Current Water Conditions in Massachusetts
June 10, 2010

- May precipitation was below normal
- May streamflows were normal to much below normal
- May ground-water levels were much above normal to below normal
- May reservoir levels were normal

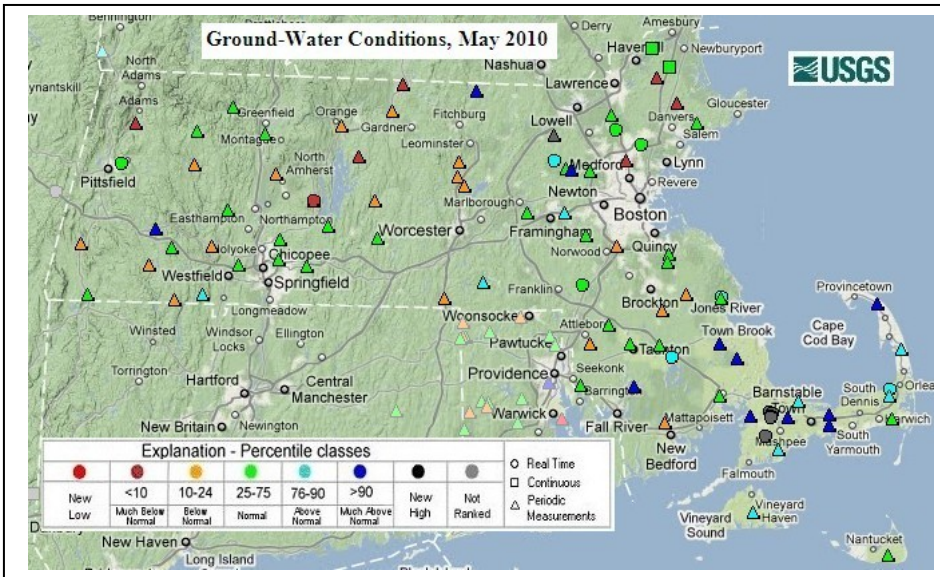
Precipitation Conditions

May was the 43rd driest May in the last 116 years.

May state-wide average precipitation was only about 3.02 inches, which is about 80 percent of the long-term average for the month. The regions of Massachusetts received between 91 (Southeast) and 55 percent (Connecticut River) of average precipitation during May. Statewide, the May rainfall occurred in 3 to 5 events of approximately 0.5 inches each which helped to maintain soil moisture content and keep the fire danger depressed. A table of May 2010 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 May total rainfall in Massachusetts and adjacent areas of New England.
As of June 9th, most of the State except the Southeast and Cape Cod had received normal or above normal rainfall for the period.

Ground-Water Levels

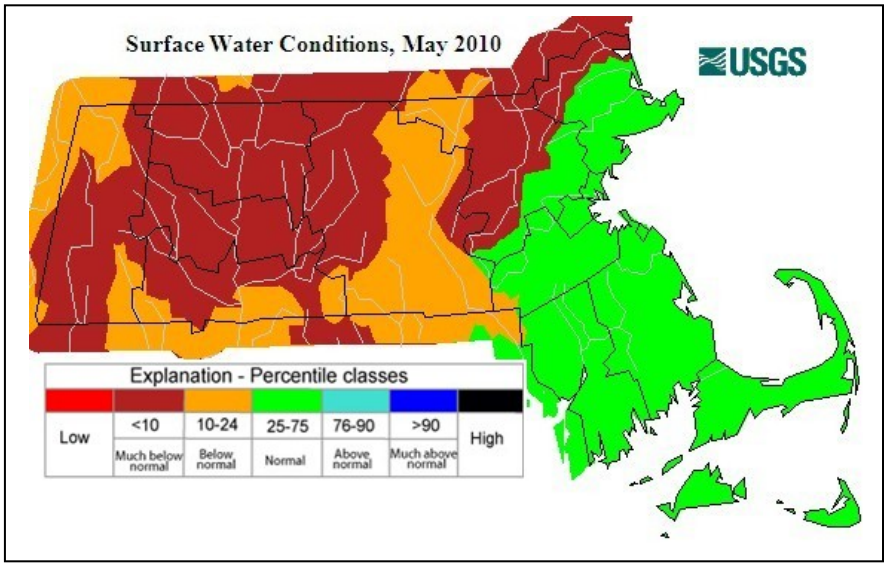
Ground-water levels reported by the United States Geological Survey (USGS) at the end of May were generally normal across most of the State. Water levels on the Cape and Islands were above and much above normal. Observation wells in the central part of the State had water levels that were below or much below normal for this time of year. The USGS assessment of ground-water levels is based on 89 wells in Massachusetts with 10 or more years of record. Ground-water conditions in Massachusetts drought regions range from above normal to below normal and are shown in a table at the end of this report.



The USGS Groundwater Conditions Statement for the end of May 2010 can be viewed at the web site: http://ma.water.usgs.gov/water/water_g.htm

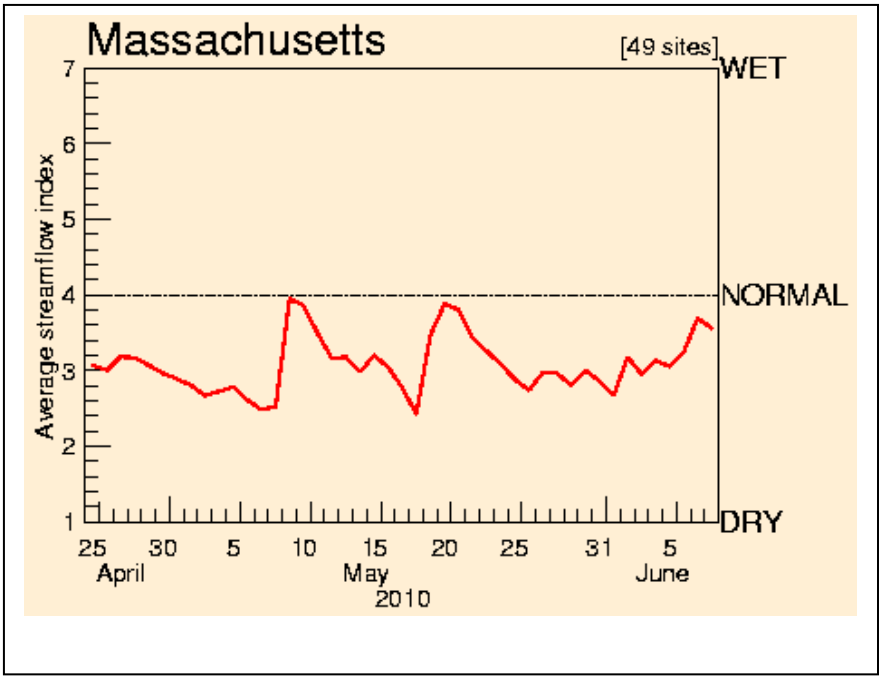
Streamflow

During May 2010, streamflows that are monitored by the Commonwealth of Massachusetts and United States Geological Survey (USGS) cooperative stream gaging program ranged from normal to much below normal. River basins in northeast and southeast areas of Massachusetts had normal flows whereas all areas to the west had below to much below normal flows. As shown in a table at the end of this report, the USGS has listed the drought regions of Massachusetts as having normal and below normal surface-water conditions for May.



The graph below depicts a composite daily streamflow relative to normal streamflow for Massachusetts for the period of April 24 to June 7, 2010. During May generally moderately below-normal flows rose to near normal two times as a result of precipitation events. During the 1st 2- weeks of June flows have risen to near normal as a result of several small precipitation events. The graph is a composite of 49 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/water_s.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 May and are reported to be generally above or near normal for this time of year.

May / June 2010 Massachusetts Reservoir Status

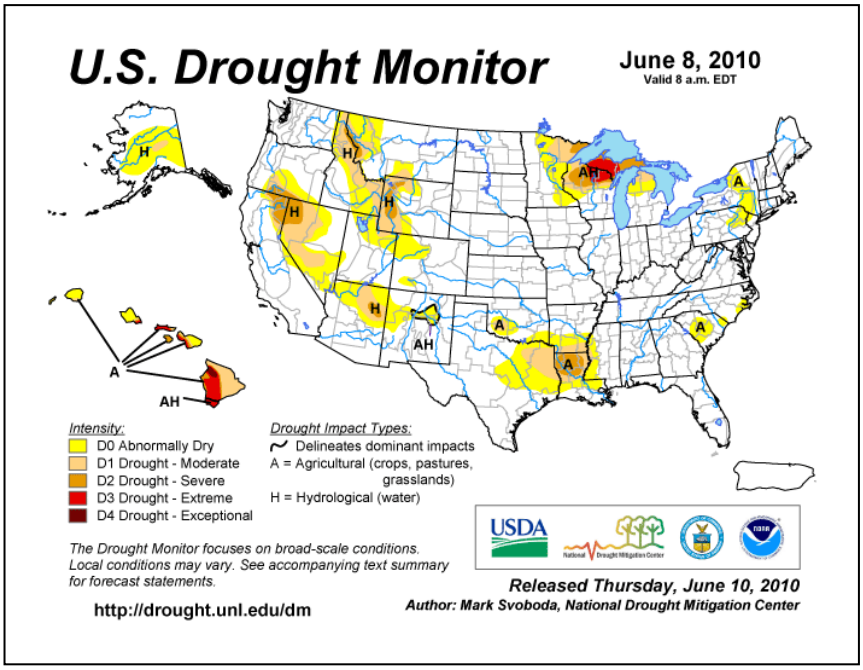
Reservoir/City or Town	Percent Full	Reservoir/City or Town	Percent Full
Quabbin	99	Beverly/Salem	100
Worcester	NA	Lynn	80.9
Cobble Mt./ Springfield	80	Taunton/New Bedford/Assawompsett	NA

Note: NA Indicates data not available for this report

Drought Indices/Forecasts

US Drought Monitor

The National Drought Mitigation Center's (NDMC's) June 8, 2010, Drought Monitor Map shown at right indicates no drought conditions in Massachusetts or New England.

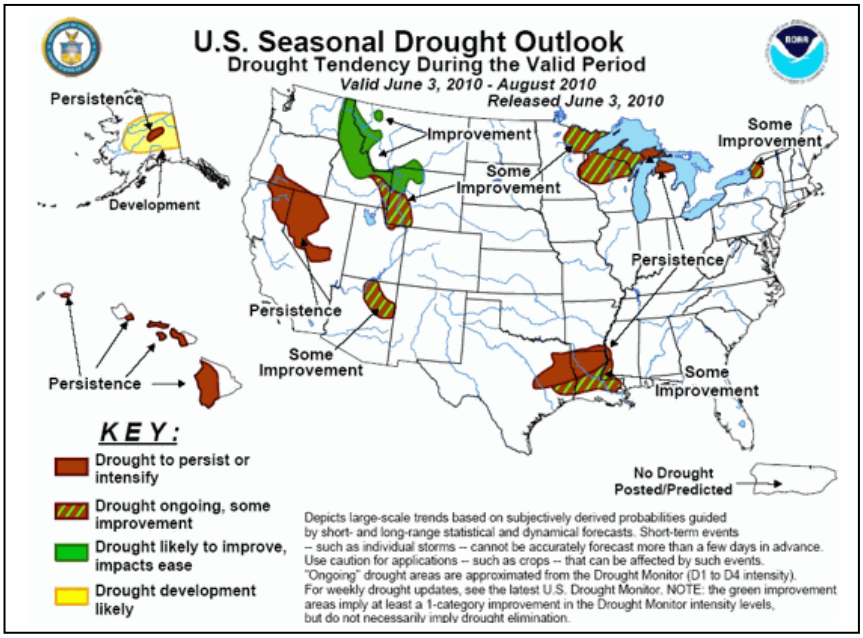


Standardized Precipitation Index

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 across Massachusetts at the end of May ranged from 1-month values of very dry (east)/moderately dry to 12-month values of very wet (west)/extremely wet.

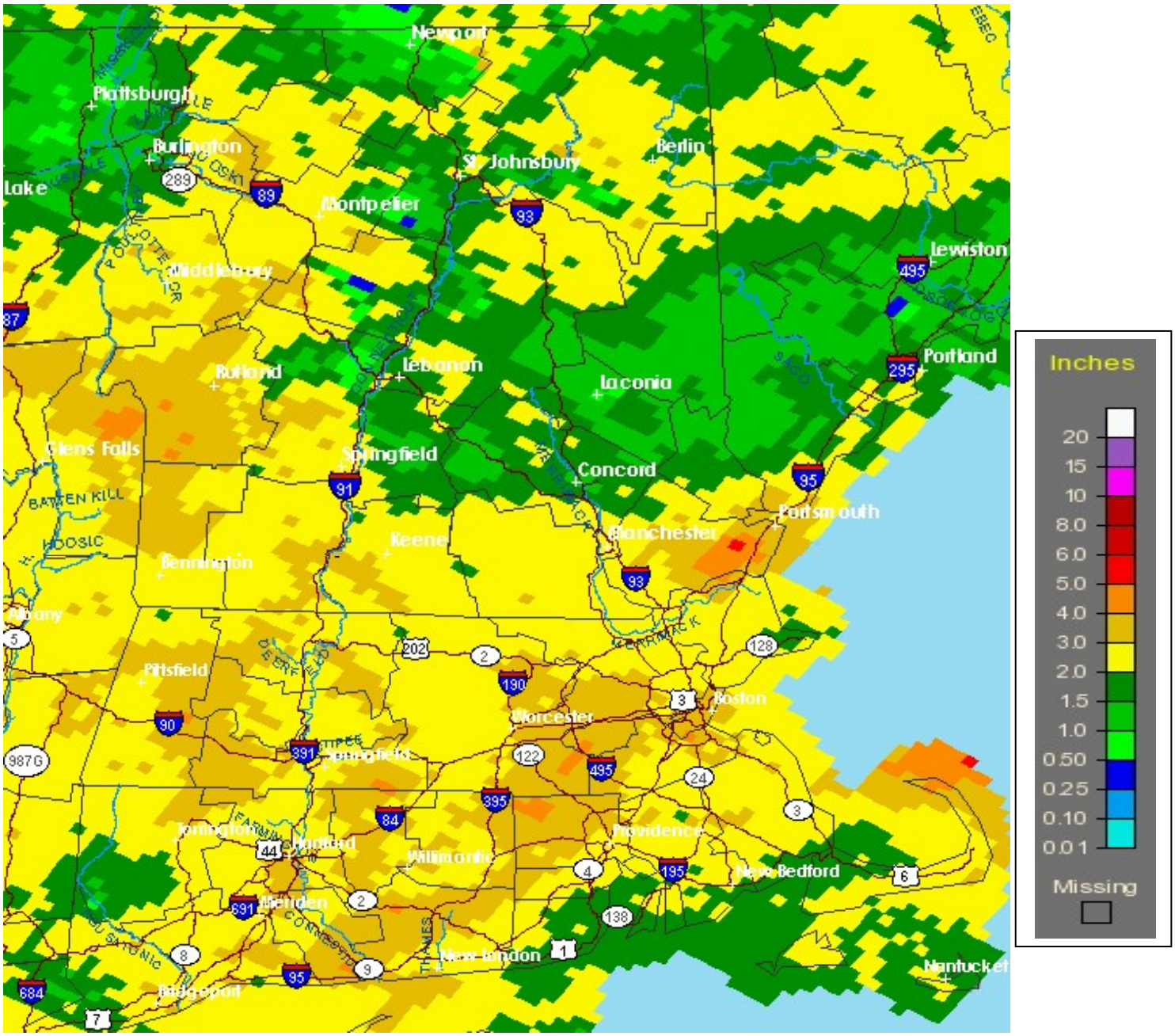
NWS/NOAA's Climate Prediction Center

The U.S. Seasonal Drought Outlook dated June 6, 2010, predicts no tendency for drought conditions to develop in Massachusetts through August 2010.



Extended Forecasts

Clearing conditions late Thursday should be followed by mostly clear weather Friday. Saturday may start clear but brings an increasing chance of scattered showers and thunderstorms. Sunday will bring an increasing chance of rain. Generally unsettled conditions with the possibility of showers and rain are forecast until Wednesday. Dryer weather expected after that. The National Weather Service Climate Prediction Center's extended 6 to 10- day forecast is for below normal rainfall and above normal temperatures. Both the 6 to 10- and 8 to 14-day forecasts predict normal rainfall and temperatures. The NWS Climate Prediction Information can be found at: http://www.cpc.noaa.gov/index.php



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

TOTAL RAINFALL
MAY 2010

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

Massachusetts Regions	Surface-Water Conditions	Ground-Water Conditions
Cape and Islands	Normal	Above Normal
Southeast	Normal	Normal
Northeast	Below Normal	Normal
Central	Below Normal	Below Normal
Connecticut River	Below Normal	Normal
Western	Below Normal	Normal

Note: Surface- and ground-water conditions for individual streamflow-gaging stations and wells may differ from general conditions.

Weather Ramblings ---

FROM NWS ---- JUNE 1 WAS THE START OF 2010 ATLANTIC HURRICANE SEASON...

TROPICAL CYCLONES ARE CERTAINLY NO STRANGERS TO SOUTHERN NEW ENGLAND. SINCE 1900 A TOTAL OF 53 TROPICAL CYCLONES HAVE IMPACTED SOUTHERN NEW ENGLAND IN ONE WAY OR ANOTHER...WITH 19 MAKING DIRECT LANDFALL. SOME BROUGHT JUST LIGHT AMOUNTS OF RAIN AND WIND...WHILE
OTHERS HAVE BROUGHT TORRENTIAL RAINS AND FLASH FLOODING...DEVASTATING STORM SURGES AND DESTRUCTIVE WINDS.

FOR SOUTHERN NEW ENGLAND...THIS SEASON MARKS THE 56TH ANNIVERSARY OF ONE OF THE MOST DESTRUCTIVE HURRICANE SEASONS IN OUR HISTORY...THE SUMMER OF 1954. THE 1954 SEASON BROUGHT NEW ENGLAND HURRICANES CAROL AND EDNA. THESE POWERFUL HURRICANES STRUCK JUST 11 DAYS APART...WITH CAROL ARRIVING ON AUGUST 31ST...FOLLOWED BY EDNA ON SEPTEMBER 11TH. THESE TWO STORMS COMBINED TO PRODUCE MILLIONS OF DOLLARS WORTH OF DAMAGE TO HOMES...BUSINESSES AND THE BOATING INDUSTRY...AS WELL AS CLAIMING DOZENS OF LIVES DUE TO STORM SURGE AND RIVER-RELATED FLOODING.

THE ATLANTIC HURRICANE SEASON RUNS FROM JUNE 1ST THROUGH NOVEMBER 30TH. IN AN AVERAGE SEASON...10 TROPICAL CYCLONES SHOULD BE EXPECTED WITH 6 OF THESE REACHING HURRICANE INTENSITY. OF THOSE 6 STORMS REACHING HURRICANE STRENGTH...2 SHOULD BECOME MAJOR HURRICANES /CATEGORY 3 OR HIGHER/.

THE OFFICIAL NOAA 2010 **ATLANTIC HURRICANE SEASON OUTLOOK INDICATES** AN 85 PERCENT PROBABILITY OF AN ABOVE NORMAL SEASON AND A 10 PERCENT PROBABILITY OF A NEAR NORMAL SEASON. THIS OUTLOOK CALLS FOR A 70 PERCENT PROBABILITY OF 14-23 NAMED STORMS...WITH 8-14 LIKELY TO REACH HURRICANE INTENSITY...AND 3-7 OF THESE TO BECOME MAJOR HURRICANES /CATEGORY 3 OR HIGHER/. FOR ADDITIONAL DETAILS ON THE NOAA 2010 HURRICANE OUTLOOK PLEASE VISIT:
http://www.cpc.ncep.noaa.gov/products/outlooks/hurricane.shtml/

THE NAMES USED FOR THE 2010 SEASON WILL BE...

NAME	PRONUNCIATION	NAME	PRONUNCIATION
ALEX	AL-LECKS	LISA	LEE-SA
BONNIE	BAH-NEE	MATTHEW	MATH-YOO
COLIN	KAH-LIHN	NICOLE	NIH-COAL
DANIELLE	DAN-YELL	OTTO	AW-TOE
EARL	UR-ULL	PAULA	PALL-LUH
FIONA	FEE-O-NUH	RICHARD	RIH-CHURD
GASTON	GAS-TAWN	SHARY	SHAR-EE
HERMINE	HER-MEEN	TOMAS	TOE-MAHS
IGOR	E-GOR	VIRGINIE	VIR-GIN-EE
JULIA	JOO-LEE-UH	WALTER	WALL-TUR
KARL	KAR-ULL		

Now is a good time to start making preparations –just in case. To see some suggested actions go to:
http://forecast.weather.gov/product.php?site=NWS&format=CI&version=1&glossary=0&highlight=off&issuedby=BOX&product=PNS

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/