

MASSACHUSETTS RIVER OVERVIEW



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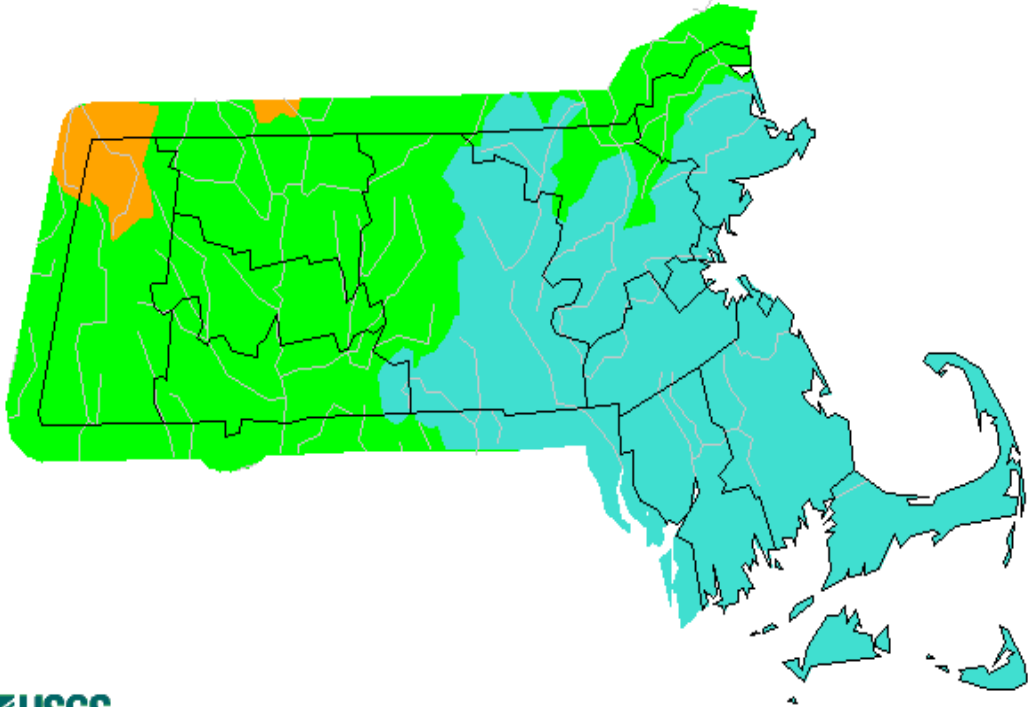
10 July 2024

OUTLINE

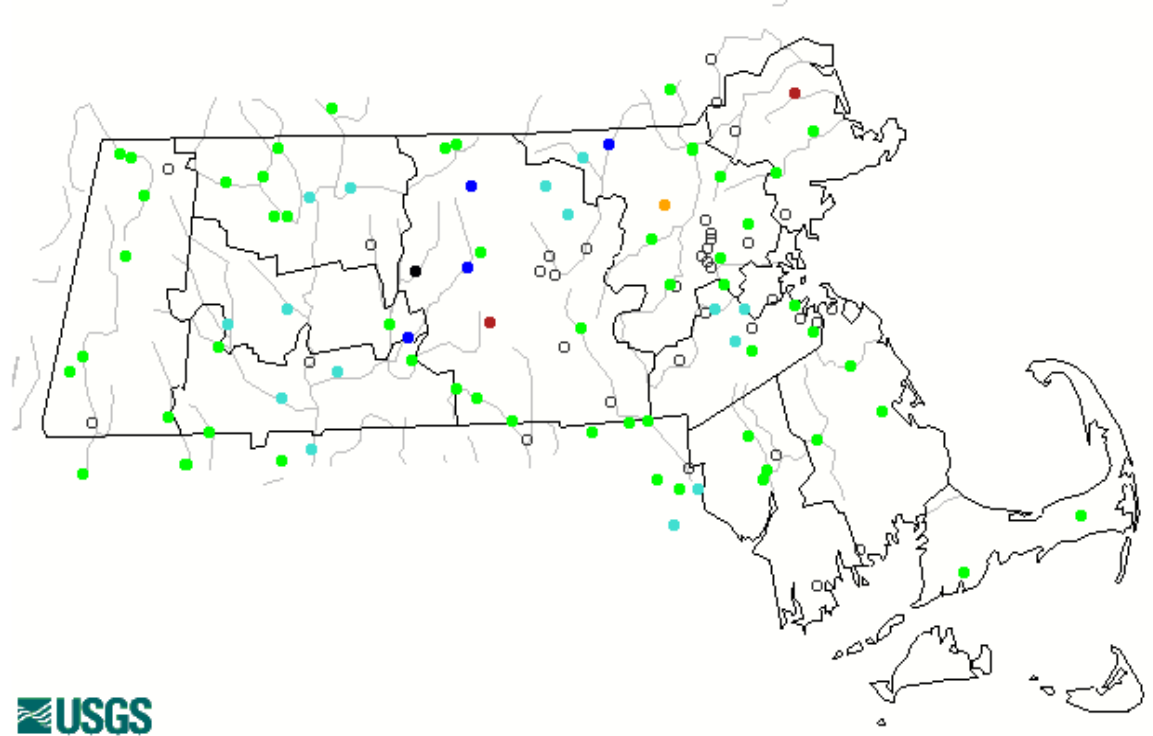
- Snapshot of Massachusetts River Flows
- NERFC River Forecast Outlook – Western Massachusetts
- Conclusions

MASSACHUSETTS RIVER FLOWS

Saturday, June 01, 2024



Monday, July 08, 2024



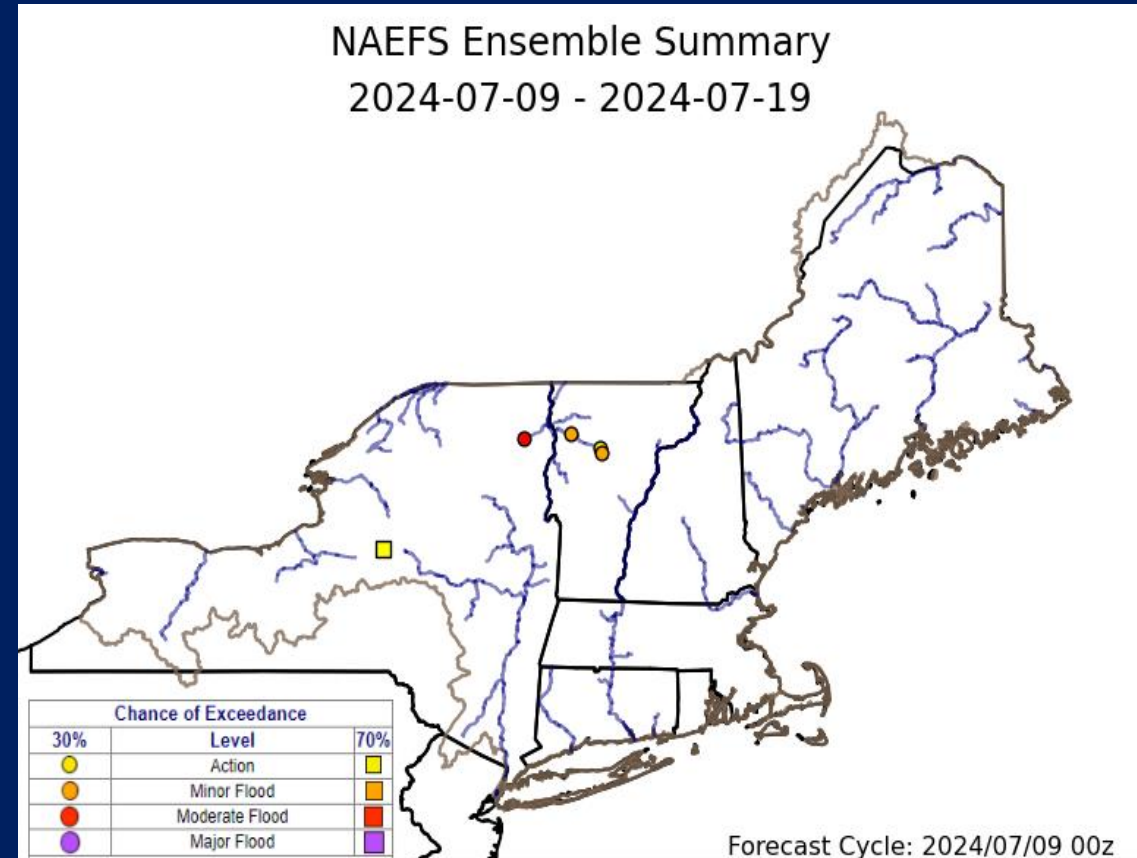
| Explanation - Percentile classes | | | | | | | |
|----------------------------------|-------------------|--------------|--------|--------------|-------------------|------|---------|
| Low | <10 | 10-24 | 25-75 | 76-90 | >90 | High | No Data |
| | Much below normal | Below normal | Normal | Above normal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

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|----------------------------------|-------------------|--------------|--------|--------------|-------------------|------|---------|
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Over the past month...flows have held steady or increased across central and western Massachusetts and decreased a bit over eastern Massachusetts.

NAEFS ENSEMBLE RIVER FORECAST OUTLOOK

- A 52 member ensemble run for all NERFC forecast points to give us an idea of the possible range of river flows out 10 days.
 - Basically 52 slightly different initial conditions in the weather models lead to 52 different river forecasts based on rainfall and temperature.
- Will show results for...
 - Hoosic River at Williamstown (WILM3)
 - Westfield River at Westfield (WSFM3)



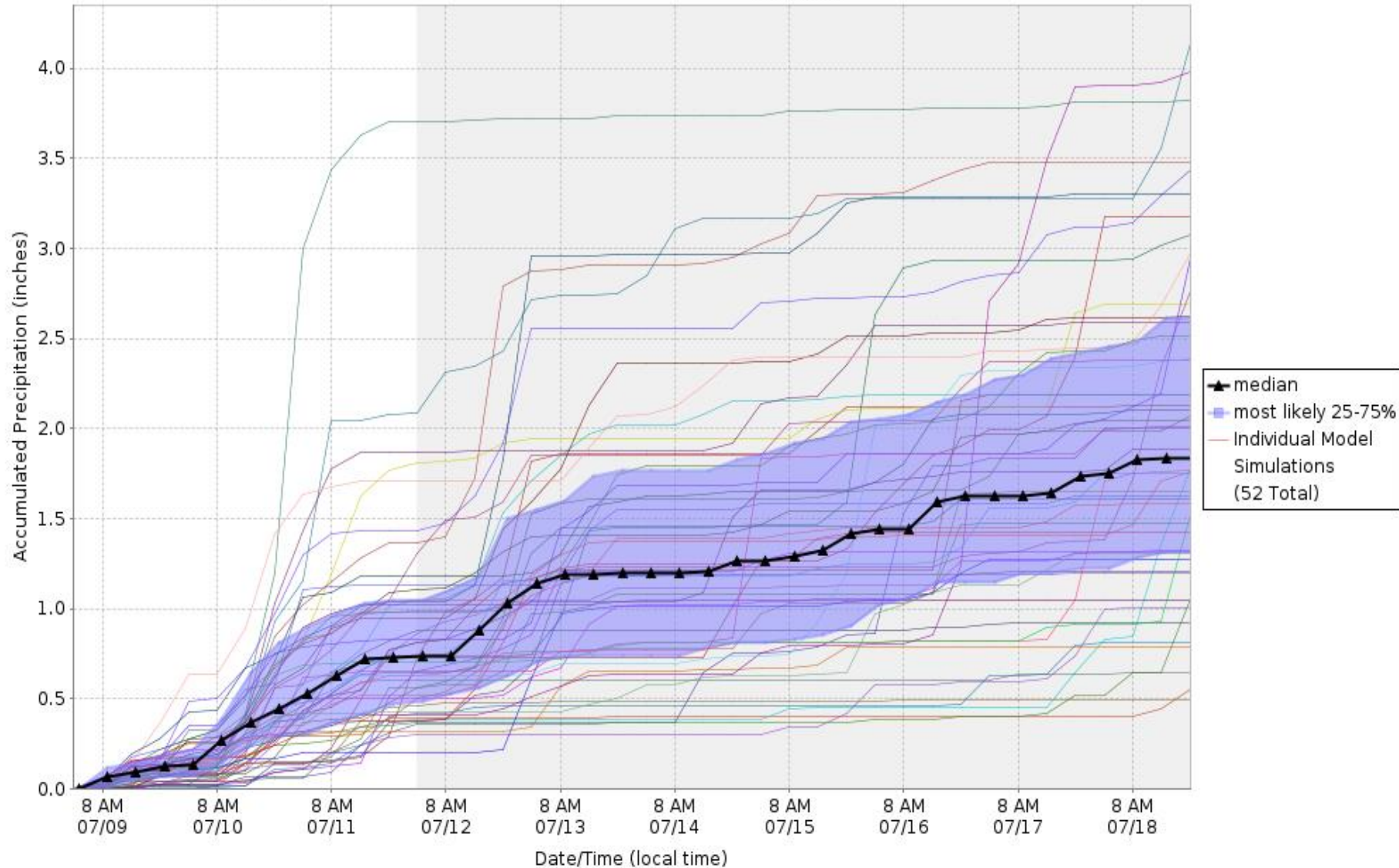
NAEFS RAINFALL – WILM3

Jul 09 - Jul 19, 2024

Hoosic River at Williamstown, MA (WILM3)

Days 1-3

Days 4-10



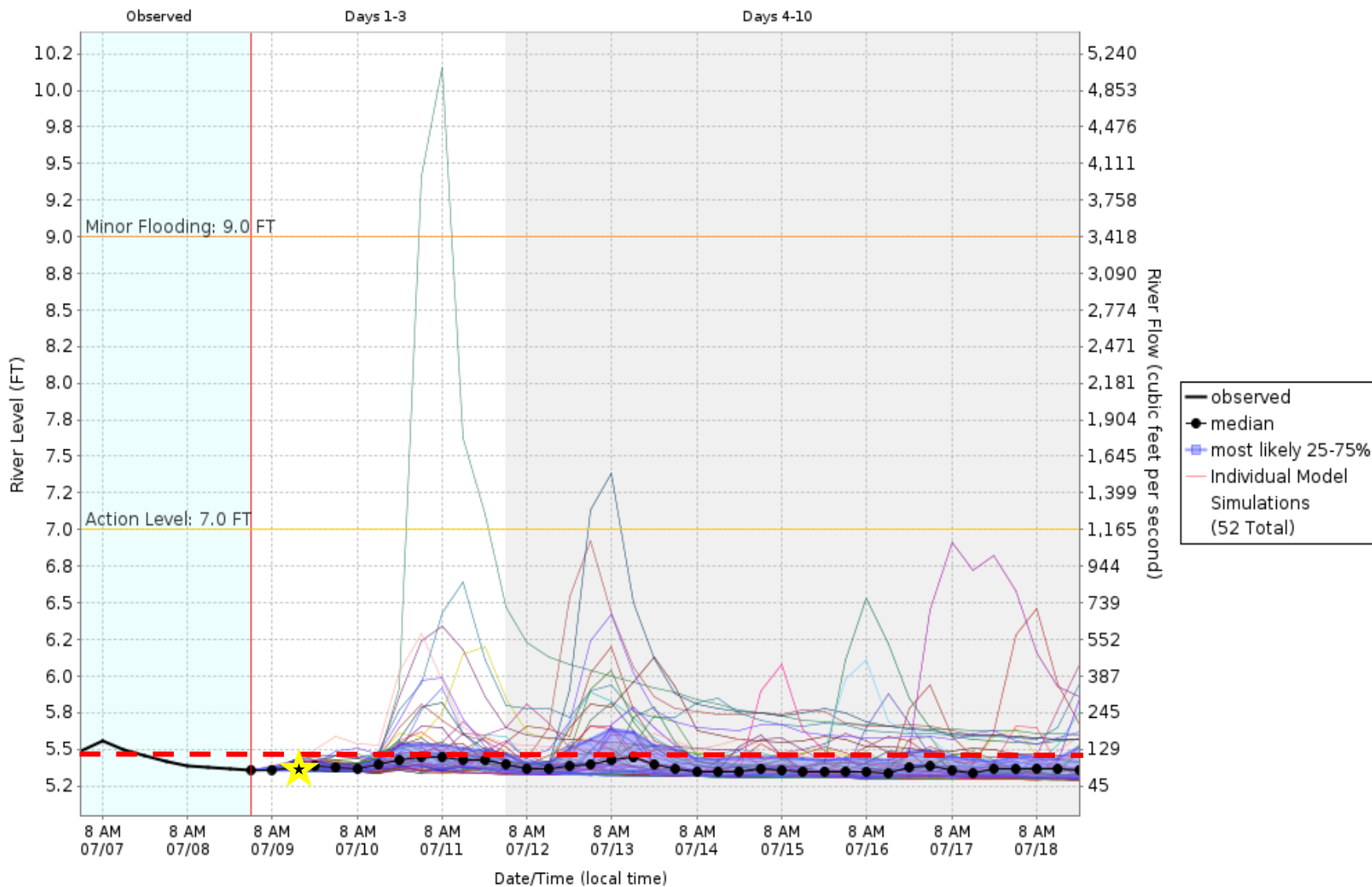
Over the next 10 days...median forecast rainfall is pretty generous at around 1.75 inches.

There is a lot of spread in the forecast precipitation due to the expected convective nature of the rainfall.

NAEFS – WILM3

Jul 09 - Jul 19, 2024

Hoosic River at Williamstown, MA (WILM3)



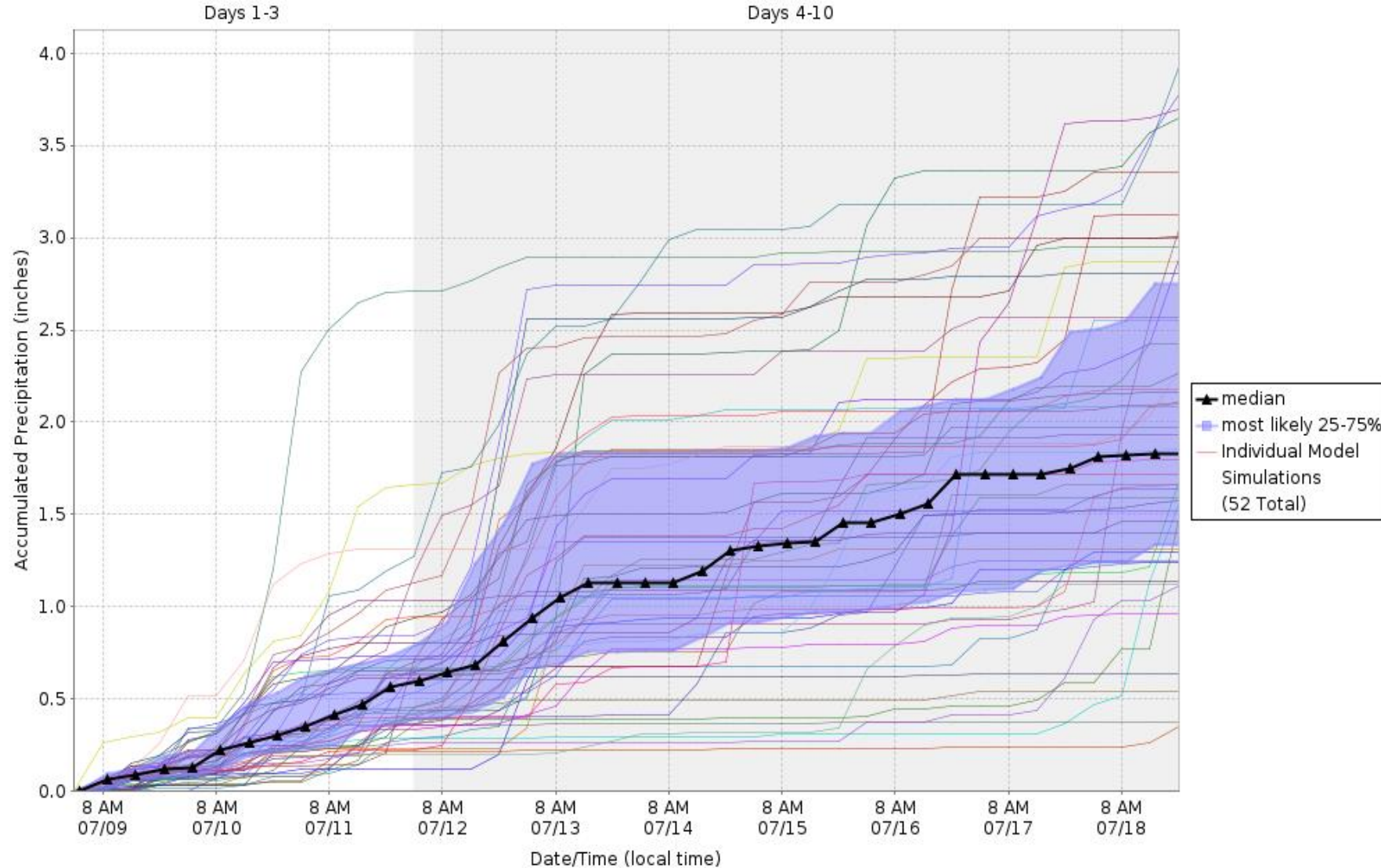
Flows are expected to remain near to just below median early July levels (red dashed line) over the next 10 days.

Any thunderstorms with heavy rainfall have the potential to boost flows above the monthly median as seen in individual ensembles.

NAEFS RAINFALL – WSFM3

Jul 09 - Jul 19, 2024

Westfield River at Westfield, MA (WSFM3)

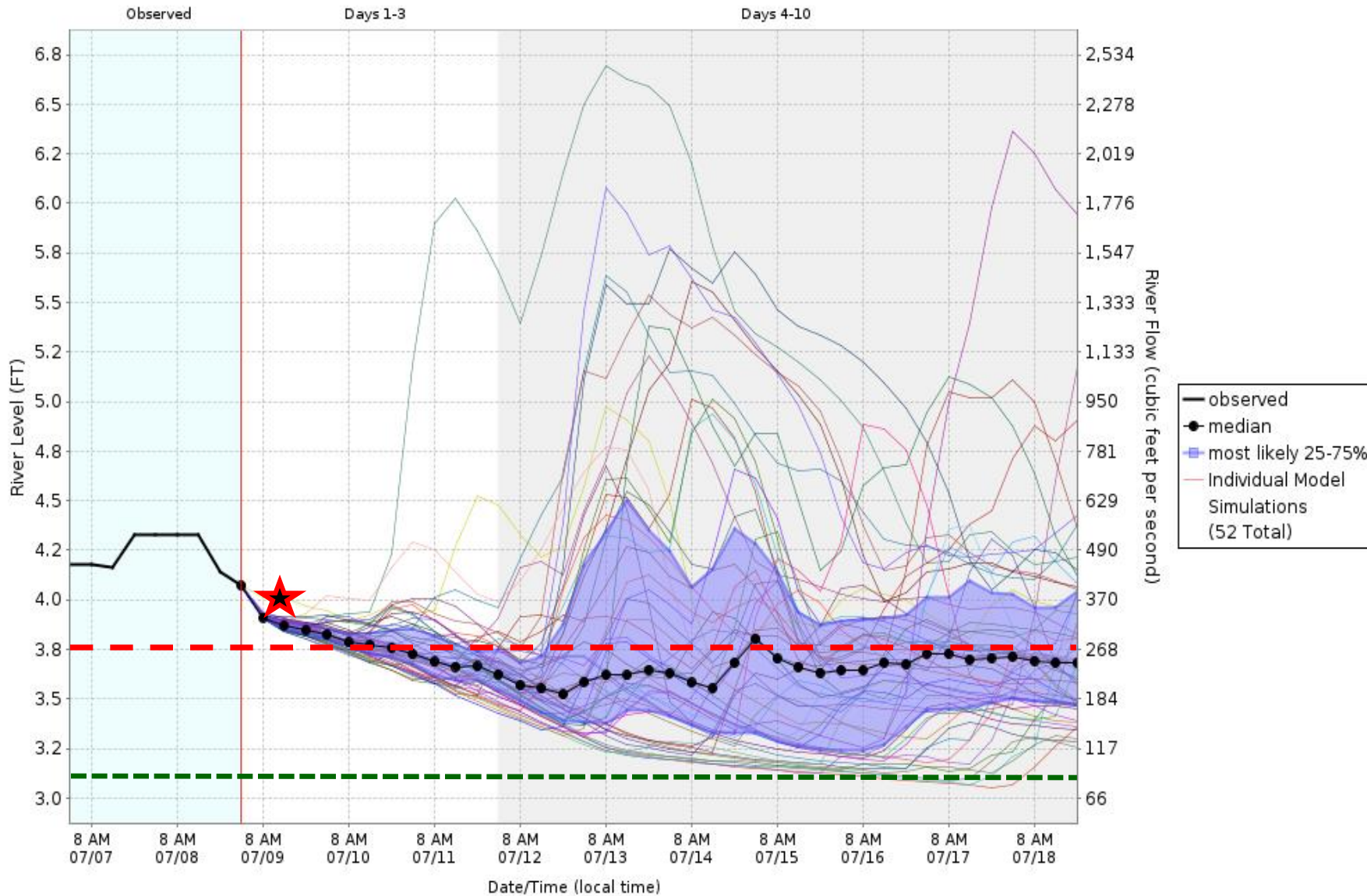


Similar to the Williamstown precipitation forecast...a healthy amount of rainfall is likely across the Westfield basin although there is fairly large spread beyond Day 3.

NAEFS – WSFM3

Jul 09 - Jul 19, 2024

Westfield River at Westfield, MA (WSFM3)



- Flows on the Westfield River will likely remain close to median levels (red dashed line) over the next 10 days.
- Almost every one of the 52 ensemble members keeps flow above minimum early July levels (green dashed line).

CONCLUSIONS

- Heading into mid-July 2024...river flows across most of the Commonwealth are in good shape. Over the past month...flows have increased a bit across western and central Massachusetts but have tended to decrease across eastern and southeastern portions of the state.
- 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 close to current levels as we head into the latter one-half of July.
- The heaviest rainfall associated with the remains of Hurricane Beryl are currently forecast to remain north and west of Massachusetts through Thursday.

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