

# Streamflow and Groundwater Conditions in Massachusetts (Cape Cod and the Islands)

## Massachusetts Drought Task Force Meeting

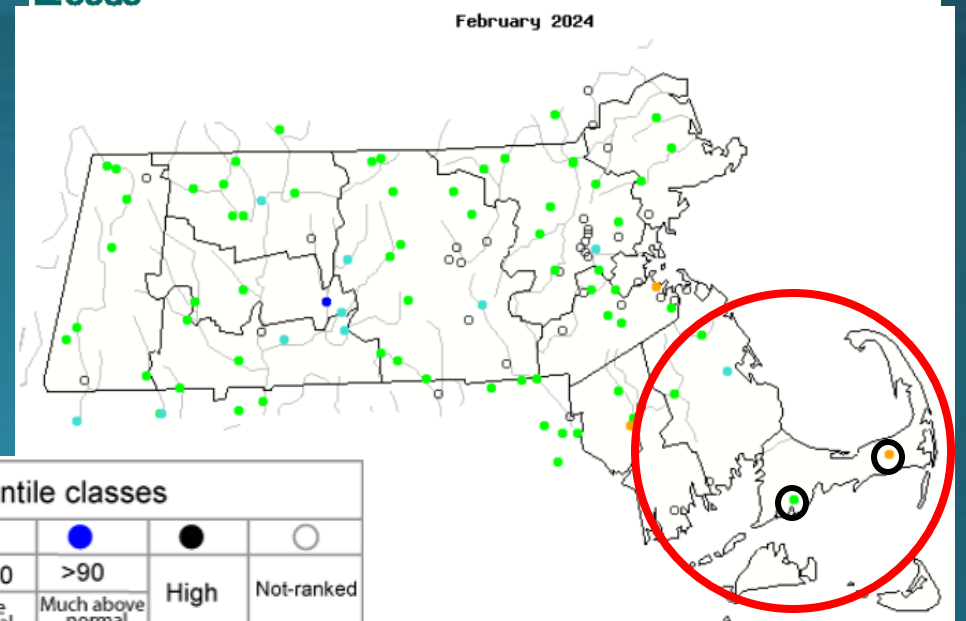
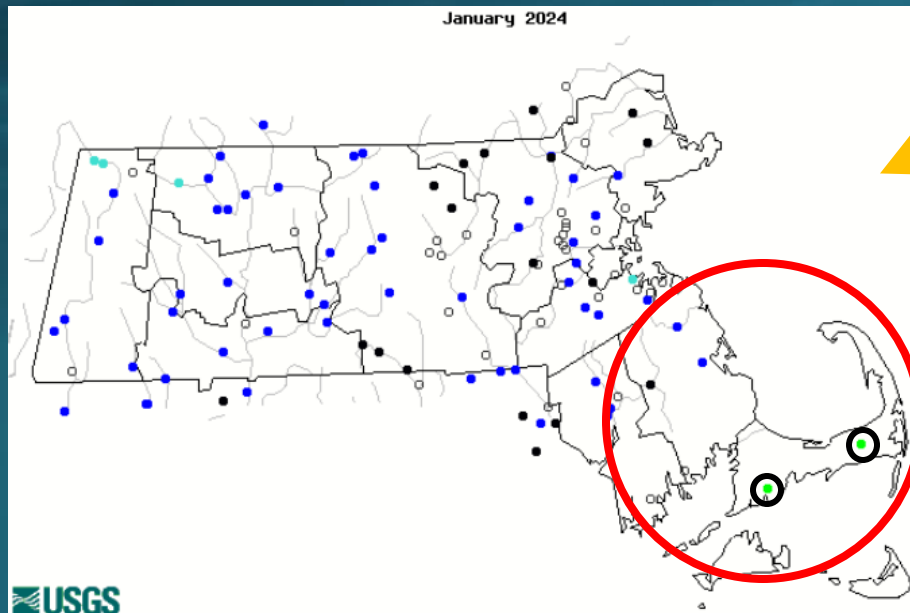
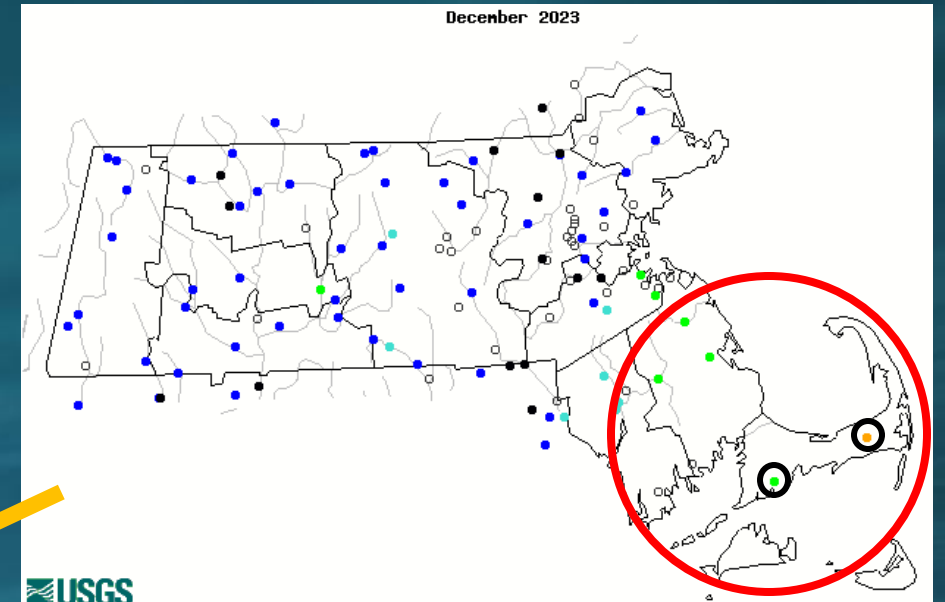
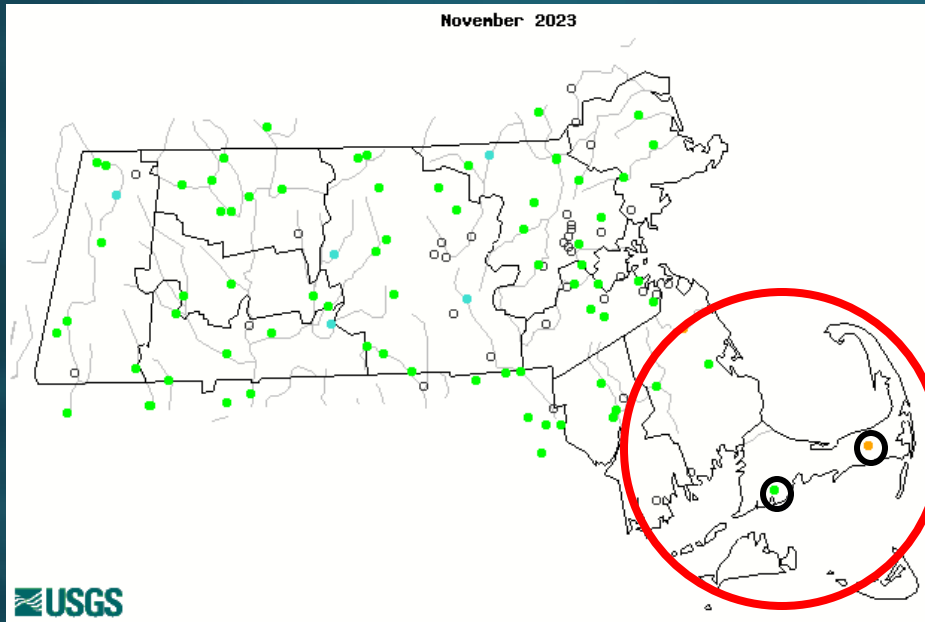
March 8, 2024

U.S. Geological Survey

New England Water Science Center



# Streamflow Conditions – Monthly Average



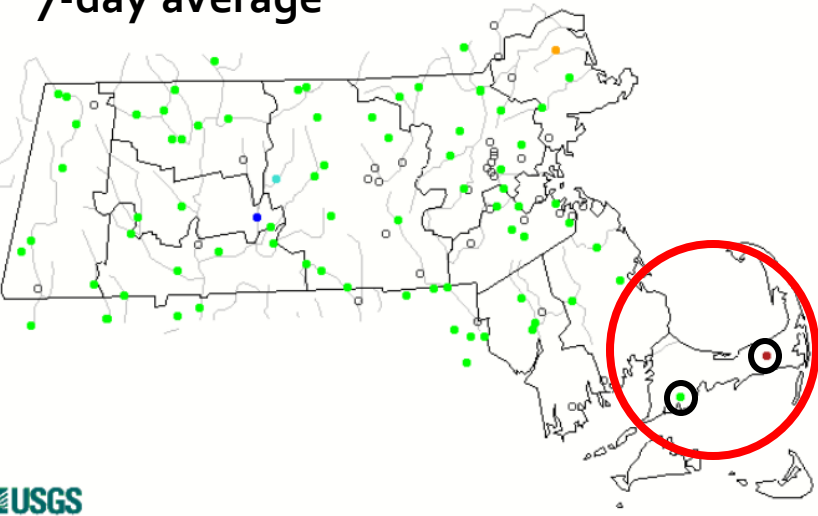
Explanation - Percentile classes

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

# Streamflow Conditions 7-, 14-, and 28-Day Average

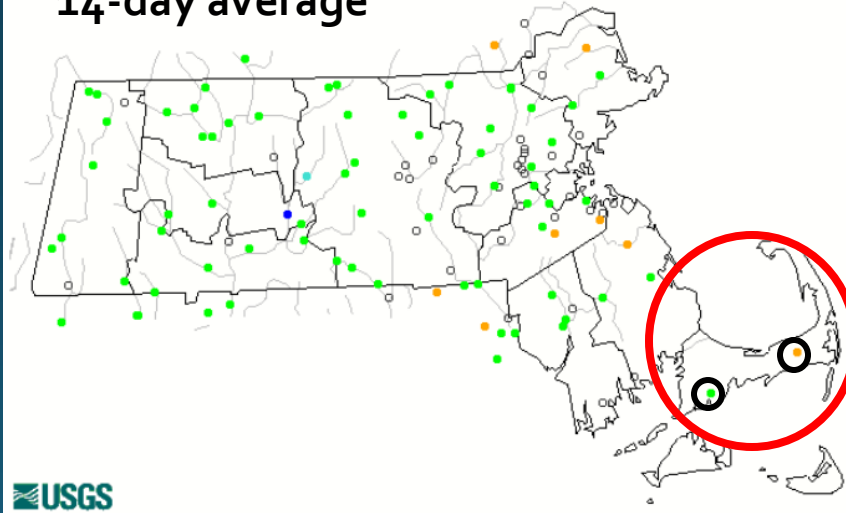
Friday, March 01, 2024

7-day average



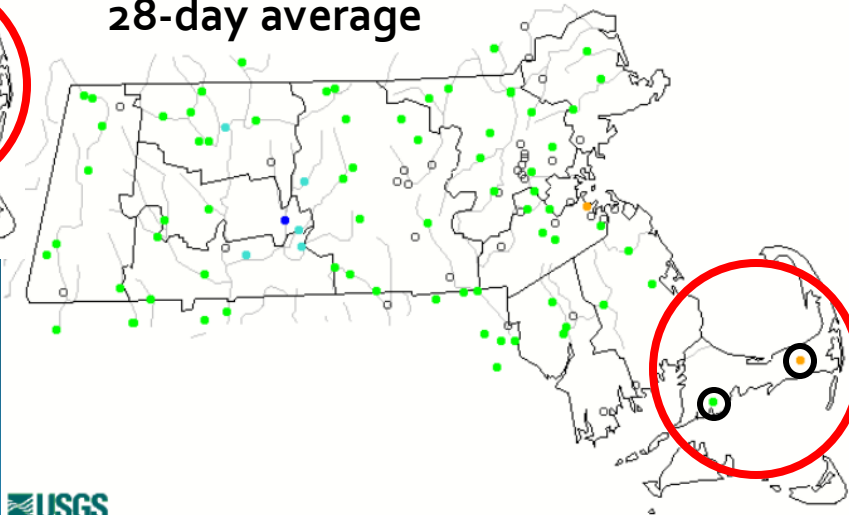
Friday, March 01, 2024

14-day average



Friday, March 01, 2024

28-day 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		

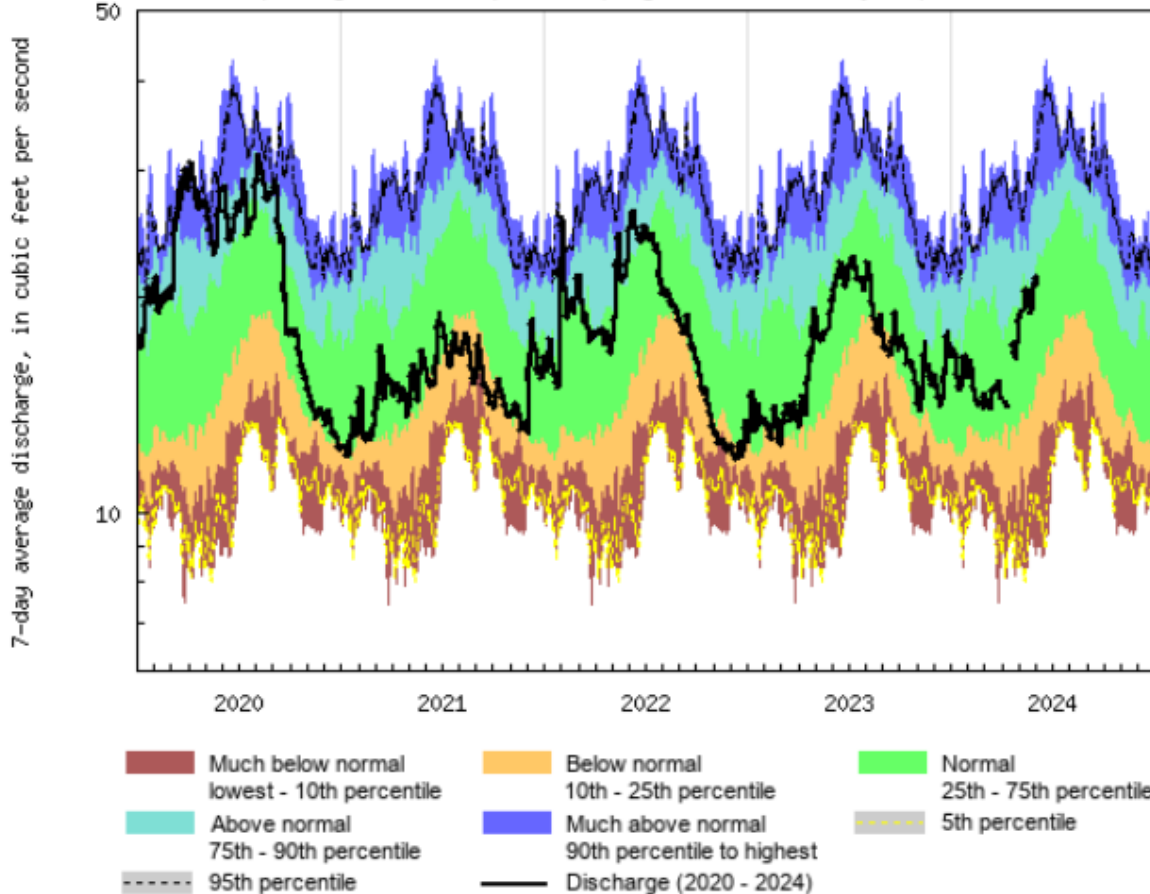
USGS

# Cape Cod Region 7-Day Average 5-year period (WY2020-24)

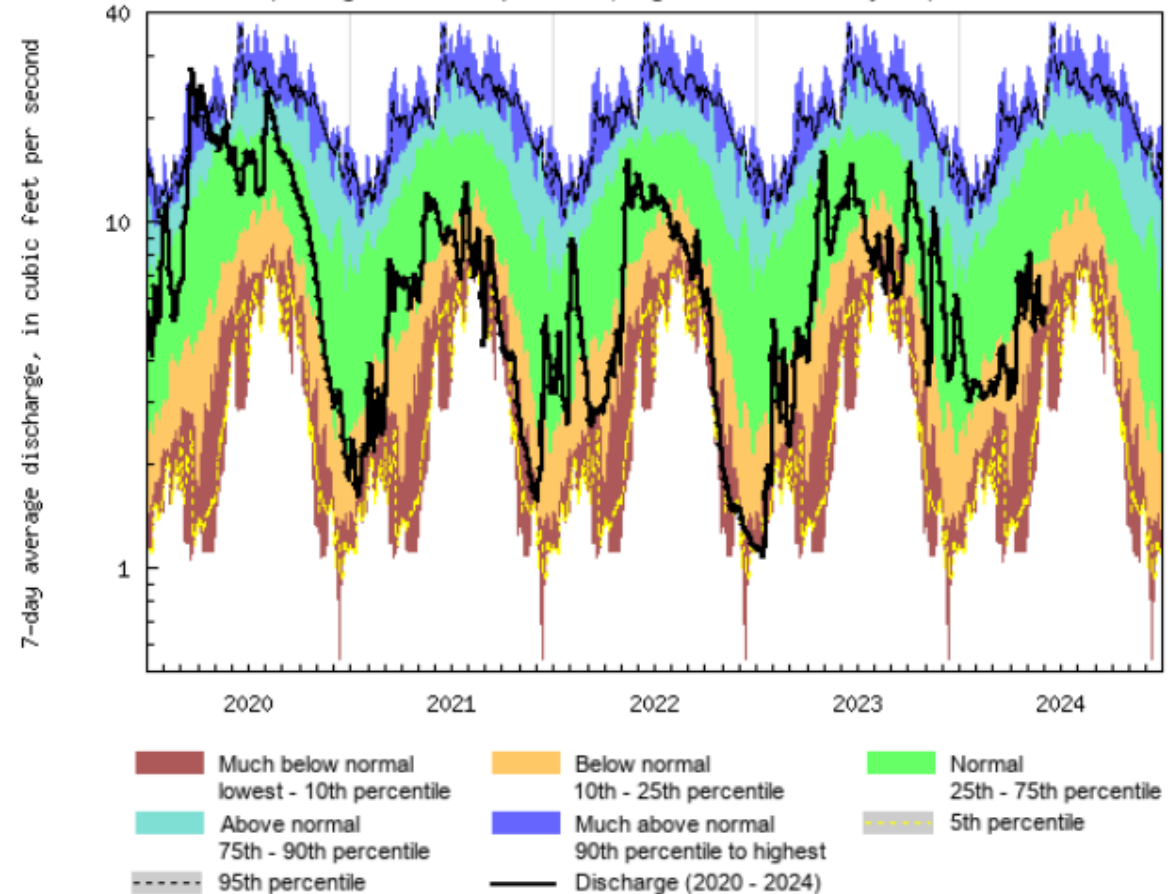
## Western Part of Cape Cod Region

## Eastern Part of Cape Cod Region

USGS 011058837 QUASHNET RIVER AT WAQUOIT VILLAGE, MA  
(Drainage area: 2.58 square miles, length of record: 34 - 35 years)



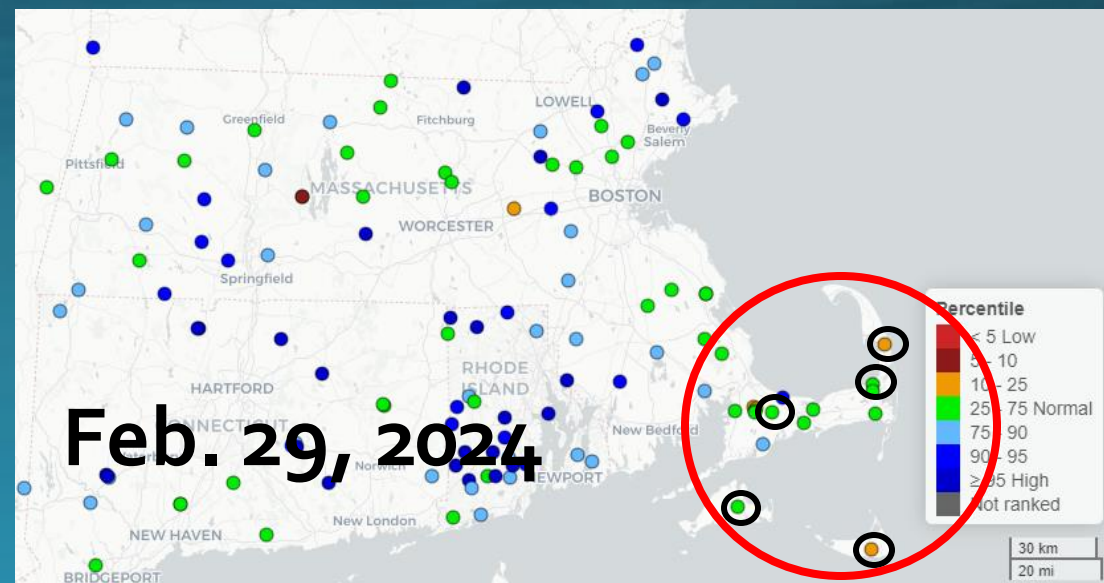
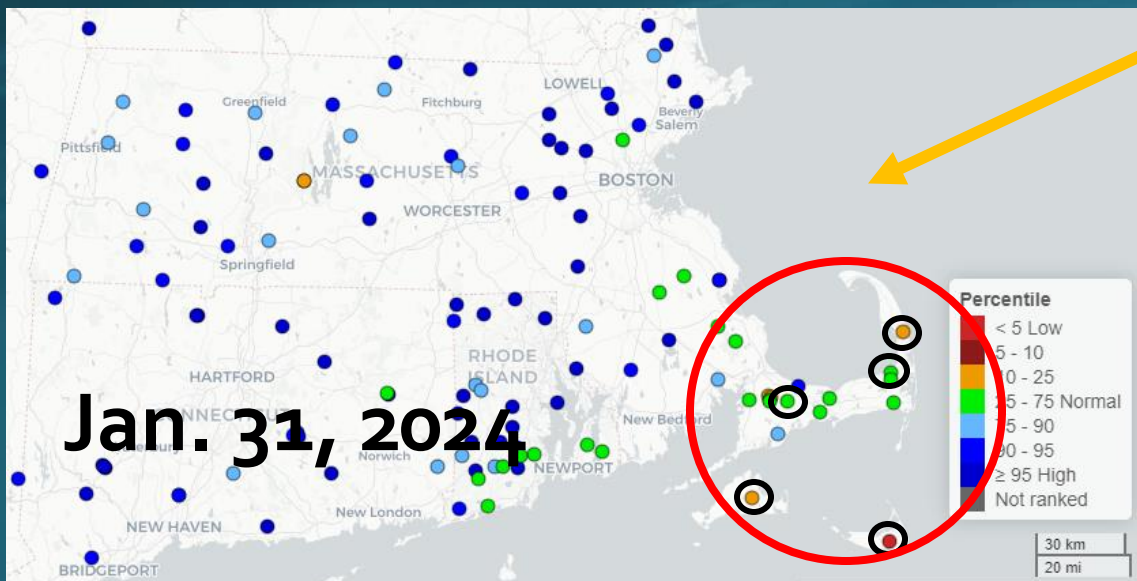
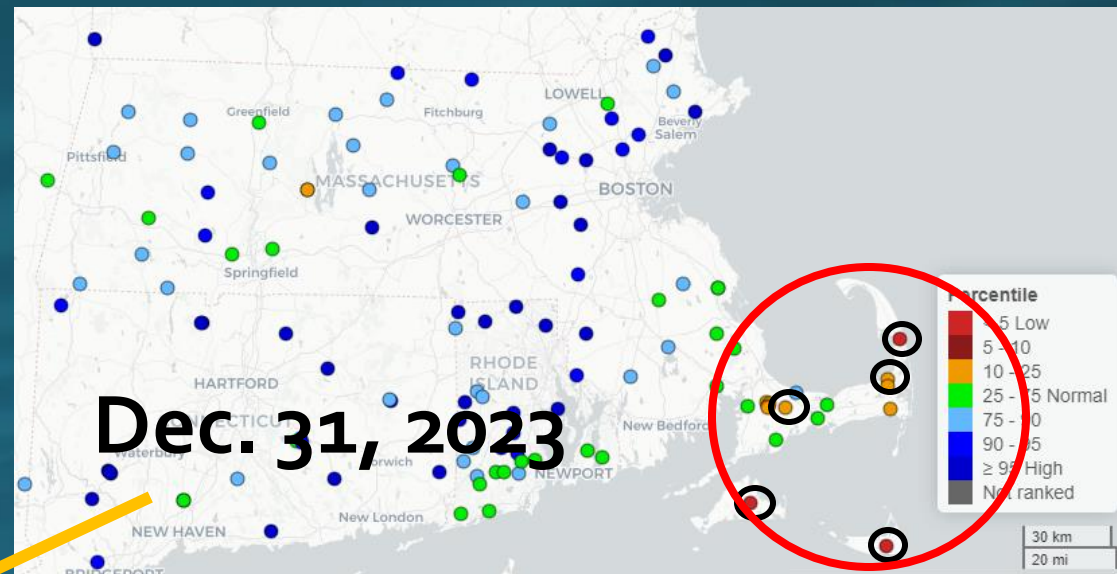
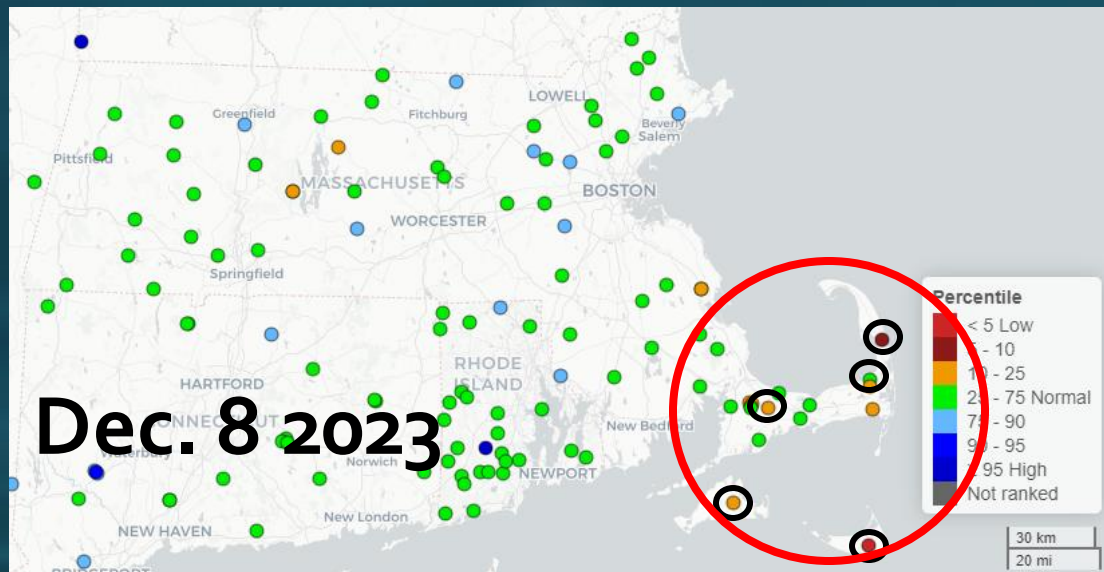
USGS 01105880 HERRING RIVER AT NORTH HARWICH, MA  
(Drainage area: 9.40 square miles, length of record: 37 - 38 years)



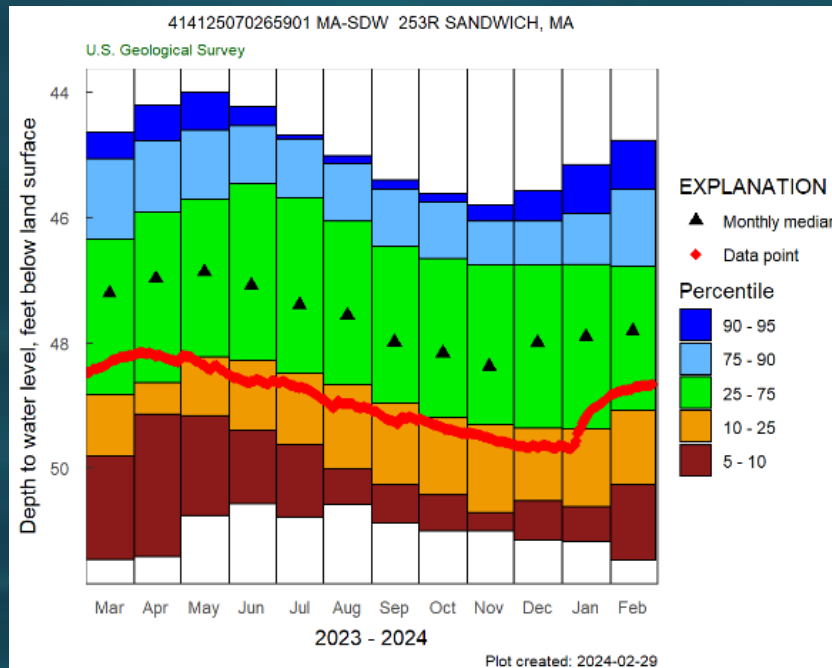
# Summary of Streamflows on the Cape

- Western Cape streamflows (Quashnet River at Waquoit Village)
  - were normal in February 2024
  - have been lower the last 3+ years, but have still been mainly normal
- Eastern Cape Cod streamflows (Herring River at North Harwich)
  - were below normal in February 2024
  - have been below normal for a significant part of the last 3+ yrs (since fall of 2020)

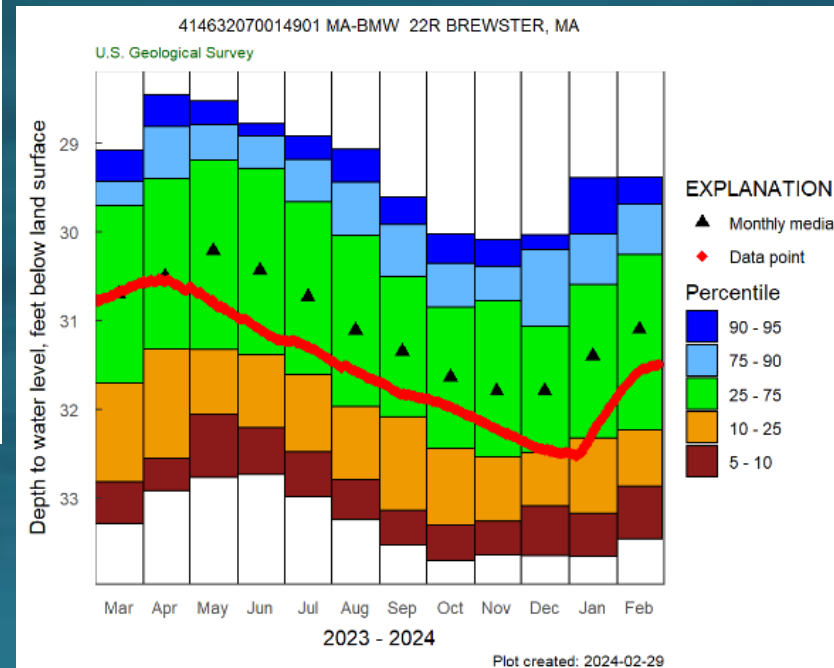
# Groundwater Conditions



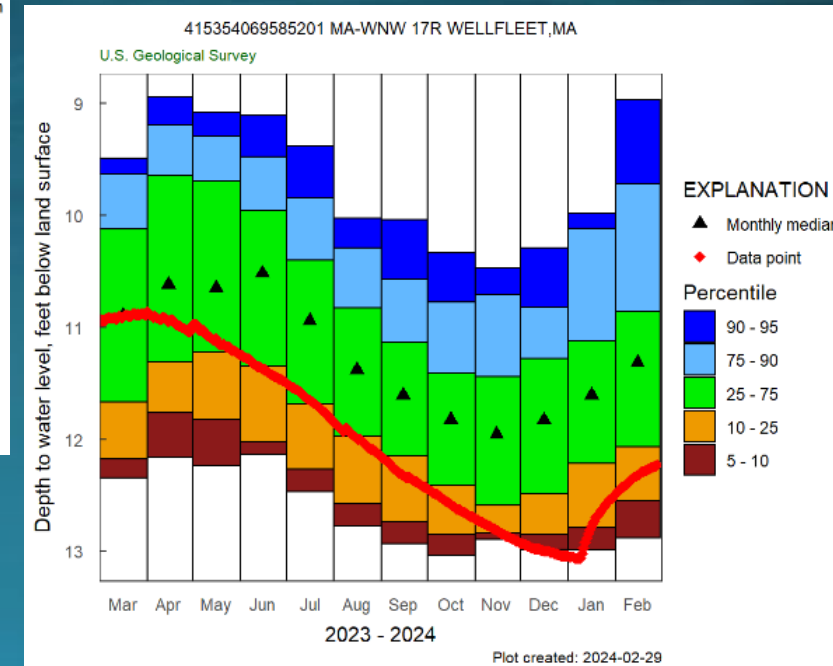
# Cape Cod Region (West to East)



Period of Record: 61 yrs;  
continuous 11 yrs

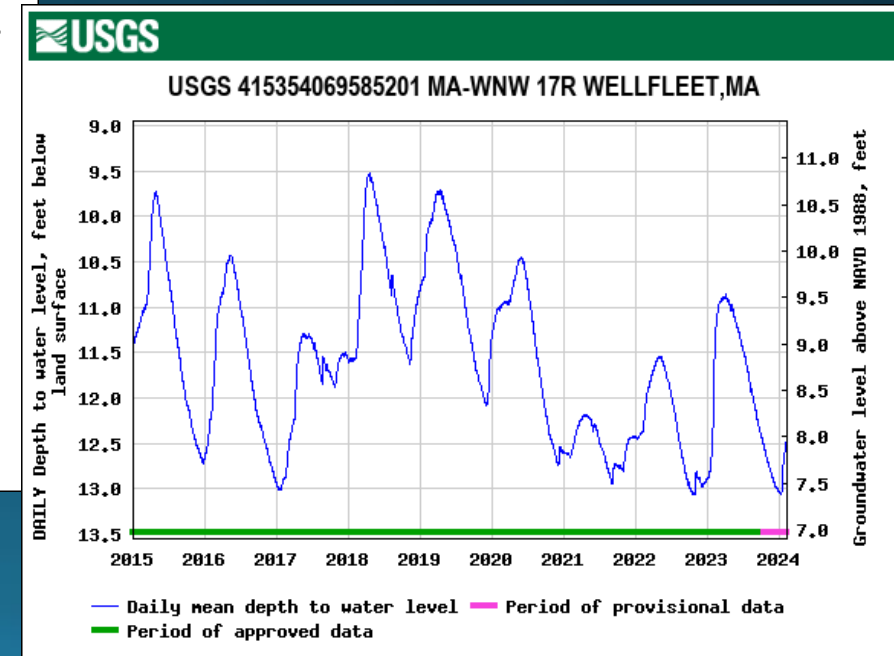
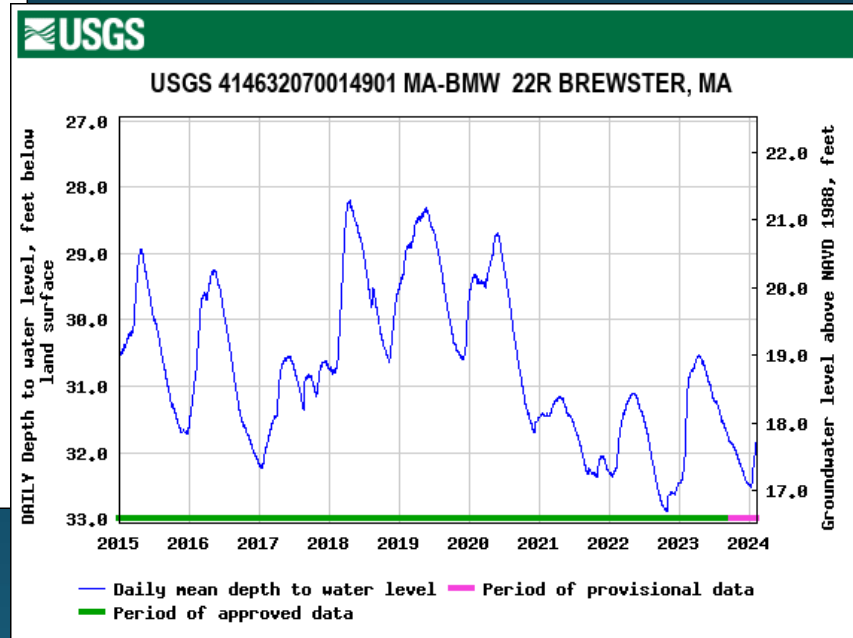
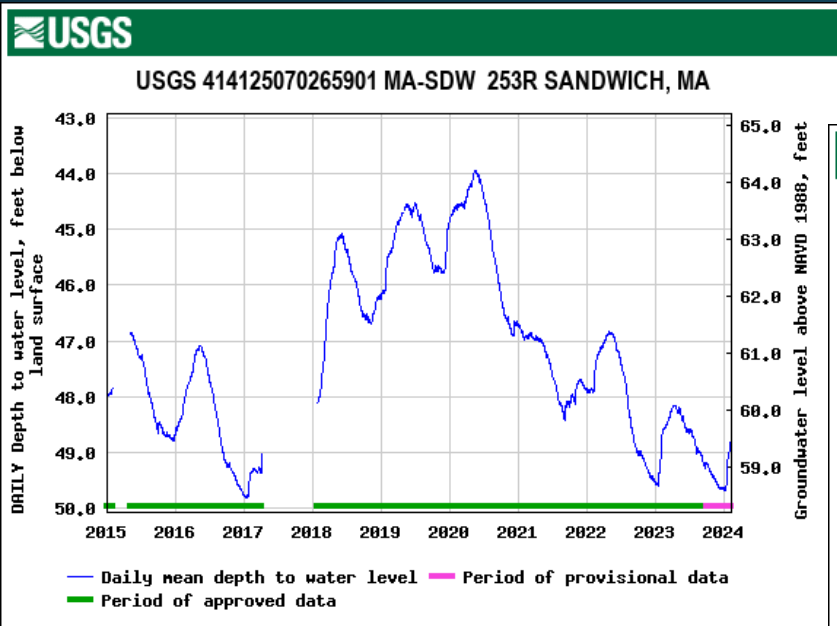


Period of Record: 61 yrs;  
continuous 22 yrs



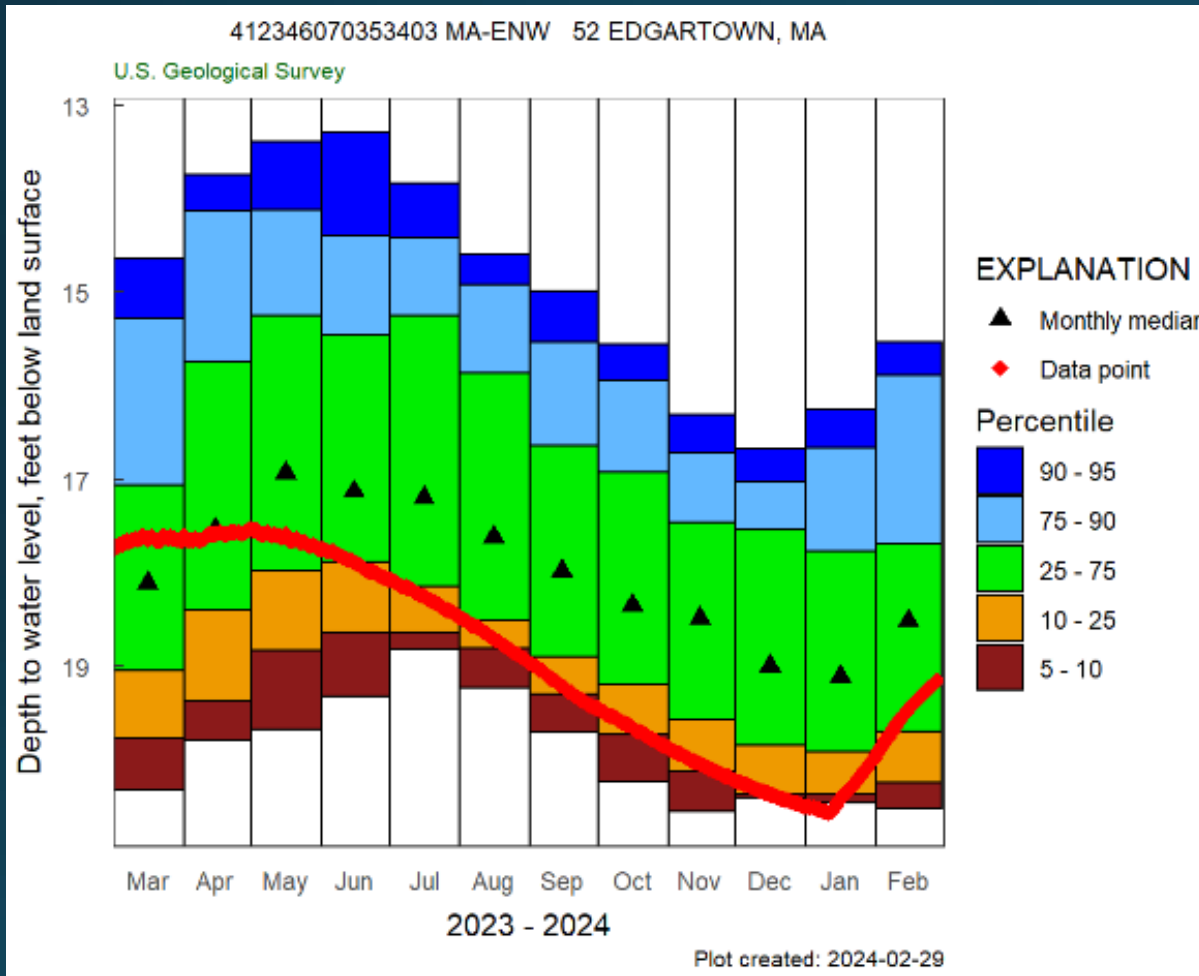
Period of Record: 61 yrs; cont. 11 yrs

# Cape Cod Selected Cont. WL Data (West to East) 10-year period (WY 2015-24)

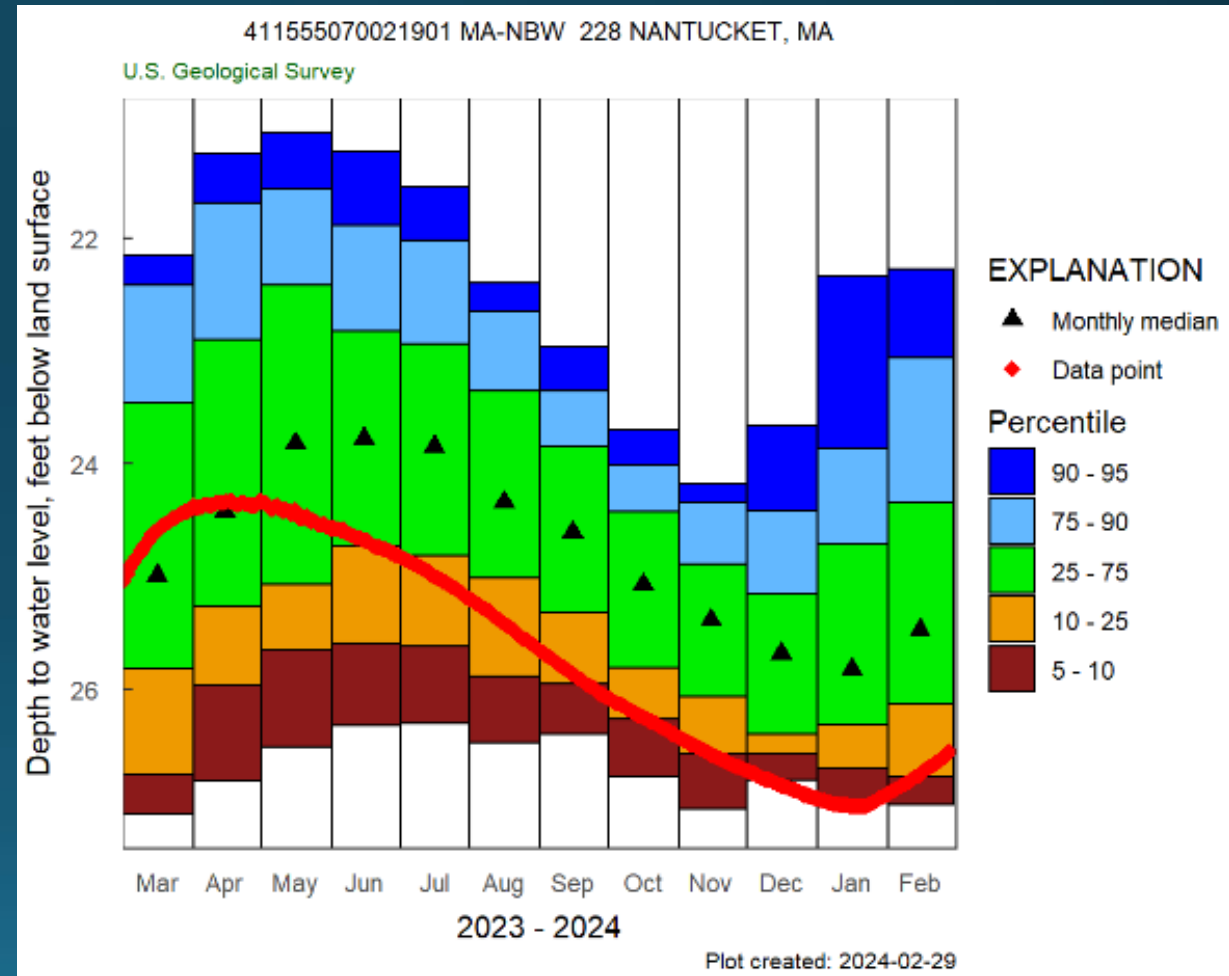




# Islands Region

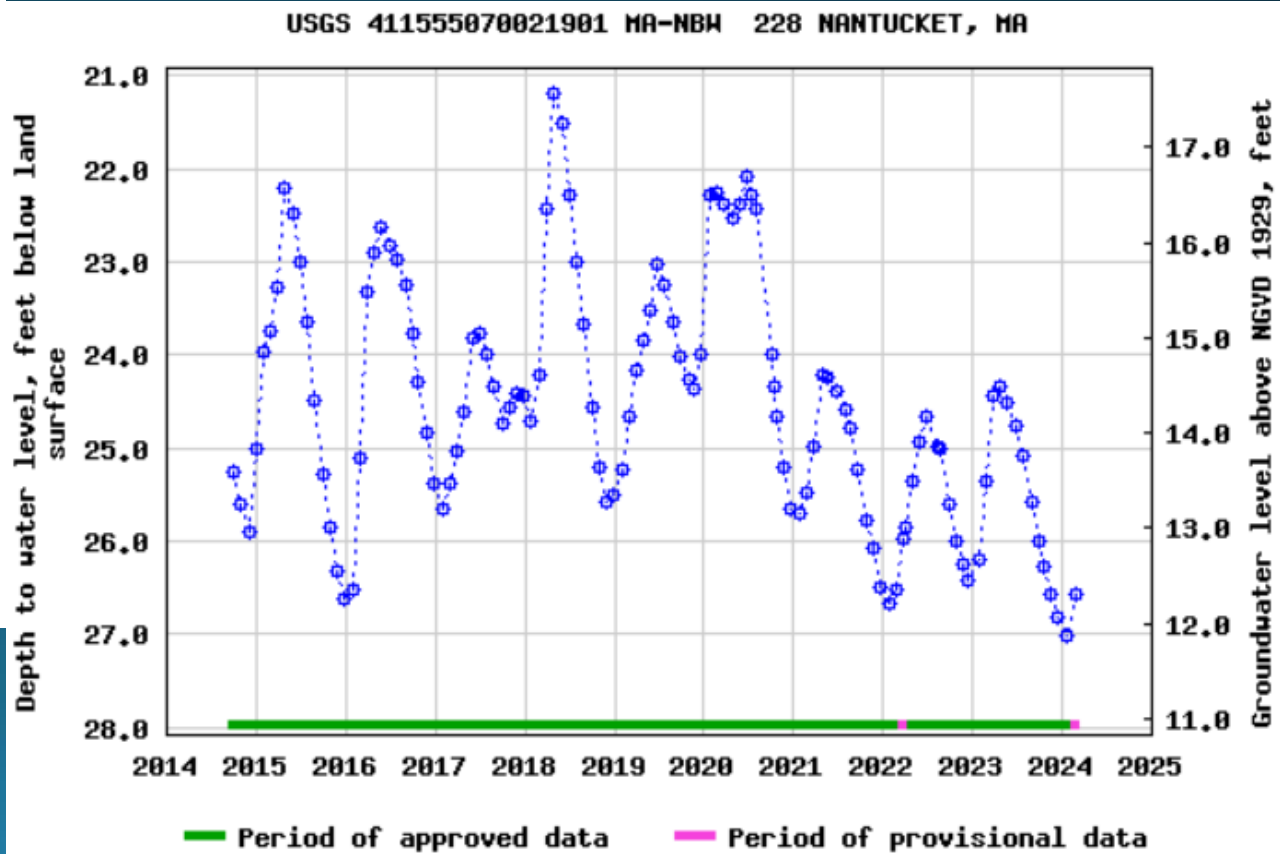
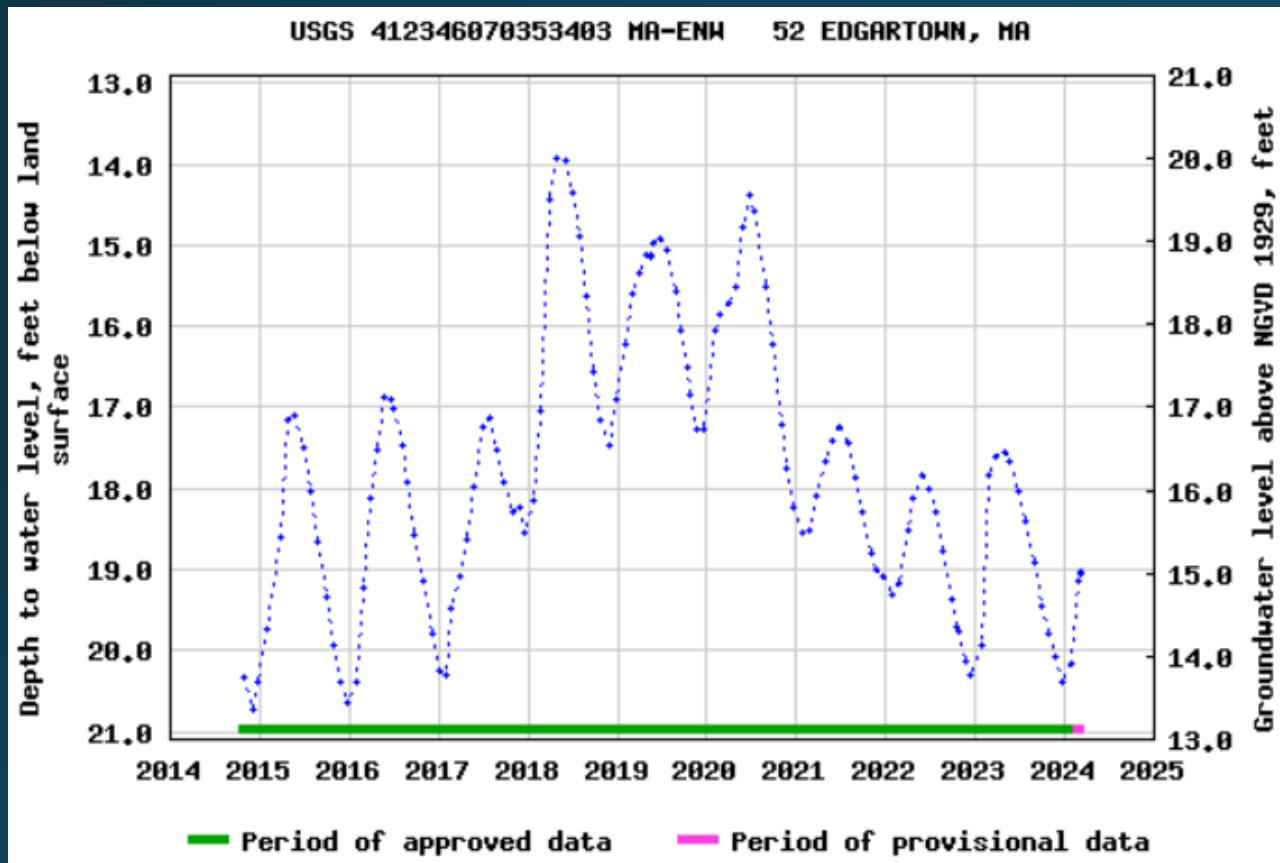


Period of Record: 47 yrs; continuous 4 yrs



Period of Record: 47 yrs; continuous 1 yr

# Islands – Martha's Vineyard and Nantucket WL Meas. 10-yrs period (2015-24)



# Summary of GW Levels for Cape and the Islands

- Groundwater levels at Sandwich 253R and Brewster 22R were in the normal range and Wellfleet 17R was in the below normal range during February
- Groundwater levels in all three Cape wells continued to rise during February, but the rate of rise in the Sandwich 253R and Brewster 22R was not as great as during January
- GW levels in the Martha's Vineyard and Nantucket wells continued to rise during February and were in the normal and below normal range, respectively, at the end of February

