



# Severe Weather - Flooding Potential

April 17, 2025  
4:18 AM

This Weekend

## Key Messages

- Wind gusts of 30-40 mph are likely today.
- Slight Risk for severe thunderstorms Friday evening through Sunday. Highest chances Friday night with large hail and damaging winds.
- Several rounds of heavy rainfall will likely lead to at least isolated instances of flash flooding and increased river levels this weekend.

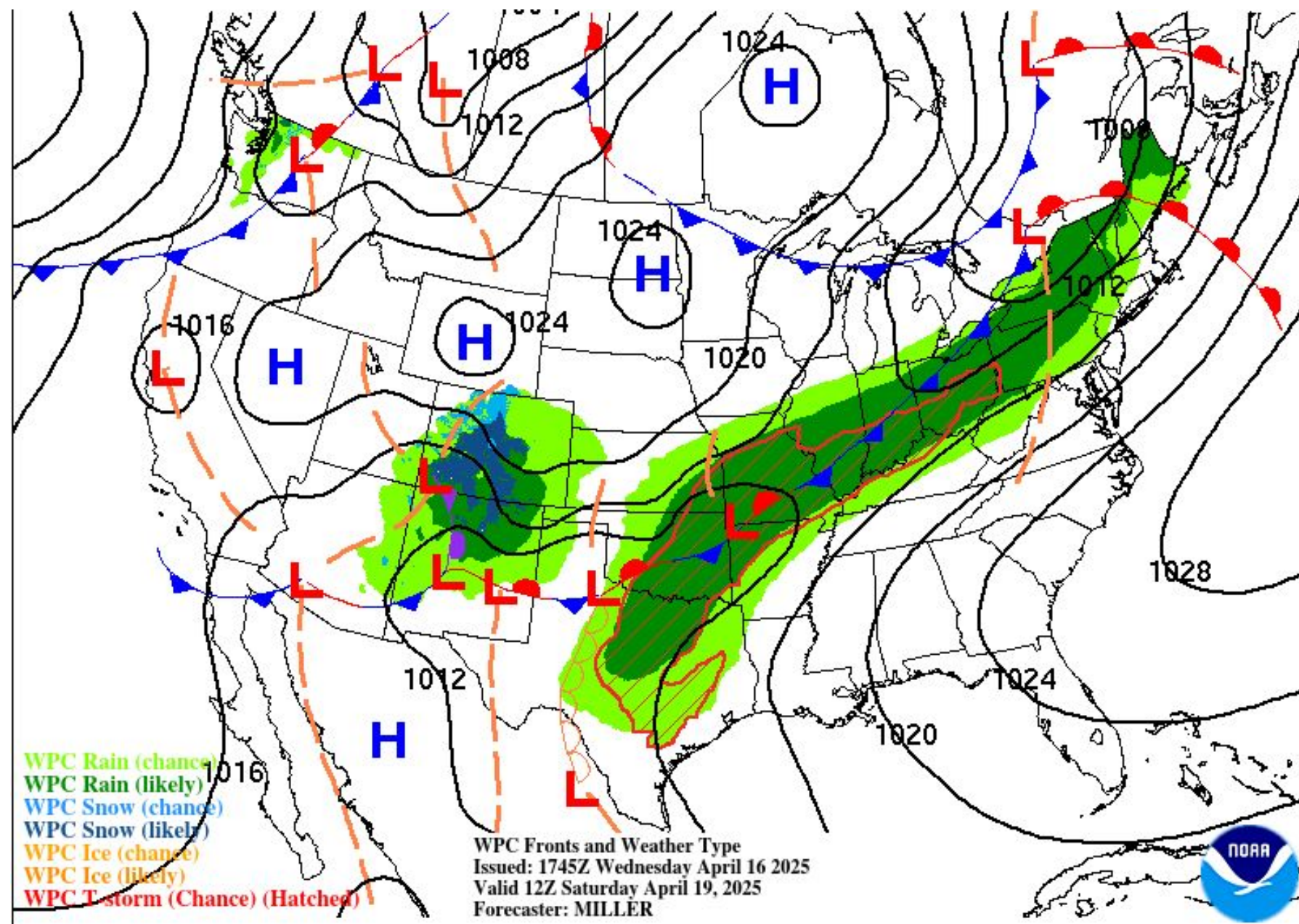
NEW

## Important Updates

- Increased rainfall amount probabilities. A Moderate (level 3 of 4) risk for excessive rainfall has been outlined for a large portion of the forecast area on Saturday.

## Next Scheduled Briefing

- Thursday afternoon



National Oceanic and  
Atmospheric Administration  
U.S. Department of Commerce

National Weather Service  
Springfield, MO






# Severe Weather Outlook Friday Evening

April 17, 2025  
4:18 AM


## Overview


The atmosphere will be conducive for scattered strong to severe thunderstorms Friday evening and Friday night.


## Actions


 Be weather aware and ready to act.  
Have multiple ways to receive warning information!


Severe Threats


 **Tornado**


 **Hail**


 **Wind**

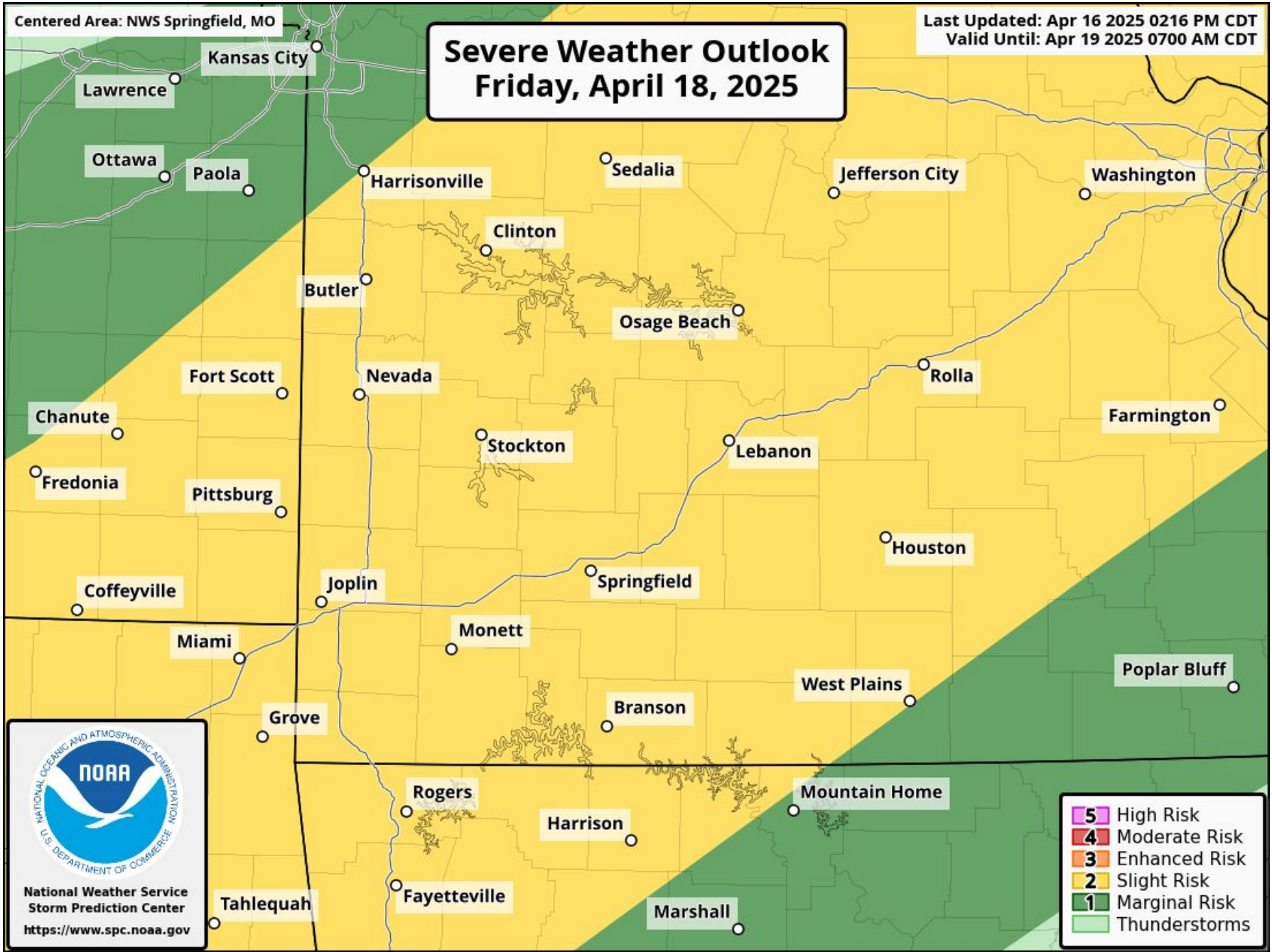
 **Flooding**

  
Lo Med Hi

  
Lo Med Hi

  
Lo Med Hi

  
Lo Med Hi





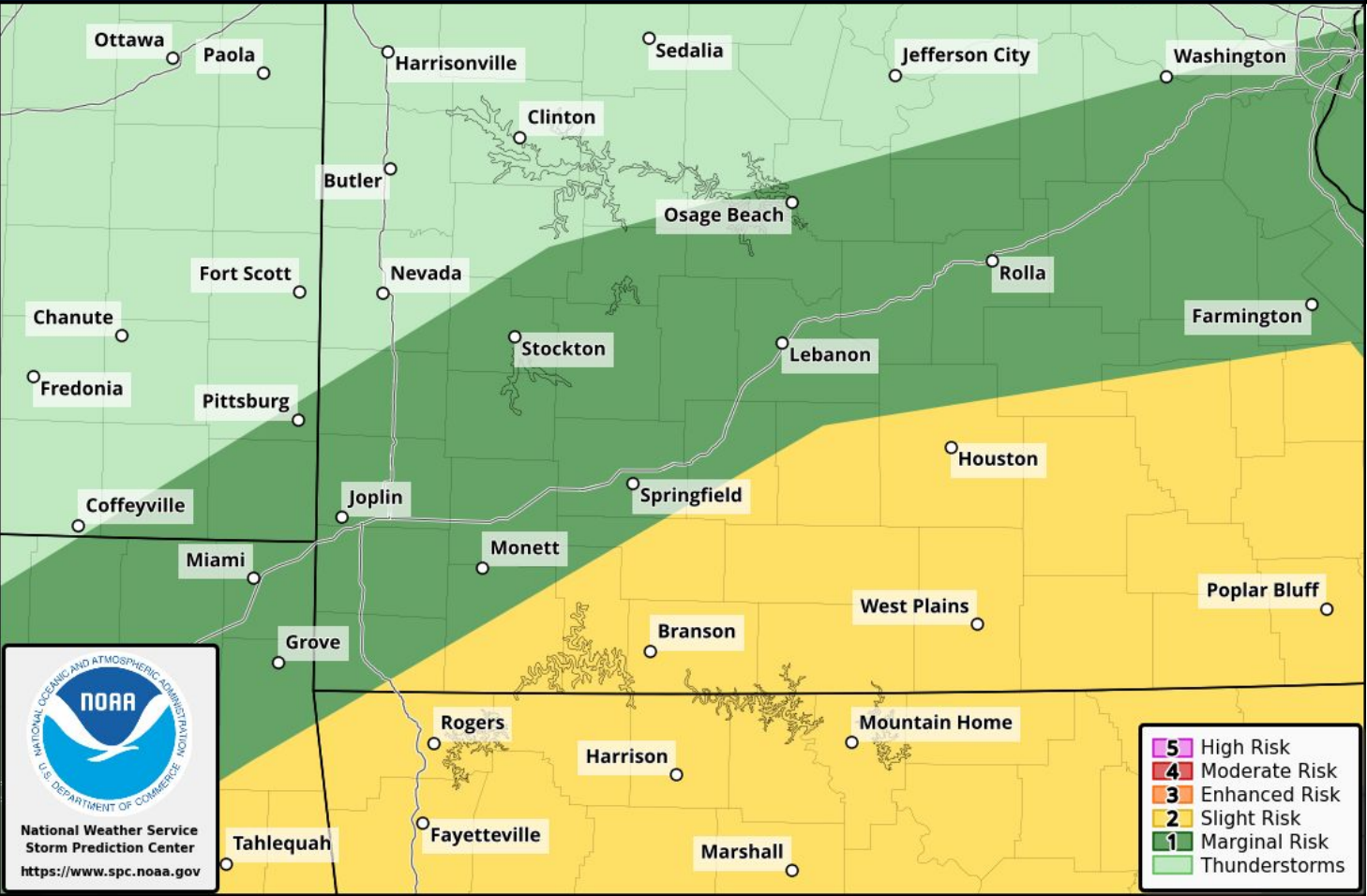


# Severe Weather Outlooks

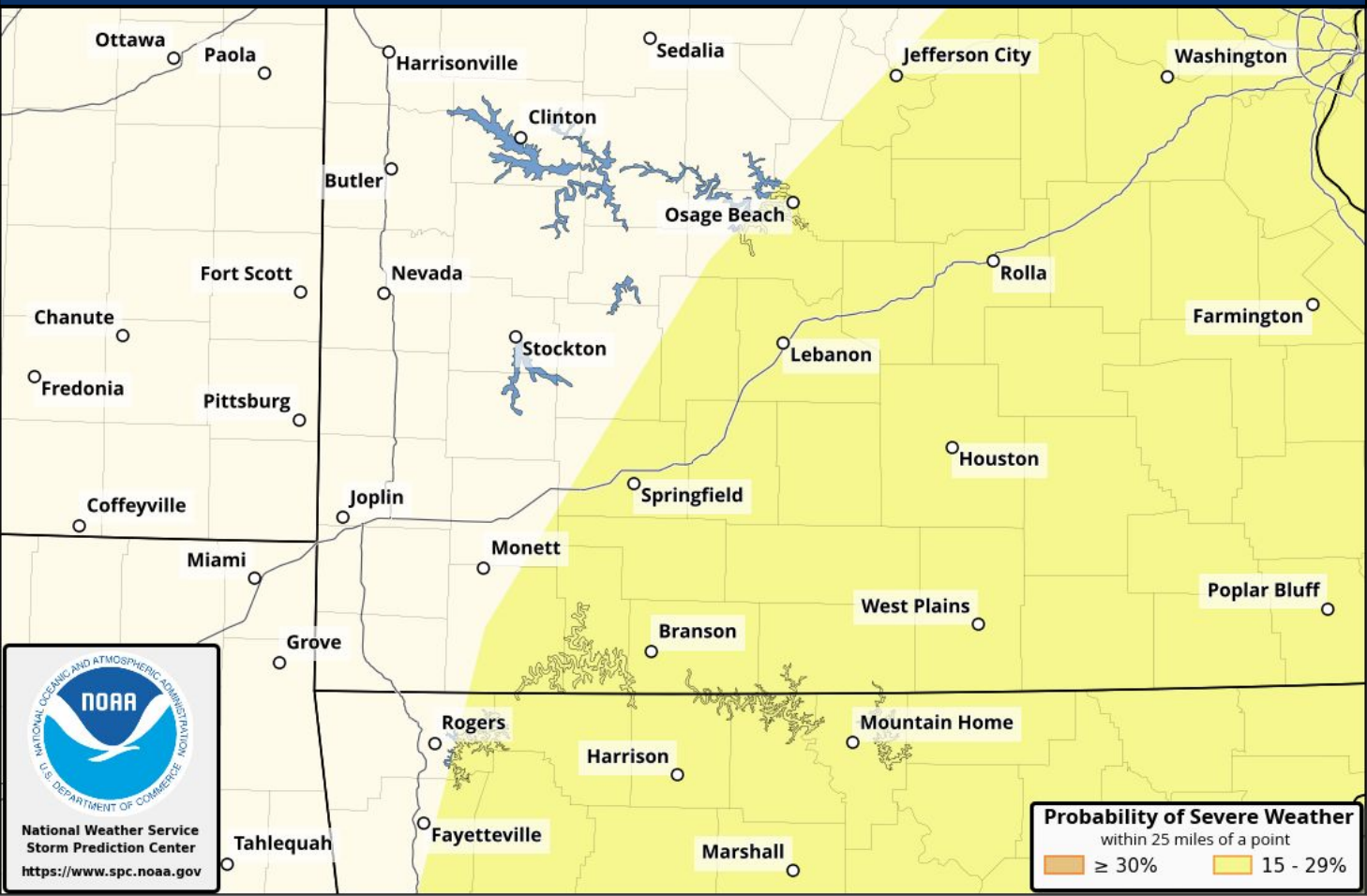
April 17, 2025  
4:18 AM

Saturday and Sunday

## Severe Weather Outlook Saturday



## Severe Weather Outlook Sunday



**Monitor the forecast. Consider making alternative plans for outdoor activities. Review your severe weather plans.**



Hail up to Quarters



Damaging Wind Gusts



Heavy Downpours



Lightning



National Oceanic and Atmospheric Administration  
U.S. Department of Commerce

National Weather Service  
Springfield, MO





# Timing of Gusty Winds

April 17, 2025  
4:18 AM

Today and Friday

## Timing

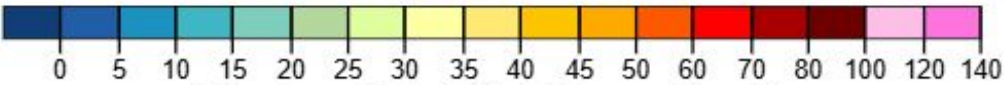


Southerly winds will be the strongest by Thursday afternoon with gusts of 35-40 mph, locally up to 45 mph, especially for areas near the I-49 corridor.

Winds start to diminish by Friday evening.

## Maximum Wind Gust Forecast (mph)

	4/17 Thu								4/18 Fri							
	12am	3am	6am	9am	12pm	3pm	6pm	9pm	12am	3am	6am	9am	12pm	3pm	6pm	9pm
Pittsburg, KS	23↑	24↑	28↑	36↑	37↑	37↑	35↑	35↑	35↑	33↑	32↑	32↑	30↑	25↑	22↑	20↑
Joplin	24↑	25↑	29↑	36↑	37↑	37↑	35↑	35↑	33↑	33↑	32↑	32↑	31↑	28↑	23↑	21↑
Nevada	23↑	24↑	28↑	36↑	37↑	38↑	35↑	35↑	35↑	36↑	35↑	35↑	31↑	29↑	23↑	18↑
Monett	23↑	24↑	28↑	33↑	35↑	37↑	33↑	32↑	32↑	32↑	33↑	33↑	31↑	29↑	24↑	20↑
Warsaw	20↑	20↑	22↑	28↑	31↑	31↑	29↑	28↑	28↑	28↑	28↑	25↑	25↑	24↑	20↑	15↑
Springfield	24↑	23↑	25↑	30↑	35↑	36↑	32↑	31↑	30↑	30↑	29↑	29↑	29↑	28↑	23↑	20↑
Branson	16↑	15↑	18↑	24↑	26↑	29↑	26↑	24↑	24↑	22↑	22↑	24↑	24↑	24↑	21↑	17↑
Lebanon	24↑	25↑	28↑	30↑	35↑	36↑	31↑	31↑	30↑	30↑	29↑	29↑	28↑	25↑	23↑	20↑
Osage Beach	20↑	21↑	22↑	26↑	32↑	32↑	28↑	25↑	25↑	25↑	24↑	24↑	24↑	23↑	18↑	16↑
Mountain Grove	24↑	25↑	28↑	32↑	37↑	38↑	35↑	32↑	32↑	31↑	30↑	32↑	32↑	30↑	25↑	23↑
Fort Leonard Wood	25↑	24↑	25↑	28↑	33↑	33↑	30↑	29↑	29↑	28↑	28↑	28↑	26↑	24↑	22↑	20↑
West Plains	18↑	20↑	22↑	26↑	31↑	32↑	29↑	26↑	26↑	25↑	26↑	29↑	29↑	29↑	24↑	21↑
Rolla	23↑	24↑	25↑	29↑	33↑	35↑	30↑	30↑	30↑	29↑	28↑	28↑	26↑	25↑	23↑	21↑



Maximum Wind Gust Forecast (mph)

(Sorted geographically from West to East)







# Rainfall Timing this Weekend

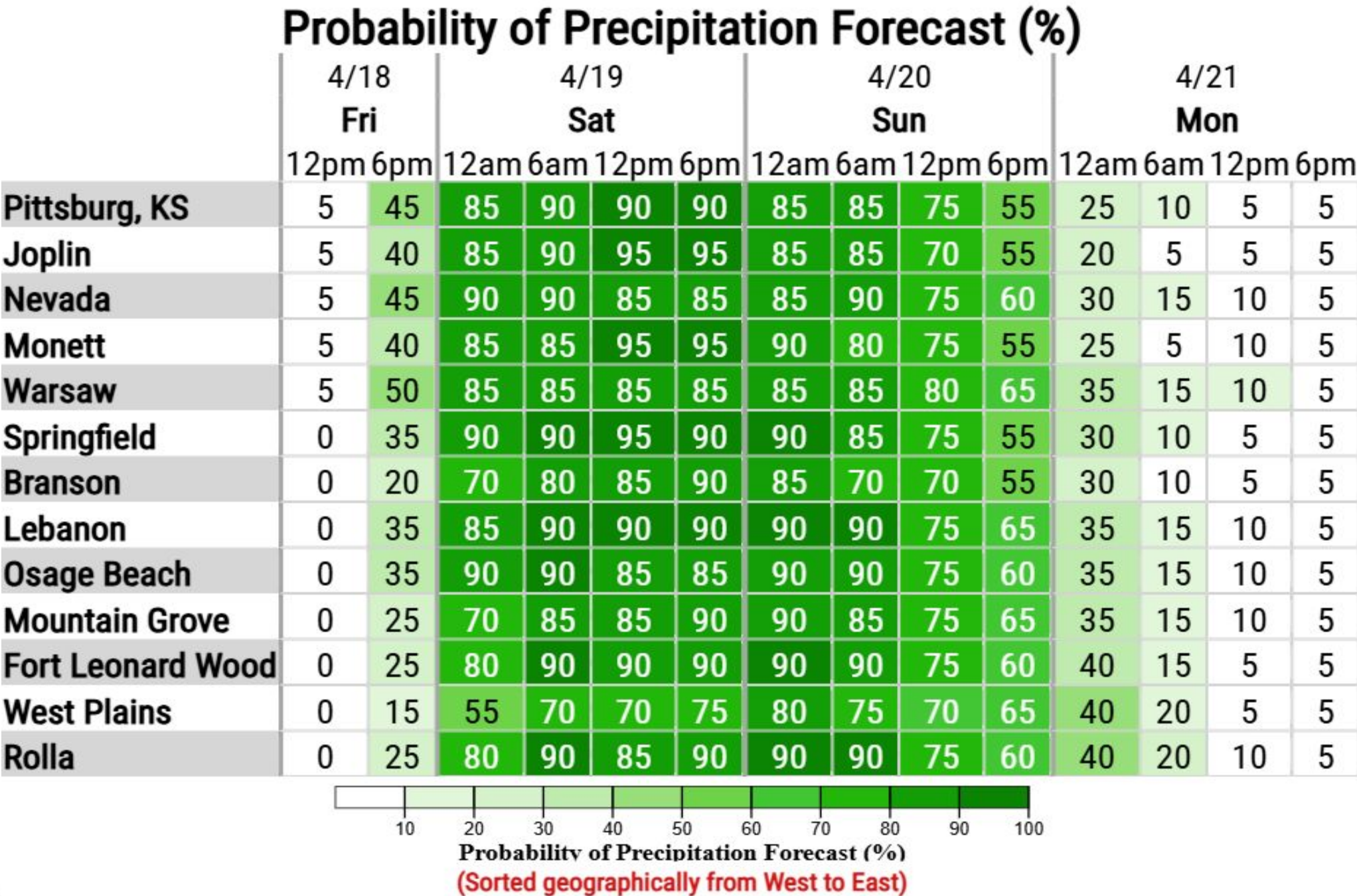
April 17, 2025  
4:18 AM

## Timing



Rainfall chances will continue to be refined as we get closer; however, rainfall chances are now above 70% for Saturday and Sunday.

There still could be dry time in between rounds of thunderstorms.

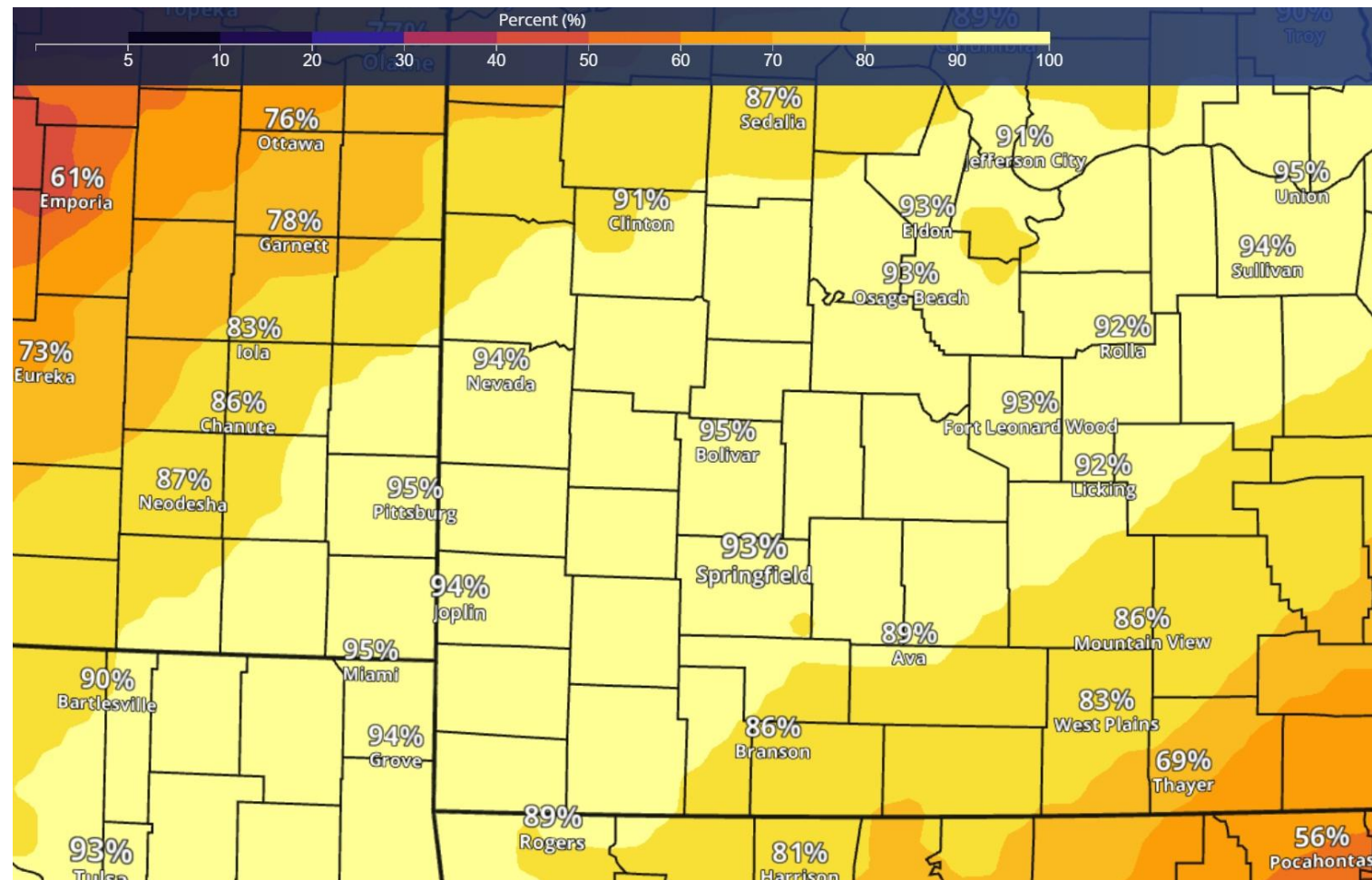




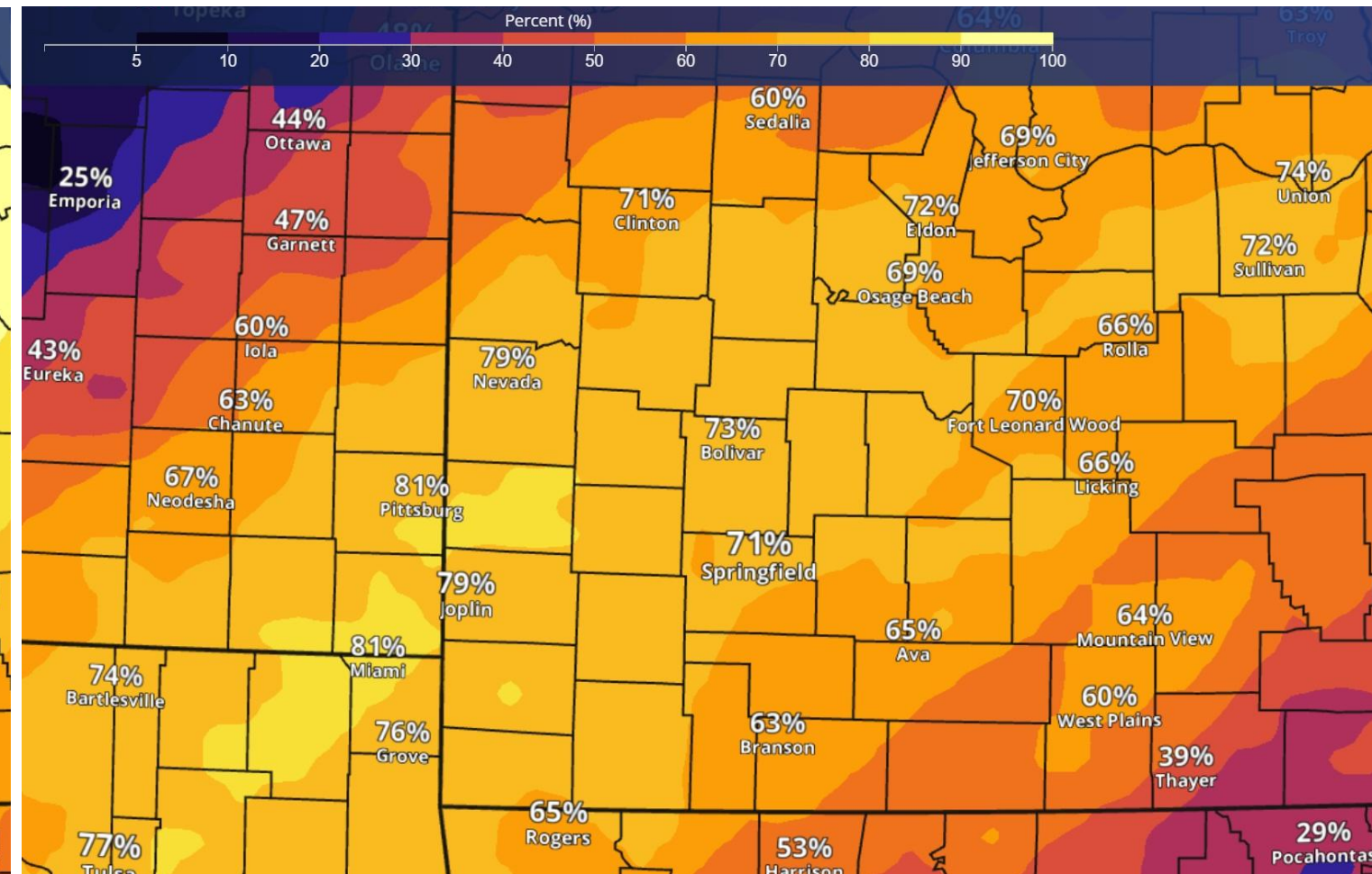


# Rainfall Probs (Friday - Sunday Night)

April 17, 2025  
4:18 AM



Probability of > 1.00" of rain



Probability of > 2.00" of rain

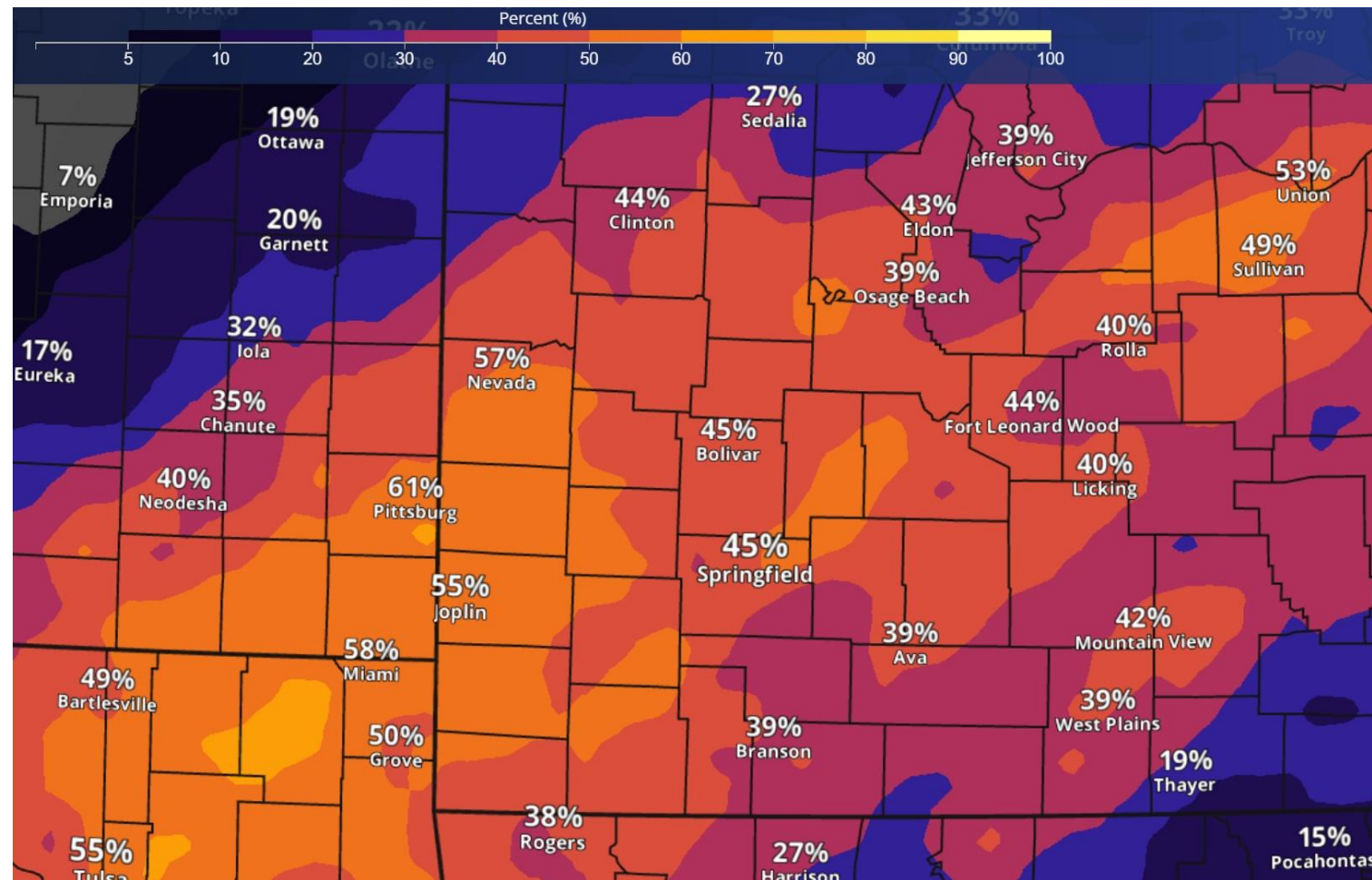




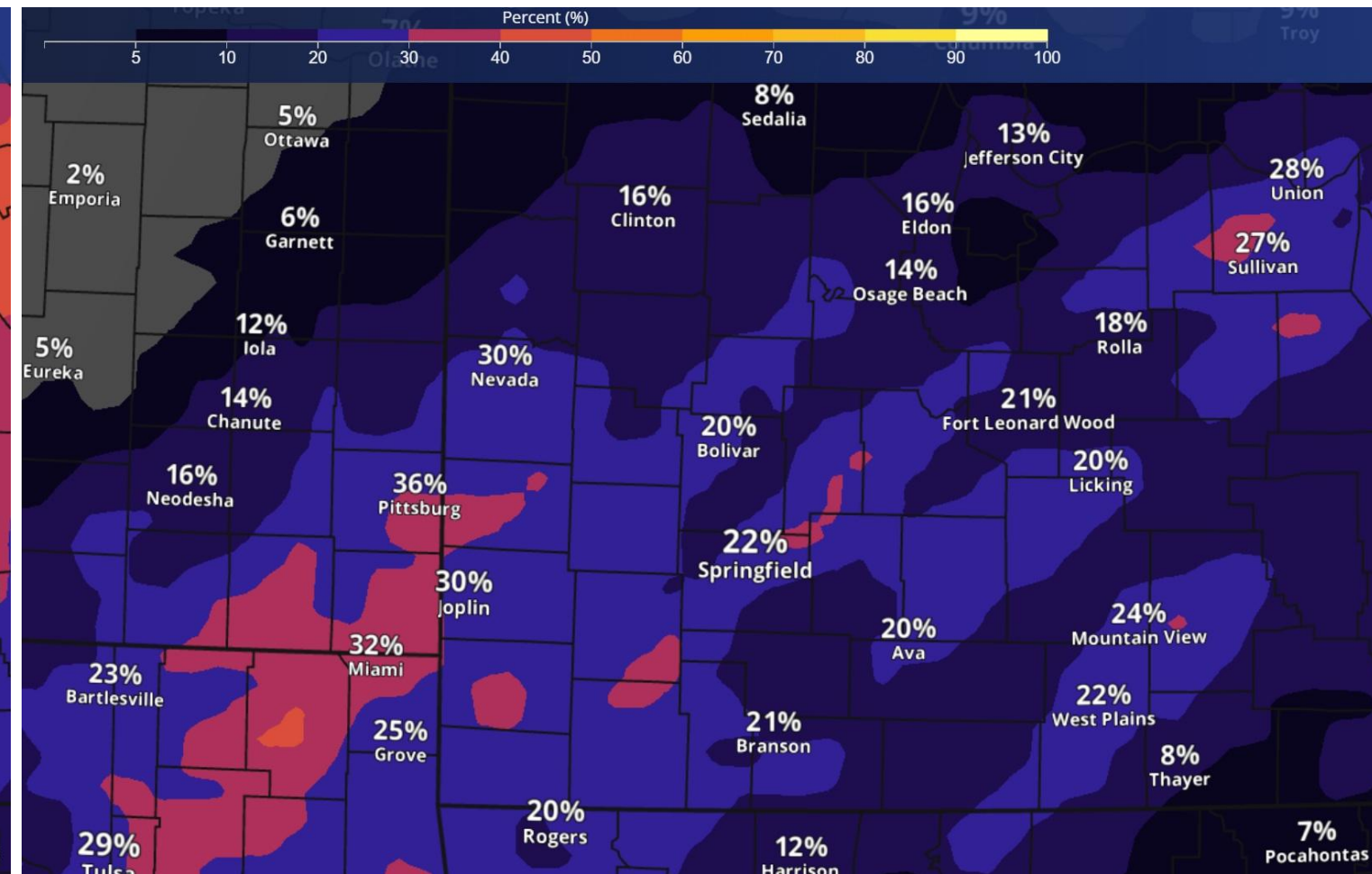


# Rainfall Probs (Friday - Sunday Night)

April 17, 2025  
4:18 AM



Probability of > 3.00" of rain



Probability of > 4.00" of rain



National Oceanic and  
Atmospheric Administration  
U.S. Department of Commerce

National Weather Service  
Springfield, MO

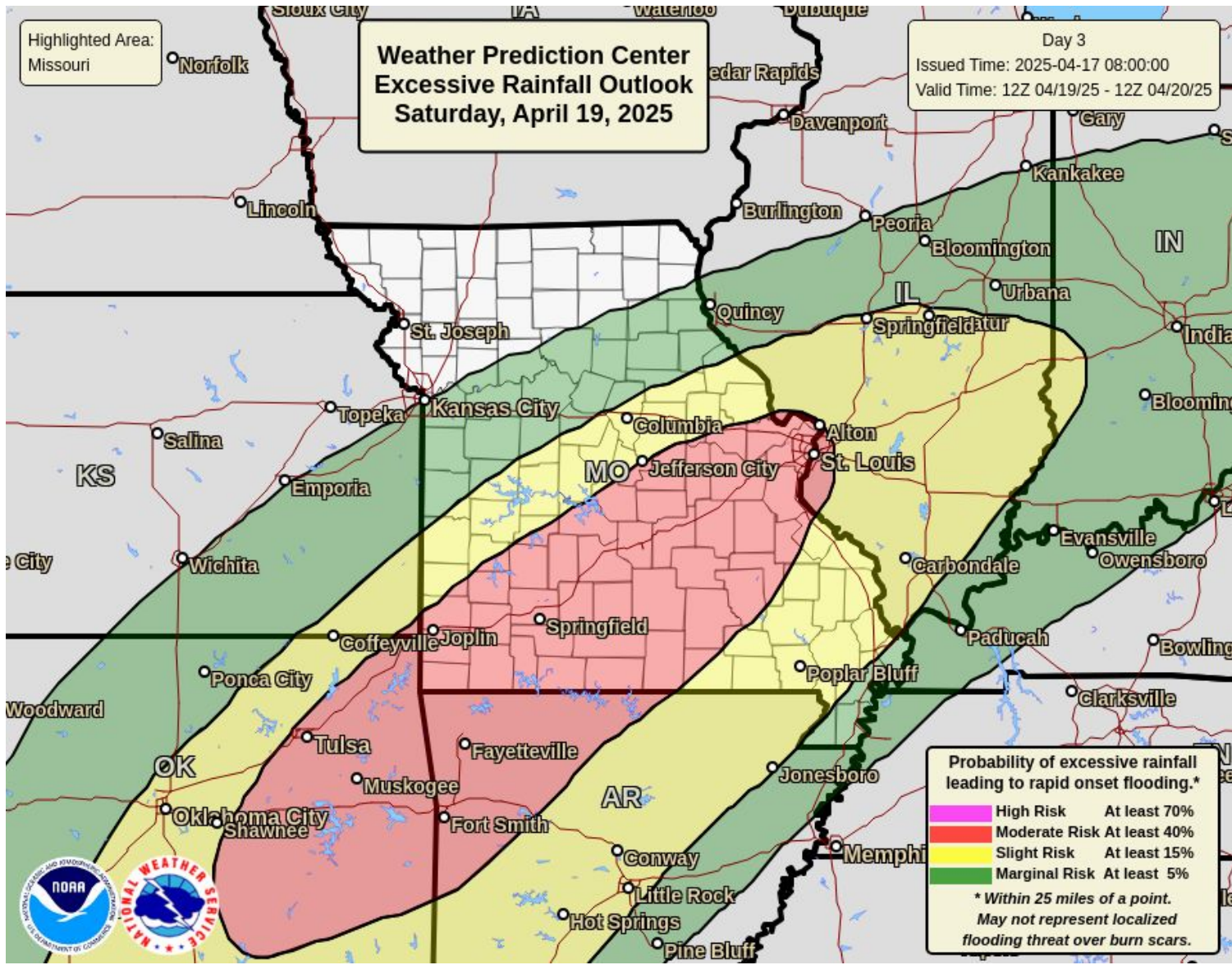
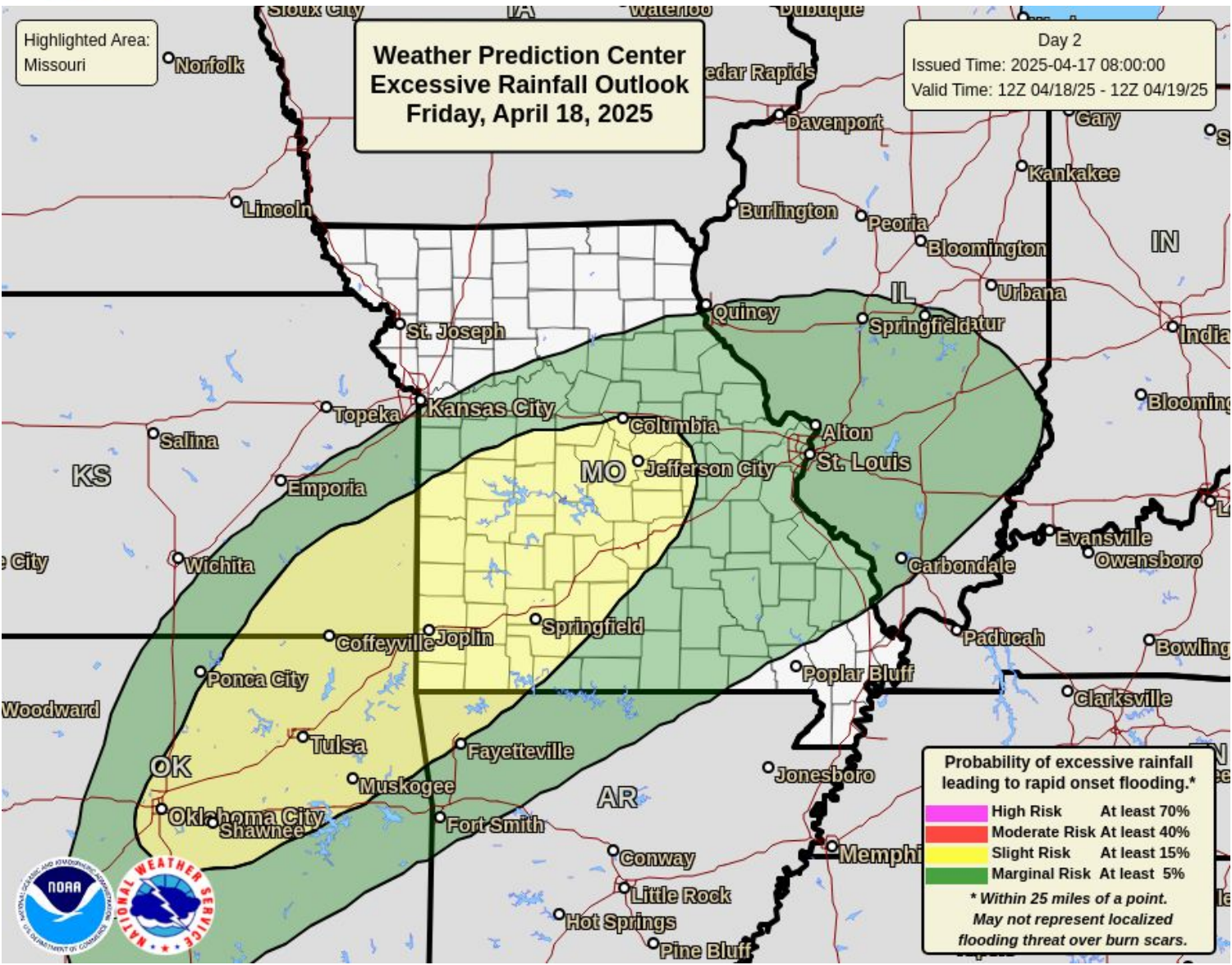




# Excessive Rainfall Outlooks

April 17, 2025  
4:18 AM

Friday and Saturday



Friday - Friday Night

Saturday - Saturday Night



National Oceanic and  
Atmospheric Administration  
U.S. Department of Commerce

National Weather Service  
Springfield, MO





# River Flood Potential

April 17, 2025  
4:18 AM

## Highlights

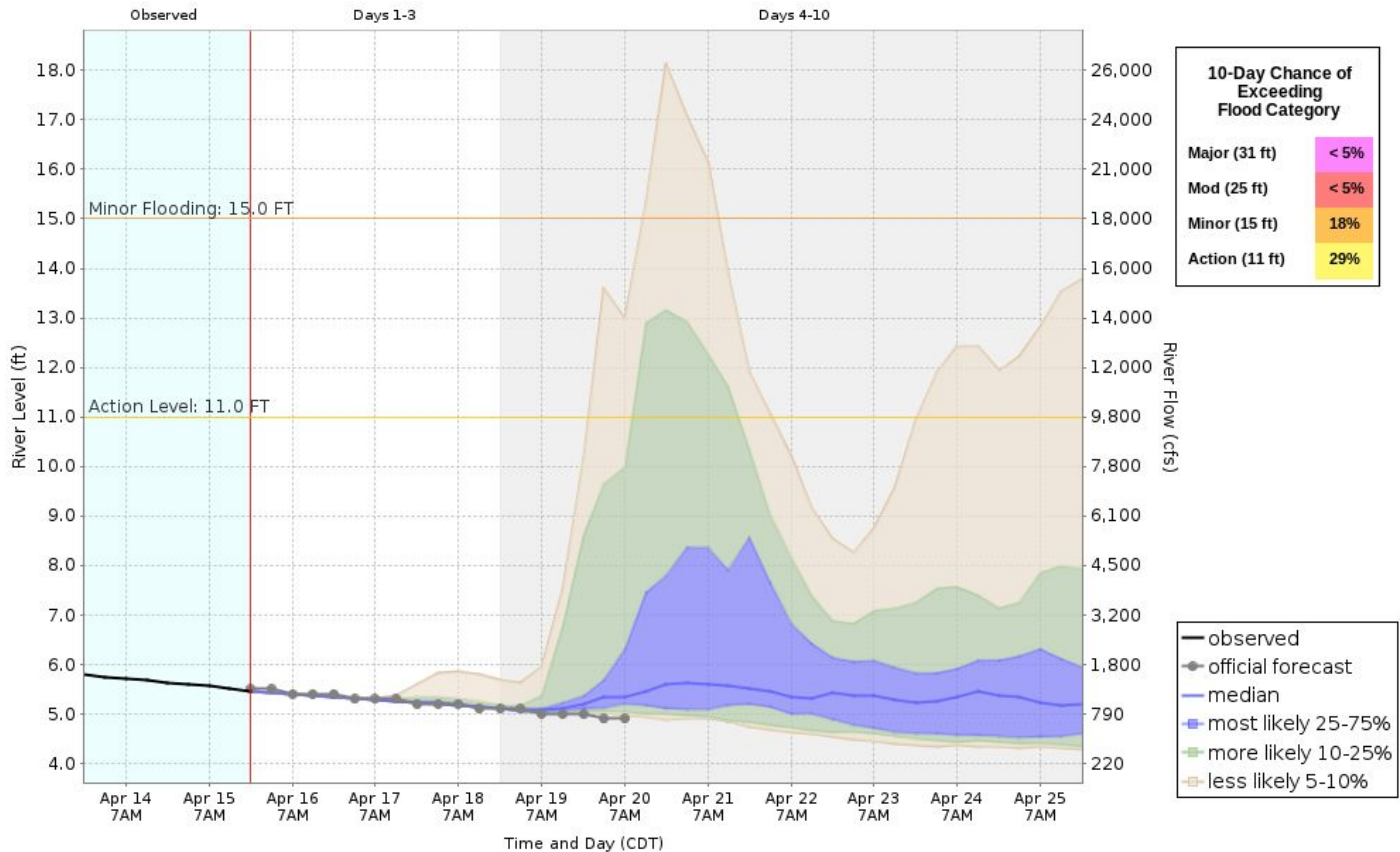
- Long range ensemble forecasts are showing increasing percentages for near action stage along the Spring, James, Marmaton and especially the Jacks Fork Rivers.
- The image to the right is not a hydrograph but instead a probability of occurrence for the James River at Galena, Missouri.
- Currently there is a 29% chance of exceeding action stage at this location within the next 10 days.
- Locations along creeks and rivers will need to monitor the situation closely this weekend.

### HEFS - 10 Day River Level Probabilities

Based on Hydrologic Ensemble Forecast Service Model Simulations  
Used to Estimate the Range of Possible River Levels



Apr 16 - Apr 26, 2025  
**JAMES RIVER AT GALENA**



Model runtime: 07:00 PM CDT Apr 15 2025  
Lower Mississippi River Forecast Center

**\*\*Not a Hydrograph - Probability of Occurrence  
James River at Galena, Missouri**







# River Flood Potential

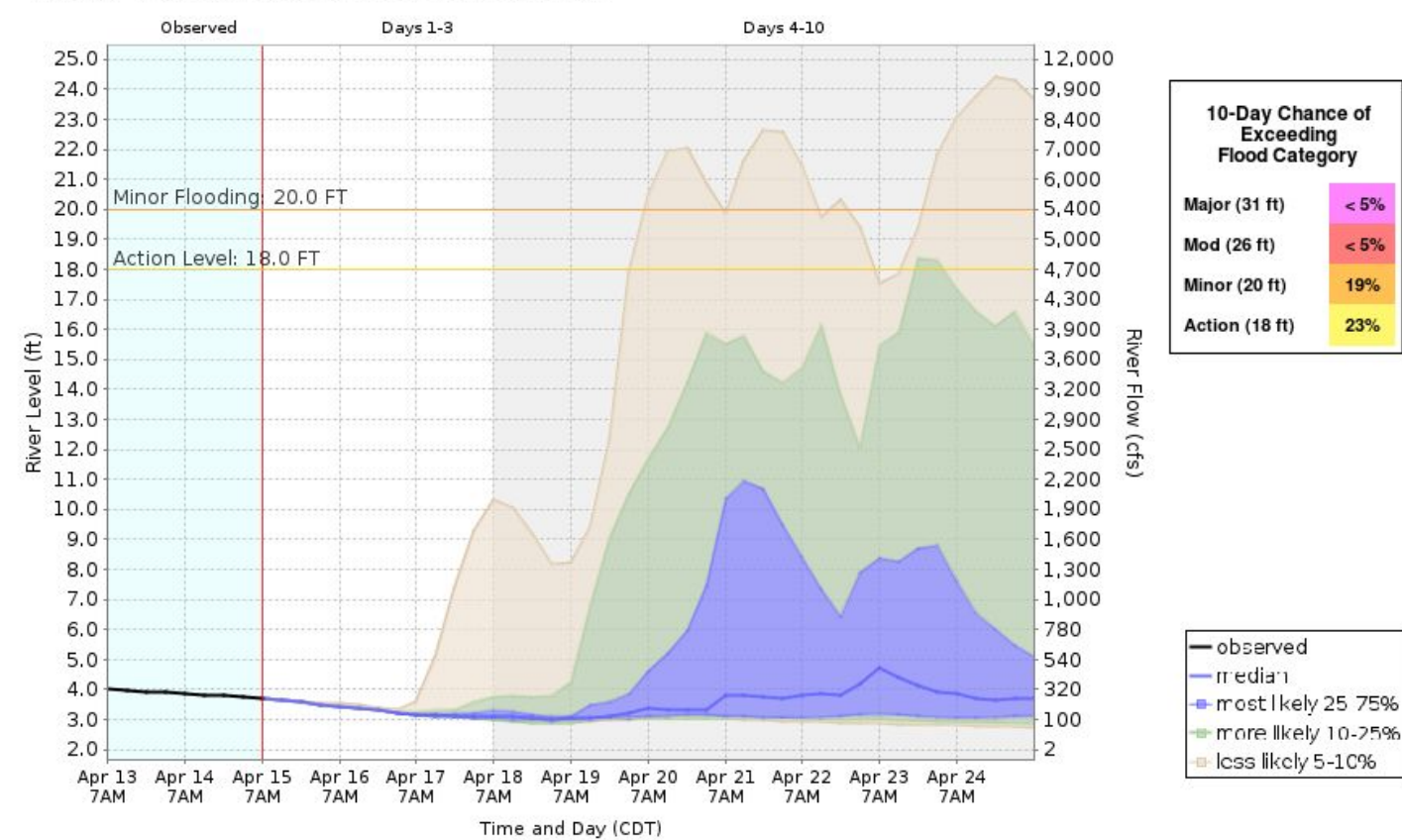
April 17, 2025  
4:18 AM

## HEFS - 10 Day River Level Probabilities

Based on Hydrologic Ensemble Forecast Service Model Simulations  
Used to Estimate the Range of Possible River Levels



Apr 15 - Apr 25, 2025  
**MARMATON R at NEVADA MO 2NW**



Model runtime: 07:00 AM CDT Apr 15 2025  
Missouri Basin River Forecast Center

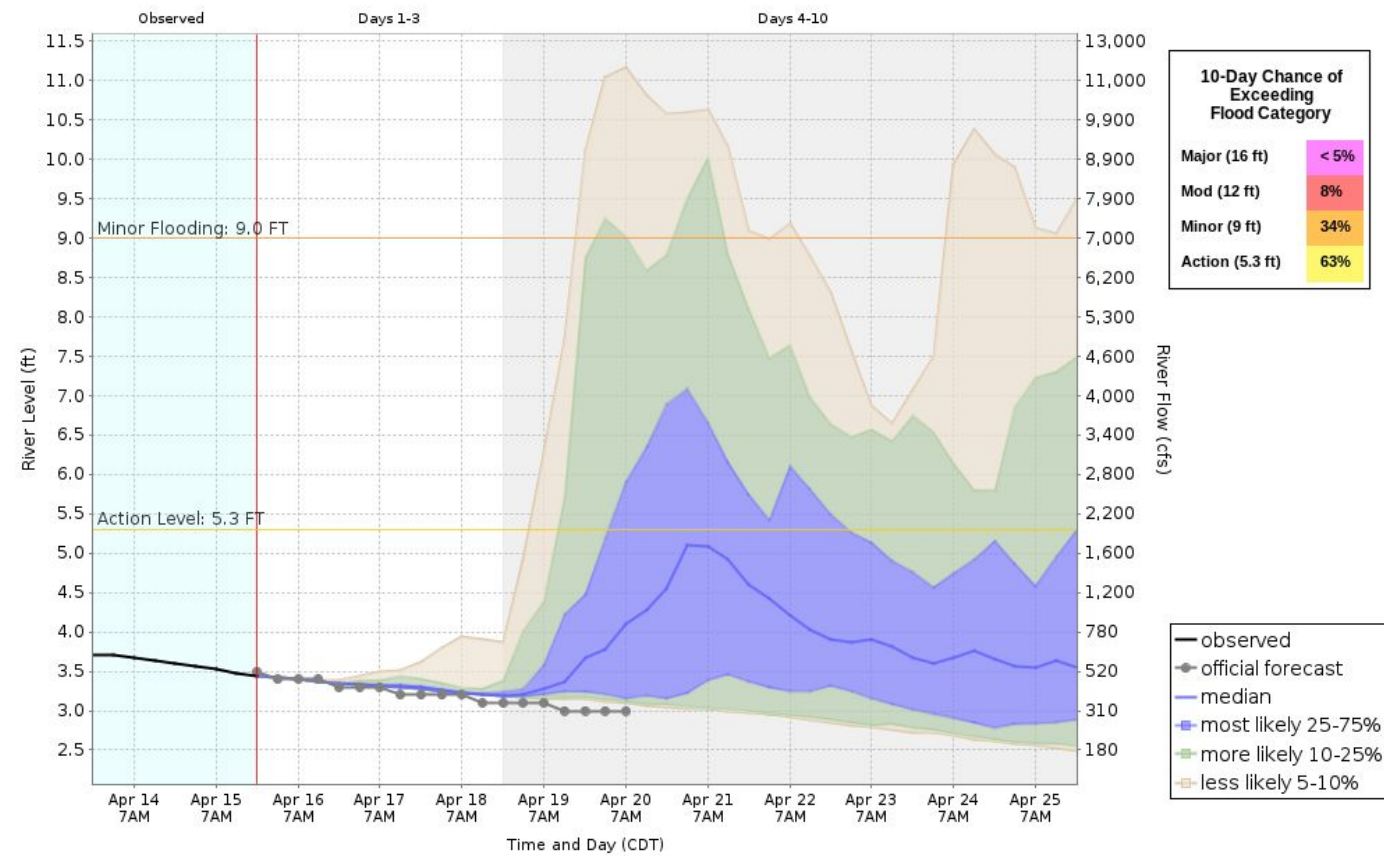
**\*\*Not a Hydrograph - Probability of Occurrence**  
**Marmaton River at Nevada**

## HEFS - 10 Day River Level Probabilities

Based on Hydrologic Ensemble Forecast Service Model Simulations  
Used to Estimate the Range of Possible River Levels



Apr 16 - Apr 26, 2025  
**JACKS FORK RIVER AT ALLEY SPRING**



Model runtime: 07:00 PM CDT Apr 15 2025  
Lower Mississippi River Forecast Center

**\*\*Not a Hydrograph - Probability of Occurrence**  
**Jacks Fork River at Alley Spring**

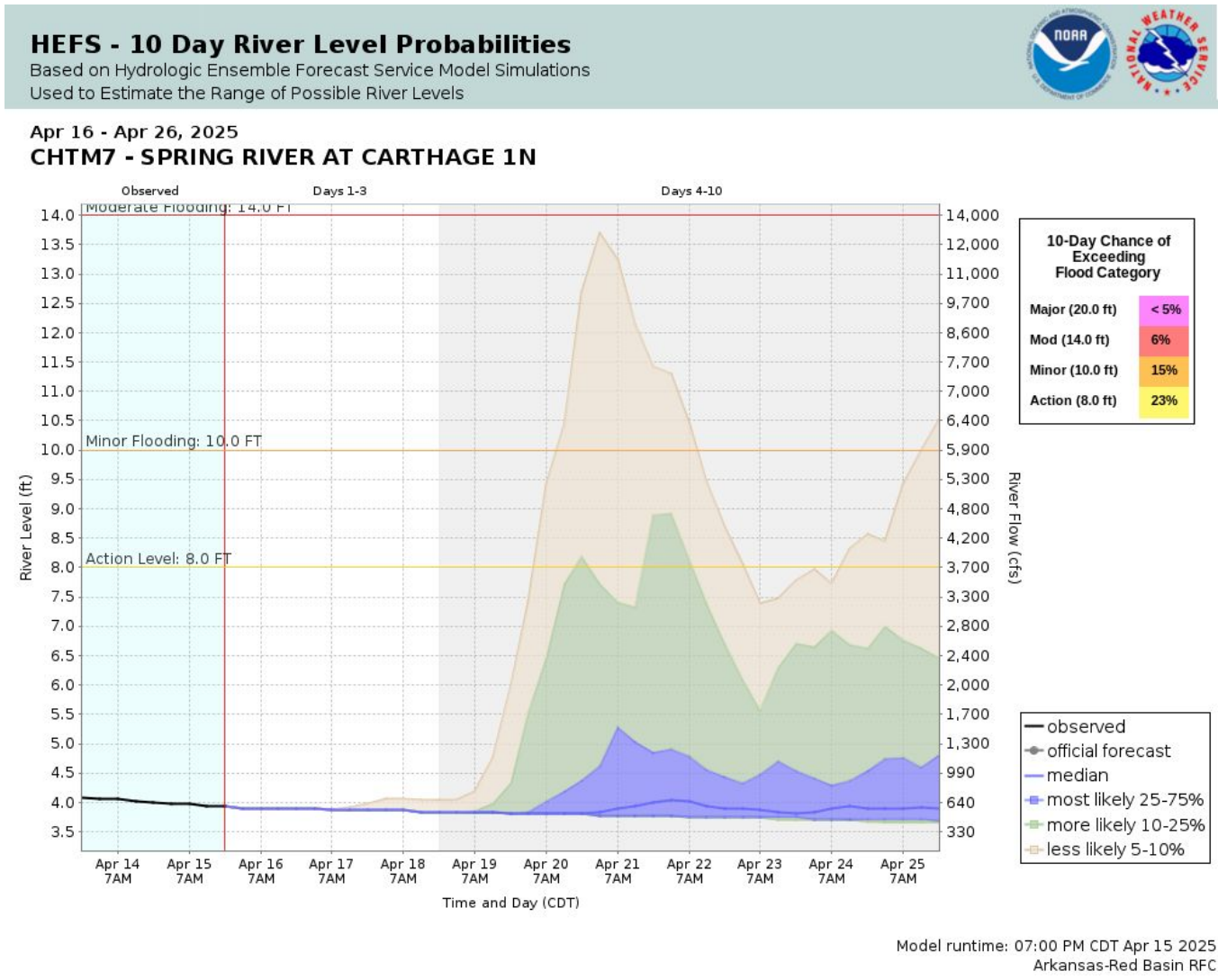
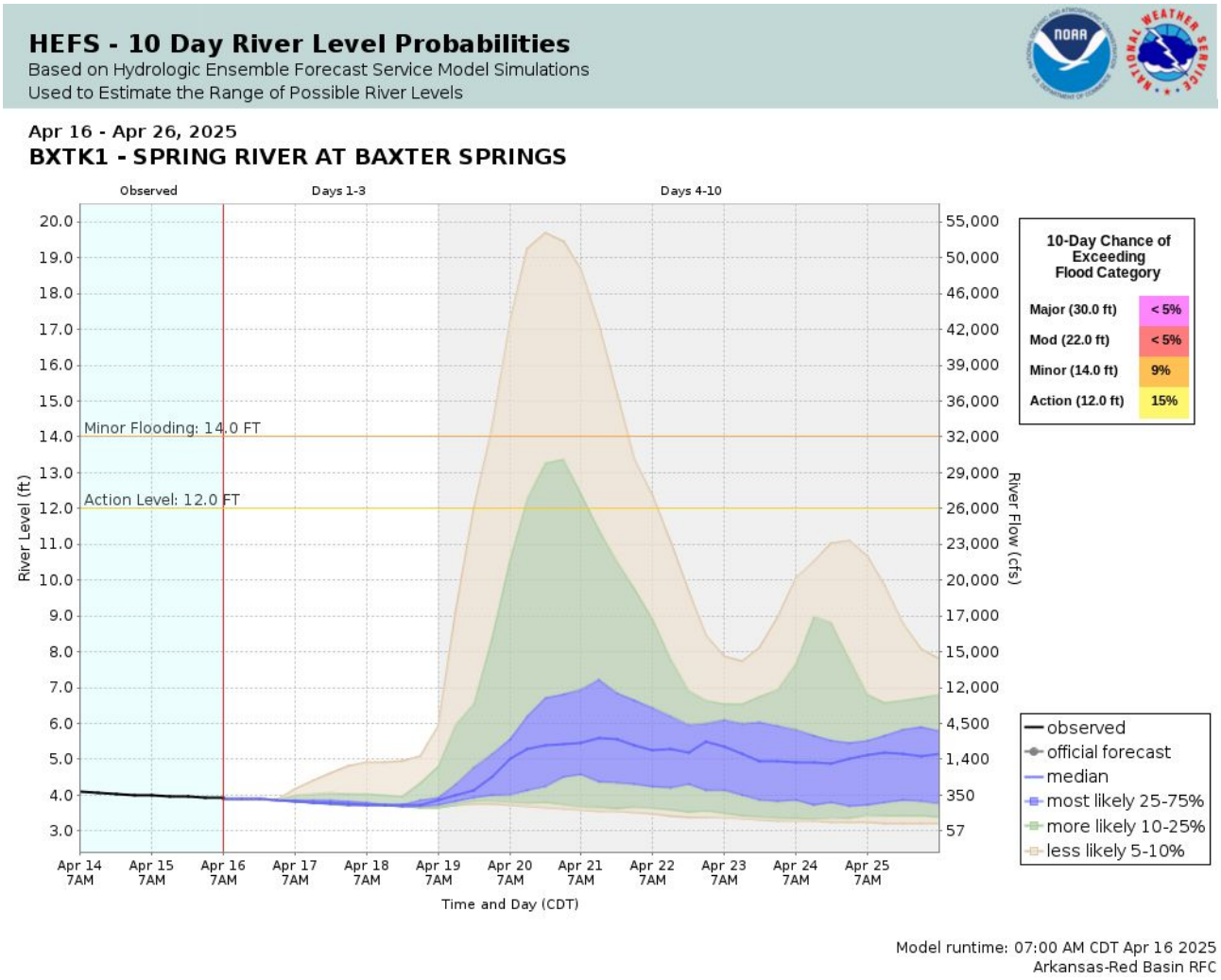






# River Flood Potential

April 17, 2025  
4:18 AM



**\*\*Not a Hydrograph - Probability of Occurrence \*\***  
**Spring River at Baxter Springs, Kansas**

**\*\*Not a Hydrograph - Probability of Occurrence \*\***  
**Spring River at Carthage**





# Confidence Levels

April 17, 2025  
4:18 AM

## Severe Weather This Weekend



## Flooding Potential This Weekend



## Timing of Rainfall/Storms



## Lightning Occurring over the Weekend



## Confidence Details

- Confidence is medium to high that showers and thunderstorms will occur intermittently throughout the weekend.
- There is a medium chance for severe thunderstorms to occur on Friday with the cold front moving through the area.
- There is a low-medium probability of severe thunderstorms to occur again on Sunday.
- Confidence is increasing in the potential for heavy rain and flooding.







# Additional Resources

April 17, 2025  
4:18 AM

## For Additional Information

- [NWS Springfield Webpage](#)
- [IDSS Point Forecasts](#)
- [Graphical Hazardous Weather Outlook](#)
- [Probabilistic QPF Experiment Webpage](#)
- [WPC Excessive Rainfall Outlooks](#)
- [WPC Precipitation Outlooks](#)
- [AHPS Lakes and Rivers](#)
- [Submit Storm Reports](#)

### STORM PLANNING TIMELINE

A few days out	The day before	The day of
<i>If the forecast calls for severe weather in a few days, start preparing now.</i>	<i>The day before, forecast accuracy continues to improve.</i>	<i>Remain vigilant and aware of any active Watches. A Warning may be issued at a moment's notice!</i>
Make sure that you have emergency supplies	Adjust plans	Remind your family of the communication plan
Know your safe places	Make sure your phone can receive WEAs	Know how to evacuate and/or get to safety from wherever you are
Have a family communication plan	Ensure your shelter is clean and accessible	When a Warning is issued, you may only have seconds to take action!

weather.gov

## PREPARE FOR FLOODS BEFORE THEY HAPPEN

Flooding can occur any time of year. Are you prepared?

Find out if you're in a floodplain. Visit [floodsmart.gov](#) to learn more.

Determine the roads likely to flood so that you can plan alternate routes.

Identify the fastest way to higher ground.



weather.gov

Follow @NWSSpringfield



National Oceanic and  
Atmospheric Administration  
U.S. Department of Commerce

National Weather Service  
Springfield, MO