

Streamflow and Groundwater Conditions in Massachusetts

Massachusetts Drought Task Force Meeting

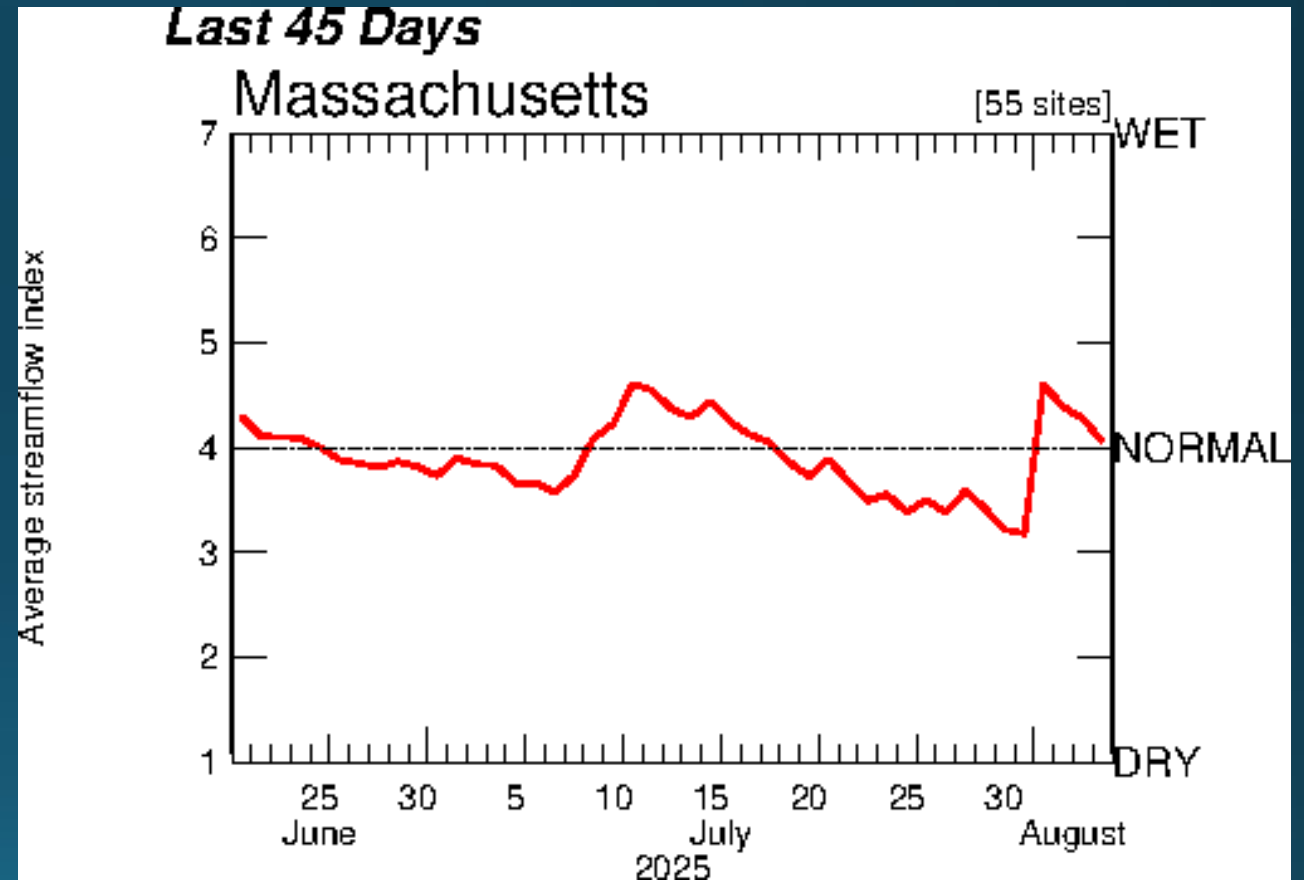
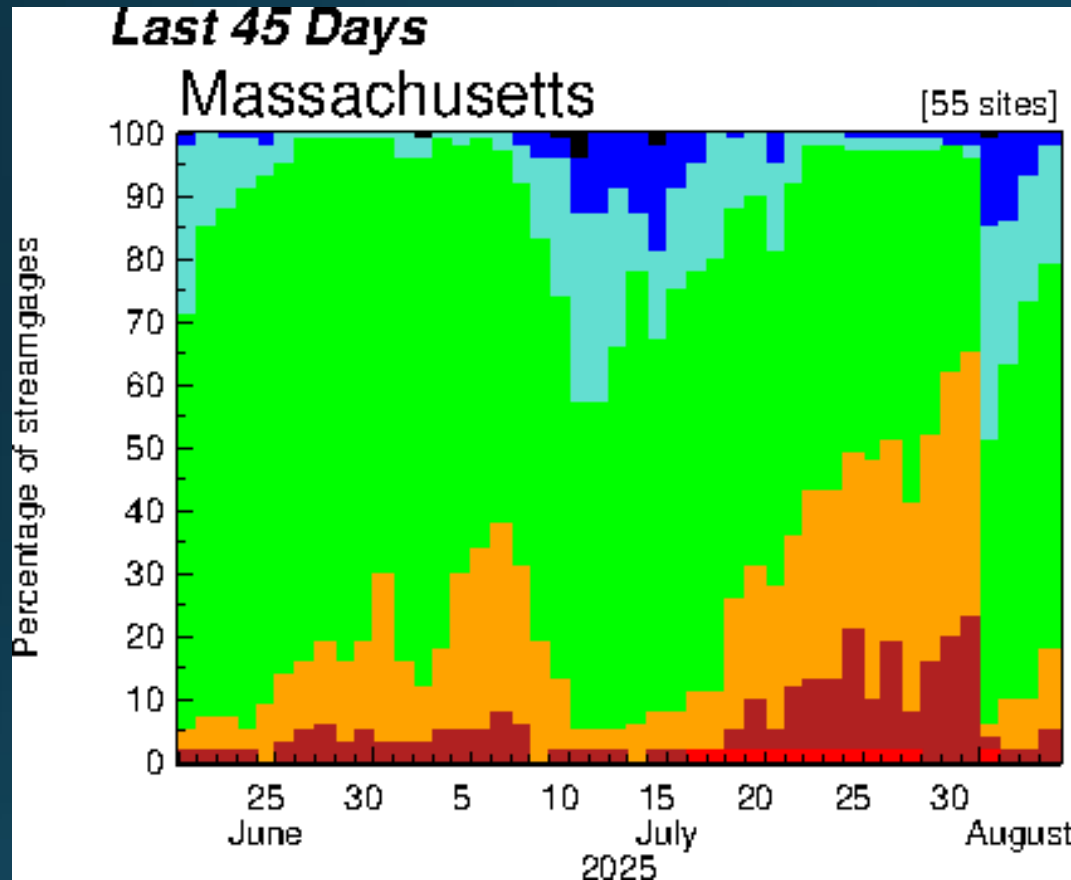
August 6, 2025

U.S. Geological Survey
New England Water Science Center

Brian Loving

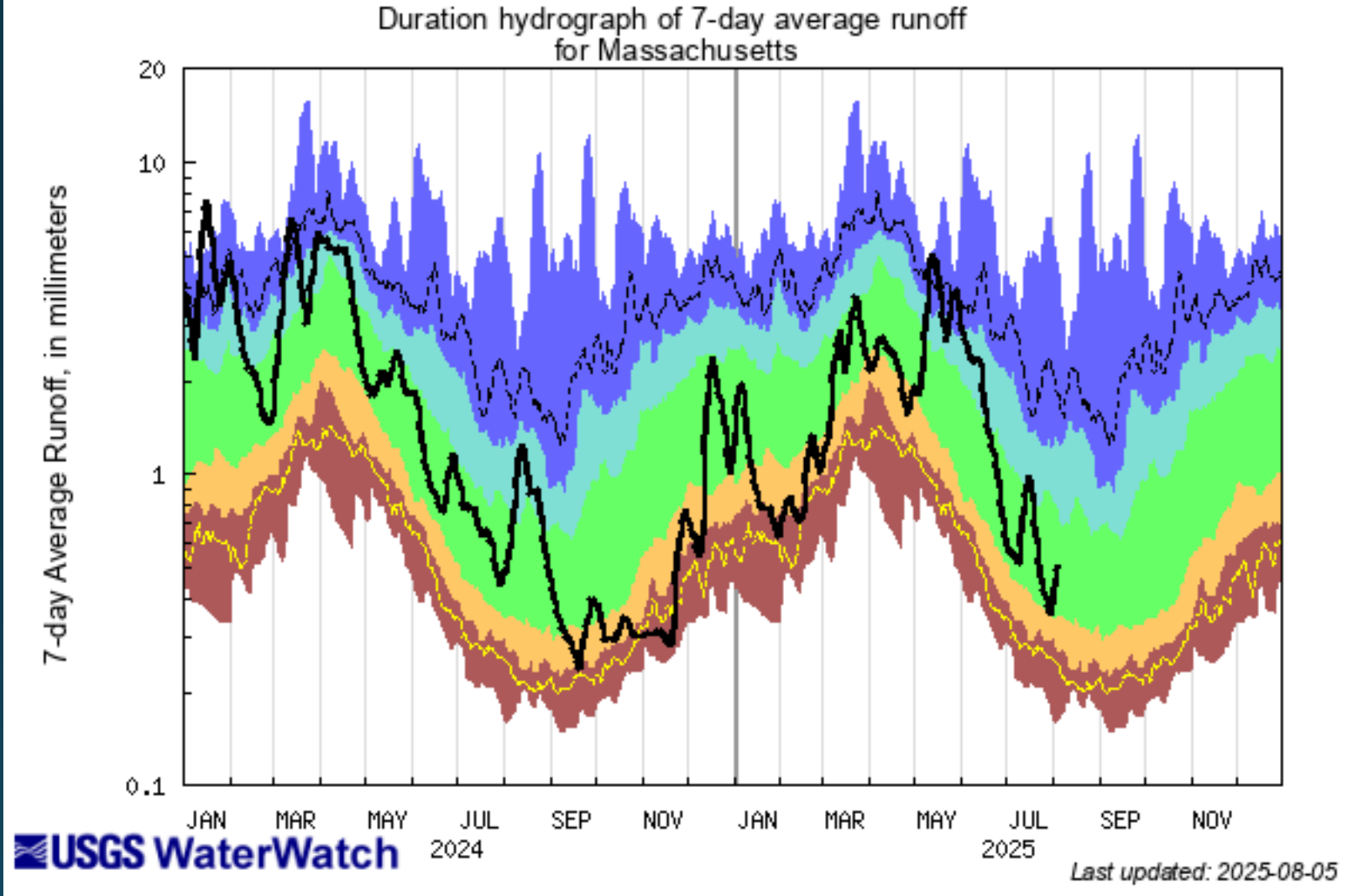


Streamflow Conditions – last 45 days



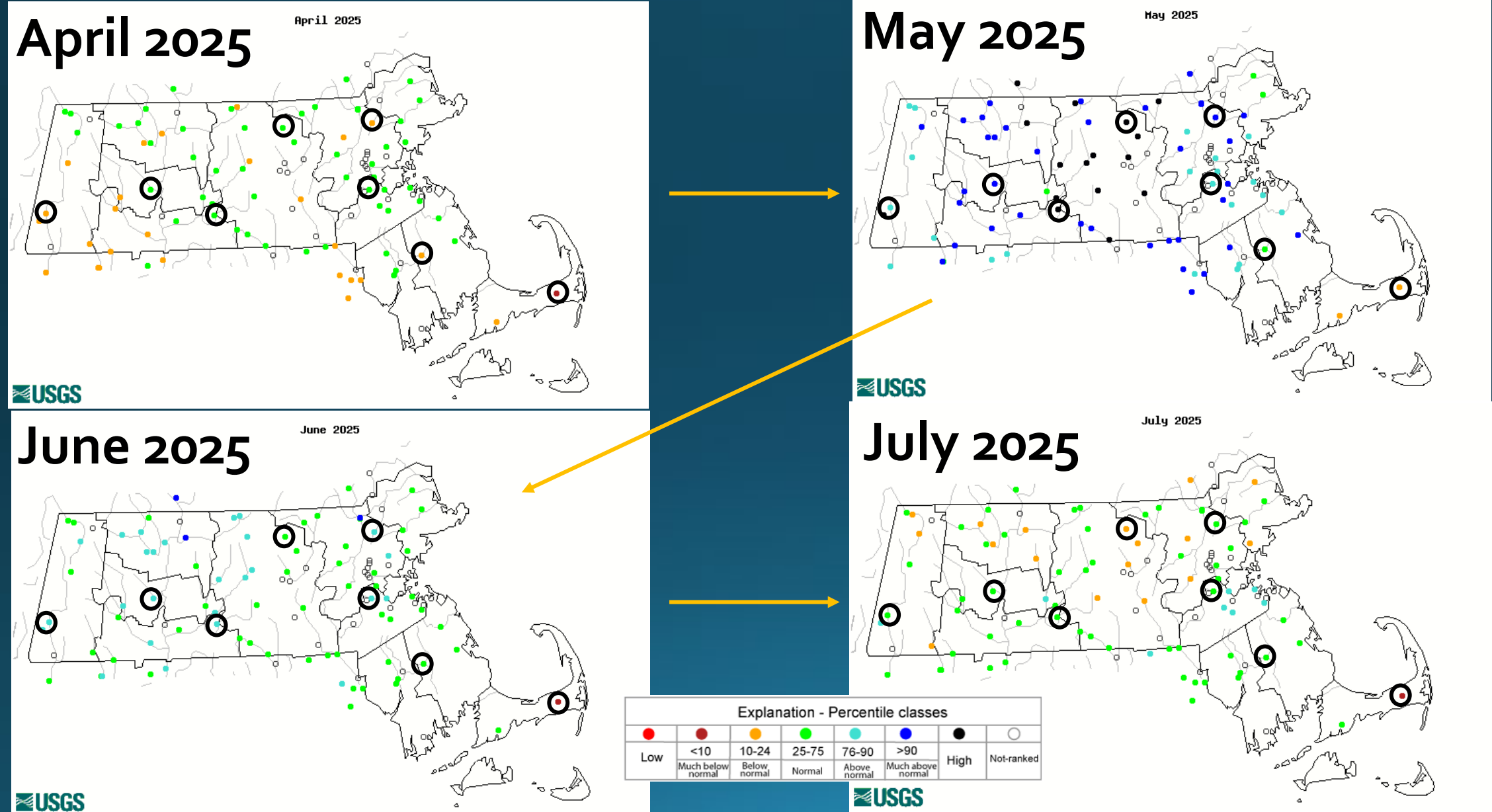
| Explanation - Percentile classes | | | | | | | |
|----------------------------------|-------------------|--------------|--------|--------------|-------------------|------|---------|
| Low | <10 | 10-24 | 25-75 | 76-90 | >90 | High | No Data |
| | Much below normal | Below normal | Normal | Above normal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

Streamflow Conditions 7-Day Moving Average

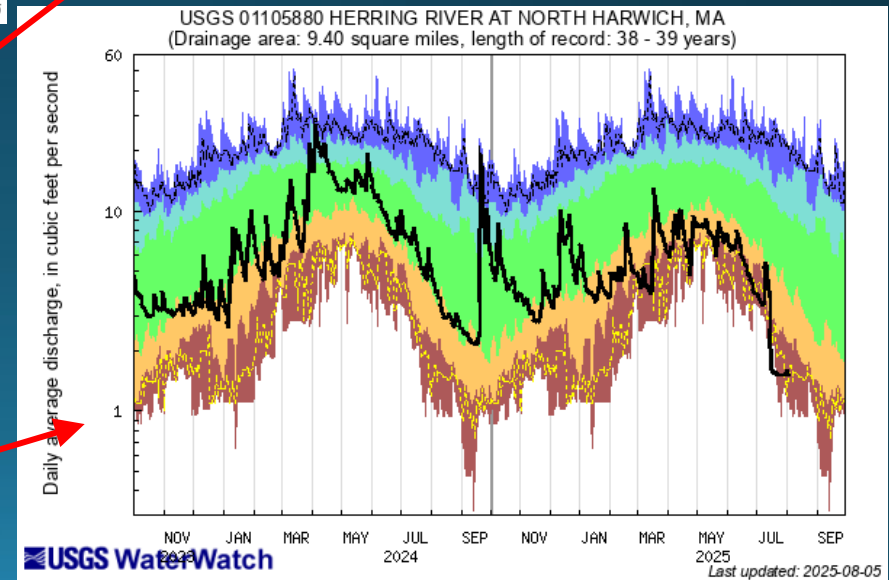
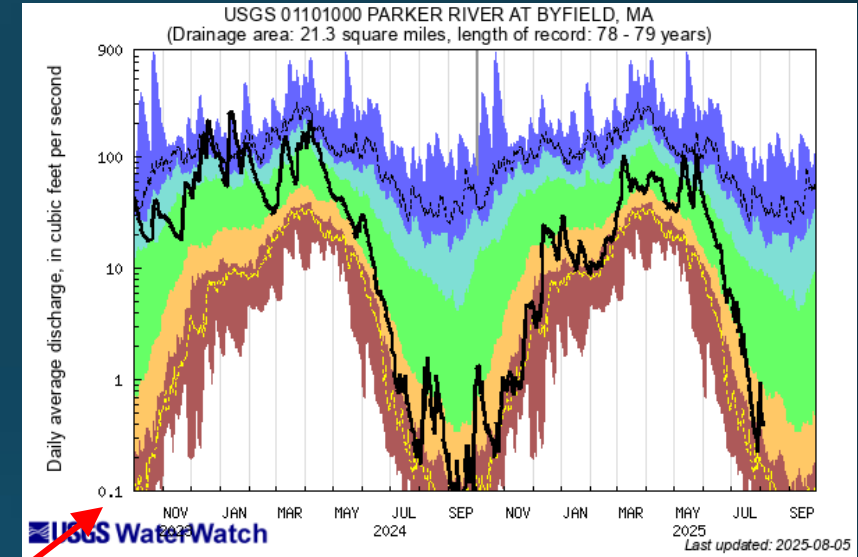
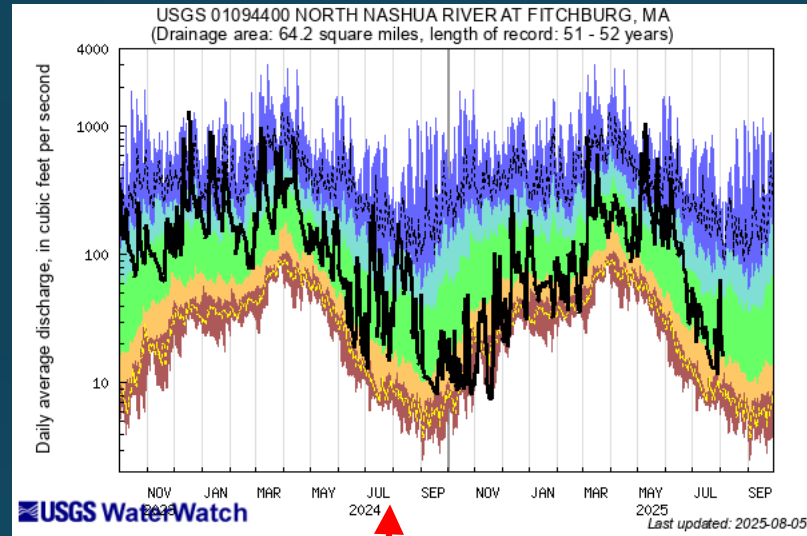
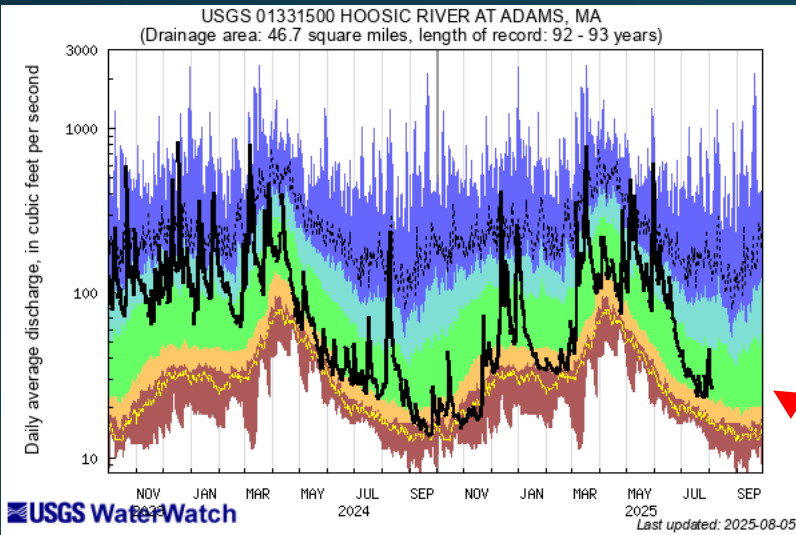


| Explanation - Percentile classes | | | | | | | |
|----------------------------------|--------------|--------|--------------|-------------------|----|--------------------------|--------|
| lowest-10th percentile | 5 | 10-24 | 25-75 | 76-90 | 95 | 90th percentile -highest | Runoff |
| Much below Normal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

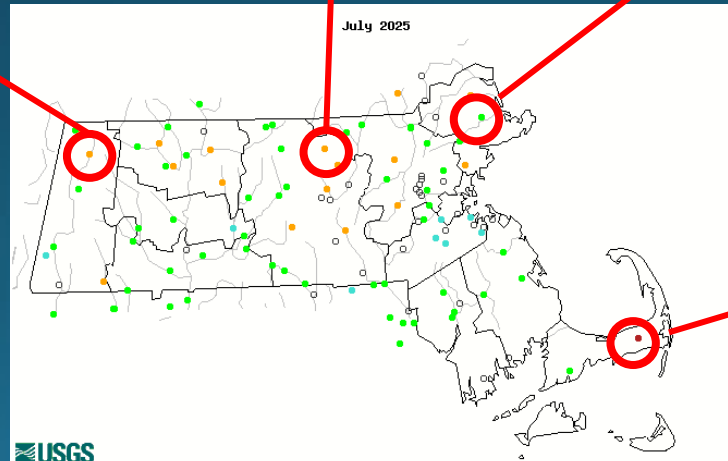
Streamflow Conditions – Monthly Average



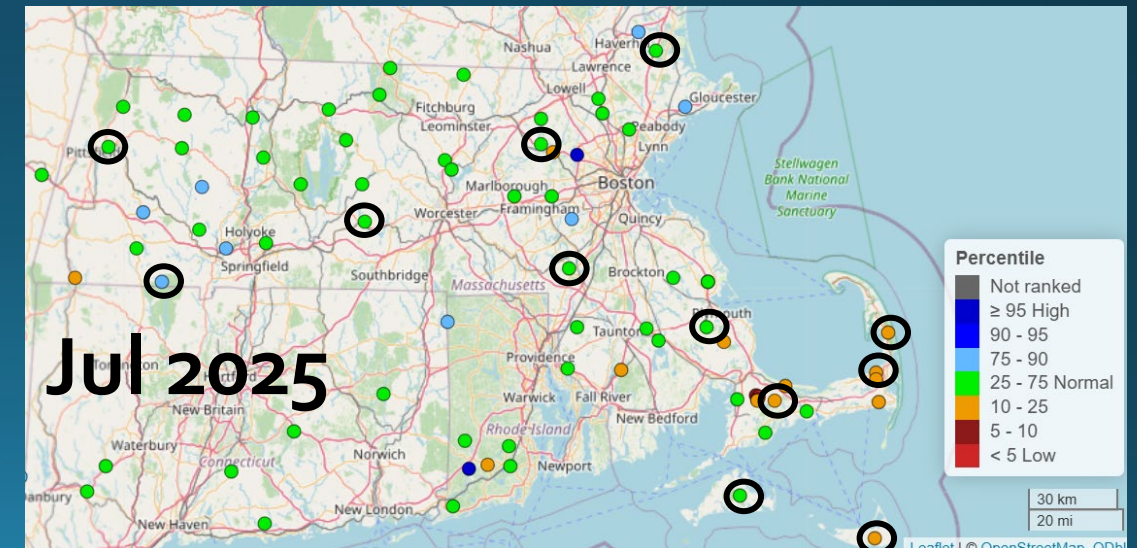
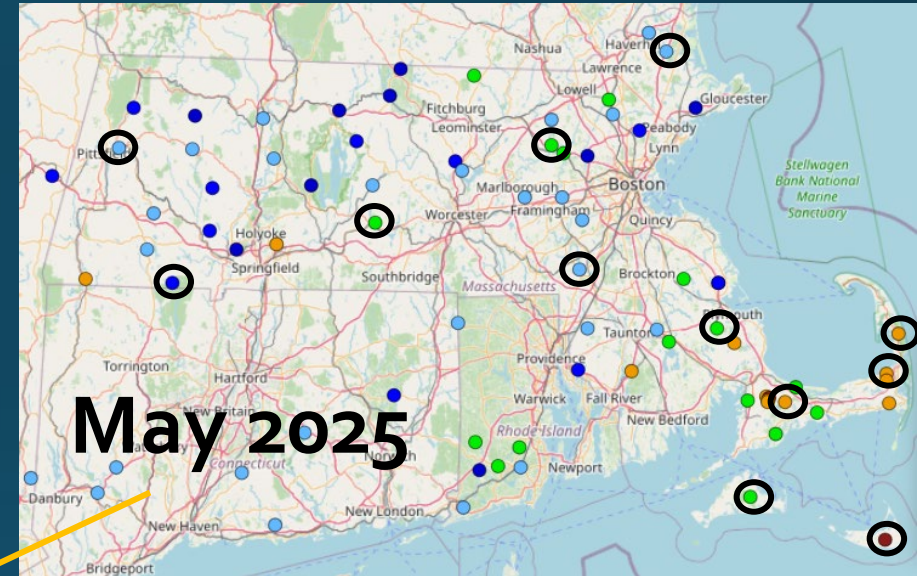
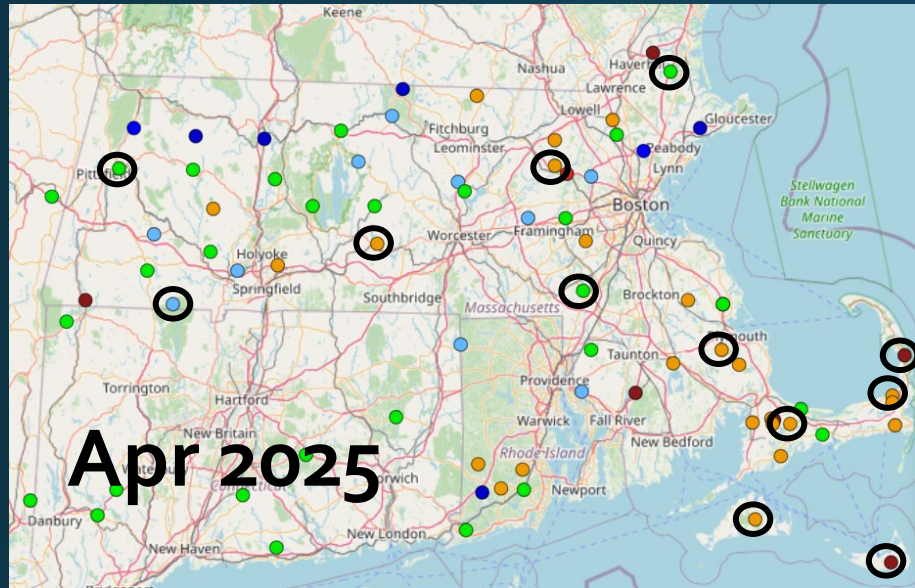
SW Conditions 7-Day Average



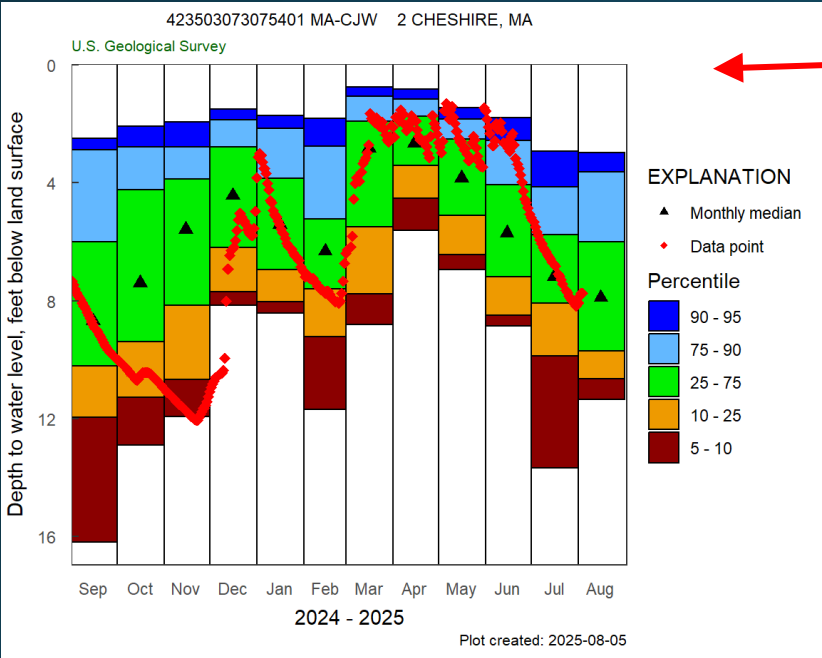
| Explanation - Percentile classes | | | | | | Runoff |
|----------------------------------|--------------|--------|--------------|-------------------|----|--------|
| | | | | | | |
| lowest-10th percentile | 5 | 10-24 | 25-75 | 76-90 | 95 | |
| Much below Normal | Below normal | Normal | Above normal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



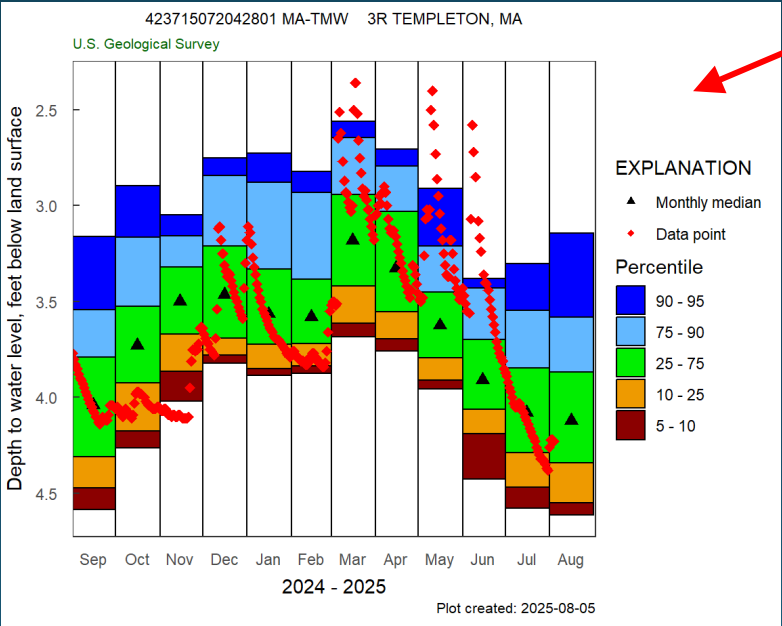
Groundwater Conditions –End of Month



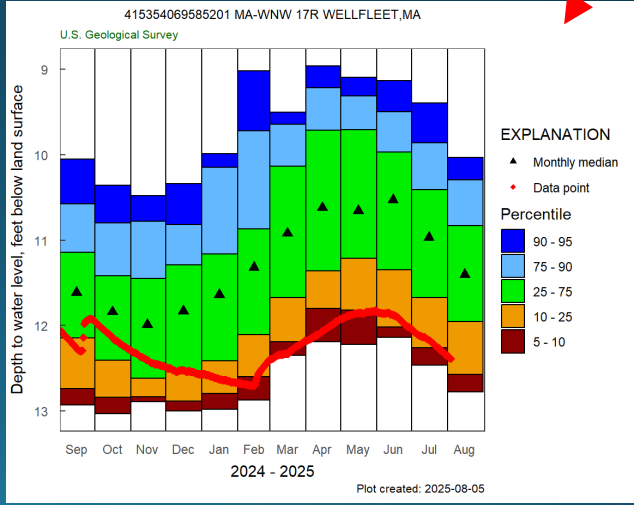
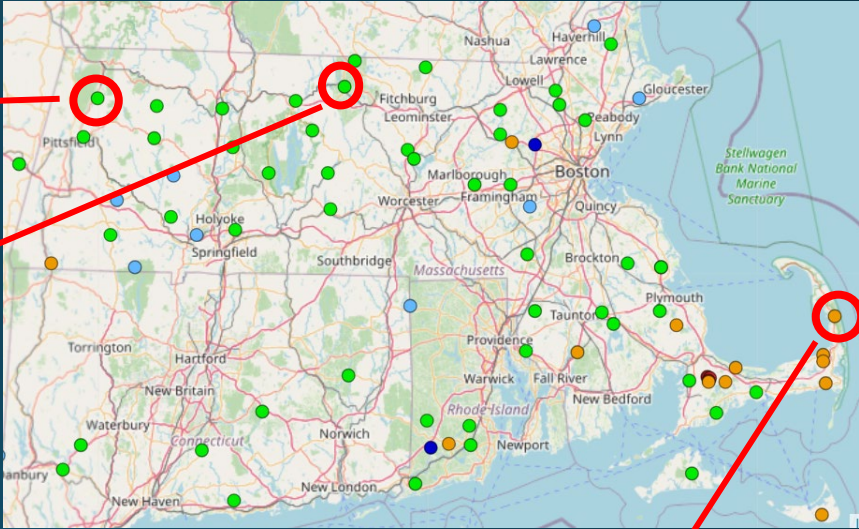
Groundwater Conditions – Specific Wells



Period of Record: 70 yrs; Cont. 0.6 yrs



Period of Record: 66 yrs; Cont. 5 yrs



Period of Record: 62 yrs; Cont. 6 yrs

Summary of Conditions

- Normal streamflow conditions in mid July trended towards below normal by month's end, with the Cape continuing to have the lowest flow percentiles. Streams in the mainland portion of the state were more likely to be below normal in the north than in the south.
- Groundwater conditions in July were very similar to what they were in June at most wells, with below normal levels in the Cape and Islands and normal conditions elsewhere.