



MASSACHUSETTS RIVER OVERVIEW



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8 June 2021

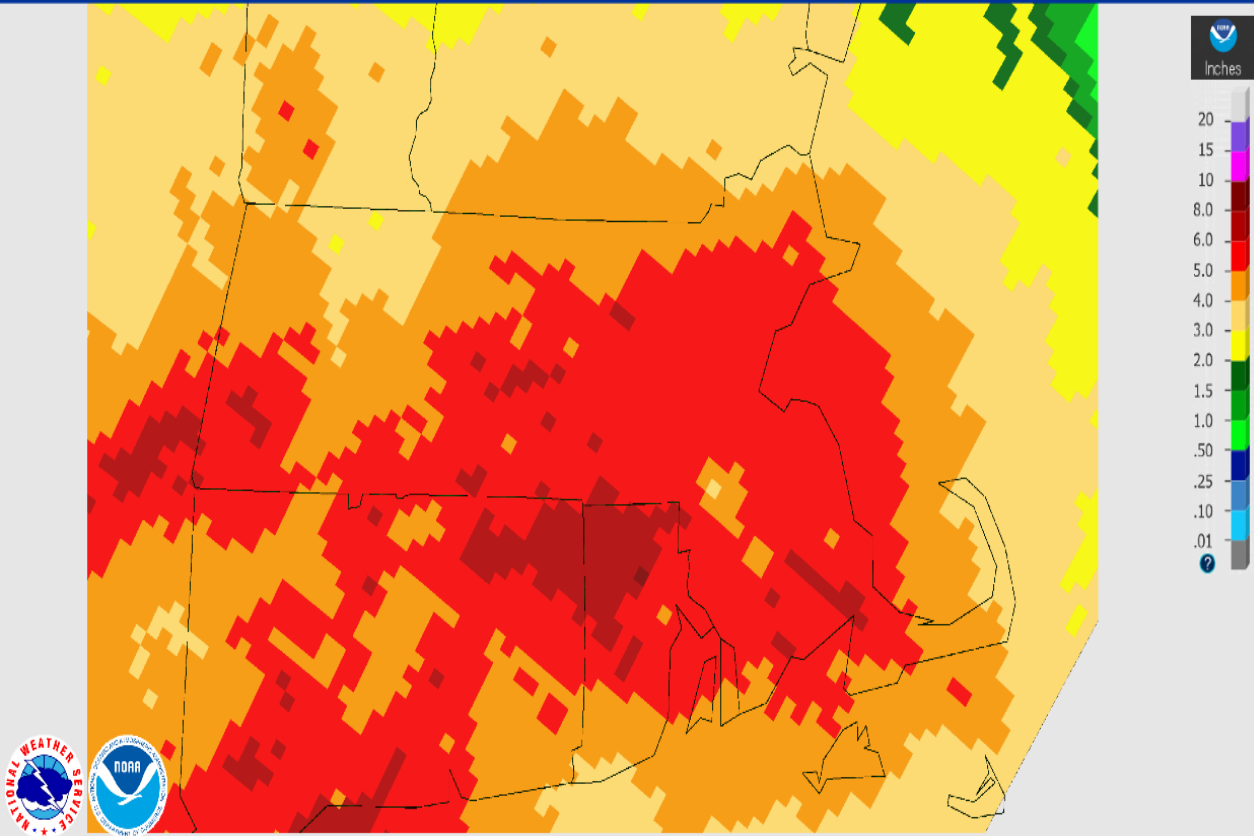
AGENDA

- May Rainfall Review
- Current River Flow
- Near term river outlooks
- Conclusions

MAY 2021 RAINFALL REVIEW

May 01, 2021 Monthly Observed Precipitation

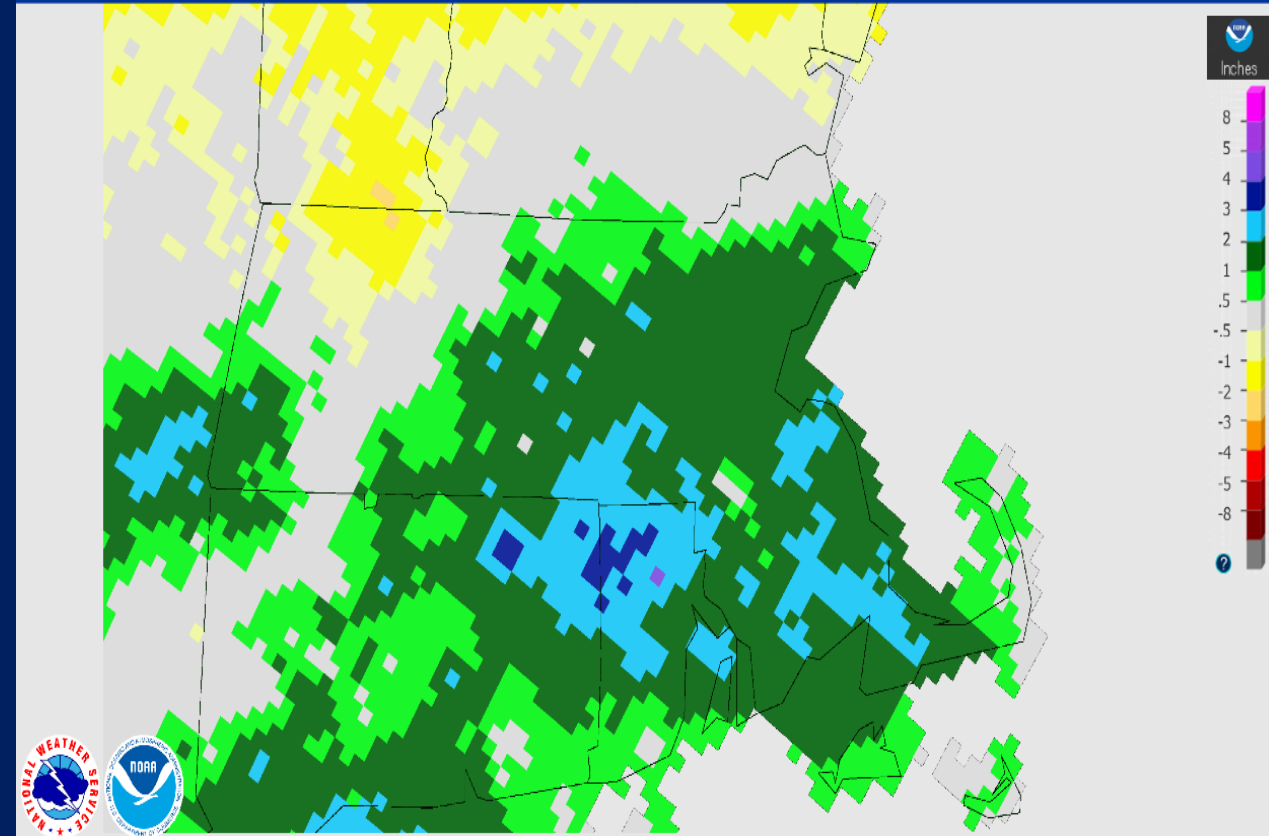
Created on: June 07, 2021 - 19:08 UTC
Valid on: June 01, 2021 12:00 UTC



Much of the Commonwealth saw 4 to 7 inches of rainfall during May but portions of northwest Massachusetts and outer Cape Cod received just 3 to 4 inches.

May 01, 2021 Monthly Departure Precipitation

Created on: June 07, 2021 - 19:07 UTC
Valid on: June 01, 2021 12:00 UTC



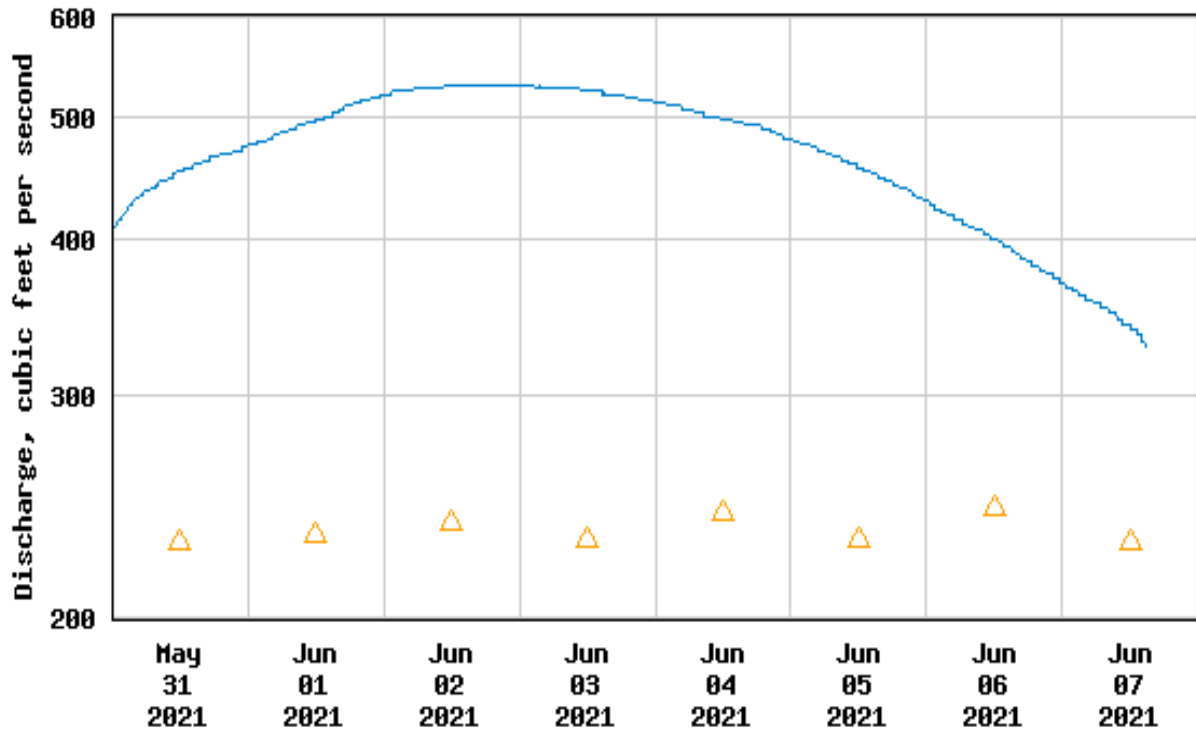
Rainfall was actually 1 to 2 inches below normal across portions of northwest Massachusetts and only near normal over outer Cape Cod.

CURRENT RIVER FLOW

- Most of Massachusetts continues to see near to above normal river flows but areas in Berkshire County and Cape Cod remain below normal.

RIVER FLOW – THE HAVES

USGS 01103500 CHARLES RIVER AT DOVER, MA

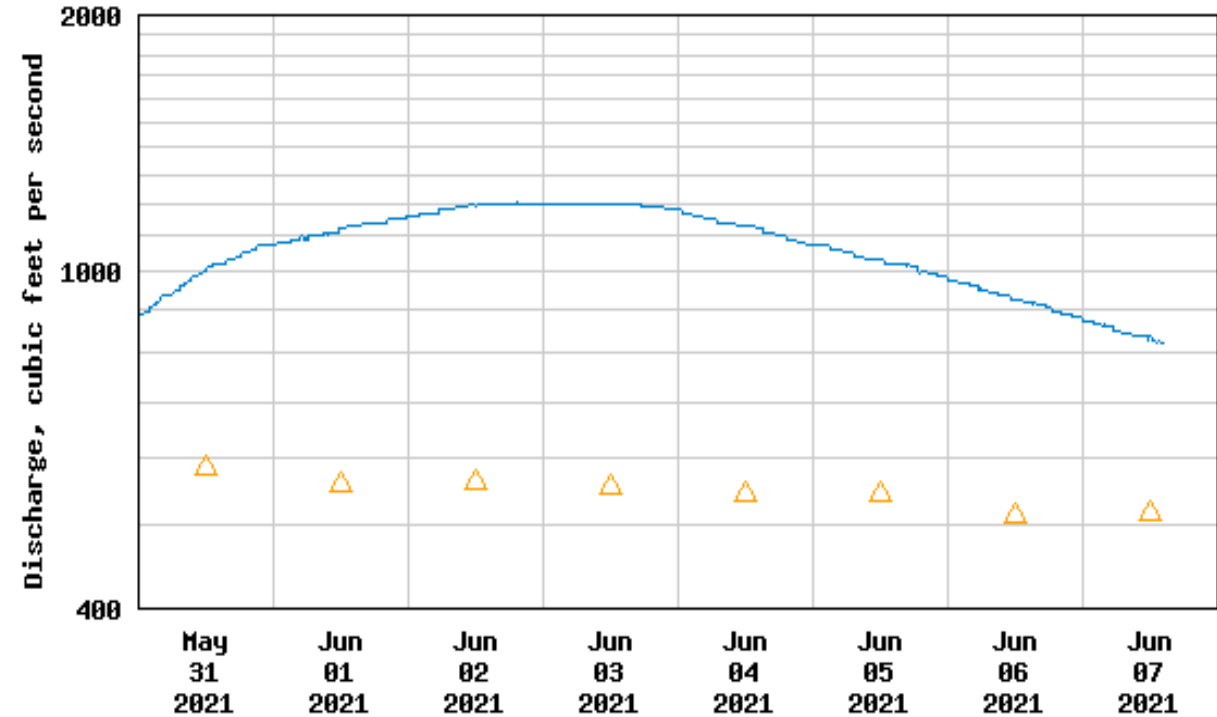


----- Provisional Data Subject to Revision -----

△ Median daily statistic (83 years) — Discharge

Charles River at Dover

USGS 01099500 CONCORD R BELOW R MEADOW BROOK, AT LOWELL, MA



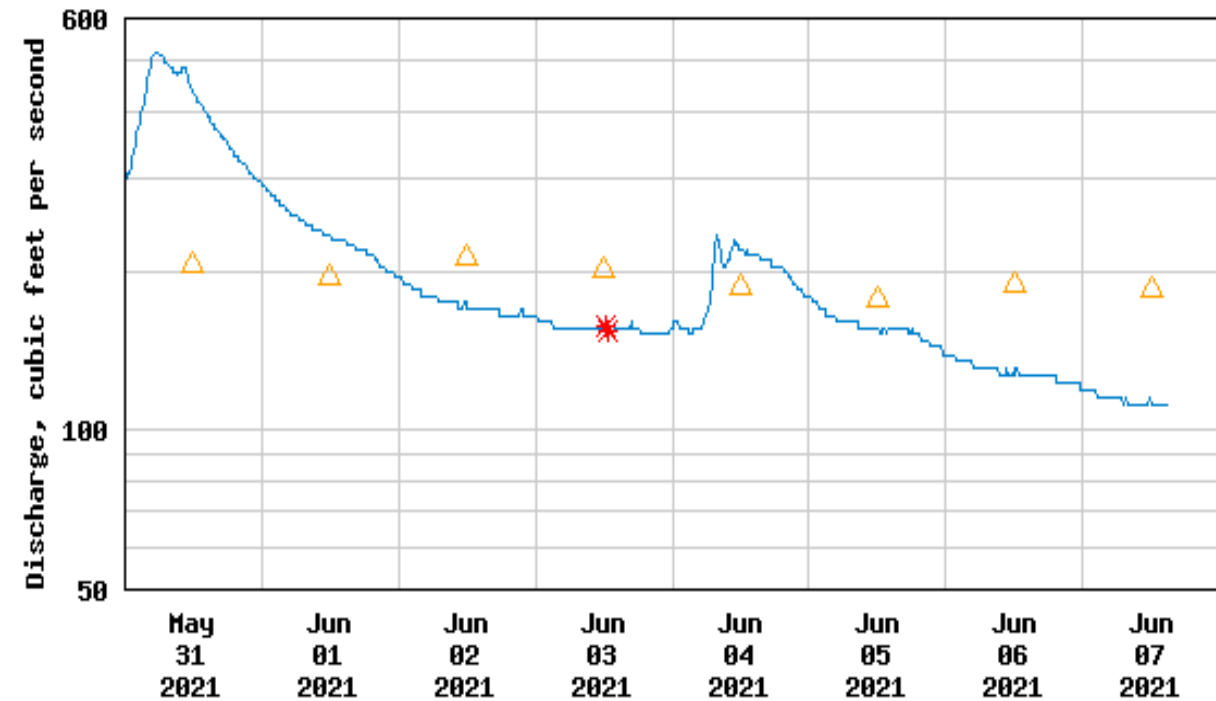
----- Provisional Data Subject to Revision -----

△ Median daily statistic (84 years) — Discharge

Concord River at Lowell

RIVER FLOW – THE HAVE NOTS

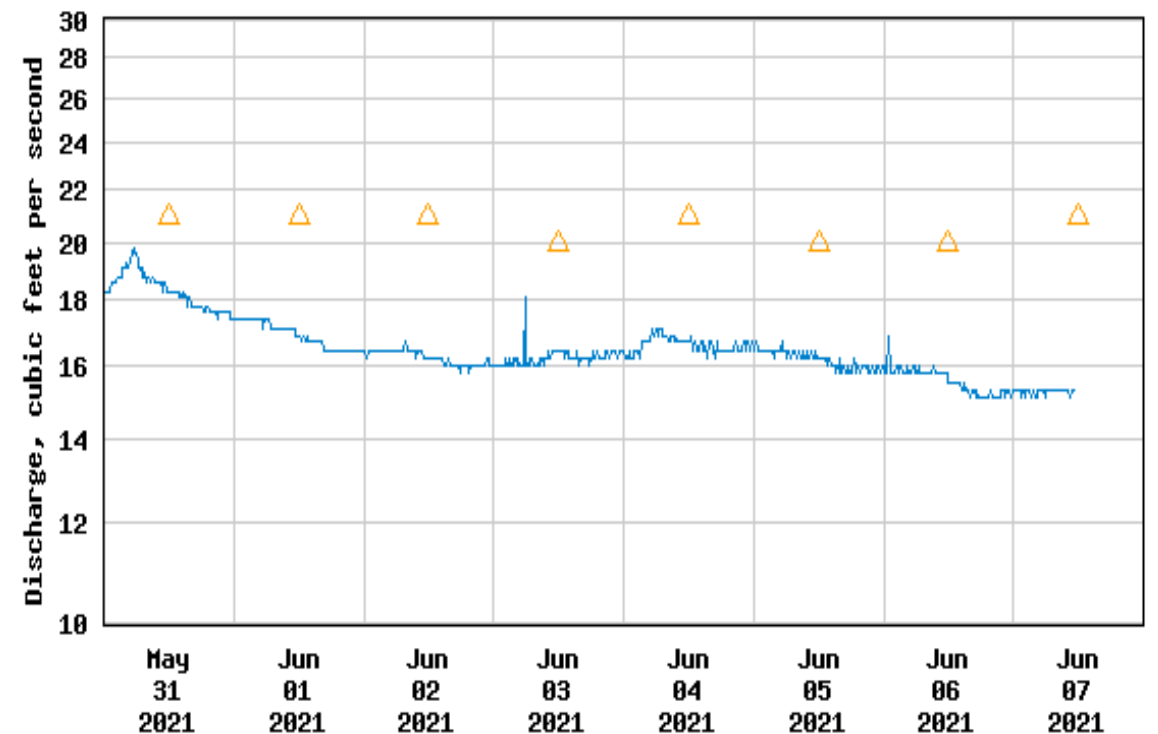
USGS 01332500 HOOSIC RIVER NEAR WILLIAMSTOWN, MA



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

△ Median daily statistic (80 years) * Measured discharge
— Discharge

USGS 011058837 QUASHNET RIVER AT WAQUOIT VILLAGE, MA



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

△ Median daily statistic (32 years) — Discharge

Hoosic River near Williamstown

Quashnet River at Waquoit Village

NEAR-TERM RIVER FORECASTS

- The expected dry pattern in mid to possibly late June will likely result in decreasing flows...but with summertime convection...there is a lot of uncertainty.

NEAR TERM RIVER OUTLOOK - cont

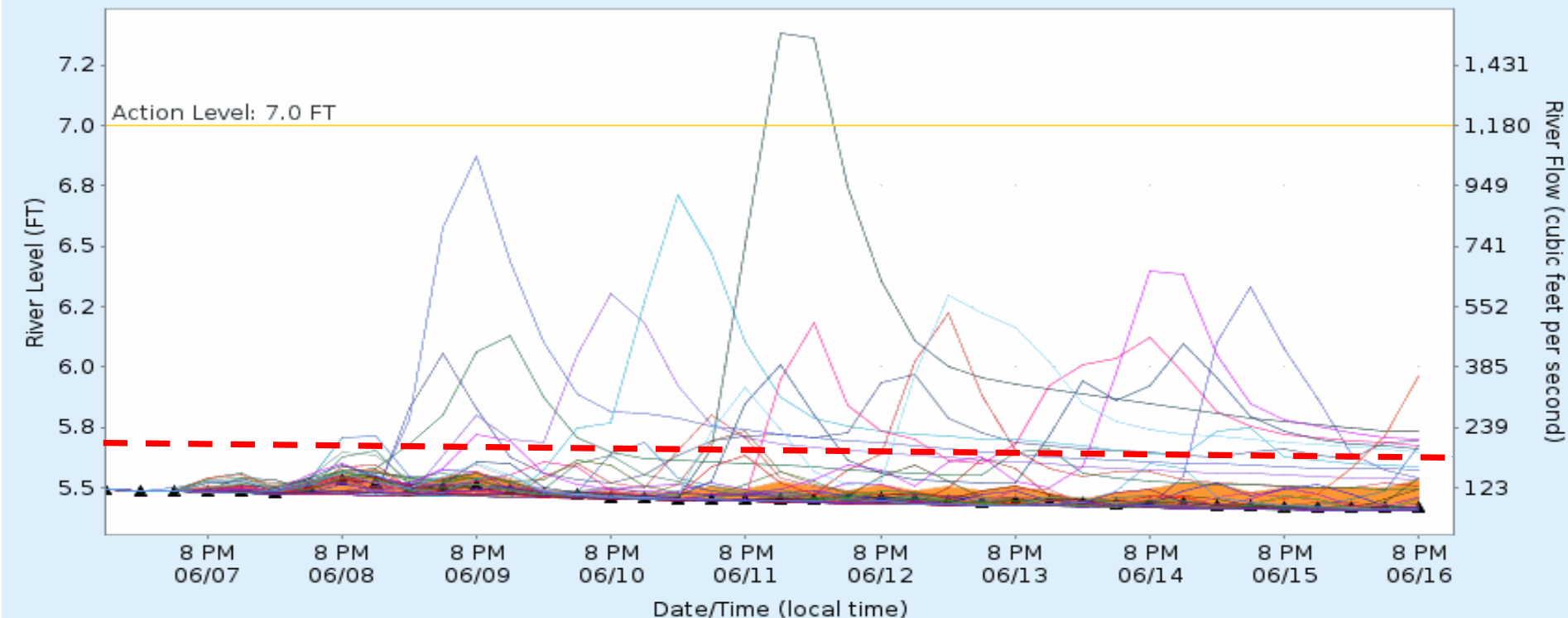


7 Day NAEFS River Level Simulations

Used to Estimate the Chance of Flooding and the Range of Possible River Levels
Each Line Shows an Individual Model Simulation (42 Total)



Hoosic River at Williamstown, MA (WILM3)



Most likely scenario is for steady or declining stages into mid-June

- Individual Model Simulations (42 Total)
- ▲ Median River Level (Simulations indicate a 50% Chance of Exceeding this Level)
- More Likely Range (Simulations indicate a 40% chance river levels will fall within this range)

NEAR TERM RIVER OUTLOOK - cont

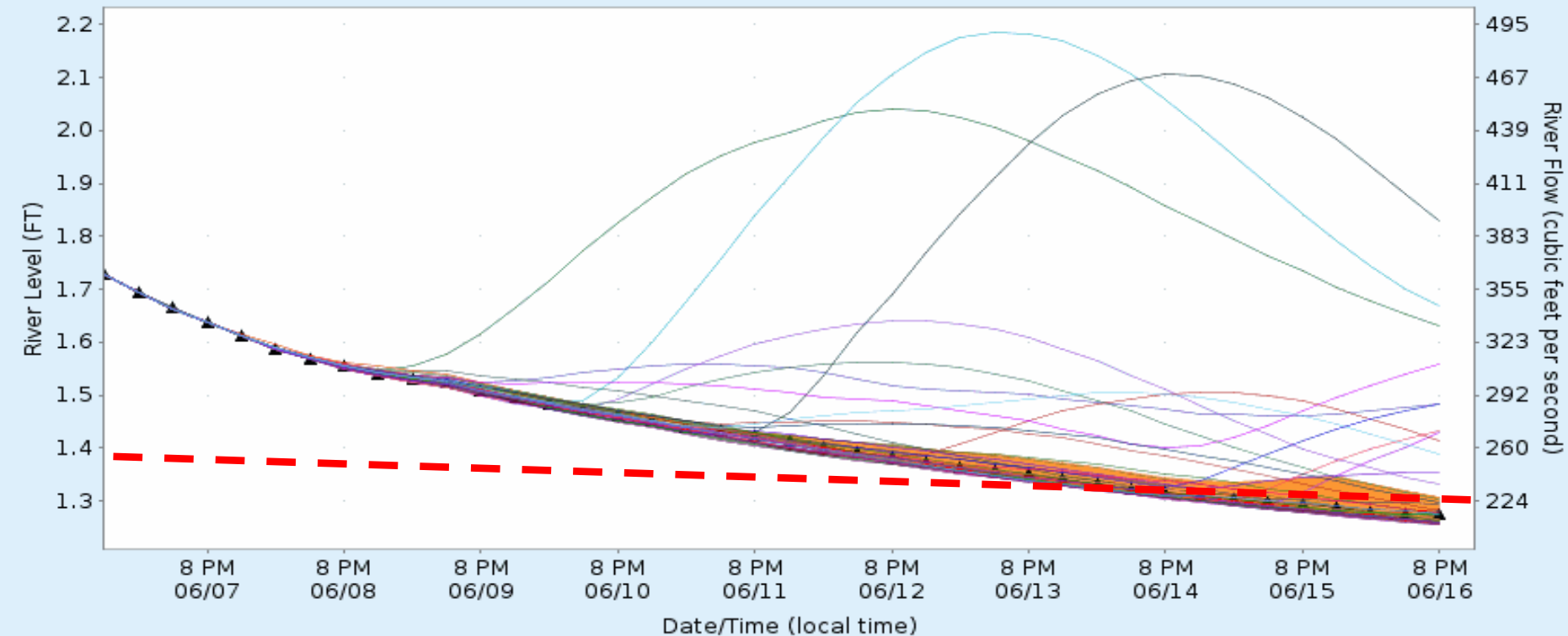


7 Day NAEFS River Level Simulations

Used to Estimate the Chance of Flooding and the Range of Possible River Levels
Each Line Shows an Individual Model Simulation (42 Total)



Charles River at Dover, MA (DOVM3)



- Flows decrease but still near to above normal through mid-June

— Individual Model Simulations (42 Total)
▲ Median River Level (Simulations indicate a 50% Chance of Exceeding this Level)
■ More Likely Range (Simulations indicate a 40% chance river levels will fall within this range)

CONCLUSIONS

- River flows are in good shape across most of the Commonwealth outside of Cape Cod and portions of western Massachusetts where flows are below to well below normal.
- A general decrease in flows is expected into mid-June but potential convection results in a lot of uncertainty.
- Areas prime for drought emergence would seem to be Cape/extreme southeast Massachusetts and far western Massachusetts.

QUESTIONS??

