

# Current Water Conditions in Massachusetts

## December 14, 2006



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

### Precipitation Conditions

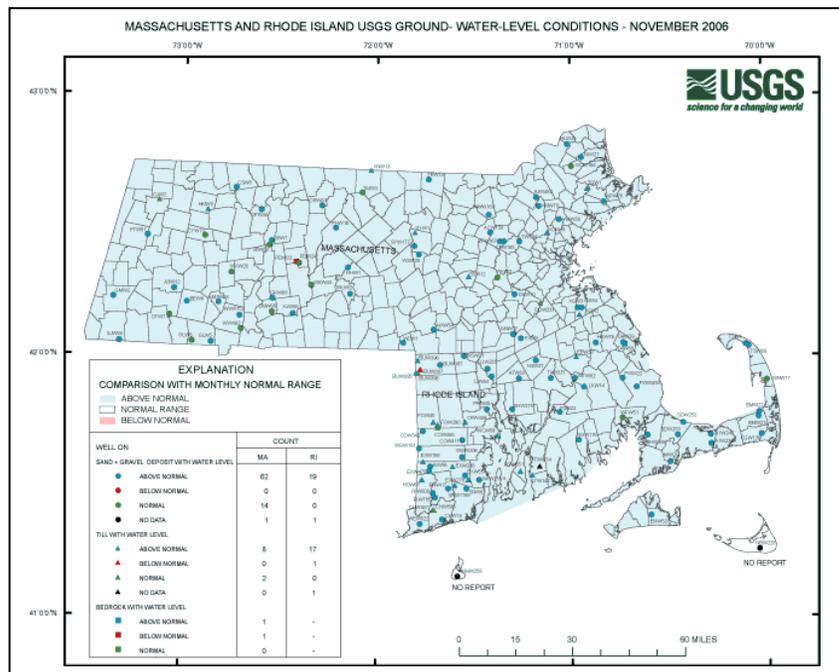
A table of November 2006 estimated precipitation statistics, based on precipitation data from the Department of Conservation and Recreation and National Weather Service precipitation monitoring networks is attached. The statewide average precipitation for November 2006 is estimated as 5.6 inches, about 132 percent of normal. The regions of Massachusetts received between 155 percent (Northeast) and 106 percent (Western) of normal precipitation during November. A map at the back of this report shows the distribution of November total rainfall in New England.

December rainfall through December 13 is generally about 25-50 percent of normal for this period.

### Ground Water Levels

Ground-water levels reported by the United States Geological Survey (USGS) at the end of November 2006 were generally above normal for the month over all of Massachusetts (shown as the blue area on the map). Ground-water levels in eight wells were at record highs for the month of November. The USGS ground water level map and a Water Conditions Statement for the end of November 2006 can be viewed at the web site:

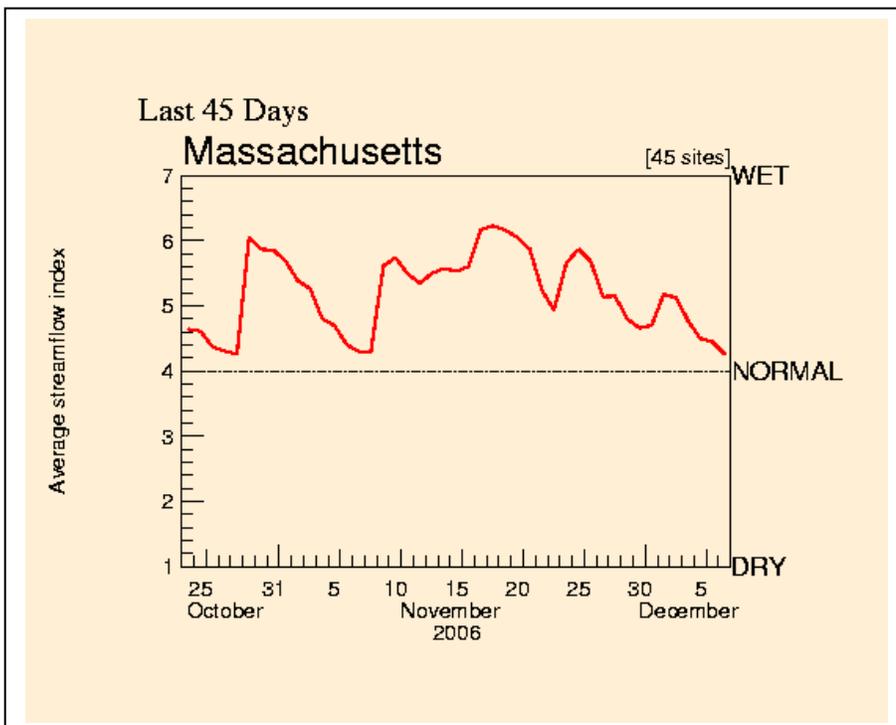
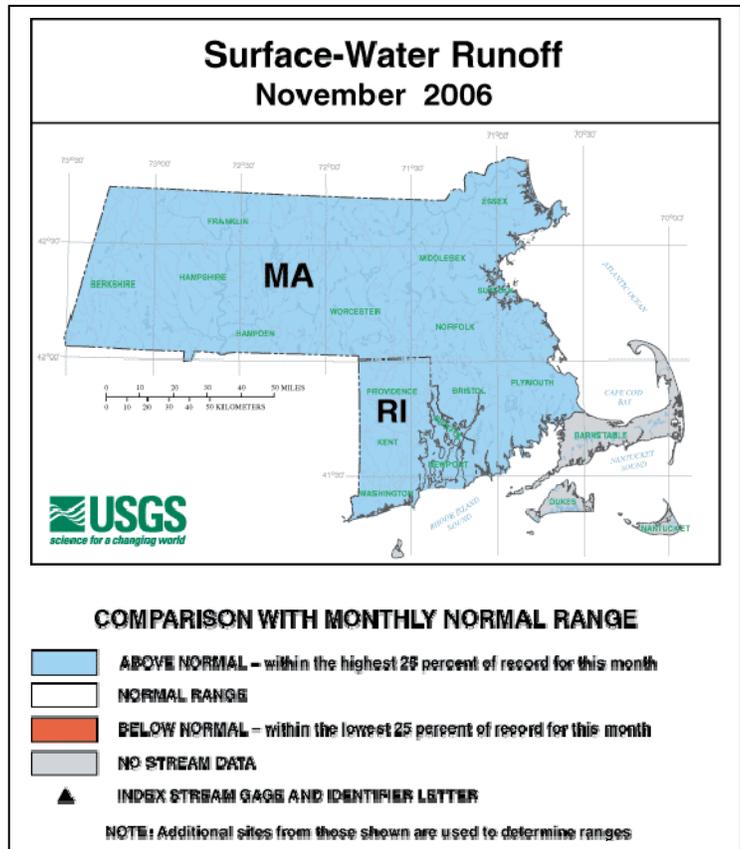
[http://ma.water.usgs.gov/water/water\\_g.htm](http://ma.water.usgs.gov/water/water_g.htm)



## Stream Flow

Stream flows monitored by the United States Geological Survey (USGS) were above normal for the month of November in all of Massachusetts (blue area on map at right). The graph below depicts a composite streamflow for MA (as of December 7, 2006). The graph is a composite of 45 gages across the state with a long period of record. Composite streamflow was above normal for the entire month of November. Several rises in streamflow were the result of general rainfall events across the State. During the 1<sup>st</sup> part of December above normal streamflow has slowly decreased.

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 levels listed are reported to be normal or slightly above normal for this time of year.

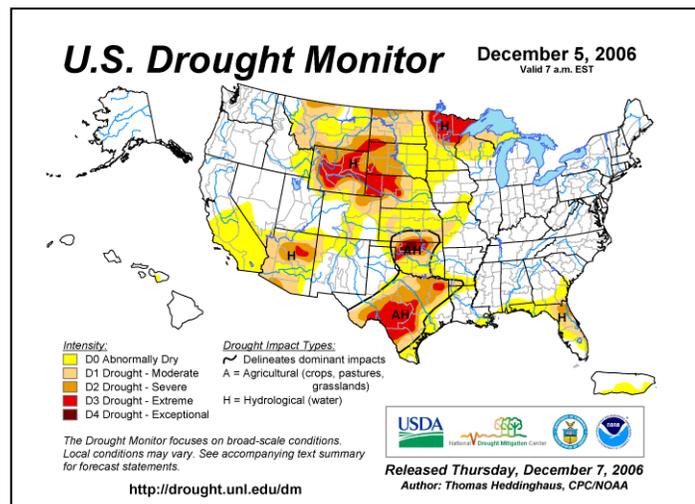
*November /December 2006 Massachusetts Reservoir Status*

Reservoir/City or Town	Percent Full	Reservoir/City or Town	Percent Full
Quabbin	95	Beverly/Salem	84.4
Worcester	101	Lynn	72.4
Cobble Mt./ Springfield	93	Taunton/New Bedford/Assawompsett	100.1

## Drought Indices/Forecasts

National Drought Mitigation Center: The National Drought Mitigation Center's (NDMC's) December 5, 2006 Drought Monitor Map for the U.S. shown at right indicates normal conditions in Massachusetts and the entire northeast.

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 November shows moderately wet (1-month) increasing to very and extremely wet (12-month) conditions in Massachusetts.



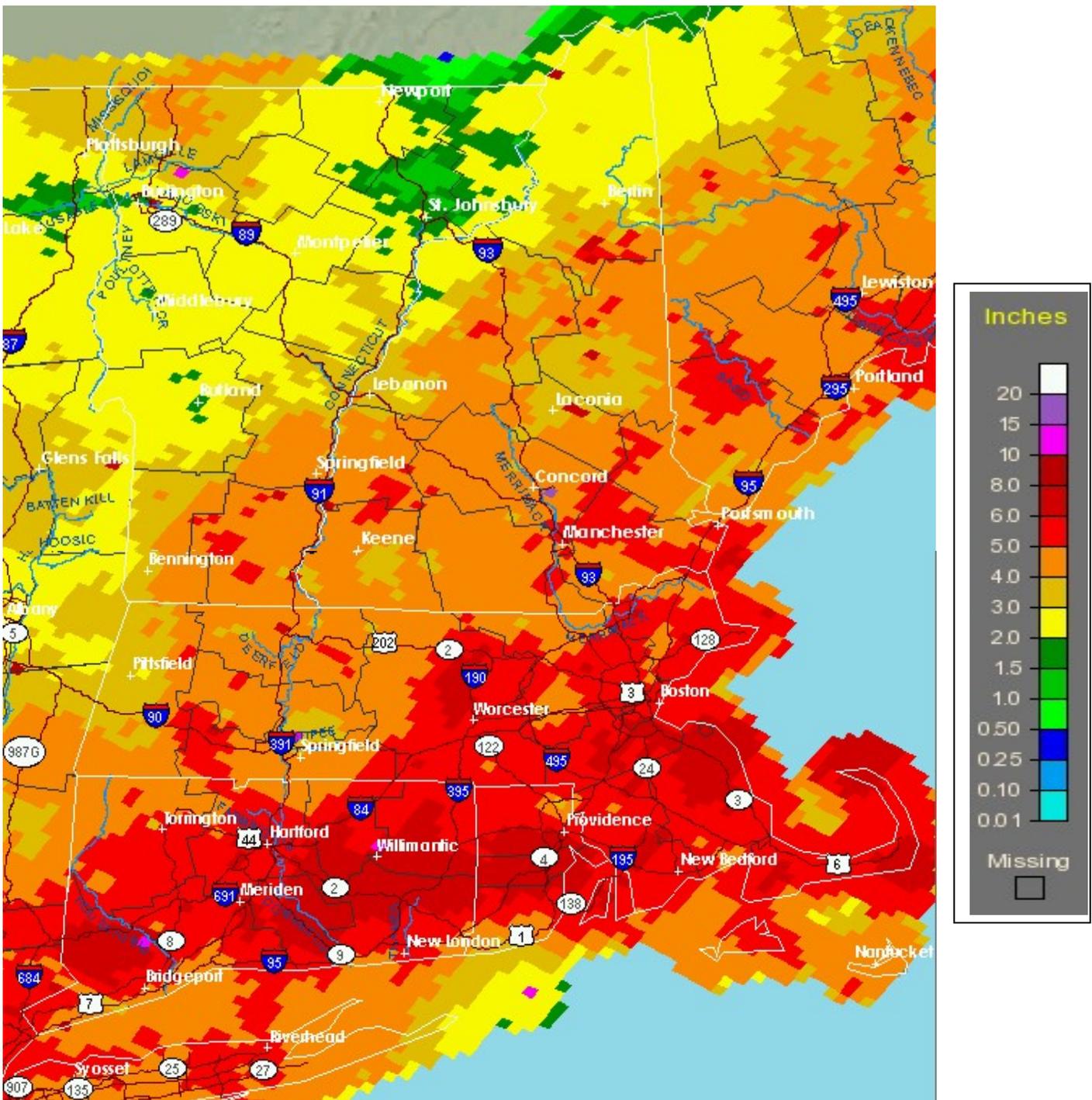
NWS/NOAA's Climate Prediction Center U.S. Seasonal Drought Outlook dated November 16, 2006 does not show any drought forecast through February 2007 in Massachusetts or New England.

## Extended Forecasts

The 6-10 and 8-14 day extended weather forecasts both predict above normal temperature and rainfall. The 1 month extended forecast predicts the probability of normal temperature and rainfall. The 3-month forecast is for above normal temperature and normal rainfall.

## WINTER SEASON FORECAST

NOAA's final forecast for the winter season (January through February) reflects the probable influence of developing El Nino conditions in the equatorial Pacific which are likely to continue into spring 2007. This winter forecast is shown on 2 maps at the back of this report. The northeast will probably have slightly milder than normal winter with a probability of normal precipitation.



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



**TOTAL RAINFALL  
NOVEMBER 2006**

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/>

# NOAA ISSUES FINAL FORECAST FOR 2006-2007 U.S. WINTER SEASON

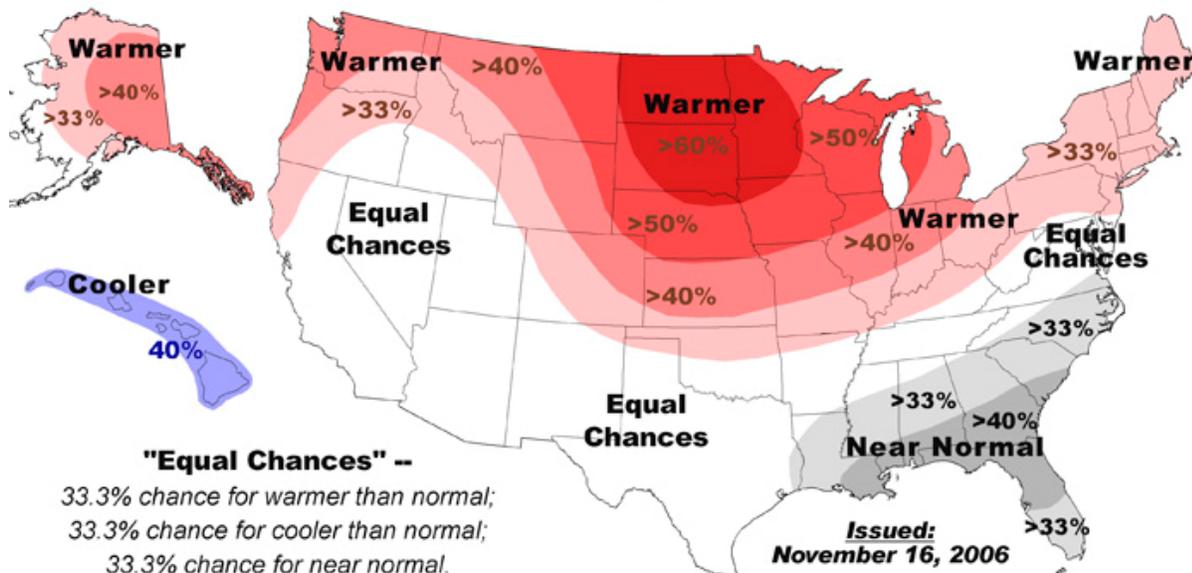
December, January, February



## Temperature Outlook Winter (Dec. - Feb.) 2006/07



Chances for **Cooler Than Normal**, **Warmer Than Normal**, or Near Normal Temperatures (based on 1971-2000)



"Equal Chances" --

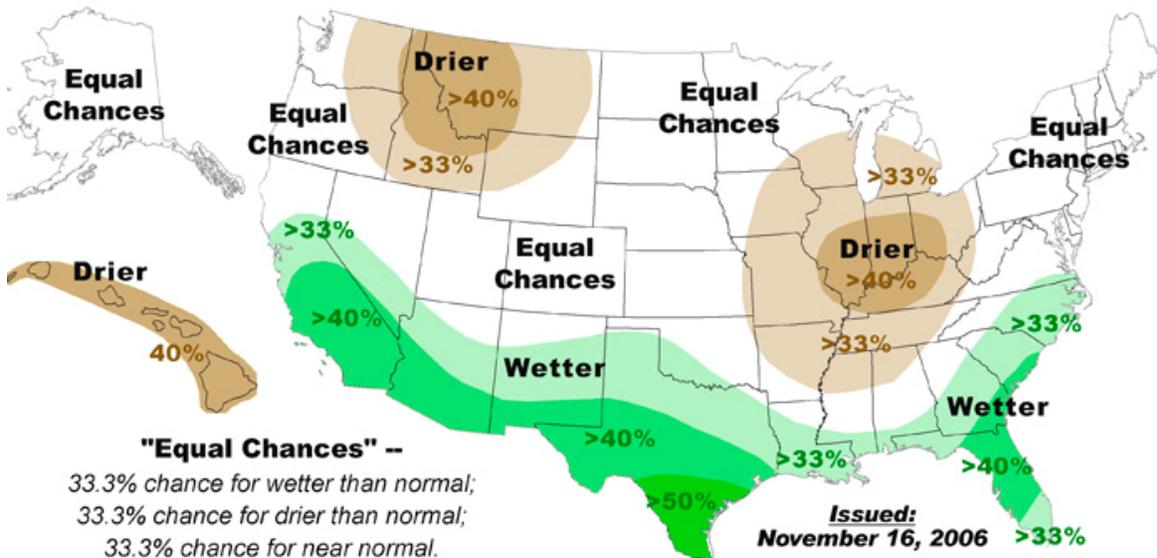
33.3% chance for warmer than normal;  
33.3% chance for cooler than normal;  
33.3% chance for near normal.



## Precipitation Outlook Winter (Dec. - Feb.) 2006/07



Chances for **Wetter Than Normal**, **Drier Than Normal**, or Near Normal Precipitation (based on 1971-2000)



"Equal Chances" --

33.3% chance for wetter than normal;  
33.3% chance for drier than normal;  
33.3% chance for near normal.