

# Current Water Conditions in Massachusetts

## August 21, 2008



- July precipitation was above normal
- July streamflows were above normal
- July ground-water levels were above normal
- July reservoir levels were above normal

### Precipitation Conditions

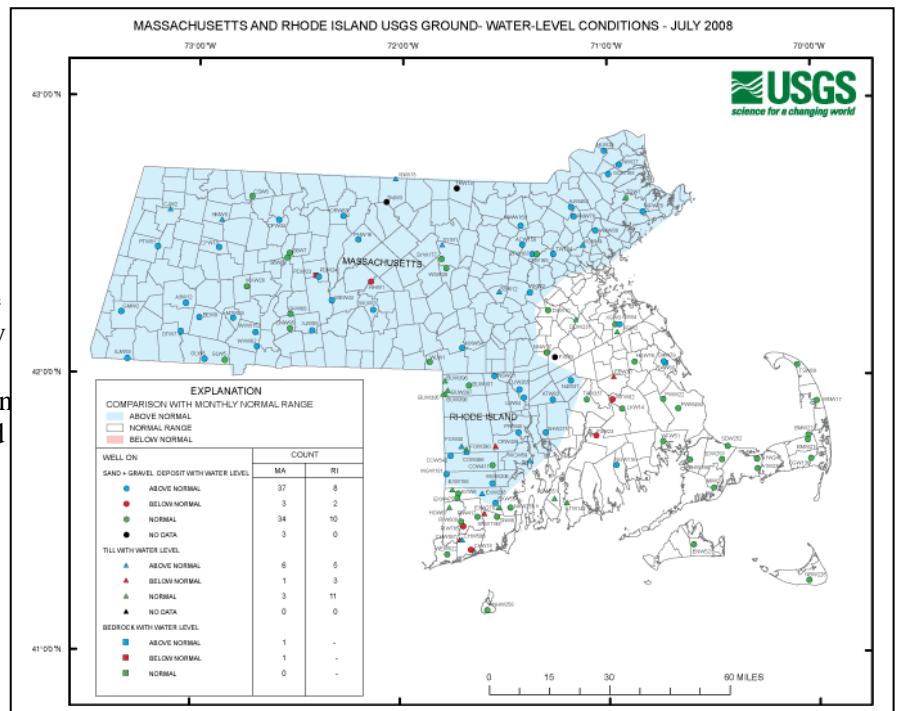
July State-wide precipitation was above normal, equaling an estimated 6.38 inches, which is about 178 percent of the long-term normal for July. The regions of Massachusetts received between 208 percent (Conn. River and Northeast) and 147 percent (Western) of normal precipitation during July. Most of the precipitation occurred during the second half of the month primarily as a result of convective activity and frontal passages. A table of July 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 July total rainfall in New England.

As of August 21, most of the State has received 2 to 6 inches of rainfall which assures that most of the State will have above normal rainfall for the month of August.

### Ground Water Levels

Ground-water levels reported by the United States Geological Survey (USGS) at the end of July 2008 were generally above normal (blue areas on map). In about 25 percent of the east and southeast area of the State groundwater levels were in the normal range (white area of map). Record high levels were measured in 2 wells and record highs for July were measured in nine wells. The USGS assessment of ground-water levels is based on 124 wells in Massachusetts and Rhode Island with 10 or more years of record.

The USGS ground water level map and a Water Conditions Statement for the end of July 2008 can be viewed at the web site: [http://ma.water.usgs.gov/water/water\\_g.htm](http://ma.water.usgs.gov/water/water_g.htm)

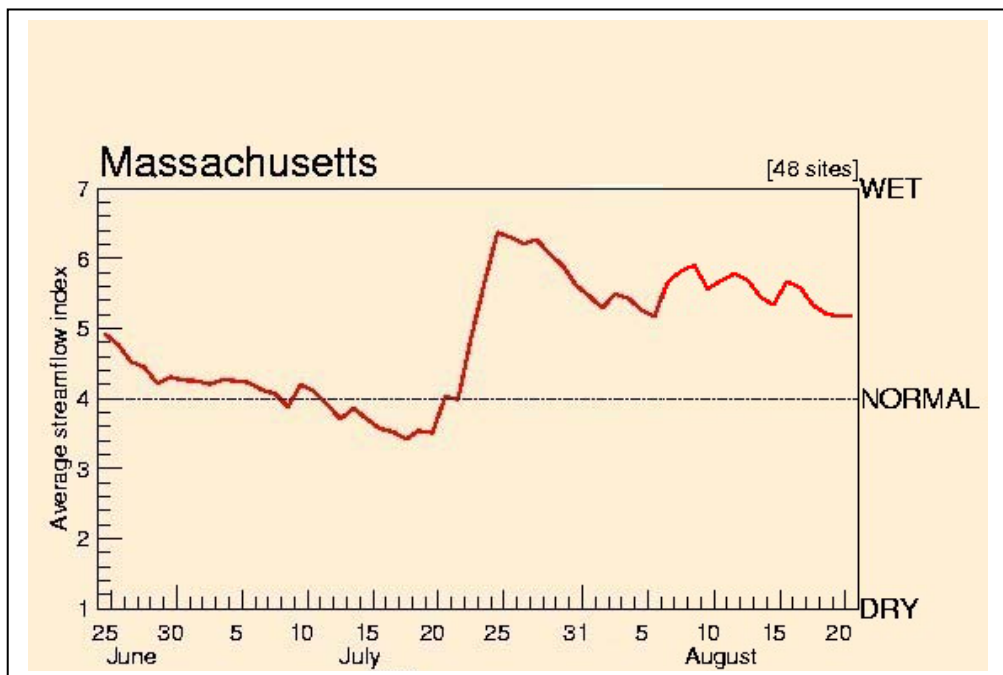
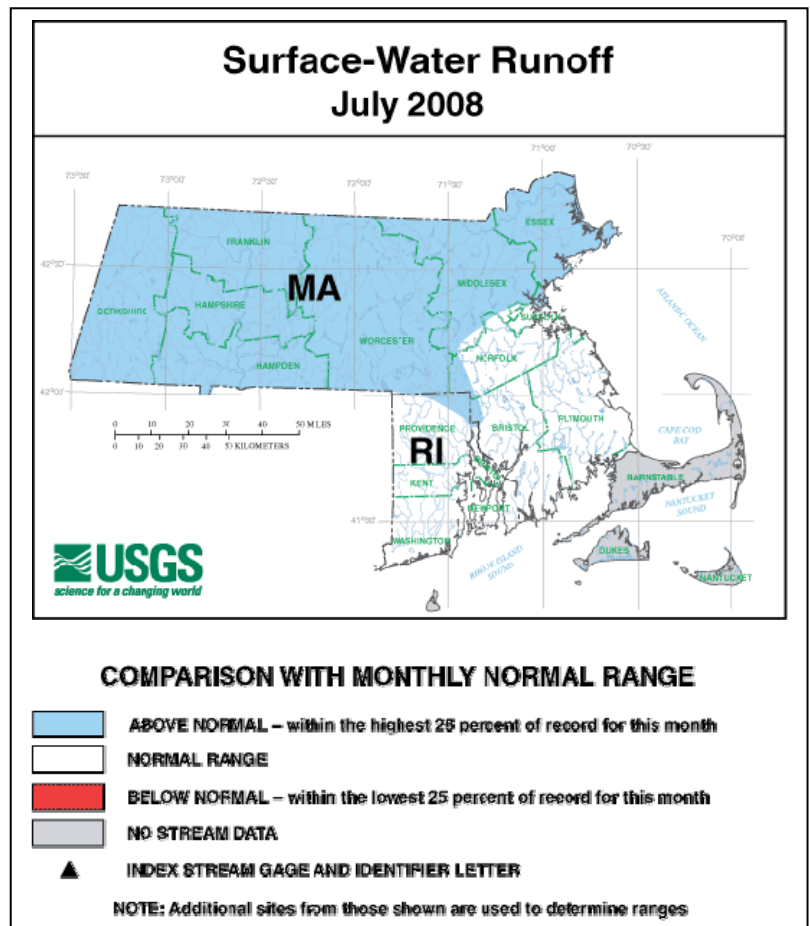


## Stream Flow

During July stream flows in Massachusetts that are monitored by the Commonwealth of Massachusetts and United States Geological Survey (USGS) cooperative stream gaging program were generally above normal (blue area on map). Flows were normal (white area of map) in about 25 percent of east and southeast portion of the State

The graph below depicts a composite daily streamflow relative to normal streamflow for Massachusetts as of August 20, 2008. Slightly above normal streamflow at the beginning of July slowly declined to slightly below normal by mid July. Precipitation events beginning about July 20<sup>th</sup> resulted in a sharp rise in streamflow and continued above normal flows for the remainder of July into late August. 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/waters.htm>



**KEY:**

- 1 = New record low for day
- 2 = < 10<sup>th</sup> percentile
- 3 = 10<sup>th</sup> – 24<sup>th</sup> percentile
- 4 = 25<sup>th</sup> – 74<sup>th</sup> percentile
- 5 = 75<sup>th</sup> – 89<sup>th</sup> percentile
- 6 = ≥ 90<sup>th</sup> 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 July and are reported to be above normal for this time of year. Reservoir storage has generally increased during the first part of August.

### July /August 2008 Massachusetts Reservoir Status

Reservoir/City or Town	Percent Full	Reservoir/City or Town	Percent Full
Quabbin	98	Beverly/Salem	90
Worcester	95.3	Lynn	74.7
Cobble Mt./ Springfield	91	Taunton/New Bedford/Assawompsett	93.9

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

### Drought Indices/Forecasts

The National Drought Mitigation Center's (NDMC's) August 19, 2008 Drought Monitor Map shown at right, indicates no drought conditions in Massachusetts or New England.

### Standardized Precipitation Index:

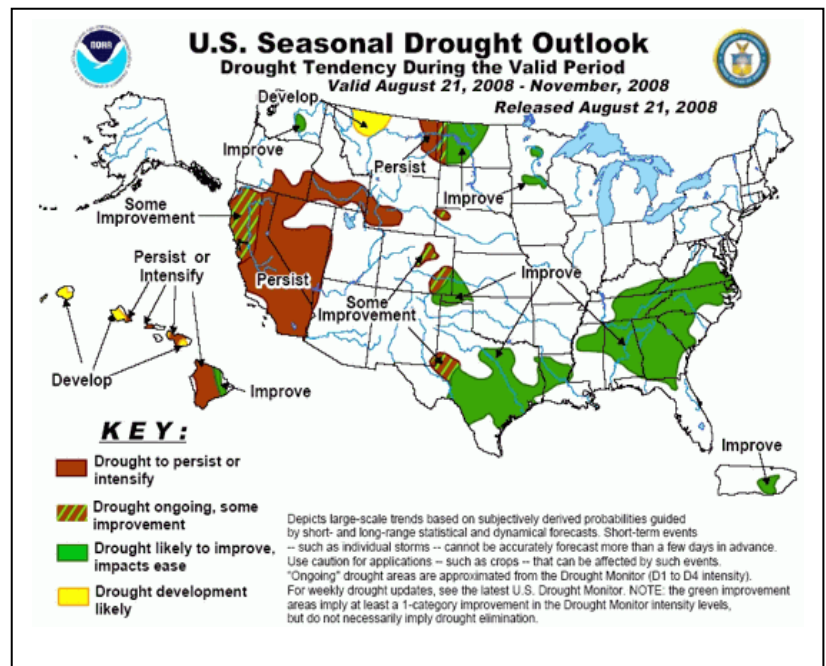
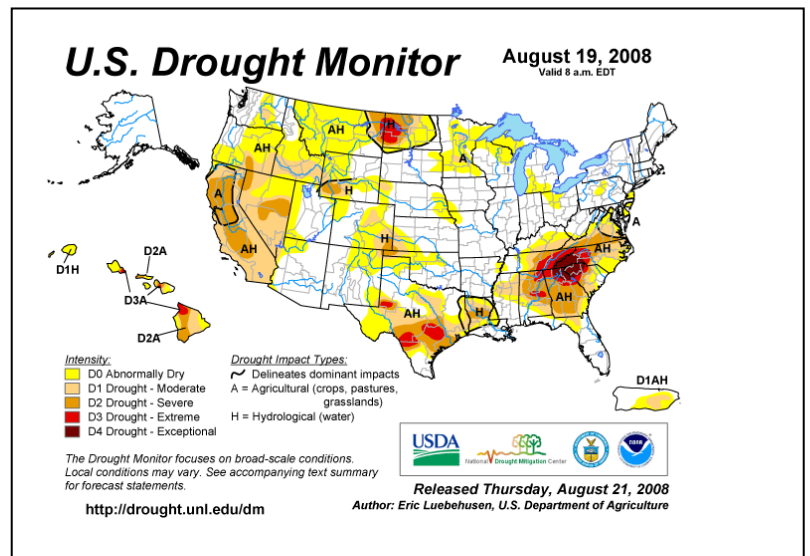
The Western Regional Climate Center's (Desert Research Institute, University and Community College System of Nevada) 1, 3, 6, and 12-Month Standardized Precipitation Index through the end of July shows extremely wet to near normal conditions across Massachusetts.

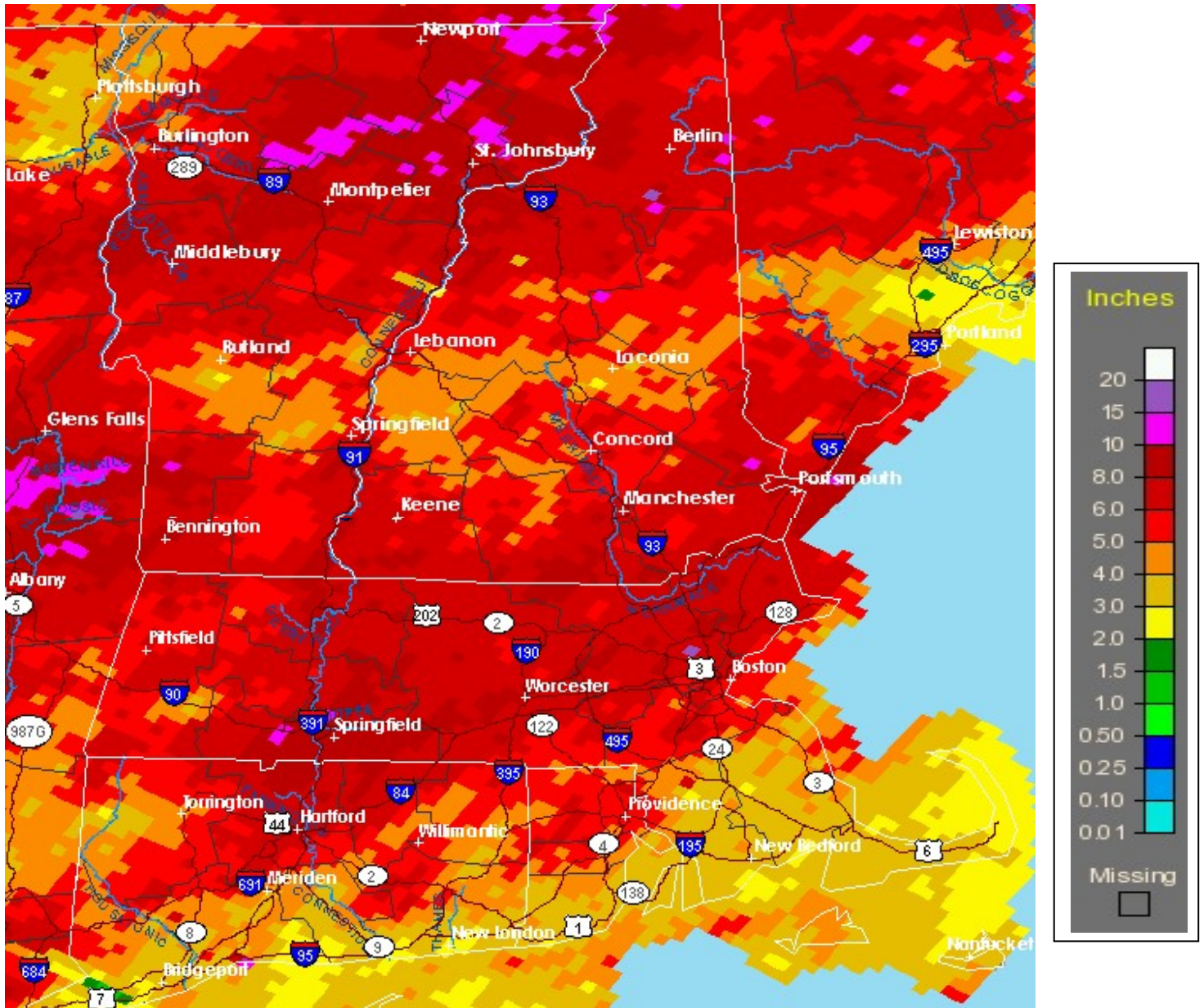
NWS/NOAA's Climate Prediction Center: The U.S. Seasonal Drought Outlook dated August 21, 2008 predicts normal conditions for Massachusetts through November 2008.

### Extended Forecasts

Great, dry, and slowly warming, summer weather will continue through the weekend. There may be some scattered showers and thunderstorms late Sunday or Monday due to a cold front passage. After that, clear seasonable summer weather continues into at least mid week.

The National Weather Service Climate Prediction Center's extended 6-10 and 8-14 day forecasts (Aug 26 to Sept 3) predicts above normal temperatures and precipitation for Massachusetts. The 1-month extended forecast predicts normal precipitation and temperature.





[http://www.srh.noaa.gov/rfcshare/precip\\_analysis\\_new.php](http://www.srh.noaa.gov/rfcshare/precip_analysis_new.php)

**TOTAL RAINFALL  
JULY 2008**



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/>