Current Water Conditions in Massachusetts
May 14, 2009

- April precipitation was a little above average
- April streamflows were normal and below normal
- April ground-water levels were normal
- April reservoir levels were normal and above normal

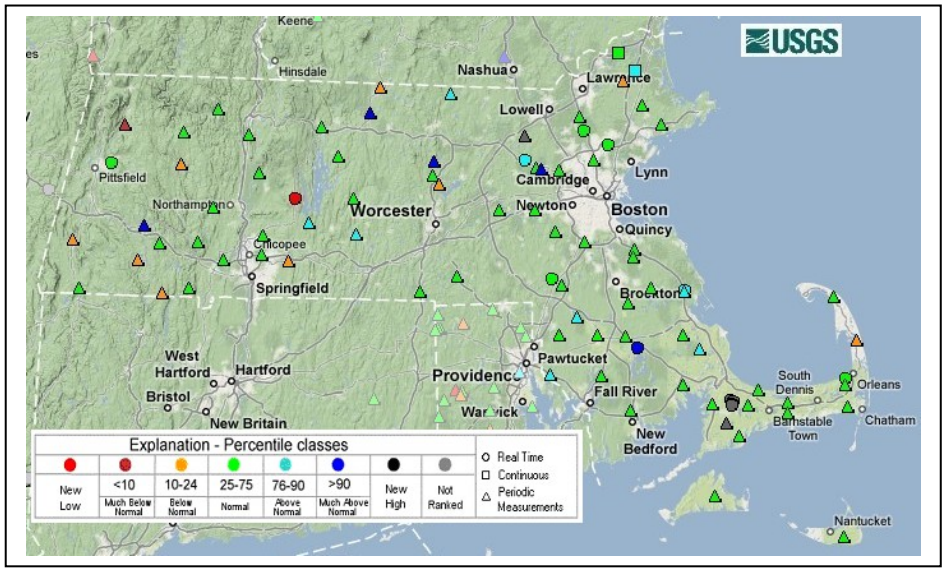
Precipitation Conditions

April state-wide precipitation equaled an estimated 4.20 inches, which is about 108 percent of the long-term average for April. The regions of Massachusetts received between 146 percent (Southeast) and 46 percent (Western) of average precipitation during April. April was ranked as the 41st wettest in the last 116 years in Massachusetts. Depending on location May precipitation to date has ranged from 1.5 to 3.5 inches which is 75 too 150 percent of normal for this period.
High fire danger conditions that occurred during the latter part of April have diminished in early May.
A strong frontal system passing across New England on Saturday May 9th produced 2 confirmed tornados, including an EF0 tornado in Sunderland Massachusetts. Damage along its half too three-quarter mile path included downed trees and a barn blown onto Route 7. The other tornado occurred in Washington, Vermont.

A table of April 2009 estimated precipitation statistics, based on precipitation data from the Department of Conservation and Recreation and National Weather Service precipitation monitoring networks is attached. A map at the back of this report shows the distribution of April total rainfall in Massachusetts and adjacent areas of New England.

Ground Water Levels

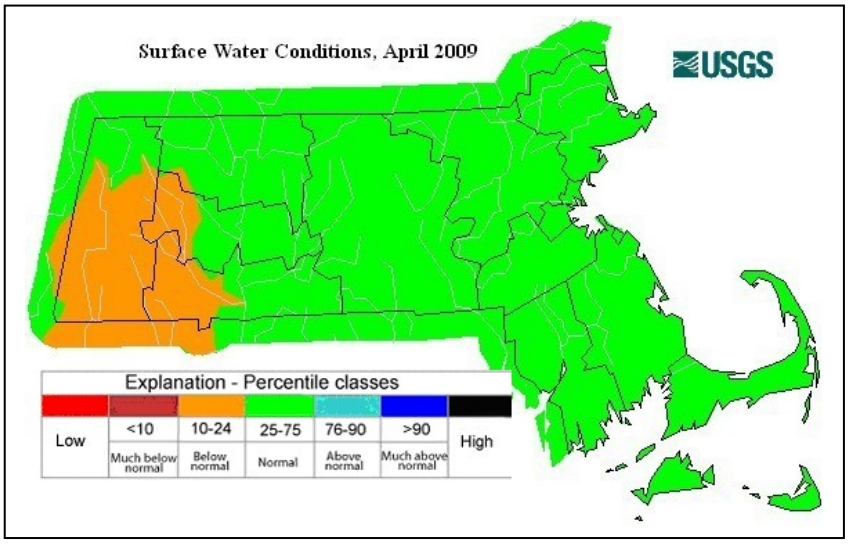
Ground-water levels reported by the United States Geological Survey (USGS) at the end of April 2009 generally were normal across almost all of the State with a few wells with much above, above, below, and much below normal levels. The USGS assessment of ground-water levels is based on 89 wells in Massachusetts with 10 or more years of record. Ground water and surface water conditions in MA drought regions are shown in a table at the end of this report.



The USGS Ground Water Conditions Statement for the end of April 2009 can be viewed at the web site: http://ma.water.usgs.gov/water/water_g.htm

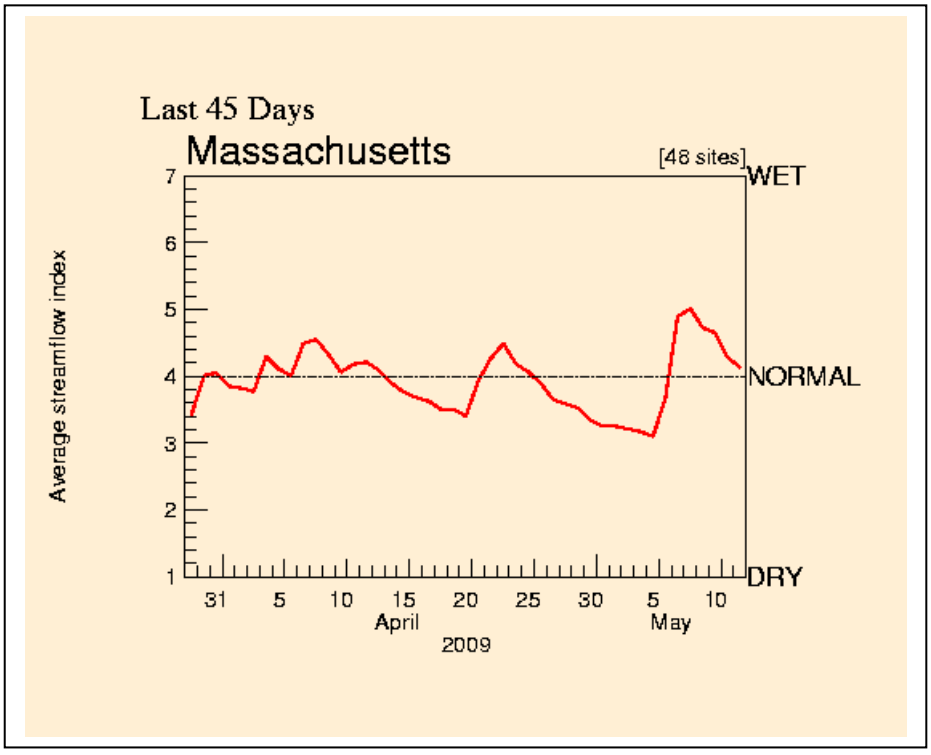
Stream Flow

During April 2009 stream flows that are monitored by the Commonwealth of Massachusetts and United States Geological Survey (USGS) cooperative stream gaging program were mostly normal (green areas on map). The Housatonic and Westfield River basins had below normal (orange areas on map) flows. The USGS has listed the Western Region of Massachusetts as having below normal surface water flow conditions for April.



The graph below depicts a composite daily streamflow relative to normal streamflow for Massachusetts for the period of March 28, to May 12, 2009. In general, flows during April were above and below normal about 50 percent of the time. Below normal flows occurring at the end of April and early May rose to above normal in response to precipitation events in the early part of May. The graph is a composite of 48 real time gages across the state with a long period of record.

Additional information on streamflow is available from the USGS web page:
http://ma.water.usgs.gov/water/water_s.htm



KEY:

1 = New record low for day
2 = < 10th percentile
3 = 10th – 24th percentile
4 = 25th – 74th percentile
5 = 75th – 89th percentile
6 = ≥ 90th percentile
7 = New record high for day

Water Supply Reservoir Levels

Surface water reservoir percent full values for water supply sources provided by water suppliers are listed below. The reservoir percent full values listed are for the end of April and are reported to be generally normal to a little above normal for this time of year.

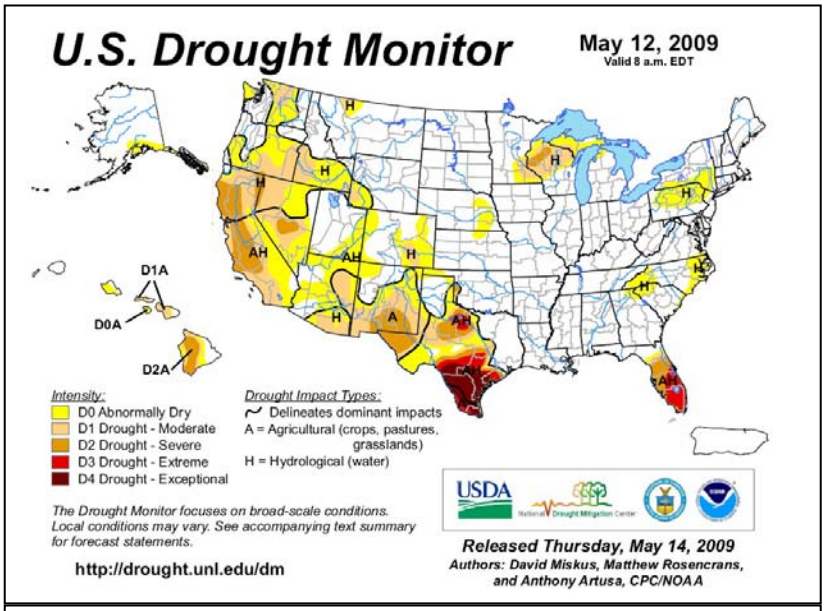
April /May 2009 Massachusetts Reservoir Status

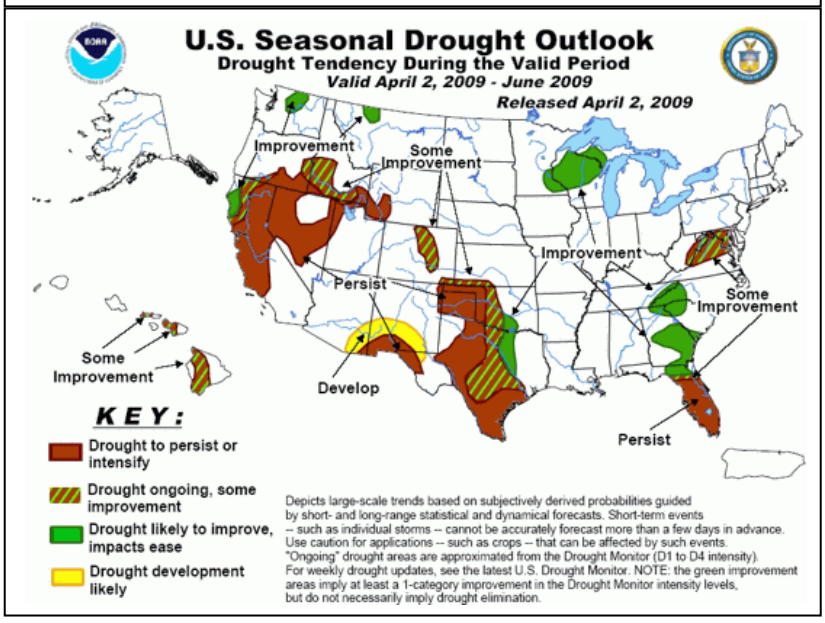
Reservoir/City or Town	Percent Full	Reservoir/City or Town	Percent Full
Quabbin	100	Beverly/Salem	99.4
Worcester	101.9	Lynn	84.9
Cobble Mt./ Springfield	96	Taunton/New Bedford/Assawompsett	104.4

Note: N.A. Indicates data not available for this report

Drought Indices/Forecasts

The National Drought Mitigation Center's (NDMC's) May 14, 2009 Drought Monitor Map shown at right indicates no drought conditions in Massachusetts. The previous two weekly maps had shown western MA as abnormally dry.





Standardized Precipitation Index:

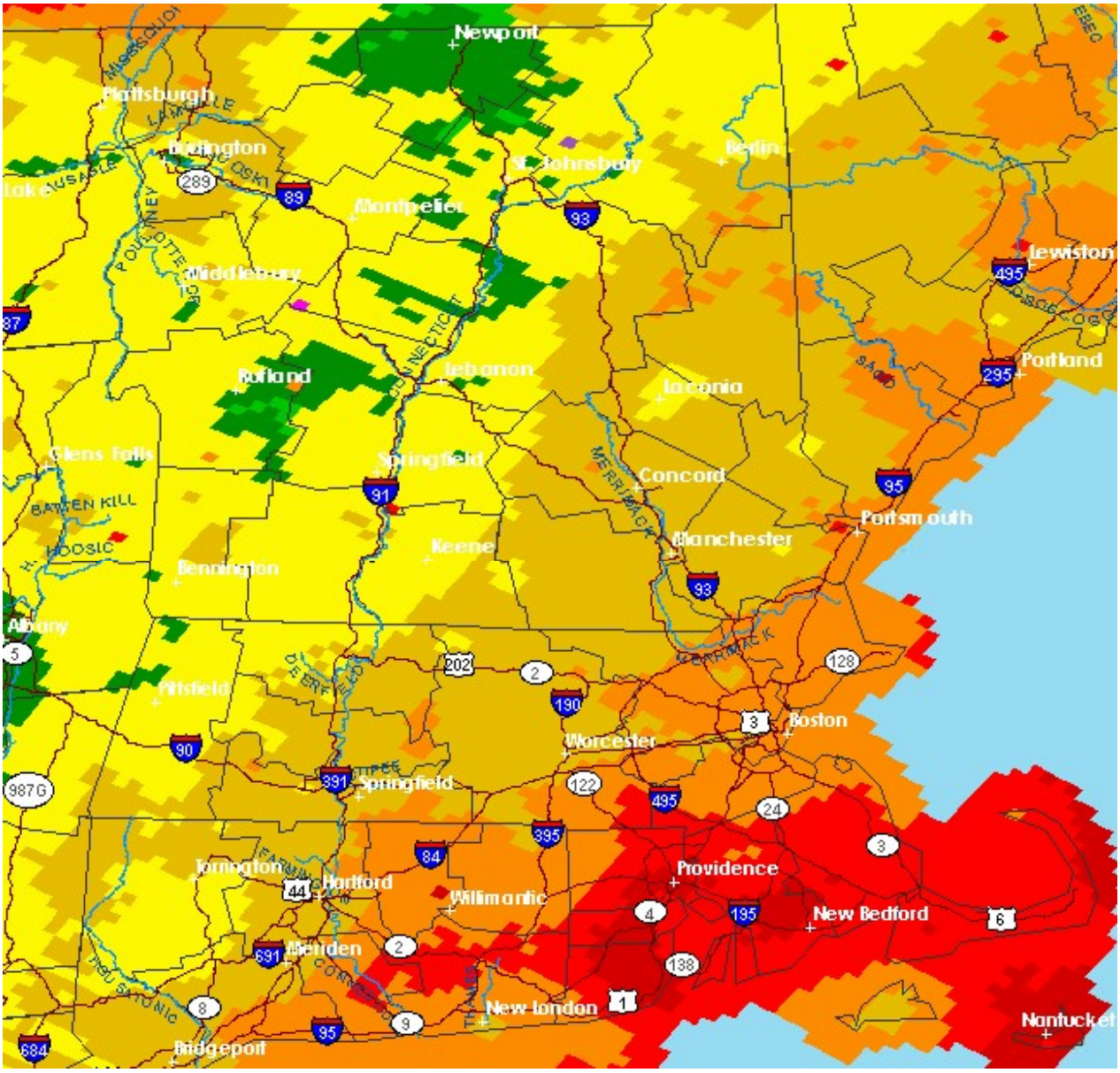
The Western Regional Climate Center's (Desert Research Institute, University and Community College System of Nevada) 1, 3, 6, and 12-Month Standardized Precipitation Index through the end of April shows moderately wet (Cape)/normal, normal, moderately wet (East and West)/normal, and very wet respectively across Massachusetts.

NWS/NOAA's Climate Prediction Center: The U.S. seasonal Drought Outlook dated May 5, 2009 predicts no tendency for drought conditions to develop in Massachusetts through June 2009.

Extended Forecasts

Two frontal systems are forecast to pass through the area between now and Sunday. The first will produce showers and thunderstorms tonight and early Friday. The second front will produce showers Saturday afternoon into early Sunday. Total rainfall through Sunday morning should be 0.2 to 0.5 inches. Clear and warming weather should occur between the rainfall events. The National Weather Service Climate Prediction Center's extended 6-10 day forecast predicts normal temperatures and above normal rainfall. The 8-10 day, 1-month, and 2-month extended forecasts are for normal temperatures and normal rainfall.

The NWS Climate Prediction Information can be found at http://www.cpc.noaa.gov/index.php



http://www.srh.noaa.gov/rfcshare/precip_analysis_new.php

TOTAL RAINFALL
APRIL 2009

GENERAL WATER CONDITIONS IN MASSACHUSETTS - APRIL 2009
EOEEA and MEMA DROUGHT MANAGEMENT PLAN REGIONS
(link to Massachusetts regions – source MADCR)

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Massachusetts Regions	Surface-Water Conditions	Ground-Water Conditions
Cape and Islands	normal	normal
Southeast	normal	normal
Northeast	normal	normal
Central	normal	normal
Connecticut River	normal	normal
Western	below normal	normal

Note: Surface- and ground-water conditions for individual streamflow-gaging stations and wells may differ from general conditions.

This report was prepared by the Massachusetts Department of Conservation and Recreation. Data were obtained from the sources described in the report and may be preliminary in nature. Additional information, previous and future water conditions reports can be found on our web site: http://www.mass.gov/dcr/waterSupply/rainfall/