



MASSACHUSETTS RIVER OVERVIEW



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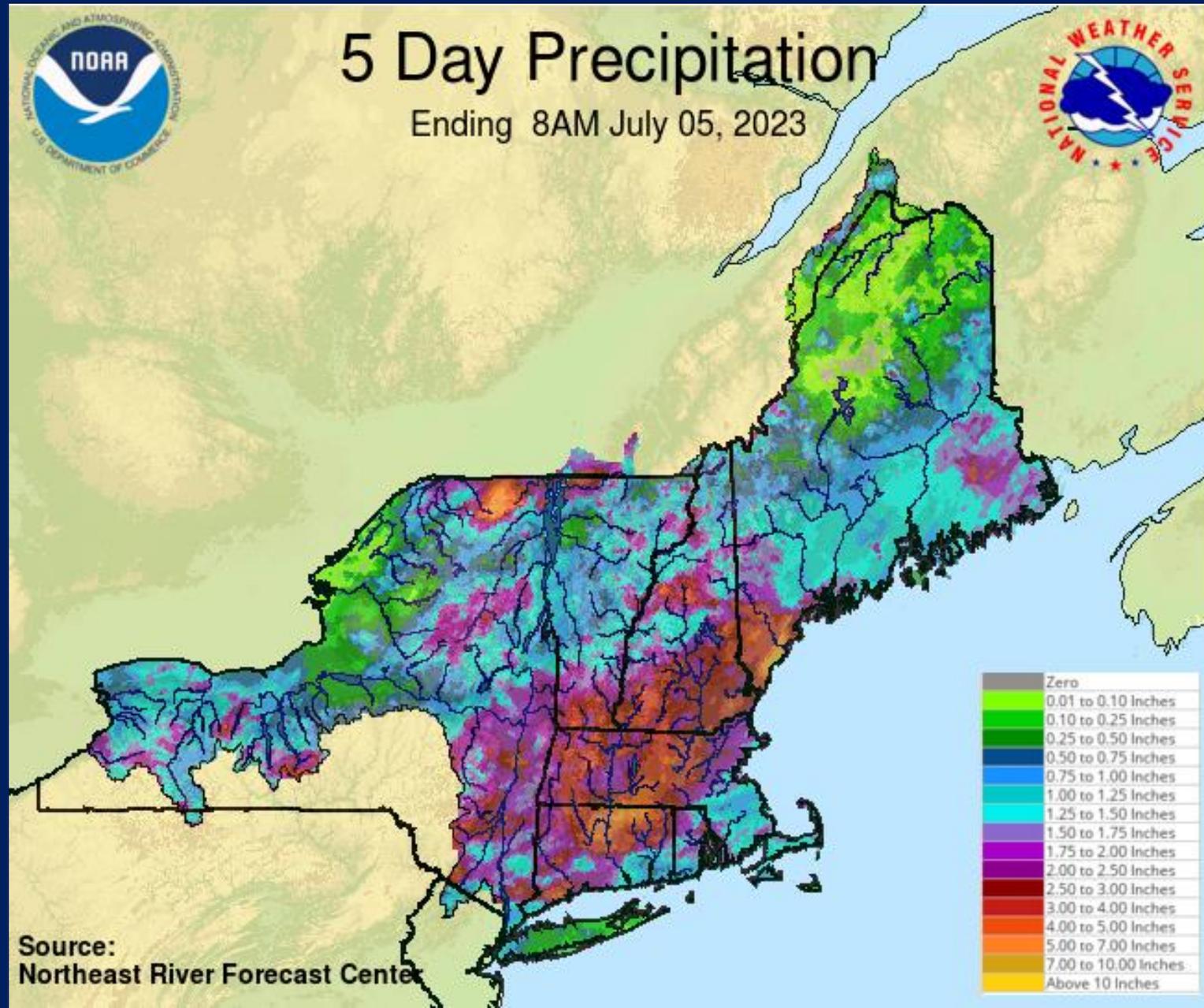
6 July 2023

OUTLINE

- Early July Rainfall
- Snapshot of Massachusetts River Flows
- NERFC River Forecast Outlook
- Conclusions

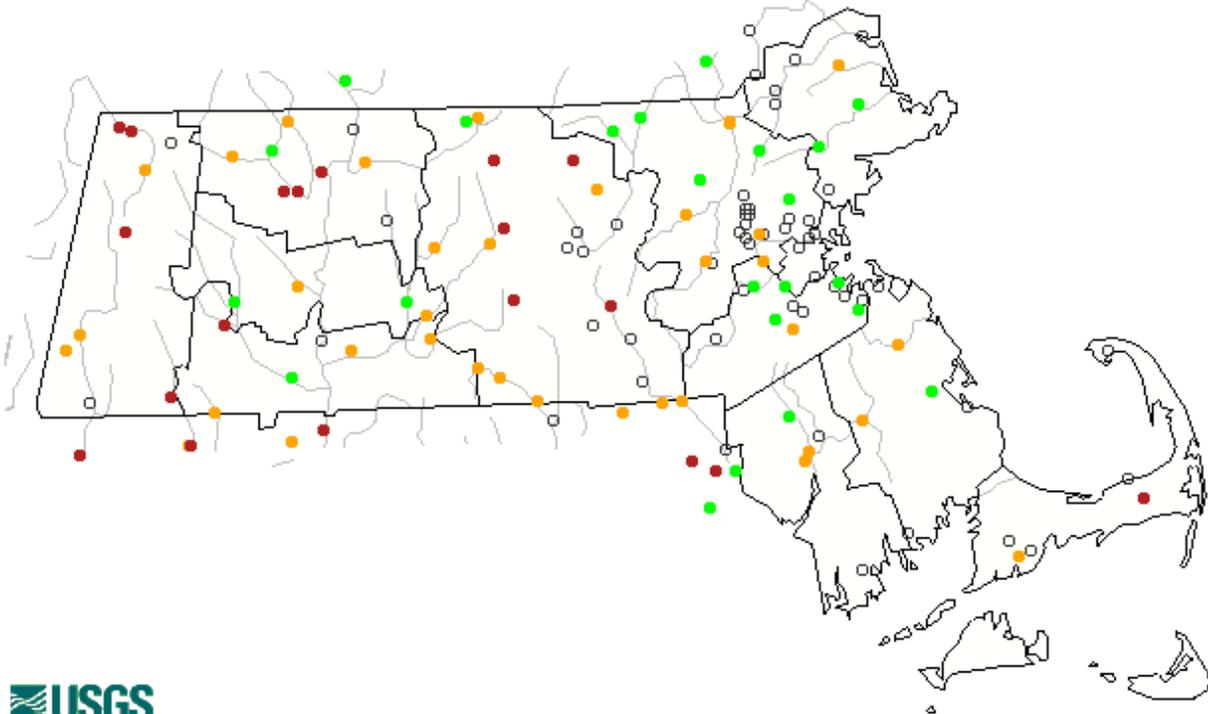
EARLY JULY 2023 RAINFALL

- Very heavy rainfall has occurred across the Commonwealth over the first 5 days of July.
- 2 to 4+ inches has been common from Boston west...with somewhat lower amounts across southeastern Massachusetts which is still well above normal.

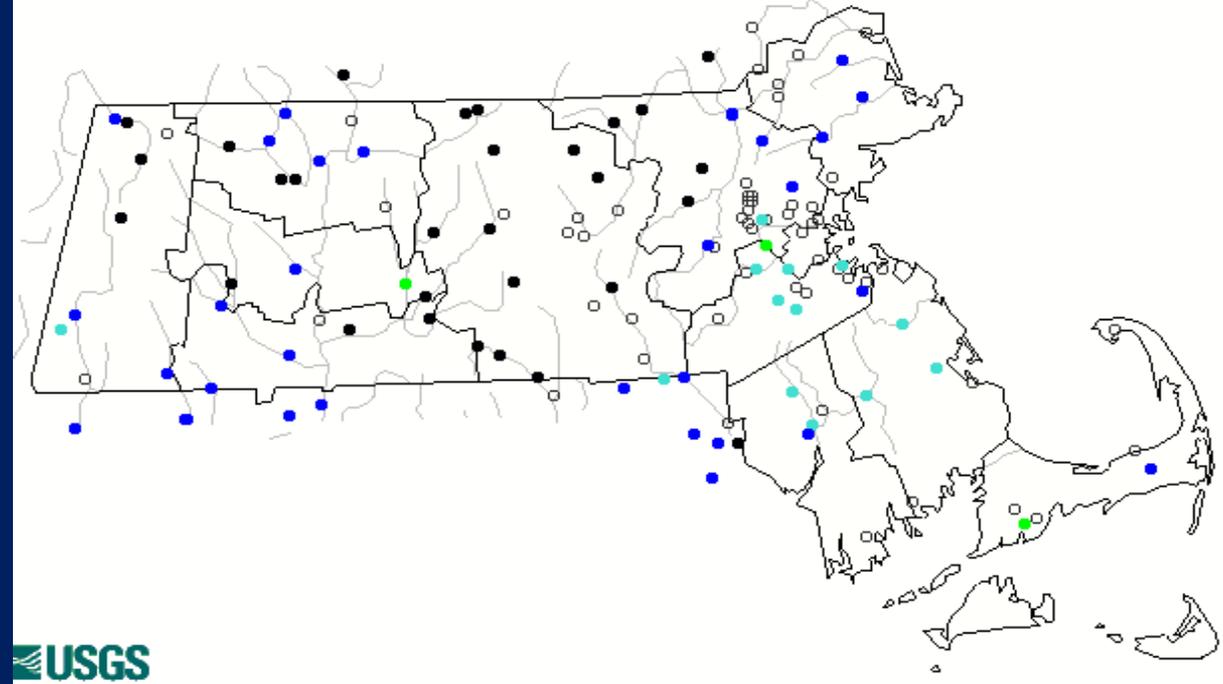


MASSACHUSETTS RIVER FLOWS

Wednesday, June 07, 2023 10:30ET



Wednesday, July 05, 2023 09:30ET



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		

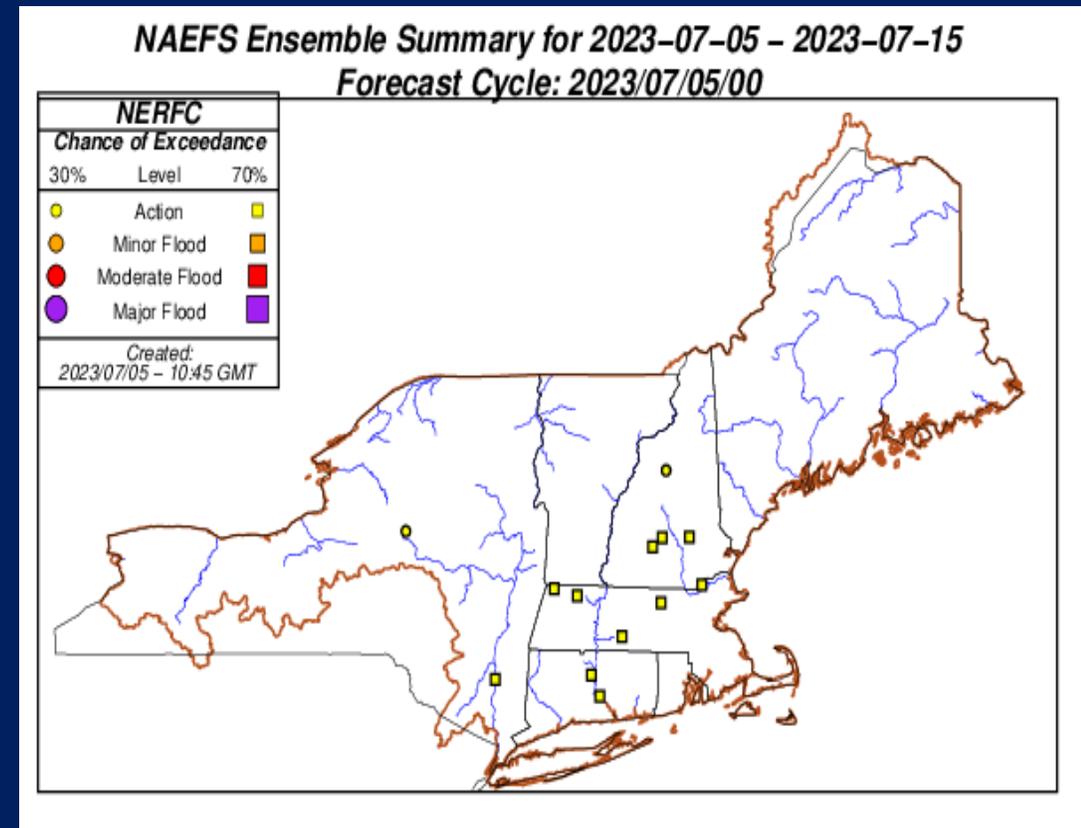
Explanation - Percentile classes

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

River flows have increased dramatically across Massachusetts over the past month. As of yesterday morning...many gauges were flowing at record high levels for the date (black circles).

NAEFS ENSEMBLE RIVER FORECAST OUTLOOK

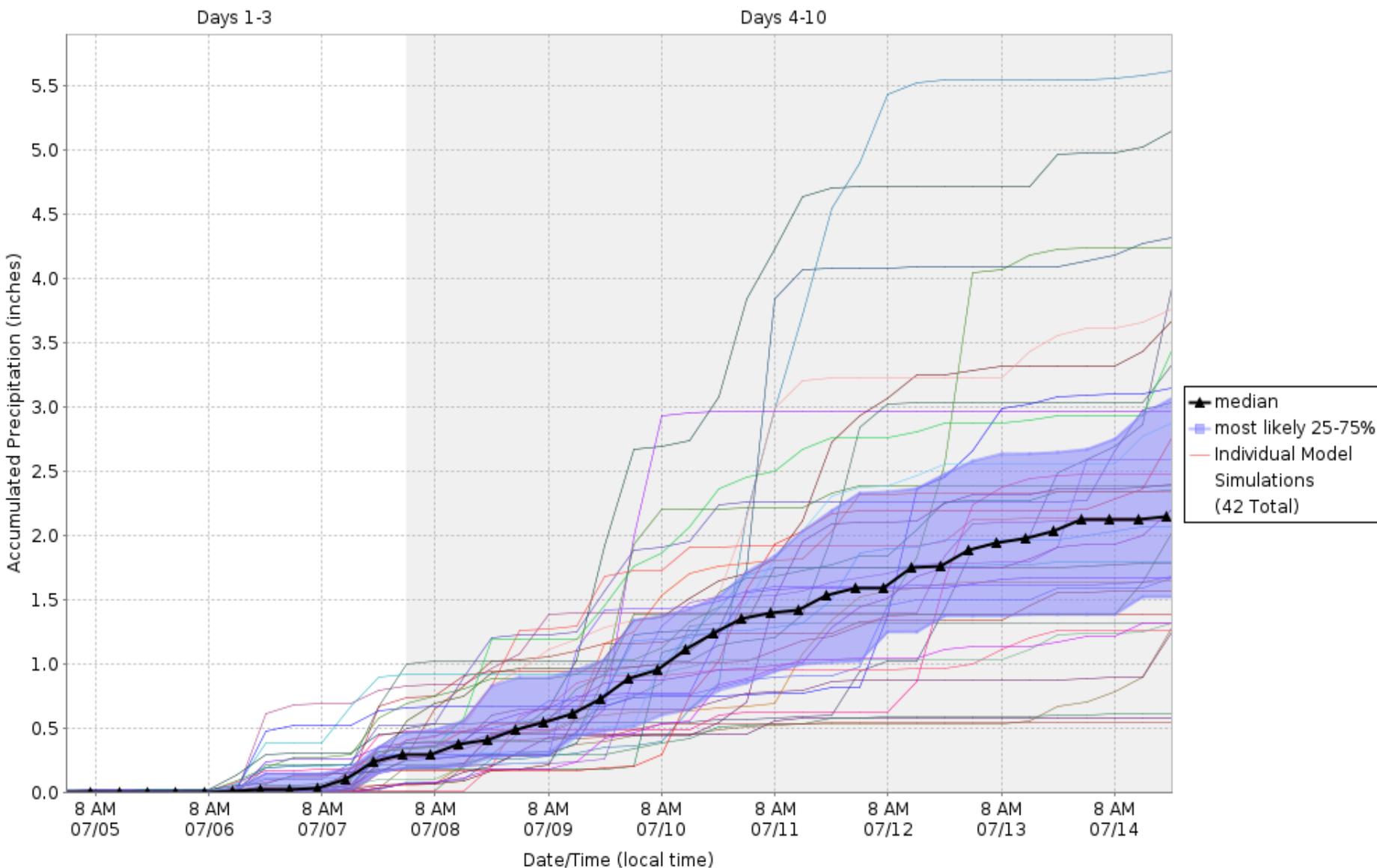
- A 42 member ensemble run for all NERFC forecast points to give us an idea of the possible range of river flows out 10 days.
 - Basically 42 slightly different initial conditions in the weather models lead to 42 different river forecasts based on rainfall and temperature.
- Will show results for...
 - Housatonic River at Great Barrington (GTBM3)
 - Charles River at Dover (DOVM3)
 - Taunton River at Bridgewater (BDGM3)



NAEFS PCPN – GTBM3

Jul 05 - Jul 15, 2023

Housatonic River at Great Barrington, MA (GTBM3)



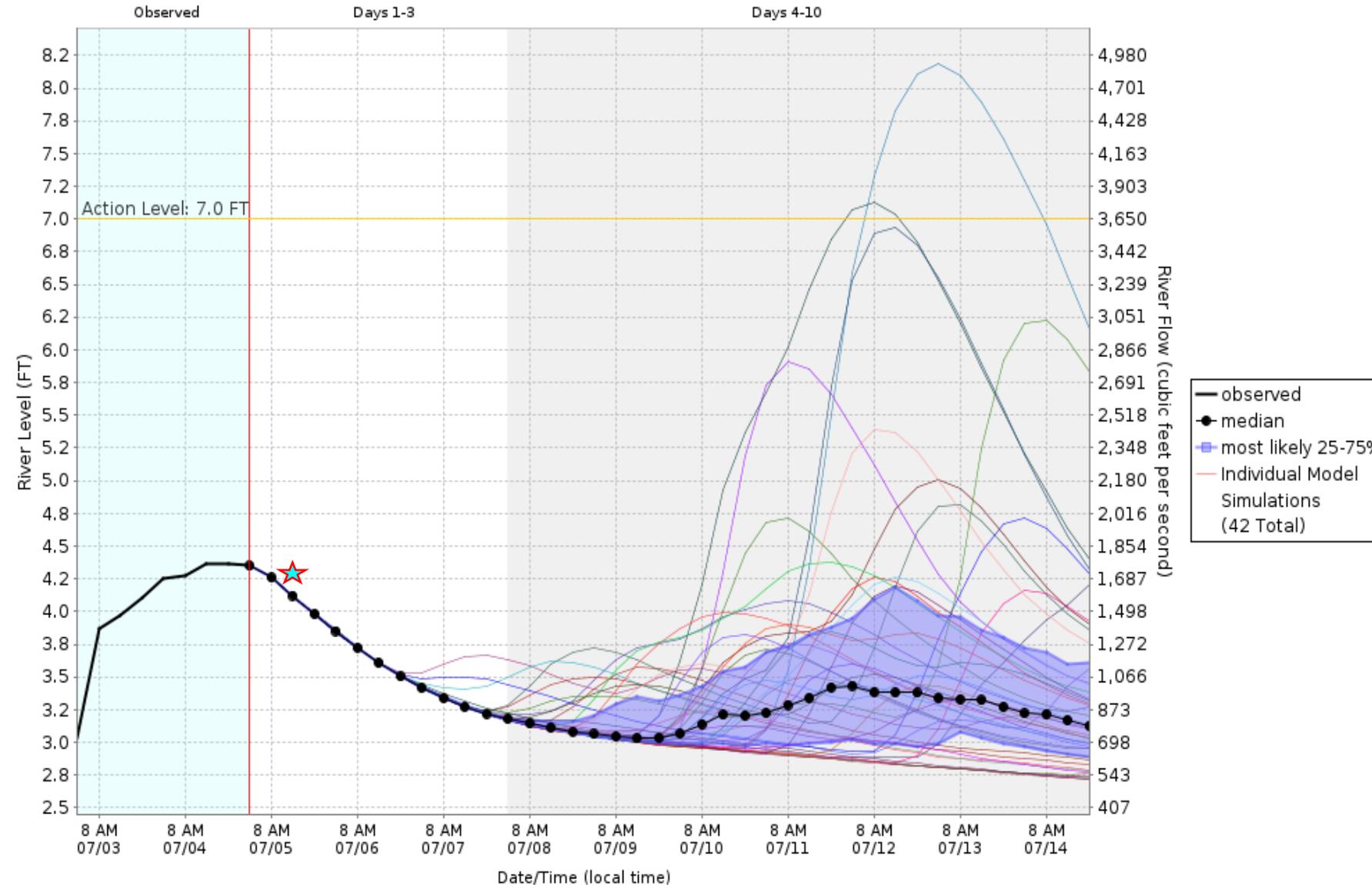
Over the next 10 days...median forecast rainfall is pretty generous at around 2 inches. There are no members with less than 0.50 inches which is rare in July.

So...the wet pattern seems poised to continue across western Massachusetts.

NAEFS – GTBM3

Jul 05 - Jul 15, 2023

Housatonic River at Great Barrington, MA (GTBM3)



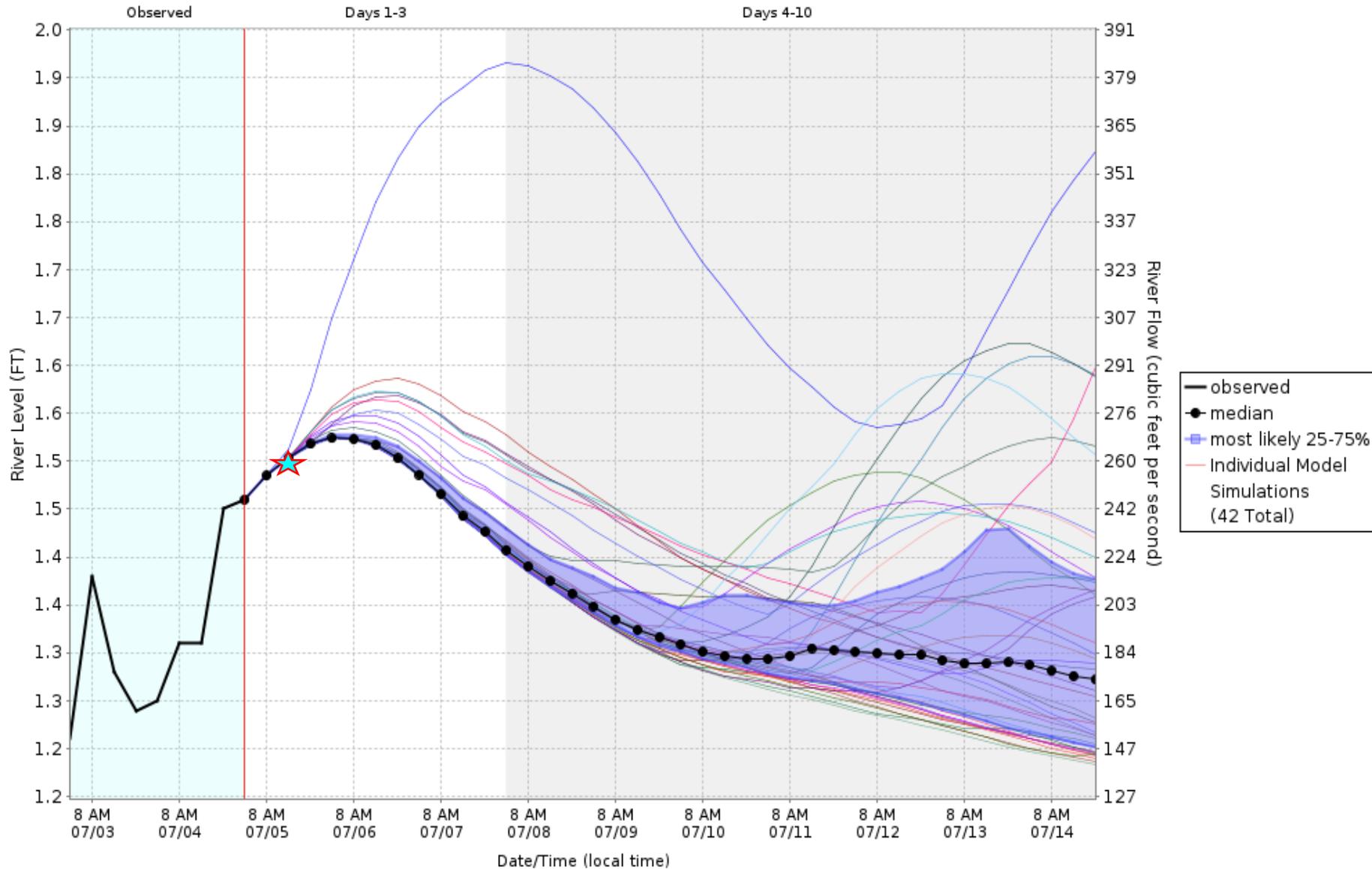
Flows are expected to remain well above median early July levels into at least mid to late July.

The historical median flow for 5 July is off the bottom of the image at 194 CFS with records going back 110 years.

NAEFS – DOVM3

Jul 05 - Jul 15, 2023

Charles River at Dover, MA (DOVM3)



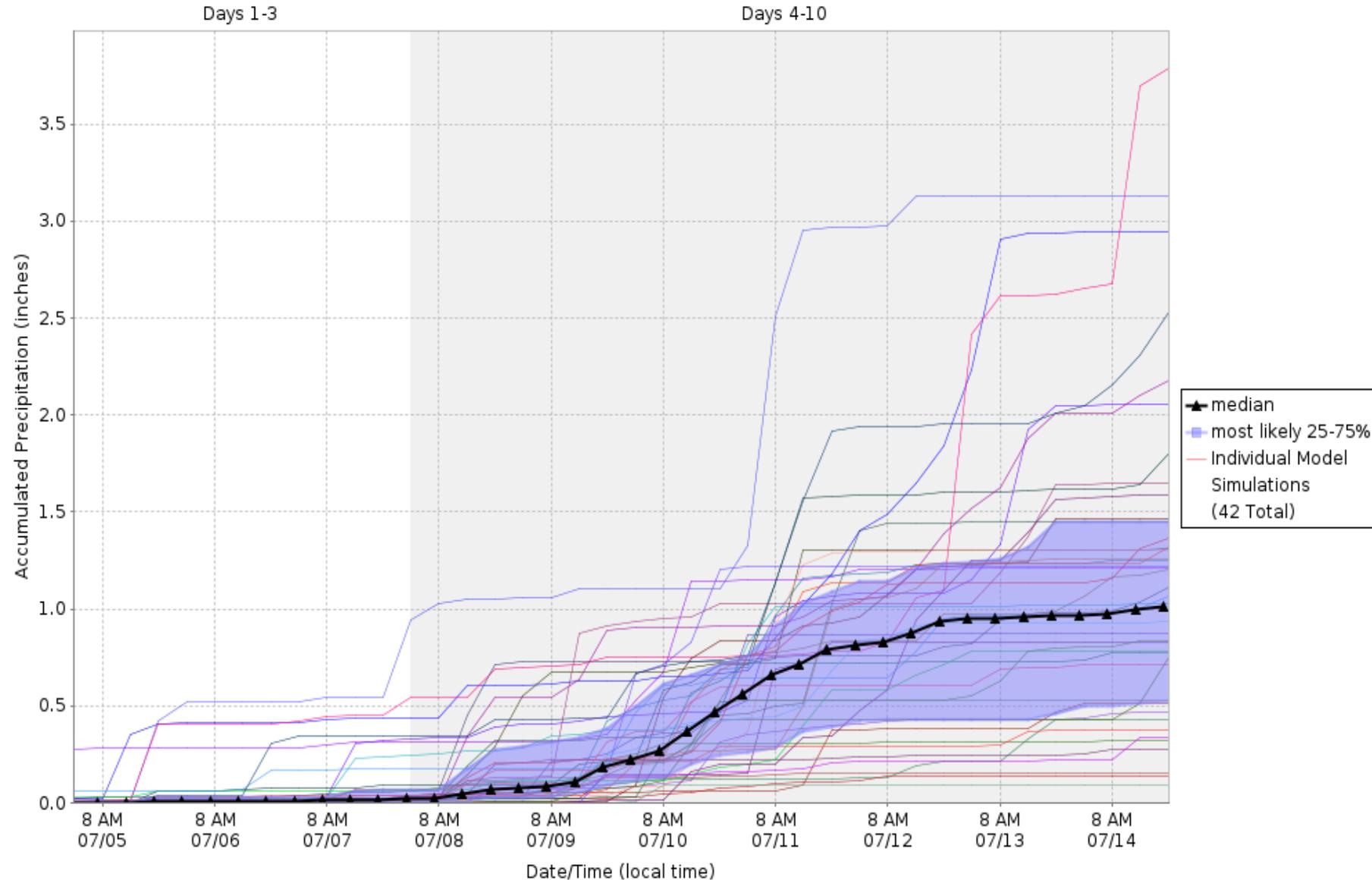
Flows will likely continue above the median for early July over the next 10 days although not as high as western Massachusetts.

The historical median is again below the bottom of the image at 93 CFS.

NAEFS PCPN – BDGM3

Jul 05 - Jul 15, 2023

Taunton River at Bridgewater, MA (BDGM3)

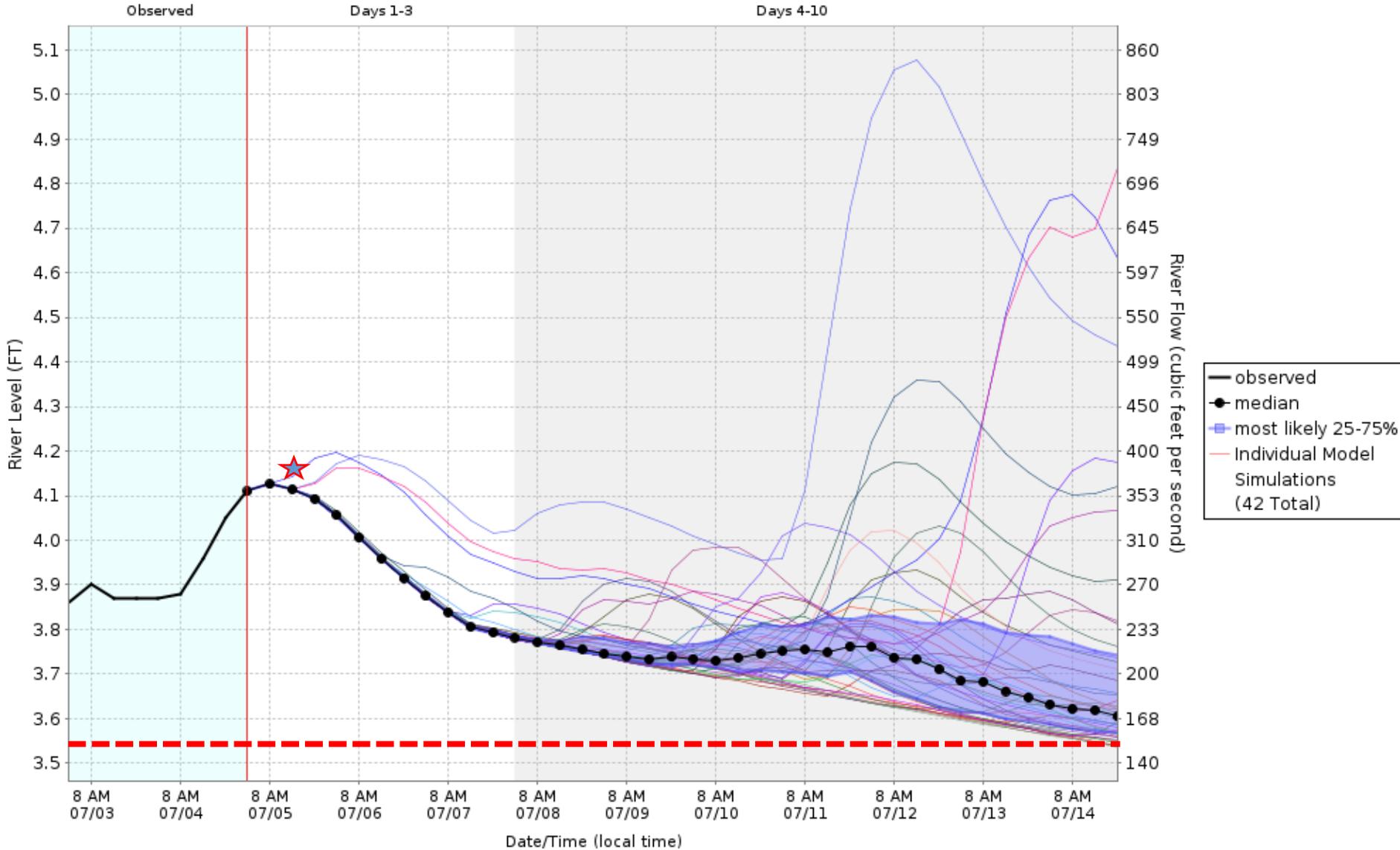


- Forecast rainfall across southeastern Massachusetts is notably less than out west with a median of about 1 inch.
- Note that there are many members below 0.50 inches unlike western Massachusetts indicating a drier outlook.

NAEFS – BDGM3

Jul 05 - Jul 15, 2023

Taunton River at Bridgewater, MA (BDGM3)



- Flows on the Taunton River could decline towards median July levels (dashed red line) by mid-July but on the whole...flows are still quite healthy for summer.

CONCLUSIONS

- River flows have increased dramatically across the Commonwealth over the past month and are now mostly above to much above normal.
- The weather pattern looks fairly active for July with several chances for rainfall over the next 10 days. As a result...the NERFC river forecast ensembles call for rivers and streams to remain above to much above July median levels as we head into the end of the month.
- Southeastern portions of Massachusetts could end up a little drier and see flows recede down closer to median levels by mid-month.

[weather.gov/nerfc](https://www.weather.gov/nerfc)