

Massachusetts Drought Management Task Force – Meeting Summary

January 5, 2017 100 Cambridge Street, 2nd floor, Room B

Attendees:

Vandana Rao, EEA	Paul Holloway, MEMA	Jennifer Pederson, MWWA
Nicole Belk, NWS	Gardner Bent, USGS	Adam Kautza, DFW
Kate Adams, DPH	Michael Celona, DPH	John Gregoire, MWRA
Julia Blatt, Mass Rivers Alliance	Michelle Craddock, DFG/DER	Erin Graham, DCR
Alison Field-Juma, OARS	Catherine deRonde, MDAR	Peter Ostroskey, DFS
Sarah Bursky, NPS Wild & Scenic Rivers	Stephanie McCarthy, ENRA/Rep. Schmid	Gabby Queenan, Mass Rivers Alliance
Lexi Dewey, WSCAC	Becky Weidman, MassDEP	Sara Cohen, DCR
Greg Lane, NextGen/Aquarion Watch	Anne Carroll, DCR	Viki Zoltay, DCR
Anna Aquilera, Mass Rivers Alliance		

Introductions

- Rao called the meeting to order at 10:05 pm.
- Rao introduced Paul Holloway from MEMA.
- Meeting attendees were asked to introduce themselves.
- The minutes of December 7, 2016 were adopted.

Updates on Current Conditions and Impacts from Members of the Task Force

Current Hydrologic Conditions - DCR Office of Water Resources, Viki Zoltay

- Precipitation: Normal values are returning, but not enough to make a complete recovery.
- Reservoirs: are similar to November- below normal. The Western, Central, Northeast, and Southeast regions are at the Watch level and the Cape & Islands at Advisory. The Quabbin is slightly below normal. Since it is a large reservoir, it triggered Warning status for the Connecticut River Valley Region.
- Streamflow: Regions are looking better, except for the Southeast, which is at Emergency. There is significant improvement, but with the look-back, drought levels are still being triggered in all regions except the Northeast, which reset in December with normal streamflow.
- Groundwater: Levels need improvement. The Central and Northeast regions saw more improvement than the Southeast and Cape. The Connecticut, Southeast, and West regions are at Emergency level.
- Crop Moisture Index and Keetch-Byram Drought Index: aren't tracked in the winter.
- The U.S. Drought Monitor: D2 stretched down into the Southeast region.

Streamflow and Groundwater Conditions in Massachusetts- USGS, Gardner Bent

- Average streamflow for the past three months has been low. In November, almost the entire state was below normal. In December, the southeast region of the state was very low.
- There are fewer gage readings this month because of ice statements.
- Representative rivers in Massachusetts (as natural as could find):
 - Ipswich River – had record lows this summer, now 10-24th percentile.
 - Charles River @ Dover – had record lows this summer, now 10-24th percentile.
 - Wading River near Norton – had record lows this summer and still below 10th percentile.

- Quabog- still below 25%.
- West Branch – just barely in normal range.
- Housatonic- normal
- Groundwater conditions at real-time sites: In October the whole state except for a few wells was below normal and November and December conditions were similar.
 - Haverhill: record lows in October and November, now normal
 - Acton: below normal all last year (0-5%), but the period-of-record isn't as long.
 - Pelham (bedrock well): Still below normal, record low since August.
 - Pittsfield: New record low.

Weather- National Weather Service Update, Nicole Belk

- Highlights in December include near normal and above normal precipitation except in the Southeast region. There has been a slow start to the snowpack, but it is not far below normal. The forecast for the next seven days looks promising.
- December precipitation: Southeast is still 2" below normal.
- January precipitation: month to date has been a good start, 3/4"-1.25", except for the Berkshires which received 0.5". Rockport received 1.56".
- 60-day precipitation percent normal: ranged from 5.5"-8" still below normal, in the 70%-90% range.
- Snow depth & water content: As of January 4th, less than 1" equivalent water, except higher terrain in the Central Region and Berkshires, where it is 1"-2". The snowpack in parts of New Hampshire and Vermont are below normal, whereas it is normal in other parts of New Hampshire and above normal in Maine.
- Forecast for the next 7 days: there is a fast moving low pressure system coming.
- Precipitation Forecast: Very cold Monday and Tuesday, becoming warmer Wednesday with a weak storm. The next two weeks should bring normal to above normal precipitation.
- Three month outlook: Temperature above normal, precipitation equal chances. It will be important to keep an eye on the snowpack.
- The Drought outlook for January shows improvement in the eastern parts of Massachusetts, and persistence in central and western regions.
- The three month seasonal drought outlook shows the drought persisting in the Southeast region. There may be some improvements, but the snowpack is key. If there is no snowpack but spring rain, then things should be ok.

Water Supply

Massachusetts Department of Environmental Protection – Becky Weidman

- No updates

Massachusetts Water Resources Authority, John Gregoire

- The Quabbin is 79.2% full, which is below normal, but there is a cushion before the warning level. There is a 4.9 year supply.
- Wachusett Reservoir is kept in its operating range by transferring water from the Quabbin.
- The Sudbury and Foss reservoirs had been responding more to the drought but the last bit of rain brought them back into normal range.

Massachusetts Water Works Association, Jen Pederson

- Some suppliers suspended fall flushing; some suppliers still have restrictions to address outdoor ice skating rinks.

There was no representative from the Department of Public Utilities.

Environmental

Wetlands- Massachusetts Department of Environmental Protection – Becky Weidman

- Nothing to report.

Department of Fish and Game- Division of Ecological Restoration, Michelle Craddock

- There are concerns in the Southeast region. Silver Lake is still low. There is the potential to resume releases from Scituate now that the reservoir has refilled.
- Indian Head stream reached a record low in December.

Department of Fish and Game- Division of Fisheries and Wildlife, Adam Kautza

- There are no fish surveys in the winter.

Agricultural- Department of Agricultural Resources, Catherine DeRonde

- There isn't much growing now, but the cranberry growers need water for frost protection.
- There are lingering effects on tree nurseries and livestock.
- DAR has made available emergency grants available for water conservation. The proposals are due tomorrow, will report back next month on grants.

Fire Danger, Peter Ostroskey- Department of Fire Services

- Monitoring continues on rural water supplies used for fire protection.

There was no representative from DCR Infrastructure.

Public Health- Department of Public Health, Michael Celona

- In December, DPH's Office of Preparedness and Emergency Management distributed to a Board of Health listserv a copy of the most recent EEA drought press release and links to drought information and did not receive any responses. DPH's Bureau of Environmental Health has also not received any recent drought related inquiries.

Discussion of Drought Level Recommendations

- Streamflow is coming back to normal, but groundwater is not, although in the Central region it has recovered somewhat. However, there is still concern in that region.
- West: Keep at Warning.
- Connecticut: Keep at Warning.
- Central: Although groundwater has covered somewhat, there is still concern; keep at Warning.
- Northeast: Move to Watch. Three out of the five indicators are at Watch; it is harder to justify a Warning.
- Southeast: conditions have not improved and are slightly worse. Keep at Warning, flag for water suppliers if conditions continue to be bad.

- Cape & Islands: Keep at Advisory.
- There is some concern that the recovery shown is at the expense of the snowpack, but there are still several months left in winter.

Next Steps

- Rao gave an update of the Drought Management Plan workgroup. There has been one meeting, 4 more are scheduled. Will present a summary when finished.
- There was some discussion and questions about the ice statements put on stream gages. Bent will look into it.
- There was a request regarding the presentation of data and the number of months indicators are below normal.

The meeting was adjourned at 11:50 AM.