

Current Water Conditions in Massachusetts

April 10, 2008



- March precipitation was above normal
- March streamflows were above normal
- March ground-water levels were above normal and normal
- Reservoir levels are generally normal and above normal

Precipitation Conditions

For the second consecutive month March 2008 State-wide-precipitation was above normal equaling an estimated 5.7 inches which is about 143 percent of normal. The regions of Massachusetts received between 176 percent (Connecticut River) and 114 percent (Cape Cod and Islands) of normal precipitation during March. In general, several rain and snow events in early and mid March contributed most of the precipitation. A table of March 2008 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 March total rainfall in New England.

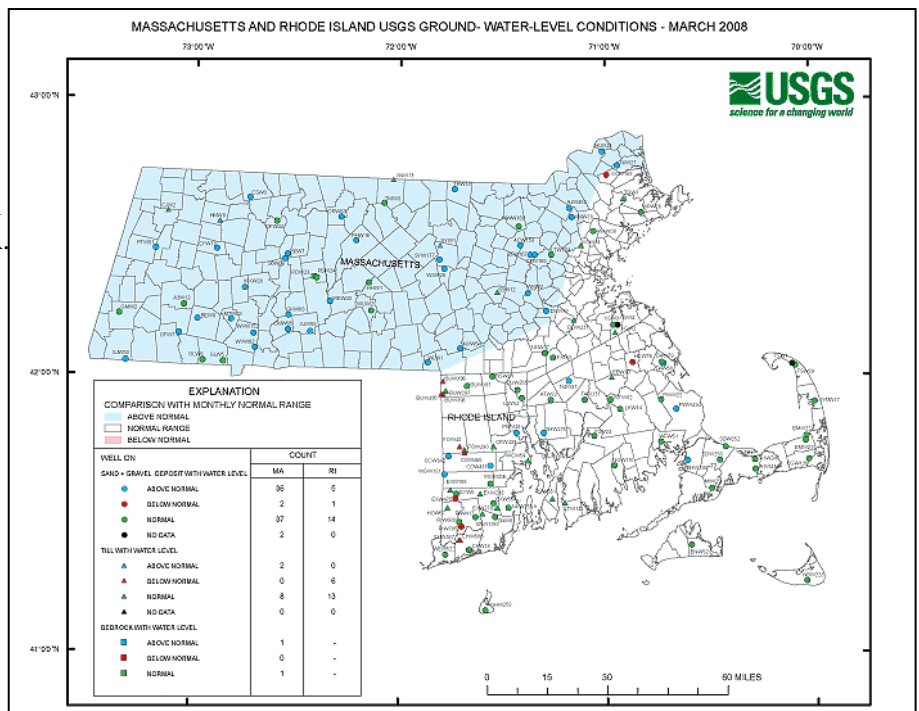
Early April has seen about 0.5 to 1 inch of precipitation to date, which is 50 to 125 percent of normal for this time of the month.

According to the NWS Hydrologic Outlook of April 3rd a significant ripe snow pack with a snow water content of 1 to 5 inches still remains in the extreme north central area and on the east slope high-elevation areas of the Berkshire Mountains of MA. The upper watersheds of the Connecticut and Merrimack Rivers in New Hampshire and Vermont also have significant snow-packs with a water content that ranges from 5 to 10 inches plus. Exposing these snow packs to extended periods of warm temperatures and, or, moderate to large rainfall events has the potential to release large volumes of water in a short period of time.

The Massachusetts Drought Management Task Force met on March 18th. The Drought Advisory that had been in effect for the Connecticut River, Central, Northeast, and Southeast Regions of Massachusetts was discontinued.

Ground Water Levels

Ground-water levels reported by the United States Geological Survey (USGS) at the end of March 2008 were generally above normal (blue area on map) in western, central, and part of northeastern MA. Levels were normal (white areas on map) in the remainder of MA. The USGS ground water level map and a Water Conditions Statement for the end of March 2008 can be viewed at the web site: http://ma.water.usgs.gov/water/water_g.htm



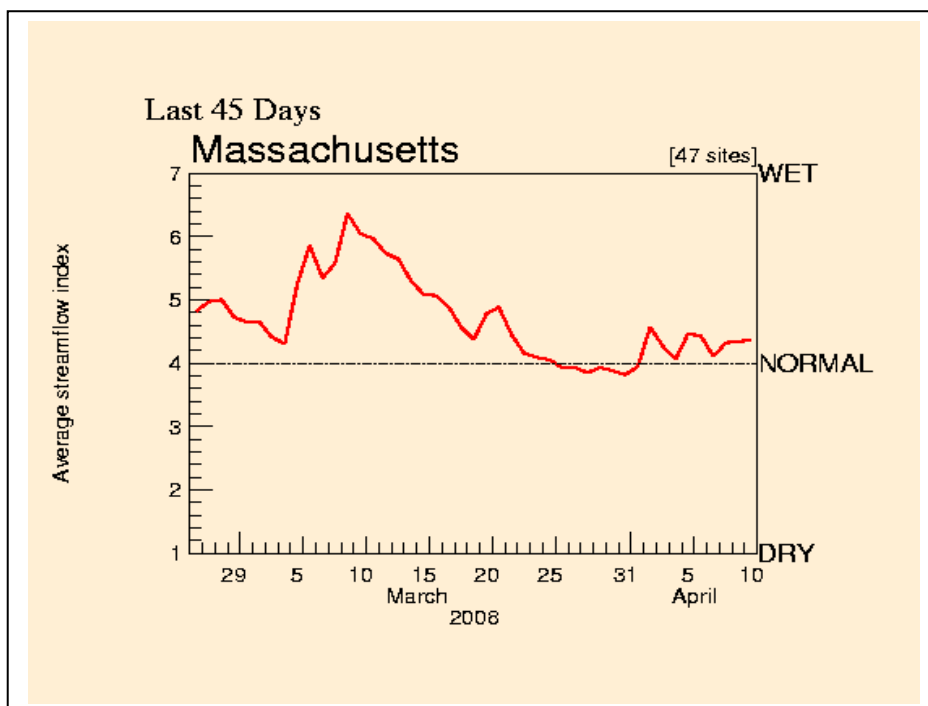
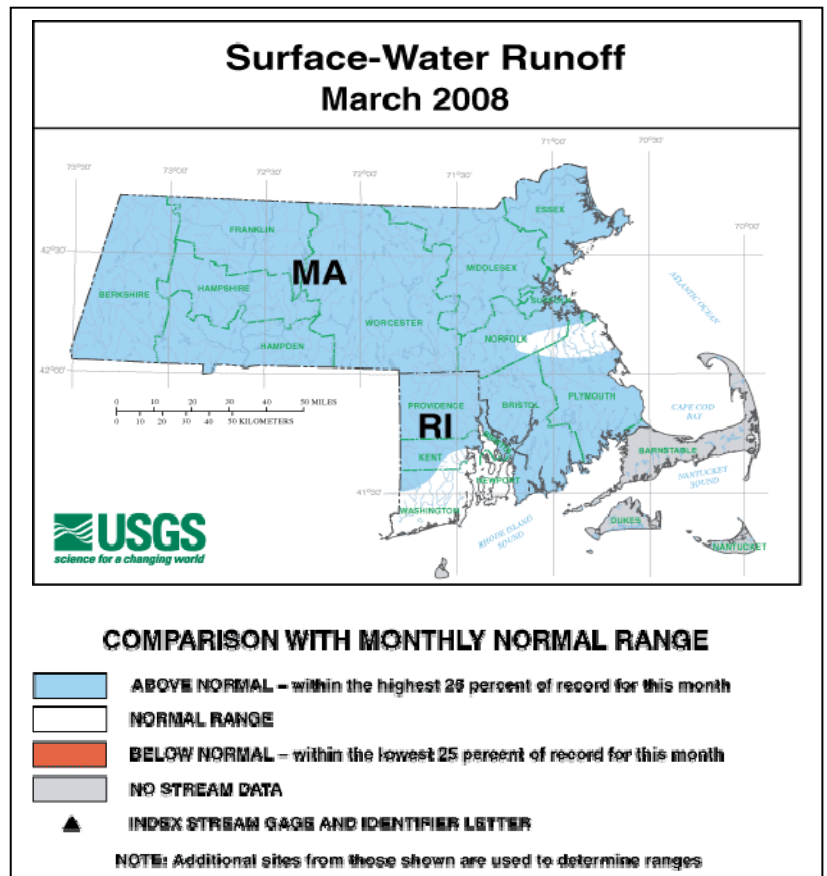
Stream Flow

During March stream flows in Massachusetts that are monitored by the United States Geological Survey (USGS) were generally above normal (blue area) throughout the State with the exception of a small basin in eastern MA where flows were normal. The graph below depicts a composite daily streamflow relative to normal streamflow for Massachusetts as of April 9, 2008. The graph is a composite of 47 gages across the state with a long period of record. Above normal streamflow at the beginning March slowly declined to average and slightly below average at the end of the month. In Early April streamflow rose to slightly above normal in response to several precipitation events and snow melt during that period. Additional information on streamflow is available from the USGS web page:

<http://ma.water.usgs.gov/water/waters.htm>

Information on flooding conditions is available from the NWS web page:

<http://newweb.erh.noaa.gov/ahps2/forecasts.php?wfo=box&view=1,1,1,1,1,1,1,1&toggles=10,7,8,2,9,15,6>



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 levels listed are reported to range from normal to a little above normal for this time of year.

March /April 2008 Massachusetts Reservoir Status

Reservoir/City or Town	Percent Full	Reservoir/City or Town	Percent Full
Quabbin	98	Beverly/Salem	100
Worcester	103	Lynn	87.9
Cobble Mt./ Springfield	93	Taunton/New Bedford/Assawompsett	103

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

Fire Danger

During late March and early April bare ground and windy conditions have resulted in some elevated fire danger classifications in the eastern half of the State.

Drought Indices/Forecasts

The National Drought Mitigation Center's (NDMC's) April 7, 2008 Drought Monitor Map of The United States shown at right indicates that there are no drought conditions in Massachusetts or the entire northeast United States.

Standardized Precipitation Index:

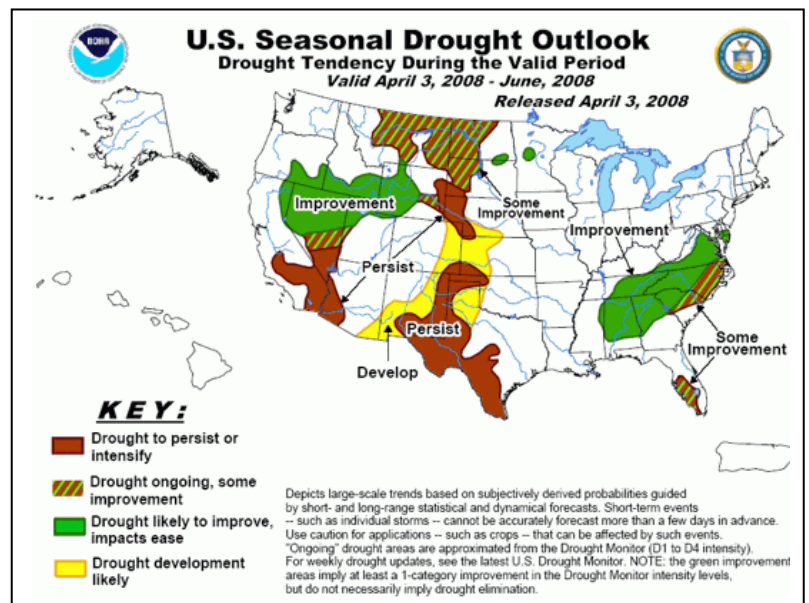
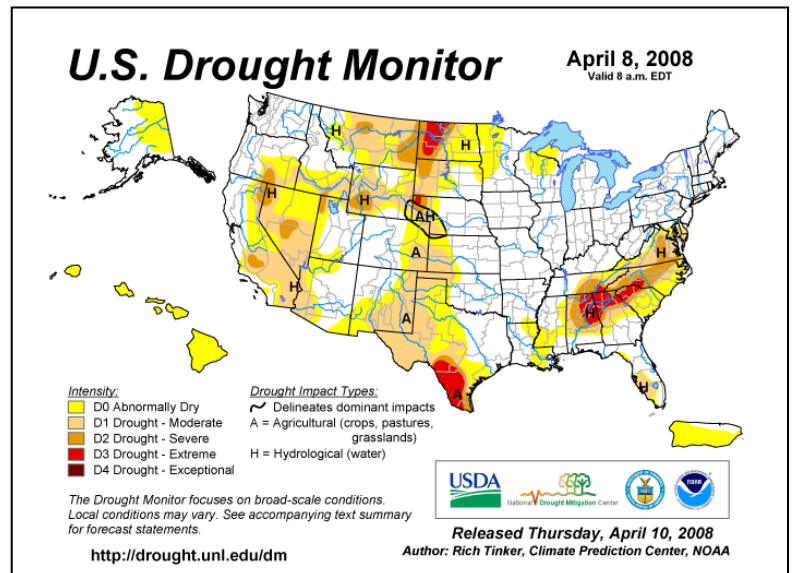
The Western Regional Climate Center's (Desert Research Institute, University and Community College System of Nevada) 1, 3, 6, and 12-Month Standardized Precipitation Index through the end of March shows moderately/very wet, very/extremely wet, very/extremely wet, and moderately/very wet conditions respectively.

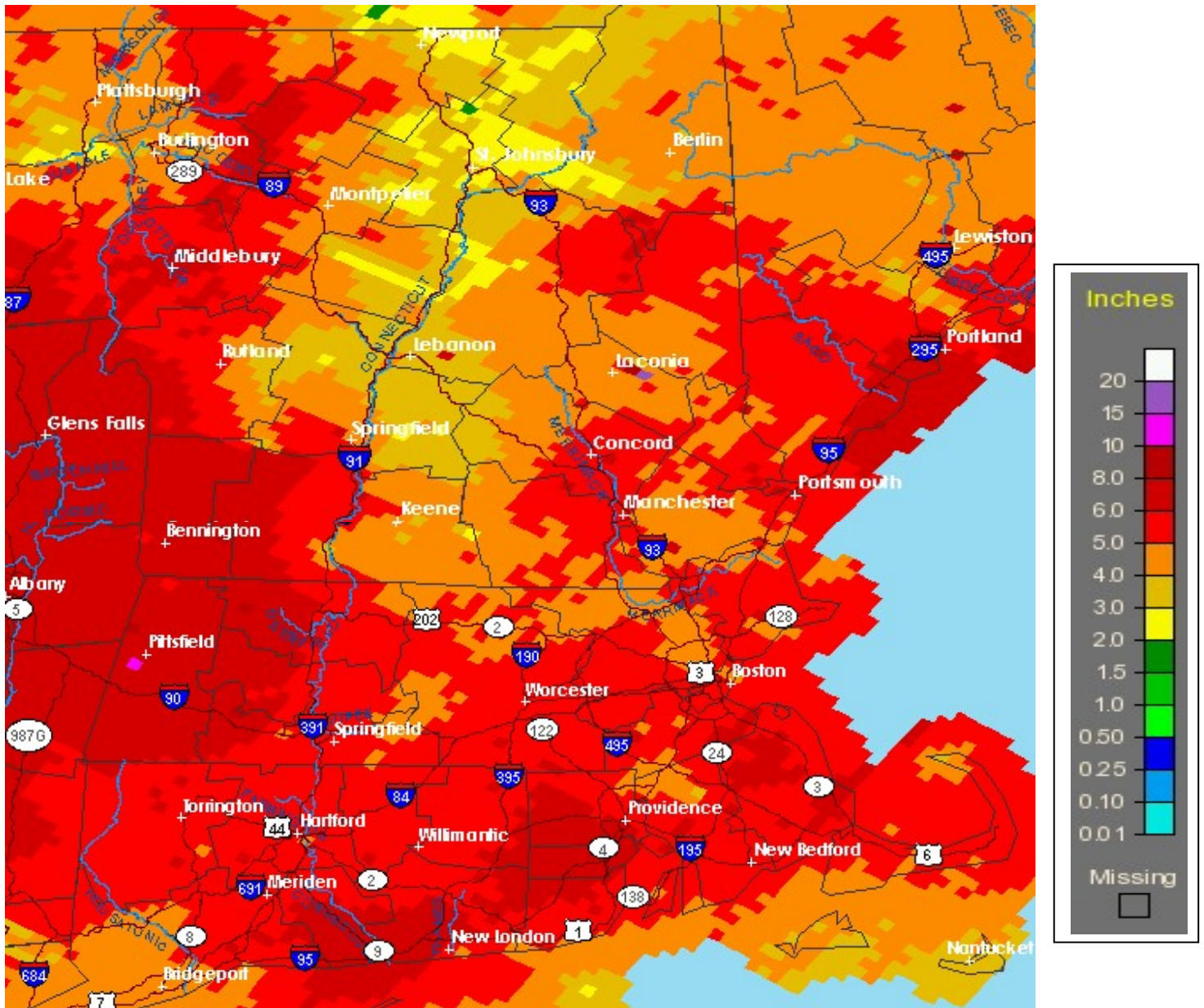
NWS/NOAA's Climate Prediction Center: The U.S. Seasonal Drought Outlook dated April 3, 2008 shows normal conditions through June 2008.

Extended Forecasts

A period of unsettled weather will affect the State and Northeast Region on Friday evening through Sunday with the potential for an inch or more of rainfall in some areas. This rainfall, combined with the ripe snowpack remaining on the eastern slopes of the Berkshires Mountains in MA, in Vermont, and in New Hampshire could result in flooding conditions in some areas -- especially along the main stem valleys of the Connecticut and Merrimack Rivers in Massachusetts.

The National Weather Service Climate Prediction Center's extended 6-10 and 8-14 day forecasts predict above normal precipitation and below normal temperature. The 1-month extended forecast predicts normal precipitation and temperature.





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



TOTAL RAINFALL MARCH 2008

This report was prepared by the Massachusetts Department of Conservation and Recreation. Data were obtained from the sources described in the report and March June 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/>