THE COMMONWEALTH OF MASSACHUSETTS

WATER RESOURCES COMMISSION

100 CAMBRIDGE STREET, BOSTON MA 02114

Meeting Minutes for November 14, 2019

100 Cambridge Street, Boston, MA, 1:30 p.m.

Minutes approved December 12, 2019

Members in Attendance:

Vandana Rao, Chair	Designee, Executive Office of Energy and Environmental Affairs (EEA)
Linda Balzotti	Designee, Department of Housing and Community Development (DHCD)
Marilyn McCrory	Designee, Department of Conservation and Recreation (DCR)
Kathy Baskin	Designee, Department of Environmental Protection (MassDEP)
Michelle Craddock	Designee, Department of Fish and Game (DFG)
Hotze Wijnja	Designee, Department of Agricultural Resources (DAR)
Vincent Ragucci	Public Member
Kenneth Weismantel	Public Member

Members Absent

Todd Callaghan	Designee, MA Office of Coastal Zone Management (CZM)
Marcela Molina	Public Member

Others in Attendance:

John Gregoire	Massachusetts Water Resources Authority
Greg Lane	Next Generation Strategies
Jen Pederson	Massachusetts Water Works Association
Katie Ronan	Massachusetts Water Resources Authority
Alison Field-Juma	OARS for the Assabet Sudbury and Concord Rivers (OARS)
Sara Cohen	DCR
John Scannell	DCR
Andreae Downs	Wastewater Advisory Committee
Viki Zoltay	DCR
Erin Graham	DCR
Peter Weiskel	USGS
Kate Bentsen	DFG/DER
Linjun Yao	MassDEP
Beth McCann	MassDEP
Duane LeVangie	MassDEP

Rao called the meeting to order at 1:38 p.m.

Agenda Item #1: Executive Director's Report

- Rao announced a New England Water Works course on PFAS in drinking water being offered on December 10th in Holliston, MA.
- Rao let people know that the November Drought Management Task Force (DMTF) meeting had just met prior to the start of the WRC meeting. This was a follow-up to their October

meeting, during which they had assessed conditions for the month of September and had recommended that the CT River Valley be declared as in a Level 1 Mild Drought for that month, which the Secretary then officially declared. At today's meeting, based on October conditions, the DMTF recommended a return of the CT Valley Region to a normal status, along with a continuation of normal status for all other regions.

- Rao announced that with the recent completion of the updated MA Drought Management Plan, staff will begin to operationalize aspects of the plan. In particular, they will work on the Plan's *preparedness* actions, looking both at state preparedness and at how they can help local communities and others prepare. They will keep the WRC up to date on these efforts.
- Rao pointed out three attachments to the packet for members' review and record-keeping: a) the WRC findings on the Aquaria project Amendment, which is a conversion of last month's staff recommendation regarding changes to the 2005 Fisheries, Vegetation, and Water Quality Monitoring Plan associated with this project into a Decision; b) a Notice to the Environmental Monitor of this same Amendment; and c) a letter from Michele Drury to Leicester outlining the staff's review of the applicability of the Interbasin Transfer Act to the Leicester Water Supply District's proposal to purchase water from the City of Worcester, including the conclusion that the Act does not apply, provided the amount transferred from the Blackstone Basin does not exceed 0.2 MGD (million gallons a day).

Agenda Item #2: Hydrologic Conditions and Drought Update

Zoltay provided an update on the hydrologic conditions for October 2019.

- In October, we recovered much of the moisture deficit experienced in September.
- Precipitation - Total precipitation for the month was higher than average by a range of 1.6 - 2.7" across the state. The Precipitation Index is now 0 for all lookback periods in all regions.
- Streamflow - After large rain events in mid-October, streamflow returned to normal or above at almost all gages. Each region still has scattered gages below the 30th percentile, except the Western region, but when we take the median of the gages within each region, all regions are at Streamflow Index Severity Level 0.
- Groundwater – All regions are at Groundwater Index Severity Level 0, though a few scattered wells are still showing deficits.
- Lakes and Impoundments – All regions are at an Index Severity Level 0 for this index.
- Fire Danger - KBDI is less than 150, resulting in an Index Severity Level 0, for all regions. The top 8" of soil were replenished with moisture from the October rainfall events.
- CMI – The Crop Moisture Index is at Level 0 for all regions; this is the last month we report this index until the beginning of the next growing season.
- Temperatures in October were slightly above normal, and there is no snowpack to report yet.
- The US Drought Monitor still showed Abnormally Dry conditions for parts of the state at the end of October, but by the current week the full state was back to normal.
- Forecast/Outlook – The short-term forecast predicts below normal temperatures. In the long-term we have a slight chance of above normal temperatures with equal chances of below and above normal precipitation, amounting to no drought predictions.

Agenda Item #3: Developing a River Health Report Card: Science-based and Stakeholder-driven

Presentation by Alison Field-Juma, OARS

Slides may be viewed at https://www.mass.gov/service-details/review-our-meetings. Highlights of the presentation included:

- OARS is a science-based advocacy organization for the Sudbury-Assabet-Concord Rivers and also promotes recreation and education for these rivers.
- In contrast to their many dense data reports, the organization wanted to communicate in a way that translated easily to the general public and built stewardship. They looked to models such as the CRWA report card for the Charles River, which has led to useful conversations about sources of contamination, and the Mystic River report card, which gained a lot of ground by breaking the river into reaches to focus on actual problem areas.
- OARS found the Center for Environmental Science at the University of Maryland that promoted a methodology for developing a river report card. OARS contracted directly with this group through a grant to follow their approach.
- The methodology looks at the ecological, cultural, social, and economic health of the river and is data driven. It is a stakeholder driven process, which creates common vision and buy-in. The methodology also produces something digestible for policy-makers.
- To begin, OARS worked with stakeholders to initially identify the primary values for the 3-river system and the threats to each of these primary values. They then identified indicators for evaluation, and thresholds within each indicator.
- OARS then collected the necessary data and calculated the scores and went back to the stakeholders for feedback. Some of the initial values and indicators had to change due to lack of available data and other issues affecting suitability to the methodology. After refinement, the final values used in the report were: Water Quality, Streamflow, Scenery, Habitat, and Recreation.
- The report card is complete and a Methods Report includes the final methodology for all indicators. There is also an interactive website that allows access to the underlying data.
- OARS has received good press coverage and has shaped the message by pulling out key points affecting the grade in each value category, for each separately evaluated stretch of river. There were some good opportunities to point out key differences in metrics among sections of rivers that helped explain different scores. This further led to opportunities to message specific improvements that would affect the score. For example, in the Upper Concord, OARS feels getting to swimmable conditions may be within reach, and the report presents good talking points and data to help message this idea.
- Field-Juma thanked funders, stakeholders, and partners.

DISCUSSION:

Gregoire suggested developing a metric for the aerial extent of water chestnut, since it has been identified as such an issue in these rivers. He wondered if it could be incorporated into the report card. Field-Juma clarified that quantifying the extent of water chestnut is difficult for a number of reasons, including enormous expense and the fact that hand-pulling is underway, leading to constantly changing conditions. However, they are moving toward tracking occurrences and removal efforts using smart phones, and possibly using these data to target removal efforts, without needing to undertake extensive scientific coverage analysis.

Rao appreciated OARS efforts in this work. She noted that including Scenery and Recreation in addition to other more traditional metrics adds a lot of value. In a way, these depend on the other categories, so they operate at a high level that connects with people well. Field-Juma confirmed that their goal includes helping people understand how the values of the river affect them in their own lives.

Rao asked if other watershed groups are catching on to this. Field-Juma said they are sharing this with other Wild and Scenic Rivers and many watershed organizations. Some are daunted by the scale of effort involved, but she noted that the effort can be scaled down, as appropriate.

Butler asked if there was different weighting among the metrics or whether they were all weighted the same. Field-Juma explained that the overall score reflected a weighting of the reaches by length of section. She also noted that they used harmonic means so the extremes were not cut off and believed there was some additional weighting of data in various ways.

Craddock asked how frequently the report would be updated. Field-Juma said it would be updated every 2 years, although some metrics would not require updating with each issue.

Weismantel expressed interested in trends. He worried that some metrics may be too subjective, such as "scenic value," and hoped the results are reproducible for future comparisons and trend analysis. He asked if OARS has thought about using the new monitoring data required of towns under their new NPDES stormwater permit, to help evaluate if there are water quality improvements resulting from that program and the substantial costs being expended by towns. Field-Juma stated that they have seen very clear water quality improvements from NPDES requirements in wastewater discharges already. As far as long-term water quality results from the stormwater work that towns are undertaking, climate change is working against those efforts, so it can be hard to track the effect of that work. Weismantel stressed that we need to reach our water quality goals regardless of what's pushing against progress. Field-Juma agreed, and felt that the data from town monitoring could be extremely worthwhile, but OARS doesn't have the capacity to review all the reports coming out of the NPDES program. She wondered whether some universities could look into these data.

Weiskel stated that USGS published a report in 2016 in cooperation with MassDEP on phosphorus loads in the Assabet River before, during, and after upgrades at the wastewater treatment plant, which helped assess the impact of the upgrades: *SIR 2016-5063 - Changes in Phosphorus concentrations and loads in the Assabet River, MA, October 2008 through April 2014.*

Cohen appreciated Field-Juma's point about climate change working against certain environmental efforts, making it challenging to know the positive impact of those efforts. We may be keeping conditions from deteriorating even faster than they otherwise would, rather than actually improving conditions. This type of important result can be difficult to demonstrate, making public policy choices to spend money on them more difficult.

Bentsen asked how the public responded to the report card results. Field-Juma said people seemed fascinated. Some are very satisfied with a B grade and think that is sufficient. B is a tough grade to work with and doesn't necessarily send a clear message, but it leads to good discussion. The components of the rating wheel may be more useful than the overall grade.

McCrory asked where the funding for the report card project came from and where they hope to get funding from for the updates. Field-Juma explained the funding came from Massachusetts Environmental Trust (MET) and a local foundation, along with some self-funding mechanisms through other grants. She does not think the update will take as much work, so they hopefully will not need additional funding and will be able to manage with their existing funds.

Butler asked if there are messaging or action items coming out of the report around the outstanding wastewater issues. Field-Juma responded that now that phosphorus has been dealt with so effectively, nitrogen is popping up as more of a factor, which is leading to messaging around what they can do around nitrogen as a contributor to the Merrimack and the Gulf of Maine. Also they need to address emerging contaminants, salt, and bacteria. She expects to see trends on these factors that will shape future messages. In general, now that wastewater has been addressed so effectively, stormwater is becoming a larger issue.

Baskin appreciated how the report breaks down the three-rivers system by segment as well as by parameters. She asked what were the surprises that jumped out at OARS from this work. Field-Juma responded that the lack of trails in the upper Assabet surprised them. She also said that a communications problem arose from a very localized mercury contamination site on the upper Sudbury resulting in the appearance on the map of the entire upper Sudbury being in very poor condition. The public has been fascinated by the local and statewide mercury problem as they know very little about it. Overall, however, there were not many surprises, as OARS knows their rivers well. Lowell is a good example of where they hope messaging could really help lead to improvements. It is highly impervious, and there are many opportunities for messaging on improvements to stormwater management and installation of green infrastructure.

Meeting adjourned, 2:42 p.m.

Documents or Exhibits Used at Meeting:

1. Water Resources Commission Findings, dated October 10, 2019: Amendment to the August 14, 2003, Interbasin Transfer Act Findings on Compliance with the Environmental Criteria of the Interbasin Transfer Act and the 2005 Fisheries, Vegetation and Water Quality Monitoring Plan, Aquaria Regional Desalinization Project.
2. Notice from the Water Resources Commission to the Massachusetts Environmental Policy Act Office: Notice of Amendment to the August 14, 2003, Interbasin Transfer Act Findings on Compliance with the Environmental Criteria of the Interbasin Transfer Act and the 2005 Fisheries, Vegetation and Water Quality Monitoring Plan, Aquaria Regional Desalinization Project.
3. Correspondence dated October 16, 2019, from Water Resources Commission to Leister Water Supply District regarding applicability of the Interbasin Transfer Act to Leicester's proposal to purchase water supply from the city of Worcester.
4. Interbasin Transfer Act project status report, October 30, 2019.

Compiled by: SIC
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.*