

Massachusetts Drought Management Task Force – Meeting Summary

April 11, 2017 100 Cambridge Street, 2nd floor, Room A

Attendees:

Vandana Rao, EEA	Jonathan Yeo, DCR	Erin Graham, DCR
Alan Dunham, NWS	Eric Hooper, Town of Sharon	Michelle Craddock, DFG
Alan Cathcart, Concord Water	Teddy Melanson, Chelmsford	Philip Guerin, MWWA
Gabby Queenan, Mass Rivers Alliance	Viki Zoltay, DCR	Peter Weiskel, USGS
Adam Kautza, DFW	Lexi Dewey, WSCAC	Duane Levangie, DEP
John Gregoire, MWRA	Becky Weidman, DEP	

Introductions

- Rao called the meeting to order at 10:05 am.
- Meeting attendees were asked to introduce themselves.

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

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

- Precipitation for the month was below average in all regions except the Northeast. The 12-month precipitation deficit remains in all regions except the West.
- Average monthly streamflows were below normal except in the West.
- Groundwater levels stagnated in recovering with the majority of wells below normal in the Southeast and Cape and the Islands.
- At least one reservoir is below normal in Central, Northeast, Southeast and Cape and Islands.
- NOAA projects normal precipitation and above normal temperatures for April.

Streamflow and Groundwater Conditions in Massachusetts - USGS

USGS streamflow and groundwater-level data showed lower than normal flows and levels across the State in March (relative to long-term data for March). These conditions have since been mitigated significantly, especially by the rainfall during the week of April 3rd. For example, March streamflows in much of eastern, central, northeastern and southeastern MA were below normal or much below normal. By April 5, conditions had shifted to normal or above normal across the State. Real-time data for April 10 show normal, above-normal, or much-above-normal flows, reflecting of the effects of the rainfall of April 4-7. Groundwater levels also increased from late February to late March in most areas of the State. The southeastern region of the State continues to have a significant number of wells with below normal water levels for March and early April.

Weather- National Weather Service Update, Alan Dunham

While most of Massachusetts received well above normal precipitation over the past 30 days, the long term deficit is still of a concern. The Standardized Precipitation Index for the 12 and 24 month period still shows significant deficits in rainfall. Looking ahead, temperatures are expected to be above normal for April through June. However for the same time period there are equal chances of above and below normal precipitation. The

US drought outlook shows the drought persisting with some improvement for the western half of the state and Drought removal likely for the eastern half.

Water Supply

Massachusetts Department of Environmental Protection, Rebecca Weidman and Duane Levangie

With the spring season around the corner, many communities will be instating outdoor watering restrictions starting May 1. DEP has some concerns about the timing of the water conservation restrictions as outlined in the water management act permits and the timing of the May drought task force meeting which is scheduled for the 9th. They felt that conditions had already improved enough at the beginning of April to warrant a complete lifting of the drought.

Massachusetts Water Resources Authority, John Gregoire

MWRA source reservoirs are improving. Although Quabbin Reservoir remains technically in “Below Normal” status, the elevation has been on an upward trend since late January and is presently at 82% capacity. The “Below Normal” bright line curve increased as of March 1st given the historic reservoir rise in the spring due to runoff. The new Normal elevation line is at 90% capacity starting on April 1st. MWRA forecast modeling shows that under median yield conditions, Quabbin should be in Normal capacity under the next 3-, 6- and 12-month scenarios. Given April rains, the driest scenarios now look unlikely. Wachusett Reservoir’s elevation has risen substantially over the last two weeks where MWRA is now releasing water from the spillway to get the reservoir back into a manageable band with freeboard to accept the next large rain event.

Massachusetts Water Works Association, Phil Guerin

No drought impact updates. Raised concerns about the summer and outdoor watering restrictions that many communities will need to put in place while precipitation has increased and hydrological conditions are improving.

There was no representative from the Department of Public Utilities.

Environmental

Wetlands- Massachusetts Department of Environmental Protection –Duane Levangie

Nothing new to report.

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

No update. Field work will resume in the spring.

Agricultural- Department of Agricultural Resources

There was no representative

DCR Fire

No updates.

There was no representative from DCR Infrastructure.

Nothing new to report.

Discussion of Drought Level Recommendations

- West: Conditions in this region have further recovered and all indices were at Normal for February. Recommendation was to move from Watch to Advisory Level.
- Connecticut: One precipitation index (the long-term index) is at Watch and the other at Normal. Conditions have worsened slightly for Streamflow with now two gages below normal condition; although the overall Streamflow index is at Normal. Groundwater on the other hand has improved only a little; however with less than a majority of wells at below normal this index remains at Normal. Reservoirs are all back to Normal including the Quabbin reservoir. Move from Warning to Watch Level.
- Central: The long-term precipitation index is still at Advisory while the other at Normal. Streamflow is back to Normal and Groundwater also at Normal with 3 out of 10 wells below normal (similar to last month). Reservoirs are back to Normal. Because of the improvements task force felt that the region should be upgraded by one level and move from a Watch to an Advisory.
- Northeast: This region has by far improved the most since last summer-fall. The long-term Precipitation index was at Advisory while the other at Normal. Streamflow which had fully recovered last month with all gages in the normal range is now showing two of the eighteen gages below normal between the 10-25th percentile; overall Streamflow is at Normal. Groundwater was also at Normal with now only 2 out of the 16 wells below normal and between the 10-25th percentile. Reservoirs were at Watch (down from Normal last month) mainly because of the Cambridge reservoir system which is still below normal. The task force felt that after seeing improvements last month, hydrological conditions are starting to get worse and go below normal. It is appropriate to continue to take a conservative approach and keep this region at Advisory.
- Southeast: Conditions in the Southeast Region have recovered only slightly but the task force continues to be concerned about this region. Precipitation was at Advisory for one and Normal for the other index. Streamflow was at Normal, with only one out of six wells below normal. For groundwater, although technically at Normal down from an Emergency last month, five out of 12 wells are still below normal with one at record low level. Reservoirs are back to Normal. Recommendation was to move from Warning to Watch Level.
- Cape & Islands: Conditions in this region are slightly worse than the last month. Groundwater is now at Normal, although some wells (5 out of 13) still remain at below normal. One Precipitation index is at Advisory while the other at Normal; and reservoir levels are at Advisory; there is no streamflow parameter in this region as the Cape is a groundwater driven region. Nantucket is at Normal. Recommendation was to continue at Advisory Level.

Next Steps

- Rao gave an update of the Drought Management Plan indices workgroup. Will present a summary when the task is completed.

The meeting was adjourned at 12:00 pm.