

Current Water Conditions in Massachusetts

June 11, 2009



- May precipitation was near normal
- May streamflows were normal
- May ground-water levels were normal and below normal
- May reservoir levels were normal and above normal

Precipitation Conditions

May state-wide precipitation equaled an estimated 3.56 inches, which is about 94 percent of the long-term average for the month. The regions of Massachusetts received between 118 percent (West) and 80 percent (Cape Cod and Islands) of average precipitation during May. May was ranked as the 33rd wettest in the last 116 years in Massachusetts. Depending on location June precipitation to date has ranged from 0.1 to 1.5 inches which is 5 to 150 percent of normal for this period.

A table of May 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 May total rainfall in Massachusetts and adjacent areas of New England.

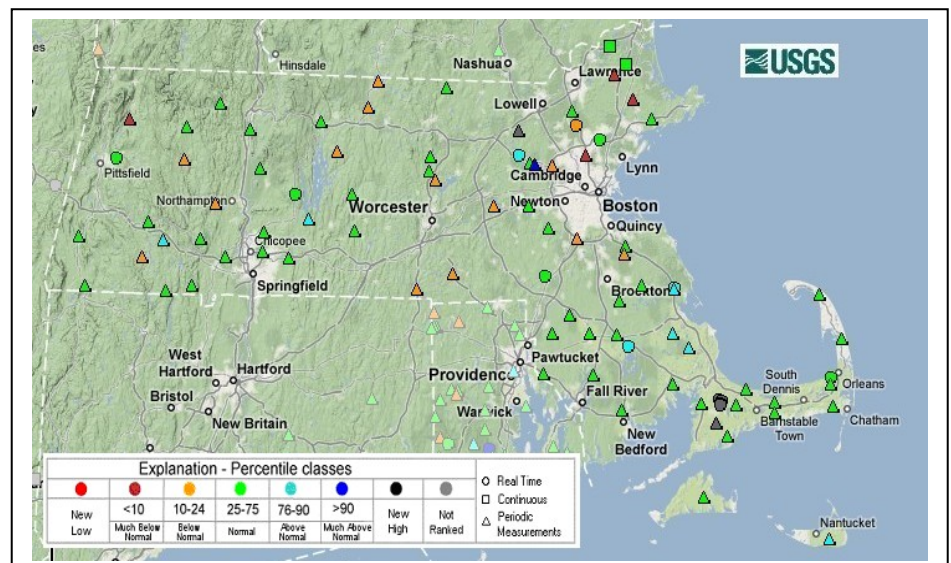
NOAA is predicting a normal Hurricane Season. For the season, running from June through the end of November, there is a 70 percent probability of 14 named tropical storms, of which 4-7 probably will become hurricanes and 1-3 of those are expected to be major (category 3-5) hurricanes. However, it only takes one hurricane affecting an area to make it a very bad season – so be prepared.

Ground Water Levels

Ground-water levels reported by the United States Geological Survey (USGS) at the end of May 2009 generally were normal across most of the State. The exception was the Northeast and Central Regions, where the levels were generally below normal. 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.

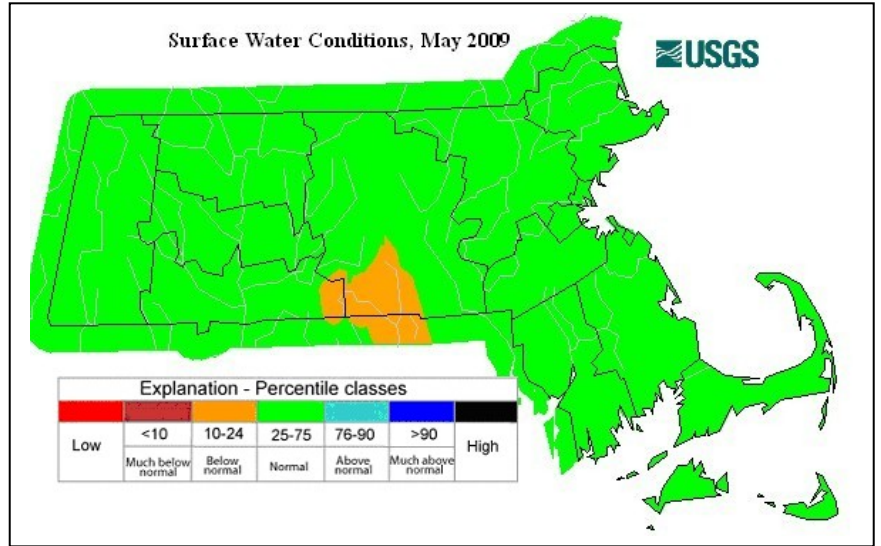
The USGS Ground Water Conditions Statement for the end of May 2009 can be viewed at the web site:

http://ma.water.usgs.gov/water/water_g.htm



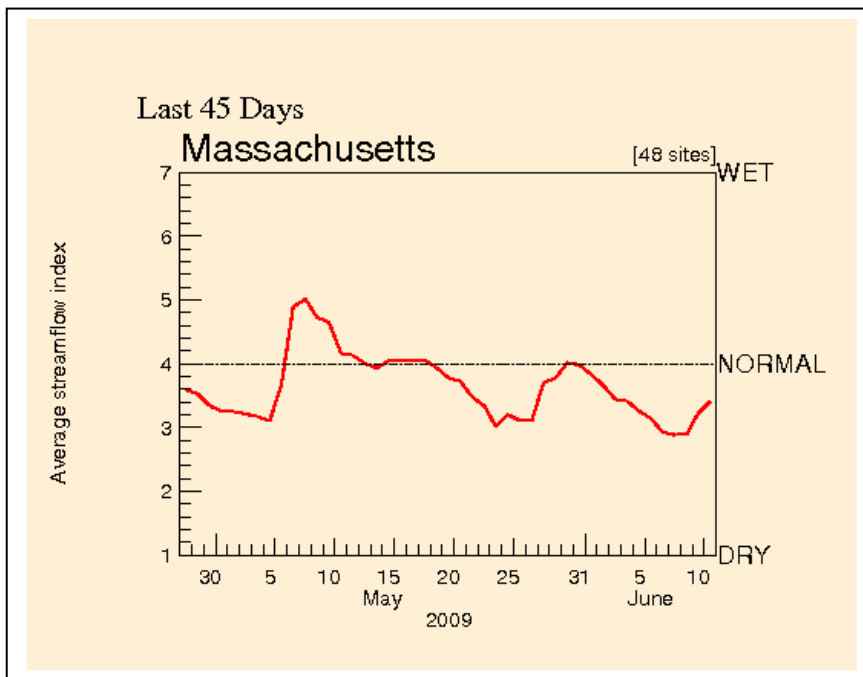
Stream Flow

During May 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 Quinebaug and French River basins in south central Massachusetts had below normal (orange areas on map) flows. The USGS has listed all of the regions of Massachusetts as having normal surface water flow conditions for May.



The graph below depicts a composite daily streamflow relative to normal streamflow for Massachusetts for the period of April 27, to June 10, 2009. In general, above normal flows in early May declined to below normal in mid month and then rose to near normal at the end of the month. Flows for the first part of June have been somewhat below normal for this period. 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 May and are reported to be generally normal to a little above normal for this time of year.

May /June 2009 Massachusetts Reservoir Status

Reservoir/City or Town	Percent Full	Reservoir/City or Town	Percent Full
Quabbin	99	Beverly/Salem	94.4
Worcester	100.8	Lynn	79.5
Cobble Mt./ Springfield	96	Taunton/New Bedford/Assawompsett	100.2

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

Drought Indices/Forecasts

The National Drought Mitigation Center's (NDMC's) June 9, 2009 Drought Monitor Map shown at right indicates abnormally dry conditions in southeastern and south central Massachusetts.

Standardized Precipitation Index:

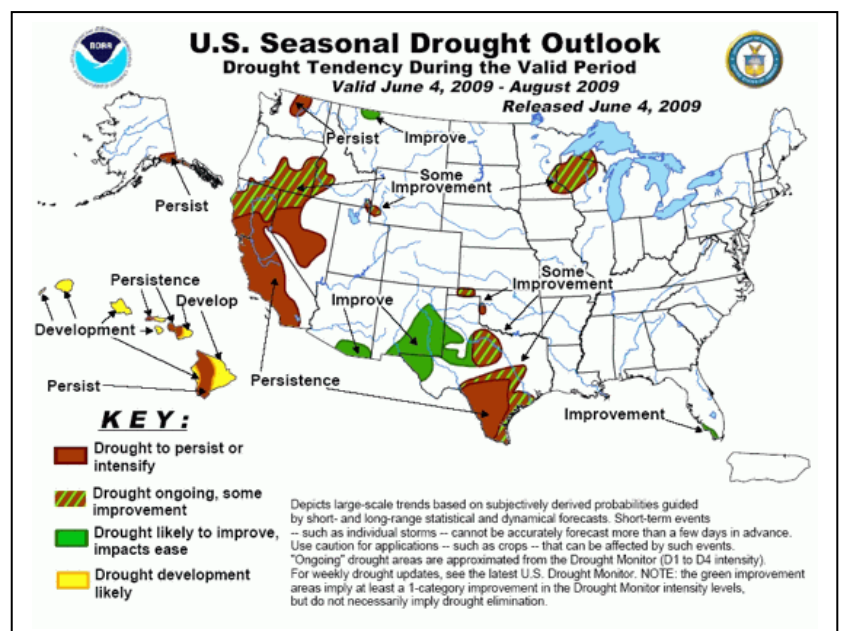
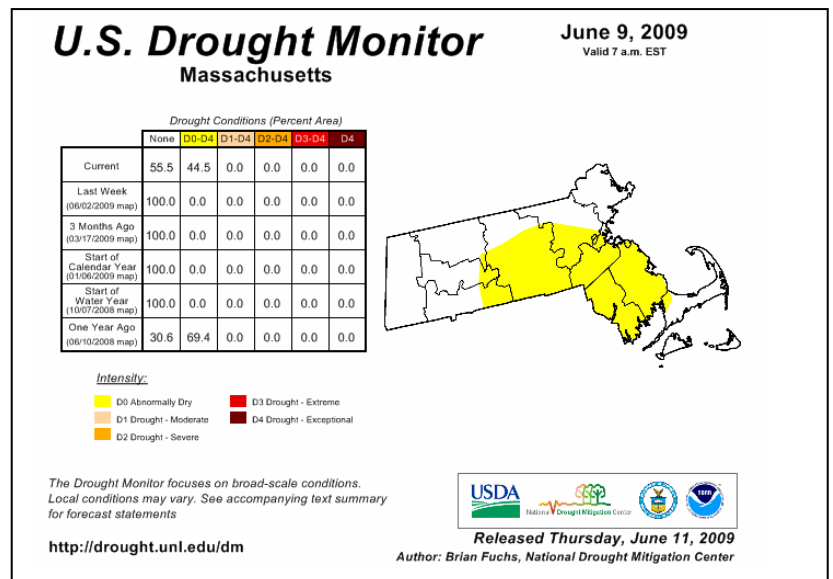
The Western Regional Climate Center's (Desert Research Institute, University and Community College System of Nevada) 1, 3, 6, and 12-Month Standardized Precipitation Index through the end of May shows normal/moderately wet (West), normal, normal/ moderately wet (East and West), and very wet/extremely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

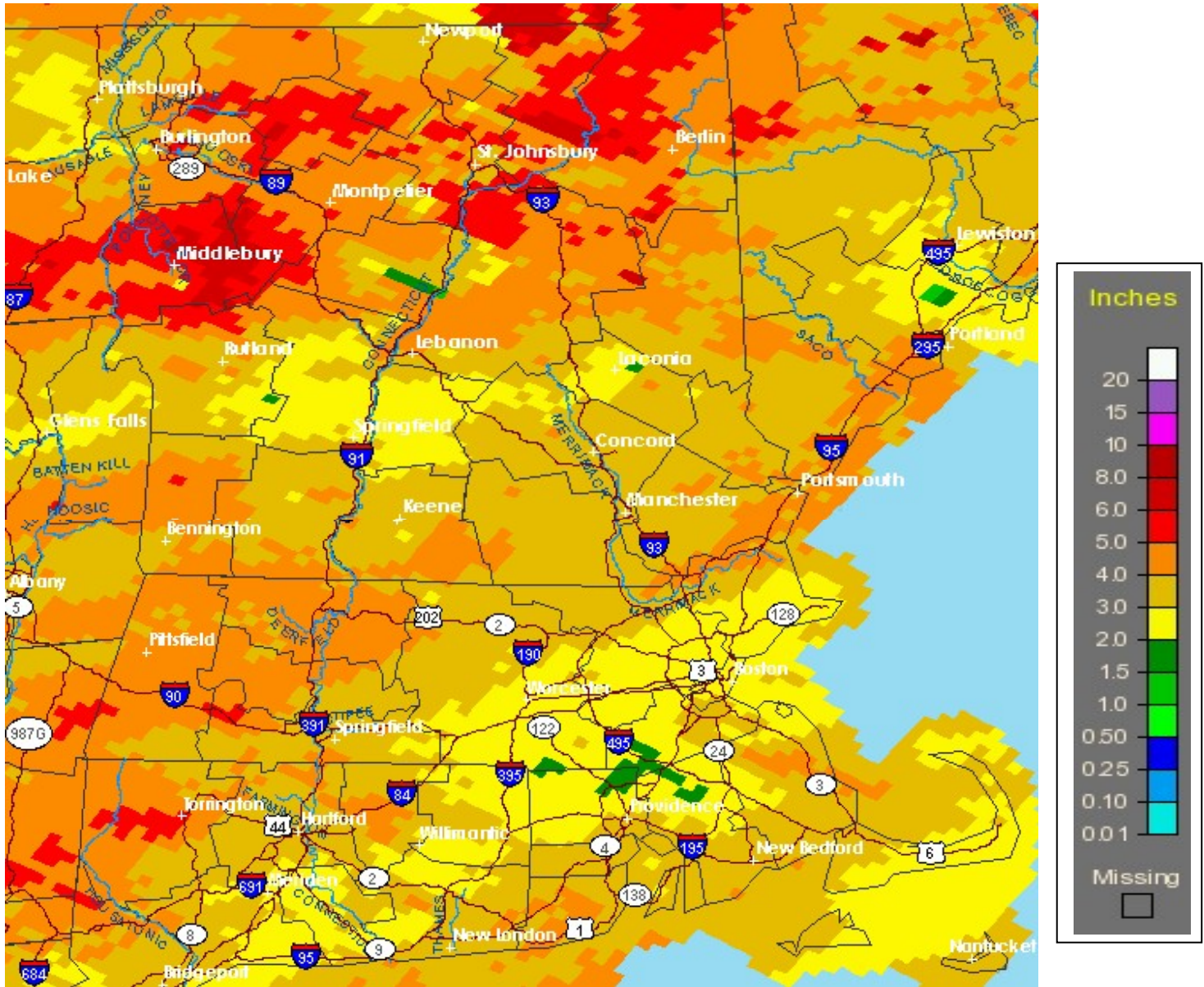
NWS/NOAA's Climate Prediction Center: The U.S. seasonal Drought Outlook dated June 4, 2009 predicts no tendency for drought conditions to develop in Massachusetts through August 2009.

Extended Forecasts

The cloudy damp unsettled weather of the last several days will probably continue into at least the first part of next week. Low pressure from the Ohio valley is forecast to move across the region Friday bringing showers and locally heavy thunder showers. A weak high will drift across the region Saturday followed by a weak front late Sunday. A low may move up the coast early next week. The National Weather Service Climate Prediction Center's extended 6-10, 8-14 day, and 1-month forecasts predict below 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
MAY 2009**



GENERAL WATER CONDITIONS IN MASSACHUSETTS - MAY 2009
 EOEEA and MEMA DROUGHT MANAGEMENT PLAN REGIONS
[\(link to Massachusetts regions – source MADCR\)](#)

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