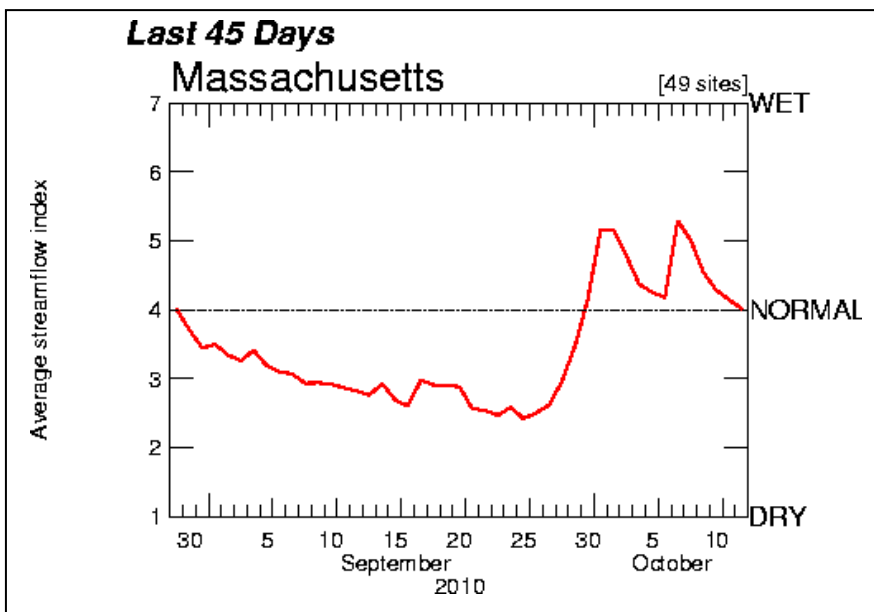
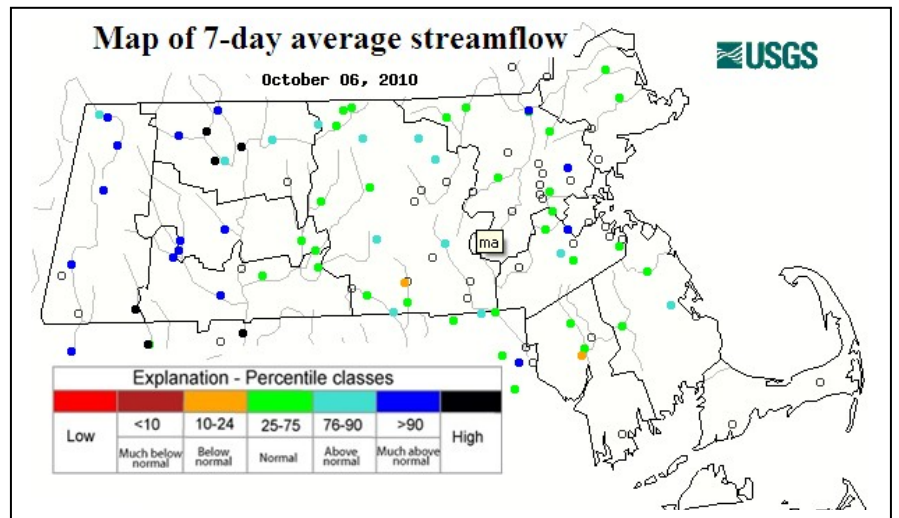
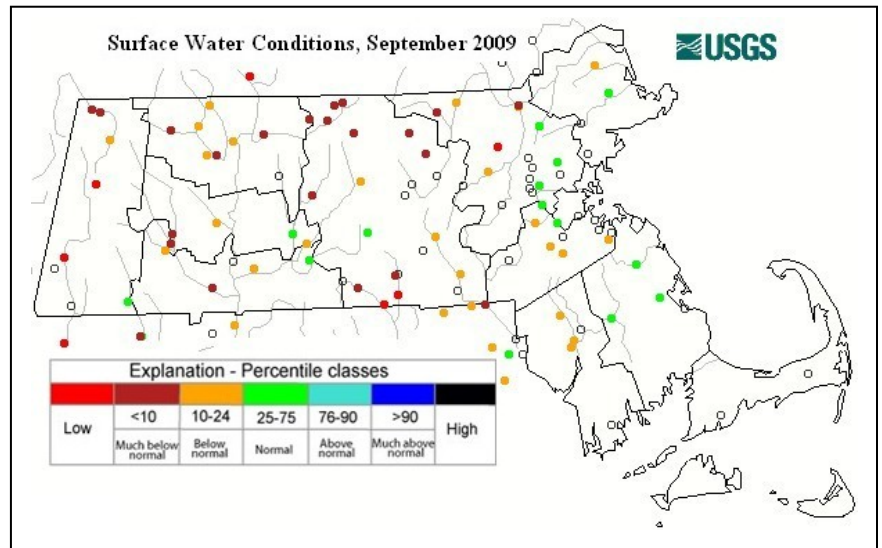


Streamflow

During September 2010, streamflows that are monitored by the Commonwealth of Massachusetts and United States Geological Survey (USGS) cooperative stream gaging program ranged from much below normal to normal. Basins with normal flows included the eastern and Buzzard Bay coastal basins. The remainder of the State had below or much below normal flows. Record low daily flows were recorded in some of the rivers of western Massachusetts. As shown in a table at the end of this report MA DCR has listed the drought regions of Massachusetts as having below normal, normal, and no data (Cape Cod and islands) surface-water conditions for September. Statewide river-flows rose significantly during late September and early October due to several precipitation events. Several rivers in western Massachusetts came close to flood stage during the beginning of October. The map at right shows the 7-day average streamflow conditions as of October 6th.

The graph below depicts a composite daily streamflow relative to normal streamflow for Massachusetts for the period of August 22 to October 6, 2010. During September, generally below-normal flows occurred until the 27th when heavy rain occurred and caused flows to rise above normal. Since the rain events in late September and early October flows have decreased to normal. The graph is a composite of 49 real-time gages across the state with a long period of record.



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. Reservoirs with the exception of Quabbin and Assawompsett are generally below normal for this time of year. As of September 28th, 107 water suppliers had initiated water use restrictions in Massachusetts (see attached map). Some of these restrictions are likely due to ongoing summer permit conditions.

September / October 2010 Massachusetts Reservoir Status

Reservoir/City or Town	Percent Full	Reservoir/City or Town	Percent Full
Quabbin	89.6	Beverly/Salem	71.7
Worcester	61.8	Lynn	49.4
Cobble Mt./ Springfield	53.8	Taunton/New Bedford/Assawompsett	87.5

Note: NA Indicates data not available for this report

Drought Indices/Forecasts

US Drought Monitor

The National Drought Mitigation Center's (NDMC's) October 12, 2010, Drought Monitor Map for Massachusetts shown at right indicates moderate drought conditions in only a small area of south-central MA and abnormally dry conditions in the western two-thirds of the State.

Standardized Precipitation Index (SPI)

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 values across Massachusetts at the end of September were very dry (west)/moderately dry (central)/normal (east), very dry(west and central)/normal, and normal/very wet(east).

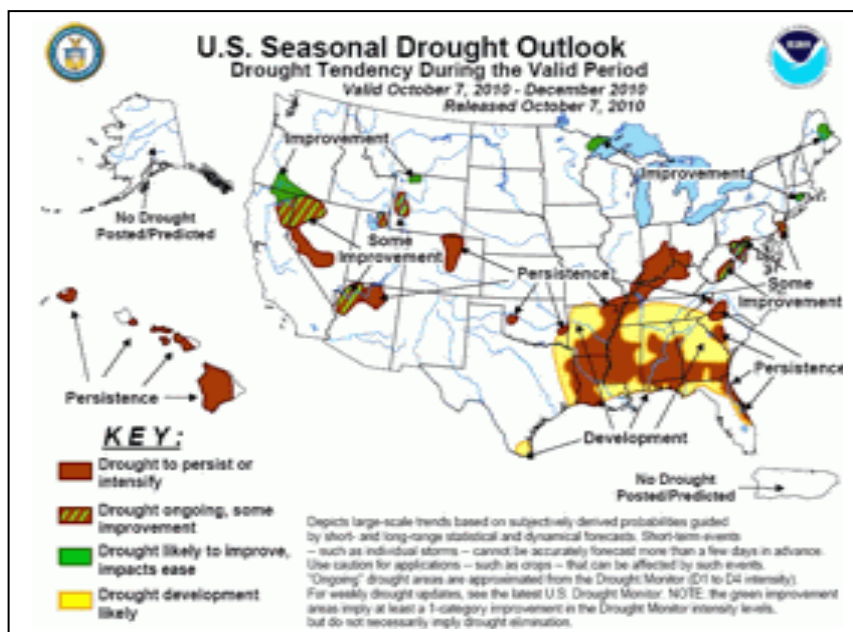
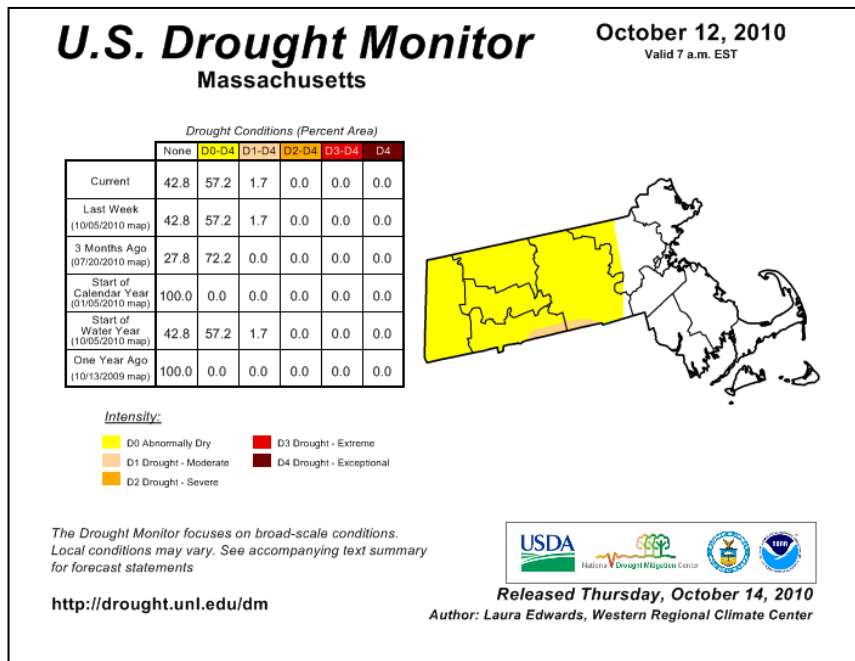
Massachusetts SPI values for the drought regions are all in the normal range except for the central and northeast regions where the 6-month SPI is at the advisory level.

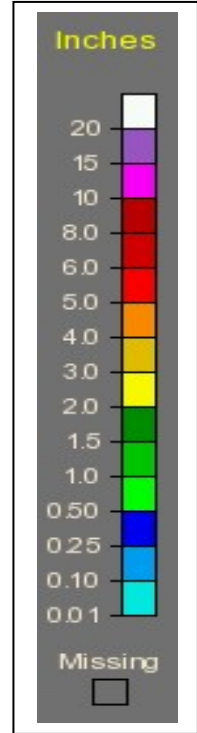
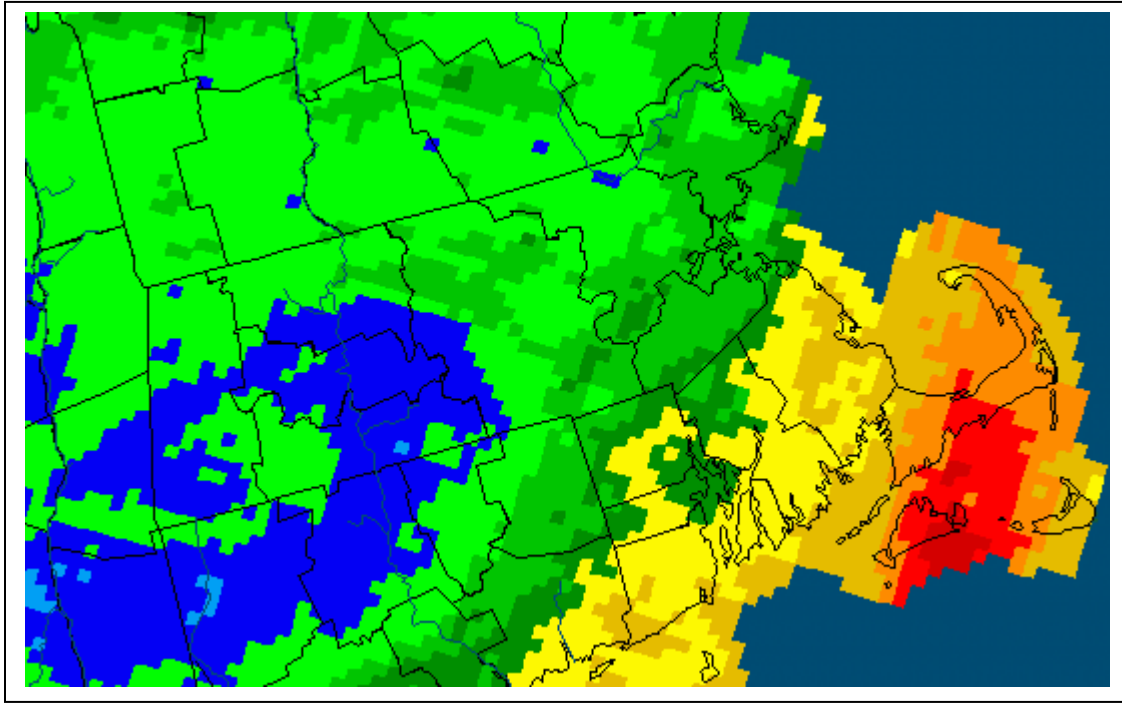
NWS/NOAA's Climate Prediction Center

The U.S. Seasonal Drought Outlook dated October 7, 2010, predicts no tendency for drought conditions to develop in Massachusetts through December 2010.

Extended Forecasts

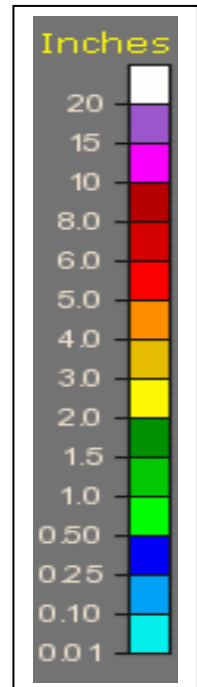
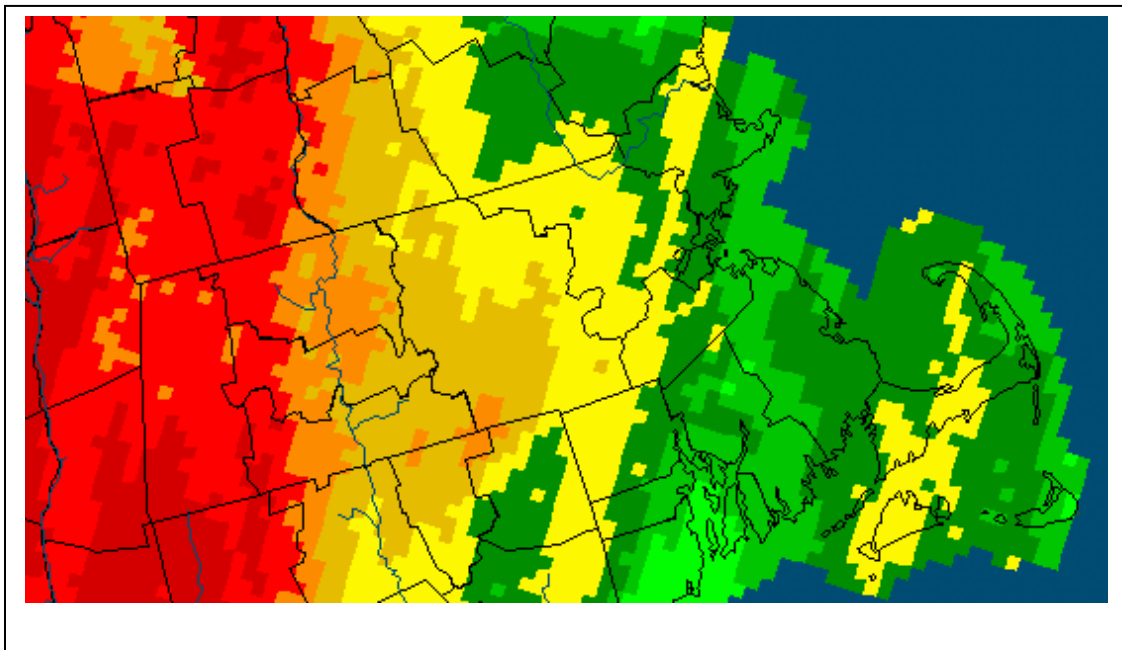
A period of rainfall forecast for late Thursday night and Friday is expected to produce about 1 to 3 inches of rain. This weather system will also bring a period of high NW wind to sections of southern NE. Clear dry weather will follow through the middle of next week. The National Weather Service Climate Prediction Center's extended 6 to 10 and 8 to 14 day forecasts are for above normal rainfall and below normal temperatures. The 1-month forecast is for above normal rainfall and normal 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
SEPTEMBER 2010**



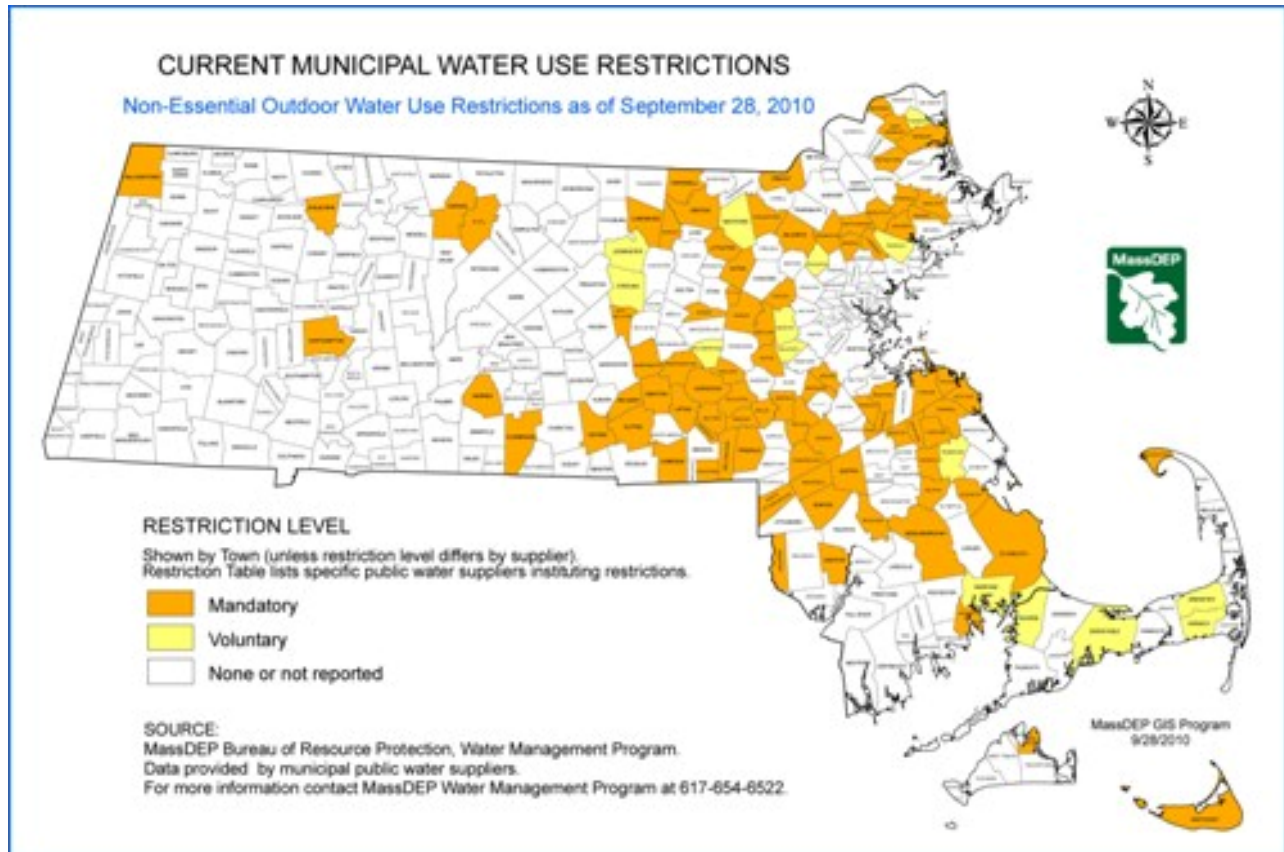
7-Day rainfall – October 5, 2010



GENERAL WATER CONDITIONS IN MASSACHUSETTS - SEPTEMBER 2010
 EOEEA and MEMA DROUGHT MANAGEMENT PLAN REGIONS

Massachusetts Regions	Surface-Water Conditions	Ground-Water Conditions
Cape and Islands	ND	Above Normal
Southeast	Normal	Normal
Northeast	Below Normal	Normal
Central	Below normal	Below Normal
Connecticut River	Below Normal	Below Normal
Western	Below 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/dcr/watersupply/rainfall/>