

# MASSACHUSETTS RIVER OVERVIEW



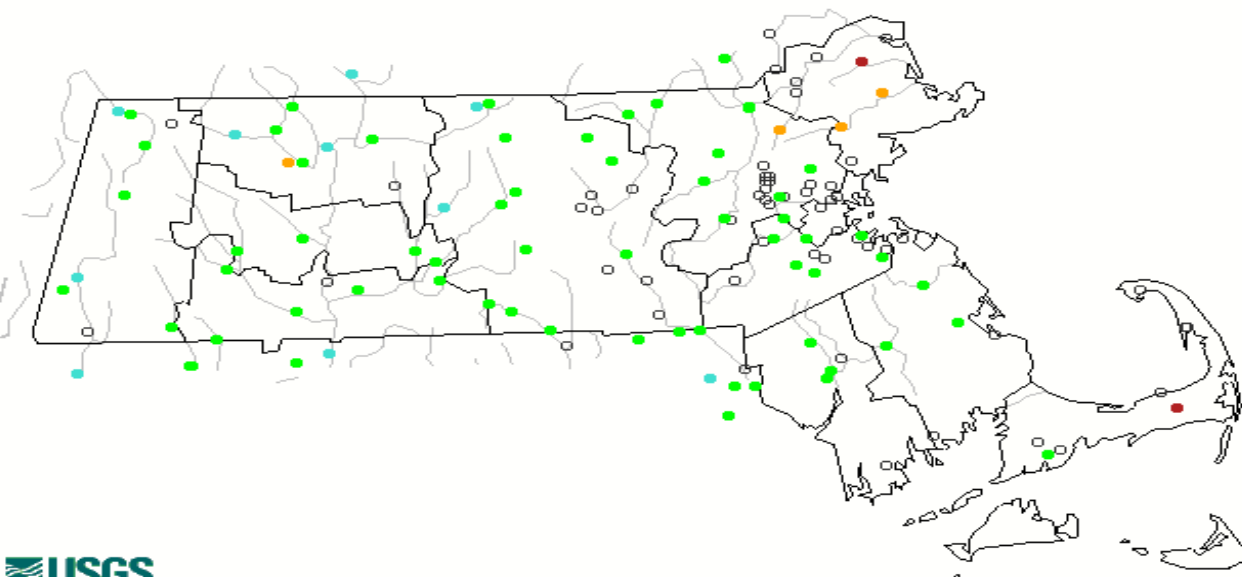
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NWS / Northeast River  
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MA Drought Management  
Task Force  
9 January 2023

# OUTLINE

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

# MASSACHUSETTS RIVER FLOWS

Tuesday, December 06, 2022 11:30ET



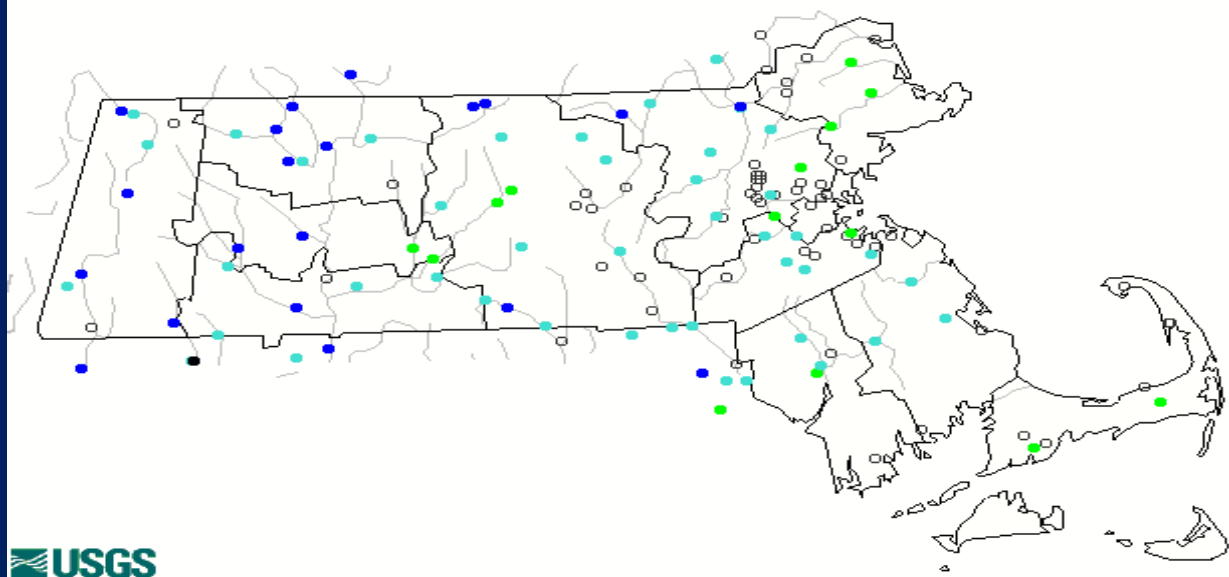
Search USGS streamgage

Choose a data retrieval option and select a location on the map

- List of all stations
- Single station
- Nearest stations
- Peak flow

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

Sunday, January 08, 2023 08:30ET



Search USGS streamgage

Choose a data retrieval option and select a location on the map

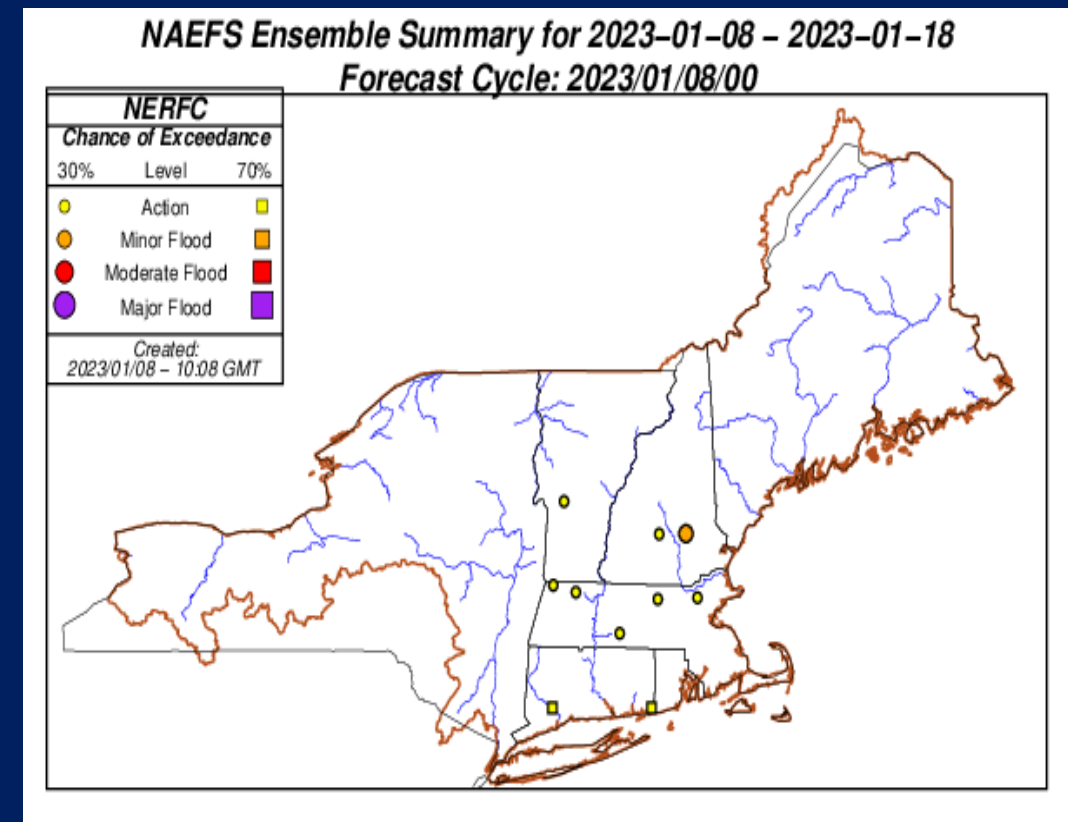
- List of all stations
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Explanation - Percentile classes							
Low	<10 Much below normal	10-24 Below normal	25-75 Normal	76-90 Above normal	>90 Much above normal	High	Not-ranked

River flows have continued to improve over the past month and are now above to much above normal across much of central and western Massachusetts. Even in the hard hit drought areas of Essex County and Barnstable County...flows have recovered to largely normal.

# NAEFS ENSEMBLE RIVER FORECAST OUTLOOK

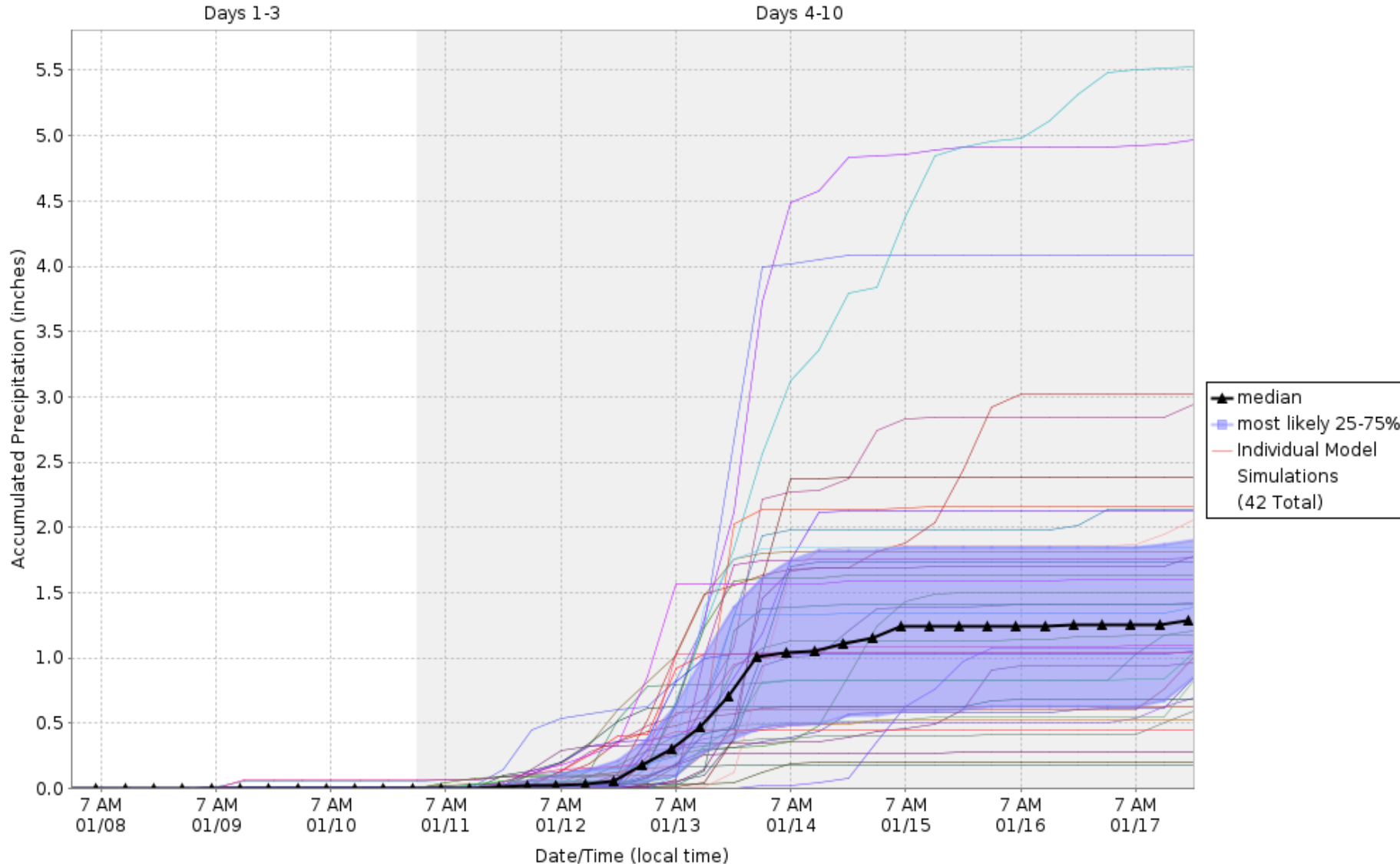
- A 42 member ensemble run for all NERFC forecast points to give us an idea of the possible range of river flows out 10 days.
  - Basically 42 slightly different initial conditions in the weather models lead to 42 different river forecasts based on rainfall and temperature.
- Will show results for...
  - Shawsheen River at Wilmington (WLLM3)
  - Charles River at Dover (DOVM3)
  - Hoosic River at Williamstown (WILM3)



# NAEFS PCPN – WLMM3

Jan 08 - Jan 18, 2023

Shawsheen River at Wilmington, MA (WLMM3)



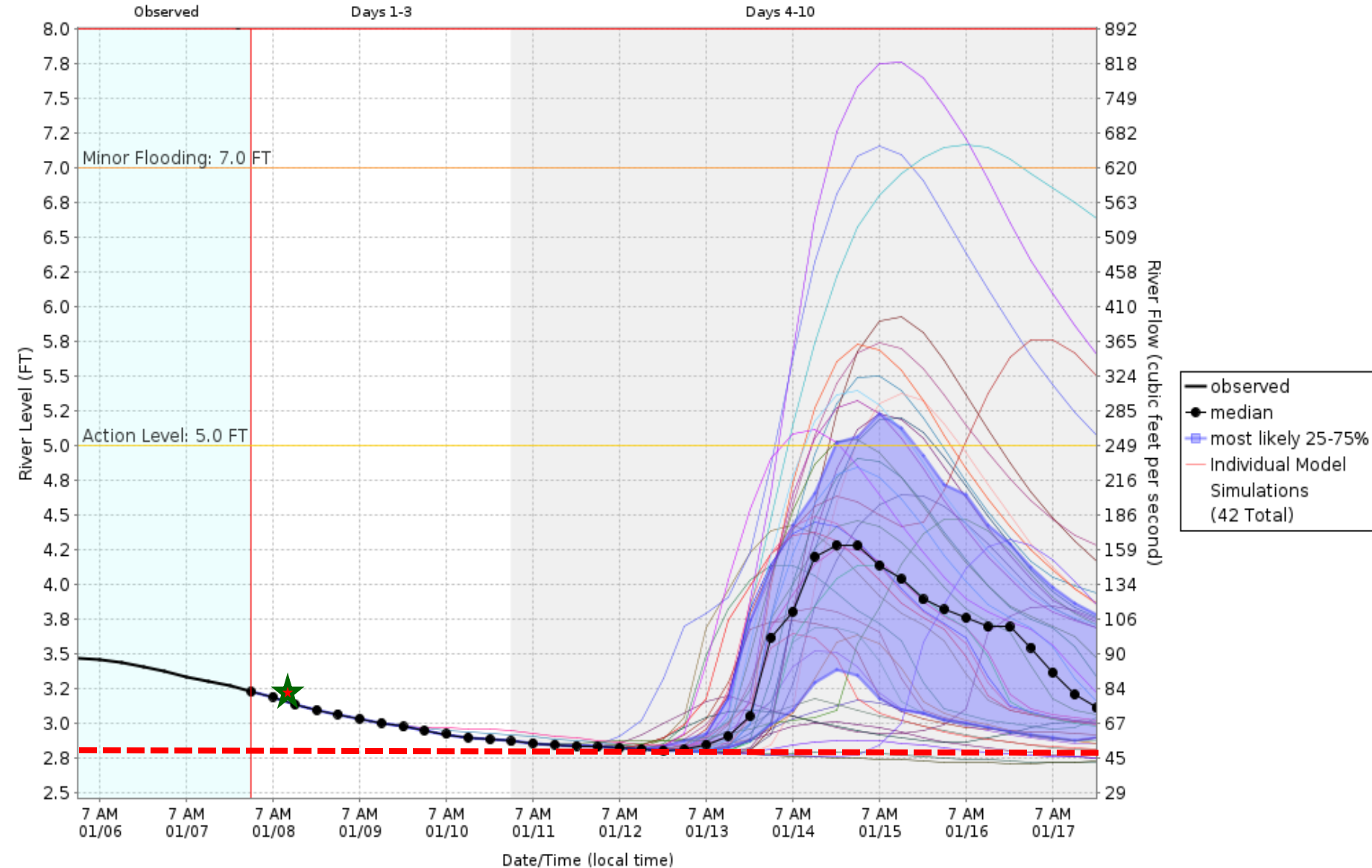
Little precipitation is expected through mid-week.

A decent sized system is forecast late this week and upcoming weekend with an inch or more of melted equivalent precipitation likely (right now more rain than snow likely near the coast).

# NAEFS – WLMM3

Jan 08 - Jan 18, 2023

Shawsheen River at Wilmington, MA (WLMM3)

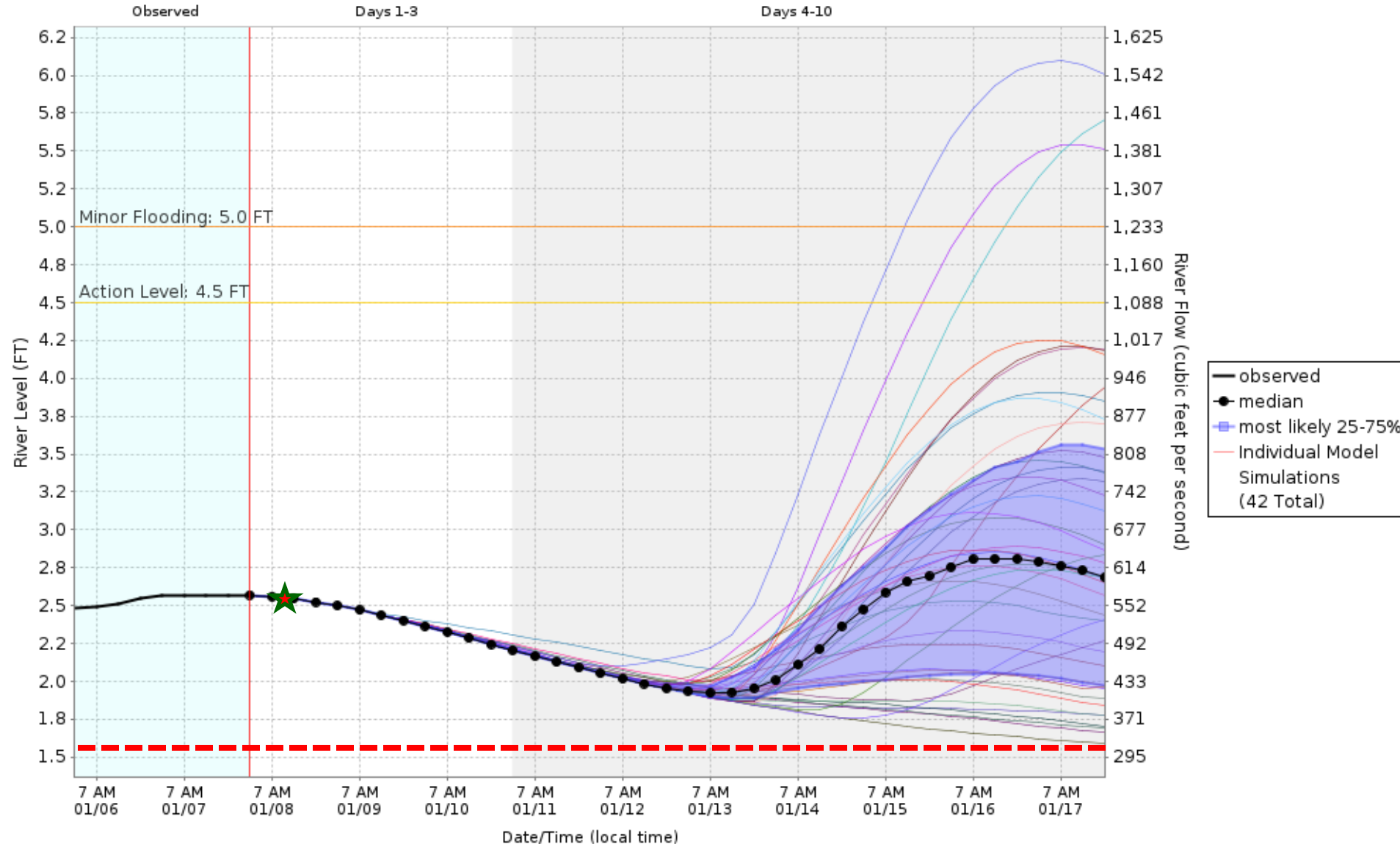


Flows will likely stay at or above median levels (dashed red line) through the period. Significant rises are likely late this week and during the upcoming weekend.

# NAEFS – DOVM3

Jan 08 - Jan 18, 2023

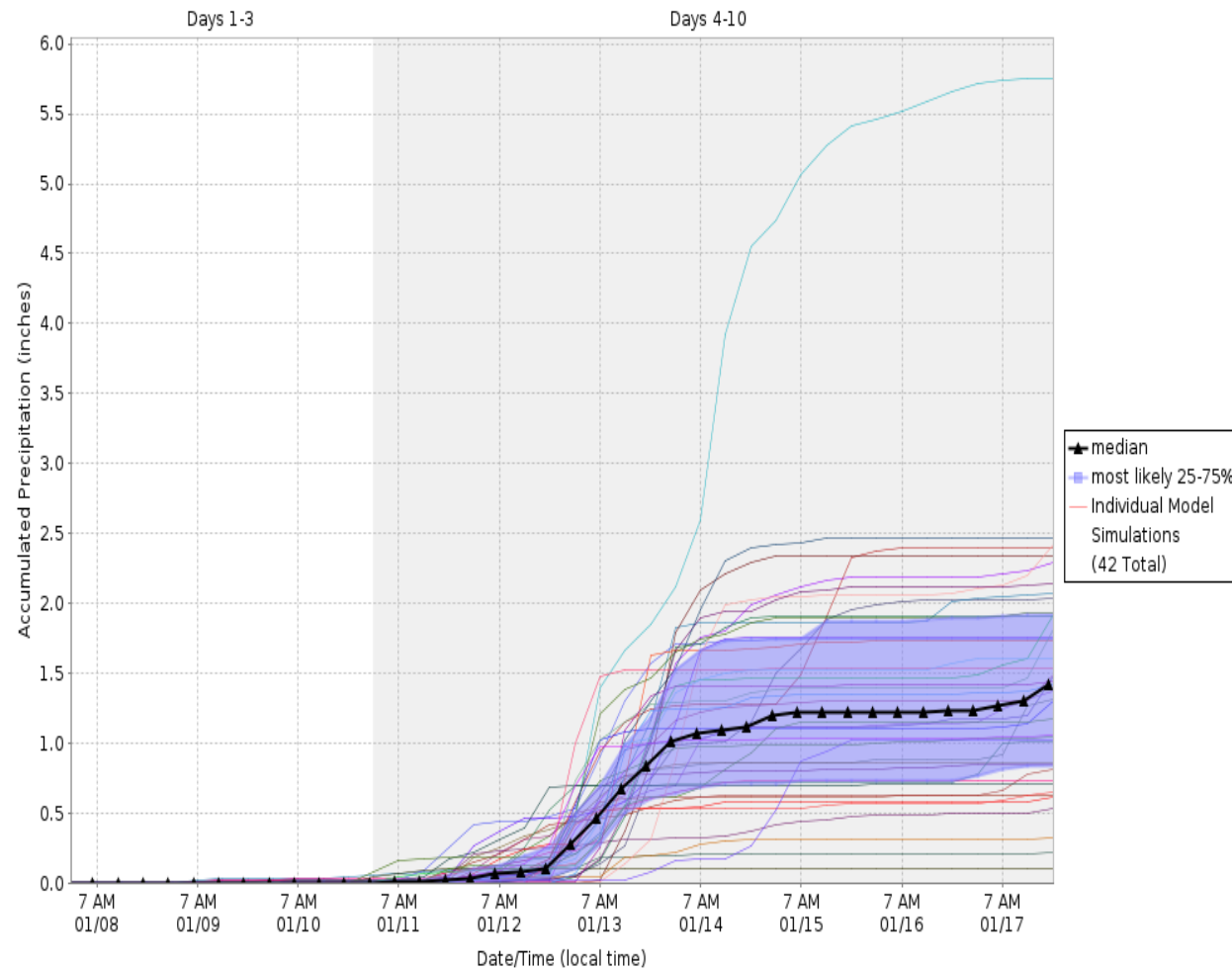
Charles River at Dover, MA (DOVM3)



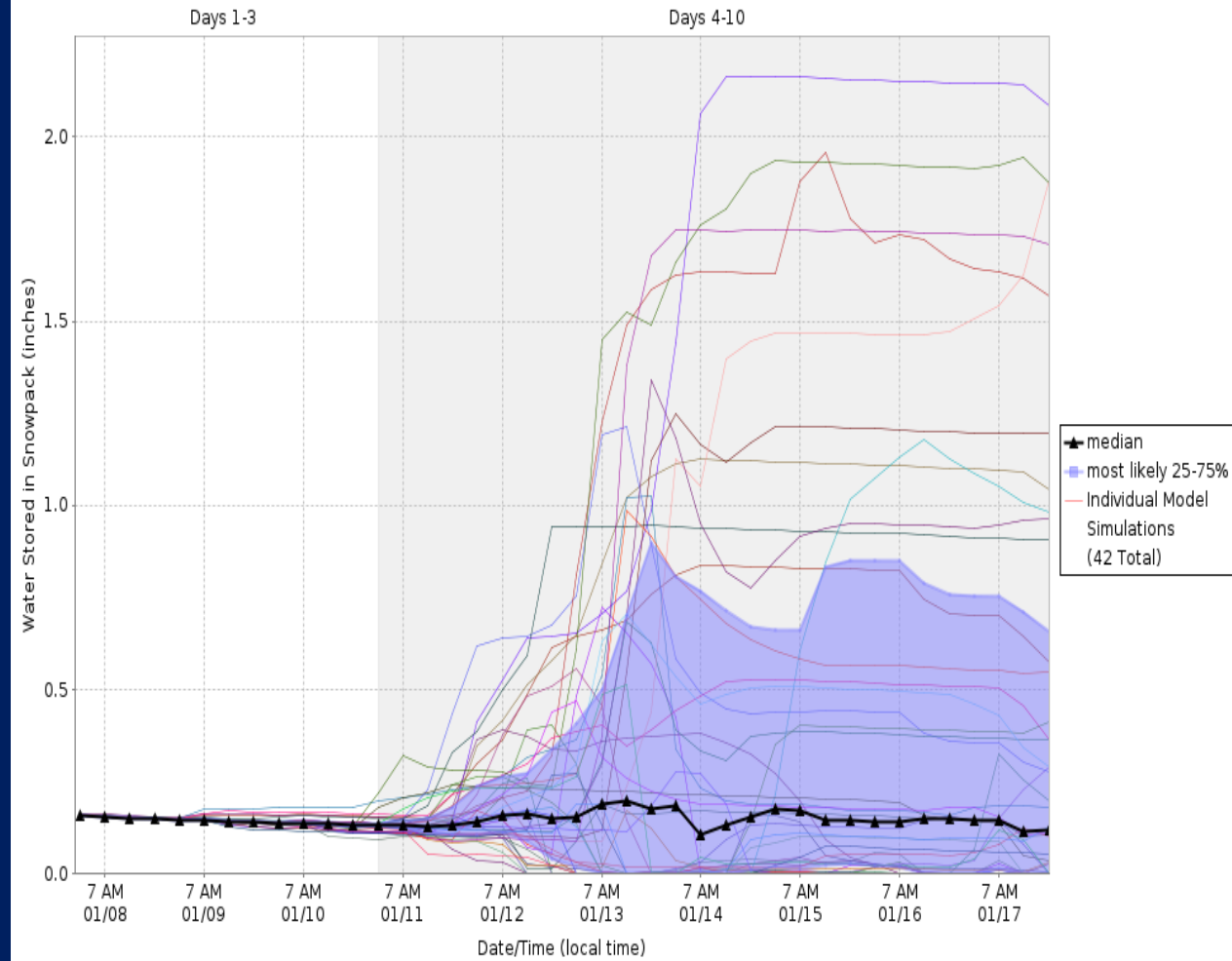
- Above median river flows are virtually guaranteed until flows likely increase again this upcoming weekend.

# NAEFS PCPN – WILM3

Jan 08 - Jan 18, 2023  
Hoosic River at Williamstown, MA (WILM3)



Jan 08 - Jan 18, 2023  
Hoosic River at Williamstown, MA (WILM3)



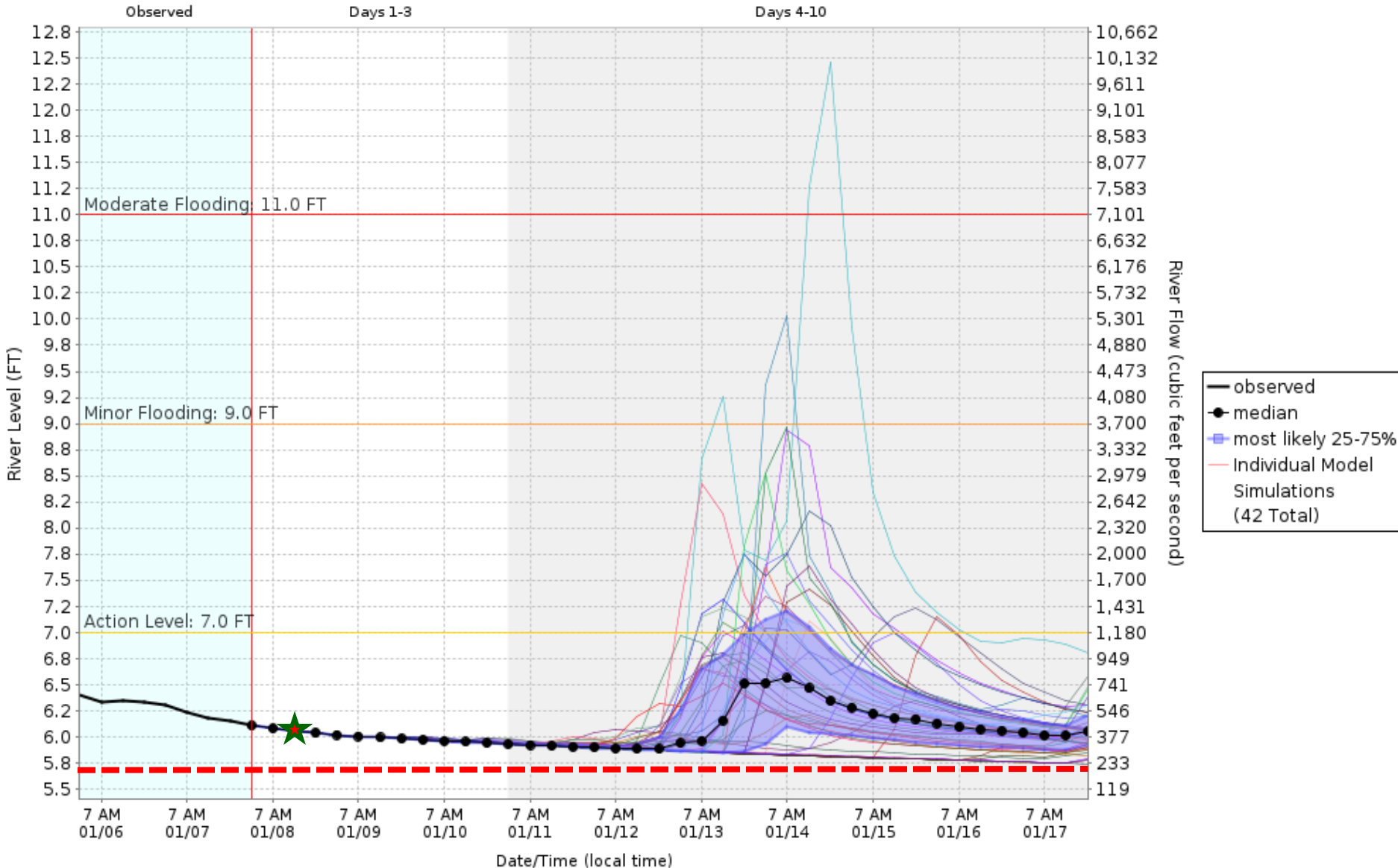
Precipitation ensembles are much more clustered than we saw across eastern Massachusetts with very few large outliers. A lot of solutions suggest a significant amount of snow across the Hoosic River basin.



# NAEFS – WILM3

Jan 08 - Jan 18, 2023

## Hoosic River at Williamstown, MA (WILM3)



If the upcoming system is primarily rainfall...we could see some rises approach flood stage.

# CONCLUSIONS

- River flows have continued to improve across the Commonwealth over the past month. Flows are now above to much above normal across much of central and western Massachusetts.
- Flows remain close to normal across the previously significant drought areas in Essex and Barnstable counties.
- Another in a fairly steady line of storm systems is set to add additional flows into our river and stream systems later this week and over the upcoming weekend (significant snow is a possibility for northern/western Massachusetts).

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