



Date: July 8, 2015
From: Linda Hutchins, Hydrologist
To: Kathy Baskin, EEA Director of Water Policy
Subject: Drought Management Task Force meeting recommendation

Our office has been reviewing hydrologic conditions this week in preparation for our monthly “Current Water Conditions in Massachusetts” report. At this time, I recommend that the Drought Management Task Force (DMTF) meeting tentatively scheduled for mid-July be cancelled, as not many of the indices are presently reaching drought level thresholds. A review of Drought Indices in accordance with the Massachusetts Drought Management Plan is presented below. Conditions will be monitored closely and assessed again at the beginning of August 2015 for our next monthly report.

Precipitation: June precipitation was normal to above normal in all regions of Massachusetts, ranging from 3 inches in the Cape Cod/Islands region to 8.5 inches in the Connecticut River region. Precipitation was adequate to return the West and Central regions, which we were concerned about at the June 18, 2015 DMTF meeting, back to Normal. The Cape Cod and Islands region declined into Advisory level at the end of June, but about 1.5 inches of rain were recorded in this region on July 1. More rain is expected today and in the coming week.

Standardized Precipitation Index (SPI): The only region with SPI values reaching a Drought Management Plan trigger at the end of June is Cape Cod and the Islands, at Advisory level. The months of April and May had unusually low amounts of precipitation. When the month of March came out of the 3-month SPI statistic, the value declined into the Advisory level. I am not particularly concerned about this SPI value, considering that the Cape and Islands has experienced a 4.7-inch surplus of rainfall since the start of the 2015 water year (October 1, 2014), and the aquifers in that region hold a vast amount of water in storage. The rainfall deficit is a short-term phenomenon that we will continue monitoring closely.

Crop Moisture Index (CMI): The weekly NOAA Crop Moisture Index map for the period ending July 4, 2015 showed normal conditions in central and coastal Massachusetts, and abnormally moist conditions in western Massachusetts.



Keetch-Bryam Drought Index (KBDI): The U.S. Forest Service classifies all of southern New England as Low fire danger at this time.

Ground Water: Ground water levels measured at the end of June resulted in Normal conditions throughout Massachusetts. The ground water index is at the Normal level in all regions.

Streamflow: Streamflows were in the normal range for most of the month of June. This index is at the Normal level for all regions with streamflow monitoring.

Reservoirs: An assessment of water supply reservoir levels is still under way, but there has been improvement in some of the small reservoirs that were a concern in May. There are some concerns at this point for reservoirs near their Massachusetts Drought Management Plan “below normal” thresholds for the end of June:

- Lynn (Northeast) at 75.1% full vs. their below normal June threshold of 78.5%
- Salem-Beverly (Northeast) essentially at their below normal June threshold of 93%
- Worcester (Central) essentially at their below normal June threshold of 92%

We are still waiting for data from Milford (Southeast), Pittsfield (West), and Springfield (Connecticut River region).