

Current Water Conditions in Massachusetts

February 13, 2014



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

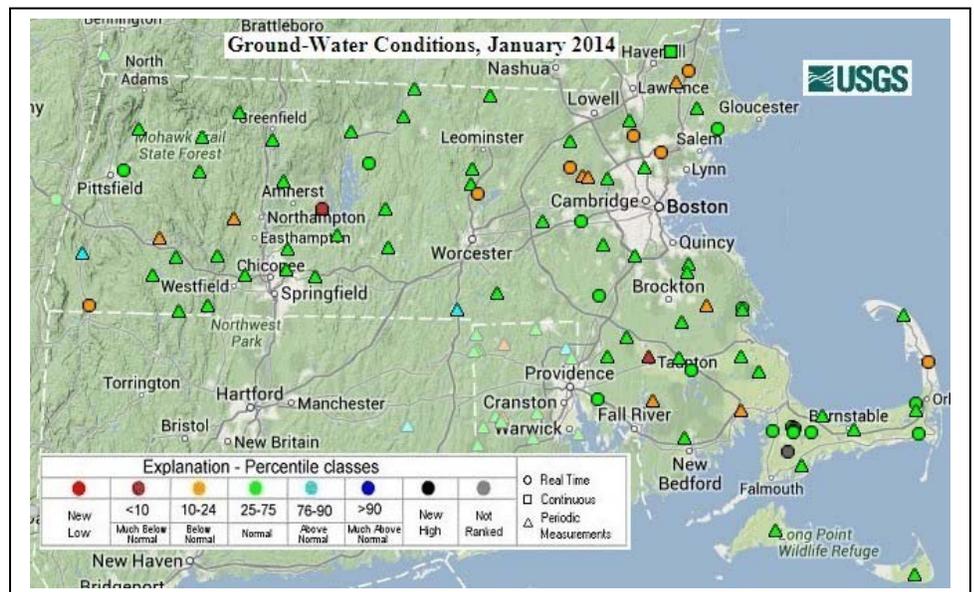
Precipitation Conditions

Estimated January state-wide average precipitation is 3.47 inches, which is 98 percent of the long-term average for the month. The regions of Massachusetts received between 89 (Connecticut River) and 116 percent (Western) of average precipitation during January. Generally precipitation, mainly snow, was distributed throughout the month. A table of January 2013 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 January rainfall in Massachusetts. At present the state is generally covered by snow that contains 1 to 4-inches of water, the higher amounts in the hills of western Massachusetts.

Ground-Water Levels

Based on preliminary data, ground-water levels reported by the U.S. Geological Survey at the end of January were generally normal throughout the state. A few wells, especially in the northeastern area, had below normal 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 all the drought regions are normal. The USGS Groundwater Conditions for the end of January 2014 can be viewed at the web site:

<http://groundwaterwatch.usgs.gov/State/MapsNet.asp?ncd=cm&sc=25>

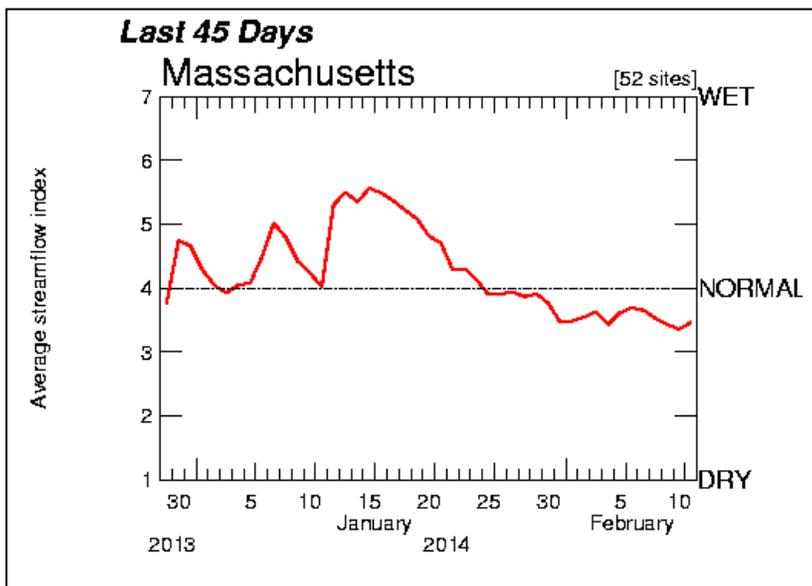
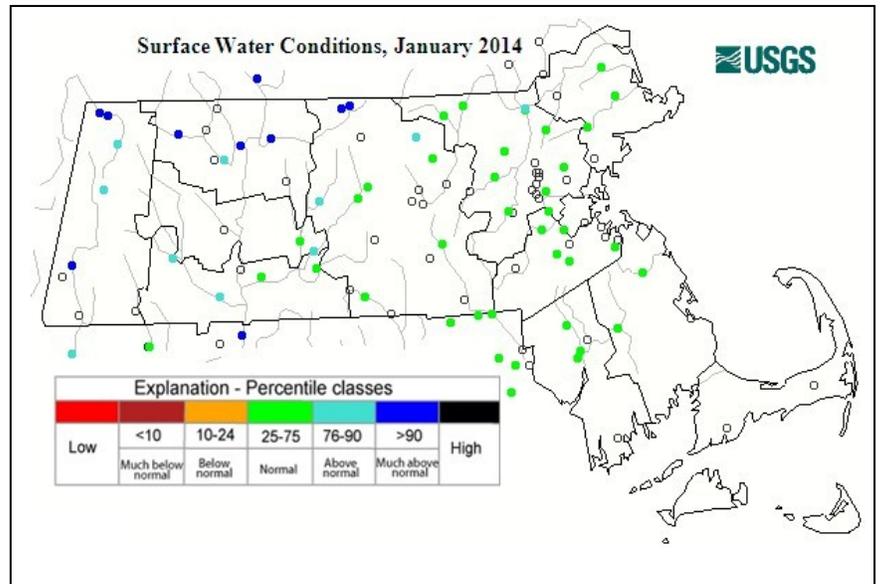


Streamflow

Average January 2014 streamflows that are monitored by the Commonwealth of Massachusetts and United States Geological Survey (USGS) cooperative stream gaging program were generally normal in the eastern half of the state and above too much above normal in the western half of the state.

The graph below depicts a composite daily streamflow relative to normal streamflow for Massachusetts for the period of December 29, 2013 to February 10, 2014. Flows were generally in the high normal range until late January when they declined into the low normal range where they remained into early February. Peaks on the hydrograph correspond to periods of rainfall and snow melt. 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 January or the beginning of February 2014.

January /February 2014 Massachusetts Reservoir Status

Reservoir/City or Town	Percent Full	Reservoir/City or Town	Percent Full
Quabbin	89.8	Beverly/Salem	94.5
Worcester	76	Lynn	71.8
Cobble Mt./ Springfield	71.1	Taunton/New Bedford/Assawompsett	96

Note: NA Indicates data not available for this report

Drought Indices/Forecasts

US Drought Monitor

The National Drought Mitigation Center's (NDMC's) February 11, 2014 Drought Monitor Map shown at right indicates abnormally dry conditions in the northeast, central and Connecticut Valley areas of Massachusetts.

Standardized Precipitation Index (SPI)

The six-month Standardized Precipitation Index values used for the Massachusetts Drought Management Plan are in the normal range with the exception of Cape Cod and Islands, with an Advisory-level 6-month SPI value.

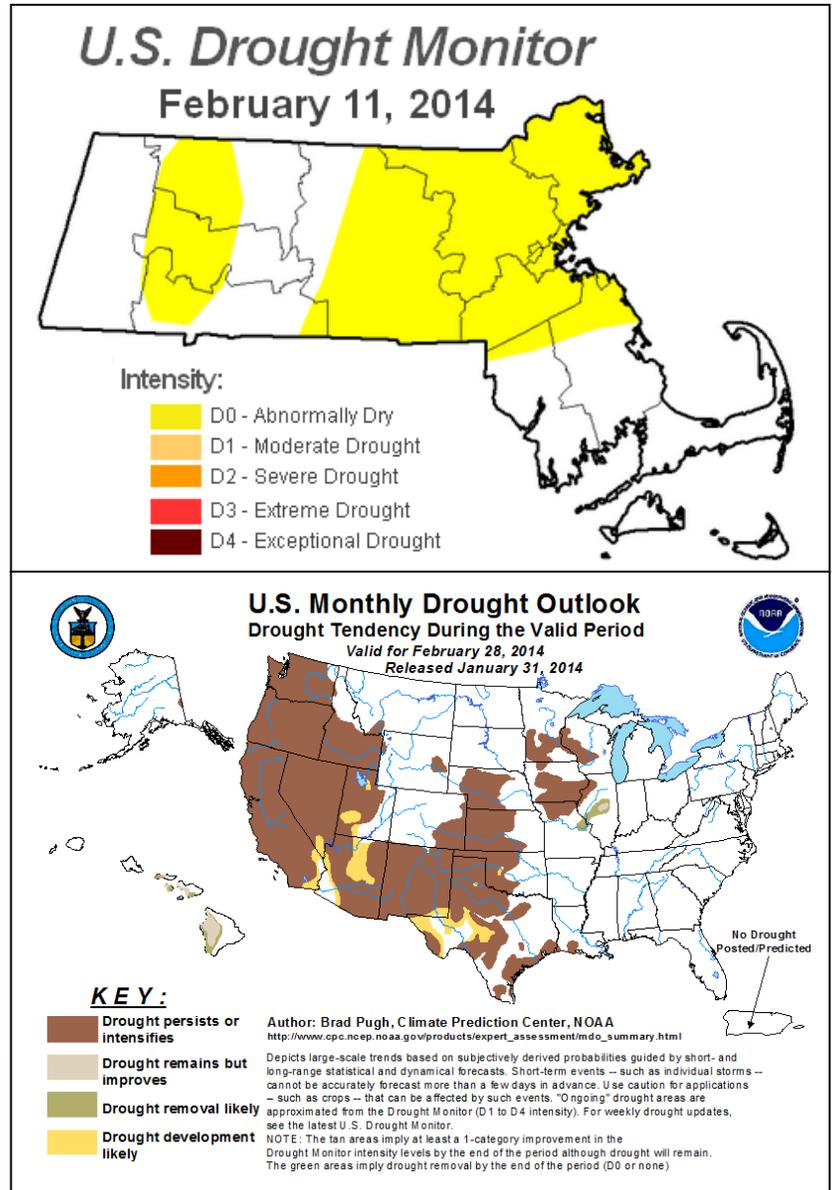
NWS/NOAA's Climate Prediction Center

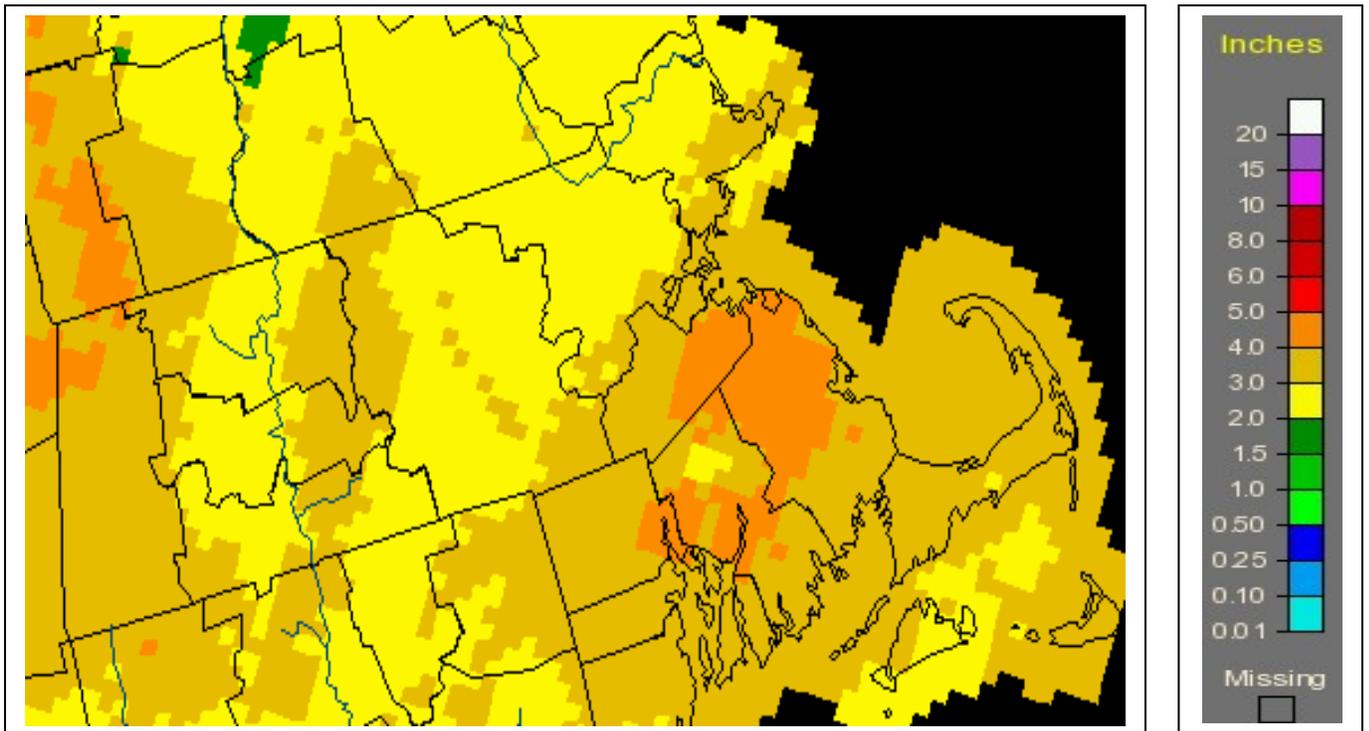
The U.S. Monthly Drought Outlook for February (shown at the right) forecasts normal conditions at the end of the month. The seasonal drought outlook (not shown) predicts that any drought conditions in the state will likely be removed by the end of April 2014.

Extended Forecasts

Northeaster winds down late Thursday into early Friday. May be lingering light snow into early Saturday. Dry cold weather returns Sunday. Approaching front will bring snow and rain Monday night into Tuesday. Dry seasonable weather will return mid-week. 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- and 3-month forecasts are 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 JANUARY 2014



GENERAL WATER CONDITIONS IN MASSACHUSETTS - JANUARY 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	Normal
Central	Normal	Normal
Connecticut River	Above Normal	Normal
Western	Above Normal	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>