

# Massachusetts Drought Management Task Force – Meeting Summary

March 08, 2024, 10:00 am – 11:30 am conducted remotely via Zoom

## Attendees, Drought Management Task Force Members:

Vandana Rao, Executive Office of Energy and Environmental Affairs (EEA)  
Sara Zalieckas, Massachusetts Emergency Management Agency (MEMA)  
Joe Dellicarpini, National (NWS) Weather Service, Northeast River Forecast Center  
Gardner Bent, U.S. Geological Survey (USGS)  
Viki Zoltay, Department of Conservation and Recreation (DCR) Office Water Resources (OWR)  
Duane LeVangie, Department of Environmental Protection (MassDEP), Water Management Act  
Dave Celino, DCR Bureau of Forestry and Fire Control  
John Scannell, DCR, Division Water Supply Protection  
Tom Maguire, MassDEP, Wetlands  
Dalene LaPointe, Department of Public Health (DPH)  
Moussa Siri, Water Supply Citizens Advisory Committee (WSCAC)  
Kate Bentsen, Department of Fish and Game (DFG)  
Jennifer Pederson, Massachusetts Water Works Association (MWWA)  
Katharine Lange, Mass Rivers Alliance  
Marco Pareto, Department of Public Utilities (DPU)  
John Gregoire, Massachusetts Water Resources Authority (MWRA)  
Sylvia Reeves, National Oceanic and Atmospheric Administration (NOAA), NIDIS

## Other Attendees:

Jason Duff, DCR OWR	Elizabeth McCann, MassDEP
Vanessa Curran, DCR OWR	Neal Strauss, NRFC
Anne Carroll, DCR OWR	Sam Banas, USGS
Erin Graham, DCR OWR	William Gode, DCR
Kara Sliwoski, DCR OWR	Zeus Smith, Charles River Watershed Assoc.
Viki Zoltay, DCR OWR	Caitlin Spence, EEA
Adam Kautza, MassWildlife	Edwin Sumargo, EEA
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	Karyn Lothrop, DCR
Abe Farley, NWS	Pin duBois, Jones River Watershed Association
Michael Souza, MEMA	Zeus Smith, Charles River Watershed Association

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

Rao called the meeting to order, introduced herself, and mentioned that this meeting would be focused on the Islands region, but that a broader overview would also be given. Rao introduced Sara Zalieckas of MEMA as the co-chair of the task force, gave a brief description of the roles of the task force, and asked everyone to put their name and affiliation in the chat window for attendance purposes.

### 2. Approval of February 7, 2024 DMTF Meeting Notes

Rao asked for a motion to approve the February 7, 2024 meeting notes. Pederson made the motion to approve with a second by Siri. There was no discussion. The motion passed unanimously of those voting. Rao reminded everyone that the notes will be on the Drought Management Task Force webpage. She

quickly introduced Dalene LaPointe as a new representative on the task force replacing Meg Blanchet for DPH.

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

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: Joe Dellicarpini - National Weather Service, Boston/Norton**

Dellicarpini gave an update on precipitation conditions, focusing on the Cape and Islands. February precipitation was below normal on the Islands (departures ranged from 0.5 to 1.5 inches below normal). The 3-month and 6-month lookbacks both show that precipitation on Nantucket was 80 to 100% of normal, and the rest of the Islands region and outer Cape were also 80-100% of normal in the 6-month lookback. Over the last seven days, the Cape/Islands received 1 to 2 inches of rain. The 7-day forecast shows 1+ inches of rain possible for the Cape and Islands, but then moving into dryer conditions. The 8-14 day, 3-4 week, and seasonal temperature outlooks are all leaning toward above average temperatures. The 8-14 day, 3-4 week, and seasonal precipitation outlook is leaning towards above normal as well. There are equal chances for above and below normal precipitation in both the 8-14 day and 3-4 week precipitation outlook.

Rao asked if the above normal temperatures means that the ground is not as frozen as normal and how that might relate to base flows getting replenished. Dellicarpini explained that we are definitely seeing more of a spring weather pattern and this late in the season the ground will probably not experience much more freezing or snow.

**Hydrologic: Gardner Bent - USGS**

Bent provided a summary of streamflow and groundwater conditions, focused on the Cape and Islands. Western Cape (Quashnet River at Waquoit Village) streamflows were normal in February, and have been lower the last 3+ years, but have still been mainly normal. Eastern Cape Cod (Herring River at North Harwich) streamflows were also below normal in February, and have been below normal for a significant part of the last 3+ years (since fall of 2020).

Groundwater levels at Sandwich 253R and Brewster 22R were in the normal range and Wellfleet 17R was in the below normal range during February. Groundwater levels in all three Cape wells continued to rise during February, but the rate of rise in the Sandwich 253R and Brewster 22R was not as great as during January. GW levels in the Martha's Vineyard and Nantucket wells continued to rise during February and were in the normal and below normal range, respectively, at the end of February.

**Water Supply:**

John Gregoire commented that MWRA is dealing with more water than they would like at a number of reservoirs because of all the precipitation.

No other updates/comments.

**Fire:**

Celino stated that they did start to get a few fires in February, but that the most interesting thing is that they had six prescribed burn operations in February, which is very unique for that time of year and is related to the amount of fuels that are present.

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

Zoltay provided a summary on recently hydrologic history that has resulted in the current conditions. June through September most of the state was having above normal precipitation, but the Islands was intermittently in the normal range, as previous months had been below normal. Overall, there was consistently declining and below normal groundwater on the Islands and some 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 was back to normal precipitation, but not enough to erase the 2 and 3-month look back periods for the precipitation deficits for the Islands and the Cape, the well below normal groundwater on the Islands, and the normal, slightly below and well below normal groundwater 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 moving into the below normal range and Nantucket recovering as well, but more slowly and still was in the below 5<sup>th</sup> percentile range. In February, there was below-normal to normal precipitation on the Islands, and below to well below precipitation across the state, especially the Northeast. Groundwater improved on Martha's Vineyard, but there was not as much improvement on Nantucket.

Zoltay also reviewed the US Drought Monitor for the end of January and end of February, with the outer part of the Cape going from D0 (MA DMP level 1) to none, Nantucket going from D2 (MA DMP level 3) to D1 (MA DMP level 2), and Martha's Vineyard going from D2 to D0.

Precipitation: Southeast Cape and Islands precipitation was normal to below normal in February. Precipitation was also well below normal in the Northeast, and below normal to well below normal west of there. Overall, it was a very dry month statewide. The Islands has continued to see a precipitation departure from normal. For the precipitation index, the 1- month lookback showed most regions of the state ranging from level 2 to level 4, with the exception of the Cape and Islands which were just into the normal range. The 2-9 month lookbacks showed all regions in the normal to well above normal ranges.

Streamflow: Western Cape is doing better than eastern Cape. Streamflows overall were normal to above normal across the state.

Groundwater: Groundwater is still lagging in the Cape and Islands, but the Cape never reached enough below-normal values to trip the groundwater index. The Islands are showing that Martha's Vineyard/Edgartown is back in the normal range, but Nantucket is still below normal. Overall, the groundwater index is showing the Islands region at Drought Level 1.

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

**6. Discussion of Drought Level Recommendations**

**Islands Region:**

Rao explained that because of the recovery in groundwater on the Islands, the staff recommendation is to downgrade the Islands from Drought Level 2 to Level 1.

Pederson requested maintaining drought at just Nantucket (county level) because the U.S. Drought Monitor now has removed drought from Martha's Vineyard. Rao said recommendations at the county level has been done before, but the islands is a small geographic area and as a combination the values for both islands fall in level 1. Zoltay also commented that there are additional wells on Martha's Vineyard that don't go into the index calculations, but that are showing drought conditions, and there are also additional wells on Nantucket that show the same thing.

Maguire added that the U.S. Drought Monitor operates on a different time scale (weekly vs. monthly), so it's much more sensitive to changes in precipitation.

**Summary of Recommendations:**

Western: level 0

Cape Cod: level 0

Islands: level 1

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 downgrade the Islands to Level 1. An updated map will also be published, as the map has not changed for the past three months due to conditions remaining fairly static. The improving conditions on the Islands will be highlighted in the press release and other messaging.

**8. Next Steps**

The recommendation will be made to the Secretary. The next DMTF meeting will be April 9<sup>th</sup> at 10:00 am. Rao also let the task force know that the updated DMP is now available online.

**Meeting Ended**

The meeting adjourned at 10:50am.