



Streamflow and Groundwater Conditions in Massachusetts

January 09, 2023

Chris Bruet

Jason Pollender

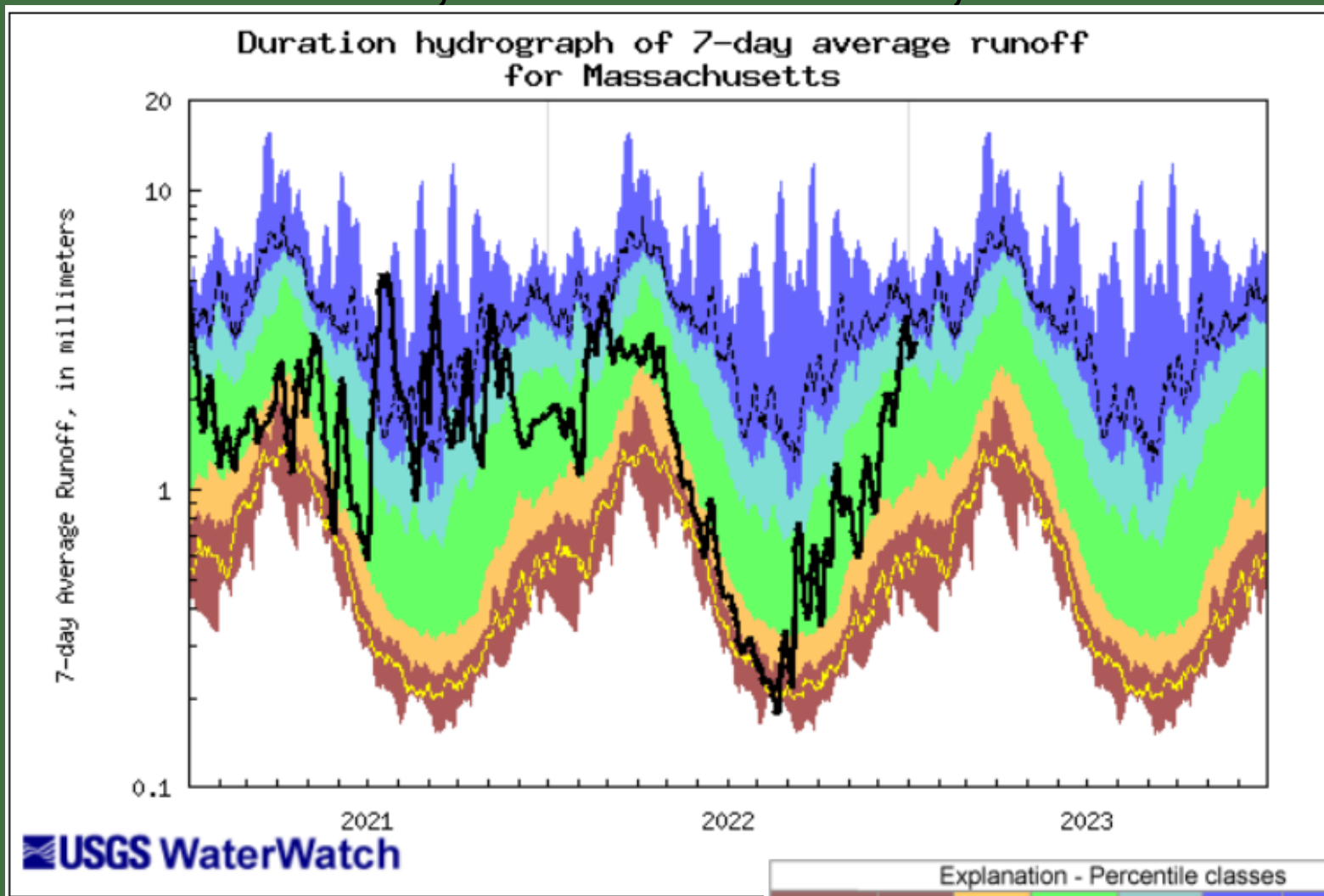
U.S. Geological Survey

New England Water Science Center



7-Day Average Runoff

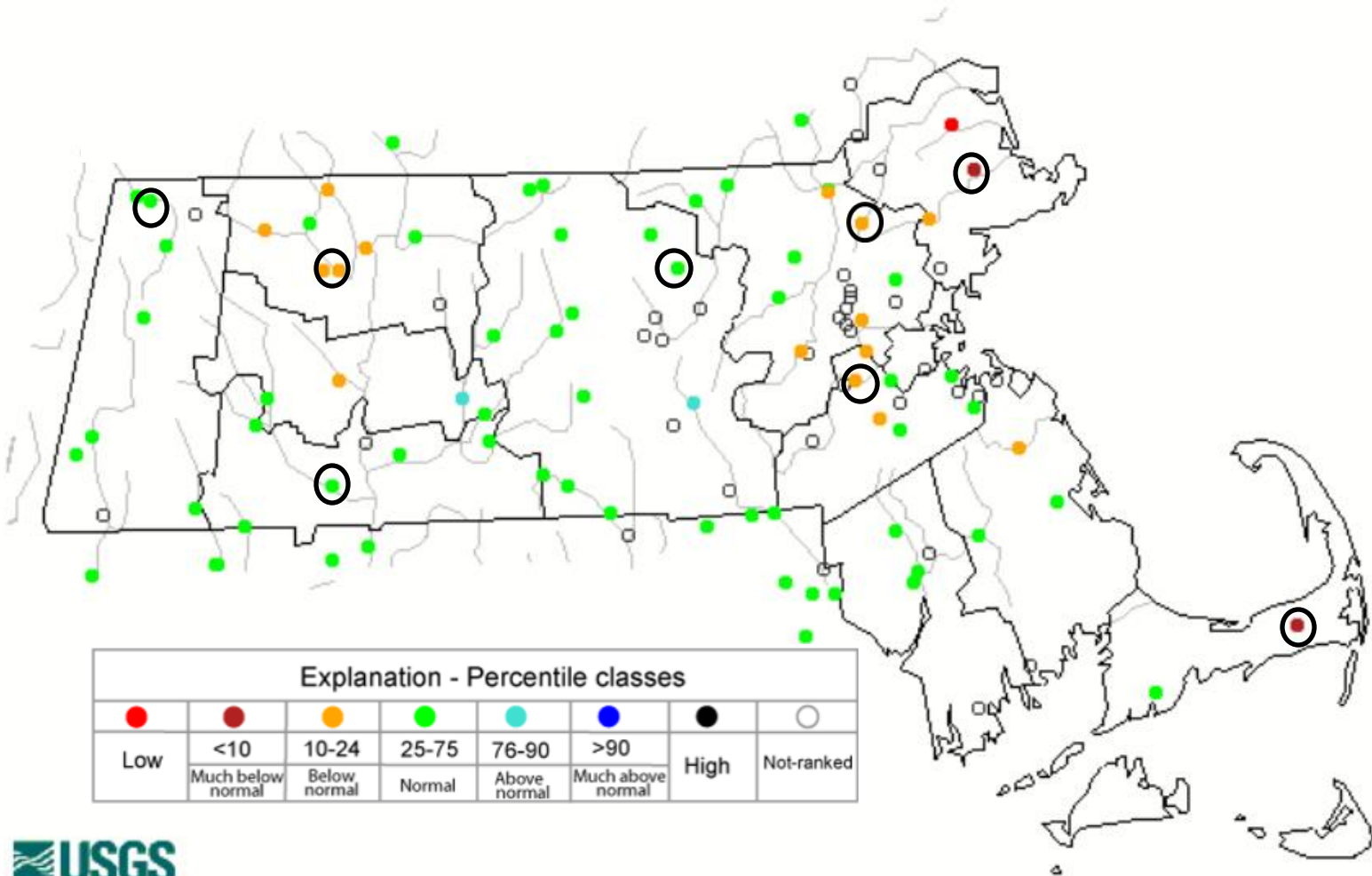
Jan. 01, 2021 - Dec. 31, 2023



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			

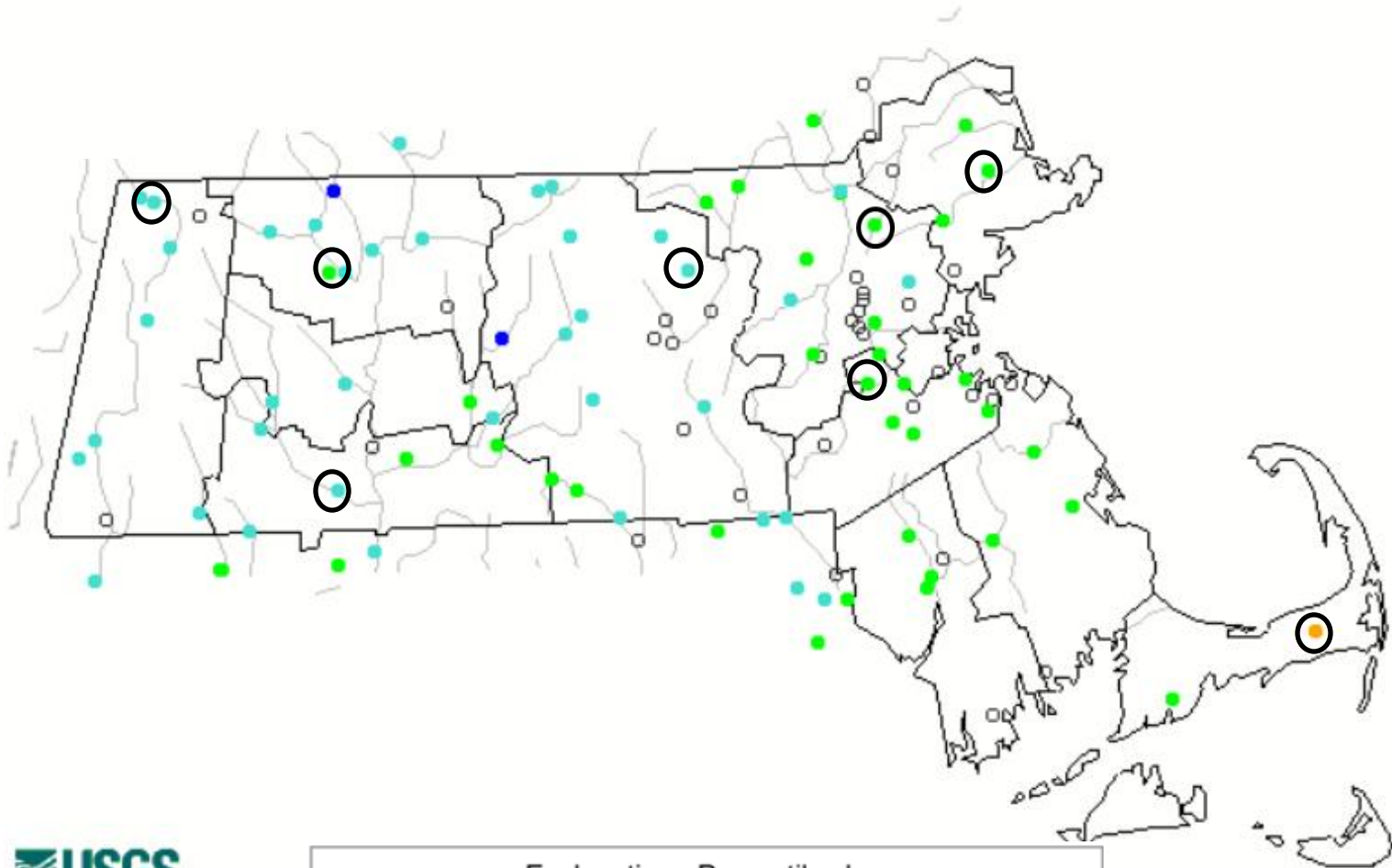
Monthly Average Streamflow - November

November 2022



Monthly Average Streamflow - December

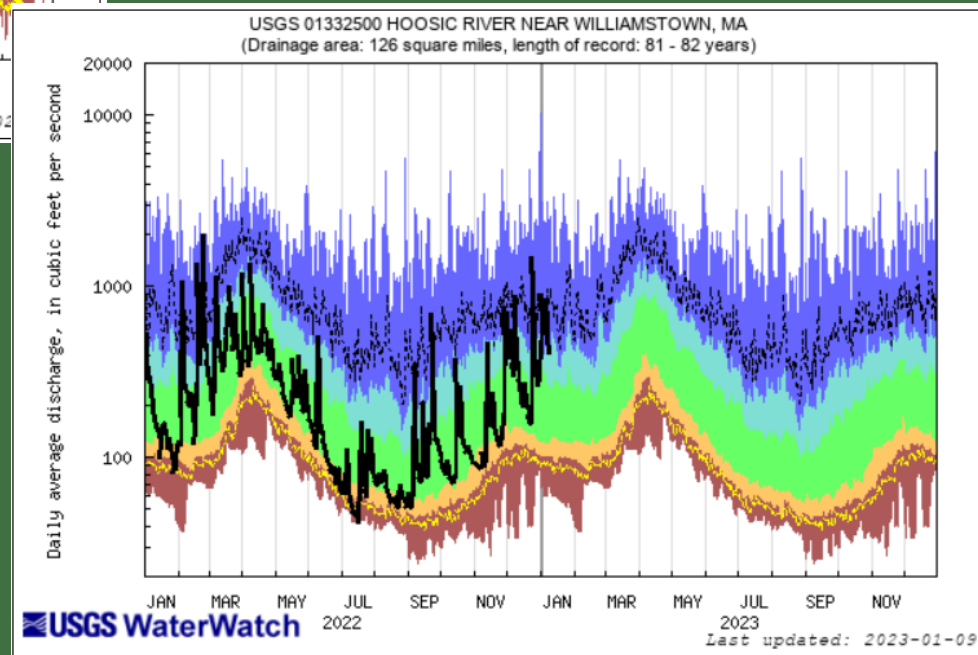
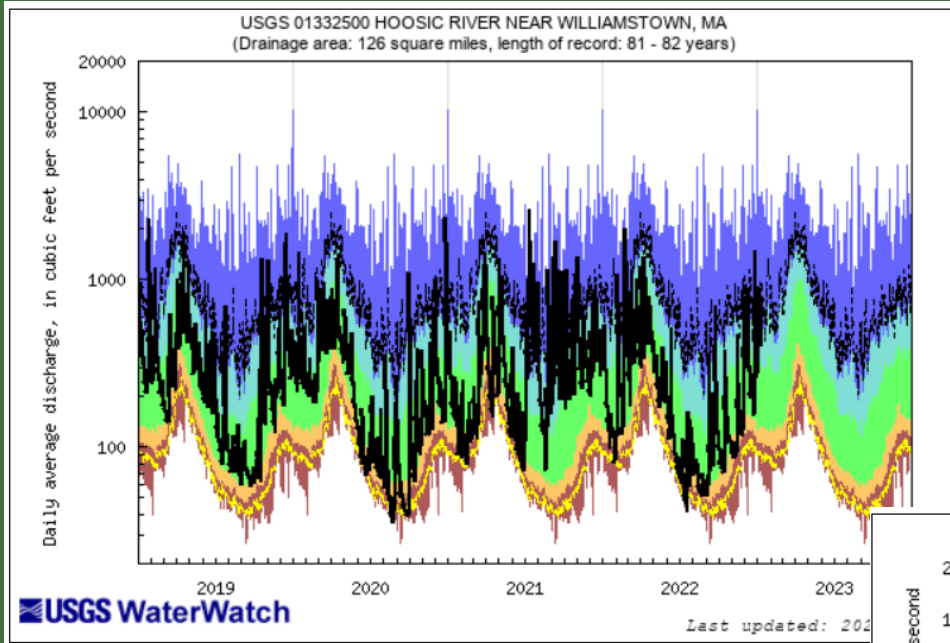
December 2022



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		

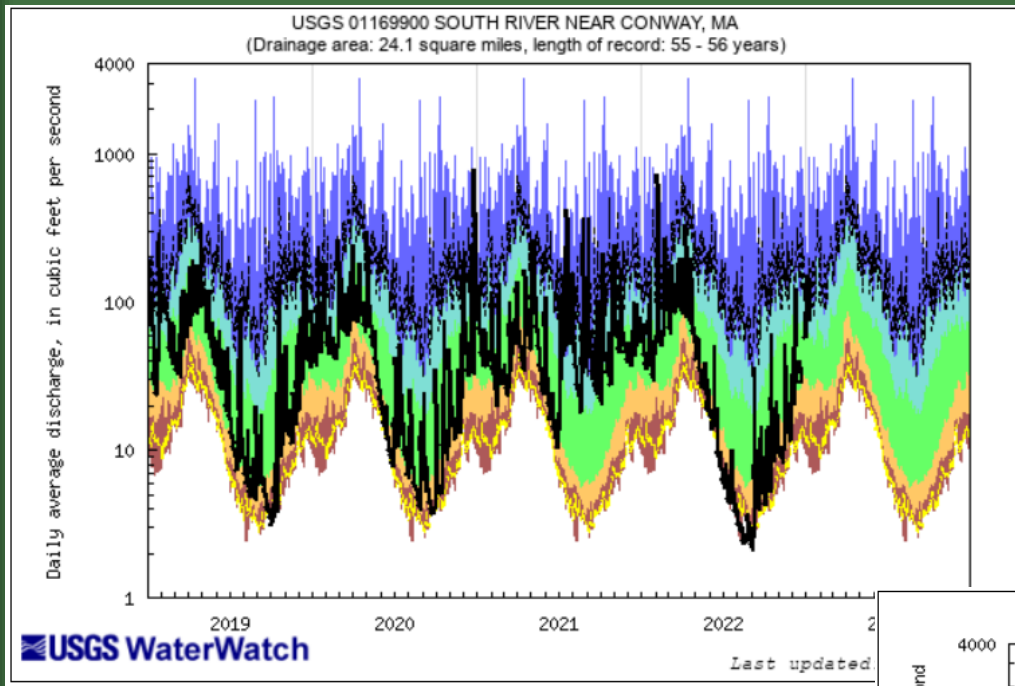
Daily Avg. –Hoosic River– Western MA

(NWS River Forecast Station)



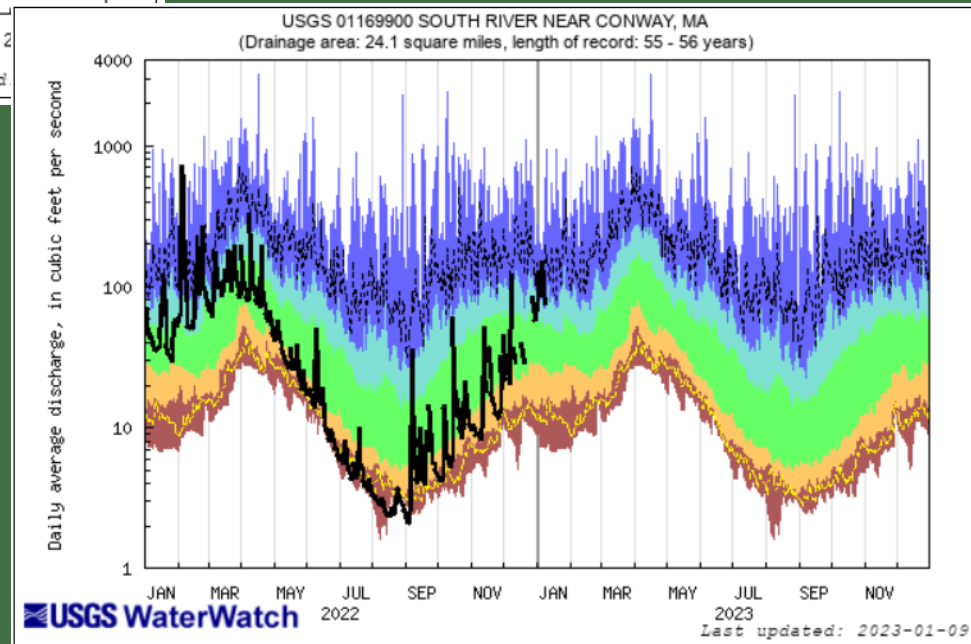
Explanation - Percentile classes						
lowest-10th percentile	5	10-24	25-75	76-90	95	90th percentile -highest
Much below Normal	Below normal	Normal	Above normal	Much above normal		Flow

Daily Avg. – South River– Western MA



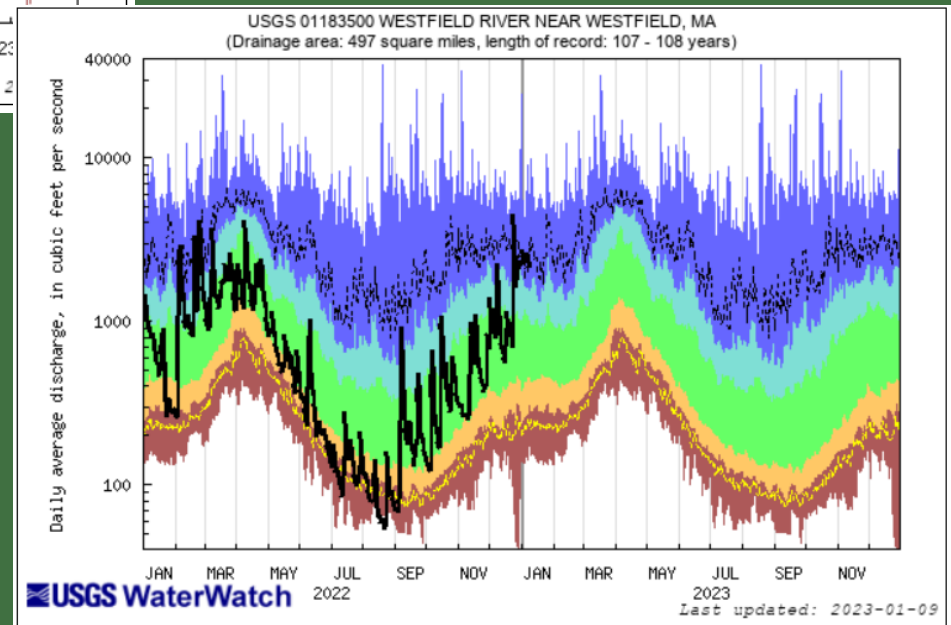
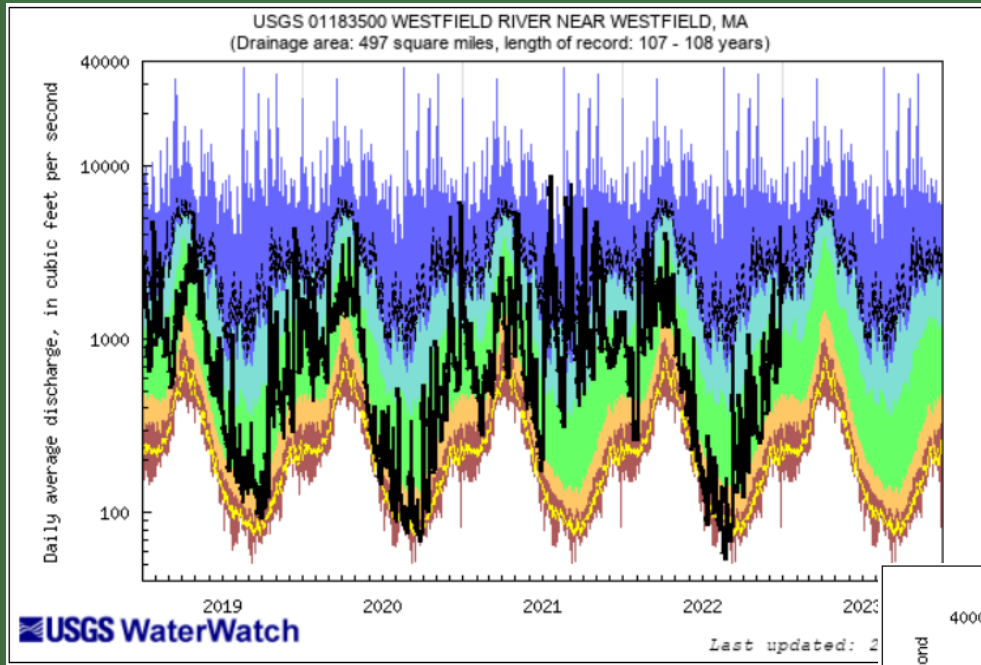
Explanation - Percentile classes

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			



Daily Avg. –Westfield River– Western MA

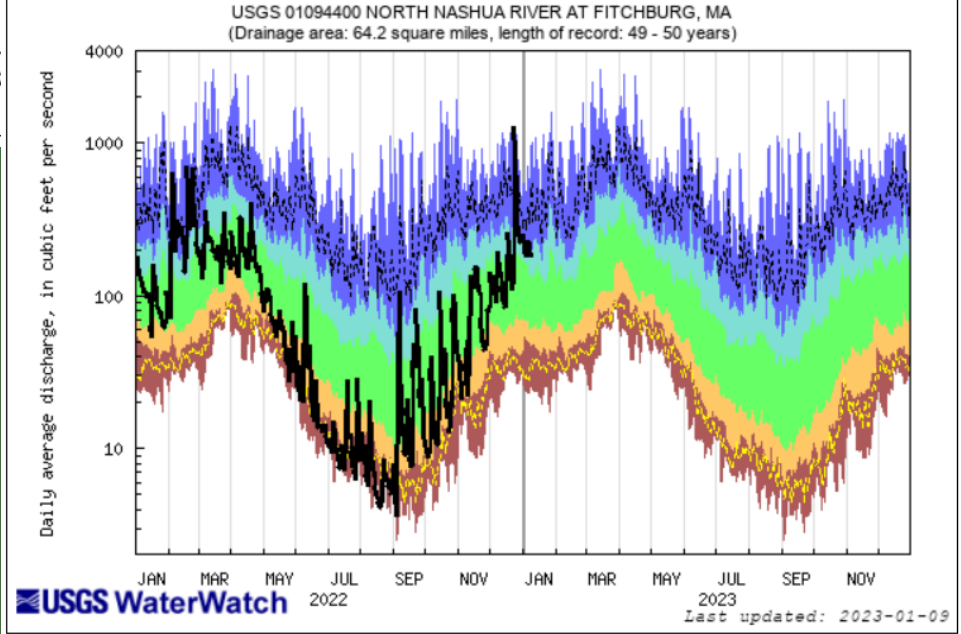
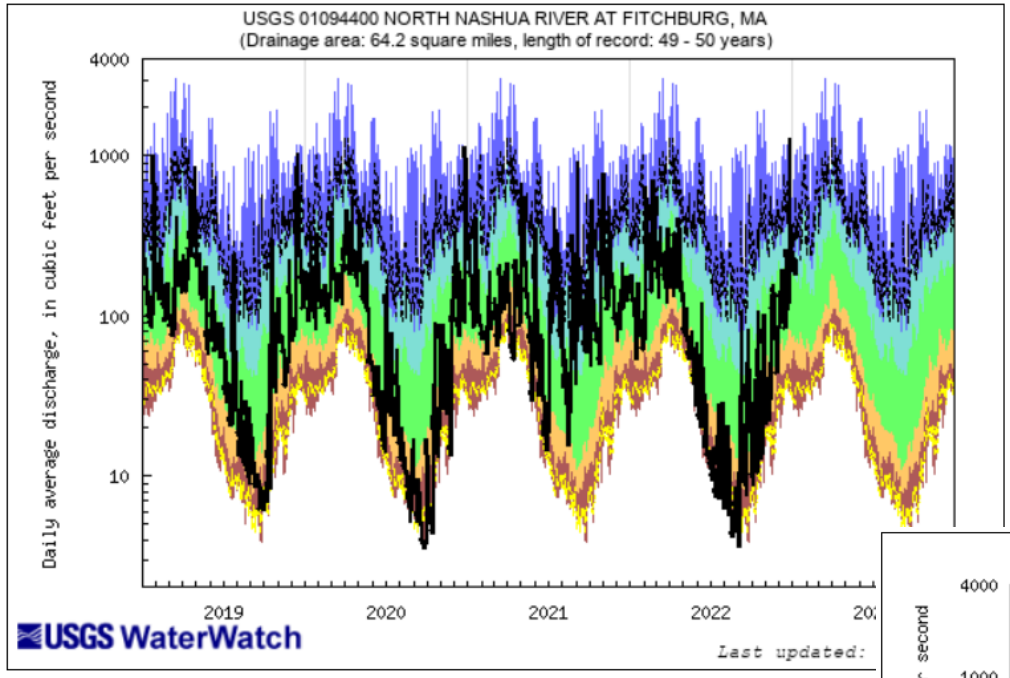
(NWS River Forecast Station)



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

Daily Avg. – N. Nashua River – Northeastern/Central MA

(NWS River Forecast Station)

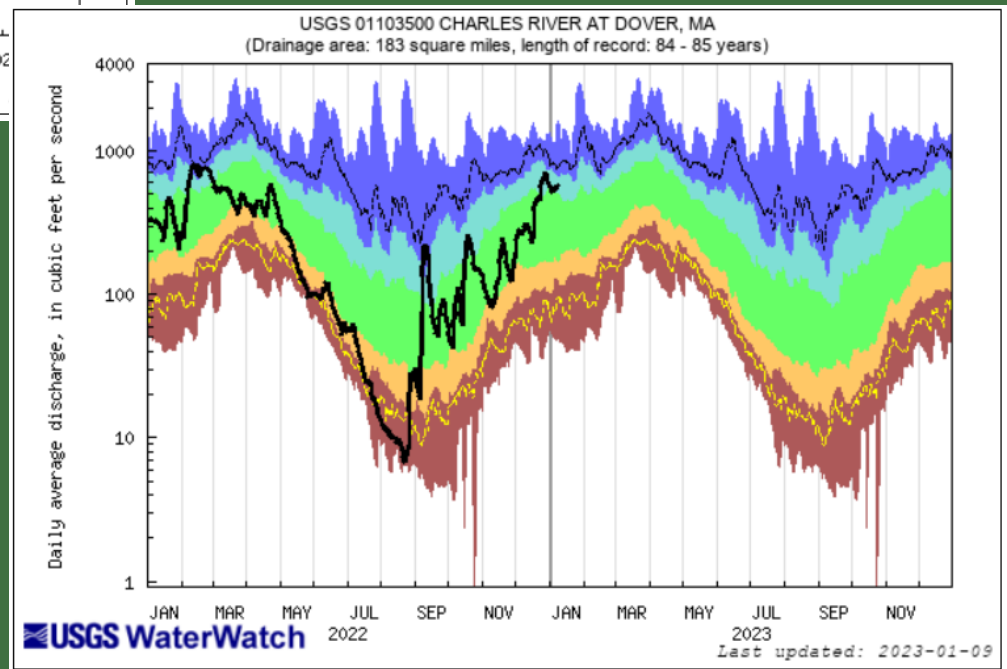
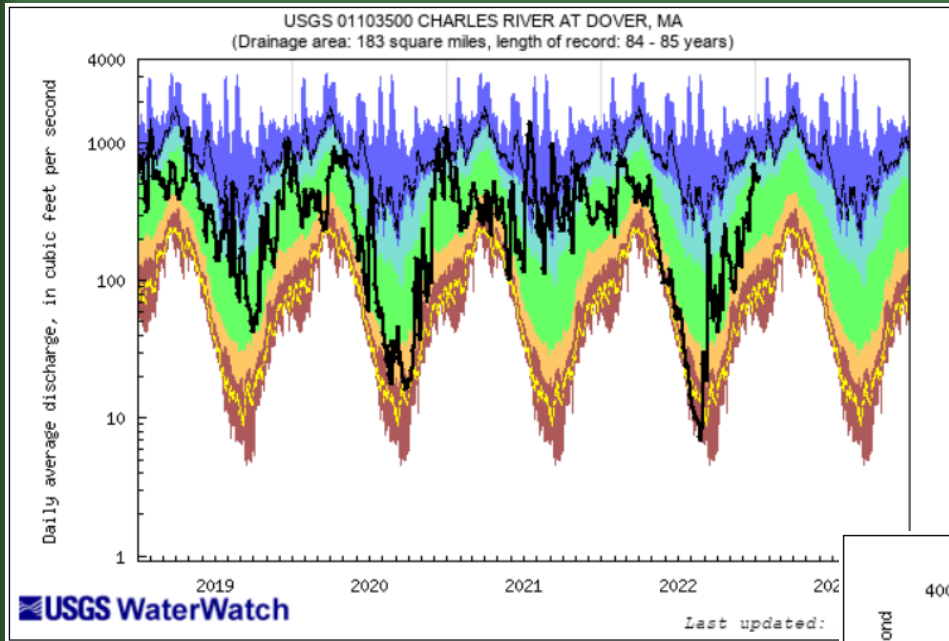


Explanation - Percentile classes

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			

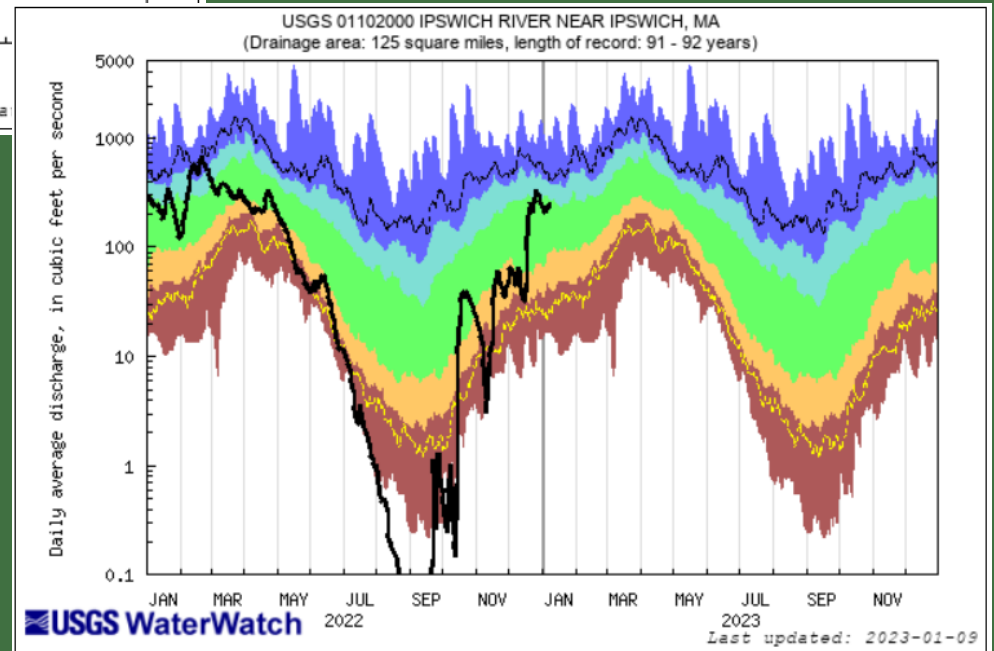
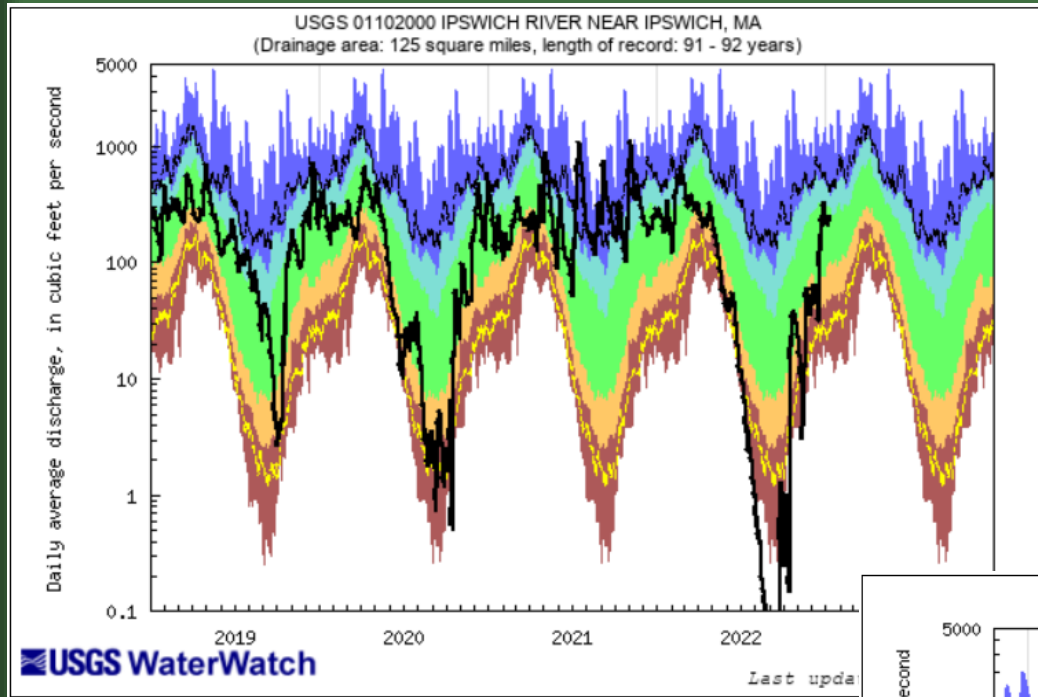
Daily Avg. – Charles River – Eastern MA

(NWS River Forecast Station)









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

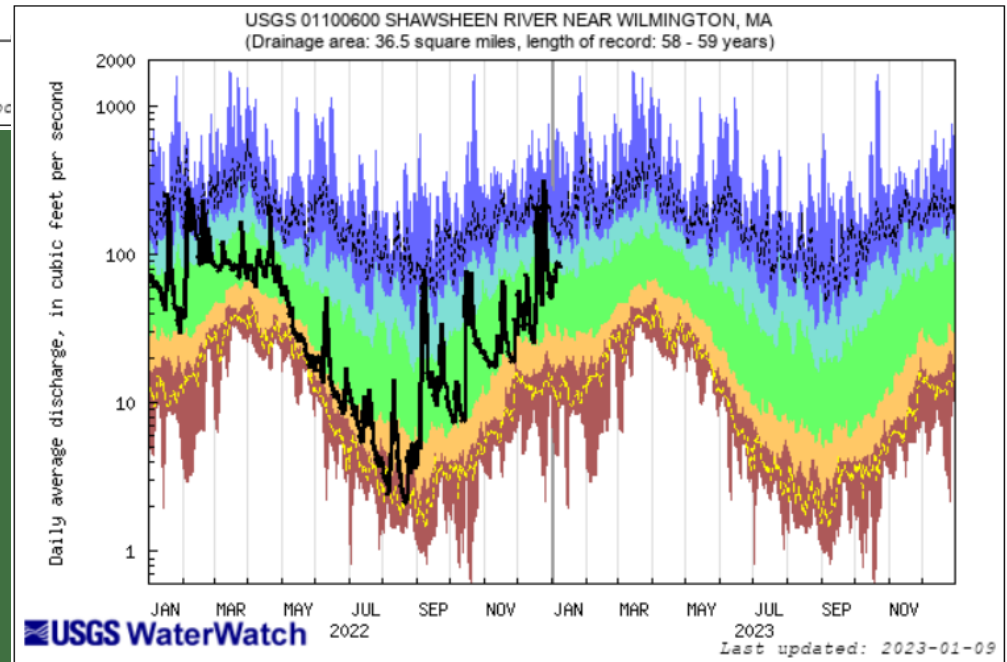
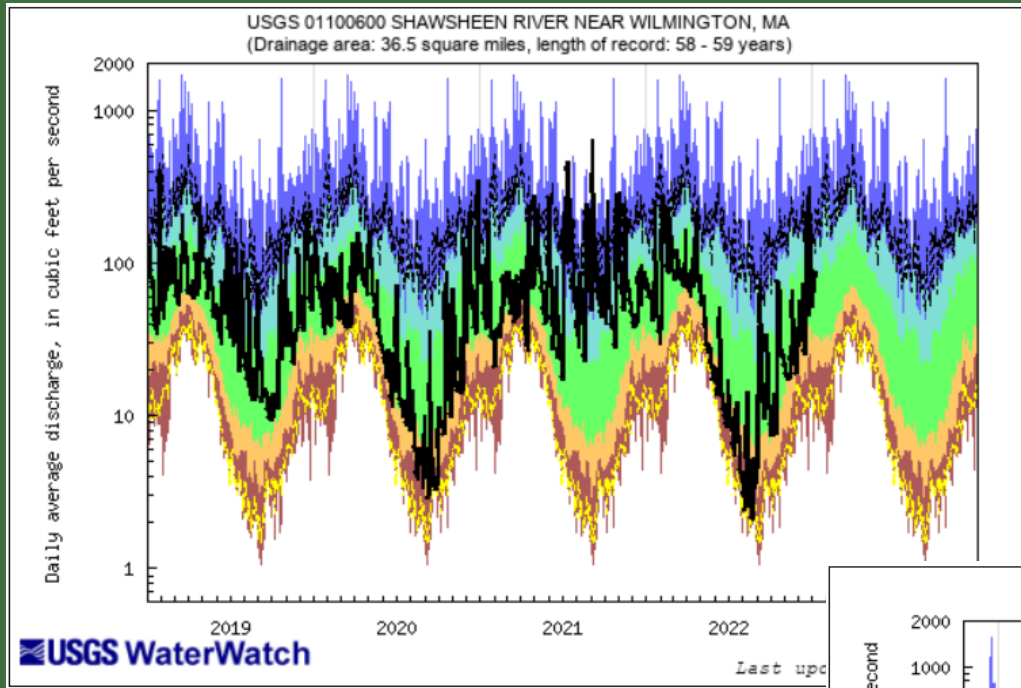
Daily Avg. Ipswich River– Northeastern MA



Explanation - Percentile classes

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

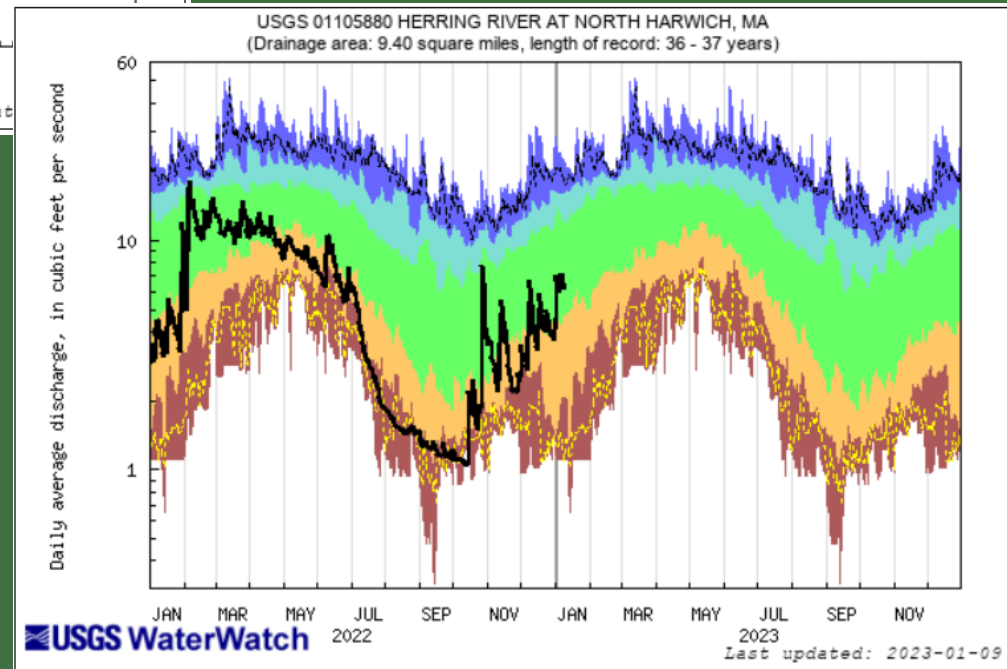
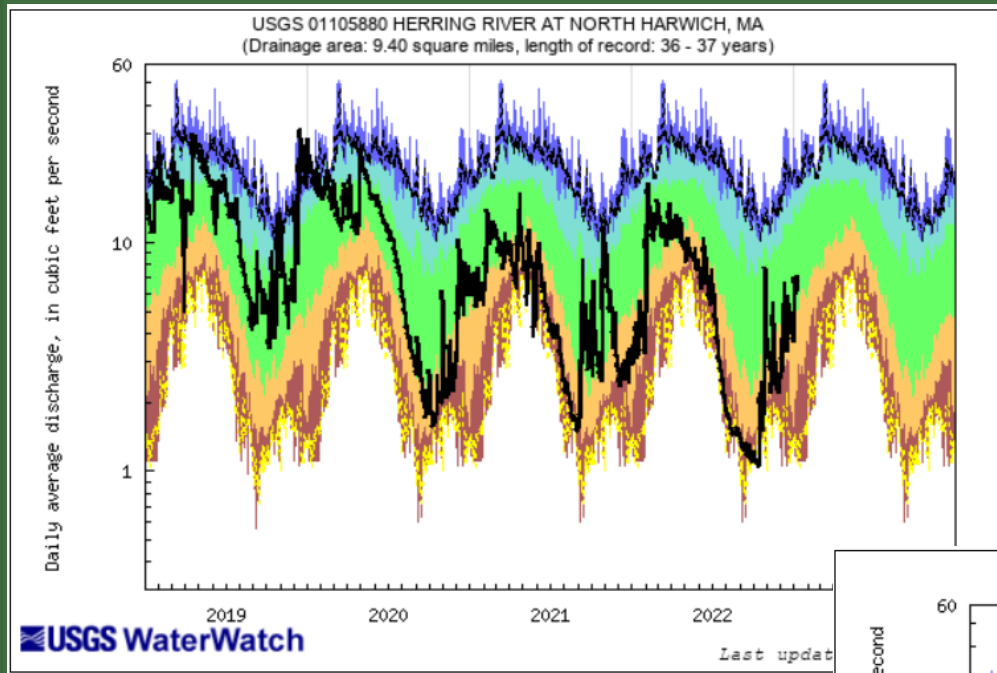
Daily Avg. Shawsheen River– Northeastern MA



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			

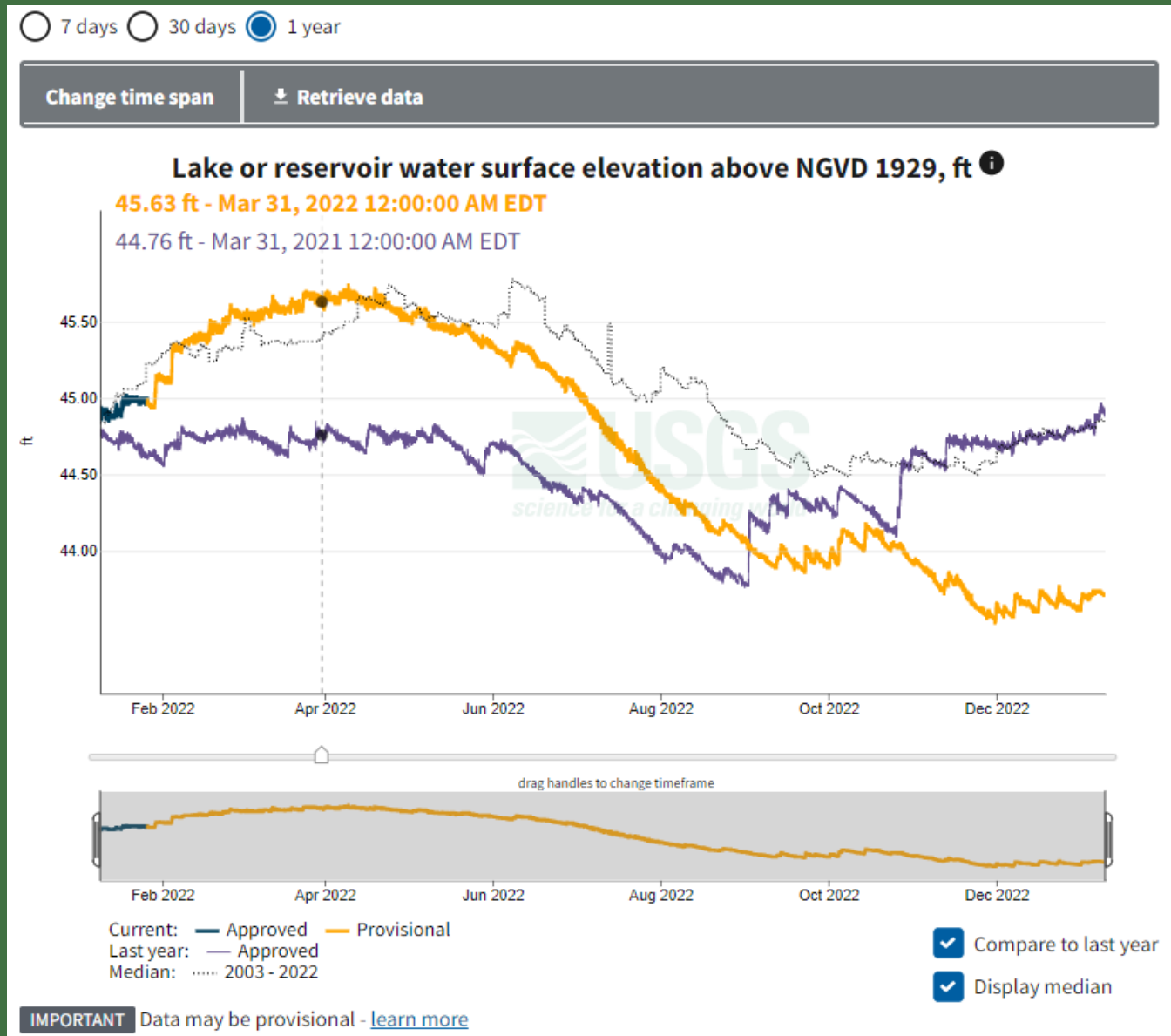
Daily Avg. Herring River – Cape Cod



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			

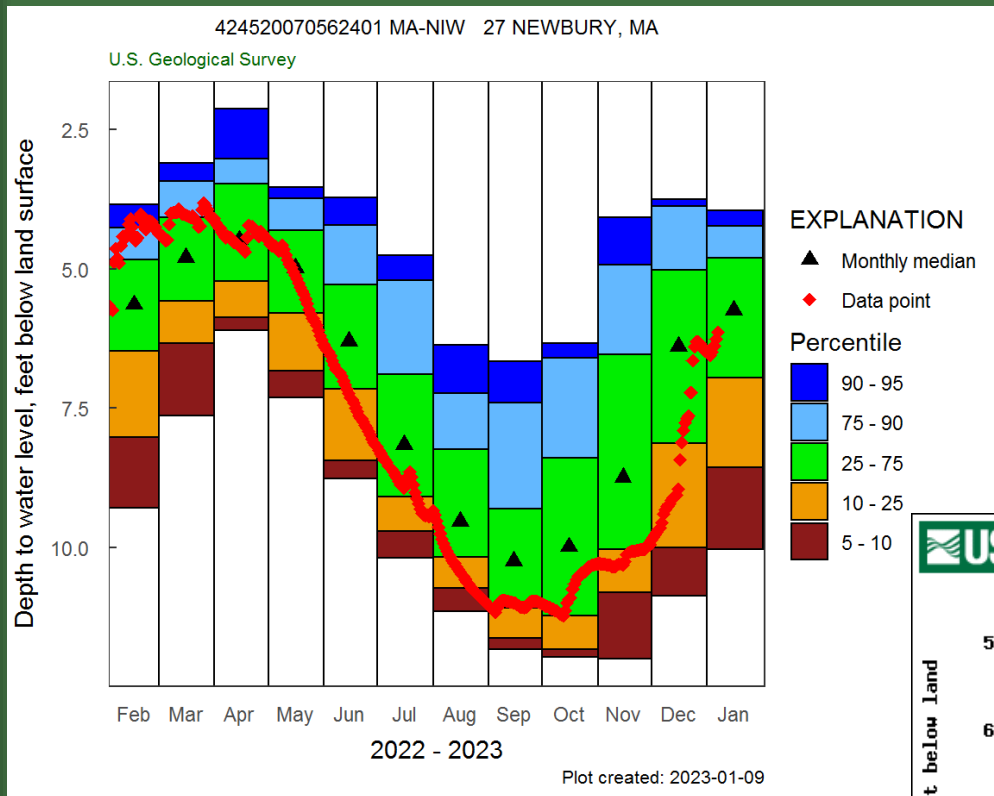
Ashumet Pond, Falmouth – Cape Cod



Climate Response Network (CRN) Groundwater Conditions

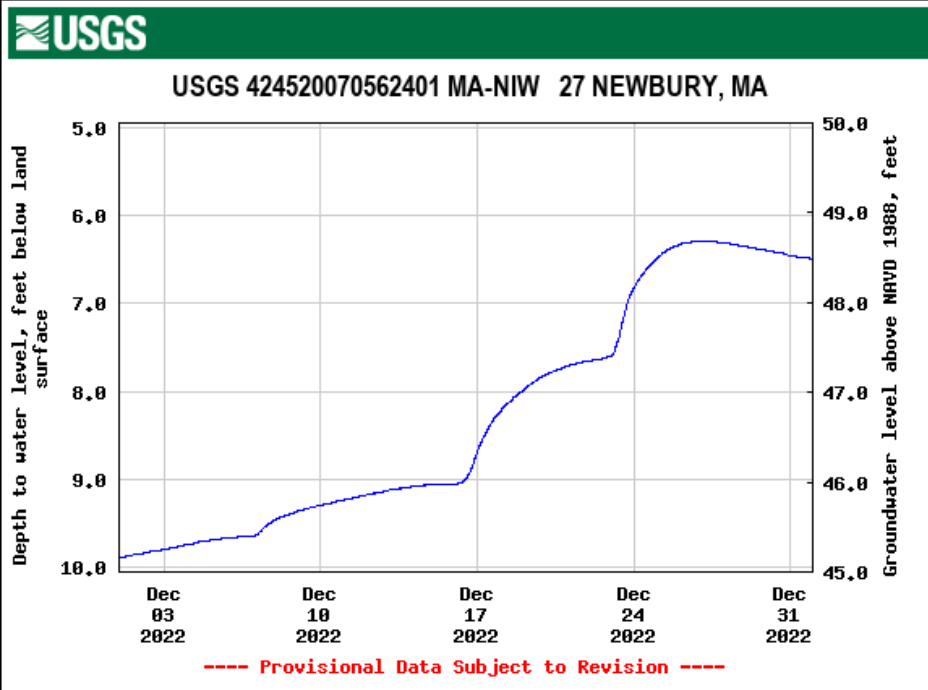


NIW 27 Newbury, MA Northeast Region



Period of Record

- Realtime 2007 – Present
- Discrete 1959 – 2007
- Total Record 63 years

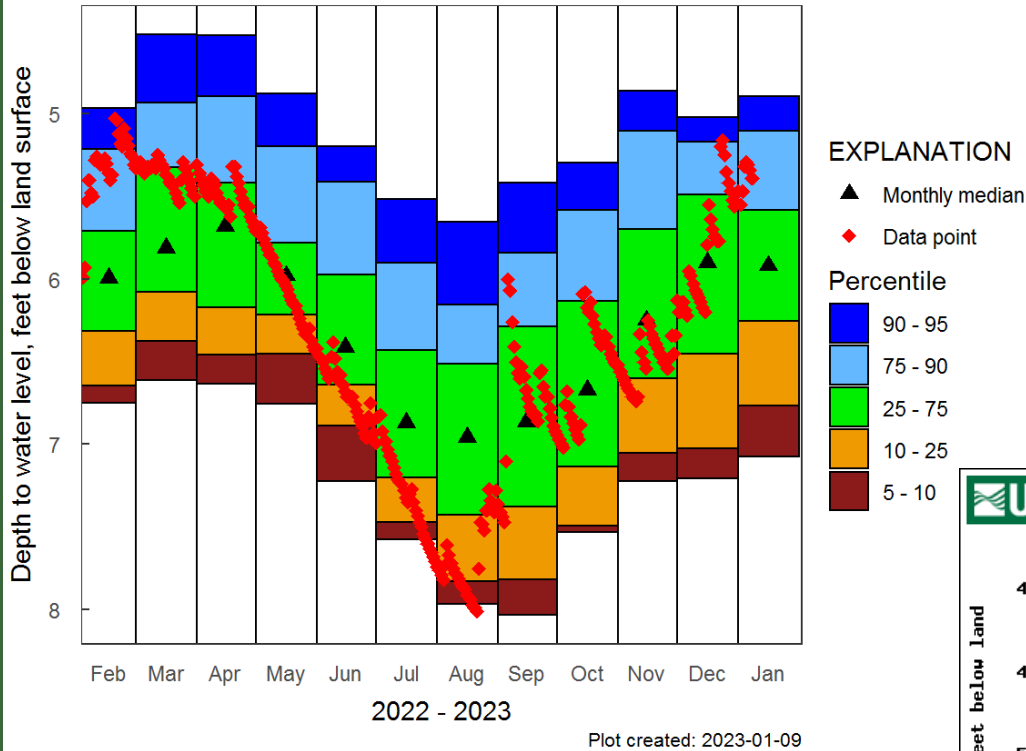


NNW 27R Norfolk, MA

Southeast Region

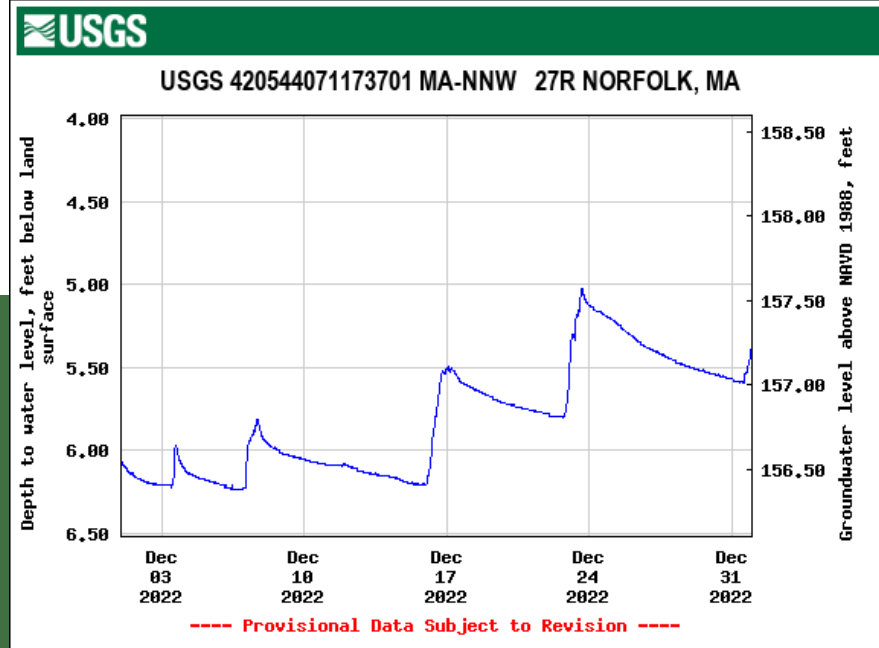
420544071173701 MA-NNW 27R NORFOLK, MA

U.S. Geological Survey



Period of Record

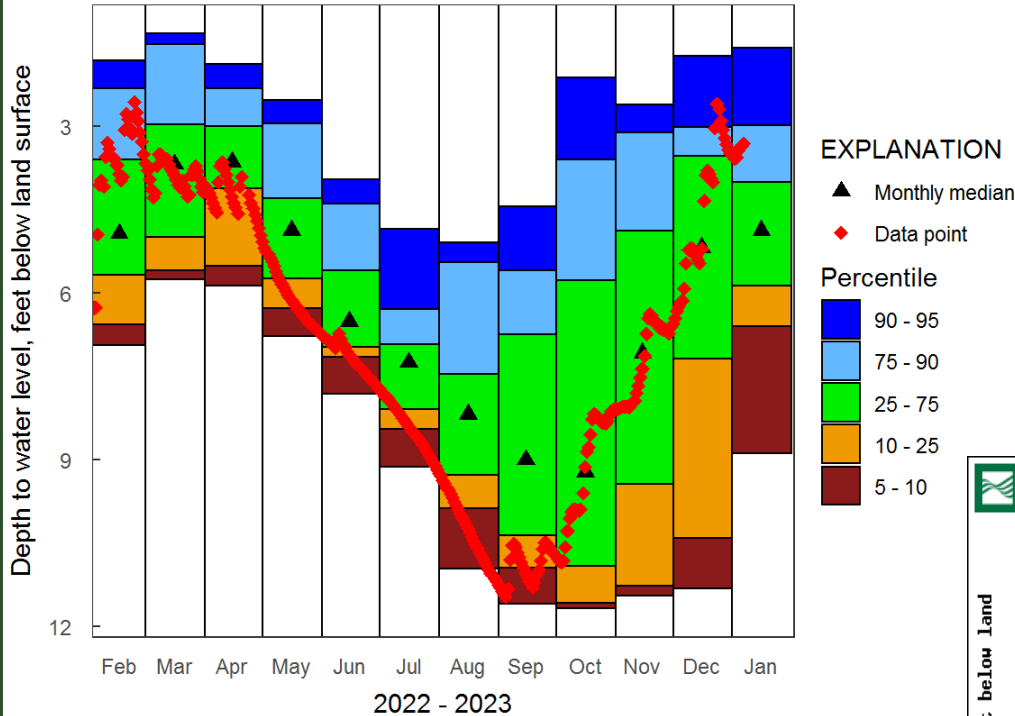
- Realtime 2018 – Present
- Discrete 1964 – 2018
- Total Record 58 years



BMW 26 West Boylston, MA Central Region

422341071464901 MA-WSW 26 WEST BOYLSTON, MA

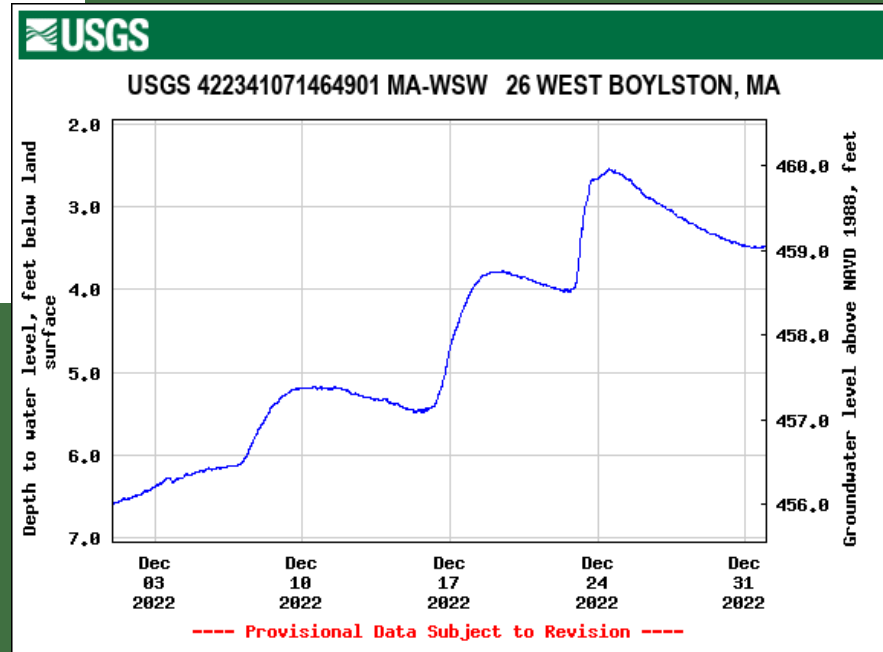
U.S. Geological Survey



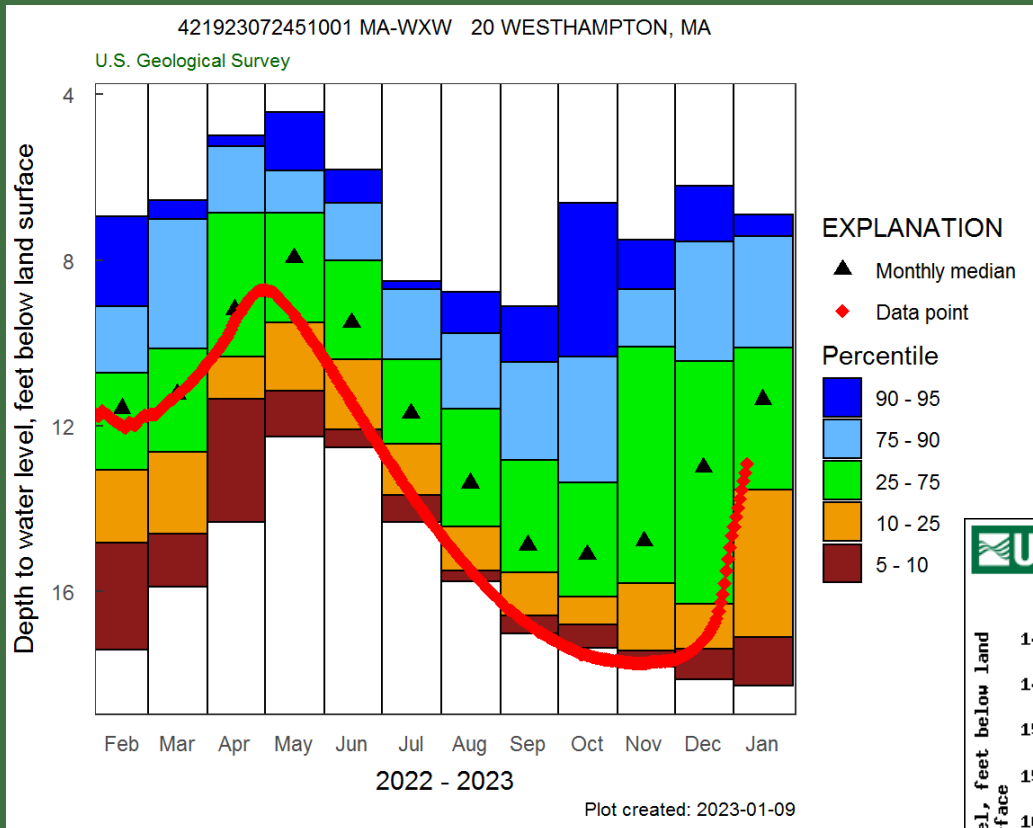
Plot created: 2023-01-09

Period of Record

- Realtime 2012 – Present
- Discrete 1995 – 2012
- Total Record 27 years

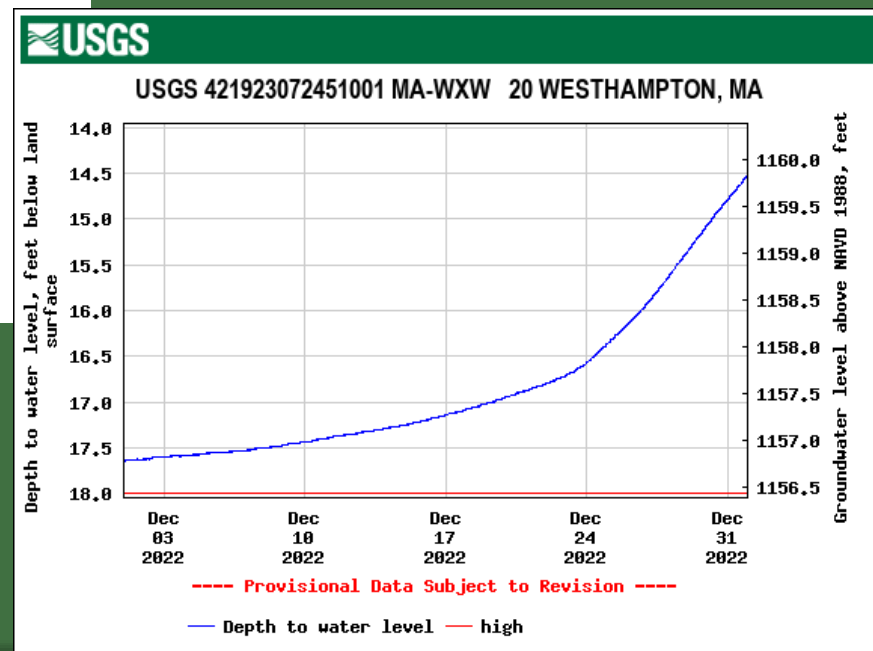


WXW 20 Westhampton, MA Connecticut River Valley Region



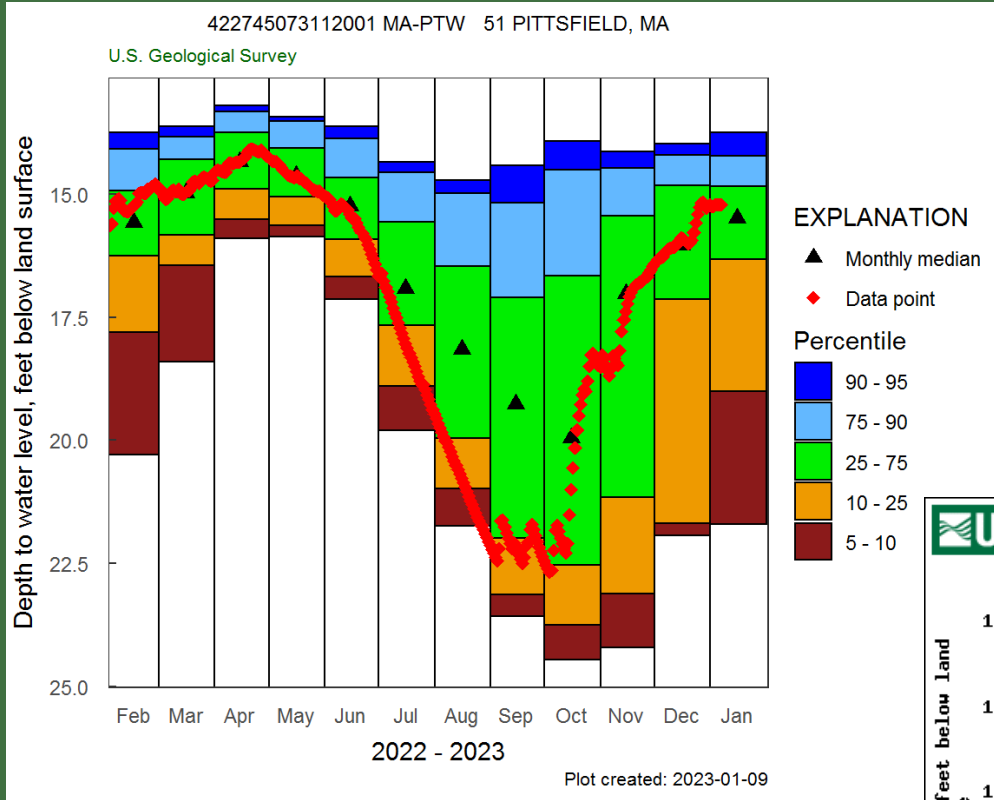
Period of Record

- Realtime 2017 – Present
- Discrete 1987 – 2007
- Total Record 35 years



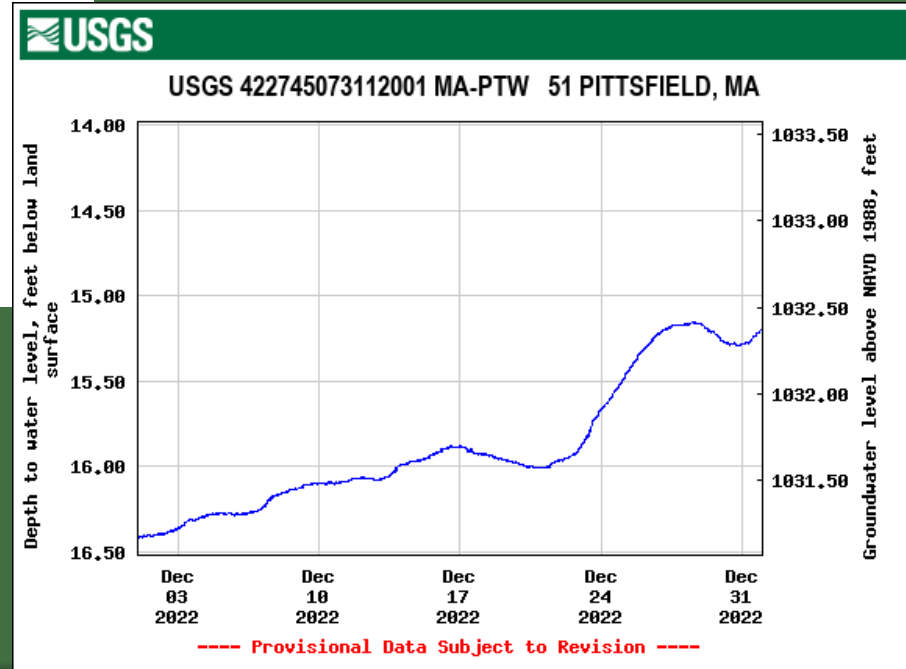
PTW 51 Pittsfield, MA

Western Region

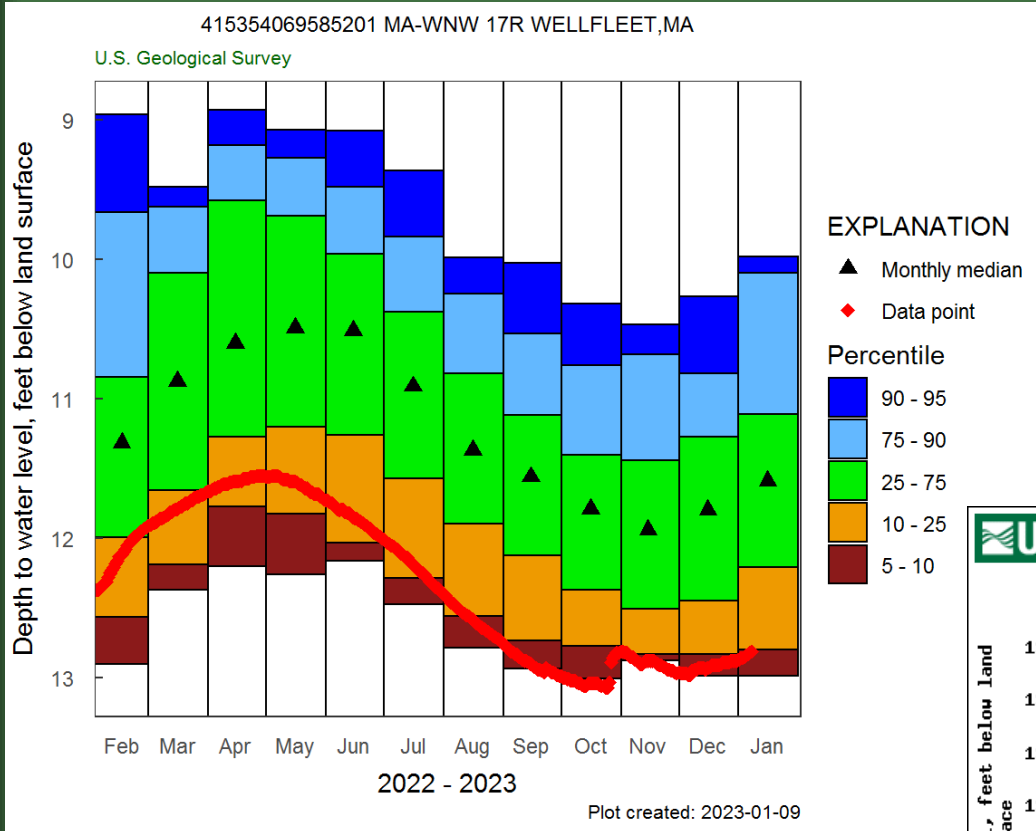


Period of Record

- Realtime 2007 – Present
- Discrete 1963 – 2007
- Total Record 59 years

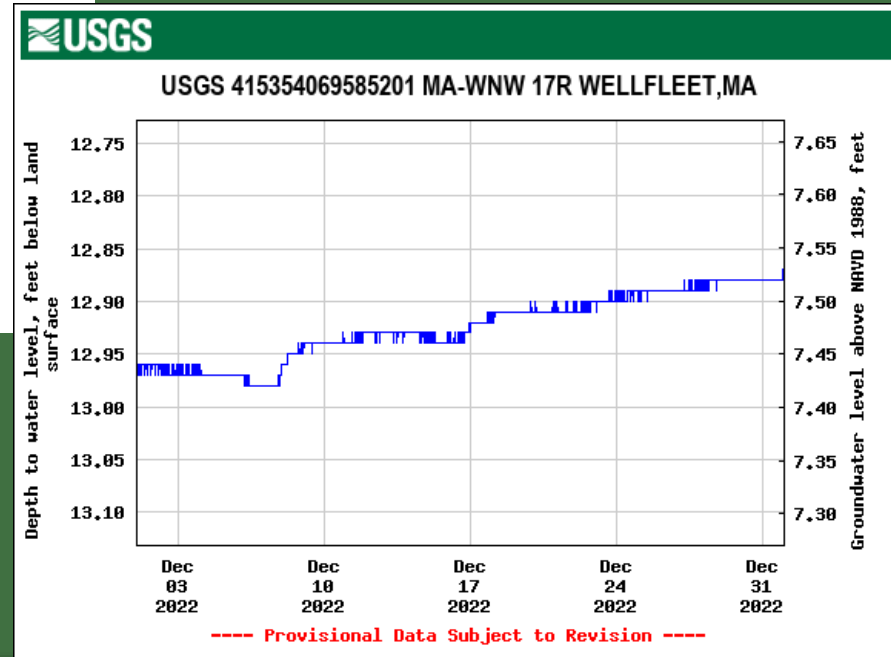


WNW 17R Wellfleet, MA Cape Cod Region



Period of Record

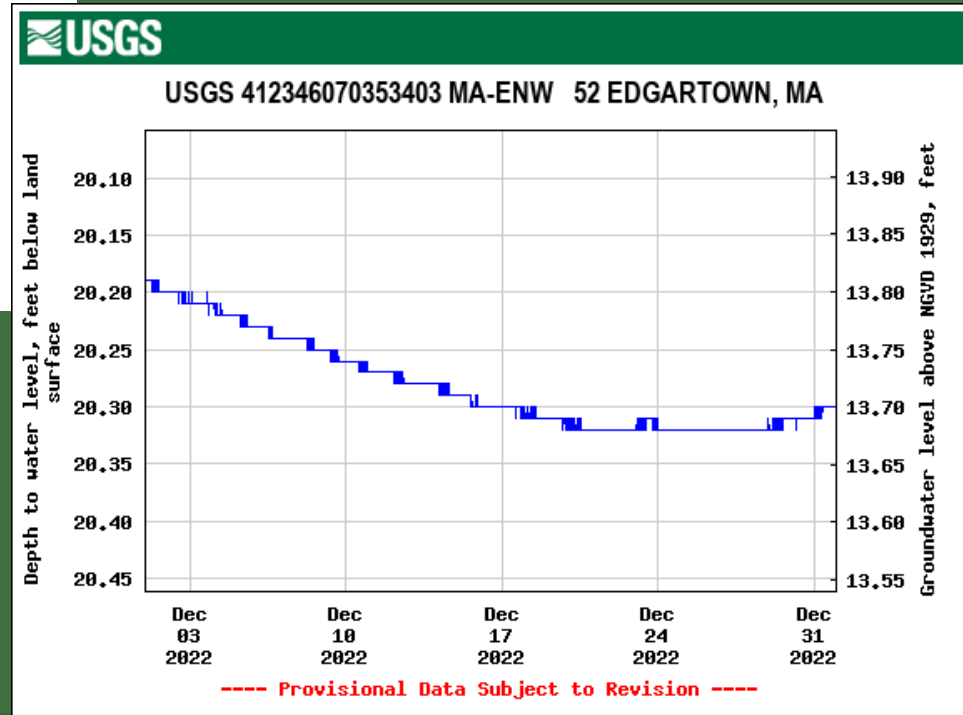
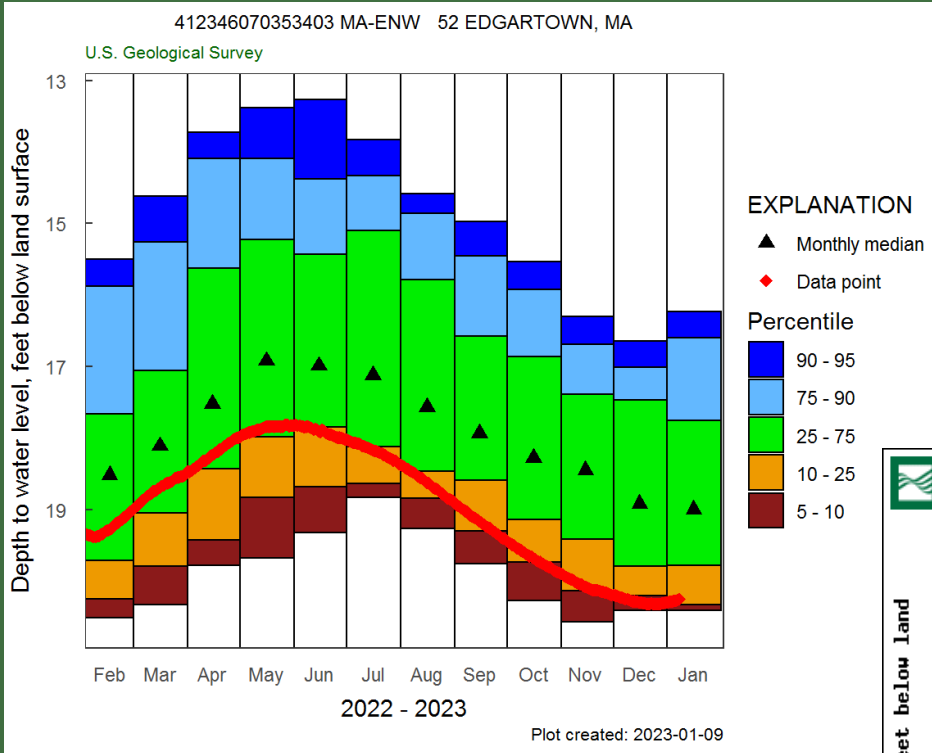
- Realtime 2018 – Present
- Discrete 1962 – 2018
- Total Record 60 years



ENW 52, Edgartown, MA Islands Region

Period of Record

- Realtime 2019 – Present
- Discrete 1976 – 2019
- Total Record 46 years



Questions?



PTW 51 Pittsfield, MA