



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

Meeting Minutes for June 8, 2023

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

Minutes approved September 14, 2023

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)
Kathleen Baskin	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)
Kate Bentsen	Designee, Department of Fish and Game (DFG)
Hotze Wijnja	Designee, Department of Agricultural Resources (DAR)
Thomas Cambareri	Public Member
Christine Hatch	Public Member
Vincent Ragucci	Public Member
Kenneth Weismantel	Public Member
Samantha Woods	Public Member (only able to attend from approximately 1:45-2pm)

Members Absent:

Others in Attendance:

Vanessa Curran, DCR OWR
Kara Sliwoski, DCR OWR
Viki Zoltay, DCR OWR
Becca George, EOHLC
Jason Duff, DCR OWR
Katie Ronan, Massachusetts Water Resources Authority
Read Porter, EEA
Erin Graham, DCR OWR
John Scannell, DCR
Sara Cohen, DCR OWR
Jiedine Phanbuh, University of Massachusetts- Boston
Lexi Dewey, Water Supply Citizen Advisory Committee
Jack Collins, General Counsel, Oak Bluffs Water District, Martha's Vineyard
Sam Haines, MA CZM
Sarah Miller, MDAR
Stephen Boksanski, Green Industry Alliance
Marybeth Chubb, MassDEP
Tim Jones, MassDEP
Sarah Bower, Massachusetts Rivers Alliance
Lealdon Langley, MassDEP
Alan Taubert, Salem Beverly Water Supply Board
Richard Bradley, Superscape Landscape LLC

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

Agenda Item #1: Welcome and Introductions

Rao announced that the meeting was being recorded and all votes would be taken by roll call. She invited those who wish to speak during the meeting to indicate this in the chat window. Members and attendees introduced themselves.

Agenda Item #2: Executive Director's Report

Rao began by stating that June is National Rivers Month and thanked everyone for their work protecting rivers in the state. She also stated that today is World Oceans Day and invited Tyler Soleau to say a few words on the topic. Soleau mentioned a few habitat and watershed restoration grant announcements that were made earlier in the day. Rao continued by explaining that the Drought Management Task Force convened earlier in the morning due to below normal conditions in a few drought regions and a recommendation was made to the Secretary. She also introduced Jiedine Phanbuh who is a Rappaport Fellow working on a PhD at UMass Boston and through her Rappaport Fellowship will be working for the WRC over the summer. Phanbuh explained that her dissertation will involve water resources and water conflict at a global scale with a focus on river treaties. She also explained that, for the commission, she would be doing research on the intersection of land use and water policy. Rao asked commissioners if there were any items they wanted to discuss, and Kluchman explained that the former Department of Housing and Community Development is now a secretariat under the name Executive Office of Housing and Livable Communities (EOHLC), and she would be serving as the designee representing Secretary Edward Augustus.

Agenda Item #3: Update: Hydrologic Conditions

Rao introduced Graham to present the Hydrologic Conditions Report for May 2023 (<https://www.mass.gov/doc/2023-may-hydrologic-conditions/download>).

- *Temperature*: Monthly average temperatures were below normal to normal except for the outer Cape and Islands where it was above normal.
- *Precipitation*: Precipitation was variable by site but overall normal in the Regions except for the Western Region, which is at Index Severity Level (ISL) 2 for May.
- *Keetch Byram Drought Index and Evapotranspiration*: The index showed normal soil moisture conditions at the end of the month.
- *Streamflow*: Streamflow was below normal to normal. The Western Region was at ISL 1, and the Cape Cod Region is at ISL 2.
- *Groundwater*: Groundwater was below normal to above normal. Regional medians of individual well percentiles were in the normal range.
- *Lakes and Impoundments*: Lake and impoundment levels were mostly above their 30th percentile and/or were 100% full. The monitored pond in the Cape Cod Region was at ISL 2.
- *Crop Moisture Index*: Crop Moisture Index showed normal conditions, but evaporative demand was elevated according to the Evaporative Demand Drought Index.
- *US Drought Monitor*: At the end of May, the USDM showed areas of D0 (Abnormally Dry) in parts of western and southeastern MA as well as the Cape and Islands.

- *NOAA June Outlook:* NOAA’s June outlook showed equal chances for below-normal, normal, or above-normal temperatures for the eastern part of the state, chances leaning for above-normal temperatures for the rest of the state, and equal chances for below-normal, normal, or above-normal precipitation for the entire state.
- *NOAA 3-Month Outlook:* NOAA’s 3-month outlook showed chances likely for above-normal temperatures and equal chances for below-normal, normal, or above-normal precipitation.

Wijnja commented that he heard on the radio that the Blue Hill weather station recorded its sunniest month of May ever. Cambareri asked about the drought recommendations from the DMTF meeting. He mentioned groundwater levels for the Cape still being normal and therefore the level 1 recommendation might have been premature. Rao explained that the decision was made based on the other indices and the fact that there is typically a lag time in groundwater levels responding to surface conditions on the Cape. Cambareri also commented on the lakes/pond index for the Cape being limited to Ashumet Pond and said it would still be good to try to get more representation. Rao explained the Ashumet has been a really strong data point, while we would love to expand our network. She added that it was a fairly unanimous decision among the DMTF members to recommend a level 1 and then continue to monitor and see how conditions respond to the expected precipitation in June.

Agenda Item #4: Vote to Accept Meeting Minutes, March 2023

Rao invited motions to approve the meeting minutes for March 9, 2023.

V O T E	A motion was made by Ken Weismantel with a second by Vincent Ragucci to approve the meeting minutes for March 9, 2023, with edit as provided by Weismantel.
	The vote to approve was unanimous of those present.

The correction was a typo on page 9 that needed changing from “banding” to “abandoning”.

Agenda Item #5: Vote to Accept the WRC Work Plan for FY2024

Rao invited motions to approve the WRC workplace for FY2024.

V O T E	A motion was made by Ken Weismantel with a second by Vincent Ragucci to approve the FY24 workplan.
	The vote to approve was unanimous of those present.

Weismantel commented that two meetings to discuss and vote on the workplan might not be needed in future years. Hatch disagreed because she said she liked the additional time to digest the workplan after the initial presentation. She also brought up that the workplan projects are very focused on drought and she wondered if there were plans to look more into flooding as it relates to climate change. Rao responded that the state does have a flood team working on developing a statewide flood plan. Hatch also mentioned the USGS presentation from the previous WRC meeting and that she advocates for incorporating built infrastructure into the climate change projects as much as possible. She noted the example of a recent MAPC study using FEMA data and how it showed impervious surfaces are expanding flood damage to outside of mapped floodplains.

Agenda Item #6: MDAR Programs and Activities Related to Water Conservation and Water Quality Protection

Rao introduced Hotze Wijnja to give a presentation on the MDAR programs that overlap with water conservation and water quality. The full presentation can be found at:

<https://www.mass.gov/doc/june-8-2023-wrc-meeting-presentation-mdar-programs-and-activities/download>

Wijnja discussed many different overlapping topics, including:

Pesticides and water quality

- A detailed overview of the environmental fate and transport processes pesticides are subject to when introduced into the environment, particularly related to the potential exposure and protection of water resources
- An explanation of the pesticide registration process at the state and federal levels
- What to look for on pesticide labels as it relates to chemical movement in the environment (spray drift, runoff, and leaching)
- How modelling is used to evaluate the movement/potential impact of pesticides to water resources
- An overview of the groundwater protection regulatory program for pesticides
- Monitoring studies to determine the occurrence of pesticides in water resources (USGS and MDAR)
- Efforts to ensure water quality protection with insecticide use in mosquito control

Plant nutrient regulations

- An overview of plant nutrients, their use in agriculture and landscape management, and the potential effects on water quality
- An overview of the statewide plant nutrient regulations in terms of purpose and requirements for agriculture, lawns, and turf
- Showing examples of poor land management resulting in nutrient loading and resulting water quality impacts
- Highlighting that with respect to landscapes, the plant nutrient regulations only address use on lawns and turf
- Fertilizer retailer requirements

MDAR grant and technical assistance programs

- He discussed multiple grant and technical assistance programs that MDAR administers, including the Climate Smart Agriculture Program (“CSAP”) which combines MDAR’s water, energy, and climate grants into one application to simplify the application process.
- He also discussed EEA’s Food Security Infrastructure Grant program and the Farmer Consultant Program related to improving soil health

Hatch made the comment that it would be worth keeping an eye on possible impacts from the lawsuits being leveled against 3M for PFAS Contamination and if there would be any change in the WRC approach to including municipalities into water supply systems.

Rao asked how many pesticide applicators are trained on these topics of pesticide contamination risks. Wijnja explained that applicators go through training and take an exam in order to get licensed. They also are required to get a minimum number of contact hours every year to

maintain their license. He also said that MDAR does presentations to applicators to make sure everyone is up to date on requirements.

Weismantel asked if anyone is studying the movement of PFAS through the environment, similar to the way MDAR studies pesticides. Wijnja stated that PFAS are not allowed to be used as an ingredient in pesticide formulations. He referenced some studies that had found PFAS contamination in pesticides, but it turned out the chemicals were coming from fluorinated container packaging. Hatch added that she likes that the groundwater leaching component was added to labeling.

Cambareri thanked Wijnja for the presentation and explained a comprehensive study in which he was involved in the late 1980s on pesticides leaching from golf courses. Cambareri also described an opportunity that he had to work with Wijnja when a community was responding to an electric company maintaining their rights-of-way with herbicides and the controversy it caused. He said he was grateful for MDAR coming in to help on that issue.

Baskin commented that MassDEP is not studying the movement of PFAS through soils and aquifers, but they have done some studies on rivers and PFAS with respect to influences like wastewater treatment plants and concentrations of PFAS in fish tissue. She also said they have done some monitoring of PFAS levels in private wells throughout the state. She said there have been some studies in other parts of New England related to PFAS and that they might be working on fate and transport of PFAS, but she couldn't say for certain.

Agenda Item #7: Final Watershed Permitting Regulations (314 CMR 21.00) Preview

Rao introduced Kathy Baskin and Gary Moran from MassDEP. Baskin said that Moran would give the presentation because he has been most involved in this project over the past several years, and also acknowledged Lealdon Langley, Tim Jones, and Marybeth Chubb who also played important roles. She then passed it over to Moran for the presentation.

Moran explained to the commission that the regulations of discussion are two different packages. The first are the Title 5 regulations which outline MassDEP's regulatory authority over septic systems. The Title 5 regulations are being amended to establish new Nitrogen Sensitive Areas (NSAs), which are watersheds that are draining into estuaries where there is either an EPA approved total maximum daily load (TMDL), or where it's been scientifically demonstrated that the estuary is impaired by nitrogen. Moran explained that the updates to the Title 5 regulations are to address ongoing nitrogen contamination in many coastal communities, which is primarily caused by septic systems. The second set of regulations is the watershed permit regulations which formally establish a new permitting approach, as piloted in Pleasant Bay. The watershed permits last 20 years and are based on long-term wastewater management plans using a range of strategies to reduce nitrogen. Once an area is designated as an NSA, it requires load reductions. The Watershed Permitting regulations require Water Resources Commission approval, as well as revisions to the Title 5 regulations on a parallel track. He also explained that MassDEP has been working with communities on this issue for decades to help develop solutions, and that they have prioritized trying to get communities to develop comprehensive wastewater plans, but that the progress has been somewhat inconsistent and unpredictable.

Moran went on to describe the two options communities with NSAs will have under the new regulations. One option is to update all septic systems to use best available nitrogen reducing technology within five years. The other option is to adopt a watershed permitting approach, which is MassDEP's preferred approach because it's a way to target the solutions in the most effective and affordable way. He also explained that the Title 5 regulations propose two pathways for NSAs getting designated. The first pathway is NSAs that are designated upon promulgation of the regulations, which are watersheds that are subject to the Cape Cod 208 plan and have an approved TMDL. This includes 30 watersheds on the Cape and 11 towns, as well as another one that is expected to get a TMDL approved very soon. The second pathway for NSA designation is through a public process in which other watersheds that have demonstrated nitrogen impairment are identified and then the decision to officially designate is completed through a public process.

Moran showed a map with the potential extent of the regulations using data from the Mass Estuaries Project. He noted that the map does overstate the potential extent because a lot of the communities listed have fairly minimal contributions to the watersheds. He further explained that if communities obtain watershed permits, the Title 5 requirements for enhanced treatment would not apply. Also, if they file a notice of intent within 18 months of an NSA designation, the five-year clock for the upgrades would stop.

Moran also explained the watershed permits in more detail, including the permits giving communities the opportunity to address watershed specific needs through a range of methods. Adaptive management is a key approach, including monitoring and evaluation of all strategies that are implemented. The permit is based on a watershed management plan which must be designed to reduce nitrogen loads by 100% either in 20 years or demonstration of reasonable progress. He then gave an update on the outreach for these regulation updates. Prior to issuing the draft regulations, MassDEP sent letters to all potentially impacted communities, held legislative briefings, public meetings, and engaged in other ways with a lot of stakeholders. Between 900 and 1000 comments on the draft regulations were received and considered.

He continued by explaining modifications that have been made based on comments. One major change was in response to concerns in communities on the Cape over not having enough time to assess and plan for requirements in the regulations. An option that MassDEP is considering is to focus the effectiveness of the regulations on areas that they have identified as ready for and requiring NSA designation. They also received some comments suggesting that the five-year timeframe for septic system upgrades under the new title 5 regulations is too short. However, they also received comments suggesting that this timeframe is too long. Some communities also commented that the 18-month timeframe for submitting a notice of intent under the new watershed permit regulations is too short. Based on these comments, Moran said MassDEP is considering providing some additional time for communities to comply with the upgrade requirements. For example, one consideration is to add language that would allow MassDEP to provide additional time for compliance based on demonstrated feasibility issues. Another comment was from communities that wanted to use existing comprehensive wastewater management plans rather than having to completely redo the planning process. Some communities also want to be able to cover multiple watersheds under one permit. MassDEP will potentially clarify the regulation to allow for the use of comprehensive plans as a basis of a watershed permit or to streamline the process in other ways. Additional comments related to

concerns over meeting reduction targets in the specified timeframe and how communities could qualify for alternative timelines.

Moran ended by explaining that the next steps will include discussing the regulations with the Department of Public Health and then MassDEP will be coming back to the commission for final approval. They will also need a final approval from the administration. MassDEP hopes to promulgate the regulations in the summer of 2023, and implementation would begin later in the summer.

Cambareri thanked Moran for the presentation and all the work he and MassDEP have done on this project. He said he thinks MassDEP’s response to the need for coastal area protections from nitrogen loads is well-measured. Rao added that the regulation packages embrace adaptive management strategies to provide a broader watershed scale approach and commended MassDEP for their management of the process for developing these regulations.

Ragucci also thanked Moran for the presentation and asked what the estimated cost to homeowners/business owners would be for the required upgrades. Moran answered that the estimated cost of an upgraded onsite innovative alternative systems is between \$25,000 and \$35,000. He also described a few programs that provide assistance such as the Barnstable County Community Septic Management Program low interest loans. Moran added that MassDEP hopes most communities will choose the watershed permit option, which would help alleviate the burden on homeowners and business owners.

V O T E	A motion was made by Ken Weismantel with a second by Vincent Ragucci to adjourn the meeting. The vote to approve was unanimous of those present.
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Meeting adjourned at 3:32 pm.

Documents or Exhibits Used at Meeting:

1. WRC Meeting Minutes:
 - a. March 9, 2023
2. FY2024 WRC Workplan
3. Interbasin Transfer Act project status report, May 31, 2023
4. Hydrologic Conditions in Massachusetts, May 2023 (available at <https://www.mass.gov/info-details/monthly-hydrologic-conditions>)

Compiled by: (jd)

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.