



MASSACHUSETTS RIVER OVERVIEW



Ronald S.W. Horwood
Sr. Meteorologist
National Weather Service
Northeast River Forecast Center
Norton MA
MA Drought Management Task Force
7 December 2020

RIVER AND PRECIPITATION TRENDS

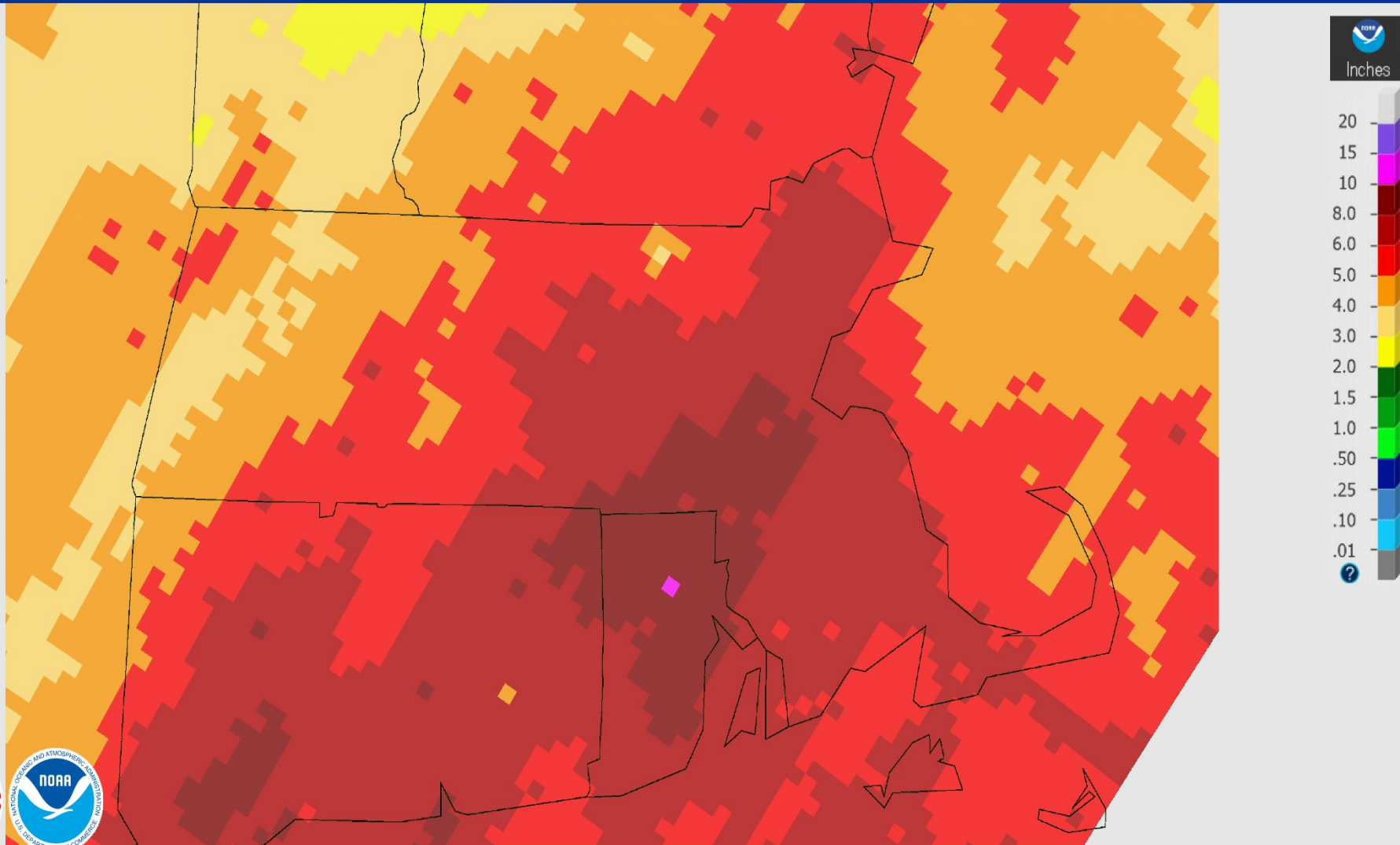
- The return of a very active weather pattern has resulted in mainly above normal melted equivalent precipitation amounts over the past 30 days.
- Rivers and streams have been replenished across the entire Commonwealth.

30-DAY PCPN ENDING 7 AM EST SUNDAY

December 06, 2020 30-Day Observed Precipitation

Created on: December 06, 2020 - 19:06 UTC

Valid on: December 06, 2020 12:00 UTC



Widespread 5-8+ inch amounts across virtually all of central and eastern Massachusetts

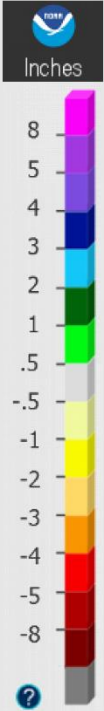
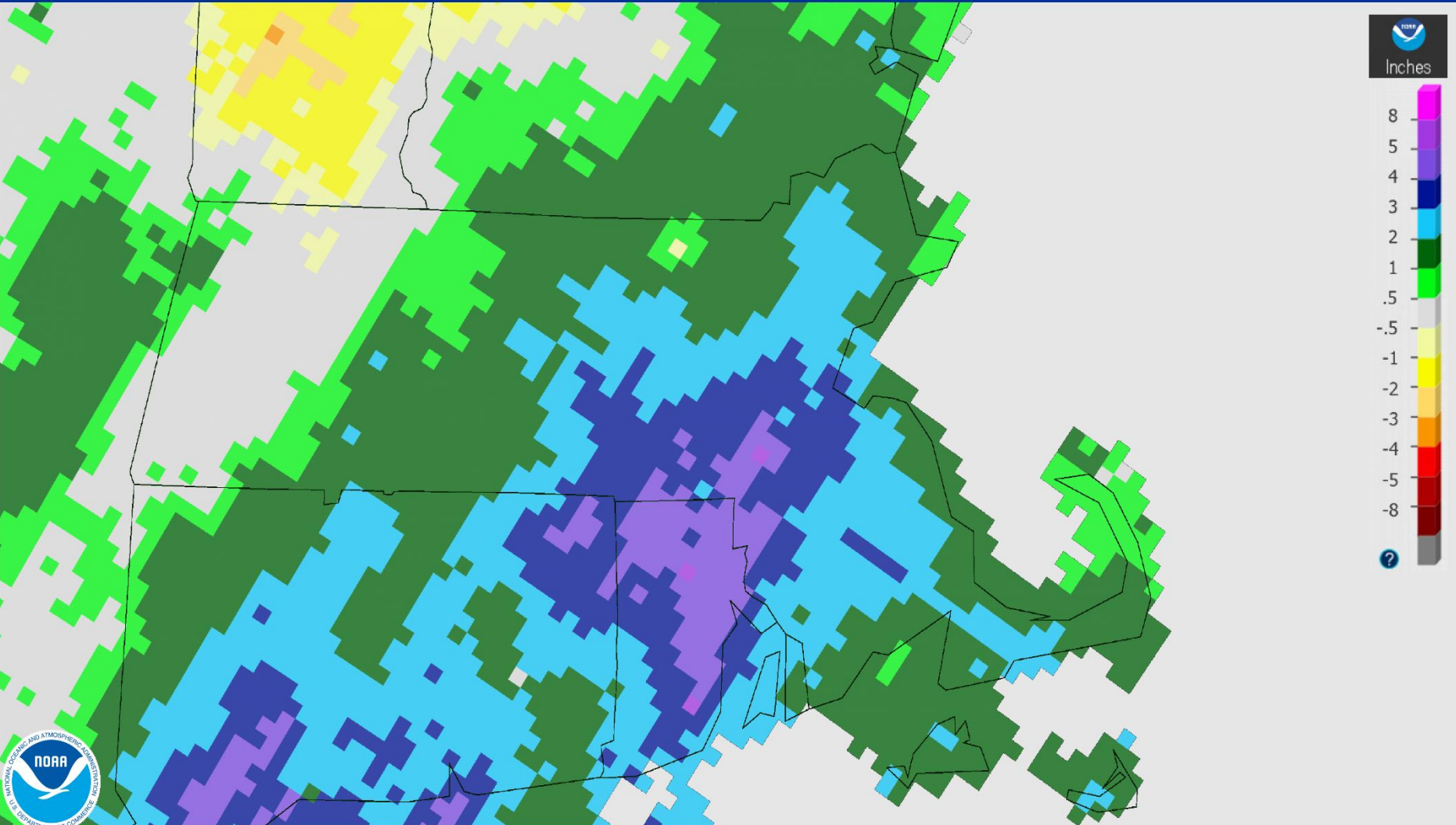


30-DAY PCPN DEPARTURE ENDING 7 AM EST SUNDAY

December 06, 2020 30-Day Departure Precipitation

Created on: December 06, 2020 - 19:08 UTC

Valid on: December 06, 2020 12:00 UTC

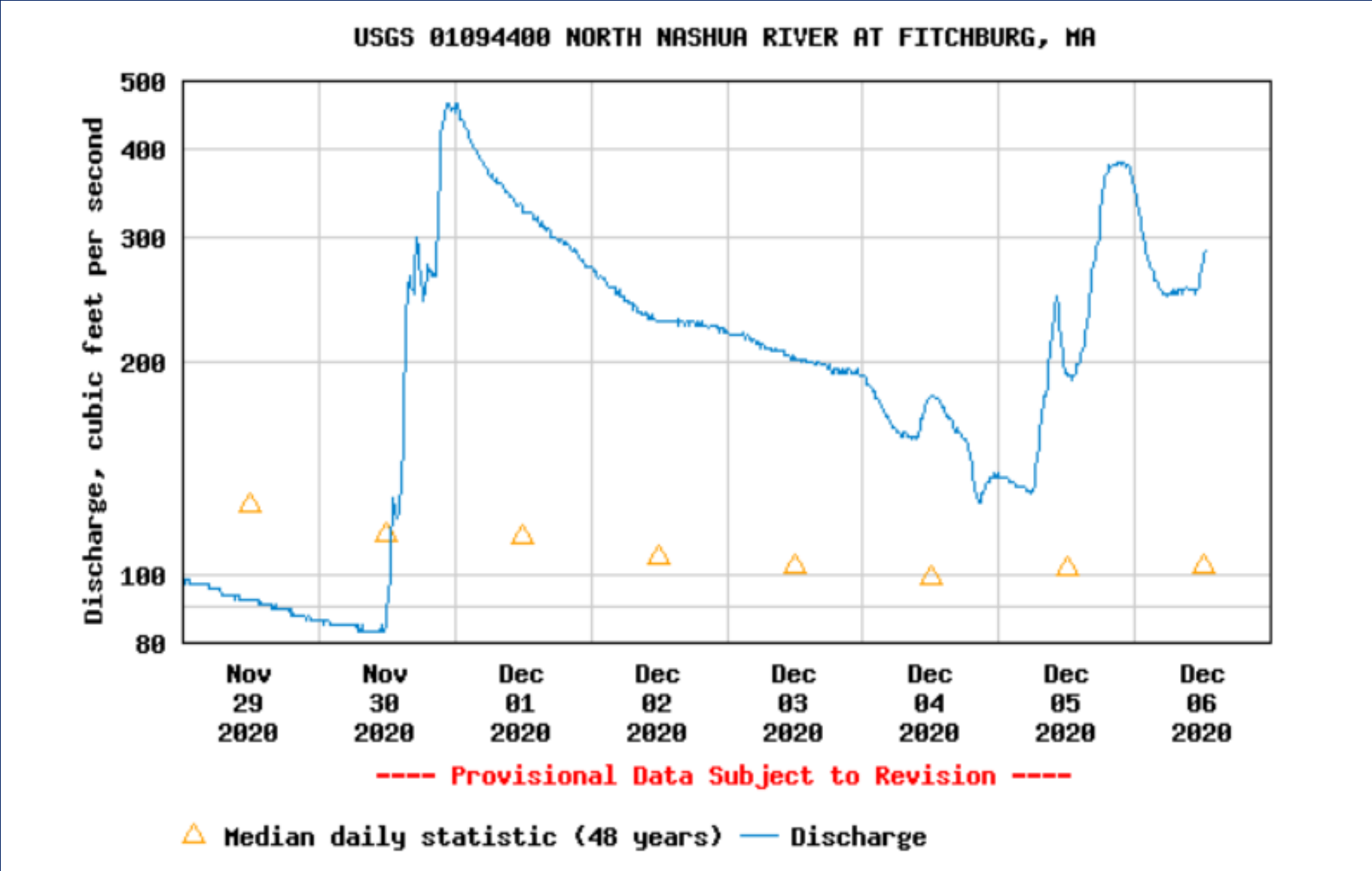


3-5 inches above normal west and southwest of Boston

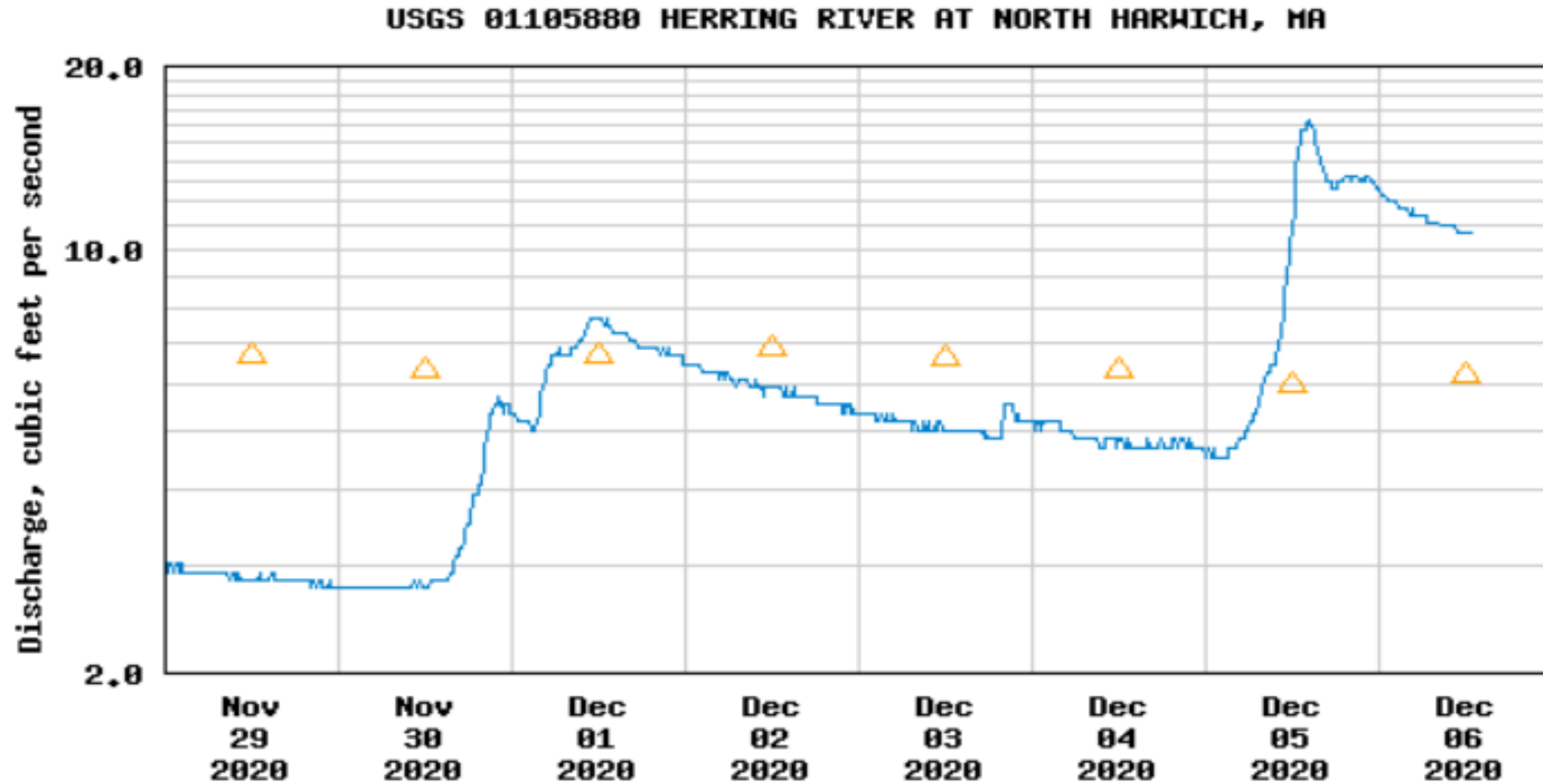
<1 inch above normal across outer Cape Cod



RIVER FLOWS – North Nashua at Fitchburg



RIVER FLOWS – Herring River at North Harwich

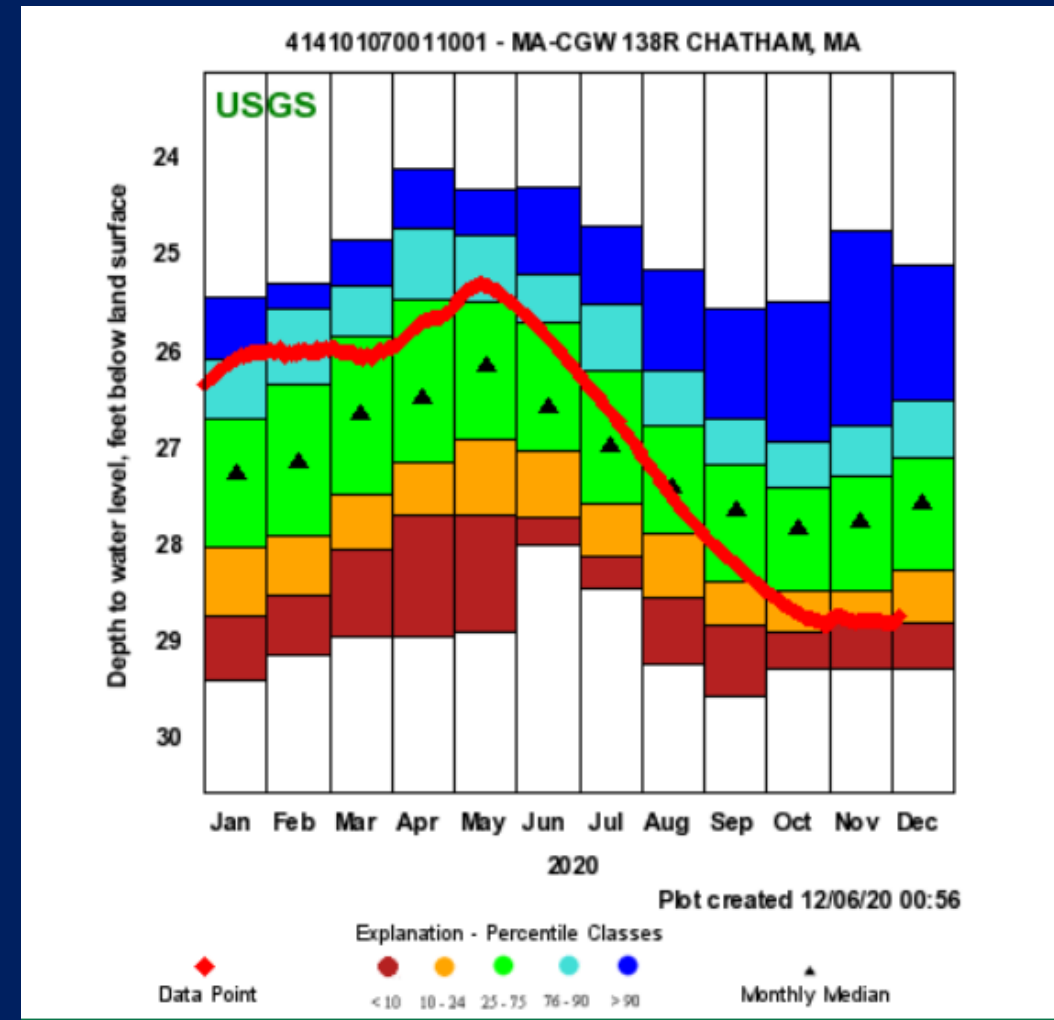
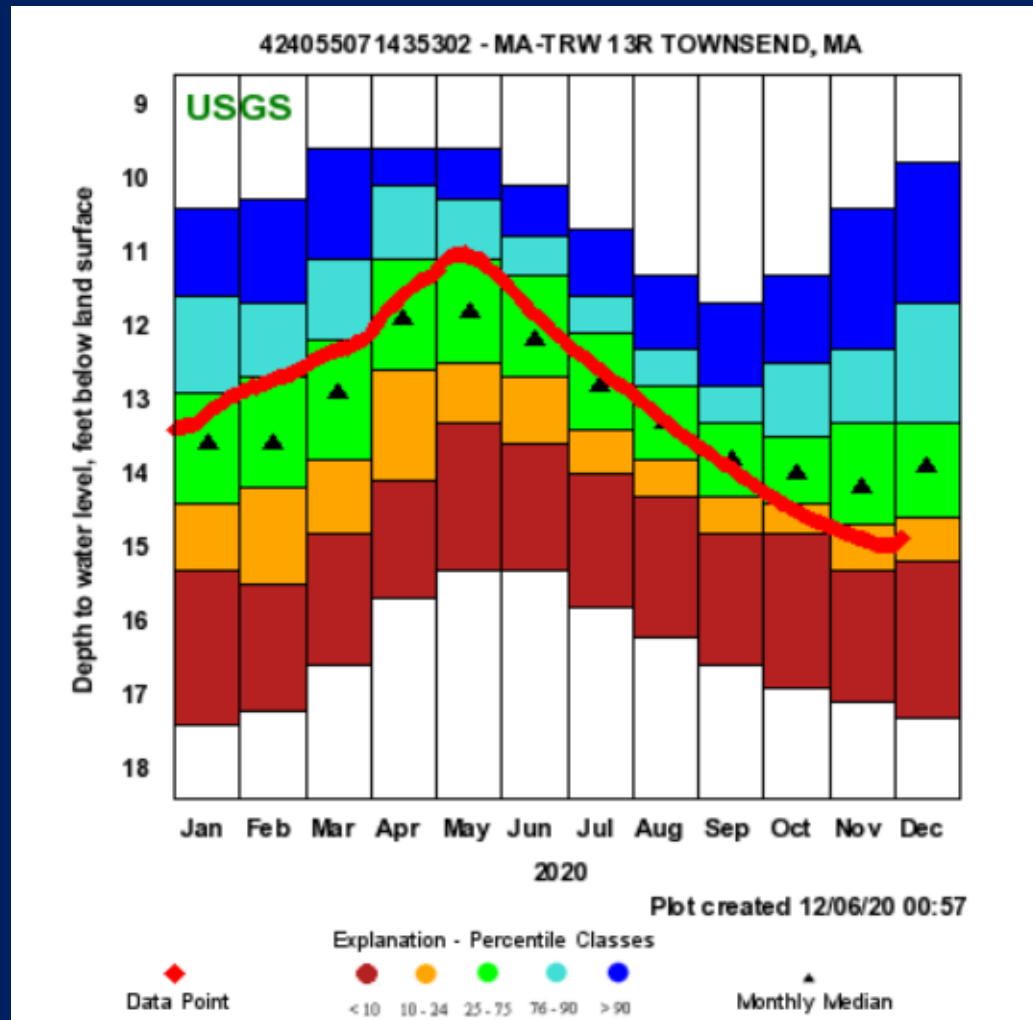


----- Provisional Data Subject to Revision -----

△ Median daily statistic (35 years) — Discharge

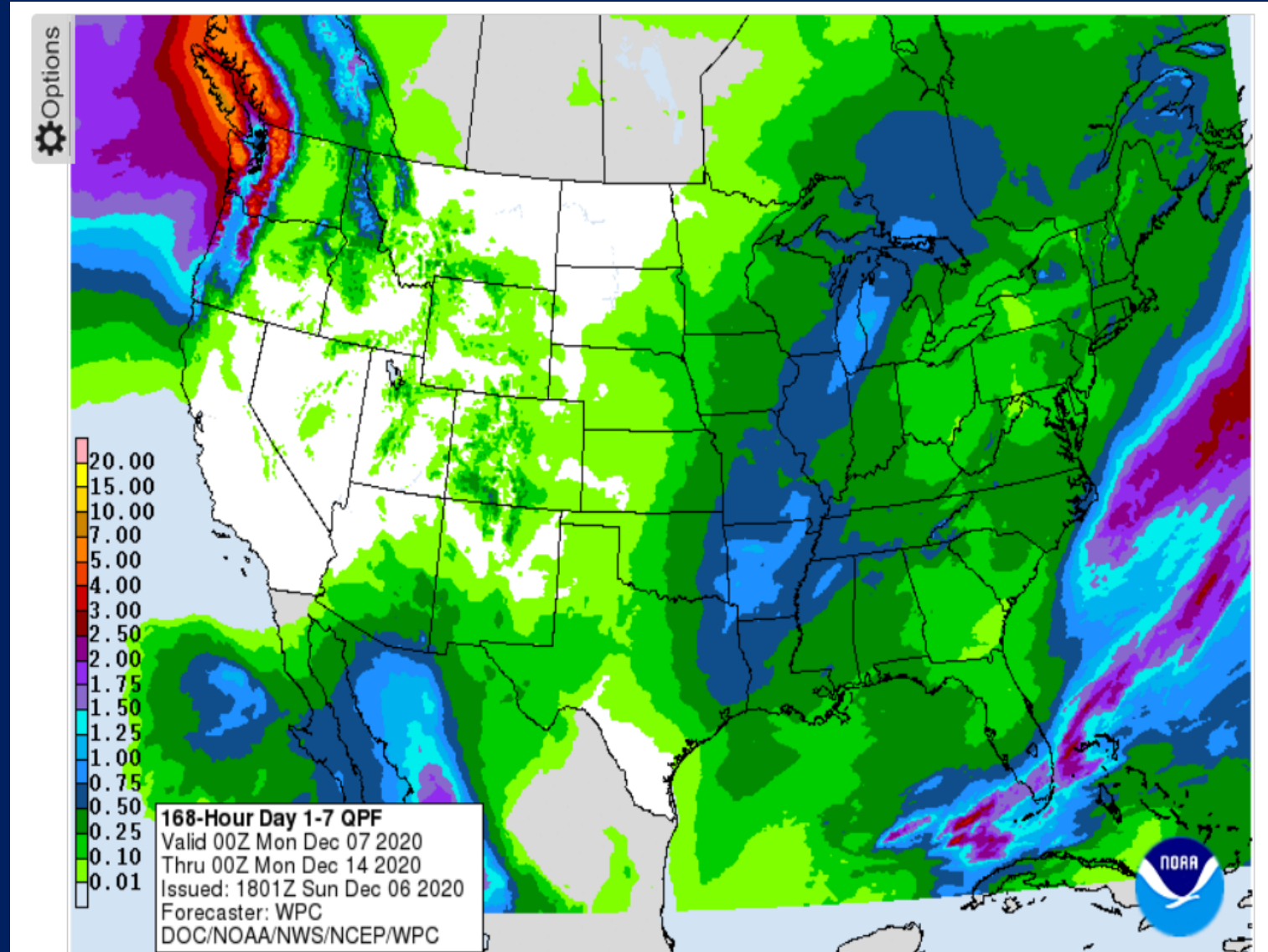
GROUNDWATER TRENDS

- Groundwater is recovering nicely throughout the Commonwealth with a few exceptions.

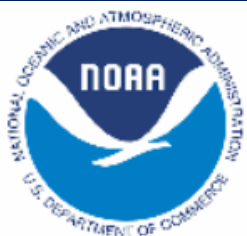


RIVER FORECAST OUTLOOK

- A quieter weather pattern is expected this week with no blockbuster storms.
- The overall pattern now favors near to above normal amounts of precipitation through the end of 2020.



10-DAY RIVER FORECAST – FBGM3



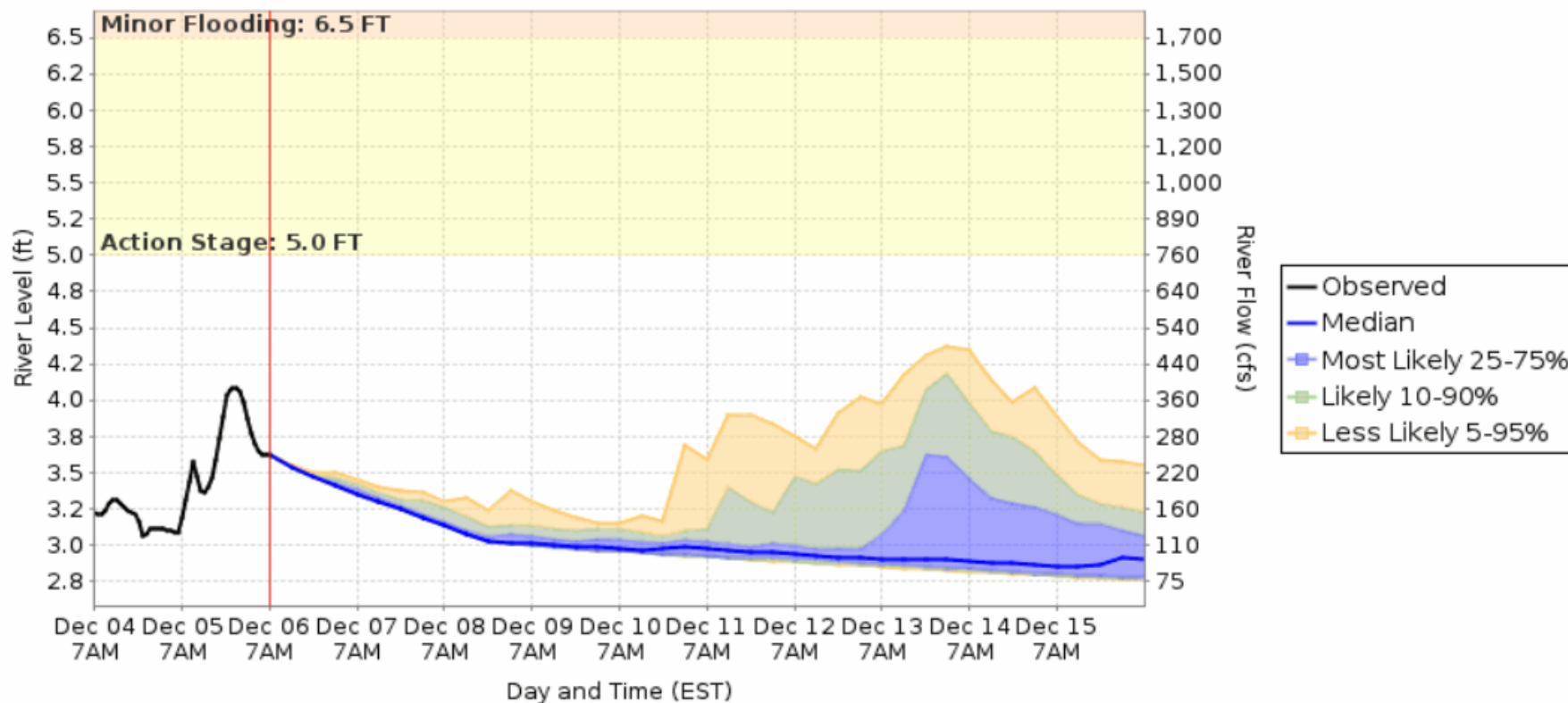
10 Day River Level Probabilities

Used to Estimate the Range of Possible River Levels

Caution: Official forecast may be updated after this graph is generated.
For the latest official forecast, go to <http://water.weather.gov/ahps>



North Nashua River at Fitchburg, MA (FBGM3)

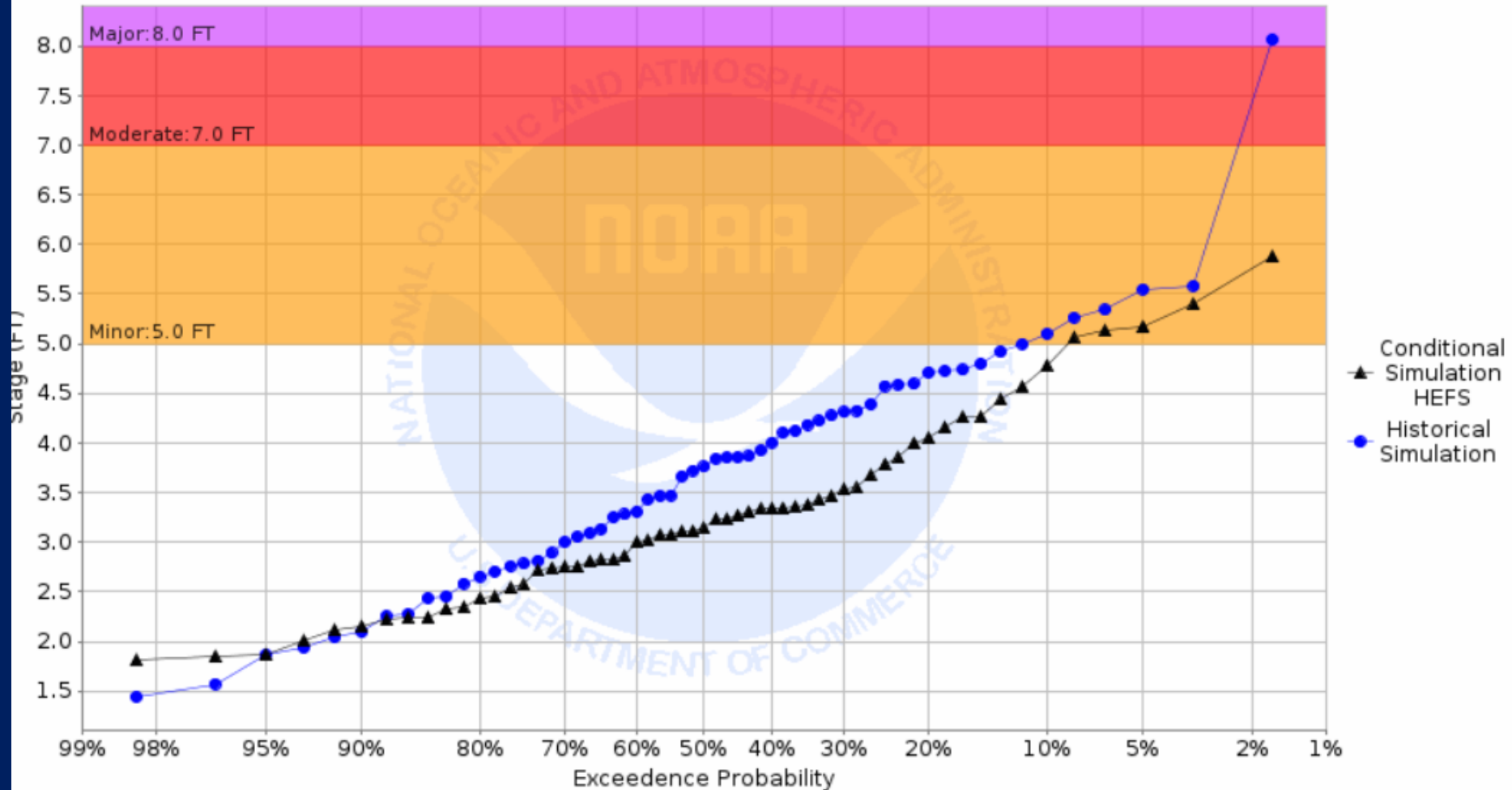


SEASONAL FORECAST TRENDS – DOVM3

▲_{CS} = **Conditional Simulation**

●_{HS} = **Historical Simulation**

Chance of Exceeding River Stage at Charles River at Dover, MA (DOVM3)
Forecast for the period 11/30/2020 - 02/28/2021
This is a conditional simulation based on the current conditions as of 11/30/2020



CONCLUSIONS

- Above to much above normal precipitation over drought areas has dramatically improved river flows and groundwater levels across Massachusetts.
 - Portions of Cape Cod...especially Hyannis and east still behind the curve.
- A fairly active precipitation pattern is expected to continue through most of the month of December.