

Current Water Conditions in Massachusetts

April 10, 2014



- March precipitation was normal
- March streamflows were normal and below normal
- March groundwater levels were normal and below normal
- March reservoir levels were generally normal

Precipitation Conditions

Estimated March state-wide average precipitation is 4.29 inches, which is 108 percent of the long-term average for the month. The regions of Massachusetts received between 79 (Cape Cod and Islands) and 130 percent (Central) of average precipitation during March. A small area of northern Massachusetts east and west of the Connecticut River still has 1 to 12 inches of snow on the ground.

A table of March 2014 estimated precipitation statistics, based on preliminary 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 March rainfall.

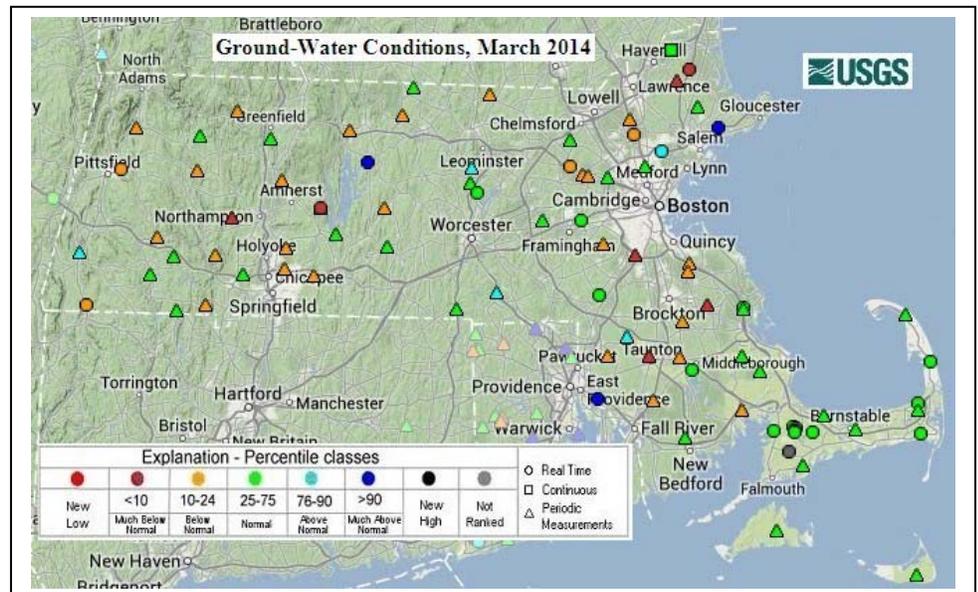
Soil moisture levels are above normal for this time of year.

With the lack of snow cover over most of the state and before green-up there is a period of increased **fire danger** for about the next month and a half. This will be especially true on days with low humidity and moderate to high winds.

Ground-Water Levels

Based on preliminary data, ground-water levels reported by the U.S. Geological Survey at the end of March were below normal in the northeast, Connecticut Valley and far western area of Massachusetts. With the exception of Cape Cod and Island scattered wells in normal areas have below normal water levels. An assessment of ground-water conditions in the Massachusetts drought regions is shown in a table at the end of this report. Ground water levels in the northeast, Connecticut Valley, and western drought regions are below normal, the rest of the drought regions are normal. The USGS Groundwater Conditions for the end of March 2014 can be viewed at the web site:

<http://groundwaterwatch.usgs.gov/StateMapsNet.asp?ncd=crn&sc=25>

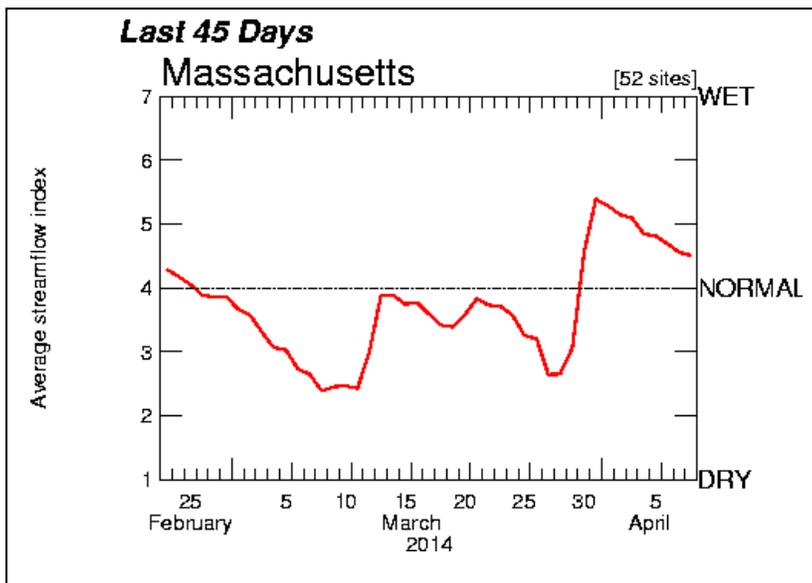
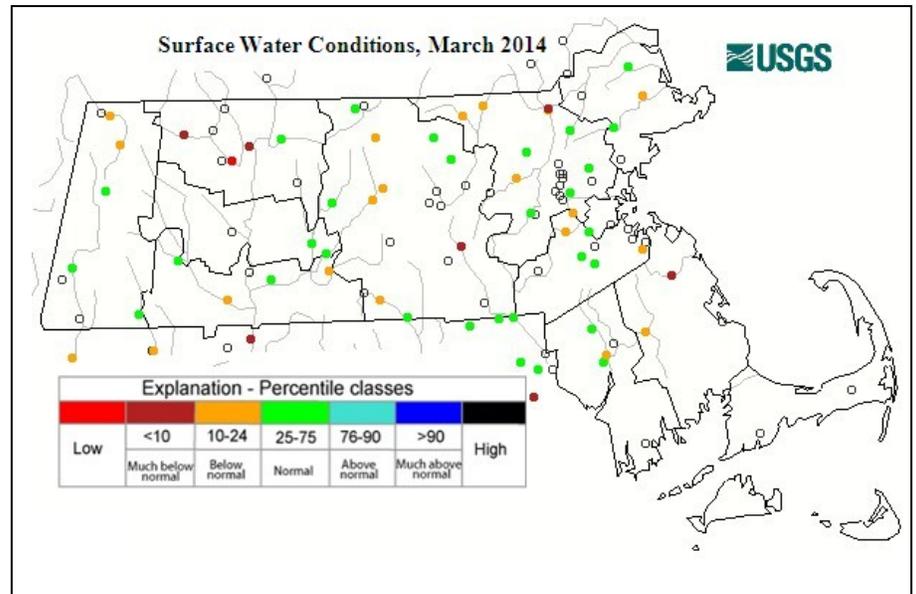


Streamflow

Average March 2014 streamflows that are monitored by the Commonwealth of Massachusetts and United States Geological Survey (USGS) cooperative stream gaging program were generally below normal in the central and Connecticut Valley areas of the state and normal in the remainder of the state.

The graph below depicts a composite daily streamflow relative to normal streamflow for Massachusetts for the period of February 23, to April 8, 2014. Flows were generally in the low normal range at the beginning of March, in the low normal range during mid month, and rose to above normal at the end of the month as a result of a strong end of month precipitation event. Flows are in the high normal range during early April. The graph is a composite of 52 real-time gages across the state with a long period of record. This streamflow plot can be found at:

http://waterwatch.usgs.gov/index.php?map_type1=pa07d&map_type2=&map_type3=&map_type4=&web_type=pa07d%2Cplot&state=ma&huc=us&xinfo=&map_type=real&group_idx=1®ion_cd=ma&group_idx_changed=1&sel_nm=map_type1&sel_va=real



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

Selected surface water reservoir percent-full values for water supply sources provided by water suppliers are listed below. These levels are generally normal or slightly below normal for this time of year. The reservoir percent-full values listed are for the end of March or the beginning of April 2014.

March /April 2014 Massachusetts Reservoir Status

Reservoir/City or Town	Percent Full	Reservoir/City or Town	Percent Full
Quabbin	92.9	Beverly/Salem	99
Worcester	90	Lynn	83
Cobble Mt./ Springfield	77.3	Taunton/New Bedford/Assawompsett	100.1

Note: NA Indicates data not available for this report

Drought Indices/Forecasts

US Drought Monitor

The National Drought Mitigation Center's (NDMC's) April 8, 2014 Drought Monitor Map shown at right indicates no drought or dry conditions in Massachusetts.

Standardized Precipitation Index (SPI)

All the Standardized Precipitation Index values for the regions used for the Massachusetts Drought Management Plan are in the normal range.

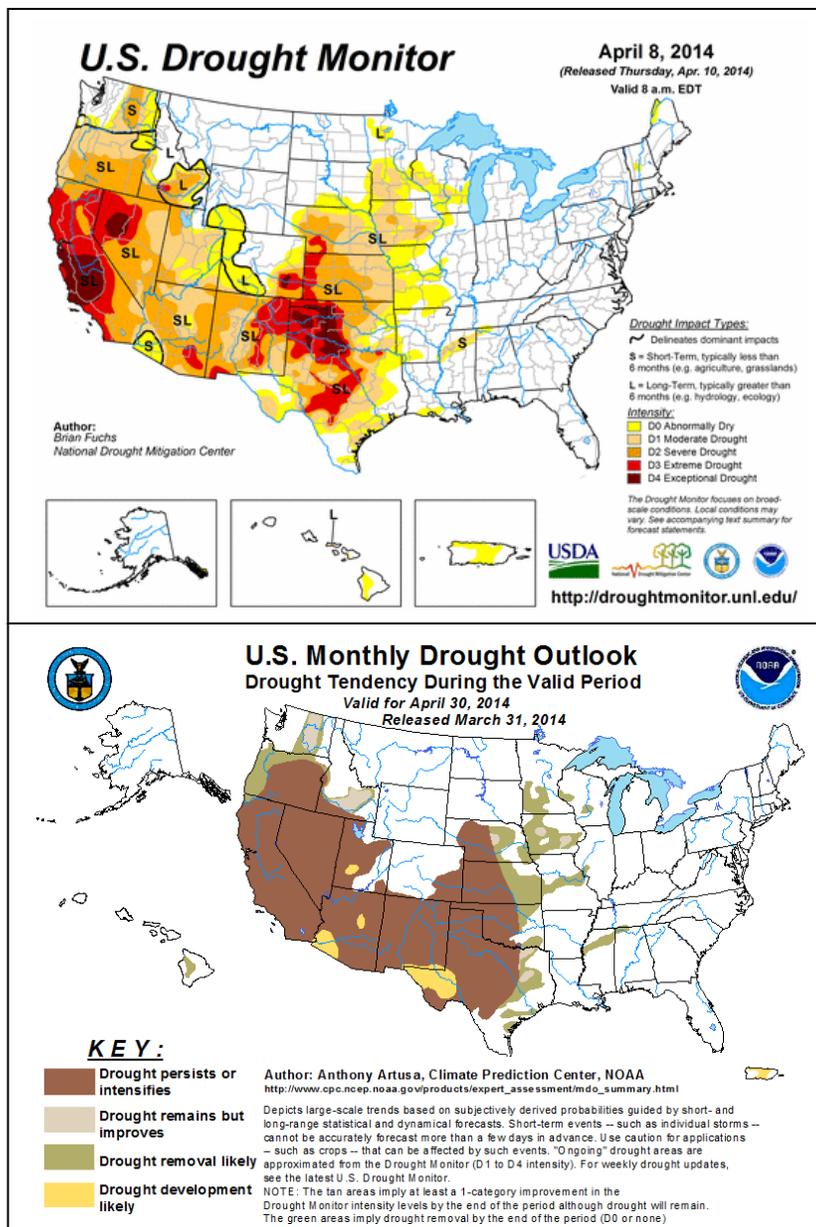
NWS/NOAA's Climate Prediction Center

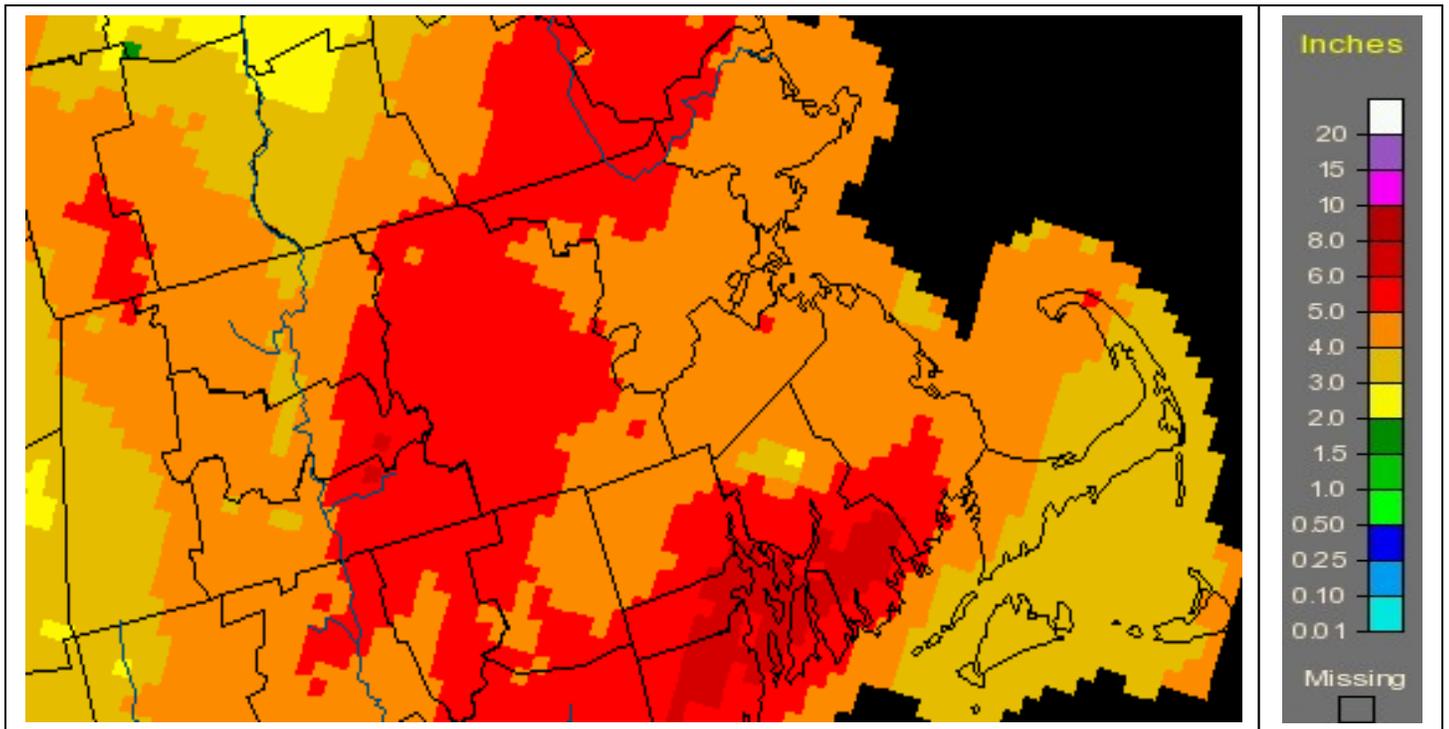
The U.S. Monthly Drought Outlook for April (shown at the right) forecasts normal conditions at the end of the month. The seasonal drought outlook (not shown) predicts that there will be no drought condition through the end of June.

Extended Forecasts

Dry mild weather for today will be followed by the passage of cold fronts late Friday and early Saturday accompanied by scattered showers. There will be dry seasonable periods from Sunday to Tuesday. A period of unsettled weather is forecast for the mid week period. The National Weather Service Climate Prediction Center's extended 6 to 10- and 8 to 14-day forecasts are for above normal rainfall and temperatures. The 1-month forecast is for normal rainfall and below normal temperatures. The 3-month forecast is for normal rainfall and temperatures. The NWS Climate Prediction Center Information can be found at:

<http://www.cpc.noaa.gov/index.php>





<http://water.weather.gov/precip/>

**TOTAL RAINFALL
MARCH 2014**



GENERAL WATER CONDITIONS IN MASSACHUSETTS - MARCH 2014
EOEEA and MEMA DROUGHT MANAGEMENT PLAN REGIONS

Massachusetts Regions	Surface-Water Conditions	Ground-Water Conditions
Cape and Islands	ND	Normal
Southeast	Normal	Normal
Northeast	Normal	Below Normal
Central	Below Normal	Normal
Connecticut River	Below Normal	Below Normal
Western	Normal	Below Normal

Note: Surface- and ground-water conditions for individual streamflow-gaging stations and wells may differ from general conditions. ND, no data

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/eea/agencies/dcr/water-res-protection/water-data-tracking/precipitation-composite-current-conditions.html>