

Streamflow and Groundwater Conditions in Western Massachusetts

Massachusetts Drought Task Force Meeting

July 10, 2024

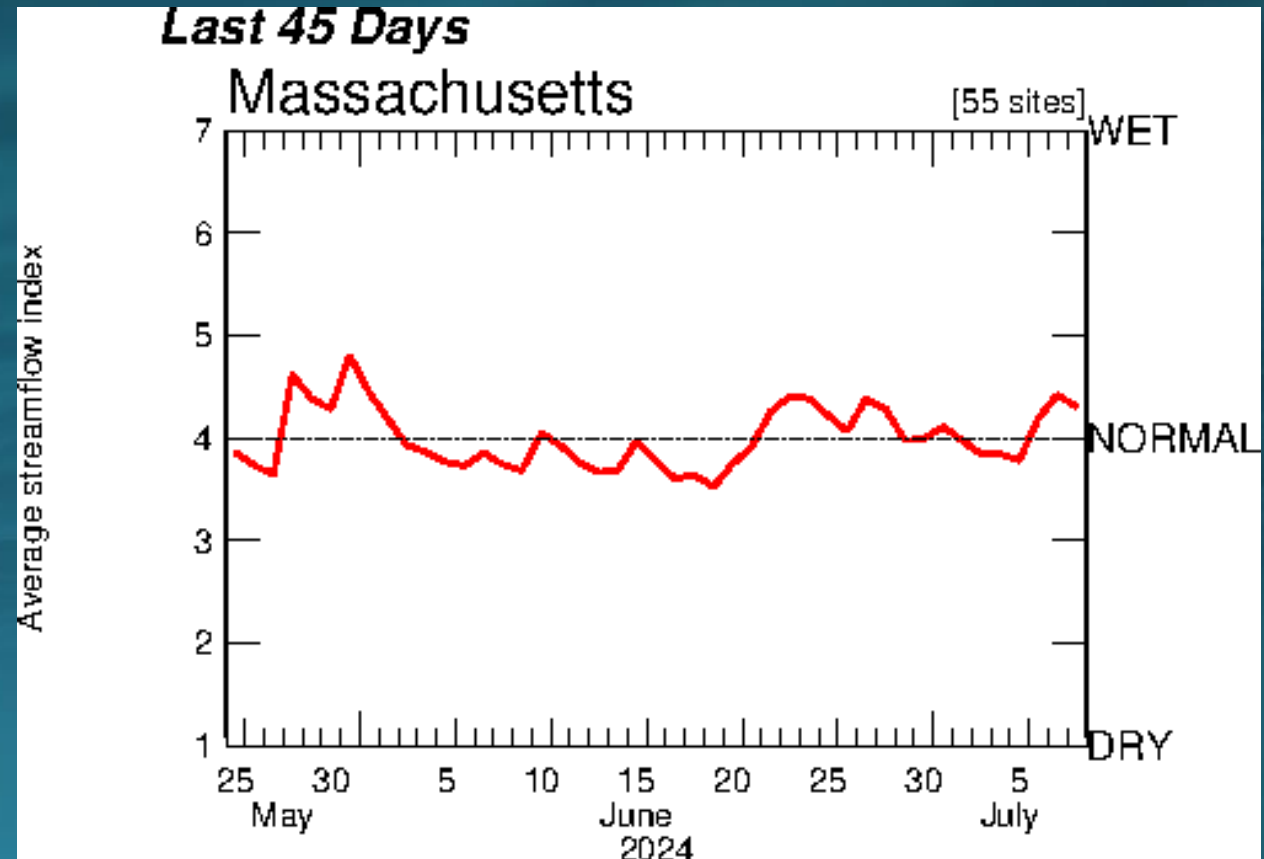
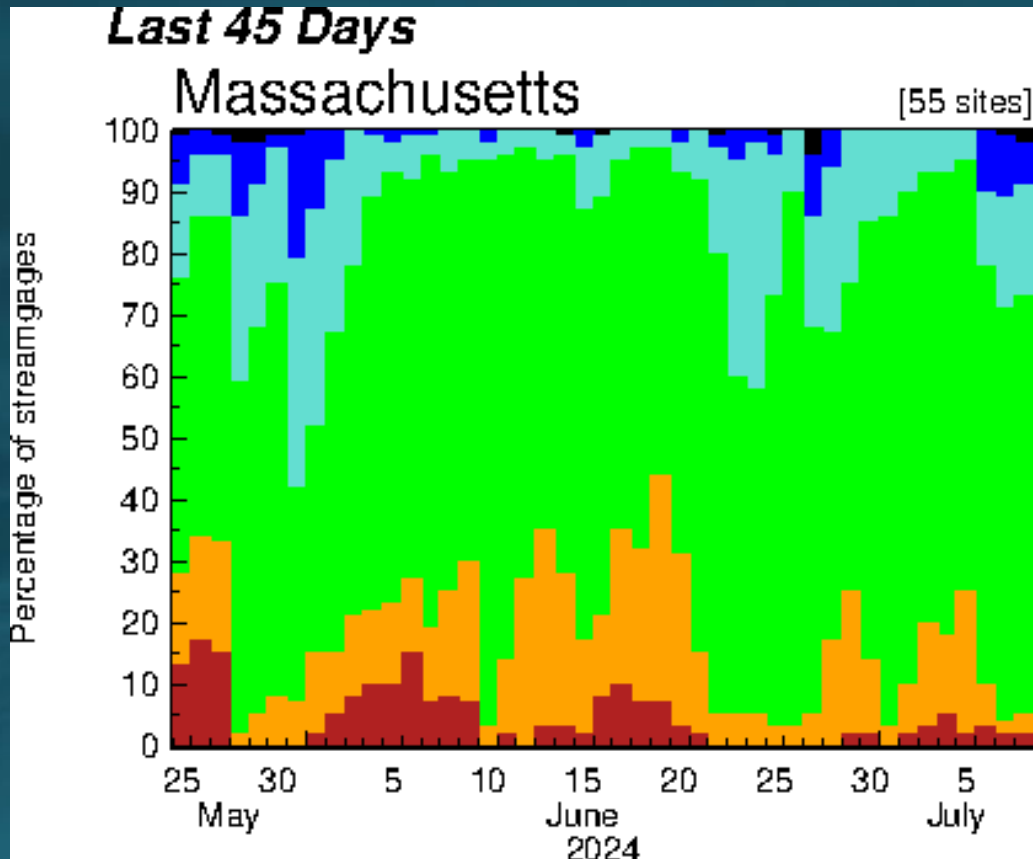
U.S. Geological Survey

New England Water Science Center

Brian Loving, Jason Pollender, and Chris Bruet



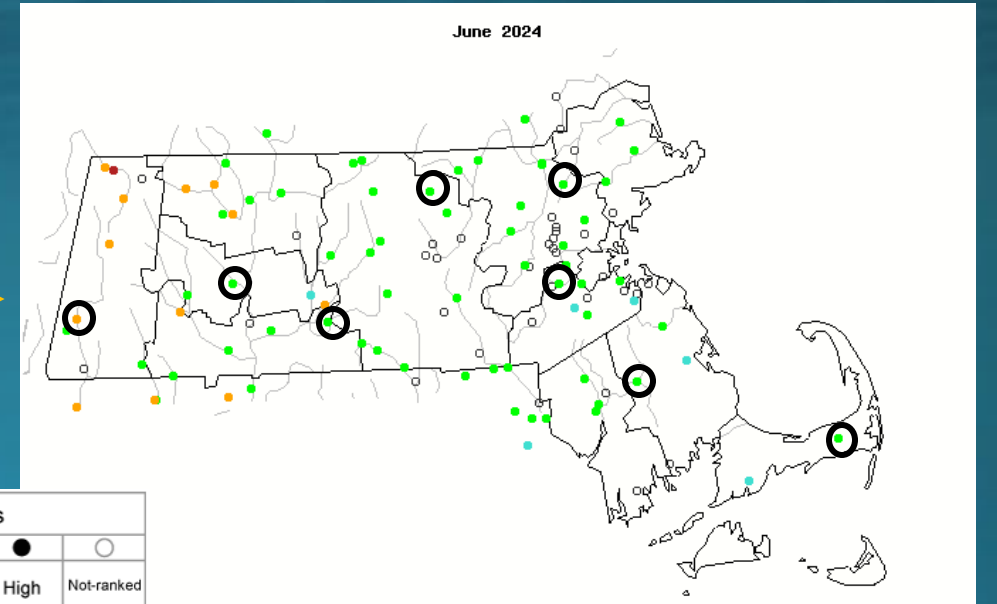
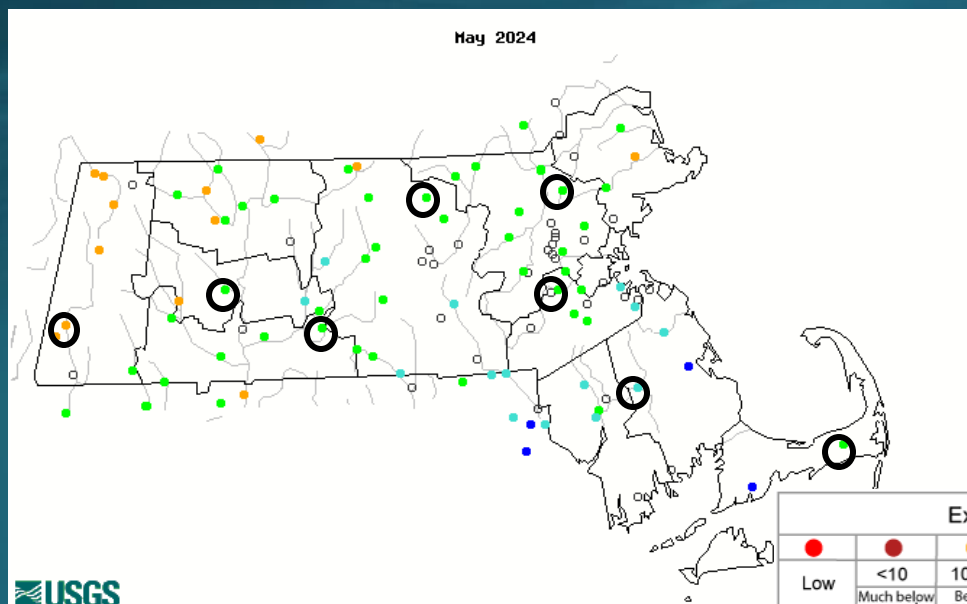
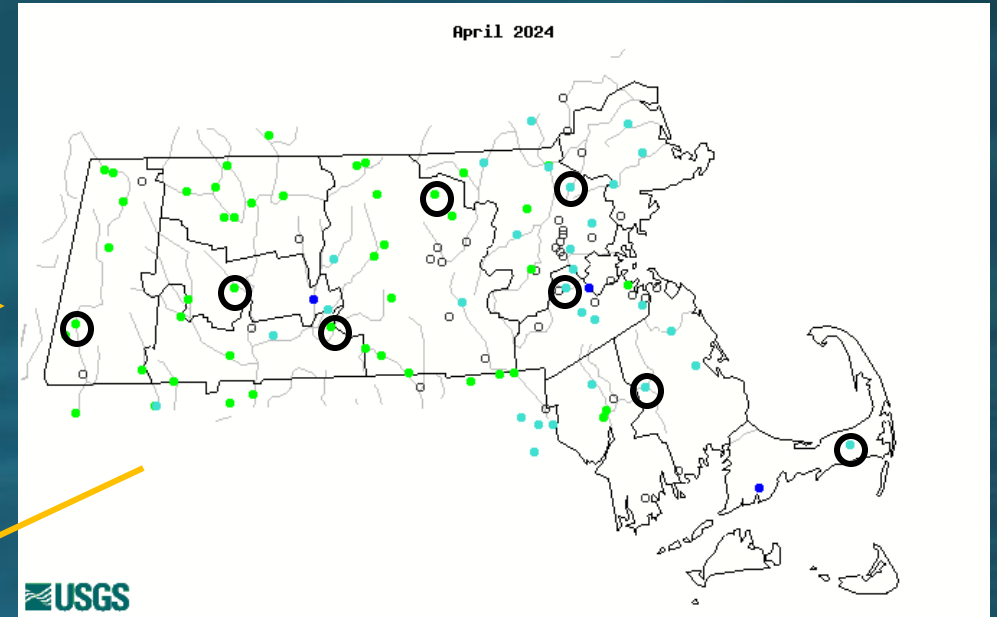
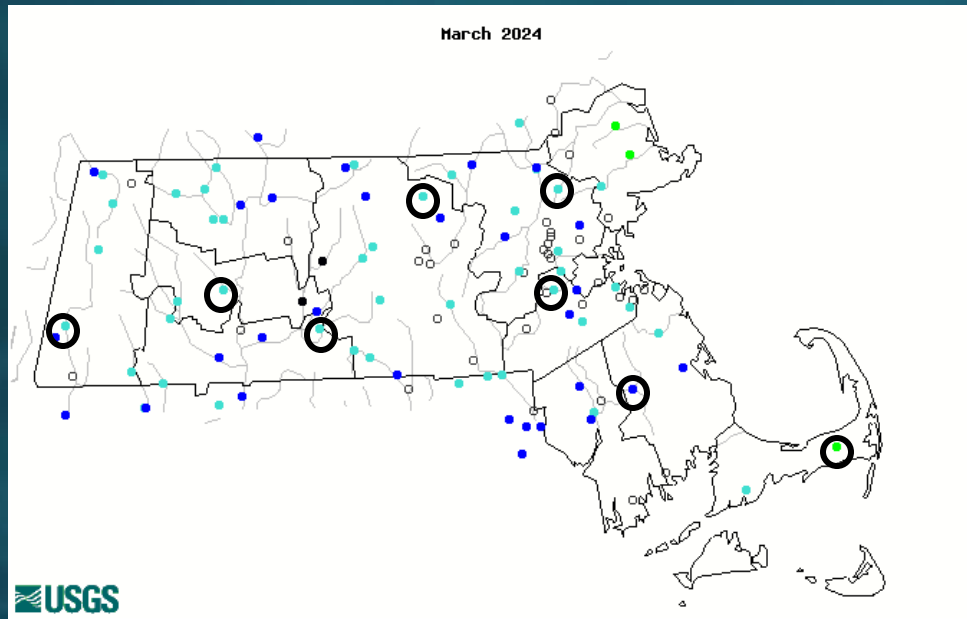
Streamflow Conditions – last 45 days



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		

Streamflow Conditions – Monthly Average



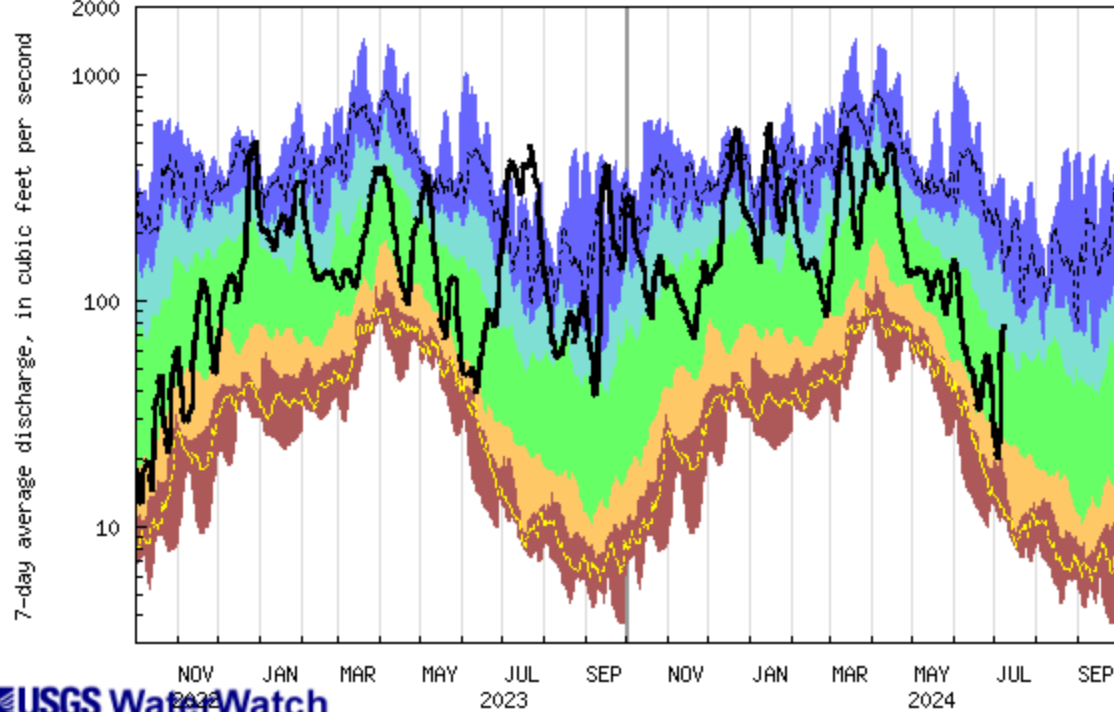
Explanation - Percentile classes

●	●	●	●	●	●	●	○
Low	<10	10-24	25-75	76-90	>90	High	Not-ranked
	Much below normal	Below normal	Normal	Above normal	Much above normal		

Central Region

7-Day Average

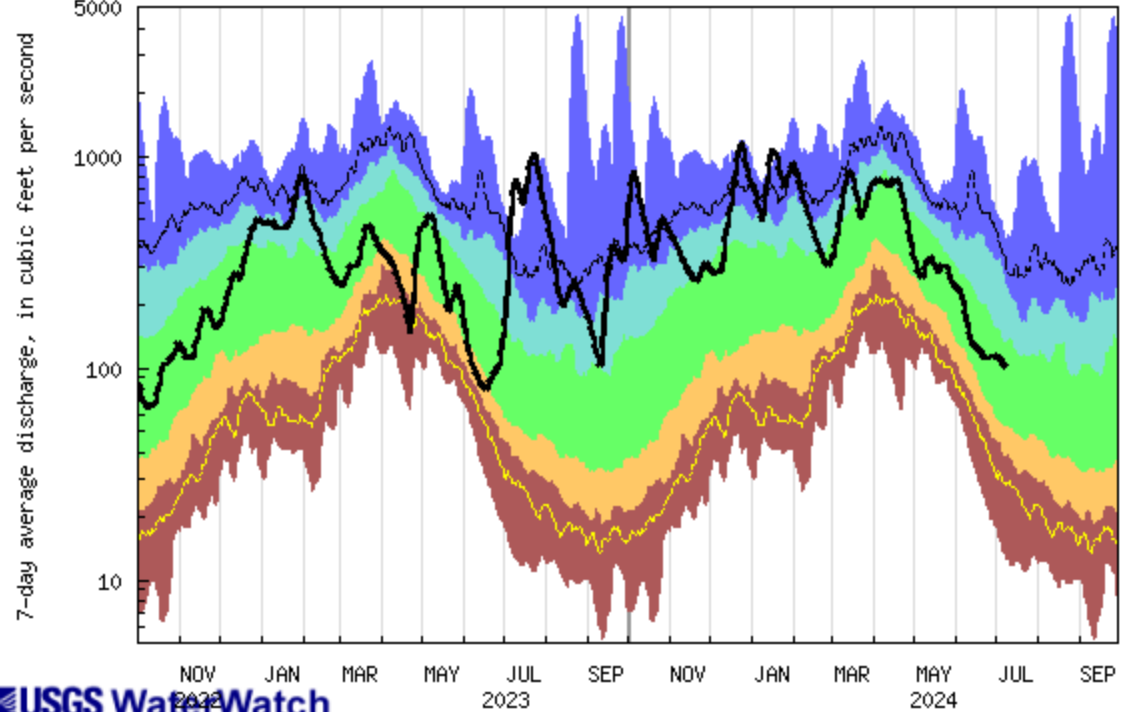
USGS 01094400 NORTH NASHUA RIVER AT FITCHBURG, MA
(Drainage area: 64.2 square miles, length of record: 50 - 50 years)



USGS WaterWatch

Last updated: 2024-07-09

USGS 01176000 QUABOAG RIVER AT WEST BRIMFIELD, MA
(Drainage area: 150 square miles, length of record: 109 - 110 years)



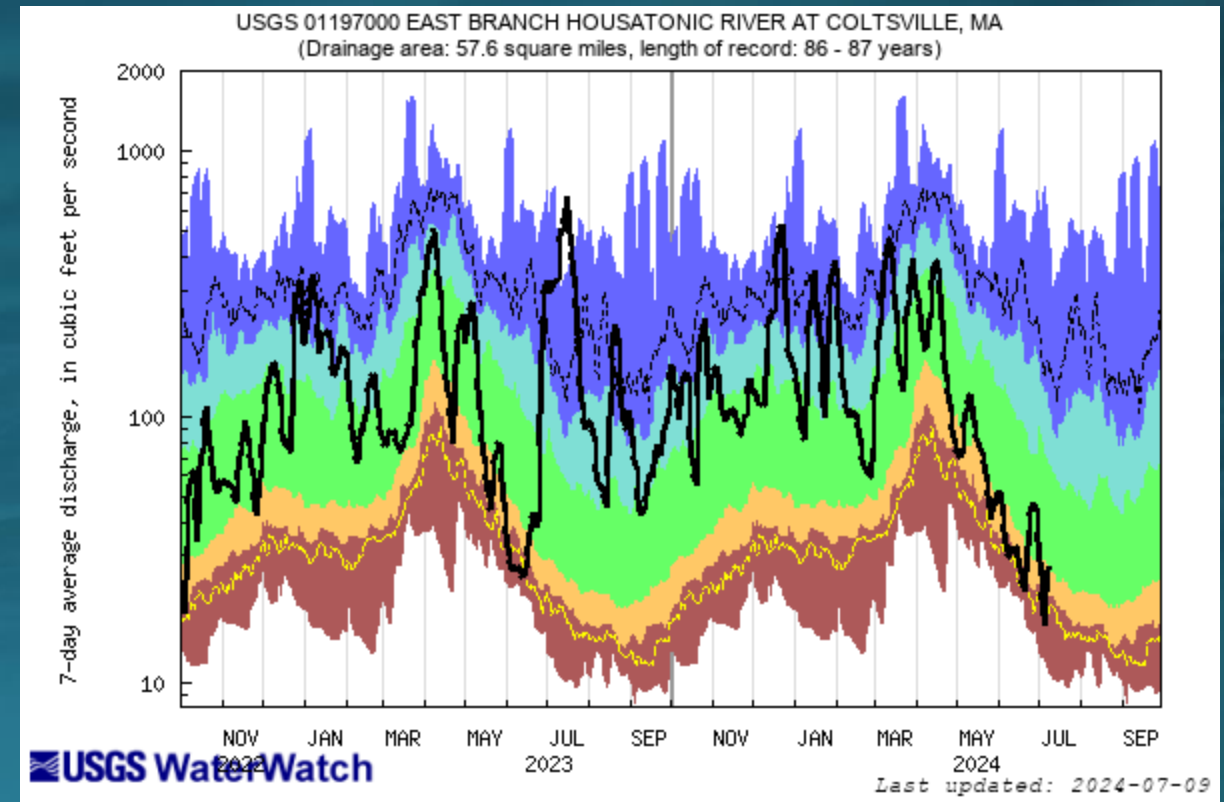
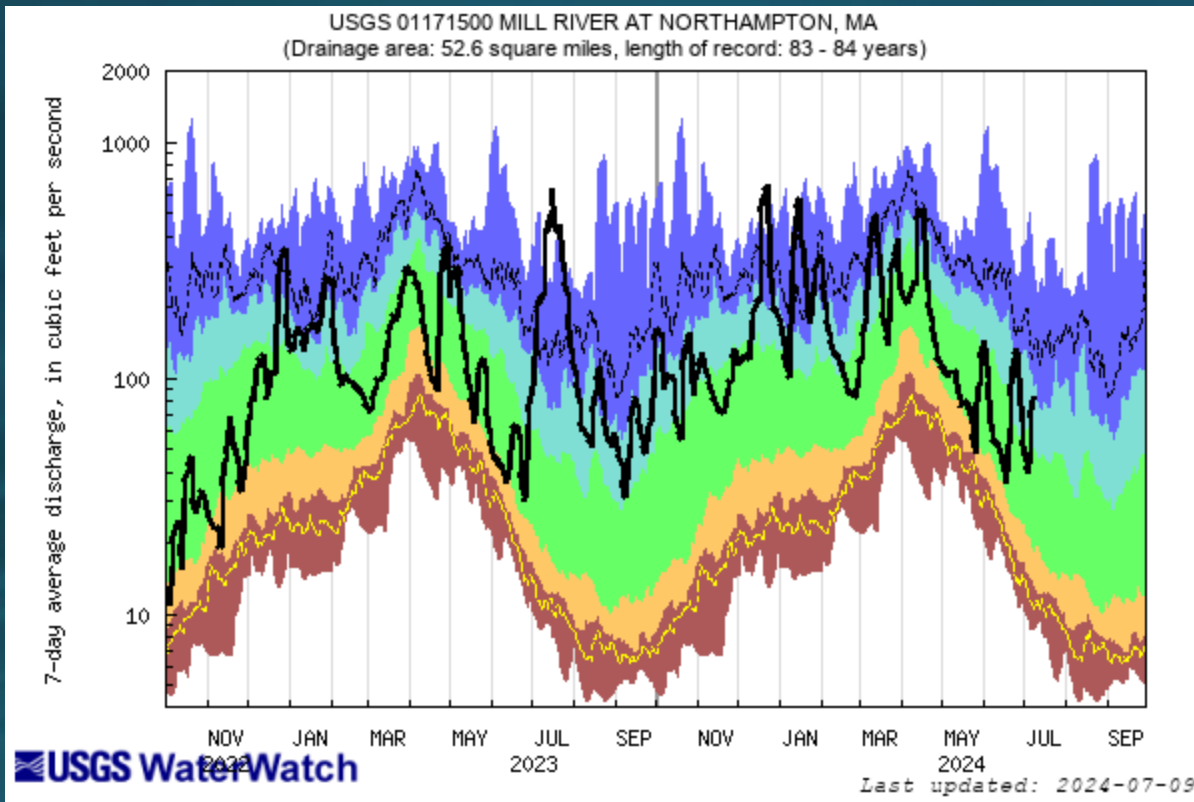
USGS WaterWatch

Last updated: 2024-07-09

Explanation - Percentile classes

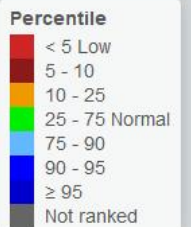
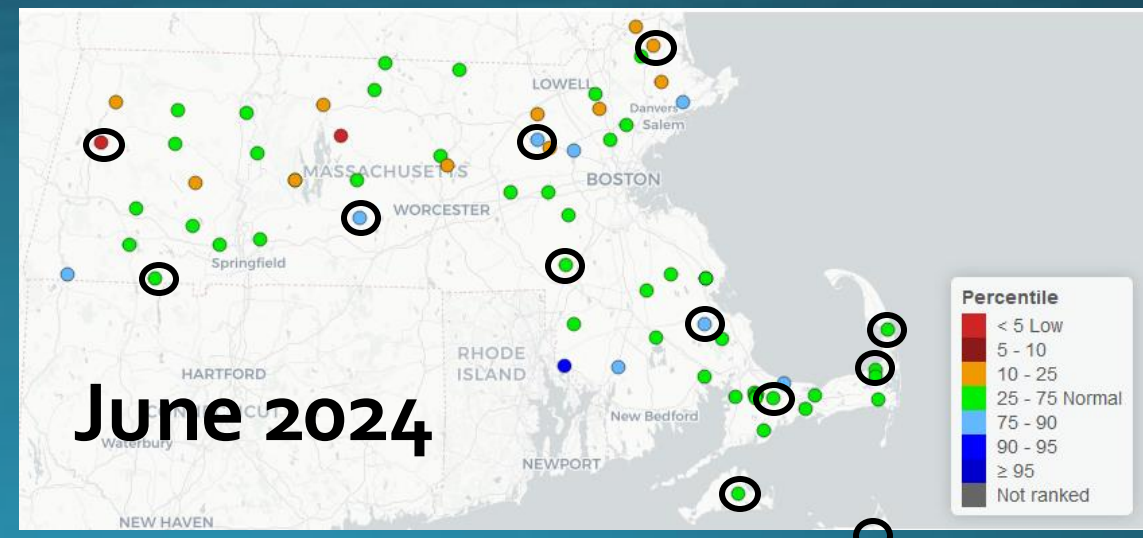
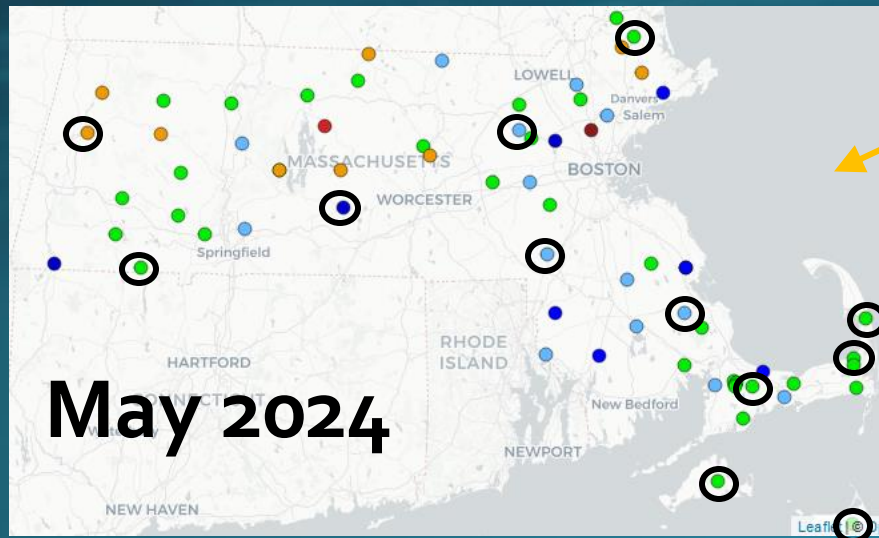
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lowest-10th percentile	5	10-24	25-75	76-90	95	90th percentile-highest	Runoff
	Much below Normal	Below normal	Normal	Above normal	Much above normal		

Connecticut Valley and Western Regions

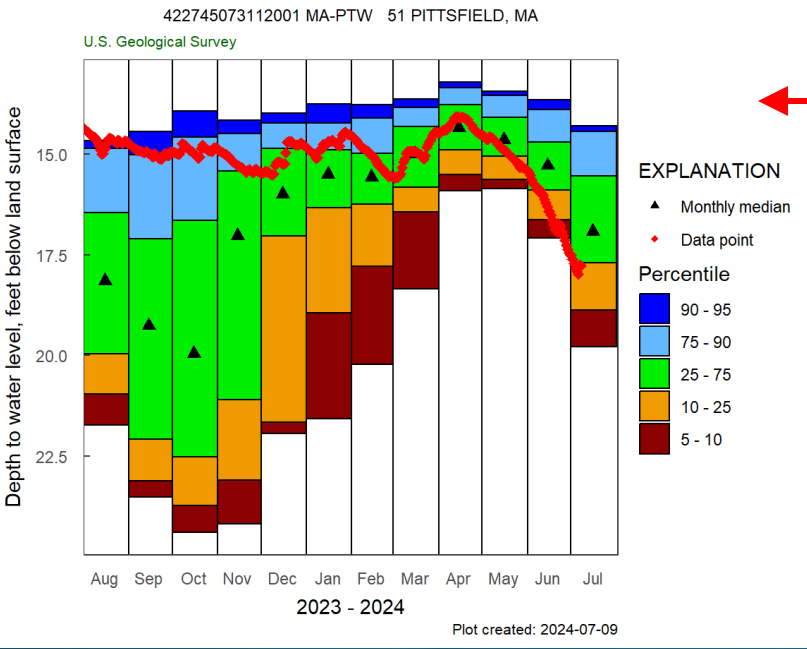
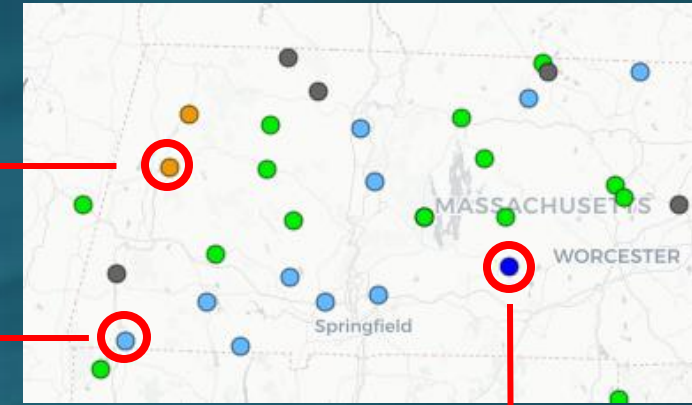


Explanation - Percentile classes						
lowest-10th percentile	5	10-24	25-75	76-90	95	90th percentile -highest
Much below Normal	Below normal	Normal	Above normal	Much above normal		Runoff

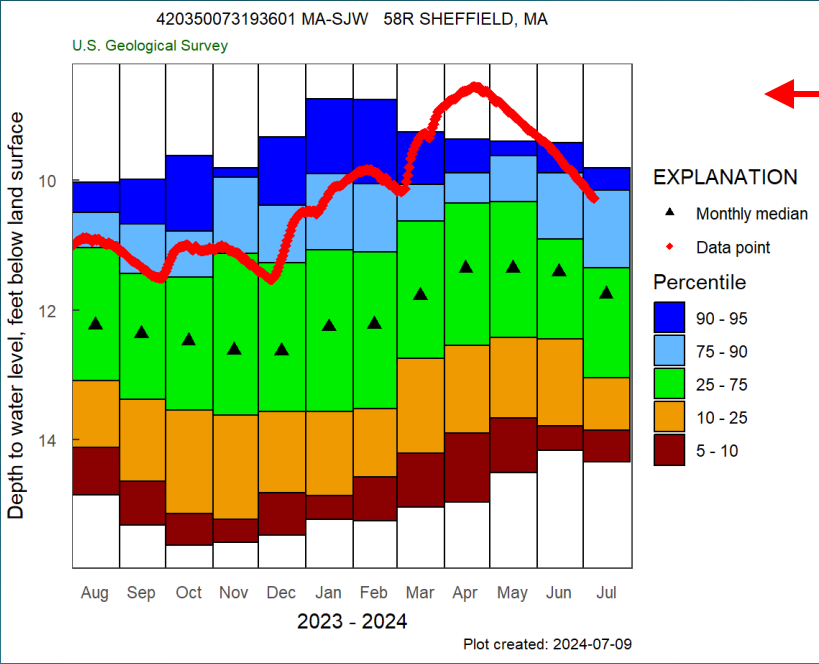
Groundwater Conditions – End of Month



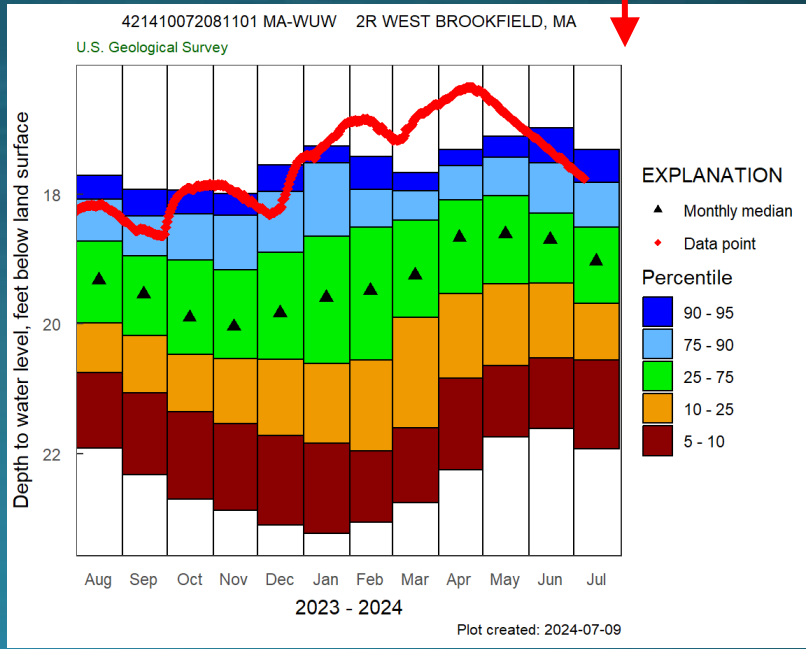
GW - Central, CT Valley, and Western Regions



Period of Record: 60 yrs; Cont. 39 yrs



Period of Record: 37 yrs;
continuous 5 yrs



Period of Record: 64 yrs; Cont. 6 yrs

Summary of Conditions

- Streamflow conditions have generally moved from above normal to normal over the last 3 months across Massachusetts, with the Cape and Islands still a little above normal by the end of June and parts of the Hoosic, Housatonic, and Connecticut River basins a little below normal in May and June.
- By late June, GW levels were normal to above normal statewide at USGS-monitored continuous wells, except for wells in the upper Hoosic and Housatonic basins, which were a little below normal.