



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

Meeting Minutes for April 8, 2021

Meeting Held Remotely Via Zoom Video Conferencing, 1:00 p.m.

Minutes approved June 10, 2021

Members in Attendance:

Vandana Rao	Designee, Executive Office of Energy and Environmental Affairs (EEA)
Linda Balzotti	Designee, Department of Housing and Community Development (DHCD)
Anne Carroll	Designee, Department of Conservation and Recreation (DCR)
Kathleen Baskin	Designee, Department of Environmental Protection (MassDEP)
Hotze Wijnja	Designee, Department of Agricultural Resources (DAR)
Todd Richards	Designee, Department of Fish and Game (DFG)
Marcela Molina	Public Member
Vincent Ragucci	Public Member
Kenneth Weismantel	Public Member
Samantha Woods	Public Member

Members Absent

Todd Callaghan	Designee, Massachusetts Office of Coastal Zone Management (CZM)
Thomas Cambareri	Public Member

Others in Attendance:

Erin Graham	DCR/Office of Water Resources
Marilyn McCrory	DCR/Office of Water Resources
Viki Zoltay	DCR/Office of Water Resources
Vanessa Curran	DCR/Office of Water Resources
Sara Cohen	DCR/Office of Water Resources
Joy Duperault	DCR/Office of Water Resources
Gerald Clarke	Dover BOH and Water Resources Committee
Jennifer Pederson	Massachusetts Water Works Association (MWWA)
Katie Ronan	Massachusetts Water Resources Authority
Andreae Downs	Wastewater Advisory Committee
Laura Schifman	MassDEP
Katharine Lange	Mass Rivers Alliance
Kate Bentsen	MA Division of Ecological Restoration
Nina Mascarenhas	EEA Water Policy Intern
Peter Weiskel	US Geological Survey
Sarah Bower	Mass Rivers Alliance

Rao called the meeting to order at 1:03 p.m.

Agenda Item #1: Welcome and Introductions

Vandana Rao welcomed everyone to the meeting and asked the Commissioners to introduce themselves. She also reminded people of the format and procedures for the virtual meetings. Attendance was taken for Commission members.

Agenda Item #2: Executive Director's Report

Rao described a recent grant received from the US Geological Survey (USGS). The Water Resources Commission (WRC) applied four months previously for funding to upgrade the monitoring wells in the groundwater network to real-time wells. This involves cost-sharing between the state and the USGS. Over the next two years the Commission will upgrade all the wells in the network to real-time wells, allowing for data collection every 15 minutes, rather than once a month. This will dramatically improve staff members' ability to track changes day-to-day and recognize changing conditions quickly. The grant will be managed by Viki Zoltay. Some of the funding will be directed to State Geologist Steve Mabee. Staff will provide updates to the Commission on progress under the grant.

Zoltay added that staff are excited; she stressed the importance of the work, especially as a tool to improve tracking of groundwater conditions weekly during drought. The real-time data will also be useful for the wells that are used for the Frimpter Method and those used in permits under the Water Management Act. Finally, the real-time data will improve the ability to discern if well levels are influenced by human activity.

Rao stated that March 15-21 was National Fix a Leak Week. WRC staff provided EEA with social media posts, which were posted daily by EEA throughout the week and shared by Rao. She thanked staff member Marilyn McCrory for her significant work towards this effort. The images were tweaked from EPA WaterSense program images to make them specific to Massachusetts.

McCrory described the campaign in more detail, sharing the posted images. She reminded people that the WRC is a promotional partner of the EPA WaterSense program and works to support their water conservation campaigns. This year, WaterSense made this support easy by providing social media graphics. The first tweet focused on encouraging residents to take the "10-minute leak challenge," i.e., to spend 10 minutes over the course of the week identifying leaks in their home. The subsequent tweets gave tips about where to find leaks. The Day 2 tweet focused on dripping faucets; Day 3 focused on showerheads; Day 4 focused on leaking toilets; and Day 5 was an outdoor sprinkler-related leak message. Staff hopes to do this type of campaign again in the future. Rao added that the WRC will also continue to work on resources to help people fix leaks year-round.

Rao stated that the Drought Management Task Force (DMTF) met earlier that week and recommended to the Secretary that the Southeast region be declared at a Level 2 drought and all other regions except the Islands be declared Level 1. Rao pointed out that we are re-entering drought very shortly after coming out of the previous drought, with some monitoring stations that did not fully recover.

As a final update, Rao announced that the request for response (RFR) is currently out for the annual Drinking Water Supply Protection grant from EEA, which is for the purchase of land for aquifer protection. Responses are due at the beginning of May. Information can be found at: <https://www.mass.gov/service-details/drinking-water-supply-protection-grant-program>. Pederson confirmed that she has shared this information with MWWA members.

Rao opened the floor to Commission members and invited them to add any announcements or updates as part of the Executive Director's report:

Wijnja announced the opening of the application period for the Department of Agriculture's (DAR) Climate Smart Agriculture Program, which now links three other existing grant programs, including the Agricultural Climate Resiliency and Efficiency program, the Agricultural Environmental Enhancement program, and the Agricultural Energy program. These programs have relevance to water use on farms, addressing soil health and water use efficiency. Linking the three programs should make it easier and more efficient to apply. Applications are due by June 11 and can be found at the following link <https://www.mass.gov/how-to/how-to-apply-to-the-climate-smart-agriculture-program>. Wijnja mentioned that there are also some other open applications at DAR that have less direct relevance to water use.

Woods provided an update that on the South Shore they are definitely seeing the effects of emerging drought at the long-term gage at the Indian Head Rivers. Despite some spikes during recent rainfalls, levels are at the 25th percentile. As fish migration season is starting, this is a concern. Due to concerns about water supply, the town of Scituate would like to not send water from the reservoir down the fish ladder, which may prevent the fish from passing this year. The North and South Rivers Watershed Association is negotiating with the town, asking them to move to a total water ban if they are going to halt releases.

Weismantel asked for an update on the tracked metrics of unaccounted-for water and residential per capita demand for water suppliers. Rao explained that supplier Annual Statistical Reports (ASR) that provide those metrics for each system were due that day, for 2020. Baskin offered to have MassDEP come back to the Commission with a report on metrics after the ASRs are processed.

Agenda Item #3: Hydrologic Conditions and Drought Status Update

Graham provided an update on the hydrologic conditions for March, 2021, available here: <https://www.mass.gov/info-details/water-data-tracking#hydrologic-conditions-reports->.

Highlights:

- Monthly average temperatures were above normal for March.
- Precipitation was below normal across the whole state except the Islands. Most volunteer DCR precipitation observers reported two full weeks without precipitation in early March.
- Streamflow was low for most of the state, except for the Western region, which benefited from remaining snowpack that did not exist in the other regions. There were a couple of large precipitation events that briefly improved streamflow, but these were not sustained.
- Groundwater was mixed across the state, with only the Southeast region triggering the Groundwater Index.
- The Lakes and Impoundments Index was tricky for March. Some network reservoirs were full, while others were low. Some of the low levels were due to drawdowns for dam

maintenance, others were low but not at levels that concerned the suppliers. One exception is a pond on Cape Cod that is tracking low for this time of year.

- It is still early to report on the Keetch Byram Drought Index (KBDI), but the levels were not concerning. The Crop Moisture Index (CMI), as a seasonal Index, was not reviewed for March.
- Snowfall was below average for March, and the snowpack was gone by the end of the month.
- The US Drought Monitor (USDM) posted no drought for MA at the beginning of March, but by the end of the month 52% of the state was Abnormally Dry. That number is currently at 75%.
- The outlook for April is for higher-than-normal temperatures with no strong signal for precipitation. The 3-month outlook is for above normal temperatures and precipitation. The monthly drought outlook shows development of drought in April, but the seasonal outlook through June did not show drought development.

Rao reminded people that the hydrologic conditions report will be posted on the WRC website, and the more detailed drought analysis report is posted on the MA Drought Management Task Force website: <https://www.mass.gov/orgs/drought-management-task-force>.

Agenda Item #4: Presentation: Massachusetts Floodplains and Vulnerable Populations – Initial Work, December 2020

Rao introduced Joy Duperault of DCR, who works on implementing the National Flood Insurance Program in Massachusetts on behalf of the WRC. Duperault’s presentation is available at: <https://www.mass.gov/doc/presentation-ma-floodplains-and-vulnerable-populations/download>

Duperault thanked EEA intern Jay Heppler, a senior at Syracuse University, for her work on the project, which was conceived last summer during the national conversation about social injustice and environmental inequity. Analysis at that time highlighted a trend around the country that flood damages disproportionately affect low income and minority populations. Duperault and her staff wanted to explore MA floodplains through this lens, in particular analyzing who lives in the floodplains and is vulnerable to flood risks. Duperault’s project looked at race and income, but also factors that might influence a household’s ability to cope with flood events and flood recovery, such as household language, renter vs. owner status, disabilities, and education.

The analysis looked only at the FEMA 1%-chance floodplain, also called the 100-year floodplain. The analysis units were US Census Tracts, which had the most complete data on the demographics of interest. They identified 55 census tracts in the floodplain with poverty rates greater than 10% and minority rates greater than 35%, with at least some roads or structures, for further analysis. Franklin County was excluded due to lack of digital floodplain data. Five additional counties had no tracts meeting the screening criteria.

Duperault explained that they would need to look very closely at infrastructure on the ground and speak to communities to really understand the risk. However, as a starting point, for each of the 55 tracts that tripped the flagging criteria, Heppler created a summary of demographic information. Duperault sees this as the very beginning of looking at the floodplain to assess racial and social inequities. The findings have been shared with MA Silver Jackets state and federal agencies, the EEA Director of Environmental Justice, Municipal Vulnerability planners, the EPA Region I Environmental Justice Coordinator, and some regional planning commissions. Everyone acknowledges there is much more to do to recognize the real vulnerabilities in the

floodplains. Duperault’s intention is to work with MEMA and with communities where there may be opportunity to promote flood insurance and evaluate further efforts to address and mitigate the vulnerabilities.

Discussion:

Rao thanked Duperault for the presentation, underscoring that we need to look at a smaller scale than a municipality when it comes to flooding. Duperault stated that if she had more time and staff, she would like to work with agencies in the state that are looking at other health and environmental inequities and pursue partnerships and programs to address the areas with these overlapping burdens and vulnerabilities.

Rao asked what the history of actual flooding is in these tracts and explained that she is in conversation with land use staff at EEA to think about what land parcels would be good for the state to purchase to help with flood protection, which can also help with drought mitigation. She would like to coordinate with Duperault on the question of flood impact history.

Woods stated that the Mystic River’s Climate Collaborative demonstrates an interesting approach to the floodplain in urban areas. They have received significant funding resources from private foundations to work with municipalities along the Mystic River to address stormwater and heat issues. Duperault has not worked with this collaborative but agreed that it sounded like a great model. She commented that the municipal vulnerability preparedness groups also work closely at a grassroots level with their communities on their Municipal Vulnerability Plans and have great local knowledge, too.

Rao seconded that collaborating with the Mystic group would be productive. Laura Schifman also endorsed the approach of the Mystic collaborative effort as a whole watershed approach. To deal with stormwater issues, they want to install a lot of smaller best management practices to capture pollutants and reduce flooding. They also tried to look separately at flood threats from sea level rise and from inland sources. MassDEP is a partner on this collaborative with EPA, the Mystic River Watershed Association, and others.

Agenda Item #5: Vote on the Minutes of January 2021

Rao invited motions to approve the meeting minutes for January 2021.

V O T E	A motion was made by Richards with a second by Weismantel to approve the meeting minutes for January 2021. The vote to approve was unanimous of those present.
------------------	---

Agenda Item #6: Revised Meeting Minutes, July 2020, September 2020, October 2020, December 2020.

Revisions are solely to accurately reflect that the meetings were held virtually.

V O T E	A motion was made by Weismantel with a second by Ragucci to approve minor revisions to the WRC meeting minutes of July 2020, September 2020, October 2020, and December 2020 to reflect that the meetings were held virtually. The July, September, and October meetings were held via Zoom. December’s meeting was held via Microsoft Teams. The vote to approve was unanimous of those present.
------------------	--

Agenda Item #7: Presentation: Pathways for Financing Stormwater Work in Massachusetts Municipalities

Rao introduced the presentation by commenting that much attention is paid to stormwater due to its influence on groundwater, recharge, and water quality. Baskin introduced Laura Schifman, the state stormwater coordinator for MassDEP, stating she has done a terrific job internally and externally, conducting outreach to stormwater coalitions and advising MassDEP staff on updates to stormwater standards under the Wetlands Protection Act and the Stormwater Handbook. Schifman's presentation is available at: <https://www.mass.gov/doc/presentation-pathways-for-financing-stormwater-work-in-ma-municipalities/download>

Highlights:

- MA is not an EPA National Pollutant Discharge Elimination System (NPDES) delegated state, which means the EPA and MassDEP jointly issue NPDES permits.
- Municipal Separate Storm Sewer System (MS4) permits are part of the NPDES program and apply to over ¾ of the municipalities in the state. Over 100 requirements are in the permits.
- The MA Wetlands Protection Act and associated stormwater standards apply to all municipalities in the state, and MassDEP is working to align these standards with MS4 permit requirements for consistency.
- Stormwater standards under both these programs require a lot of municipal resources. Two primary financing options are stormwater enterprise funds, also called stormwater utilities, and stormwater coalitions.
- There are 29 stormwater utilities in MA, which were largely incentivized by Phase 2 of the NPDES program. Schifman reviewed varying approaches to charges under these utilities, emphasizing some of the trade-offs between fair reflection of impact, incentives for owners to improve stormwater management on their properties, and administrative ease.
- Stormwater coalitions recognize the cross-boundary nature of stormwater management and leverage cost-sharing between communities for equipment, training, and outreach, as well as enable joint applications for grants. They are managed by towns, watershed associations, or planning associations. MA has 14 stormwater coalitions involving more than 170 communities. These coalitions were also spurred by Phase 2 of NPDES.

Discussion:

Downes commented that under Newton's stormwater utility, commercial, industrial, and nonprofit properties are charged based on impervious surface, which she feels is the most accurate and fair way to account for stormwater impact. However, she recognizes that each community is different and agrees that community discussion on fairness is important. Schifman agreed that ongoing discussion on approaches to stormwater utility charges is important.

Rao thanked Laura. She is pleased to see how many stormwater utilities have developed in the last decade in MA and to see the work being done to help municipalities identify sources of revenue to tackle large stormwater needs. She asked if MassDEP has been fostering more coalitions. Schifman replied yes, and that she tries to ensure regions of the state do not miss out on opportunities to raise money, apply for grants, and share resources for NPDES expenses, especially because many grants are restricted from funding actions required under NPDES.

Ragucci expressed appreciation for Schifman's work and underscored its importance.

Woods asked what the impetus has been for the towns to pursue stormwater utilities and wondered how we can get more to adopt them. Schifman stated that the impetus was predominantly a response to the heavy financial requirements of the MS4 permits. She feels outreach and education to the public are key to communities developing stormwater utilities. Without that education, the public often pushes back. She suggested a joint presentation at the next statewide stormwater coalition meeting. Woods cautioned that towns in her region do not often have the bandwidth to even attend these meetings and suggested that education may need to be combined with some kind of mandate. Schifman agreed that communities often do not realize the problem until EPA issues an order for noncompliance, which is unfortunate.

Richards expressed appreciation for the presentation and work. He asked if Schifman had seen examples where stormwater utilities tracked data at a fine enough scale to reduce fees for individuals who disconnect their impervious surfaces from the stormwater sewer system. Schifman believed Reading and Ashland are trying to pursue this sort of incentive for residents, which can be important to get people to make these sorts of property changes.

Rao asked whether coalitions are going beyond pooling resources for meeting permit requirements and exploring coordination of planning tools, such as land use regulations to avoid future increased stormwater impacts? Schifman responded that the Mystic River Watershed Association has been working on that front, looking at planning tools to reduce flooding and identifying upper watershed areas for green infrastructure. The Charles River Watershed Association and Charles River stormwater committee are coordinating on planning, especially because the Charles River is being targeted with a Residual Designation petition, which could result in the requirement of many more stormwater controls. Some of the coalitions led by planning commissions are looking at planning tools to tackle stormwater more holistically, such as zoning and low-impact development bylaws. Additionally, groups in Cape Cod are trying to combine stormwater requirements with watershed plans. There are different issues driving people to engage at the planning level, such as nitrogen concerns on Cape Cod and phosphorus concerns in the Charles and Mystic.

Rao thanked Schifman and other MassDEP staff and credited them for so much of this progress.

V O T E	A motion was made by Weismantel with a second by Ragucci to adjourn the meeting. The vote to approve was unanimous of those present; the meeting adjourned at 2:40.
------------------	--

Documents or Exhibits Used at Meeting:

1. WRC Meeting Minutes: January 14, 2021
2. Interbasin Transfer Act project status report, March 25, 2021
3. Summary of Follow-up Correspondence with Communities with Approved Interbasin Transfers
4. Hydrologic Conditions in Massachusetts for March 2020 (available at <https://www.mass.gov/info-details/water-data-tracking#hydrologic-conditions-reports->)
5. Presentation slides, available at: <https://www.mass.gov/service-details/review-our-meetings>

Compiled by: SC

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 251 Causeway Street, 8th floor, Boston, MA 02114.