

Current Water Conditions in Massachusetts

October 16, 2008



- September precipitation was much above normal
- September streamflows were above normal and normal
- September ground-water levels were above normal and normal
- September reservoir levels were above normal

Precipitation Conditions

According to NOAA September was the 4th wettest September in the last 115 years in Massachusetts. September state-wide precipitation equaled an estimated 8.32 inches, which is about 218 percent of the long-term average for September. The regions of Massachusetts received between 256 percent (Southeast) and 155 percent (Western) of average precipitation during September. Most of the precipitation occurred during two periods at the beginning (tropical storm Hanna) and end of the month. A table of September 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 September total rainfall in New England.

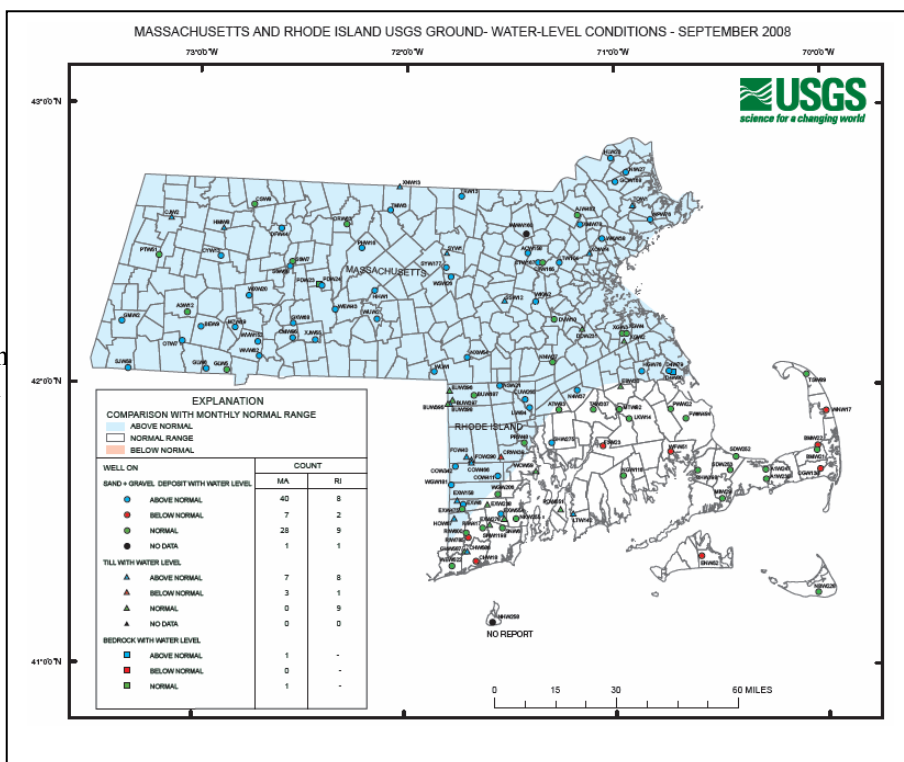
According to NOAA the Water Year ending September 30 was the 2nd wettest in the last 115 years. In general, October rainfall to date is deficient, averaging about 15 percent of normal.

Ground Water Levels

Ground-water levels reported by the United States Geological Survey (USGS) at the end of September 2008 were generally above normal (blue areas on map) from the northeast to western Massachusetts. Groundwater levels in the Southeast, Cape Cod, and The Islands were in the normal range (white area of map). 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 September 2008 can be viewed at the web site:

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



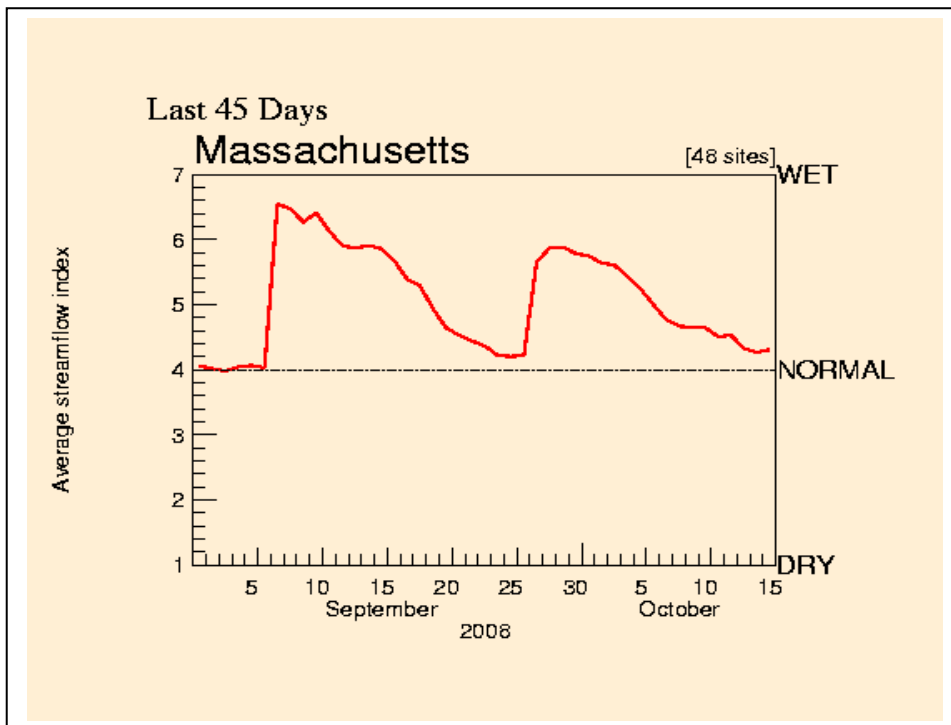
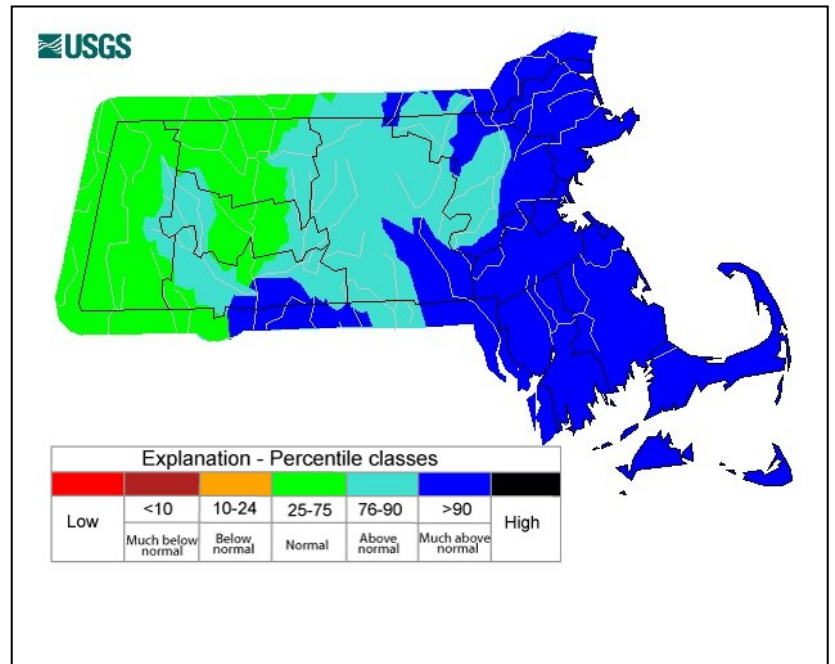
Stream Flow

During September stream flows that are monitored by the Commonwealth of Massachusetts and United States Geological Survey (USGS) cooperative stream gaging program were generally above normal (blue areas on map) in most of the Commonwealth. Flows were normal (green area of map) in several river basins draining the western area of the State.

The graph below depicts a composite daily streamflow relative to normal streamflow for Massachusetts as of October 15, 2008. Normal streamflow at the beginning of September rose sharply on the 5th and 6th as a result of tropical storm Hanna, declined toward mid month, and rose sharply again in response to heavy rainfall on the 26th to 28th. Streamflow in October has generally declined as a result of below normal rainfall. 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 = < 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 September and are reported to be generally above normal for this time of year.

September /October 2008 Massachusetts Reservoir Status

Reservoir/City or Town	Percent Full	Reservoir/City or Town	Percent Full
Quabbin	95	Beverly/Salem	82.8
Worcester	101	Lynn	65.5
Cobble Mt./ Springfield	90	Taunton/New Bedford/Assawompsett	99

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

Drought Indices/Forecasts

The National Drought Mitigation Center's (NDMC's) October 7, 2008 Drought Monitor Map shown at right, indicates no drought conditions in Massachusetts or New England.

Standardized Precipitation Index:

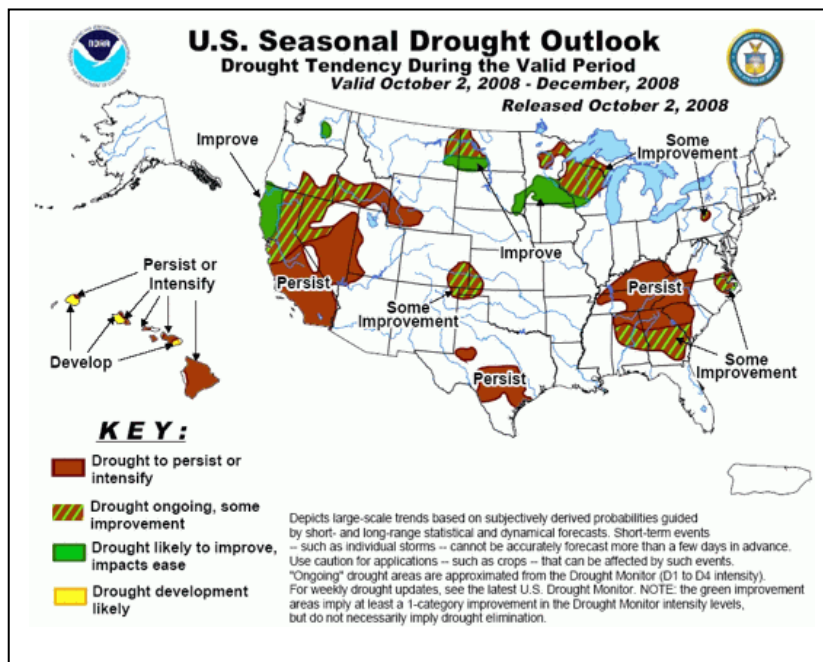
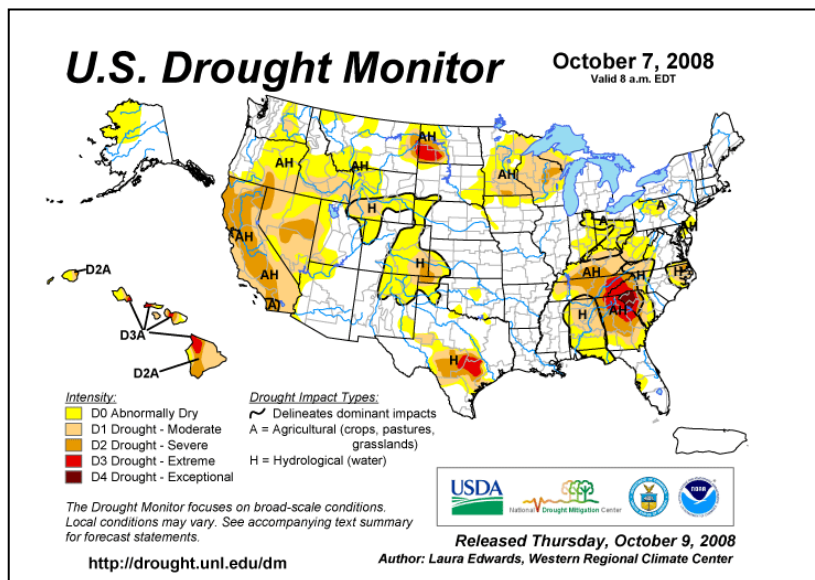
The Western Regional Climate Center's (Desert Research Institute, University and Community College System of Nevada) 1, 3, 6, and 12-Month Standardized Precipitation Index through the end of September shows very wet, very/extremely wet, very wet, and extremely/very wet across Massachusetts.

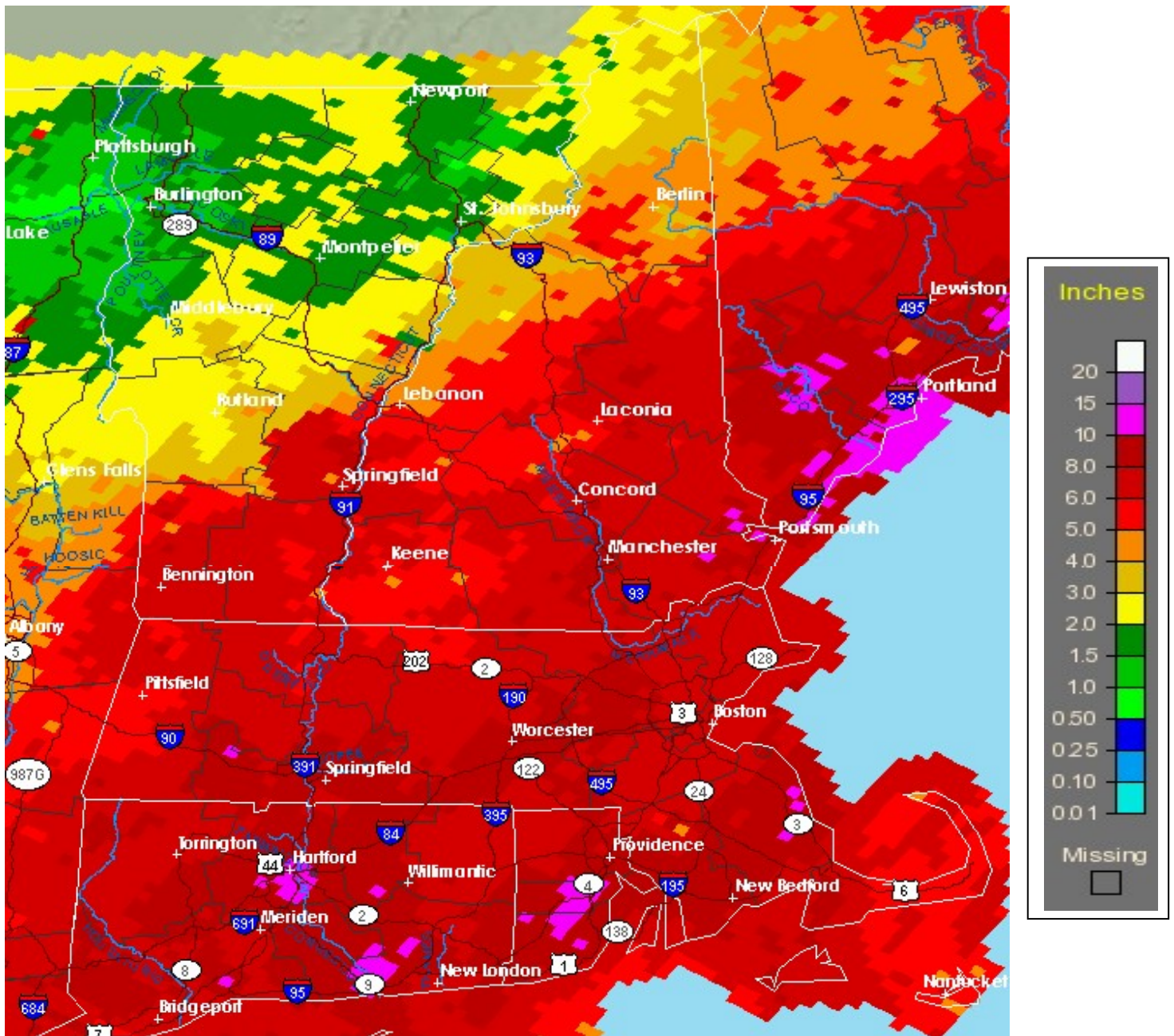
NWS/NOAA's Climate Prediction Center: The U.S. Seasonal Drought Outlook dated October 2, 2008 predicts normal conditions for Massachusetts through December 2008.

Extended Forecasts

Showers associated with a cold front passage are forecast for this afternoon and tonight. A period of cool but warming weather will be in place through the weekend. There is a chance of showers Monday followed by more fair weather. Saturday there is very low probability of some showers on south coast as a result of an off-shore low pressure system.

The National Weather Service Climate Prediction Center's extended 6-10 day forecast (10/20-24) predicts below normal temperatures and normal rainfall. The 8-14 (10/22-28) day forecast is for normal temperatures and above normal rainfall. The 1-month forecast is for above normal temperature and normal rainfall.





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



TOTAL RAINFALL SEPTEMBER 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/>