

## Massachusetts Drought Management Task Force – Meeting Summary

February 7, 2017 100 Cambridge Street, 2<sup>nd</sup> floor, Room B

Attendees:

Vandana Rao, EEA	Jonathan Yeo, DCR	Duane Levangie, DEP
Alan Dunhan, NWS	Anne Carroll, DCR	Sara Cohen, DCR
Kate Adams, DPH	Michael Celona, DPH	John Gregoire, MWRA
Gabby Queenan, Mass Rivers Alliance	Viki Zoltay, DCR	Kathy Bell, Green Industry Alliance
Seratino Zeringo, Rep. Schmid's office	Liz Walk, Representative Dykema's office	

### Introductions

- Rao called the meeting to order at 10:05 pm.
- Meeting attendees were asked to introduce themselves.
- The minutes of January 5, 2017 were adopted.

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

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

Overall, significant improvements were made across the state but some level of drought conditions remain in all regions. Precipitation was normal or near normal. Average monthly streamflows have improved to normal or near normal in all regions. Groundwater levels continue to recover with the Connecticut River Valley, Southeast and Cape & Islands slightly lagging in improvements. Reservoir levels are recovering. Impacts are still seen in the Connecticut River Valley, Central and Southeast regions. NOAA projects normal precipitation and temperatures for February.

#### Streamflow and Groundwater Conditions in Massachusetts - USGS

- Streamflows are largely back to normal for this time of year.
- Groundwater levels (primarily in the Plymouth Carver Aquifer and Cape Cod portions of the Southeast, but also in some other parts of the state) continue to be lower than normal for January
- More examination of the records would be needed to determine whether this is mainly due to drier January weather conditions in the areas with lower GW levels, or the greater average depth-to-water-table at observation well sites in these areas (which would cause a lag in water-table response to recent precipitation in these areas).

#### Weather- National Weather Service Update, Alan Dunham

Precipitation on average was good for the state for the month of January. Eastern portions of the state, including Cape Cod and the Islands, had above normal precipitation for the month. Central and western portions of the state ended the month a bit below normal. However, despite the amount of precipitation, it did not translate very much in the way of the snow pack. Most of the state had a snow pack of less than 5 inches with a water equivalent of less than an inch of water as of the beginning of February. While near normal for January, precipitation for the state still remains below normal extending back to 24 months and beyond. While short term indices indicate some improvement the long term indices show the drought still

remaining to one degree or another. Unfortunately the long term forecasts are not showing much in the way of improvement with only equal chance of above or below normal precipitation being forecast out for the next 6 months. However the long term forecasts do indicate that temperatures for the next 6 months will likely be above normal.

### Water Supply

Massachusetts Department of Environmental Protection, Duane Levangie

- No updates

Massachusetts Water Resources Authority, John Gregoire

Quabbin Reservoir was at 79.8% full and sitting just Below Normal based on MWRA's Drought Plan. However, this is well above the next level, Drought Warning, which is followed by three Drought Emergency Stages. Updated MWRA forecast modeling shows the following: Median, Dry (75th percentile) and Driest of Record show Quabbin to remain at Below Normal for at least the next 3 – 6 months. Wachusett Reservoir, which is augmented by Quabbin, remains in normal operating band. Despite the Below Normal condition, at current capacity, Quabbin Reservoir can supply the MWRA system's current demand for 4.9 years.

There was no representative from the Massachusetts Water Works Association.

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 Ecological Restoration, Michelle Craddock

- DER monitored streams have been at normal levels during January and many of the smaller streams are starting to ice over. Haven't heard concerns from any of the volunteers they work with about low water levels with the exception of Silver Lake/Jones River headwaters in Kingston.

Agricultural- Department of Agricultural Resources, Catherine DeRonde

- Ag Workgroup on Drought Plan revisions to meet on 2/13
- Emergency Drought AEEP grant was far oversubscribed (~\$822 requested for \$250 available). They hope to announce recipients by the next meeting.

There was no representative from Department of Fire Services or DCR Fire.

There was no representative from DCR Infrastructure.

Public Health- Department of Public Health, Michael Celona

- Nothing new to report.

### **Discussion of Drought Level Recommendations**

- West: Conditions in this region have recovered and all indices were at Normal for the month of January. Recommend move to a Watch Level.
- Connecticut: One precipitation index (the long-term index) is at Advisory and the other at Normal. Conditions have improved for Streamflow with only one gage at below normal condition. Groundwater only saw slight improvement; Reservoirs remain at Warning-the Springfield reservoir was below normal and the Quabbin reservoir continues to be slightly below normal.
- Central: The Central region saw further improvement in hydrological conditions since December. The long-term precipitation index was at Advisory while the other at Normal. Streamflow is back at Normal while Groundwater is considered Normal for the region with 3 out of 10 wells below normal. Reservoir was at Advisory. Recommend move to a Watch Level.
- Northeast: This region continued to see further improvements in hydrological conditions. The long-term precipitation index was at Advisory while the other at Normal. Streamflow recovered fully with all gages in the normal range. Groundwater was also at Normal with only 4 out of the 17 wells below normal and between the 10-25th percentile. Reservoirs were at Normal. The task force continued to take a conservative approach and upgrade this region to an Advisory from a Watch last month.
- Southeast: Conditions in the Southeast Region recovered only slightly. Precipitation was at Normal for both indices, Streamflow saw recovery with only one out of six gages below normal; however the index is still at Warning because below normal conditions persisted for six of the last seven consecutive months. For groundwater, although technically at Normal down from an Emergency last month, half the wells are still below normal - five of the 12 wells are below the 10th percentile and one is still at record low. The task force felt that the groundwater level does not appropriately indicate the true nature of conditions in this region. Levels are still below normal and other hydrologic features like kettle ponds have still not recovered. If any of the other wells had below normal conditions, the groundwater index would remain at emergency for another month. Continuing to stay conservative in its approach, task force members felt that this region should remain at a Warning level for another month. Recommend continuing at Warning Level.
- Cape & Islands: Conditions in this region recovered for almost all except the long-term indicator, groundwater. 8 out of 12 wells are below normal which puts this indicator at below normal conditions for two consecutive months. Precipitation and reservoir levels are Normal. Although conditions have by and large improved, the task force was concerned by the continuing downward trend in a majority of wells. The Task force agreed that the groundwater condition did not warrant a further upgrade from Advisory last month to Normal conditions and recommended keeping this region at Advisory Level.

### **Next Steps**

- Rao gave an update of the Drought Management Plan indices workgroup. There have been three meetings and a few more are scheduled. Will present a summary when the task is completed.

The meeting was adjourned at 11:15 AM.