

## Massachusetts Drought Management Task Force – Meeting Summary

February 07, 2024, 2:00 pm – 3:30 pm conducted remotely via Zoom

### Attendees, Drought Management Task Force Members:

Vandana Rao, Executive Office of Energy and Environmental Affairs (EEA)  
Michael Souza, Massachusetts Emergency Management Agency (MEMA)  
Rob Megnia, National (NWS) Weather Service, Northeast River Forecast Center  
Viki Zoltay, Department of Conservation and Recreation (DCR) Office Water Resources (OWR)  
Duane LeVangie, Department of Environmental Protection (MassDEP), Water Management Act  
Karyn Lothrop, DCR Bureau of Forestry and Fire Control  
John Scannell, DCR, Division Water Supply Protection  
Tom Maguire, MassDEP, Wetlands  
Jason Pollender, United States Geological Survey (USGS)  
Michael Botelho, Massachusetts Department of Agricultural Resources (MDAR)  
Meg Blanchet, Department of Public Health (DPH)  
Moussa Siri, Water Supply Citizens Advisory Committee (WSCAC)  
Adam Kautza, Department of Fish and Game (DFG), MassWildlife  
Kate Bentsen, Department of Fish and Game  
Jennifer Pederson, Massachusetts Water Works Association (MWWA)  
Sarah Bower, Mass Rivers Alliance

### Other Attendees:

Jason Duff, DCR OWR	Neal Strauss, NRFC
Vanessa Curran, DCR OWR	Sam Banas, USGS
Anne Carroll, DCR OWR	William Gode, DCR
Erin Graham, DCR OWR	Zeus Smith, Charles River Watershed Assoc.
Sara Cohen, DCR OWR	Caitlin Spencer, DCR
Kara Sliwoski, DCR OWR	Edwin Sumargo, DCR
Beth McCann, DEP	Becca Dahl, CT Office of Policy and Management
Chris Bruet, USGS	Sylvia Reeves, NOAA
Danielle Burney, EEA	Hector Barreras, RI Water Resources Board
Deanna Marks, NWS Albany	

### 1. Introductions: EEA, MEMA & Announcements

Rao called the meeting to order. She introduced herself, apologized for the Zoom link challenges, asked everyone to put their name and affiliation in the chat window for attendance purposes, and asked those who wished to speak to put their name in the chat. Rao Introduced Mike Souza of MEMA, who is filling in as the co-chair.

### 2. Approval of January 9, 2024 DMTF Meeting Notes

Rao asked for a motion to approve the January 9, 2024 meeting notes. Souza made the motion to approve with a second by Zoltay. There was no discussion. The motion passed unanimously of those voting. Rao reminded everyone that the notes will be available on the Drought Management Task Force webpage.

### **3. Brief Overview of MA Drought Management Plan (MA DMP): OWR Staff**

Rao suggested skipping review of overview slides, unless anyone was a new attendee; Strauss noted this was his first meeting. Zoltay provided an overview of the six MA drought indices, the number of stations that report, the index severity levels, and the drought regions.

### **4. Updates on Current Conditions and Impacts with focus on Islands and Cape regions from Members of the DMTF**

Presentations for the two updates below can be found on the mass.gov website; a summary of each presentation is below.

#### **Weather & Forecast: Rob Megnia - National Weather Service, Boston/Norton**

Observed precipitation: January liquid precipitation exceeded normal levels over Cape Cod and The Islands with both regions receiving between 4 and 8 inches of liquid equivalent precipitation. This translates to departures that are 1 to 4 inches above normal for the month of January.

Observed temperatures: Average temperature departures over The Cape/Islands were 1 to 3 degrees above normal during the month of January.

February month-to-date: February is off to a dry start for southern New England in general. The Cape/Islands regions have only received up to a tenth of an inch of liquid precipitation so far this month.

Forecast through February 14: While the 7-day rainfall forecast calls for 0.1 to 0.25 inches of liquid precipitation for Cape Cod and the Islands, this hinges on a potential storm system producing precipitation in the region early next week. Given this event is nearly 7 days out, confidence in additional rainfall is very low. Both the near term and medium range forecasts are leaning toward drier than normal conditions across southern New England including The Cape and Islands.

On the temperature and precipitation outlooks from The Climate Prediction Center, there is a modest signal for both drier than normal and cooler than normal conditions across The Northeast through the end of February. Looking at the 3-month outlook through the end of April, the outlook is leaning slightly toward above normal precipitation over the next 3 months and warmer than normal temperatures.

#### **Hydrologic: Jason Pollender - USGS**

Streamflows on the Cape:

- Western Cape (Quashnet River at Waquoit Village) streamflows are currently normal and have been lower the last 3 years, but have still been mainly normal.
- Eastern Cape (Herring River at North Harwich) streamflows are currently normal and have been below normal for a significant part of the last 3+ years (since the fall of 2020).

Groundwater levels for the Cape and Islands:

- Groundwater levels and 3 wells shown from the Cape started to rise in early January
- Cape wells – groundwater levels at Sandwich 253R and Brewster 22R rose into the normal range by the end of January, and Wellfleet 17R rose from below the 5<sup>th</sup> percentile into the below normal range
- Groundwater levels in the Martha's Vineyard and Nantucket wells started to rise in mid- and late-January, respectively
- Groundwater levels in Edgartown ENW52 rose from below the 5<sup>th</sup> percentile into the below normal range, and Nantucket NBW228 is still below the 5<sup>th</sup> percentile

### **Water Supply:**

Dept. of Environmental Protection – LeVangie said there were no updates from public water suppliers from either that region or elsewhere in the state.

Dept. of Public Health – Blanchet said their office of local and regional health reached out to local boards of health on islands for impacts on private wells and none were noted.

No other updates/comments.

### **5. Presentation of Index Severity Levels as per MA DMP**

Zoltay provided recent hydrologic history that has resulted in the current conditions. June through September most of the state had above normal precipitation, but the Islands were intermittently in the normal range, with prior months below normal. Overall, consistently declining and below normal groundwater on the Islands and part of the Cape. October and November had below normal precipitation across the state, which further declined the groundwater on the Islands and parts of the Cape. December precipitation was back to normal, groundwater was well below normal on the Islands, and normal, slightly below and well below normal on the Cape. January was above normal precipitation for most of the state, but not on the Islands, though Martha’s Vineyard fared better than Nantucket. Groundwater also improved during January, with Edgartown now in the below normal range and Nantucket recovering as well, but more slowly and still in the below 5<sup>th</sup> percentile range. Zoltay reviewed the US Drought Monitor for the end of December and end of January, with the Islands going from D1 to D2, which is equivalent to level 2 to a level 3 based on the MA DMP.

Precipitation: January had abundant rain across the state and that water should be reflected in the groundwater soon. The accumulated precipitation departure graph shows regions other than the Islands having positive values; whereas the Islands were tracking below normal, recovered slightly to normal in October and then a steep and steady decline until January and is now recovering back toward normal. Precipitation in January was enough to erase the deficits in previous 2 months for the Islands for this index.

Streamflow: Eastern Cape gage is back in the normal range. Cape region was in the 50<sup>th</sup> percentile for the index, showing it has recovered.

Groundwater: Groundwater is still lagging, which happens when coming out of a drought. January brought improvement to the Cape and Martha’s Vineyard. On the Cape, few are still below normal but have recovered from well below normal. On Martha’s Vineyard, Edgartown had a sharp recharge to be in the below normal range as opposed to the well below normal range where it was. However, Nantucket received slightly less precipitation, is not responding as quickly, and is still below the 5<sup>th</sup> percentile.

Lakes & Impoundments: all regions (with data) are normal.

### **6. Discussion of Drought Level Recommendations**

Rao noted that it is encouraging to see rebound for the Cape and the Islands regions, though the Islands are still at the cusp of drought levels 2 and 3. The recommendation is to continue to hold the Islands at Level 2. Groundwater is slowly improving but the forecast is looking to be dry, with recharge potentially slow for any recovery.

Pederson asked what ‘ID’ meant on final lakes and impoundments index table in the Western Region, which Zoltay noted means insufficient data as none was received. Pederson also asked about the black

dots on accumulated precipitation graph, which Zoltay said were missing values, which can happen if data is missing, or simply late to be uploaded.

Megnia noted he agreed with Rao that there was some recovery, but not enough given the dry near term forecast and uncertainty in when water quality issues may arise from low levels on the Islands. Additionally, with current lows, to keep awareness high and hope for some rain before summer.

Rao called on members of the DMTF to put their votes in the chat box; all members voted to keep the Islands region at a Level 2. Rao asked for suggestions on messaging if anyone had any, which there were none.

**Islands Region:** Maintain level 2

**Summary of Recommendations: No change for any region.**

Western: level 0

Cape Cod: level 0

Islands: level 2

Connecticut River Valley, Central, Northeast, and Southeast Regions: level 0

#### **7. Recommendations for Drought Level Response Actions**

The recommendation to the Secretary will be to keep the Islands at Level 2, with messaging to keep a close watch on conditions and be mindful of indoor water use during this time of year since outdoor use is non-existent.

#### **8. Next Steps**

The recommendation will be made to the Secretary. The next DMTF meeting will be March 8<sup>th</sup> at 10:00 am. If any task force members have interim reports to share, they can email Rao or Carroll.

#### **Meeting Ended**

The meeting adjourned at 2:48 pm.