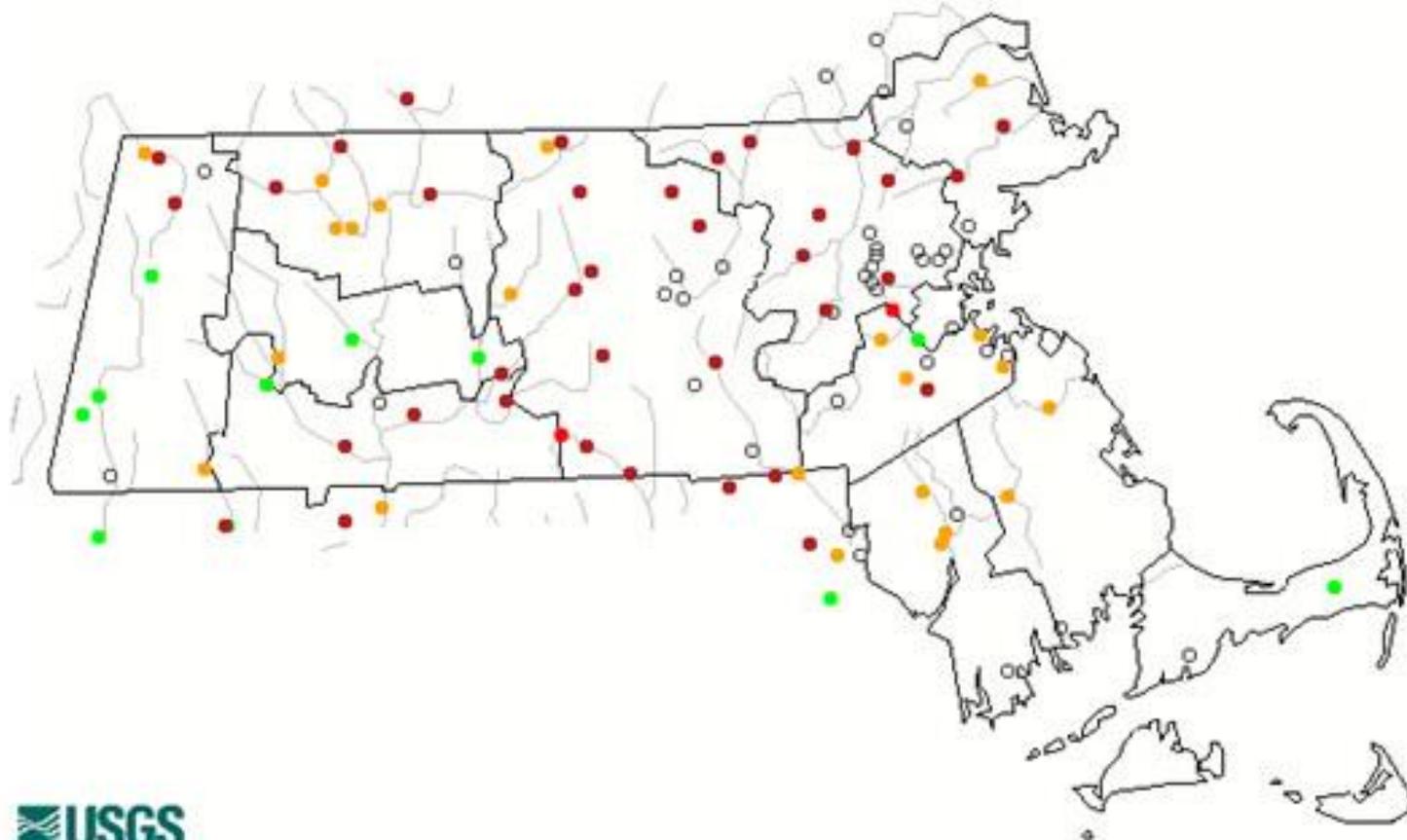

Streamflow and Groundwater Conditions in Massachusetts

Richard Verdi
U.S. Geological Survey
New England Water Science Center
Massachusetts – Rhode Island Office

Streamflow Conditions During June 2016

June 2016

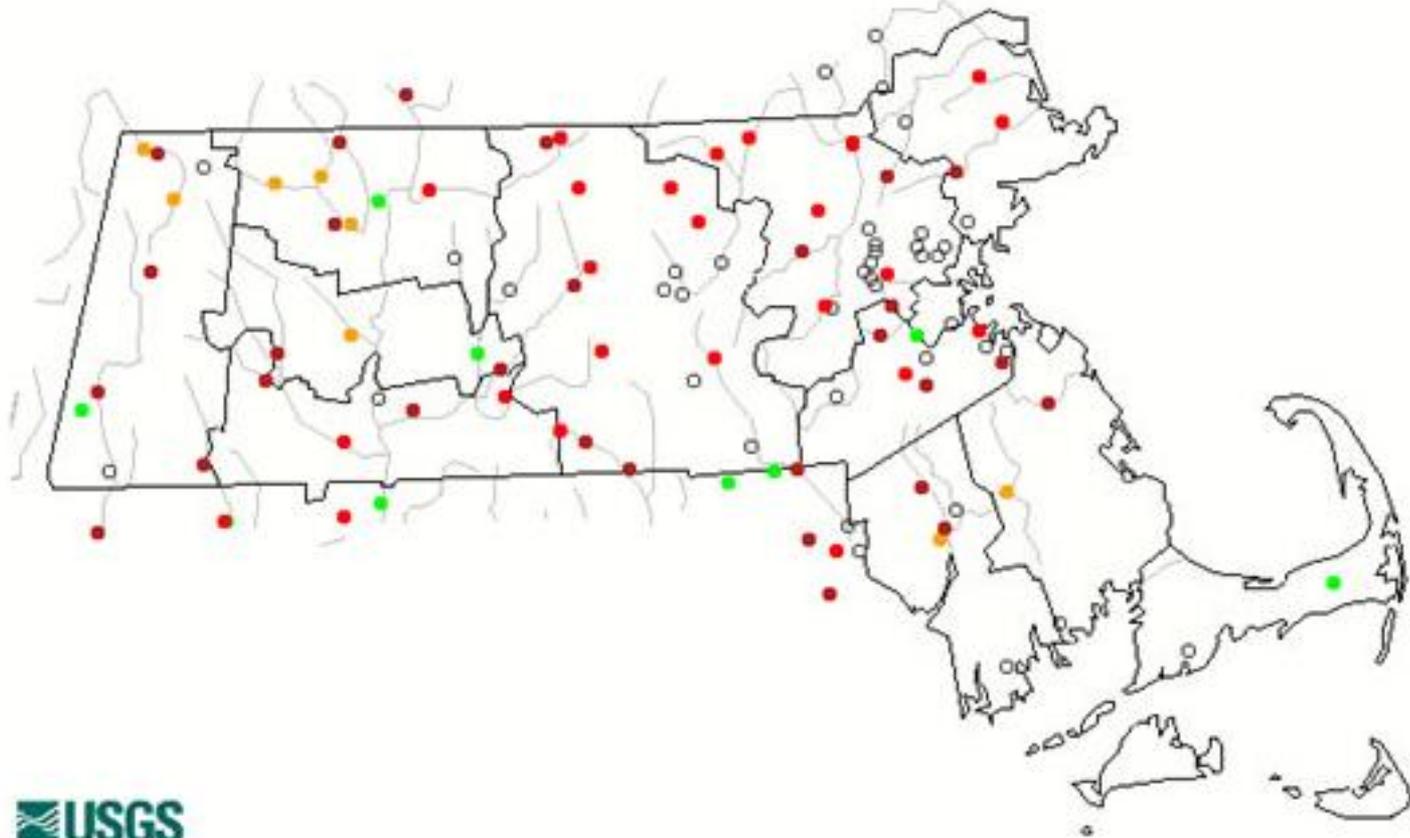


Explanation - Percentile classes

Explanation - Percentile classes						
Low	<10	10-24	25-75	76-90	>90	High
	Much below normal	Below normal	Normal	Above normal	Much above normal	

Streamflow Conditions During July 2016

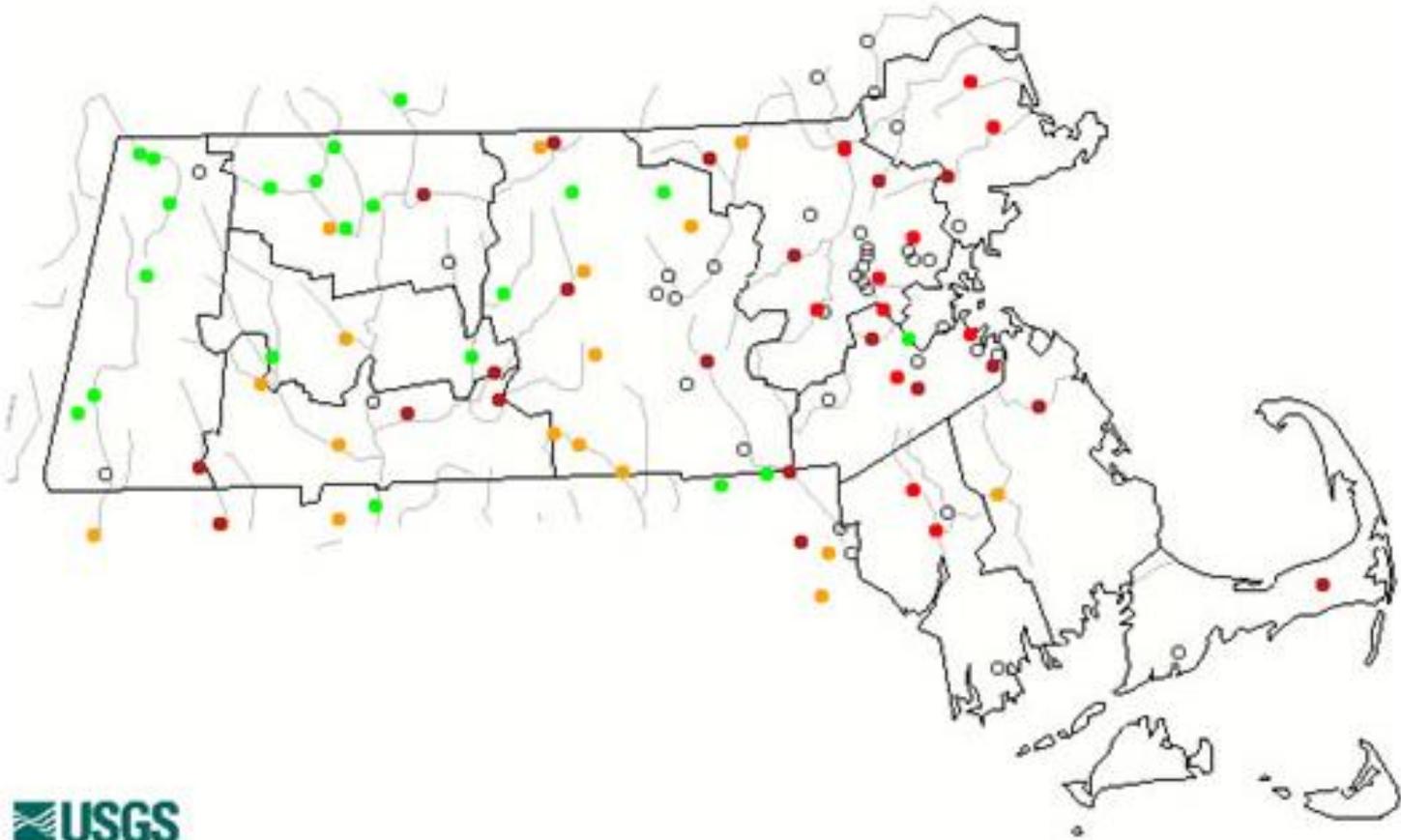
July 2016



Explanation - Percentile classes							
Low	<10	10-24	25-75	76-90	>90	High	
	Much below normal	Below normal	Normal	Above normal	Much above normal		

Streamflow Conditions During August 2016

August 2016

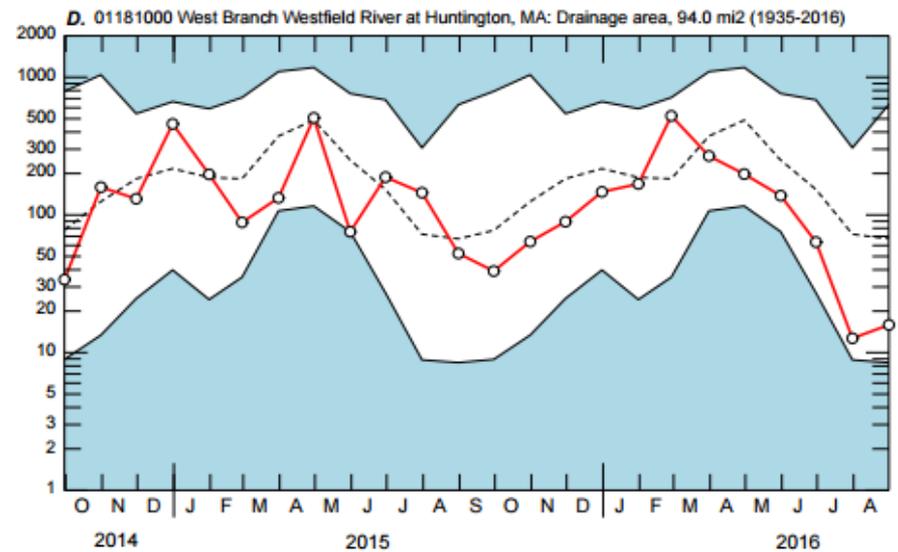
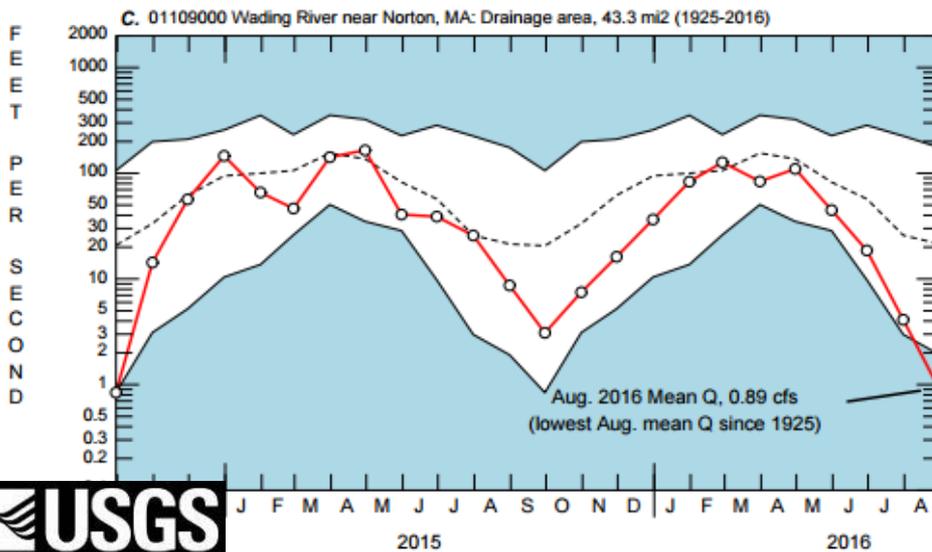
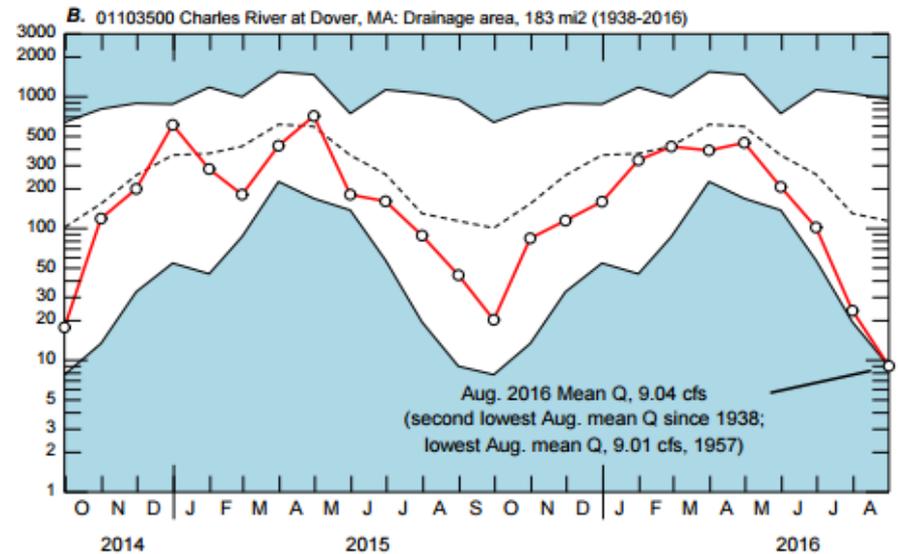
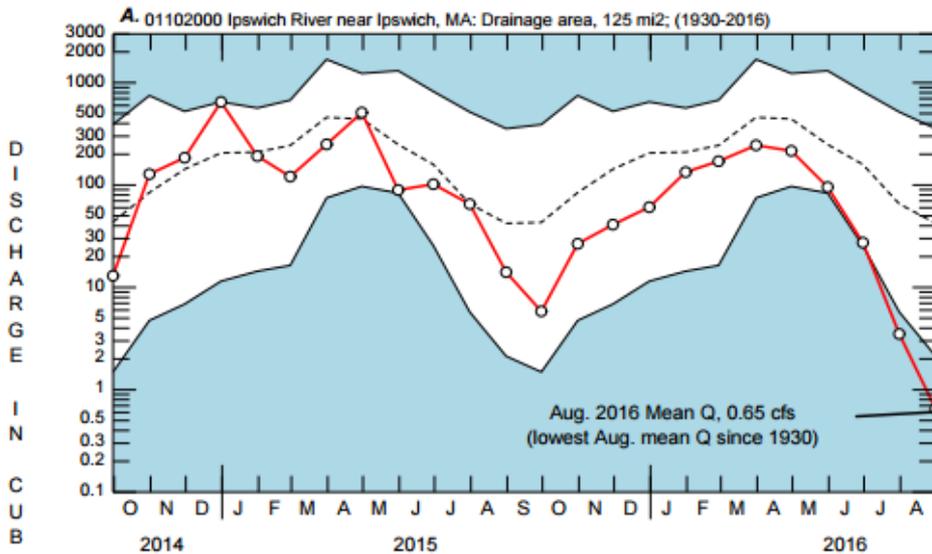


Explanation - Percentile classes

	<10	10-24	25-75	76-90	>90	
Low						High
	Much below normal	Below normal	Normal	Above normal	Much above normal	

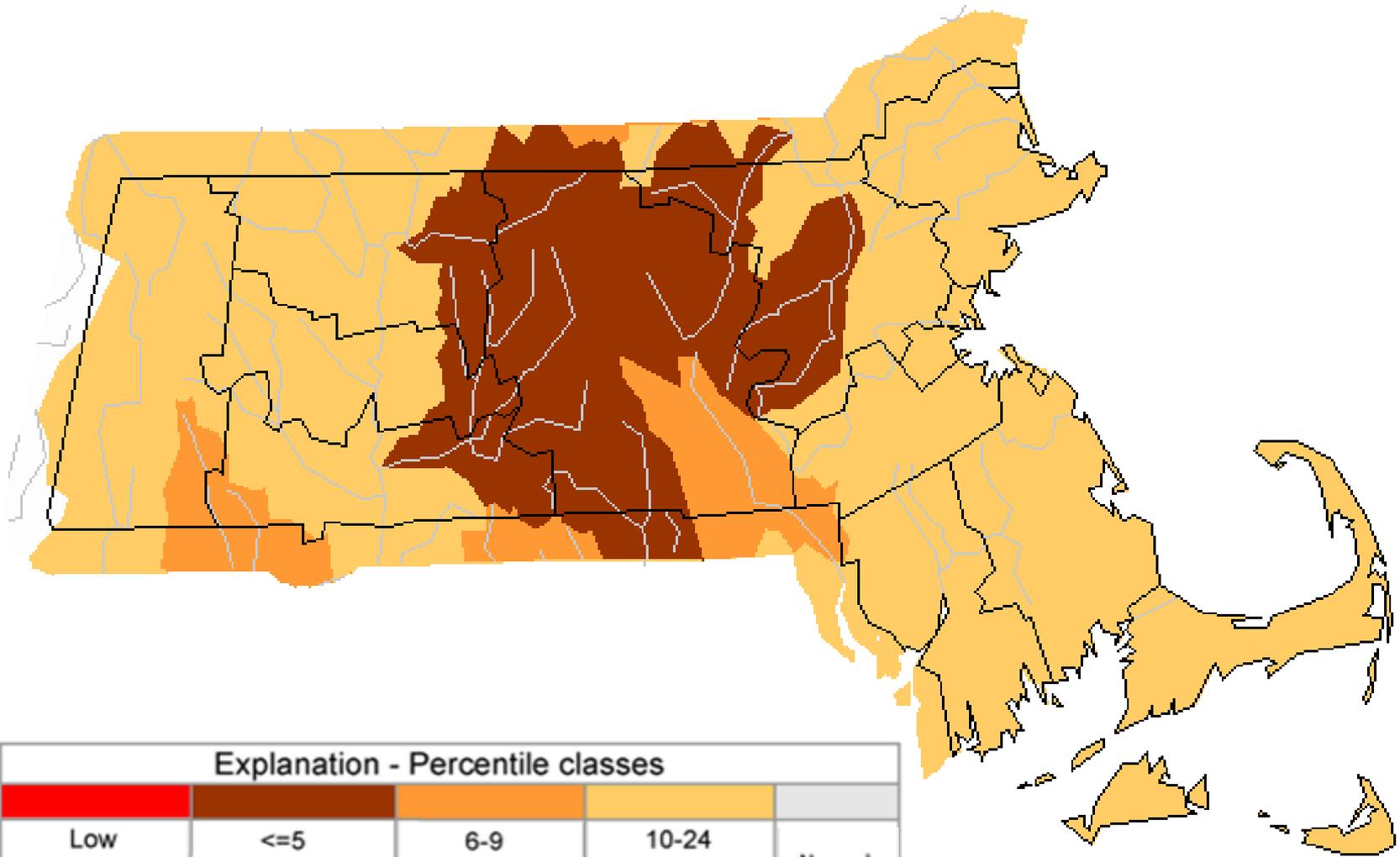
STREAMFLOW IN SELECTED USGS STREAMGAGES, 2015 AND 2016 WATER YEARS

----- MONTHLY MEAN DISCHARGE FOR PERIOD OF STATION RECORD
 —○— MONTHLY MEAN DISCHARGE DURING 2015 AND 2016 WATER YEARS
 UNSHADED AREA SHOWS RANGE BETWEEN HIGHEST AND LOWEST MONTHLY MEAN DISCHARGE FOR PERIOD OF STATION RECORD



Below normal average monthly streamflow - June 2016

June 2016

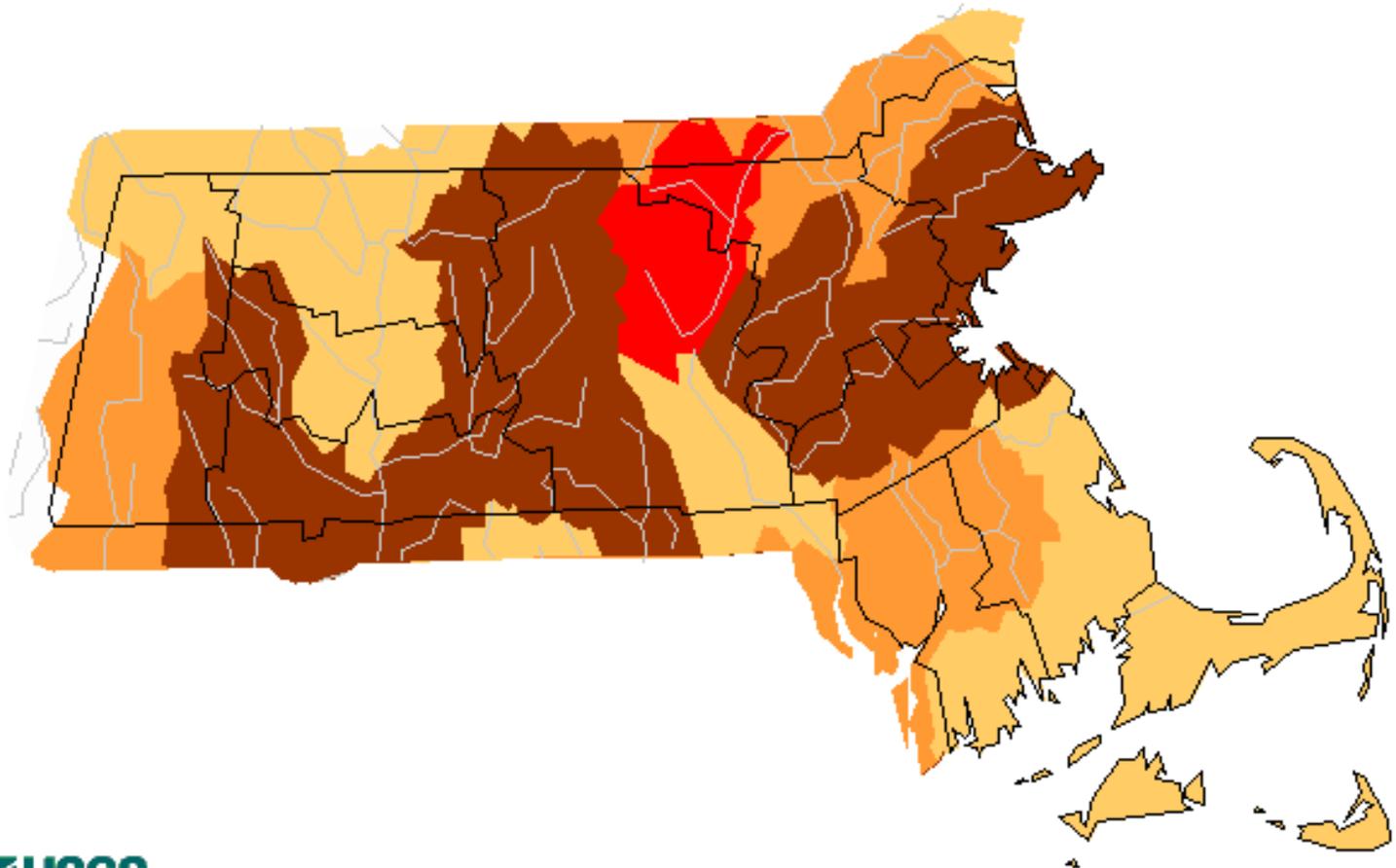


Explanation - Percentile classes

Low	≤ 5	6-9	10-24	Normal
Extreme hydrologic drought	Severe hydrologic drought	Moderate hydrologic drought	Below normal	

Below normal average monthly streamflow - July 2016

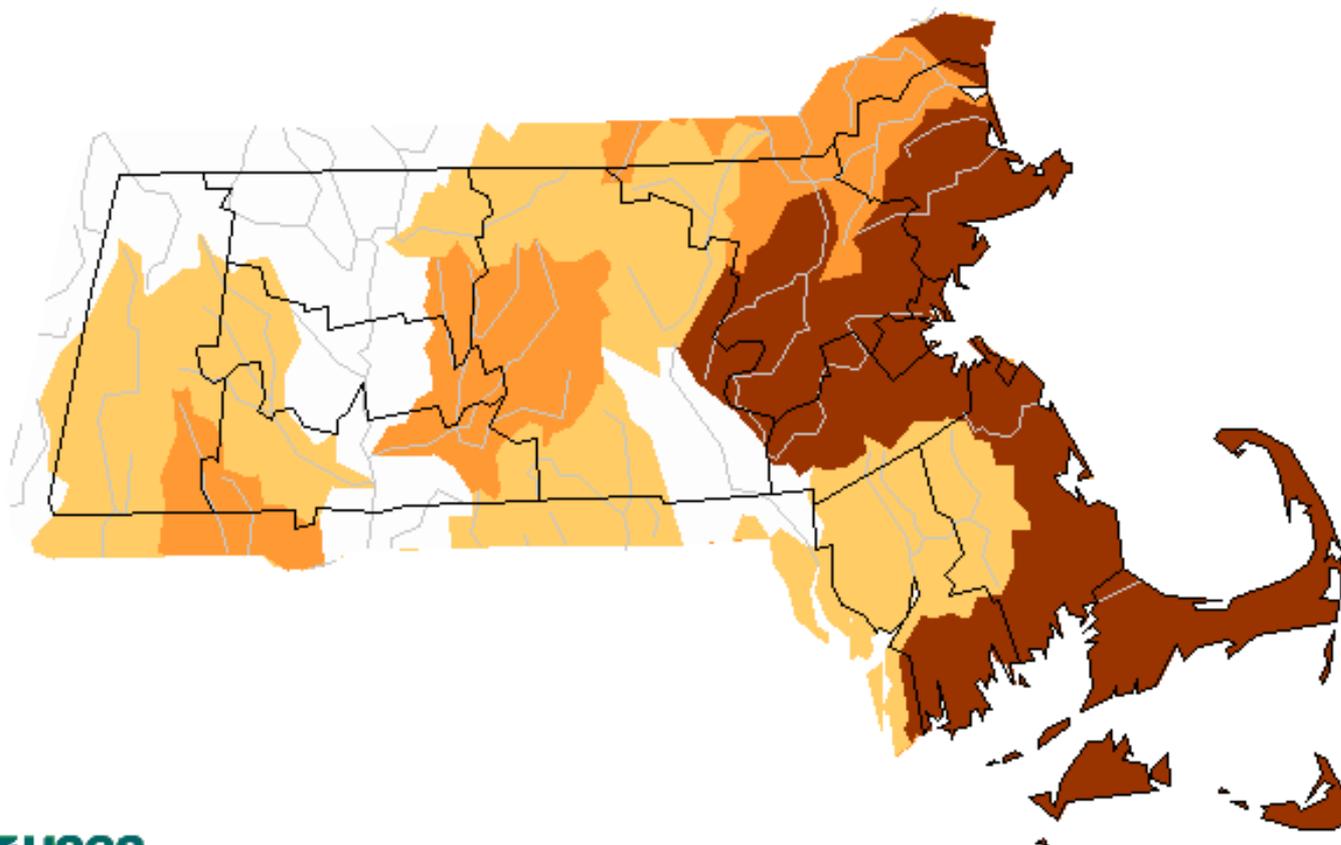
July 2016



Explanation - Percentile classes				
				
Low	≤ 5	6-9	10-24	Normal
Extreme hydrologic drought	Severe hydrologic drought	Moderate hydrologic drought	Below normal	

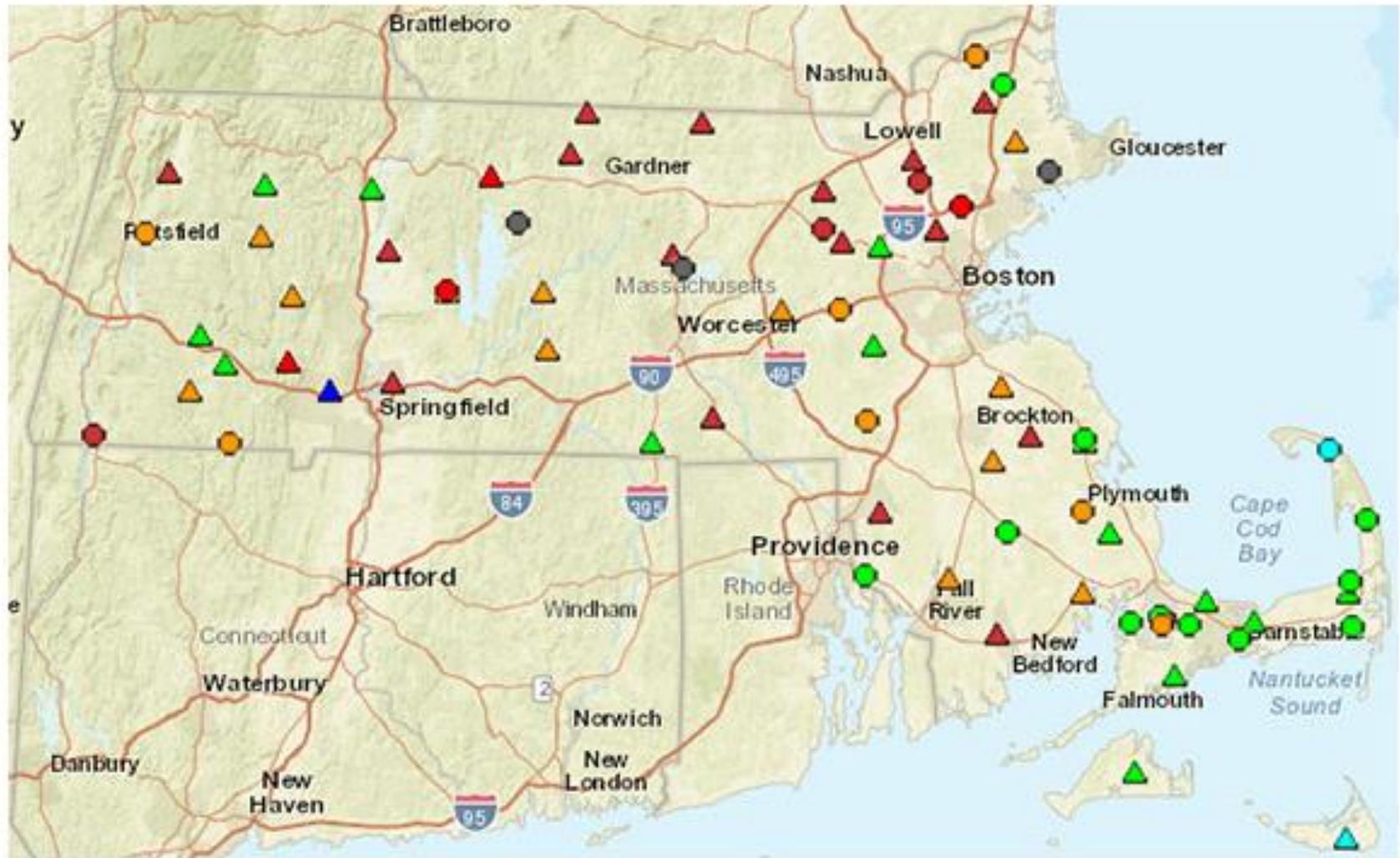
Below normal average monthly streamflow - August 2016

August 2016



Explanation - Percentile classes				
Low	≤ 5	6-9	10-24	Normal
Extreme hydrologic drought	Severe hydrologic drought	Moderate hydrologic drought	Below normal	

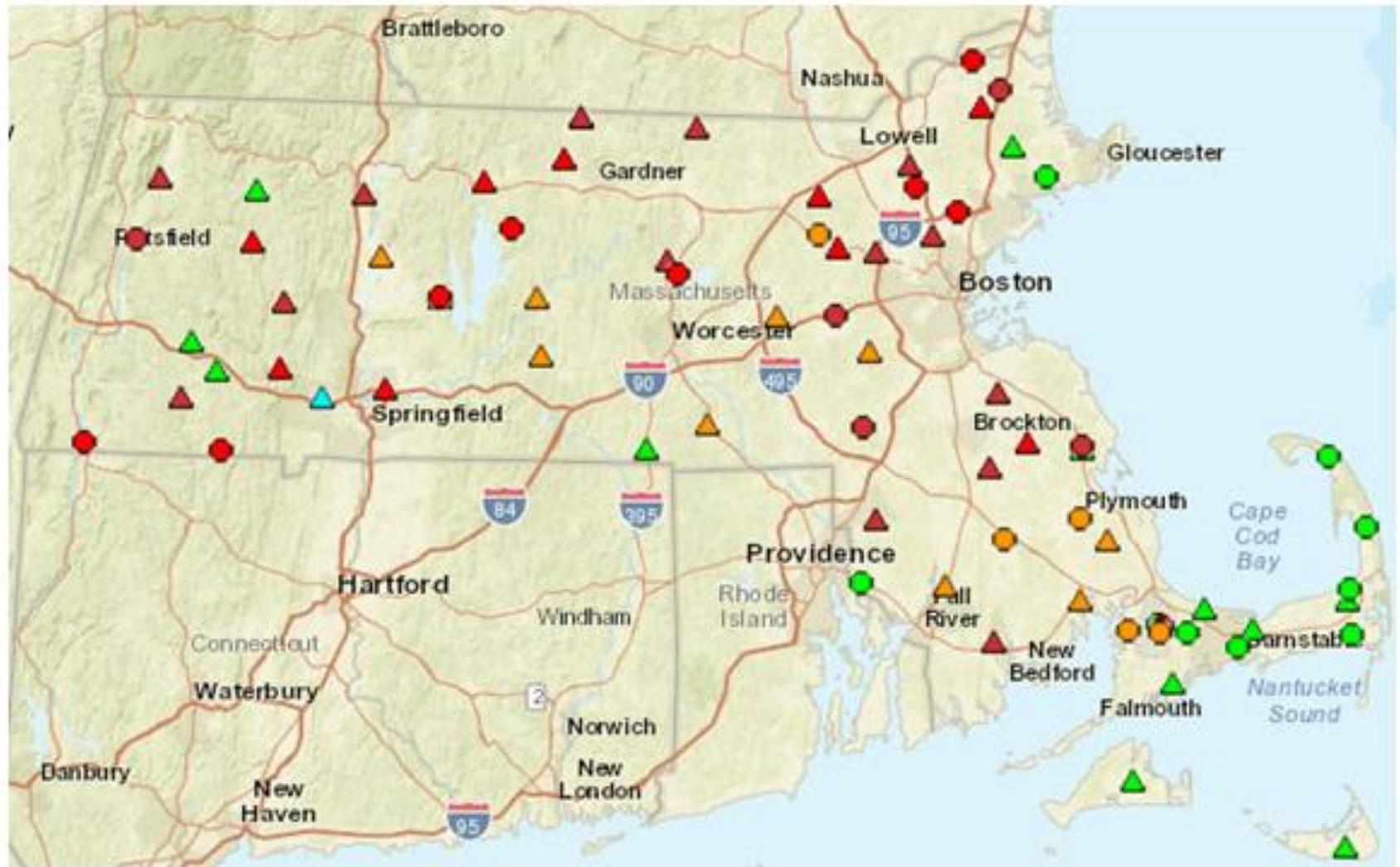
Groundwater Conditions During June 2016



Explanation - Percentile classes

									Real Time
New Low	<10 Much Below Normal	10-24 Below Normal	25-75 Normal	76-90 Above Normal	>90 Much Above Normal	New High	Not Ranked		Continuous
									Periodic Measurements

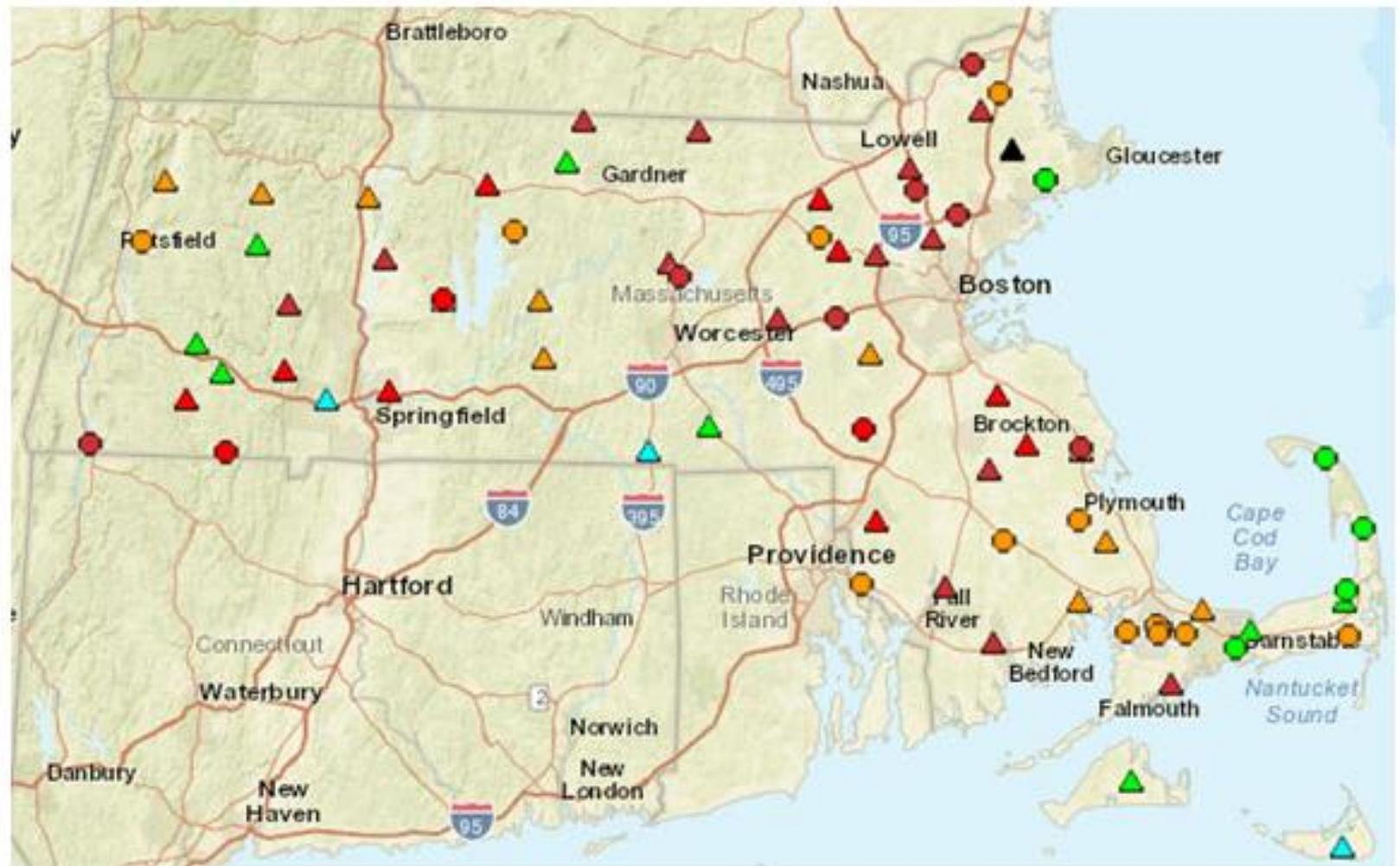
Groundwater Conditions During July 2016



Explanation - Percentile classes

								<ul style="list-style-type: none"> Real Time Continuous Periodic Measurements
New Low	<10 Much Below Normal	10-24 Below Normal	25-75 Normal	76-90 Above Normal	>90 Much Above Normal	New High	Not Ranked	

Groundwater Conditions During August 2016



Explanation - Percentile classes

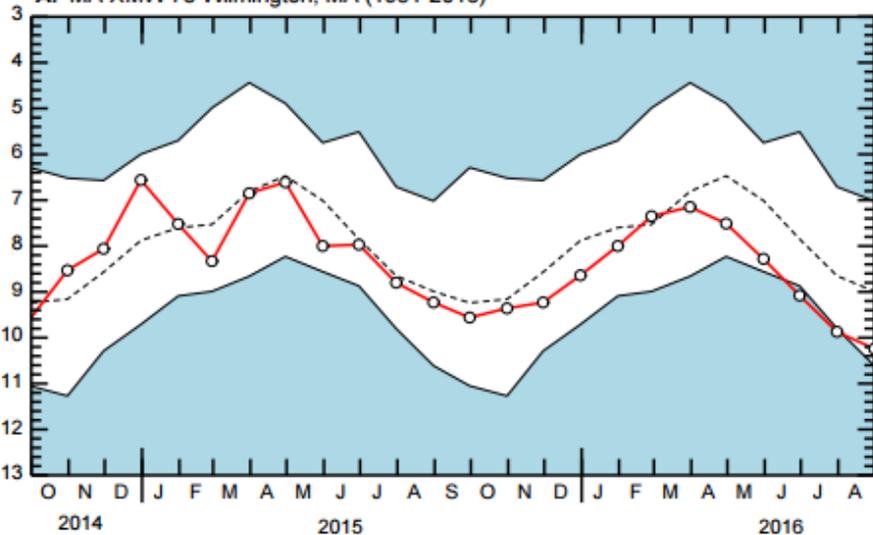
New Low	<10	10-24	25-75	76-90	>90	New High	Not Ranked	Real Time	Continuous	Periodic Measurements
Low	Much Below Normal	Below Normal	Normal	Above Normal	Much Above Normal					

GROUNDWATER LEVELS IN SELECTED USGS OBSERVATION WELLS, 2015 AND 2016 WATER YEARS

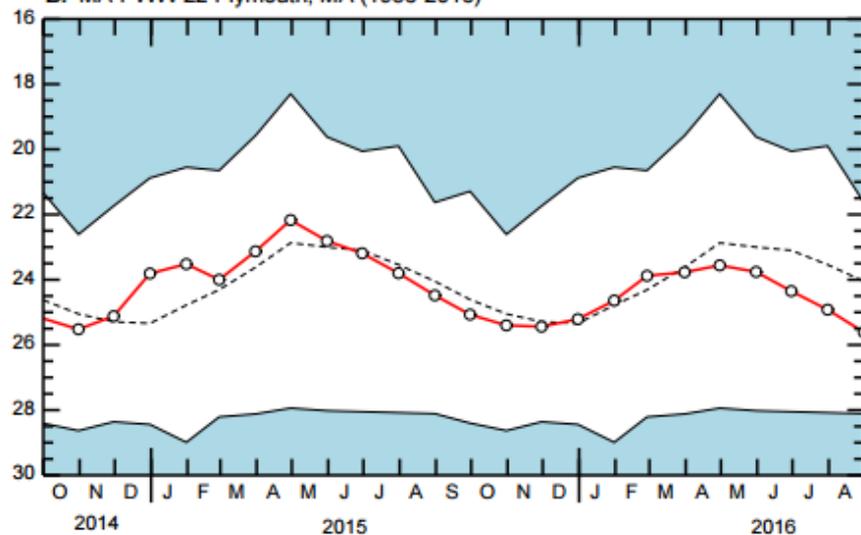
----- MONTHLY MEDIAN GROUNDWATER LEVEL FOR PERIOD OF WELL RECORD
 -○- MONTHLY WELL MEASUREMENT DURING 2015 AND 2016 WATER YEARS
 UNSHADED AREA SHOWS RANGE BETWEEN HIGHEST AND LOWEST MONTHLY MEDIAN GROUNDWATER LEVEL FOR PERIOD OF WELL RECORD

GROUNDWATER LEVEL IN FEET BELOW SURFACE

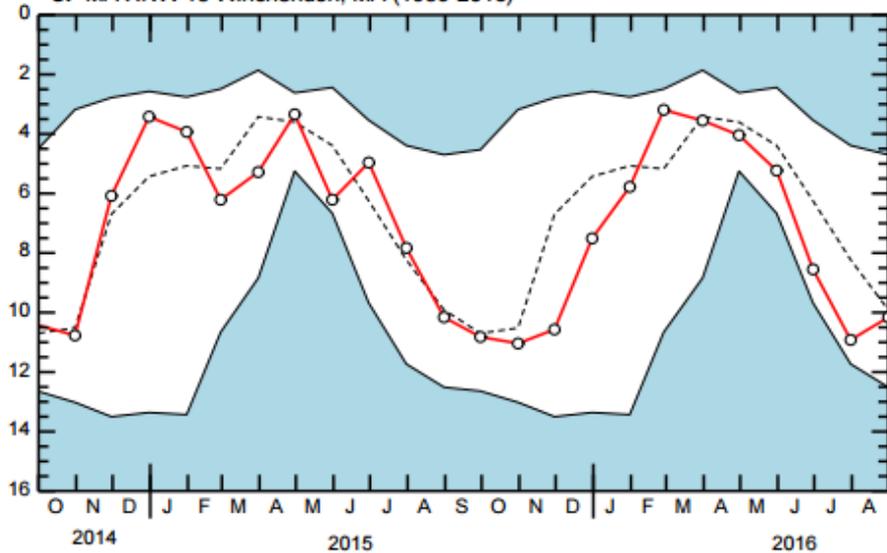
A. MA-XMW 78 Wilmington, MA (1951-2016)



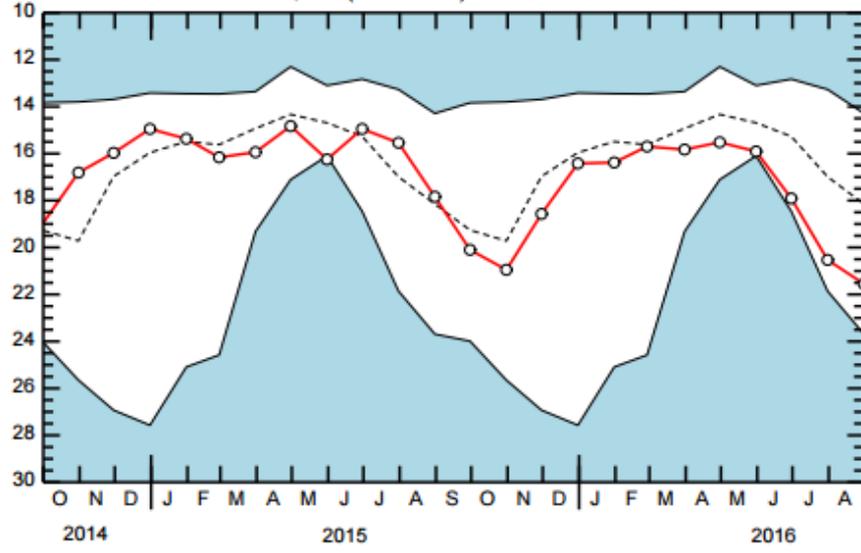
B. MA-PWW 22 Plymouth, MA (1956-2016)



C. MA-XNW 13 Winchendon, MA (1939-2016)



D. MA-PTW 51 Pittsfield, MA (1963-2016)



Questions ?

Zero flow at Nashoba Brook near Acton, MA (01097300) on August 10, 2016

