyone that the WRC was originally set up (in 1954) with explicit authority to work on the topic of flooding. She explained that as Massachusetts has started to experience more floods, WRC staff have tried to increase efforts related to flood management and the understanding of floods. She also mentioned a presentation that Duperault gave to the WRC several years ago which covered an initial assessment of how environmental justice communities across the state are vulnerable to flooding as they intersect with the 100-year floodplain. This project highlighted that more information was needed on this topic.

Rao then introduced Nadia Madden and Caitlin Spence to give a presentation on the ongoing project to assess flood vulnerability for environmental justice communities. The full presentation is available at: <https://www.mass.gov/doc/april-11-2024-wrc-meeting-presentation-flood-vulnerability-assessment-for-environmental-justice-communities/download>.

Presentation highlights include:

- The constitution of the Commonwealth of MA, Article 97 helps to define environmental justice for our state. It essentially describes that all people have the right to a healthy environment.
- The first formal environmental justice policy in MA was developed in 2002, followed by passing of Executive Order 552 in 2014 to make sure environmental justice remained a priority in MA. In 2021, the next generation climate policy road map was created, which further defined environmental justice principles. In 2023, the EEA Office of Environmental Justice and Equity was created, which recently released the Environmental Justice Strategy for EEA agencies.
- There has been a long history of inequity in floodplain management, so active inclusion and investment is needed in EJ communities.
- EEA publishes a dataset of EJ neighborhoods, which gets updated with the release of each new census dataset. Their team is using this dataset to prioritize areas where there are high concentrations of EJ populations.
- There is overlap between EJ populations and FEMA flood zones, and EJ communities are often more harmed during flood events.
- Flooding affects areas outside of the FEMA flood zones as well, and there have been recent examples of severe damage from flooding outside of these zones, such as the recent flooding in Leominster.

- The MA Climate Change Assessment identified precipitation-driven flooding as the most significant climate hazard affecting MA, and also identified low-income and linguistically isolated populations as the most at risk from flood damage from precipitation-driven flooding.
- This project responds to one of the ResilientMass plan actions, specifically to address impacts of flooding to infrastructure, natural resources and groundwater through better understanding of climate change drivers.
- The project began in January 2024 and will run through the end of fiscal year 2025. Work so far has involved compiling existing information on flooding from resources such as the FEMA national flood hazard layer and MA coastal flood risk model. Information from people living in flood zones and how they are being affected has also started to be collected.
- Engagement processes have included surveys and conversations to fill gaps in information not included in current flood maps. About 30 communities all over the state are going to be included this year, and next year they will extend the surveys and conversations to all 187 municipalities that have EJ populations. They are also planning some pilot partnerships with local community leaders to jointly understand solutions to local flooding issues.

Rao asked Commissioners and other attendees if they had any questions or comments. She commented that everyone is very excited about this project because it will be the first time that we get information on where in EJ communities flooding has occurred in the past, and that a lot of the information that will be collected is directly from local lived experiences which will be very informative.

Hatch applauded the efforts on this project and that she would love to be included in conversations on this work in the future. She also asked if they would be able to incorporate the new groundwater flooding maps that are now coming out into this project. Zoltay answered yes, although those maps would start by going through internal review, and eventually be available to the public.

Rao added that none of this work would be possible without the support of the state's climate team and funding through SHMCAP. She is excited to pull together these additional tools and analyses that will help RPAs and municipalities be more resilient to flooding.

Balachandran asked if there was any pushback against flood mapping due to it impacting property values, and if there was any data on modelling low-probability, high-impact flood events. Rao answered the first question by stating that they were not developing new flood maps, but collecting information on existing maps. Duperault and Madden confirmed that they are not developing new maps, and they have not experienced any pushback yet. Zoltay answered the second question by stating that there are multiple ways of looking at modelling most extreme events, and they are working on the various components of this type of modelling and are continuing to have discussions about it within the team. Spence added that developing a strategy for low-probability, high-impact events is certainly something they are thinking about.

Knisel commented that she would like to talk with Madden, Spence, and Zoltay about this project and how they might be able to collaborate.

Hatch agreed that low-probability, high-impact events can be very impactful and appreciates the question and the team for keeping those questions in mind.

Haque commented that high-impact flood events might be more impactful near coastal towns.

Rao recognized Martin Pillsbury who has been heading the consulting team for this project. Pillsbury said that they have started looking at scenarios with extreme events, and he agrees that the work needs to continue. He said they are collaborating with the Neponset River Watershed Association on flood modeling in that watershed as well.

Rao asked for a motion to adjourn the meeting.

V O T E	A motion was made by Weismantel with a second by LeVangie to adjourn the meeting. The roll-call vote to approve was unanimous of those present.
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Meeting adjourned, 3:23 pm.

Documents or Exhibits Used at Meeting:

1. WRC Meeting Minutes: January 11, 2024
2. Quarterly Update on WRC Special Projects
3. Draft Staff Recommendation for WRC Vote: Town of Westport’s Request for Determination of Insignificance under the Interbasin Transfer Act
4. Interbasin Transfer Act project status report, March 29, 2024
5. Hydrologic Conditions Report <https://www.mass.gov/drought-monitoring>

Compiled by: WRC Staff

Agendas, minutes, and other documents are available on the website 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.