



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

Draft Meeting Minutes for February 11, 2021

Meeting Held Remotely Via Zoom Video Conferencing, 1:00 PM

Minutes approved May 13, 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)
Thomas Cambareri	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)
Marcela Molina	Public Member

Others in Attendance:

Andreae Downs	Wastewater Advisory Committee
Katharine Lange	Mass Rivers Alliance
Sara Cohen	DCR Office of Water Resources
John Scannell	DCR
Marilyn McCrory	DCR Office of Water Resources
Joy Duperault	DCR Office of Water Resources
Vanessa Curran	DCR Office of Water Resources
Jennifer Pederson	Massachusetts Water Works Association
Viki Zoltay	DCR Office of Water Resources
Jennifer Sulla	EEA
Dave Fox	Raftelis
Sarah Bower	Massachusetts Rivers Alliance
Mark Abrahams	The Abrahams Group
Pine duBois	Jones River Watershed Association
Chris Woodcock	Woodcock & Associates, Inc
Erin Graham	DCR Office of Water Resources
Katie Ronan	Massachusetts Water Resources Authority (MWRA)
Nina Mascarenhas	EEA
Peter Weiskel	United States Geological Survey (USGS)
Kate Bentsen	MA Division Ecological Restoration (DER)
Julia Blatt	Massachusetts Rivers Alliance

Agenda Item #1: Welcome and Introductions

Rao called the meeting to order at 1:05 PM. Rao reviewed procedures for the meeting. A roll call was taken for Commission attendance. The meeting was interrupted with disturbing and distracting content (i.e., “Zoom bombed”).

Agenda Item #2: Executive Director’s Report

Rao gave an update on some projects. The drought dashboard is coming along nicely. Staff are working with the DCR Fire Chief to automate the calculation of the Keetch Byram Drought Index and are working on a drought impact reporter. In addition, as part of the Climate-Hydro Risk project climate predictions are being updated and downscaled; working with Cornell University, USGS and Tufts University, precipitation estimates are being downscaled and inputted to a hydrologic model to predict what streamflow would look like in the future with respect to droughts and floods.

Agenda Item #3: Hydrologic Conditions Report

Graham provided an update on the hydrologic conditions for January 2020. Monthly average temperatures were above to well above normal. Precipitation was below normal. January was relatively dry for most of the state and especially in the Southeast, Cape Cod, and Islands drought regions. For those regions, the 1-month Standardized Precipitation Index was at Index Severity Level 2. Longer look-back periods were still showing some deficits in some regions from the 2020 drought. Due to above normal temperatures, month-end snowpack only remained in the Berkshires. Monthly median streamflows were normal to above normal. All but three gages were above the 30th percentile. Groundwater was mostly in the normal range. All regional medians were above the 30th percentile. Regional percentiles improved or nearly stayed the same since December; a few individual wells were still lower than the 30th percentile. Lakes and Impoundments levels were in the normal range. February’s snowfall was below to well below average. Season-to-date snowfall totals were also mostly below average across the state. Throughout the month of January, and as of January 26th, there were no drought conditions shown on the United States Drought Monitor. National Oceanic Atmospheric Association’s (NOAA’s) February outlook projects equal chances for below-normal, normal, or above-normal temperature and above-normal precipitation. NOAA’s 3-month outlook projects above-normal temperatures and equal chances for below-normal, normal, or above-normal precipitation.

Agenda Item #4: Update: Status of Interbasin Transfer Act (ITA) Projects

Curran gave an update on the status of ITA Projects. Projects commented on through the Massachusetts Environmental Policy Act (MEPA) process include Barnstable on a single Environmental Impact Report (EIR) wastewater management plan; there is potential for a wastewater transfer if the discharge is to the ocean. Comments were also submitted on the Final EIR for a Taunton wastewater plan, which includes increasing treatment plant capacity. Staff requested more information about the point of discharge and the intermunicipal agreement with Dighton. There are two communities with prior ITA approvals seeking modifications: Foxborough has requested a revision to the monitoring conditions that have been in place as part of a 2001 WRC ITA decision. Foxborough submitted a response to the WRC’s request for additional information regarding changes to their monitoring program and staff are reviewing. Reading has also requested a revision to the water conservation conditions that have been in place as part of a 2007 WRC ITA decision. WRC staff are in the process of reviewing the Town’s proposal of

revising their bylaw to reflect a discontinuation of outdoor water restrictions tied to the Ipswich River triggers and instead using MWRA drought plan triggers.

There have been preapplication discussions with Plainville; the community is exploring purchasing additional water from North Attleborough for a short-term solution to water supply and is seeking long-term solutions by developing sources in the Taunton Basin. WRC staff are consulting with MassDEP and Town staff to determine how much of a potential transfer would be subject to the ITA.

Applications that are expected soon: The Auburn Water District is proposing to purchase water from Worcester. Staff requested additional information last spring and are waiting for the final EIR to be filed with MEPA.

Ongoing is a review of certain ITA decisions with on-going conditions. For example, the Alprilla Well decision required an annual submittal of Annual Statistical Reports to confirm compliance with residential gallons per capita day and well withdrawal conditions. A subset of prior approvals includes those with a potentially limited time of monitored conditions. For example, the Town of Wilmington was to report for the first five years after receiving water, and then report by request.

Baskin affirmed that the file review of prior approvals is a worthwhile effort and asked about developing a database of ITA projects with their technical intricacies, attributes, and specifics to facilitate finding similarities and precedent. Zoltay added this would be helpful, and already there is a draft list and description of insignificant ITA projects.

Cambareri asked about the monitoring of the Ipswich to determine if cessation of pumping has improved river flow. LeVangie responded that Linda Hutchins, a former OWR hydrologist, did some analysis that showed improvement. There is also the complexity of land use change and drought. It would still be an interesting analysis to continue and important to follow up on changes and study potential benefits.

Pederson asked about the status of ITA decisions; she could not find the Reading decision on the State website, only more recent decisions. She asked what the plan is to restore the decisions on the State website. Rao responded that staff are working on restoring and improving online access to past decisions.

Zoltay gave an update on some Ipswich River analyses and the potential for the development of a model. USGS could do this work, but it would cost a couple hundred thousand dollars. Richards agreed with the need for analyses to mark the change in streamflow and subsequent ecological responses. Weiskel reiterated that posing and answering the question most useful for decision makers and water management would be worthwhile.

Agenda Item #4 Presentation and Discussion: Proposed Updates to the Interbasin Transfer Act Performance Standards: Part 1 -Water Rates and Billing:

Cohen presented on water rates and billing. Presentation available at:

<https://www.mass.gov/doc/presentation-water-rates-and-billing-staff-proposal/download>

The purpose of the ITA performance standards update is to reflect the 2018 updated Interbasin Transfer Regulations, reflect the 2018 updated Water Conservation Standards, and to align with industry best practices.

The Water Conservation Standards require full-cost recovery while the ITA requires full-cost pricing with an expectation of full-cost pricing already in place or a timeline to transition to full-cost pricing. More specifically, Section 8D says “The Commission shall promulgate rules and regulations... Said criteria shall include... (c) implementation of rate structures which reflect the costs of operation, proper maintenance and water conservation and encourage the same.” Thus, full-cost pricing is required explicitly in the ITA.

Benefits of full-cost pricing include incentivizing efficient use, fairness, reduction of long-term costs by avoiding deferred maintenance, and financial sustainability. It is industry best practice. Concerns about full-cost pricing are that it can be politically unpopular, and it can lead to affordability concerns. In certain circumstances, subsidies for the water department may be justified.

Cohen reviewed proposed language with emphasis on the words “should” and “must.” Proponents should demonstrate full cost pricing, i.e., that water system revenues, including rates, fees, and other charges collectively reflect the full cost of the system, including: operation, maintenance, capital needs, source protection, debt service, administration, regulatory compliance, and water conservation, or establish a timeframe for transitioning to full-cost pricing. At a minimum, proponents must demonstrate that total revenue sources, including any from outside the water system, are sufficient to cover these costs. Budgets used to establish costs should use a 10-year or longer planning horizon.

Cohen discussed enterprise funds. The Water Conservations Standards recommend enterprise funds while the ITA expects the use of enterprise funds. An enterprise fund makes transparent the total cost of service and revenue, facilitates full-cost pricing, protects retained earnings for utility costs, incentivizes system investment, makes transparent the level of subsidy when full-cost pricing is not in effect, requires a transparent, balanced budget of expenditures and revenues. Use of enterprise funds is industry best practice. However, enterprise funds can be politically unpopular, prevent utility revenues from being used to subsidize other town needs, and require vote of town council or town meeting. Also, other structures may already accomplish the same outcome as enterprise funds. Cohen noted that while there may be some sympathetic circumstances for a town to use water utility revenues for non-utility purposes, an interbasin transfer is not an appropriate circumstance for that. Proposed language says, “Municipal suppliers should demonstrate the use of an enterprise fund in accordance with Massachusetts General Law Chapter 44, Section 53F ½, or other such equivalent mechanism to segregate water system accounting from other municipal governmental activities and ensure all revenues derived from water supply activities are retained for, and applied only to, water related expenditures.”

Cohen discussed conservation signals in pricing. The Water Conservation Standards recommend a conservation signal while the ITA requires one through language “Section 8D. The commission shall promulgate rules and regulations... Said criteria shall include... (c) implementation of rate structures which reflect the costs of operation, proper maintenance and water conservation and

encourage the same.” Conservation pricing is required explicitly in the ITA. It promotes efficient use of water, can fit community needs through a wide range of approaches, can be targeted to address most problematic usage and is industry best practice. However, it may require restructuring and raising rates for some customers. It also requires analysis of customer usage and revenue patterns. Proposed language says, “The rate structure must encourage water conservation.” An additional appendix will provide guidance on financially sustainable conservation-oriented rate structures. This appendix will be reviewed with the Commission at the following meeting.

Cohen discussed billing frequency. The Water Conservation Standards require quarterly or more frequent billing and recommend monthly (or at a minimum bi-monthly) billing. The ITA performance standards require quarterly or more frequent billing and there is an expectation of monthly billing or timeframe to transition to monthly billing. Monthly billing is important for the connection between price signals and behavioral change. It also helps to identify leaks quickly, to establish usage patterns for rate setting and conservation programming, can ease affordability problems, creates stable cash flow, conforms to other utility billing, enables more accurate Unaccounted for Water (UAW) assessments, and is becoming industry best practice. However, monthly billing can be infeasible without automated metering infrastructure (AMI), is administratively more burdensome and costly, may weaken “sticker shock” impact of bill (reduce conservation urgency), and may feel more burdensome to customers. The proposed language says “proponents should bill customers monthly or establish a timeframe for transitioning to monthly billing. At a minimum, customers must be billed quarterly.”

Cohen spoke about other billing practices that support conservation. The Water Conservation Standards recommend billing practices that support conservation, while there is an expectation of billing practices that support conservation under the ITA. These practices help customers track their usage patterns, help customers connect their bill to their behavioral choices, and have been shown to encourage conservation. However, these practices may require more data processing and administrative time. Proposed language says “Bills should be easily understandable to the customer, indicate the rate structure clearly, and provide water use in gallons. Additionally, bills (or customer portals if using software services that support this) should provide information to help customers track their usage trends, such as seasonal shifts in use, comparisons to the same period in the previous year, or comparisons to typical usage in their customer category or sub-category.”

There was discussion, comments, and questions:

Pederson asked about full cost pricing; the 2018 Water Conservation Standards used the vetted terminology “recover the full cost of water service,” and she is concerned about changing terminology to “full cost pricing.” Cohen explained that the only intended difference was that all costs should be recovered through rates, fees, and charges, rather than subsidized by general taxes. Woodcock, who was part of the original discussions for the Water Conservation Standards, added that the phrase “recover the full cost of water service” in the Water Conservation Standards was intended to be synonymous with the description of “full cost pricing” proposed here for the ITA standards. The broadening of the term to “recovery” was to include fees and charges, which is made clear in the proposed language here. He feels any interpretation of the

Water Conservation Standards language as supporting tax subsidies for the water supplier is a misunderstanding of the original intent.

Blatt asked in the chat if full cost includes so-called external costs, such as mitigation of impact to the environment. Cohen referred to the proposed language, which lists the cost categories, including some that relate to environmental mitigation.

Abrahams, who has expertise in the use of enterprise funds, was invited to make some remarks. He gave some background on enterprise funds and other statutory alternatives, such as water surplus accounts. The trend has been to move away from special revenue accounts to enterprise funds. The Department of Revenue (DOR) preferred alternative is enterprise funds.

Cambareri had a question about enterprise funds with respect to water districts and fire districts. Abrahams explained about water districts, fire districts, and the use of general fund versus enterprise funds. Cambareri wanted to make sure the proposed language works in these situations. Rao said the language uses “should” instead of “must” so there is some flexibility. Cohen also said that incorporating the phrase “municipal supplier” was intended to exclude water and fire districts from this standard, as they often have more isolated accounting by nature. Cambareri asked how many water districts are, and Pederson said there are 63. Woodcock also pointed out the language “other such equivalent mechanisms,” so the districts have that available for some flexibility. The intent is to determine what the expenses and the revenue are for an ITA review because these aren’t always apparent. Also, it is common to use water revenue to purchase things like fire trucks and fund police stations when enterprise funds are not put in place.

Pederson asked Abrahams about a DOR opinion regarding retained earnings. Abrahams explained there are efforts underway to recognize capital and operating reserves within enterprise funds. DOR allows debt-service reserves already but not capital and operating reserves.

Pederson was pleased to see flexibility for other equivalent mechanisms. She agreed that water districts are basically set up to be an enterprise fund but thought the language proposed here could be tightened since districts are still considered a municipal supplier.

LeVangie asked about compliance. Cohen responded as part of the MEPA filing, applicants are asked to submit what is needed to determine compliance and there are usually follow-up conversations. LeVangie expressed concern about the workload required to review data and compliance should this become a state-wide standard not just limited to ITA.

Pederson would like to see the guidance in Appendix B. She differs on what the ITA statute requires regarding a conservation signal. A few years ago, increasing block rate structures were considered sufficient to send a price signal. Cohen said there is a lot more research and analysis now to help understand what types of structures effectively send a price signal. Appendix B will be presented next month.

Weismantel stated he agrees with what Cohen presented about full cost pricing and enterprise; the price signal depends on the details, especially the minimum tier. However, he disagrees

about monthly billing. He posed several questions. How many MA systems have monthly billing? Cohen replied there are around 29 suppliers. How much does it cost to bill a customer? Sara did not know, but Woodcock responded \$4-5 per bill. Weismantel thinks the cost is higher. Weismantel continued with questions: he would like to see examples of switching to monthly billing resulting in water conservation. Weismantel talked about his experience in Hopkinton as a water commissioner and his personal water bill. He is concerned that smaller bills will not provide motivation about water conservation and will not change behavior. Also, the Department of Public Works staff must go out to investigate if meter readings do not seem right. Weismantel presented his analysis: more employees will be needed to investigate, the cost will increase by \$30,000 paid to an outside firm who processes the bills, and other departments will also have their workload increase with more billing cycles. He is concerned about the increased burden to the treasurer/collector and water department. Also, water bills vary from cycle to cycle. He suggested showing use by a mailer, text, or email without triggering a billing cycle.

Rao acknowledged that monthly billing could be a big leap for certain communities. Weismantel reiterated his concerns by pointing out that of all the conditions Burlington is subject to under its recently approved transfer, the only one they pushed back on was the billing one.

Pederson commented on other ways besides monthly billing to get useful information to customers- monthly readings or some of the Advanced Metering Infrastructure applications can send even more frequent alerts and detect leaks sooner than a monthly bill. Monthly billing costs utilities.

Fox acknowledged there is some resistance because of increased administrative costs and burden, but most of the rest of the country is there already with respect to monthly billing. He has seen decreased use on per capita basis after monthly billing was implemented. He can check with his clients if it is ok to share these data if wanted. He has some updated information on the frequency of billing for MA and nationally. There is discrepancy between MA and the percent of systems nation-wide who bill monthly. Fox continued that from a conservation standpoint, if billing only quarterly, price signals cannot effectively target peaking during seasonal use.

Cohen cited a North Carolina Environmental Finance Center study that shows a correlation between monthly billing and lower demand.

Pederson expressed her opinion that this is not about communities who want to achieve water conservation through rates; it is about whether or not MA policy should be requiring this. Cohen responded that if a community is looking for ITA approval, they need to demonstrate conservation.

Woodcock commented that water conservation saves other resources, like power. He also noted that power and all other utilities including phone, cable, etc. are able to bill monthly as are the rest of the country's water utilities.

Pederson asked that language regarding water use in gallons be changed to "it is preferable."

Note: Tim O'Leary, Chief Financial Officer of Hopkinton, was in the Zoom waiting room, but it was unclear if he was able to join the meeting.

Agenda Item #5: Presentation: Massachusetts Floodplains and Vulnerable Populations – Initial work, December 2020

This presentation was postponed because of time constraints.

A motion was made by Weismantel with a second from Balzotti to adjourn the meeting.

Meeting adjourned, 3:11 PM.

Documents or Exhibits Used at Meeting:

1. Hydrologic Conditions in Massachusetts, January 2021 (available at <https://www.mass.gov/info-details/water-data-tracking>)
2. Memo dated February 11, 2021, to Water Resources Commission from WRC staff regarding Proposal for Updates to the ITA Performance Standards for Pricing and Billing
3. Agenda for the Alliance for Water Efficiency's Financing Sustainable Water workshop, March 16 – 17, 2021
4. Interbasin Transfer Act project status report, January 29, 2021

Compiled by: EG

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 vandana.rao@mass.gov.