

Massachusetts Drought Management Task Force – Meeting Summary

July 10, 2024, 1:00 pm – 2:30 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)
Joe Dellicarpini, 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
Tom Maguire, MassDEP, Wetlands
Dalene LaPointe, Department of Public Health (DPH)
Kate Bentsen, Department of Fish and Game (DFG)
Jennifer Pederson, Massachusetts Water Works Association (MWWA)
Julia Blatt, Massachusetts Rivers Alliance
Adam Kautza, Massachusetts Division of Fisheries and Wildlife, DFG
Dave Celino, DCR Bureau of Forestry and Fire Control

Other Attendees:

Aisha Revolus	EEA	John Scannell	DCR DWSP
Anushka Diddee	EEA	Kara Sliwoski	DCR OWR
Benjamin Hiltunen	MEMA	Karyn Lothrop	DCR
Brian Loving	USGS	Katharine Lange	Mass Rivers
Britt Westergard	NOAA	Kourtney Allen	City of Attleboro
Brittany Segill	MassDEP	Neal Strauss	NOAA
Caitlin Spence	CZM	Purvi Patel	EEA
Deanna Marks	NOAA	Ricardo Morales	City of Pittsfield
Elizabeth McCann	MassDEP	Richard Friend	MassDEP
Erin Graham	DCR OWR	Tim Pasakarnis	Cape Cod Commission
Jason Pollender	USGS	Todd Melanson	Town of Billerica
Jason Duff	DCR OWR	Vanessa Curran	DCR OWR
Jennifer Durso	MassDEP	Zeus Smith	Charles River Watershed Association
Joe Dellicarpini	NOAA		
John Gregoire	MWRA		

1. Introductions: EEA, MEMA & Announcements

Rao called the meeting to order at 1:00 pm, introduced herself, and introduced Benjamin Hiltunen of MEMA as the co-chair of the task force replacing Sara Zalieckas. She asked everyone to put their name and affiliation in the chat window for attendance purposes.

2. Approval of April 9, 2024 DMTF Meeting Notes

Rao asked for a motion to approve the April 9, 2024 meeting notes. Blatt made the motion to approve with a second by LeVangie. 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.

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

Zoltay provided a quick review 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 the Western Region from Members of the DMTF

Presentations for the updates below can be found on the mass.gov website [here](#); a summary of each presentation is below.

Weather & Forecast: Joe Dellicarpini - National Weather Service

June was a warm and drier month in western Massachusetts. Rainfall totals averaged 2 to 4 inches which is 50-75% below average for the month but locations near the east slopes of the Berkshires received 4 to 5 inches of rain in June which was closer to normal. Temperatures averaged 2 to 3 degrees above normal for the month. Three-month departures are beginning to show a decline in western Massachusetts (as low as 75%) but six-month departures are still within the normal range. For the first week of July, rainfall has been closer to normal (or even above normal) in western MA but departures were well below normal in much of eastern MA.

The remnants of Beryl are projected to bring the heaviest rainfall to northern New England today into Thursday with more in the way of hit or miss showers and thunderstorms in western Massachusetts. Showers and a few thunderstorms should bring a more widespread rainfall Friday night into Saturday. Total rainfall through next Wednesday, July 17 should average 0.5 to 1.0 inch in western Massachusetts.

The longer-range weather pattern is expected to feature above average temperatures through July, August, and September. Odds slightly favor above average rainfall over the next 3 months.

Hydrologic: Brian Loving - USGS

Streamflow conditions have generally moved from above normal to normal over the last 3 months across Massachusetts, with the Cape and Islands still a little above normal by the end of June and parts of the Hoosic, Housatonic, and Connecticut River basins a little below normal in May and June.

By late June, groundwater levels were normal to above normal statewide at USGS-monitored continuous wells, except for wells in the upper Hoosic and Housatonic basins, which were a little below normal.

Hydrologic: Neal Strauss, Northeast River Forecasting Center

Heading into mid-July 2024, river flows across most of the Commonwealth are in good shape. Over the past month, flows have increased a bit across western and central Massachusetts but have tended to decrease across eastern and southeastern portions of the state.

The weather pattern looks fairly active for July with several chances for rainfall over the next 10 days. As a result, the NERFC river forecast ensembles call for rivers and streams to remain close to current levels as we head into the latter one-half of July.

The heaviest rainfall associated with the remains of Hurricane Beryl are currently forecast to remain north and west of Massachusetts through Thursday.

Water Supply: Duane LeVangie – MassDEP

LeVangie reviewed the Water Management Act program, including the system for registrations and permits. He also reviewed the triggers for restrictions for PWS permits. As of July 8th, PWS reported water use restrictions included 6 voluntary, 72 mandatory of 2 days or more, and 11 mandatory of 1 day or less.

Water Supply: John Gregoire – MWRA

Gregoire explained that the Quabbin only recently stopped spilling water and is currently at about 96% capacity. They are in the transfer season in which water is being moved from Quabbin to Wachusett for water quality and demand purposes, but overall Wachusett is in good shape. The emergency source reservoirs (Sudbury and Foss) are in good shape also.

Water Supply: Jen Pederson– MWWA

Pederson reported that Greenfield said they were only seeing stress at one of their facilities. Amherst water supply was in good shape as of June 30th. Chester and Springfield also both responded that they had no supply concerns.

Private Water Supply- DPU

Marcos Peretto was not able to attend the meeting but gave Rao an overview prior to the meeting. The Aquarion Water Company implemented non-essential outdoor watering restrictions of alternating days in Milbury, and twice a week in Dover, parts of Plymouth, and Pine Hills. There were no other updates from private water companies.

Fish and Game: Adam Kautza, DER

There have been reports from the Hoosic River that streamflows are low relative to last year, but there are no drastic impacts to report.

Massachusetts Rivers Alliance: Julia Blatt

The Parker River Watershed Association sent photos of the Parker and two tributaries looking low. The Jones River is also looking low.

Fire Danger: Dave Celino, DCR

It has been a slow fire season so far with fires below five-year averages. There have been 421 wildfires year-to-date with 425 acres burned. The KBDI has been rising a little bit because of the recent high temperatures, but with the high humidity the ignition potential and potential for fires to spread have been low. There are no concerns with fire activity for the foreseeable future.

There were no other updates from task force member agencies.

5. Presentation of Index Severity Levels as per MA DMP

Zoltay provided an overview of the recent hydrologic history that led to current conditions, focusing on the Western Region. Starting in late May/early June, the weekly monitoring began showing below normal conditions for more than one index in the Western Region. Conditions fluctuated throughout June, but at least two indices stayed below normal for the entire month, with mid-month showing the worst conditions. Accumulated precipitation was near normal across the state in April through part of May, but by late May there was a steep decline. The standardized precipitation index shows the Western Region at severity level 1 for the 1, 2, and 3-month lookback periods. Evapotranspiration is of particular concern because it has been very high recently due to the heatwaves. Certain parts of the state reached

evapotranspiration index severity level 4 in June, with most of the western half of the state at level 3 or above. Streamflow in the Western Region declined in May and June, resulting in severity level 1 by the end of June. Several groundwater wells were also below normal, but not as impacted as streamflow. KBDI and lakes and impoundments were also at level 1 and level 2, respectively, for the Western Region by June 30th. Overall, the Western Region was more impacted by the recent high temperatures and evapotranspiration than the rest of the state.

LeVangie asked for the names of the two impoundments in the Western Region. Graham replied that the two systems are Lennox and Pittsfield. LeVangie also noted that a representative from Pittsfield had signed into the meeting and offered the opportunity for them to comment. Graham explained that Pittsfield was the lowest reading in the database for June, and one out of two reservoirs for Lennox was down. Pederson asked if there were any operational issues causing Pittsfield to draw down, and Graham said she had not received any reports from them. Pederson asked how many impoundments are normally in that index, to which Graham replied that there are two.

6. Discussion of Drought Level Recommendations

Western Region:

Rao explained that the staff recommendation is Level 1 for the Western Region because five out of six indices are showing at least Level 1.

LeVangie asked why the presentation at the USGS quarterly updates meeting earlier in the day indicated that the concerns were going away. Zoltay responded that our indices aggregate data from the entire month, not just most recent hydrologic conditions. Rao added that for streamflow in particular, looking at the full month is important because that index can be so variable. She also noted that the percentiles that USGS uses are slightly different than ours.

Pederson commented that there are no PWS operating concerns and the fire danger is not reflective of issues with dryness, so she recommends holding off one more month to see if conditions turn around. Souza agreed with holding off one more month because of the cushion provided by the very wet March and April months. He added that precipitation for the past two months was not significantly below normal, and that the heatwave in early June was mostly due to relatively low humidity combined with high heat, but that we are now entering the more humid months which should help with evapotranspiration concerns. Rao reminded that the numbers for all indices compare conditions for any particular month to the same month over the period of record

Gregoire agreed that waiting another month is warranted considering the weather service said that the forecast is showing wet conditions in the near future. LeVangie added that neither Lennox nor Pittsfield are experiencing increasing demand.

Blatt commented that typically the DMTF gets stuck when indicators are not clear, but in this case the indicators are very clear. She also stated that the weather forecast shows predictions for a continued hot summer, and that the prediction for precipitation is less clear. Souza commented that there is some consistency with long-range weather models showing near-normal precipitation.

Rao added that the task force has considered other factors along with the indices in drought level recommendations in the past. She also said the task force in the past has considered not jumping

between levels too frequently for multiple reasons. Zoltay commented that the data is representative of a month or more, so it is important to remember that the below normal conditions have been going on for longer than what the more recent weather patterns have been showing. Pederson said it was interesting that Mass Rivers and DFG were not receiving significant reports of streamflow issues, to which Rao responded that we don't expect severe impacts to streamflow at Level 1, and Zoltay added that lack of data does not necessarily mean lack of impacts being observed.

LeVangie noted that there seem to be differences in the northern half of the Western Region compared to the southern half, and that holding off on declaring drought until more than one region is showing more consistent drought conditions could help with public acceptance.

Maguire reminded the task force that the DMP is used to determine if rivers are "regulatory" rivers under the Wetlands Protection Act. He commented that if certain small streams are drying up, they could lose their riverfront status. He also explained that observations of streamflow for the regulatory rivers reporting requirements can be inconsistent because of the reporting requirements not having a time constraint over when the observations need to be made.

Pederson added that she did not agree with using the drought plan as a way to prevent development. Maguire responded that MassDEP previously had their own independent process, but that they got public comments requesting they use the state's drought plan.

There was continued discussion on the differences in conditions between the northern and southern parts of the Western Region, and the possibility of making a recommendation of drought Level 1 for just the Hudson. Pederson stated that she did not think it was necessary to declare drought for any of the Western Region and that waiting one month to see if conditions continue to deteriorate would be sufficient. Rao brought up the idea to meet again at a later date and if conditions continue to deteriorate, the declaration could make it clear that the drought began June 1st. However, she said it is abnormal to not recommend a drought when five out of six indices clearly show Level 1 conditions in the Western Region. Four task members recommended Level 0 and seven members recommended Level 1 for the Western Region.

Summary of Recommendations:

Western: Level 1

Cape Cod, Islands, Connecticut River Valley, Central, Northeast, Southeast Regions: Level 0

7. Recommendations for Drought Level Response Actions

The recommendation to the Secretary will be to move the Western Region to Level 1, with messaging regarding the hydrologic conditions that led to the mild drought in this region.

8. Next Steps

The task force will meet again on Tuesday August 6th at 1:00 PM and will update recommendations accordingly.

Meeting Ended

The meeting adjourned at 2:59 pm.