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# Streamflow and Groundwater Conditions in Massachusetts

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Massachusetts – Rhode Island Office

# Streamflow Conditions During June 2016

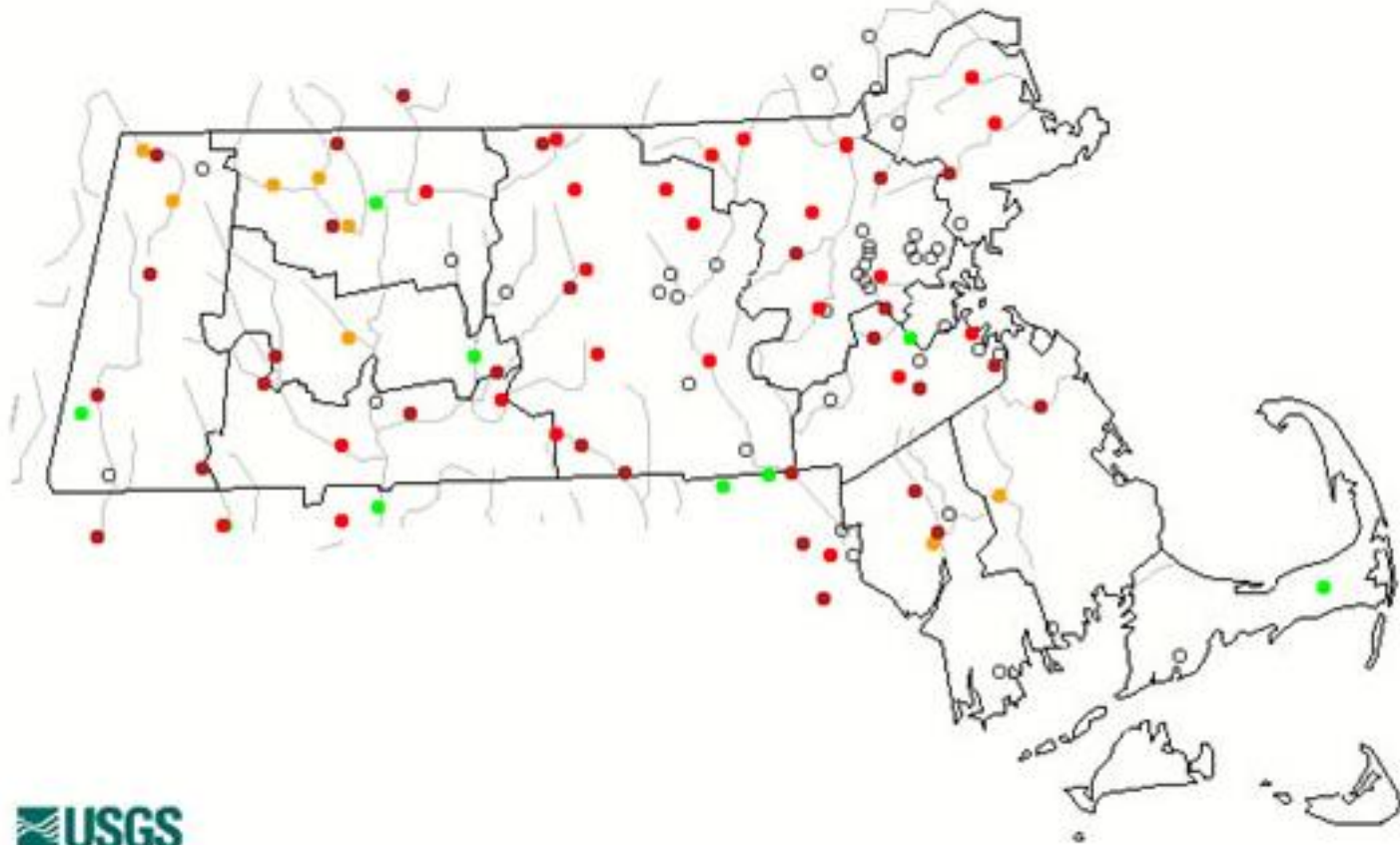
June 2016



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 July 2016

July 2016

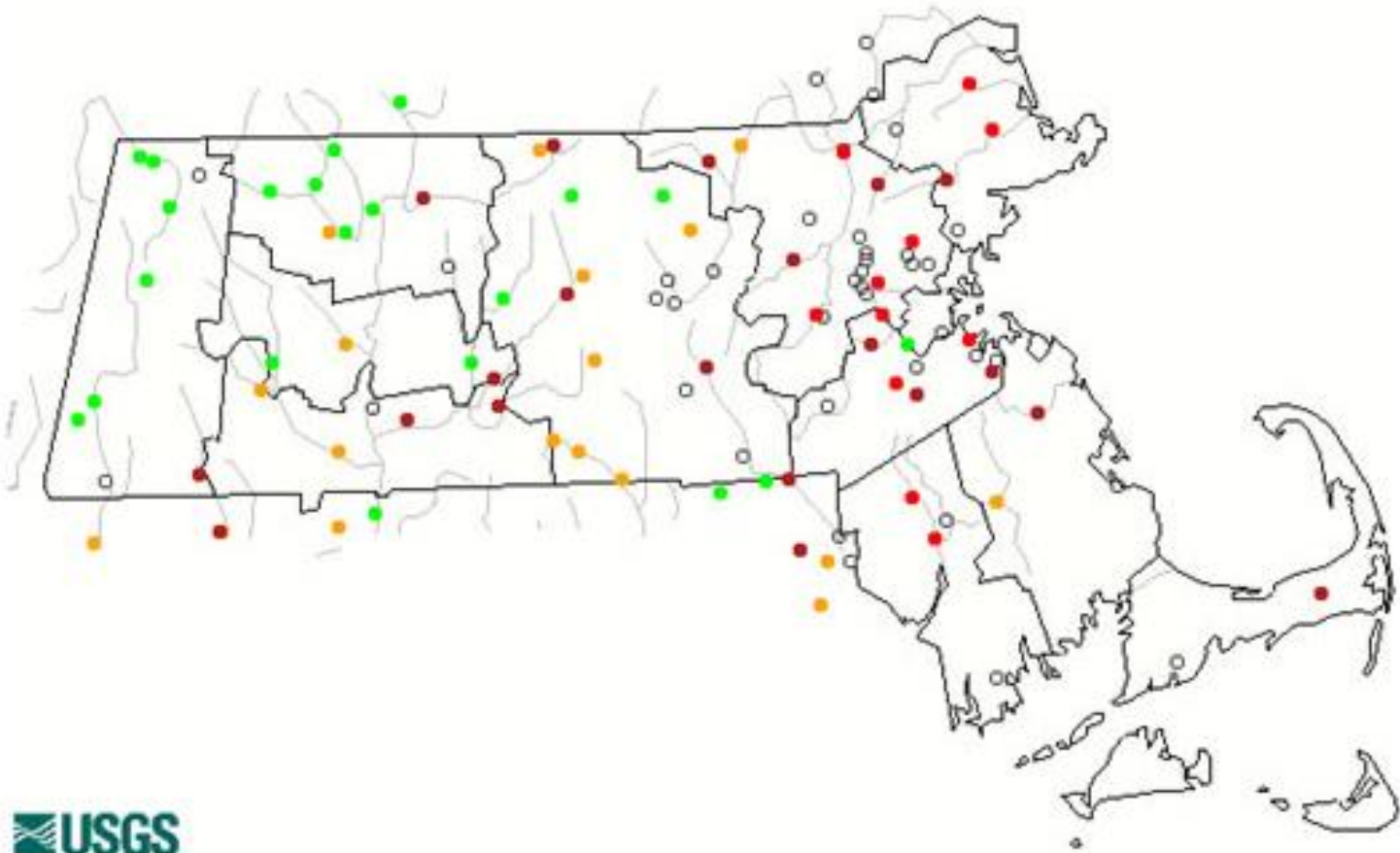


Explanation - Percentile classes


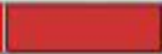




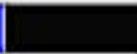
	<10	10-24	25-75	76-90	>90	
Low						High
	Much below normal	Below normal	Normal	Above normal	Much above normal	

# Streamflow Conditions During August 2016

August 2016

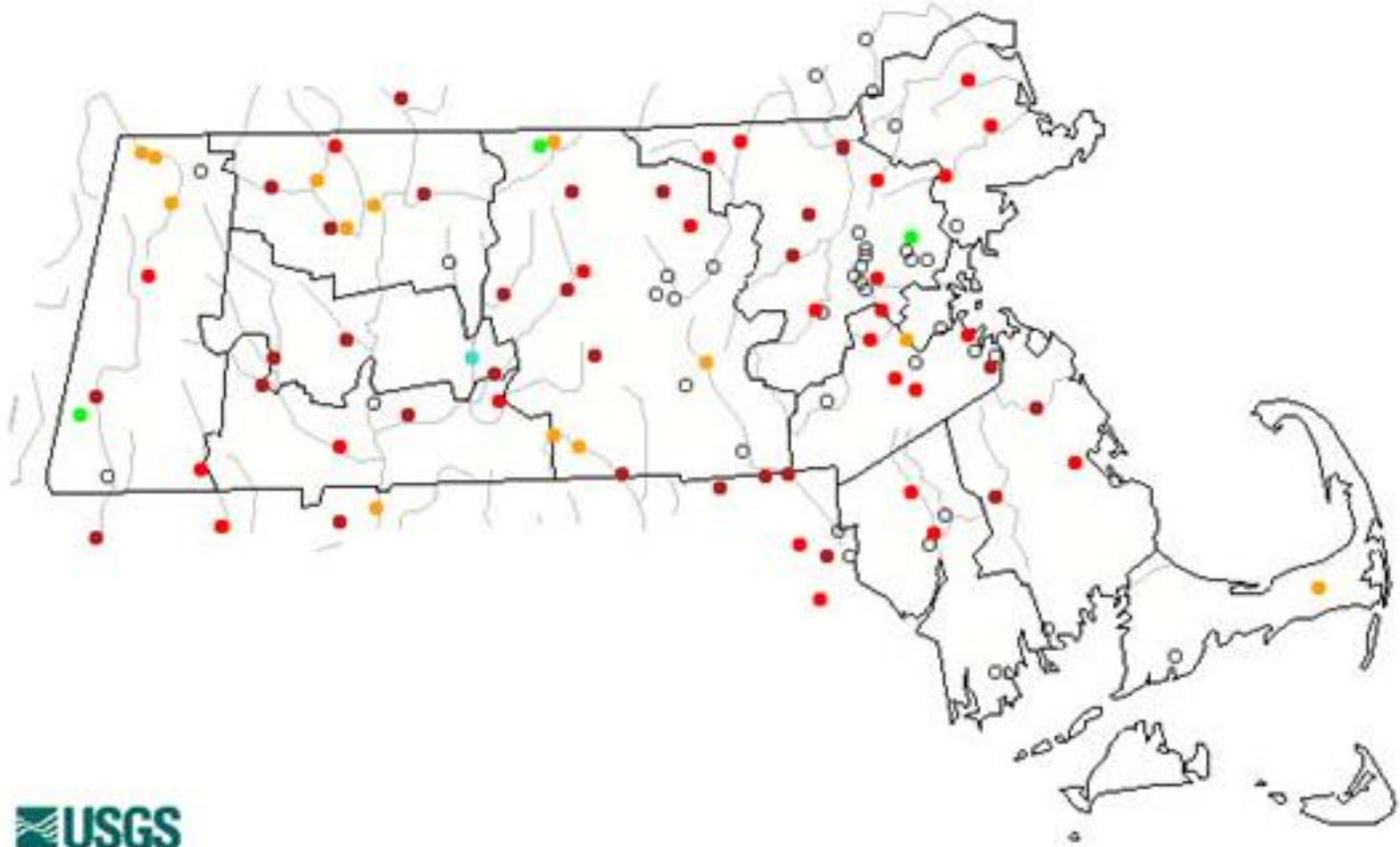


USGS

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 September 2016

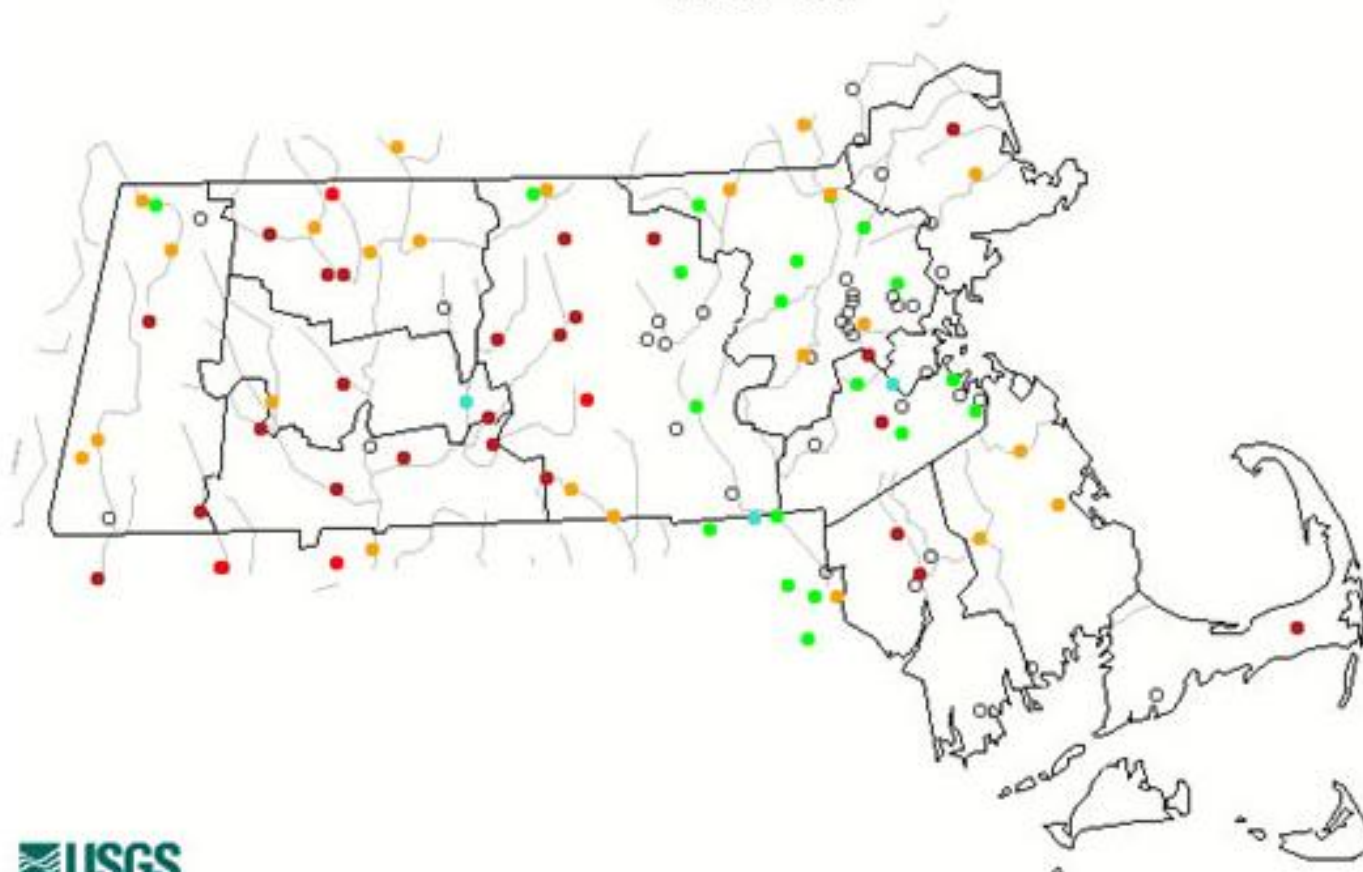
September 2016



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 October 2016

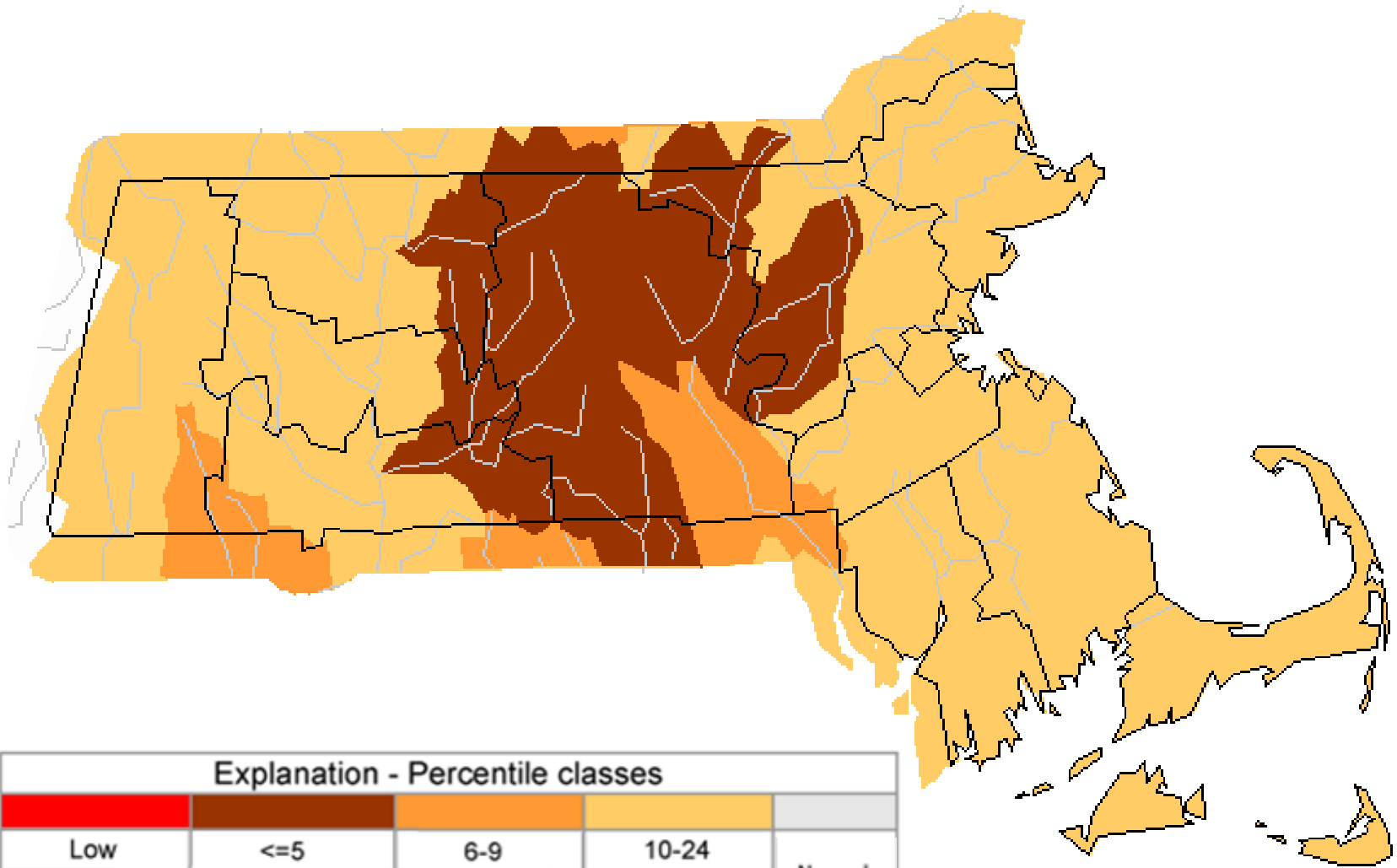
October 2016



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

# Below normal average monthly streamflow - June 2016

June 2016

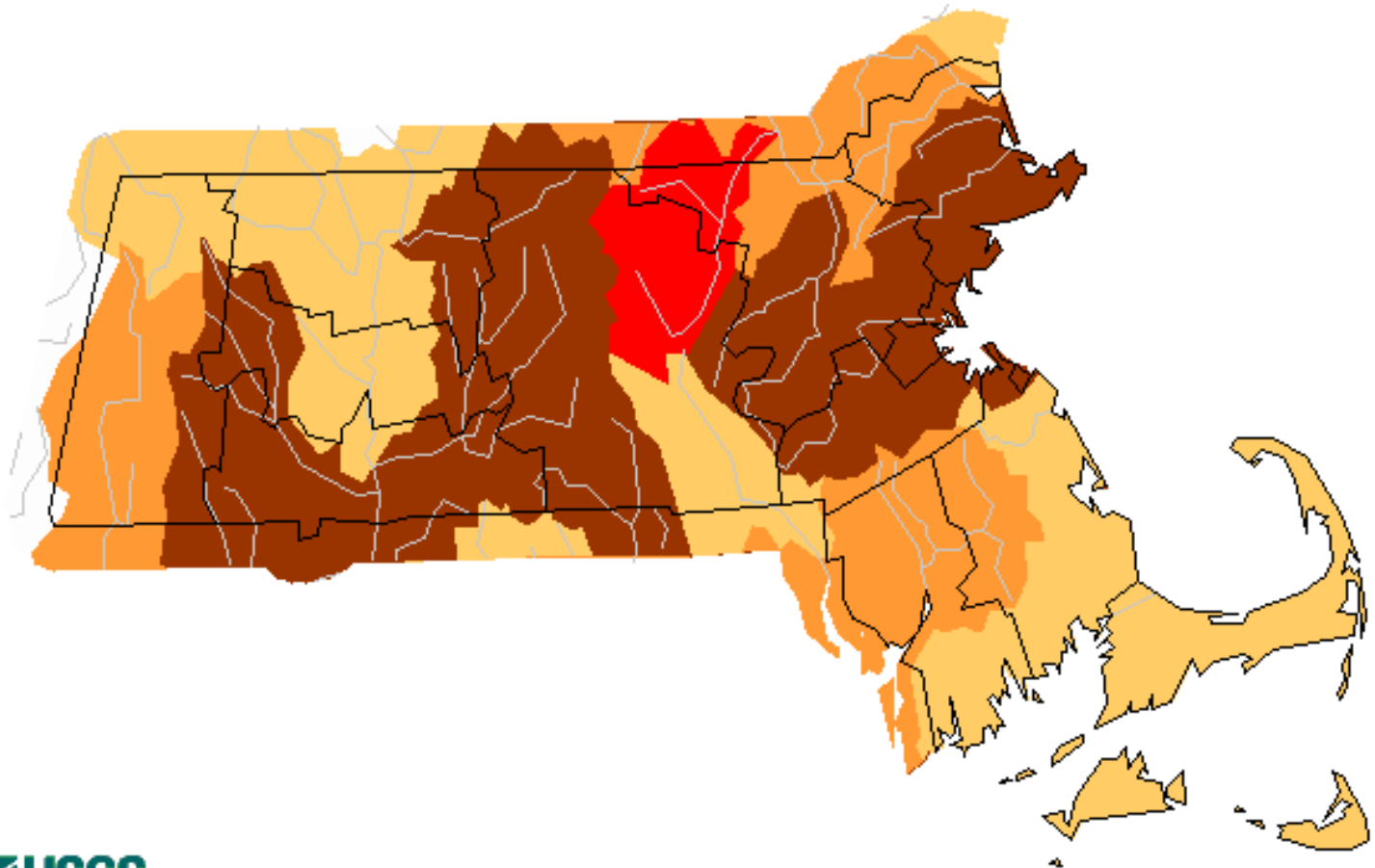






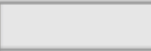
Explanation - Percentile classes

Low	$\leq 5$	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

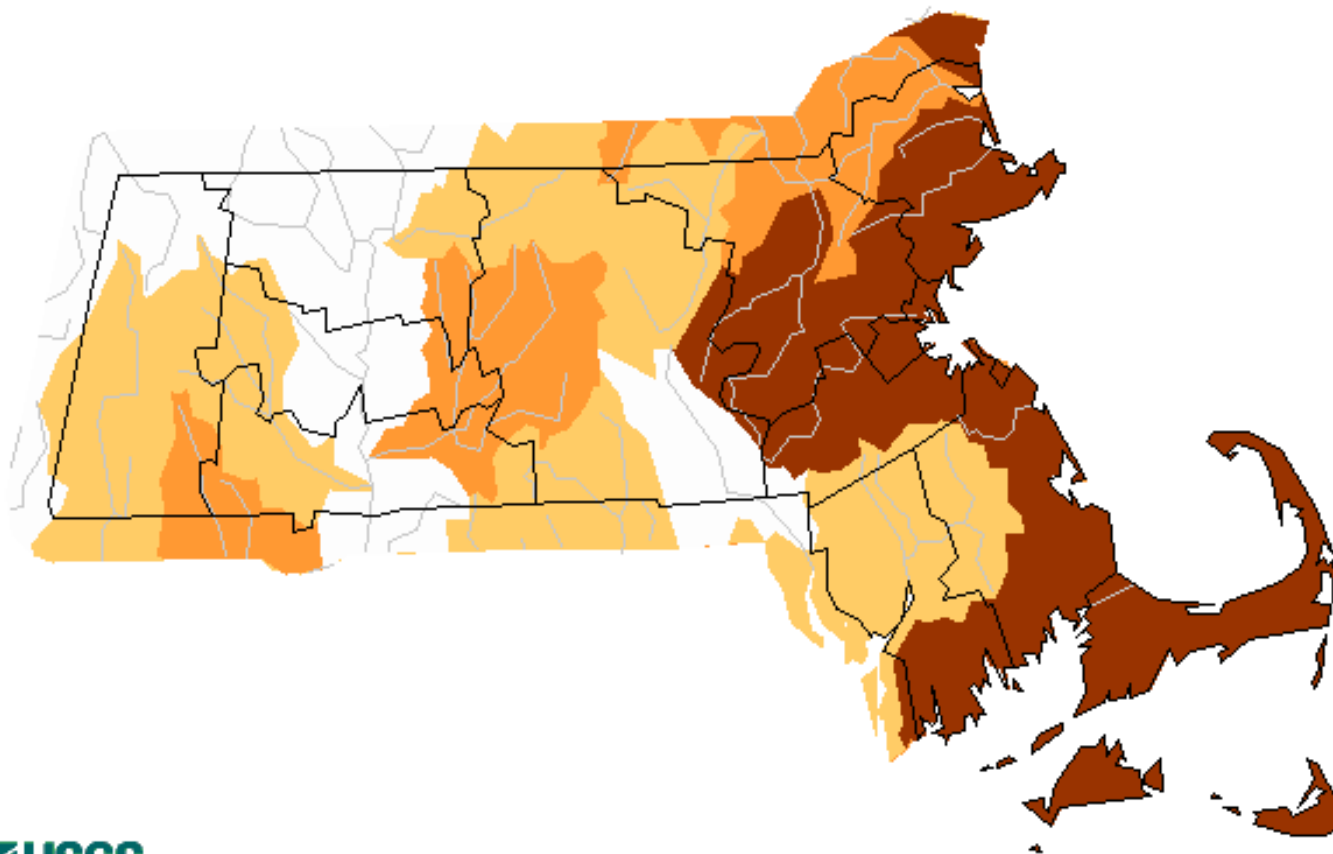







Explanation - Percentile classes				
				
Low	$\leq 5$	6-9	10-24	Normal
Extreme hydrologic drought	Severe hydrologic drought	Moderate hydrologic drought	Below normal	



# Below normal average monthly streamflow - August 2016

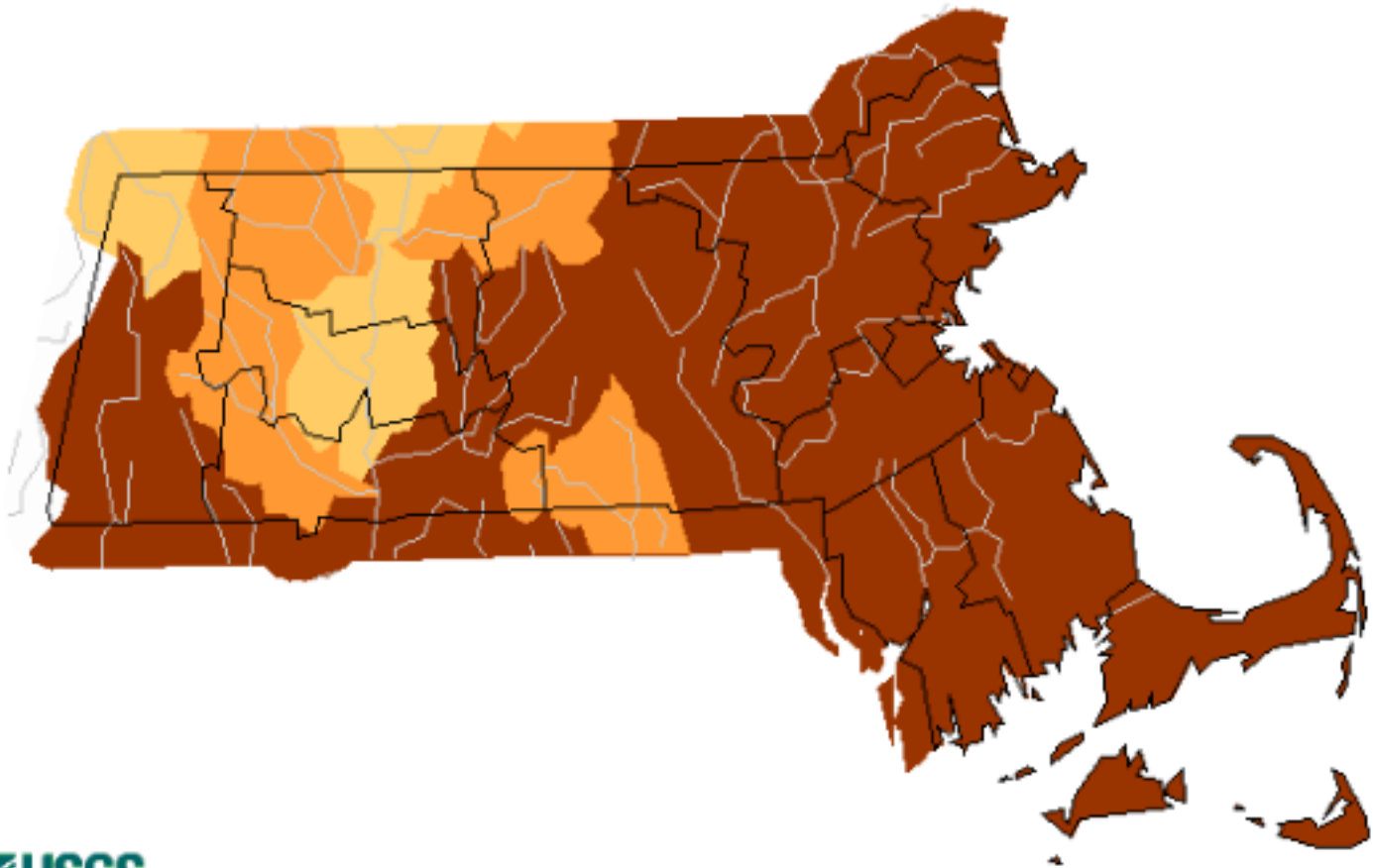
August 2016



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

# Below normal average monthly streamflow - September 2016

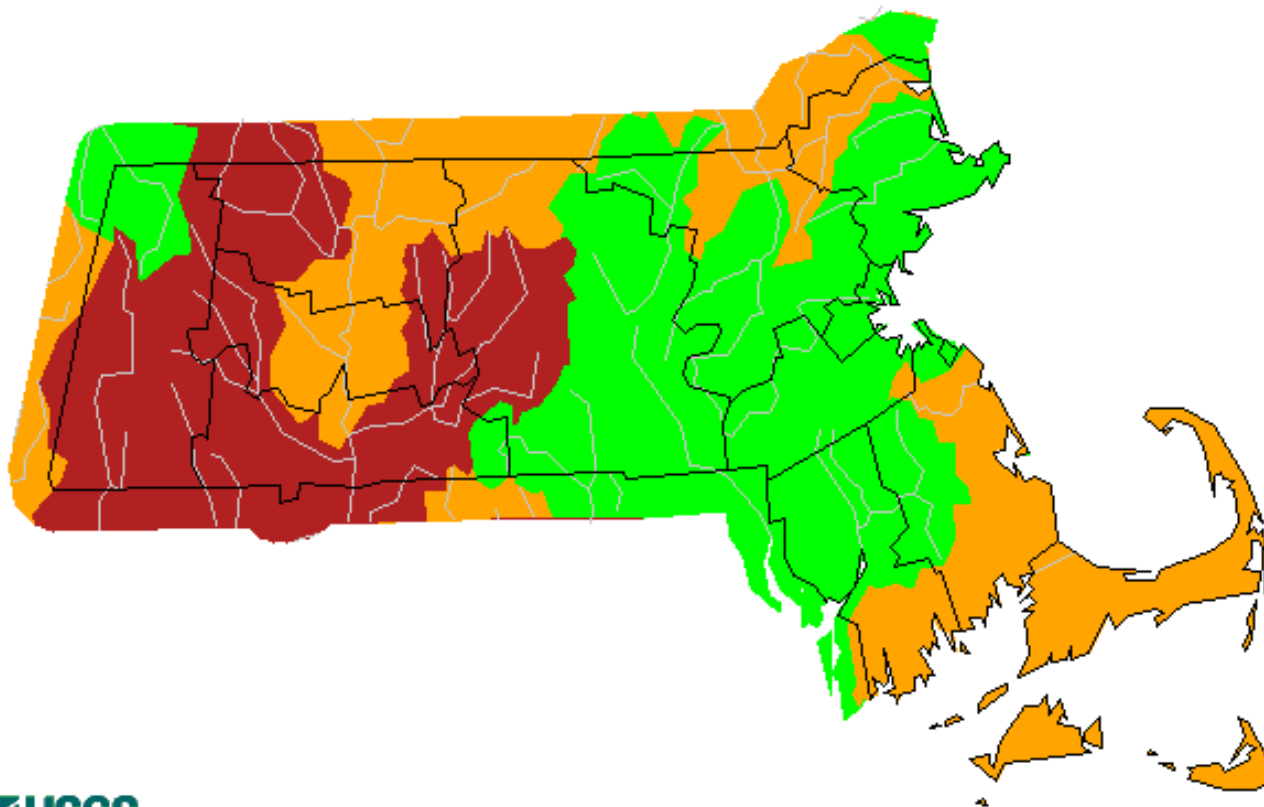
September 2016



Explanation - Percentile classes				
Low	$\leq 5$	6-9	10-24	Insufficient data for a hydrologic region
Extreme hydrologic drought	Severe hydrologic drought	Moderate hydrologic drought	Below normal	

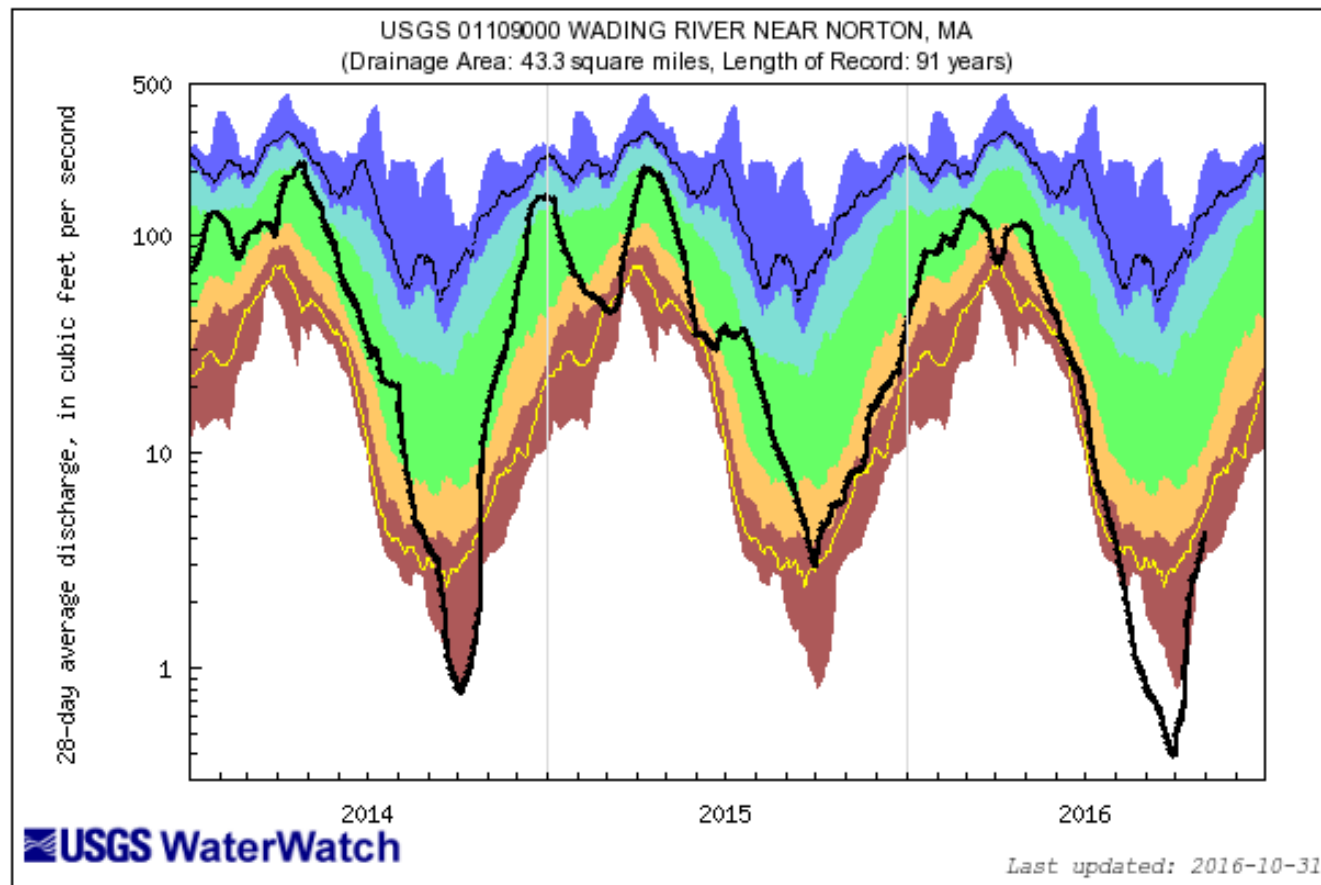
# Below normal average monthly streamflow - October 2016








October 2016



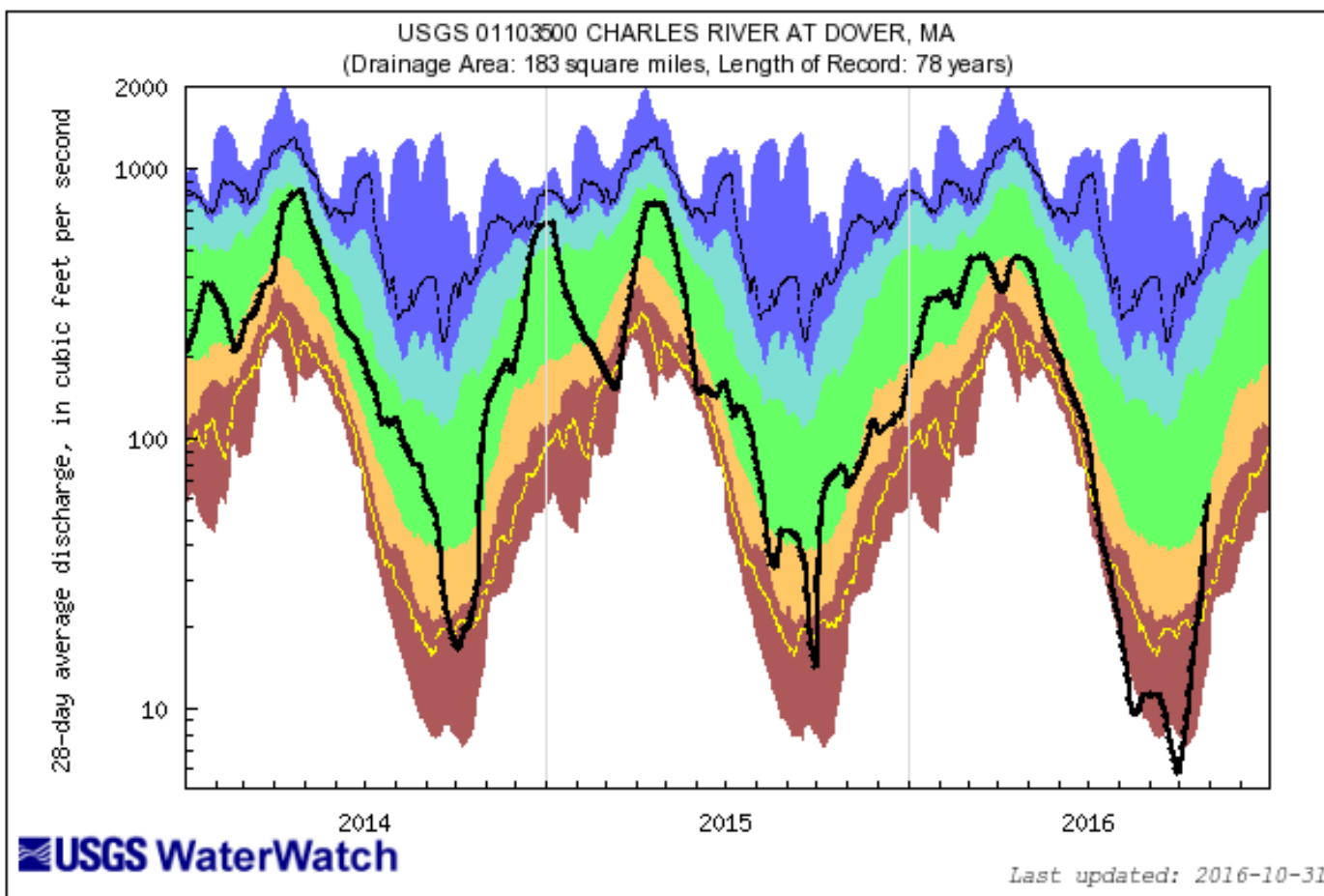
Explanation - Percentile classes								
Low	<10	10-24	25-75	76-90	>90	High	No Data	
	Much below normal	Below normal	Normal	Above normal	Much above normal			

# Long-term look (3-yr) at Wading River near Norton



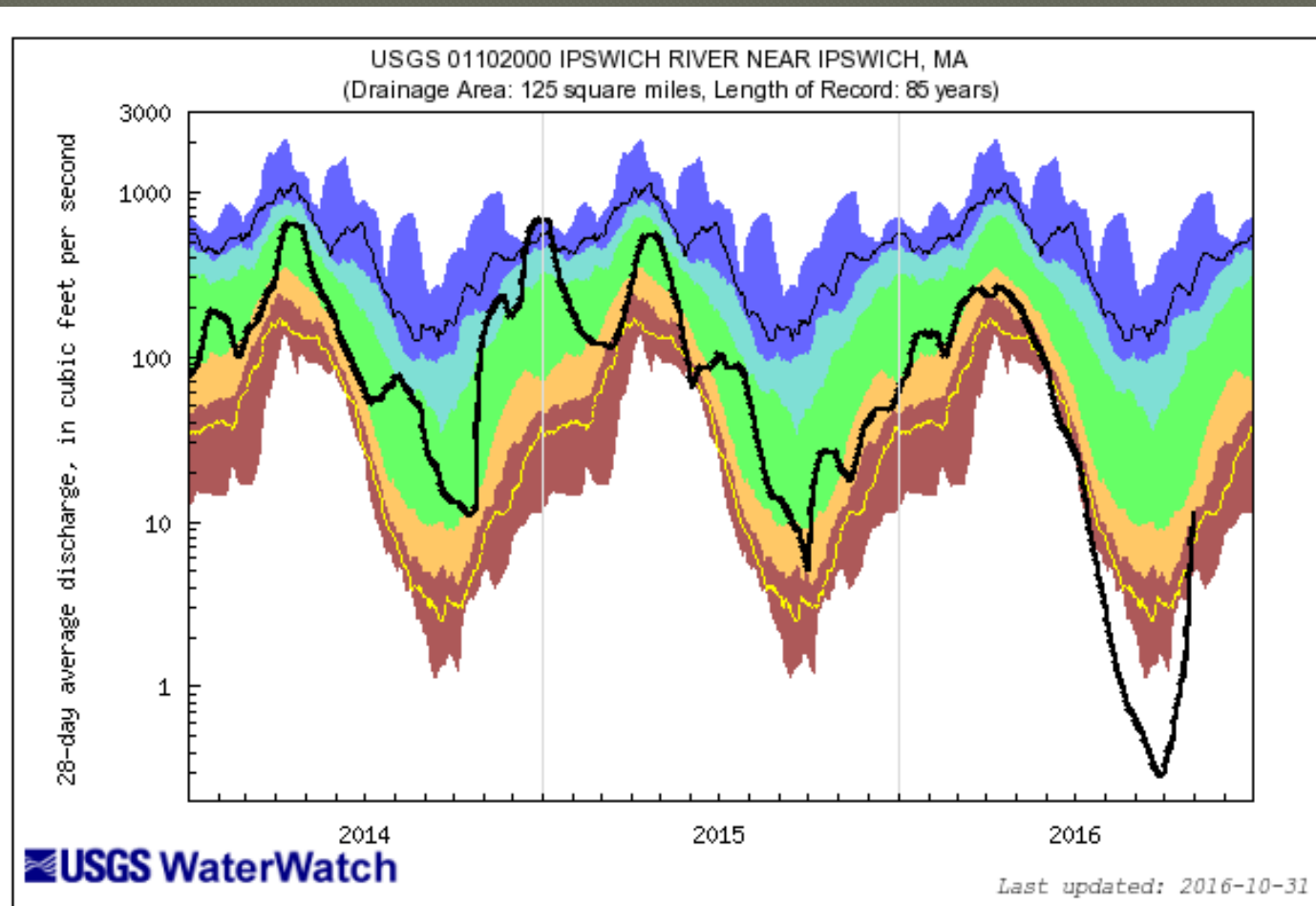
Explanation - Percentile classes						
						
lowest-10th percentile	5	10-24	25-75	76-90	95	90th percentile -highest
Much below Normal	Below normal	Normal	Above normal	Much above normal		Flow

# Long-term look (3-yr) at Charles River at Dover



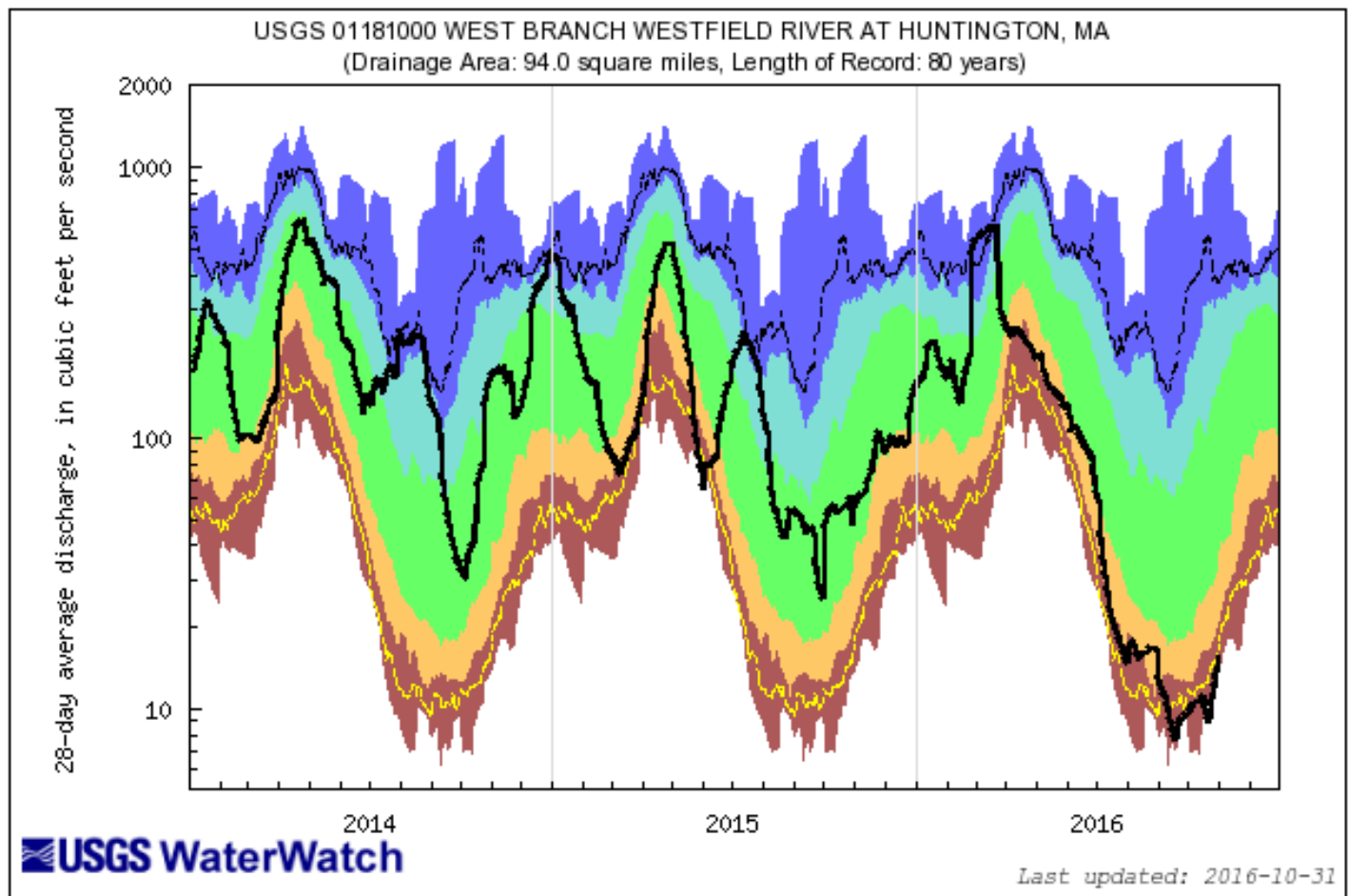
Explanation - Percentile classes							
lowest-10th percentile	5	10-24	25-75	76-90	95	90th percentile - highest	Flow
Much below Normal	Below normal	Normal	Above normal	Much above normal			

# Long-term look (3-yr) at Ipswich River near Ipswich



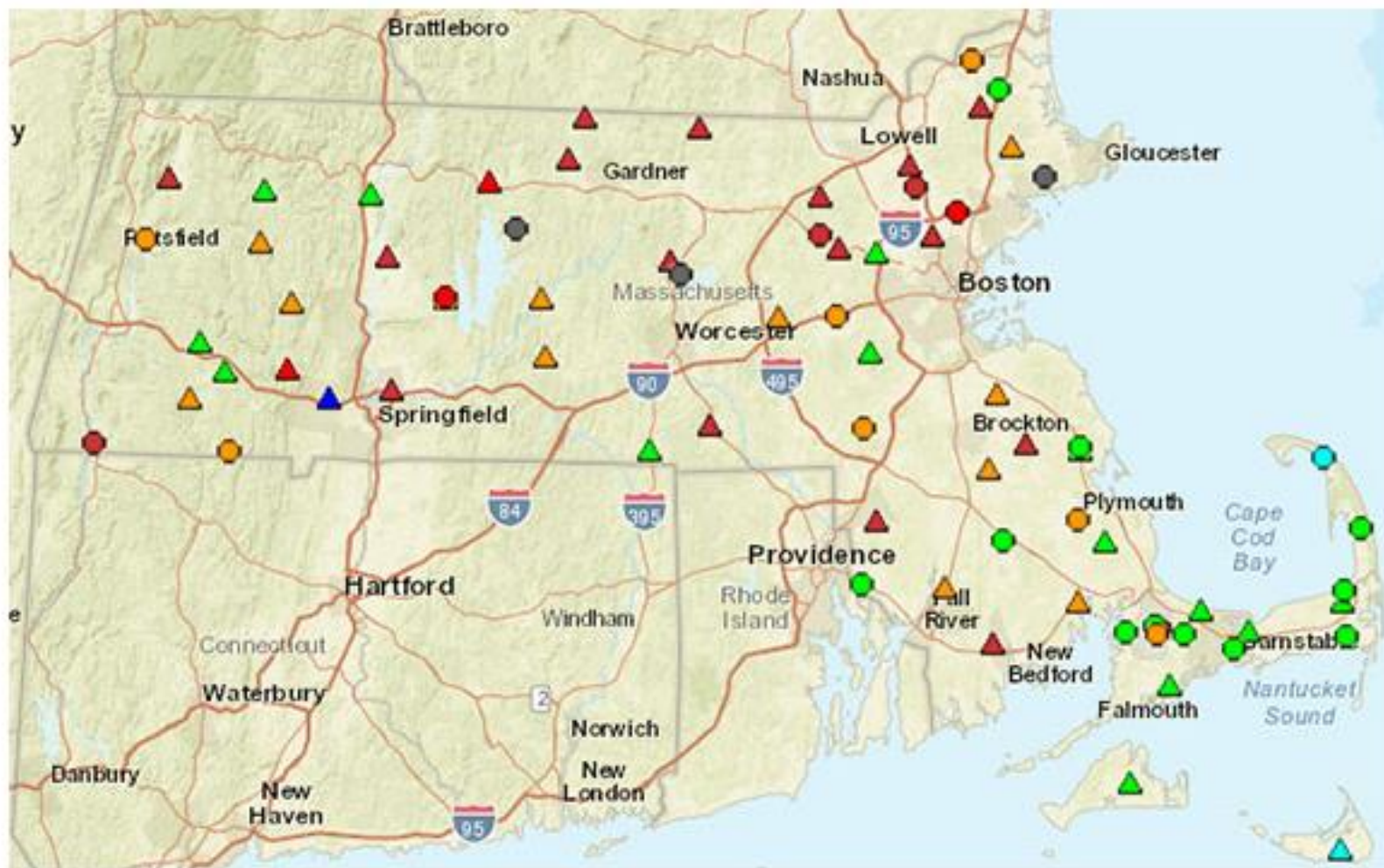
Explanation - Percentile classes						
lowest-10th percentile	5	10-24	25-75	76-90	95	90th percentile -highest
Much below Normal	Below normal	Normal	Above normal	Much above normal		Flow

# Long-term look (3-yr) at West Branch Westfield River at Huntington



Explanation - Percentile classes							
lowest-10th percentile	5	10-24	25-75	76-90	95	90th percentile-highest	Flow
Much below Normal		Below normal	Normal	Above normal		Much above normal	

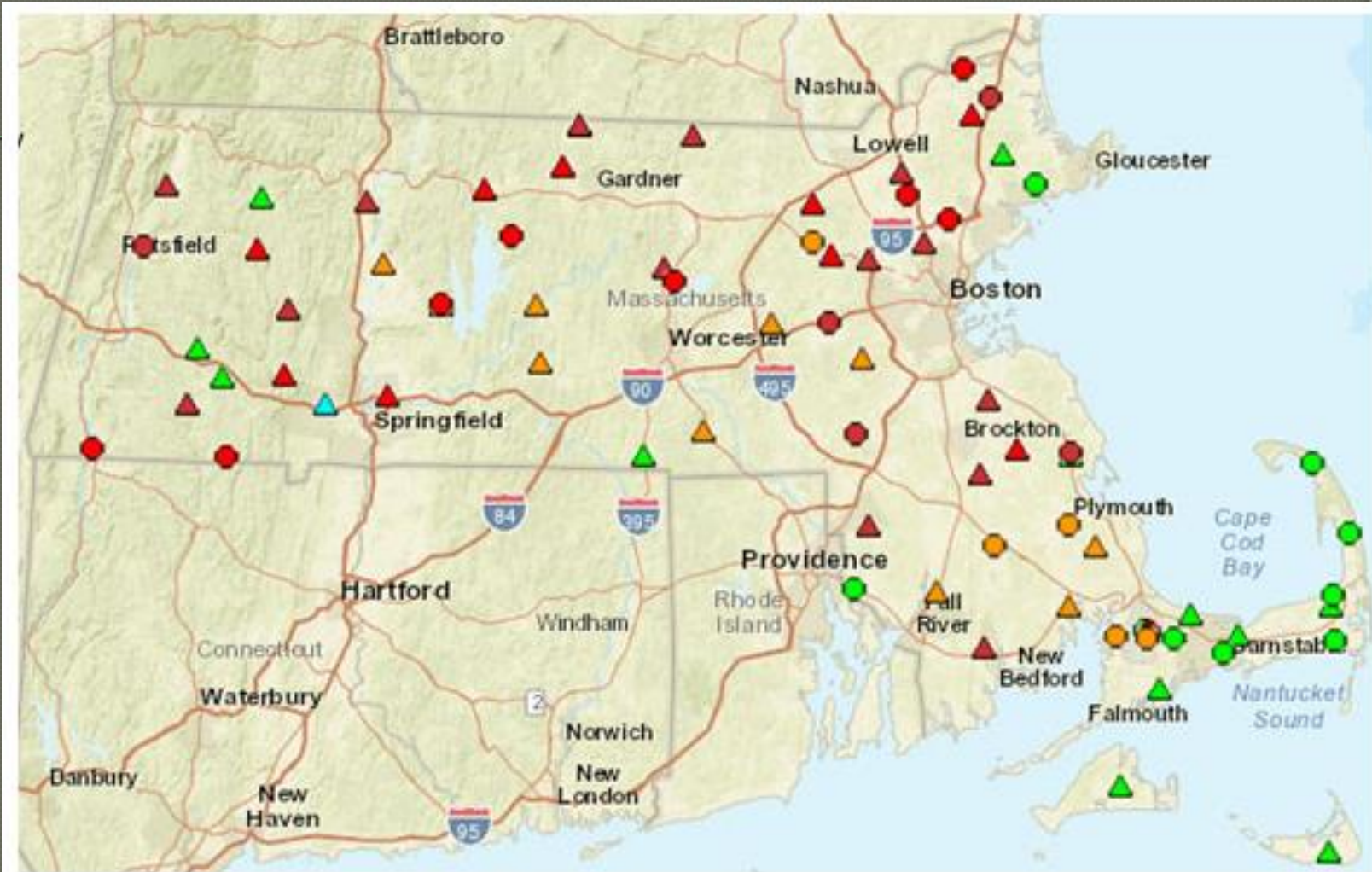
# Groundwater Conditions During June 2016



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



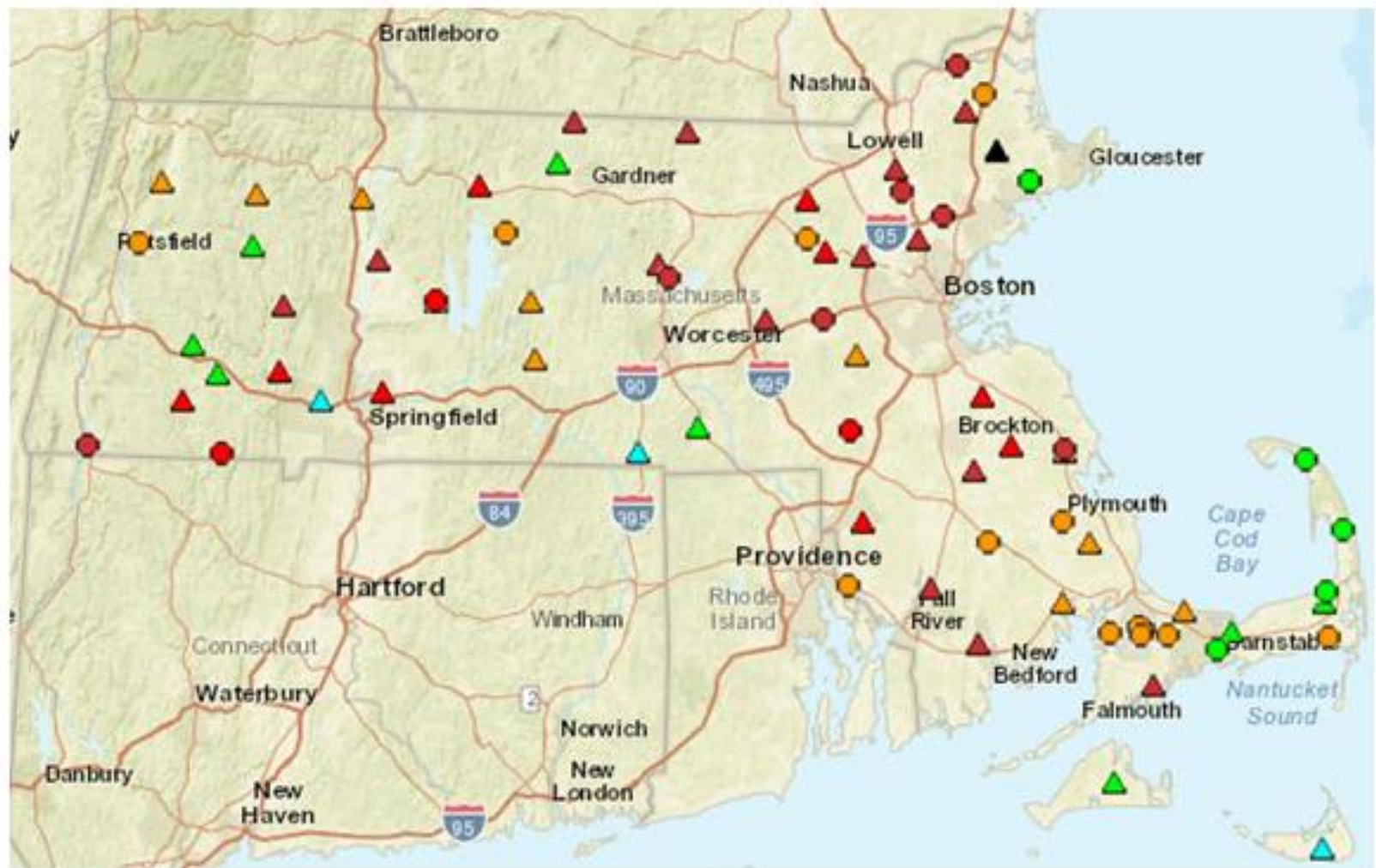
# Groundwater Conditions During July 2016



## Explanation - Percentile classes

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

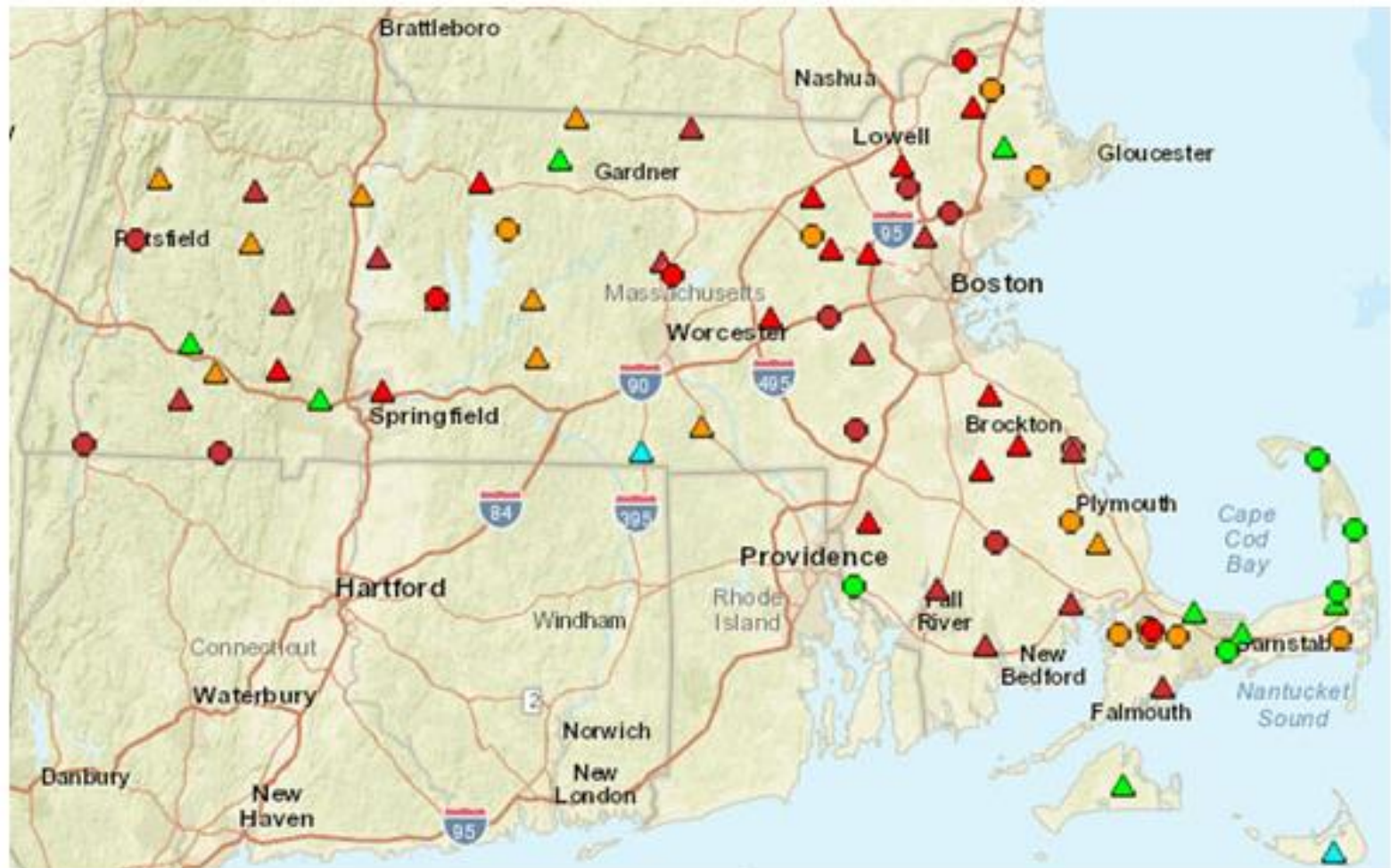
# Groundwater Conditions During August 2016



Explanation - Percentile classes							
<span style="color: red;">●</span>	<span style="color: red;">●</span>	<span style="color: orange;">●</span>	<span style="color: green;">●</span>	<span style="color: cyan;">●</span>	<span style="color: blue;">●</span>	<span style="color: black;">●</span>	<span style="color: gray;">●</span>
New Low	<10	10-24	25-75	76-90	>90	New High	Not Ranked
	Much Below Normal	Below Normal	Normal	Above Normal	Much Above Normal		
						○ Real Time	□ Continuous
						△ Periodic Measurements	

# Groundwater Conditions During September 2016

## Massachusetts Groundwater Conditions

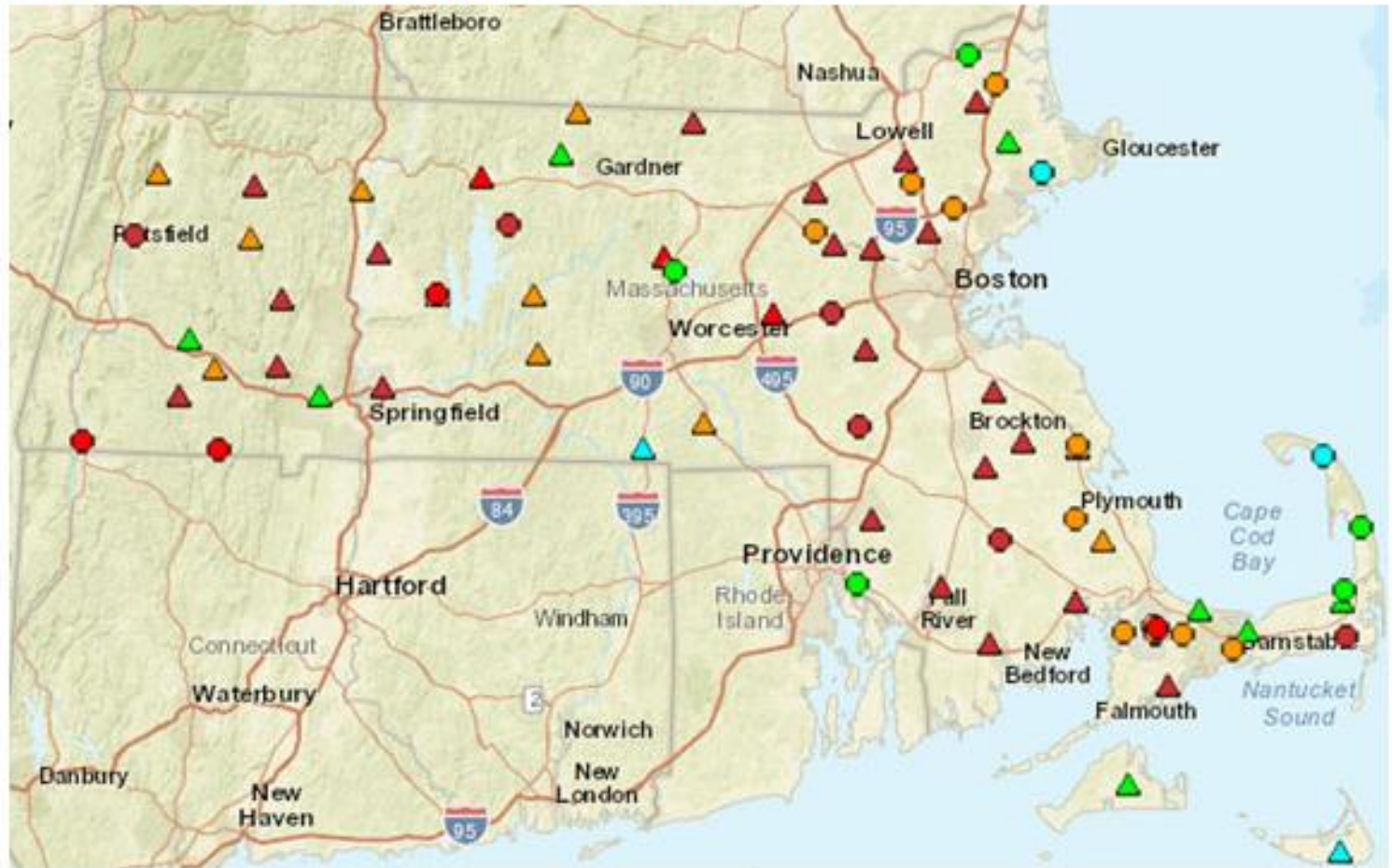


### Explanation - Percentile classes

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

# Groundwater Conditions During October 2016

## Massachusetts Groundwater Conditions



### Explanation - Percentile classes

								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	

# Questions ?

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

