



Active Weather Continues This Week

April 1, 2025
4:49 AM

Severe Thunderstorm and Flooding Potential

Key Messages

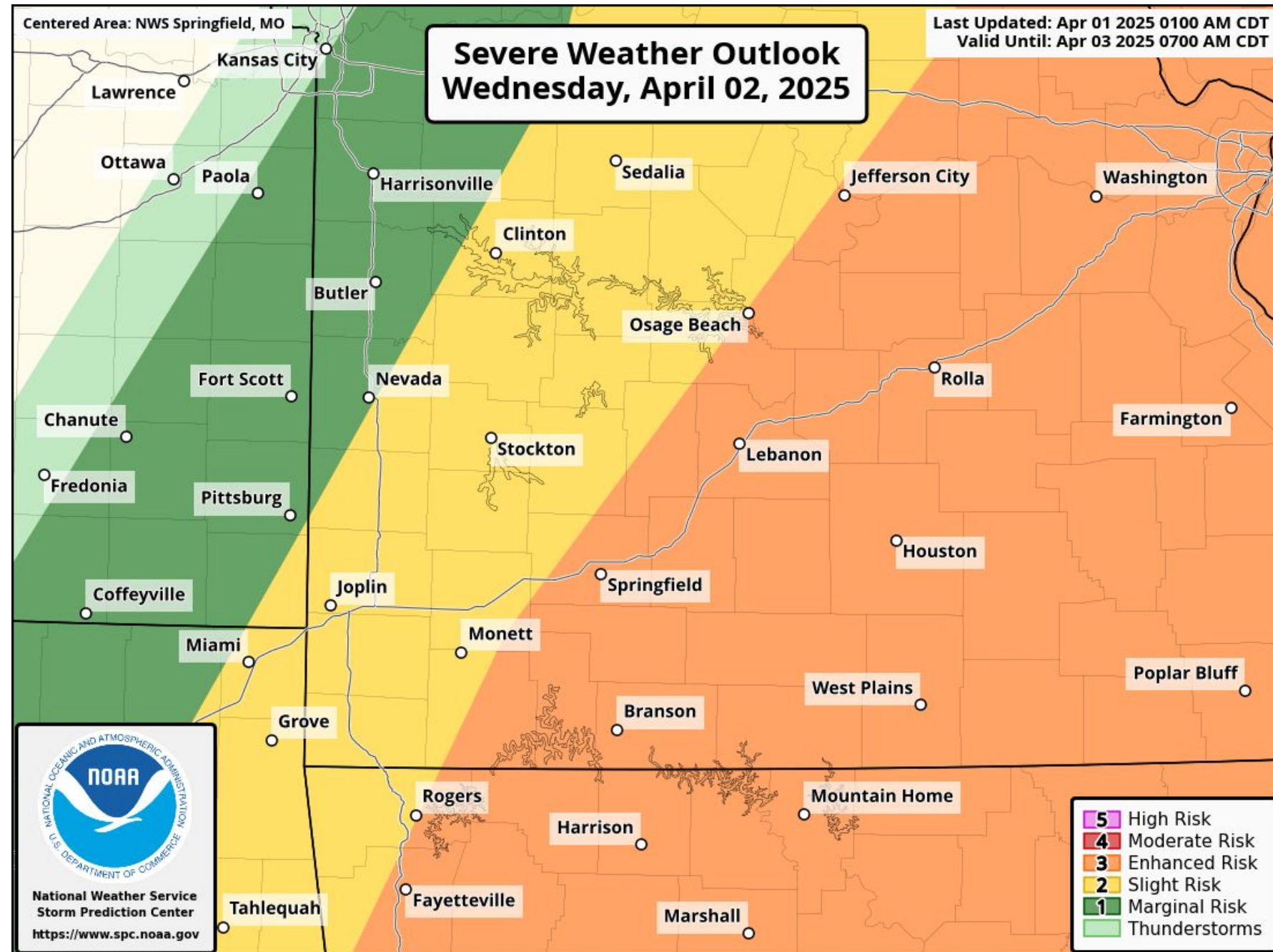
- Slight risk (2 of 5) for severe storms Tuesday night, increasing to an Enhanced risk (3 of 5) on Wednesday.
- All hazards will be possible for both rounds, though the best chance for significant hazards will be Wednesday.
- Confidence increasing in potential for heavy rainfall and flooding late week into the weekend.

NEW Important Updates

- Added hazard probabilities for tonight and Wednesday.
- Introduced approximate timing.
- Chances for high rainfall and flooding continue to increase.
- Additional severe risks through Friday.

Next Scheduled Briefing

- Tuesday Afternoon, April 1st





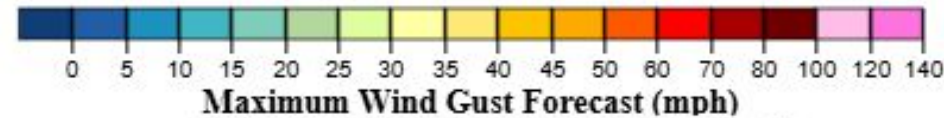
Wind Gusts Tuesday – Wednesday

April 1, 2025
4:49 AM

Key Points

- Gusty winds out of the south will begin Tuesday afternoon.
- These winds will mainly just be a nuisance to high profile vehicles and unsecured outdoor objects, though they will create some elevated fire danger.

	Maximum Wind Gust Forecast (mph)														Maximum	
	4/1 Tue							4/2 Wed								
	3am	6am	9am	12pm	3pm	6pm	9pm	12am	3am	6am	9am	12pm	3pm	6pm	9pm	
Branson	20↙	25↙	26↙	28↙	29↙	30↙	30↙	32↙	33↑	33↑	36↑	31↑	28↑	18↑	9↑	36
Fort Leonard Wood	17↙	25↙	26↙	29↙	31↙	36↙	38↙	40↑	40↑	43↑	43↑	39↑	31↑	21↑	15↑	43
Joplin	21↙	28↙	32↙	33↑	35↑	35↑	38↑	46↑	45↑	43↑	39↑	35↑	29↑	18↑	10↑	46
Lebanon	21↙	29↙	30↙	32↙	35↙	37↙	40↙	44↑	45↑	45↑	45↑	40↑	35↑	23↑	15↑	45
Osage Beach	14↙	23↙	23↙	26↙	29↙	32↙	35↙	38↑	39↑	38↑	39↑	38↑	32↑	20↑	13↑	39
Pittsburg, KS	18↙	26↙	31↙	33↑	35↑	33↑	38↑	46↑	45↑	41↑	38↑	32↑	29↑	18↑	10↑	46
Rolla	14↙	24↙	25↙	29↙	30↙	35↙	37↙	43↑	41↑	44↑	44↑	40↑	33↑	23↑	15↑	44
Springfield	23↙	33↙	33↙	36↙	37↙	37↙	40↙	44↑	43↑	39↑	39↑	36↑	31↑	21↑	13↑	44
West Plains	16↙	22↙	24↙	26↙	29↙	31↙	33↙	39↑	39↑	41↑	41↑	40↑	33↑	24↑	17↑	41



Created: 4 am CDT Tue 4/1/2025 | Values are maximums over the period beginning at the time shown.



Slight Risk Tuesday

April 1, 2025
4:49 AM

Best timing is during the evening and into the overnight hours.

Overview

- A conditional threat for severe thunderstorms exists Tuesday evening into the overnight hours.
- Potential for isolated supercells in the evening along and west of I-49. All hazards possible with hail up to golf balls or larger most likely
- Then, potential for a line of storms moving through the whole area overnight. Damaging winds up to 60 mph would be the main hazard with these.

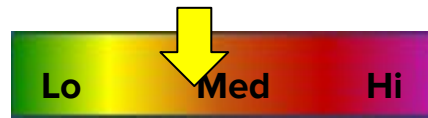
Severe Threats



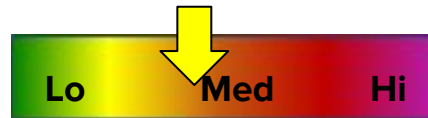
Tornado



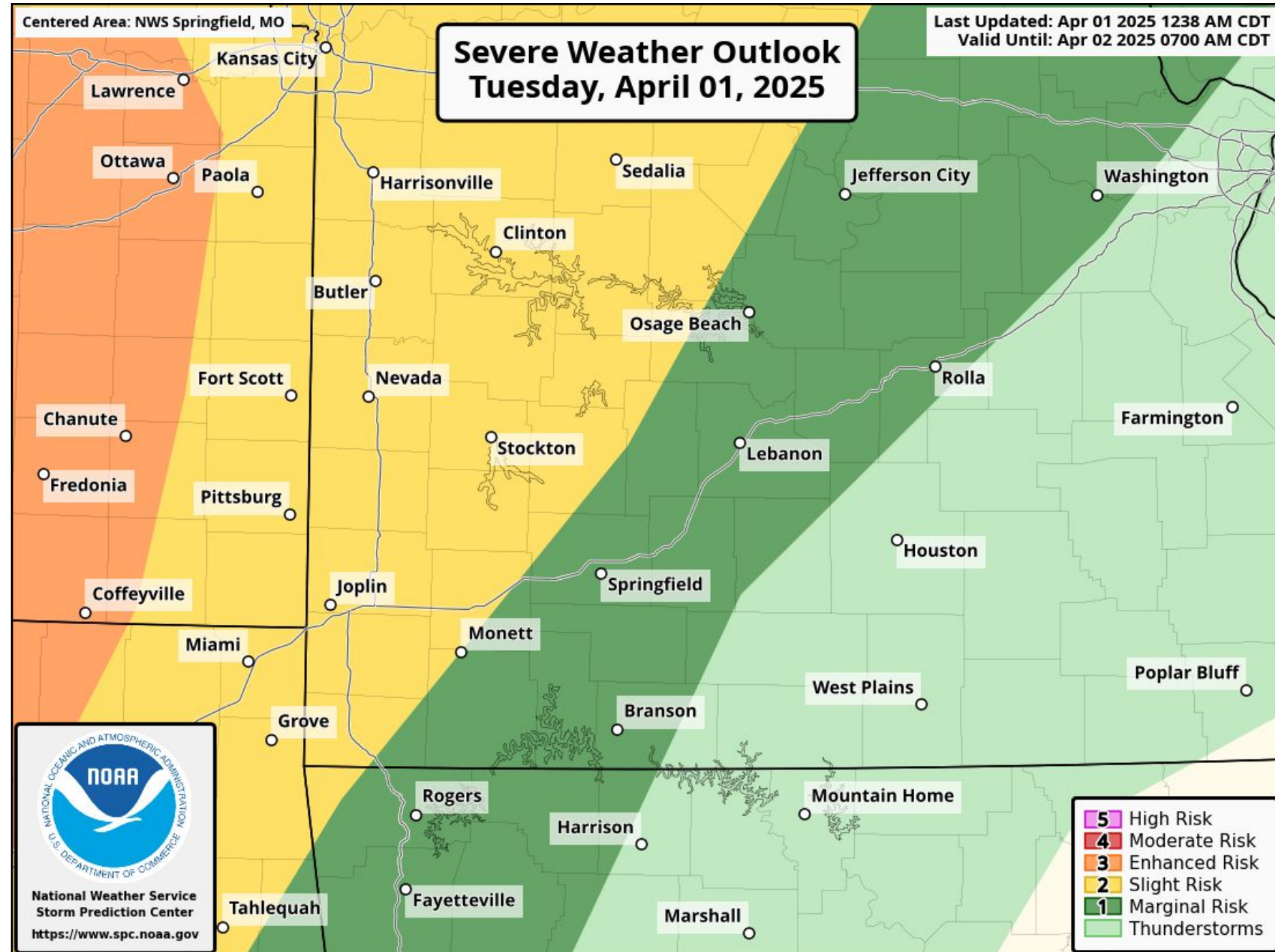
Hail



Wind



Flooding



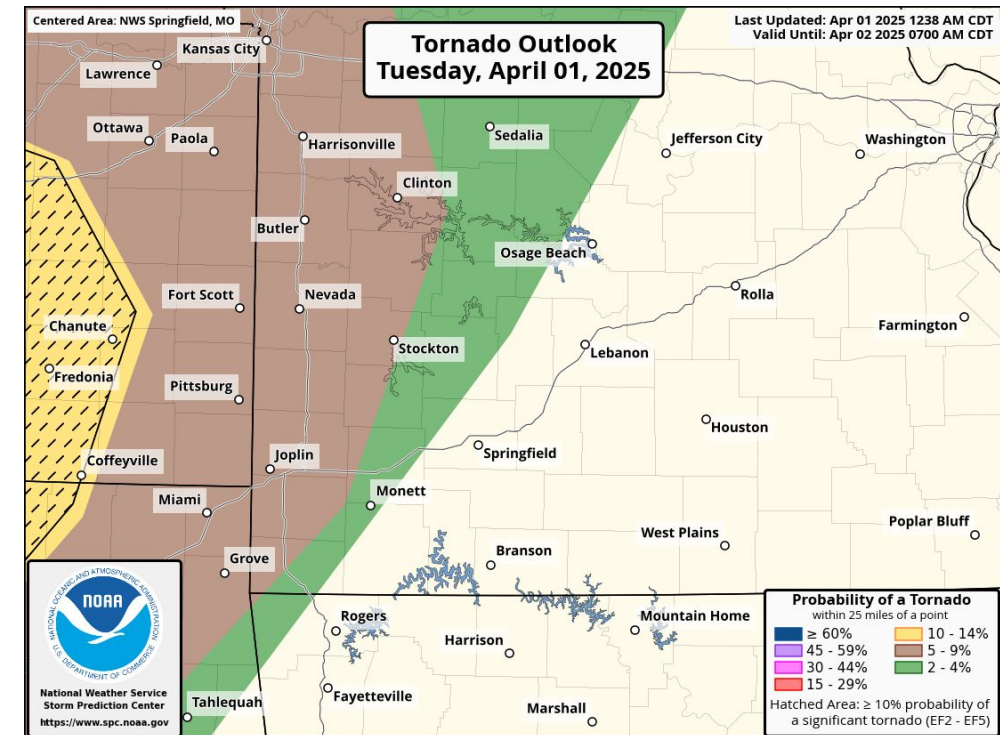
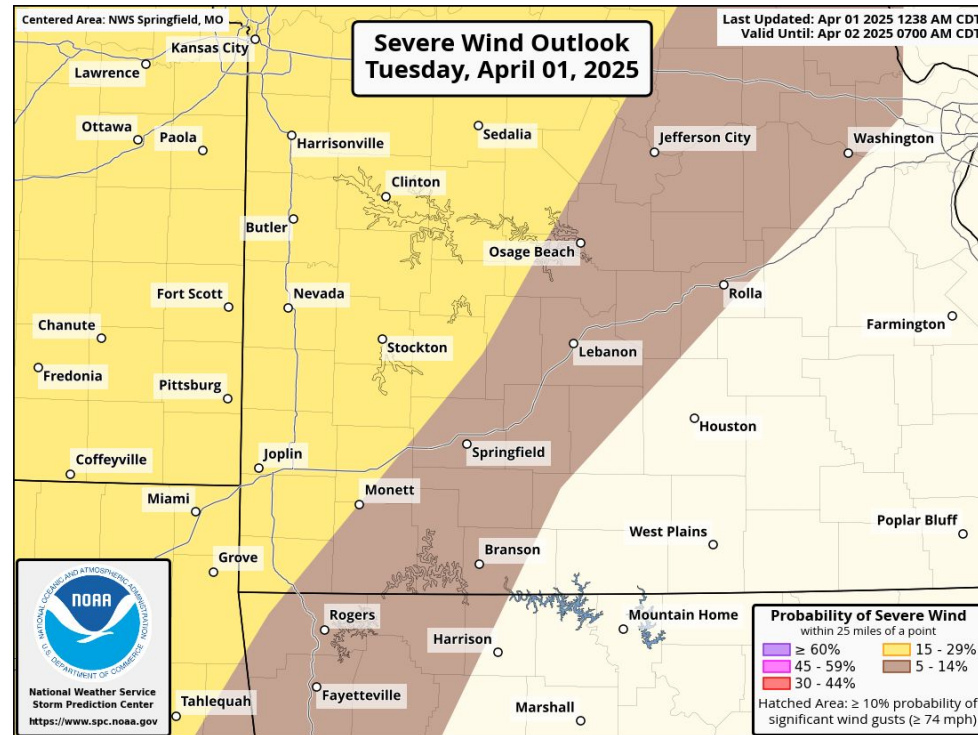
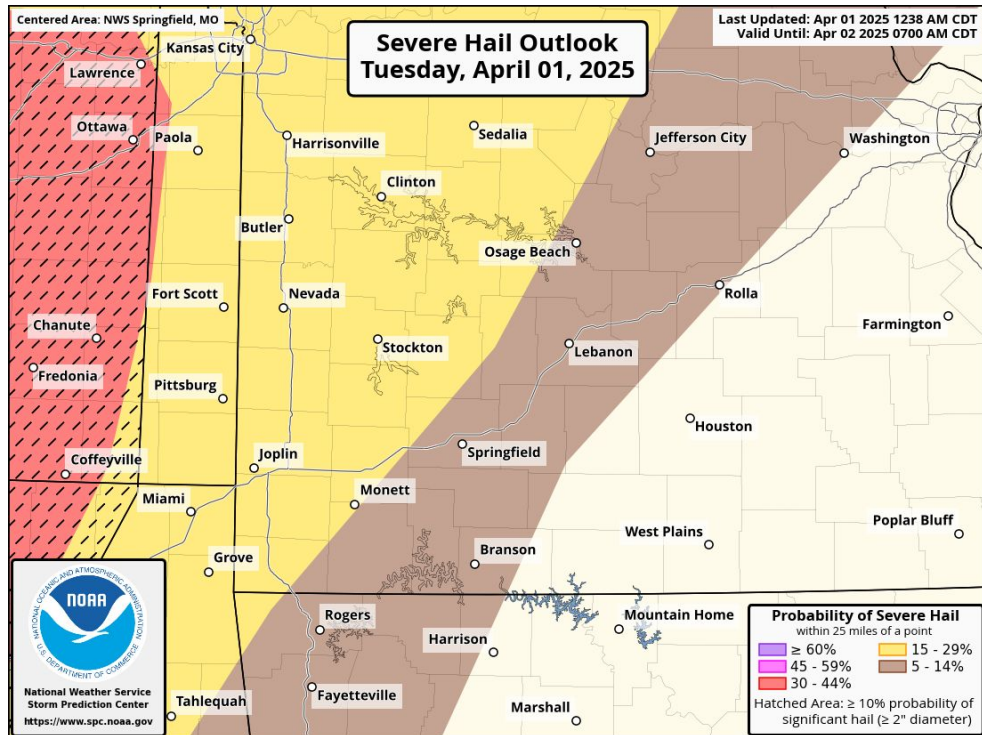
National Oceanic and Atmospheric Administration
U.S. Department of Commerce

National Weather Service
Springfield, MO

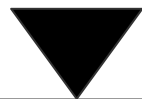


Severe Hazard Probabilities Tuesday

April 1, 2025
4:49 AM



Hail Probability



Pennies	Quarters	Golf Balls	Baseballs
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Wind Probability



< 60 mph	60-70 mph	70-80 mph	>80 mph
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Tornado Probability



Very Low	Low	Moderate	High
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Confidence Levels for Tuesday

April 1, 2025
4:49 AM

Threats are conditional at the moment.

Confidence on Location



Confidence on Timing



Confidence in Severe Occurrence



Confidence in Flooding Occurrence



Confidence Details

- Severe threat is very conditional based on the strength and speed of moisture/instability return Tuesday.
- Medium-low confidence in a line of storms developing along the cold front overnight Tuesday.
- Low confidence in isolated supercells late Tuesday evening along and west of I-49.

Alternate Scenarios

- There is a potential scenario where stout capping inhibits any thunderstorm from developing. This could keep isolated supercells from developing in the evening, but strong forcing later at night could still develop thunderstorms along the cold front
- If isolated supercells are able to develop, the hazard ceiling is high with all hazards possible including tornadoes and larger hail up to the size of tennis balls. These would mainly be along and west of I-49.

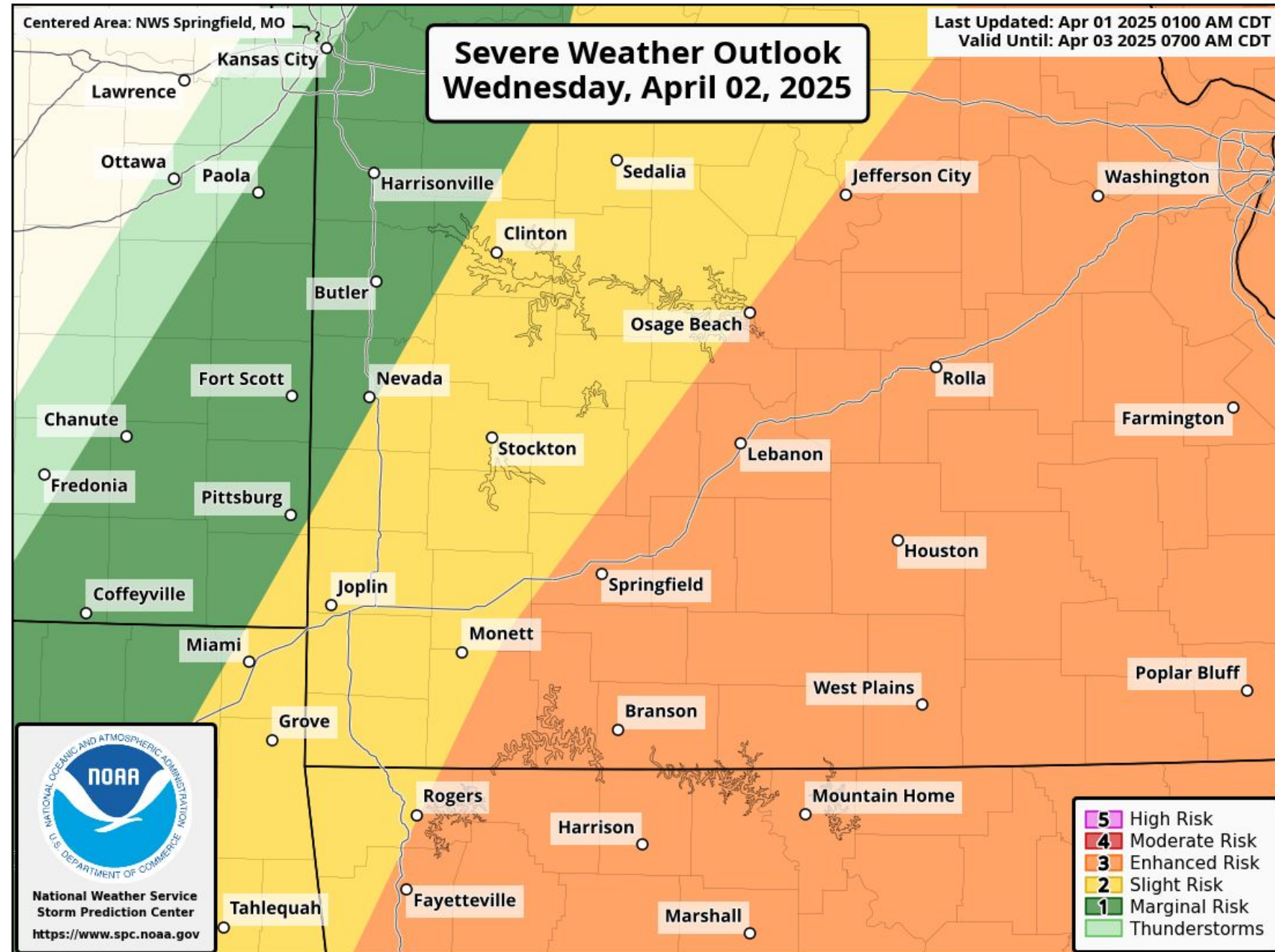


Enhanced Risk Wednesday

April 1, 2025
4:49 AM

Key Points

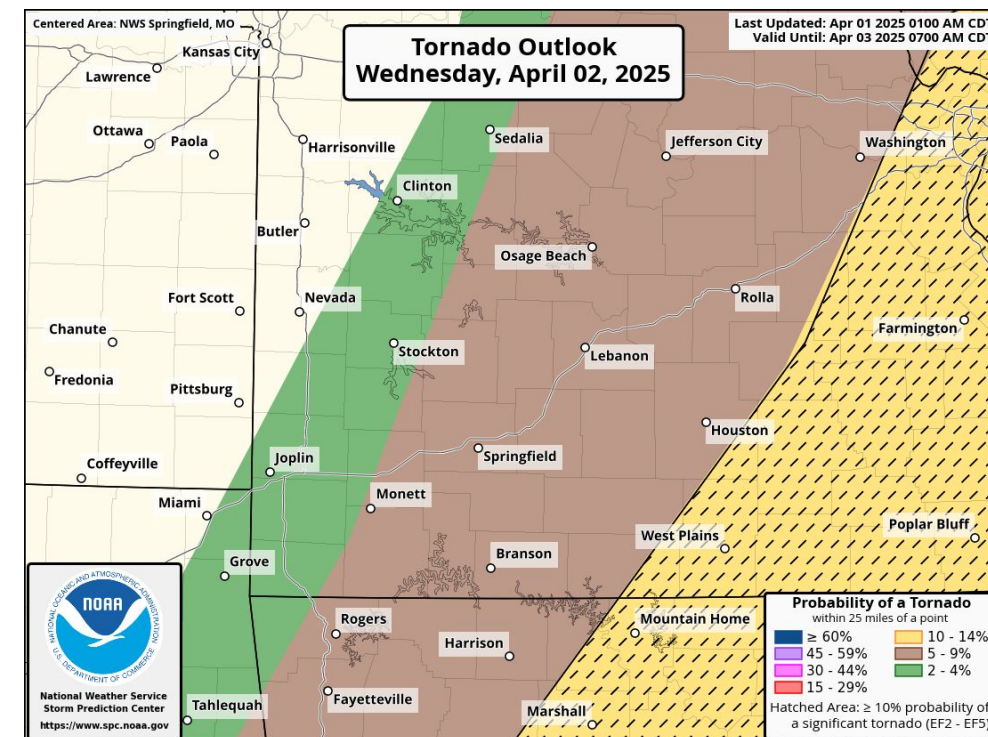
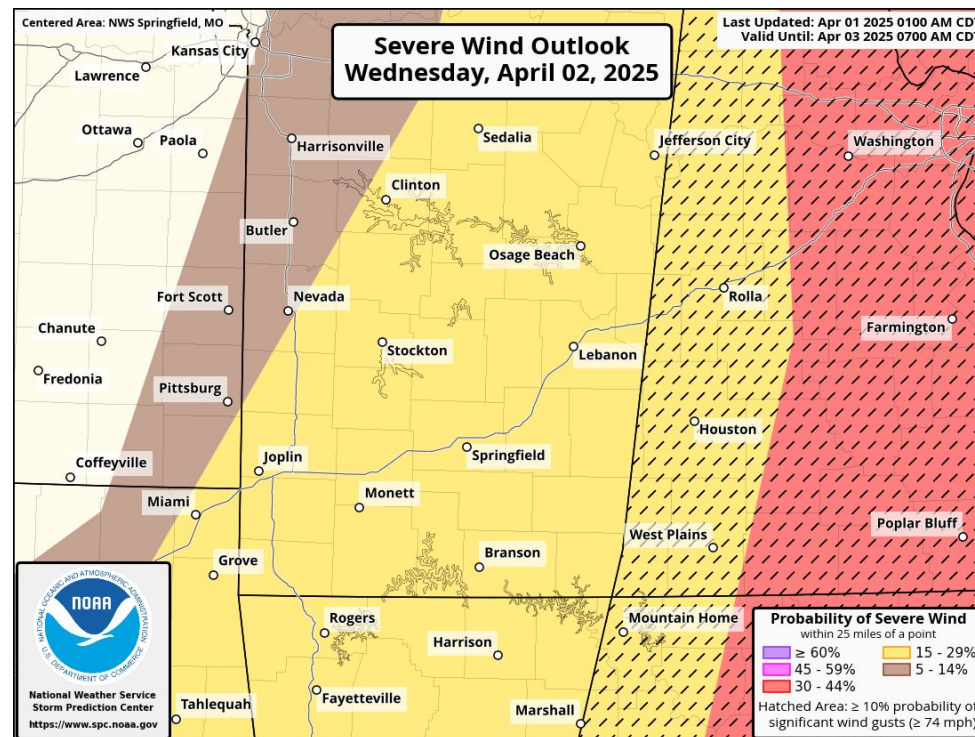
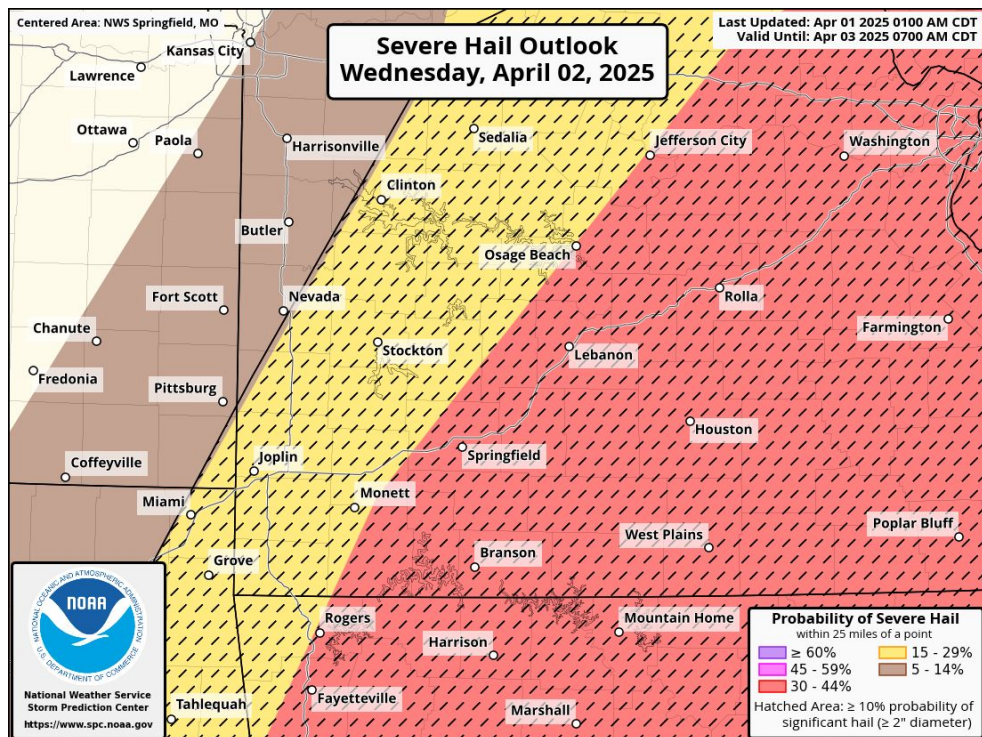
- Additional severe thunderstorms are possible Wednesday for much of our forecast area.
- If storms do continue along the cold front, the environment will be conducive for all hazards, potentially significant.
- Greatest chance for significant severe weather will be east of Highway 63 during the afternoon and evening hours.





Severe Hazard Probabilities Wednesday

April 1, 2025
4:49 AM



Hail Probability



Wind Probability



Tornado Probability



Pennies	Quarters	Golf Balls	Baseballs
---------	----------	------------	-----------

< 60 mph	60-70 mph	70-80 mph	>80 mph
----------	-----------	-----------	---------

Very Low	Low	Moderate	High
----------	-----	----------	------



Confidence Levels for Wednesday

April 1, 2025
4:49 AM

Threats are conditional at the moment.

Confidence on Location



Confidence on Timing



Confidence in Severe Occurrence



Confidence in Flooding Occurrence



Confidence Details

- There is medium confidence across the board that severe thunderstorms will occur along and east of I-49 throughout the day.
- Lower confidence for severe occurrence during the morning west of Highway 65, increasing confidence as storms move east and the day goes on.

Alternate Scenarios

- Thunderstorms along the cold front Wednesday morning into the early afternoon (west of Highway 63) may fail to develop or dissipate with time. If this is the case, the greater severe threat becomes east of Highway 63 in the afternoon as new storms are expected to develop.



Thunderstorm Timeline

April 1, 2025
4:49 AM

Tuesday night through Wednesday

Tuesday Night

Wednesday

9 pm

12 am

3 am

6 am

9 am

12 pm

3 pm

6 pm

9 pm

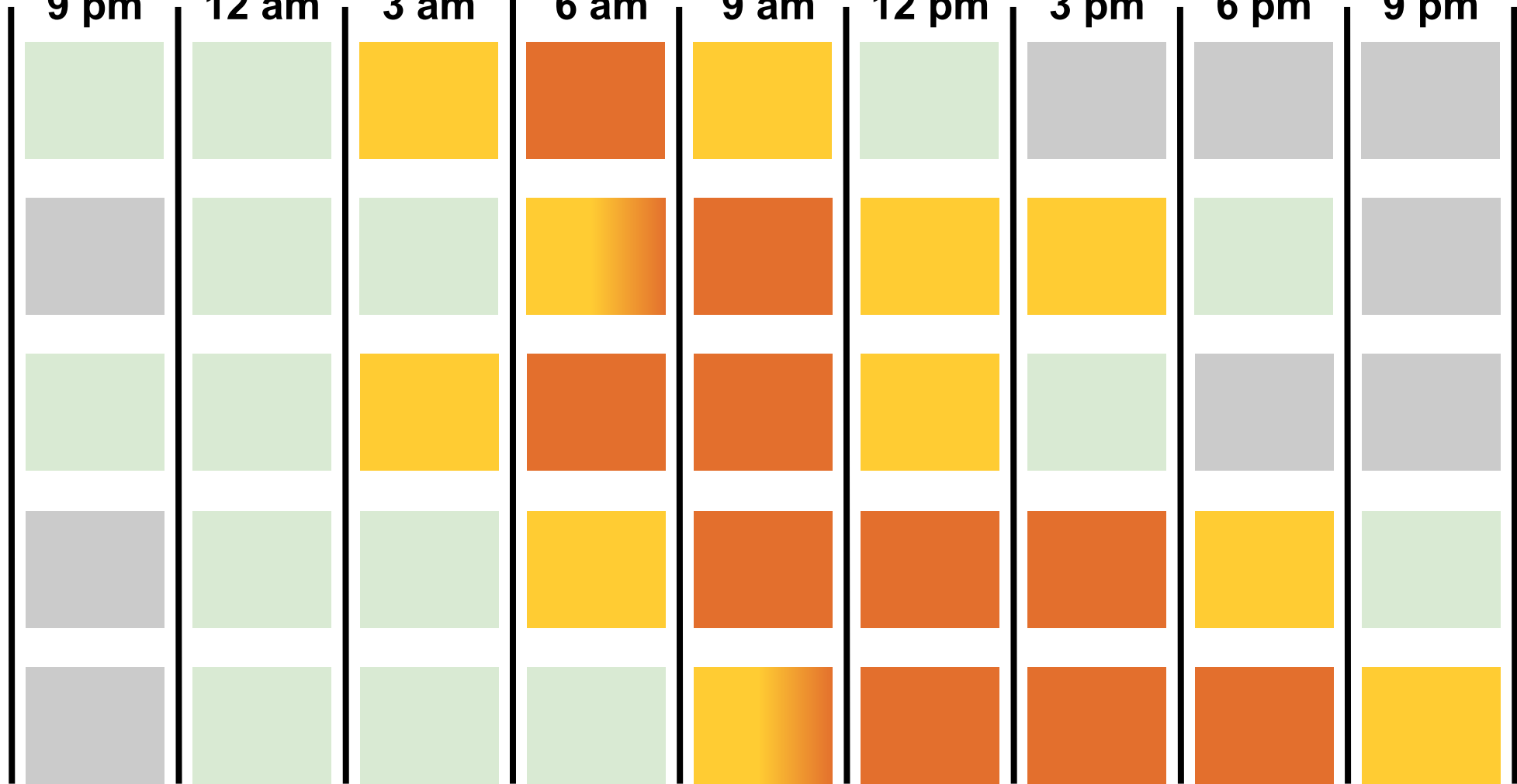
Nevada | Pittsburg | Joplin

Bolivar | Branson | Springfield

Versailles | Camdenton | Lebanon

Rolla | Salem | Houston

Eminence | West Plains | Alton



Thunderstorm Chances

None

Very Low

Low

Medium

High



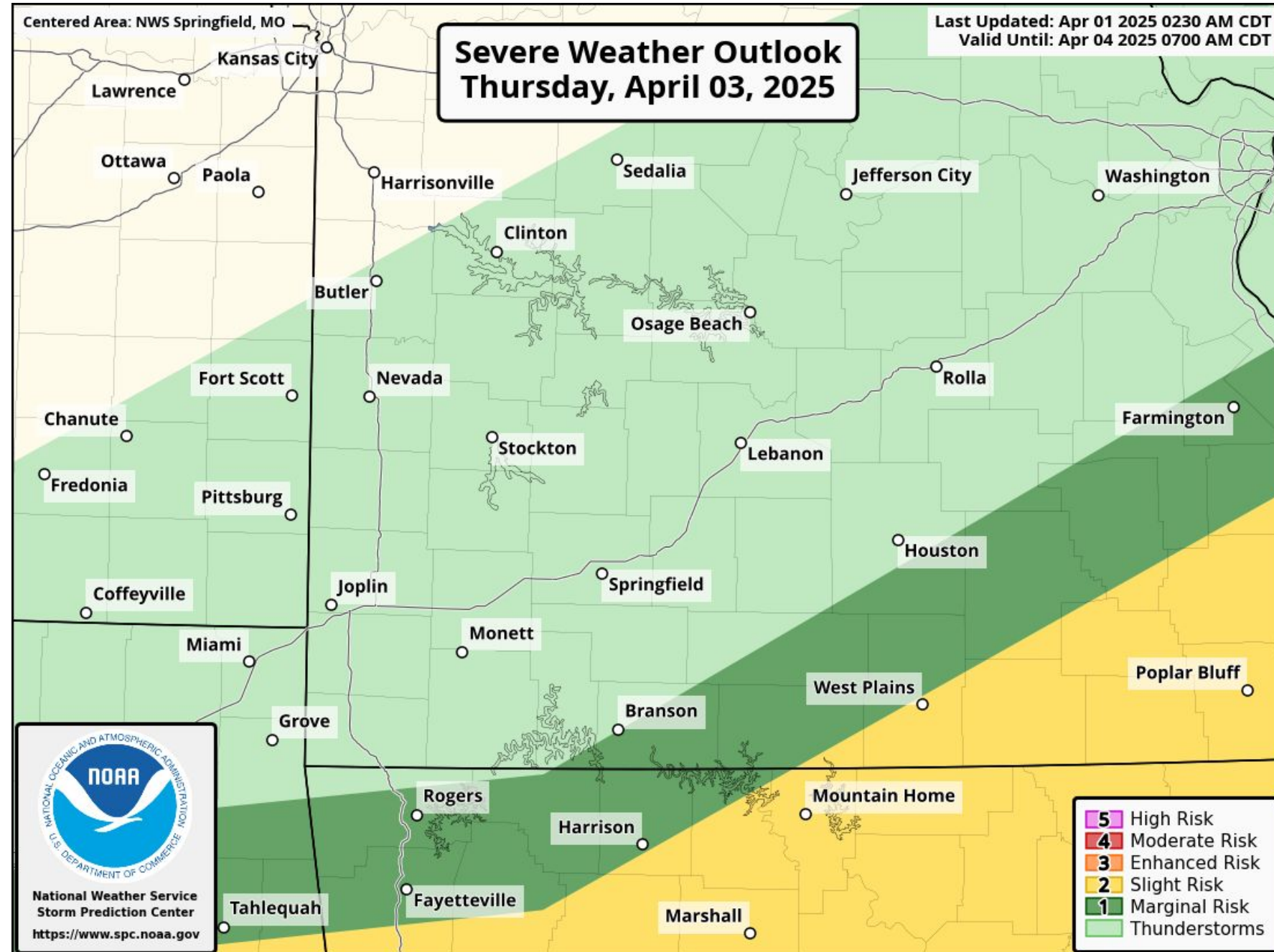


Severe Risk Thursday

April 1, 2025
4:49 AM

Key Points

- Additional severe thunderstorms are possible on Thursday in our far southeast forecast area.
- Details remain uncertain and the exact delineation of the Marginal and Slight risks will likely change.
- With a stalled front likely to our south, any severe threat would be from elevated storms, meaning hail would be the main hazard.



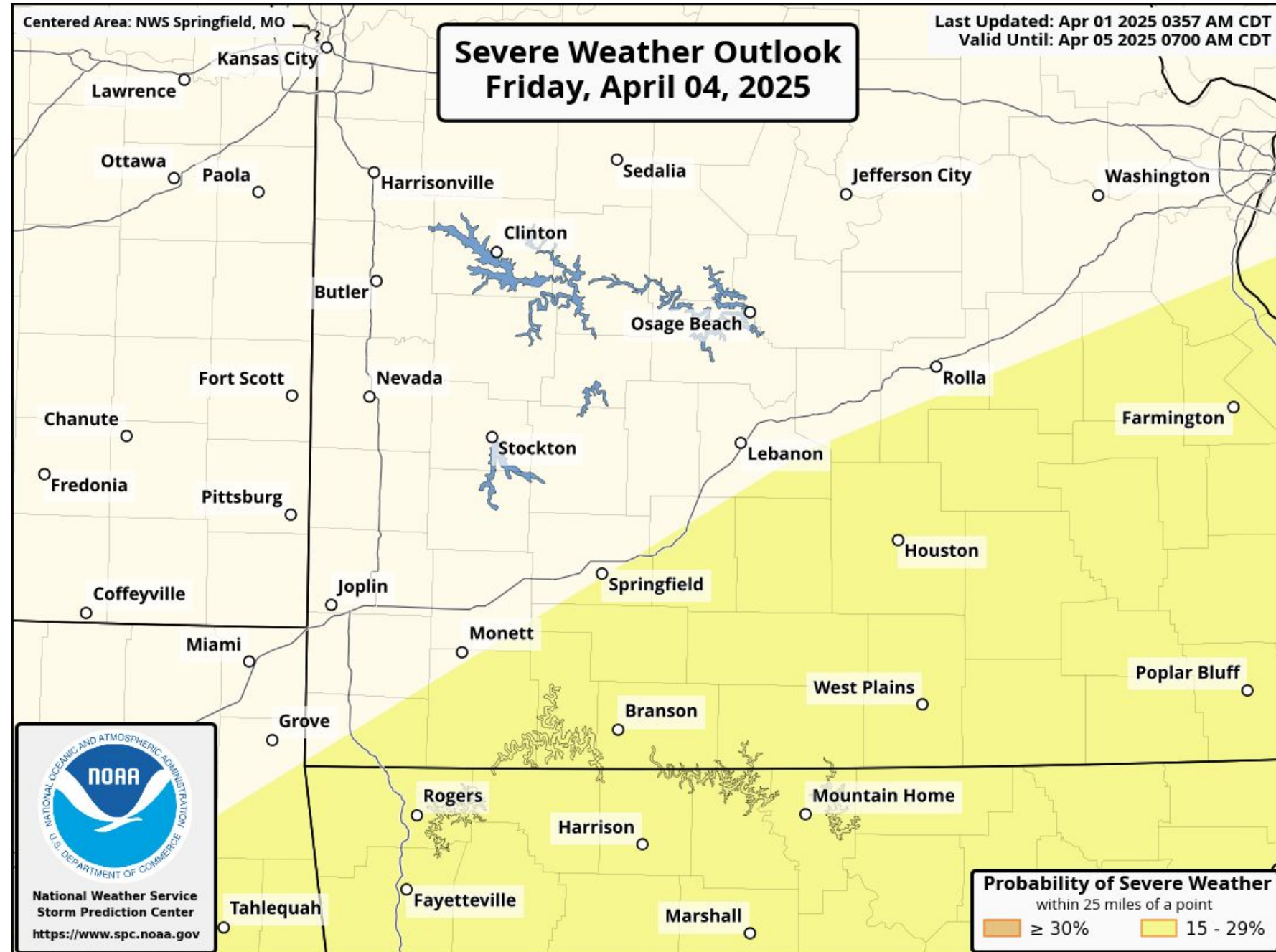


Severe Risk Friday

April 1, 2025
4:49 AM

Key Points

- Additional severe thunderstorms are possible on Friday along and southeast of I-44.
- Along with the heavy rain, there should be enough shear and instability for scattered severe thunderstorms to also develop.
- With the stalled front likely to our south, any severe threat would be from elevated storms, meaning hail would continue to be the main hazard.



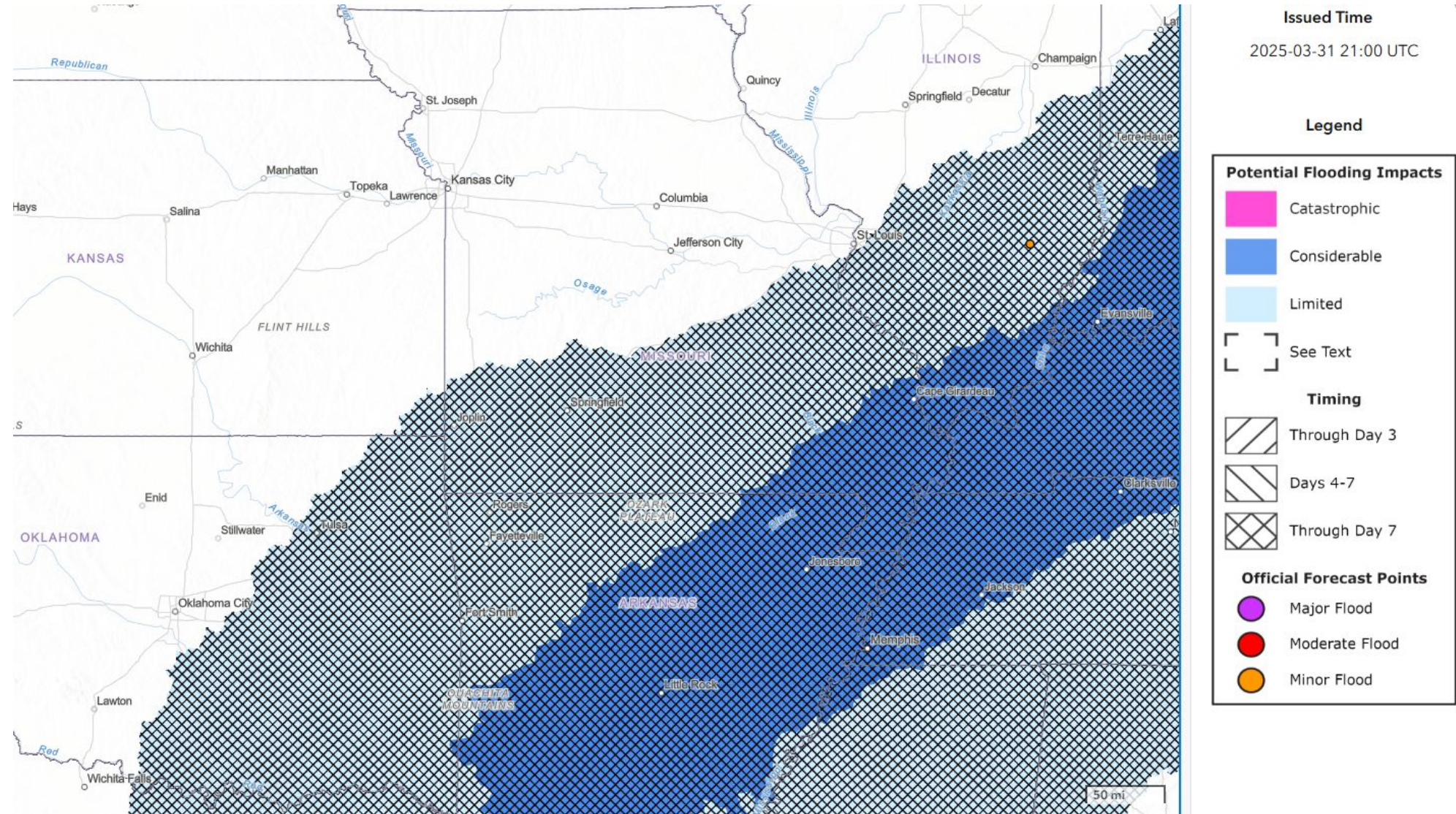


Late Week Flooding Potential

April 1, 2025
4:49 AM

Key Points

- Several rounds of heavy rainfall look to occur Wednesday through Saturday.
- Several inches of rainfall could add up which would cause flash flooding and increased river levels.
- Considerable flash, urban and small stream flooding is expected as close as southeast Missouri.
- The highest confidence for widespread significant river flooding (moderate and major) is from the eastern Ozarks through the Lower Ohio Valley.



Experimental Flood Hazard Outlook (Late Week)



Excessive Rainfall Outlooks

April 1, 2025
4:49 AM

Wednesday

What

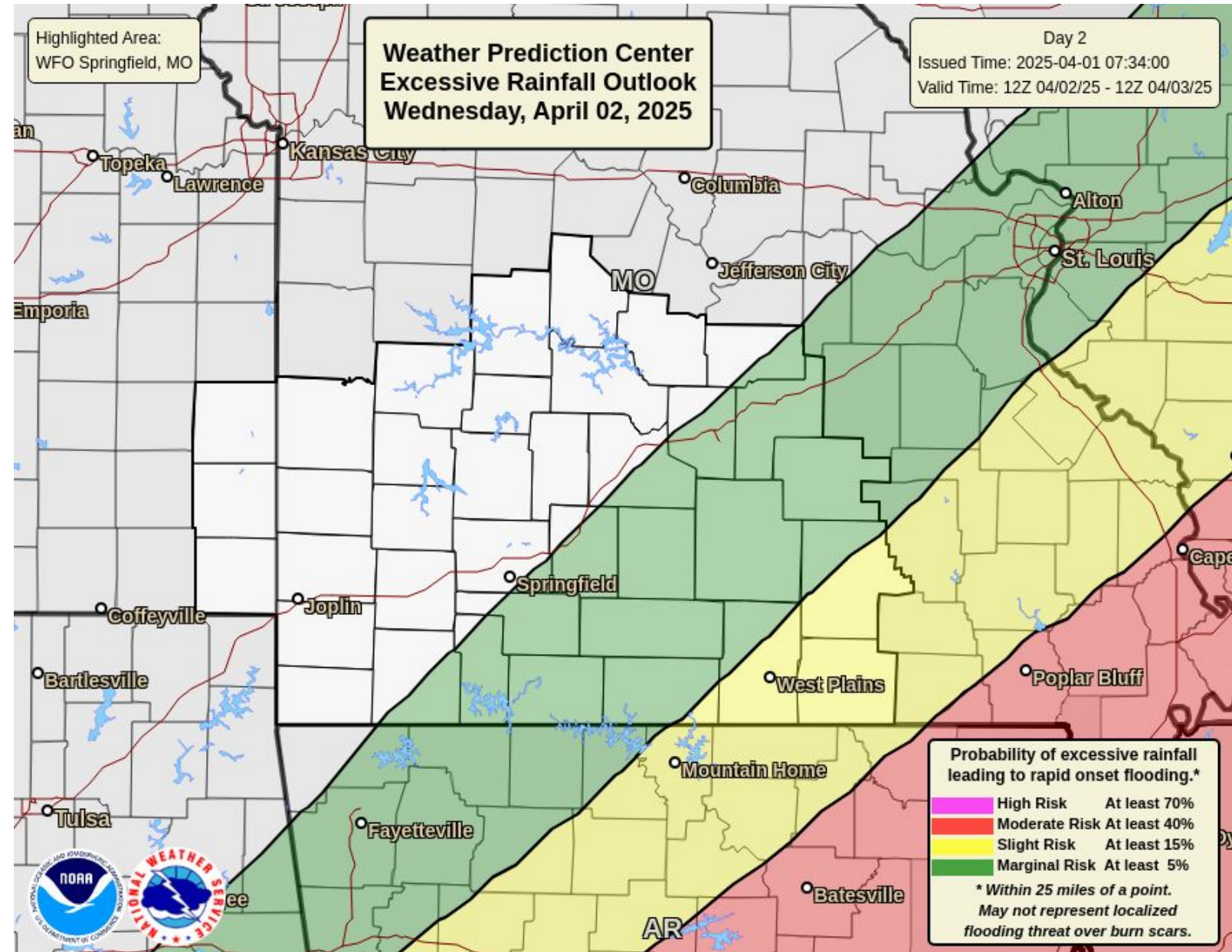
→ There is a Marginal to Slight Risk (1-2/4) for excessive rainfall. This could cause localized flooding.

Where

→ Highest chances are from West Plains and points south and east.

When

→ As storms move over same areas Wednesday afternoon through Wednesday night.



Wednesday - Wednesday Night





Excessive Rainfall Outlooks

April 1, 2025
4:49 AM

Thursday - Thursday Night

What

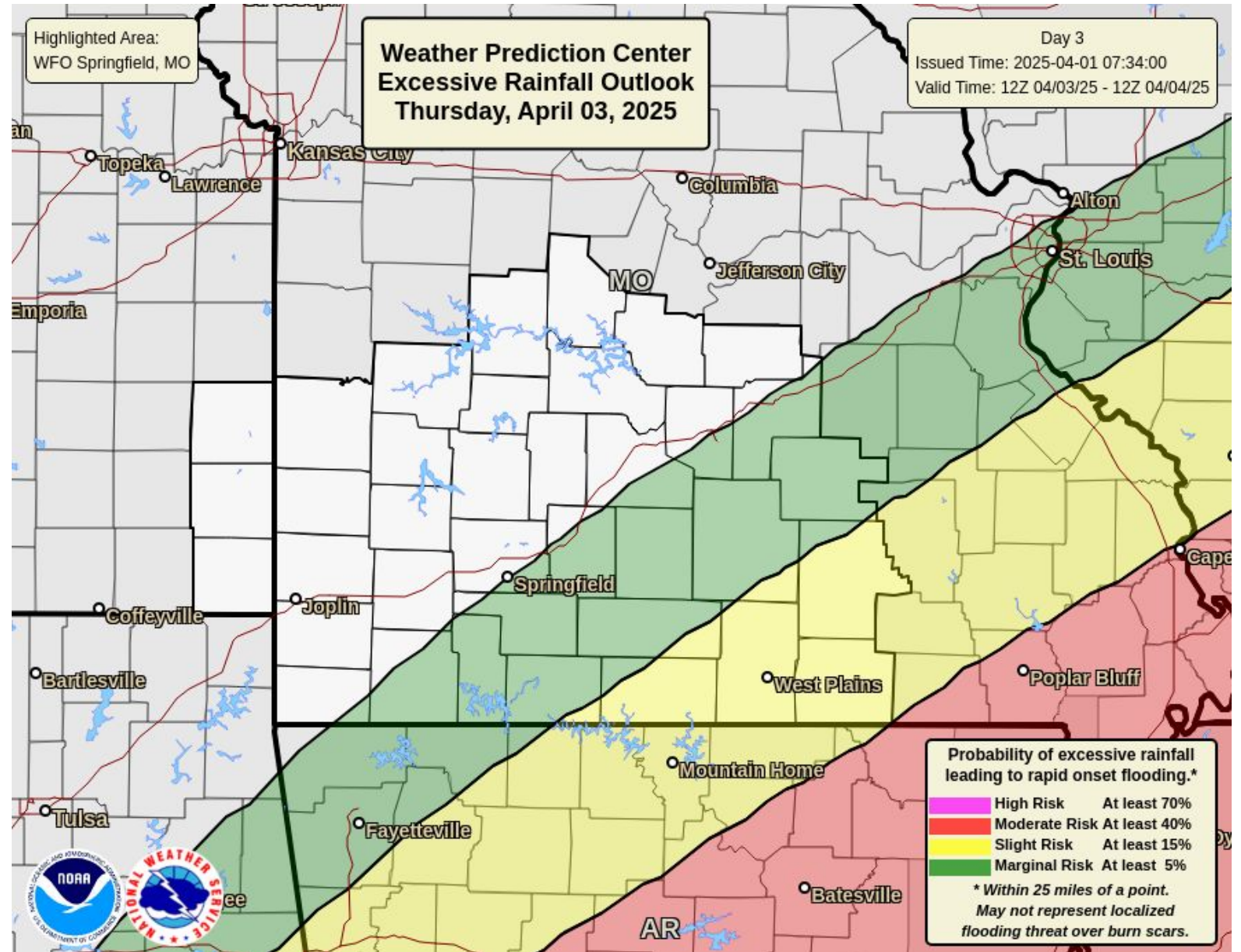
- Several inches of rainfall could occur from repeated rounds of thunderstorms. This would cause flash flooding and increased river levels.

Where

- Highest chances of excessive rainfall and flooding are southeast of Springfield across south central Missouri.

When

- Additional rounds Thursday night and again Friday and Saturday.



Thursday - Thursday Night



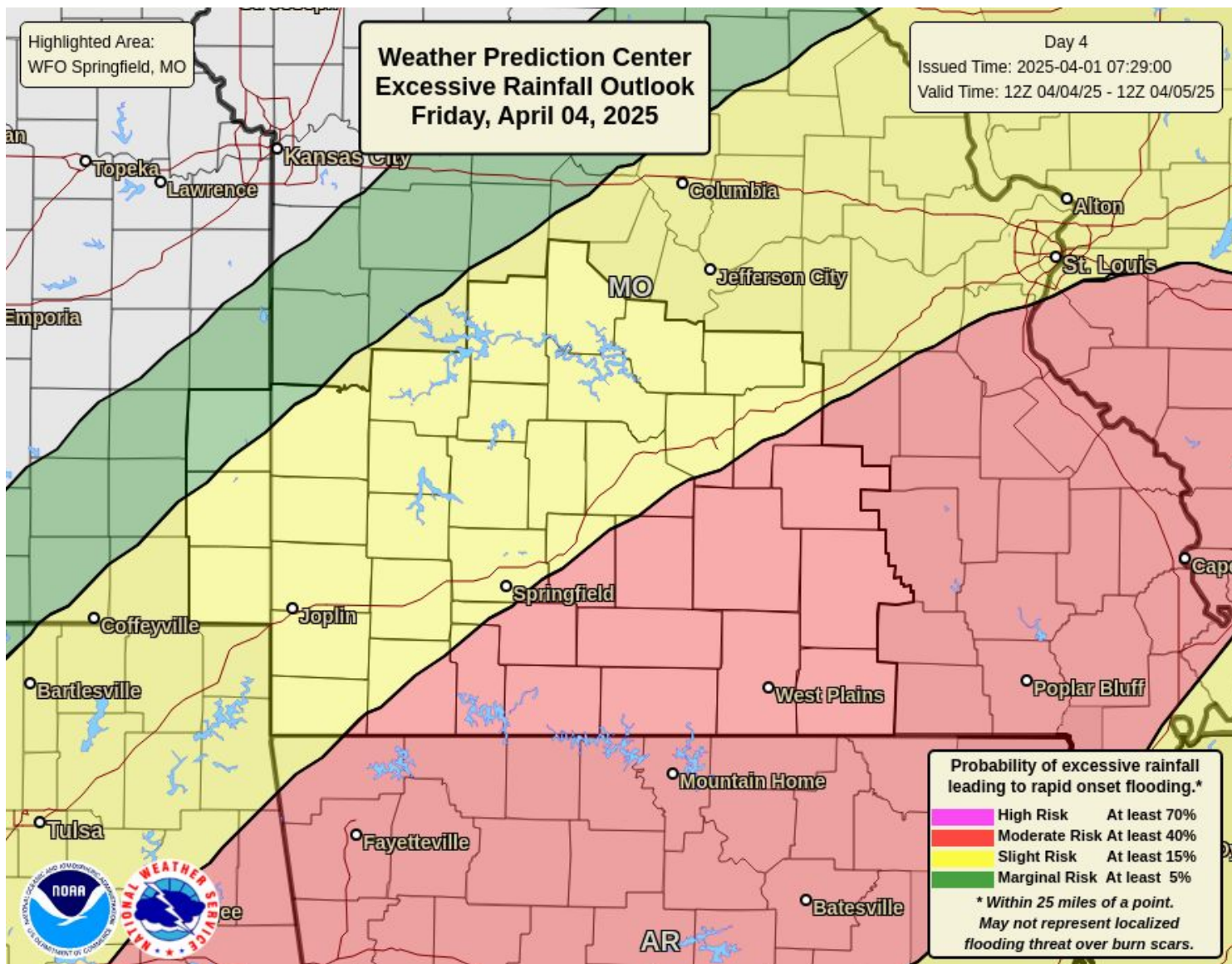


Excessive Rainfall Outlooks

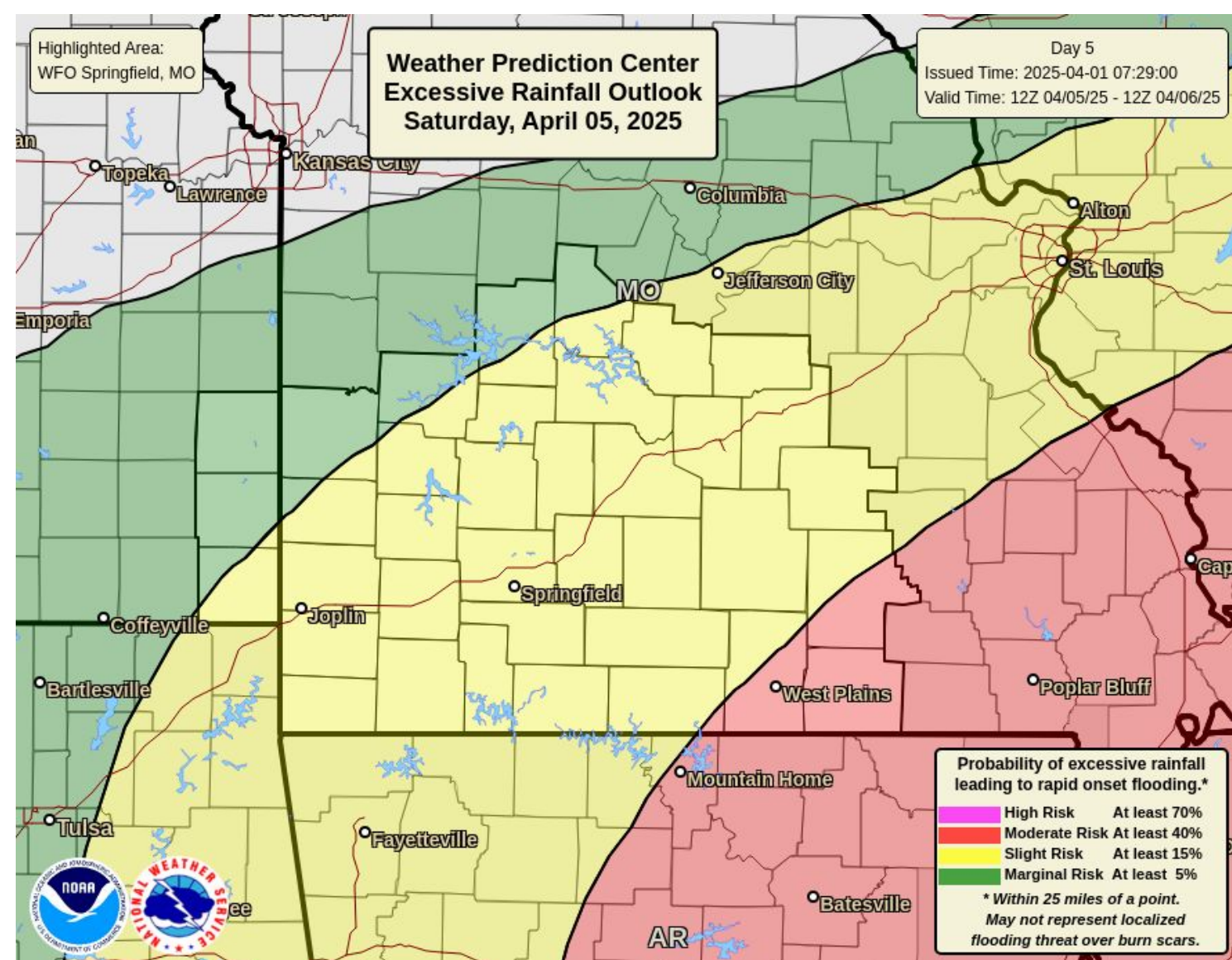
April 1, 2025

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Friday through Saturday Night



Friday - Friday Night



Saturday - Saturday Night

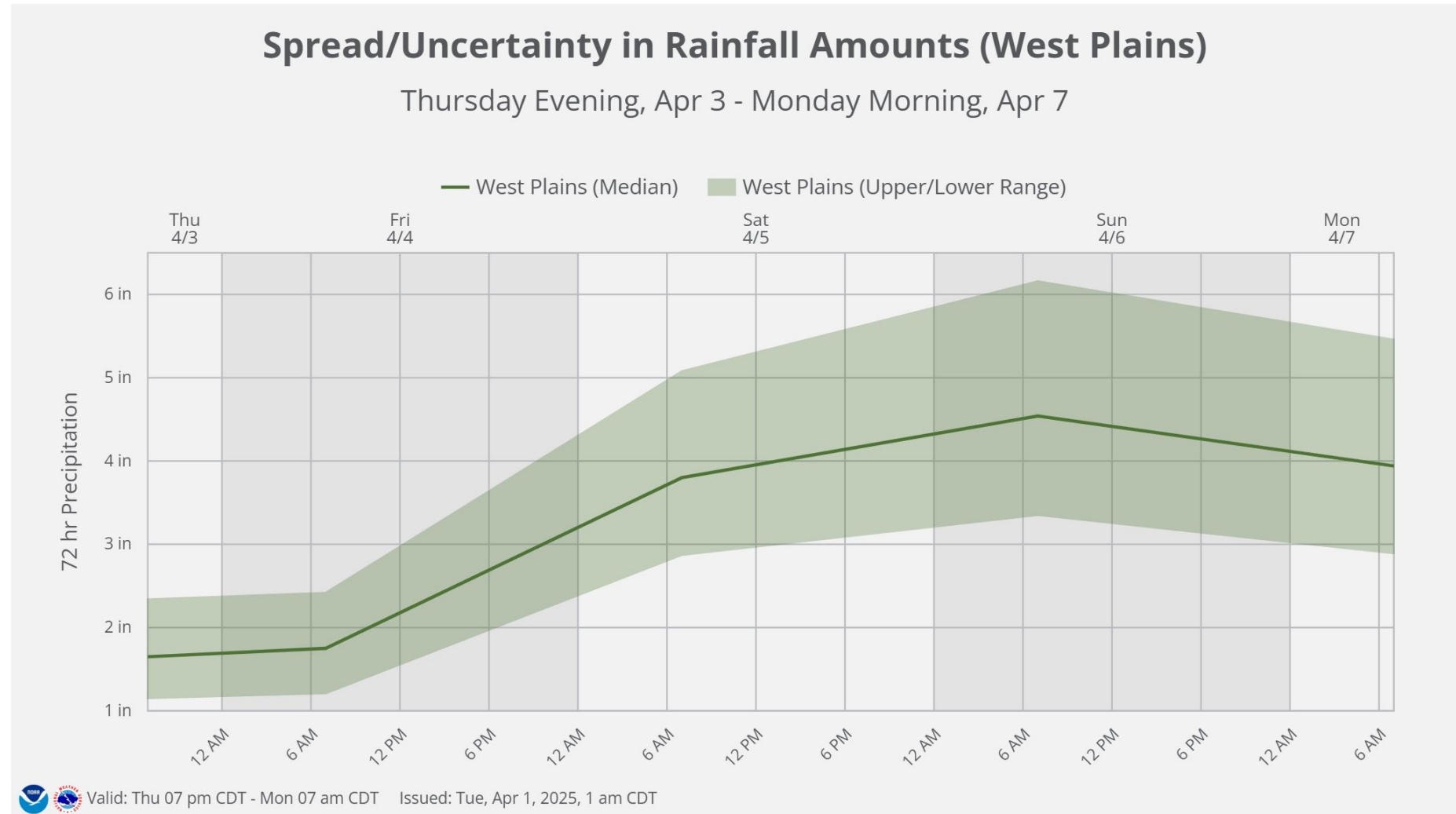


High Uncertainty/Spread in Rain Amounts

April 1, 2025
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Highlights

- The pattern suggests heavy rainfall occurring near or just southeast of the area late week into the weekend.
- While the spread has decreased some, there remains a several inch spread in rainfall amounts on the northwest edge of this system.
 - ◆ West Plains example to the right shows the spread in total rainfall amounts with either 3 inches or potentially up to 7 inches occurring by the weekend.
- Confidence in rainfall amounts will increase as we head through the week and get into the high resolution model window.



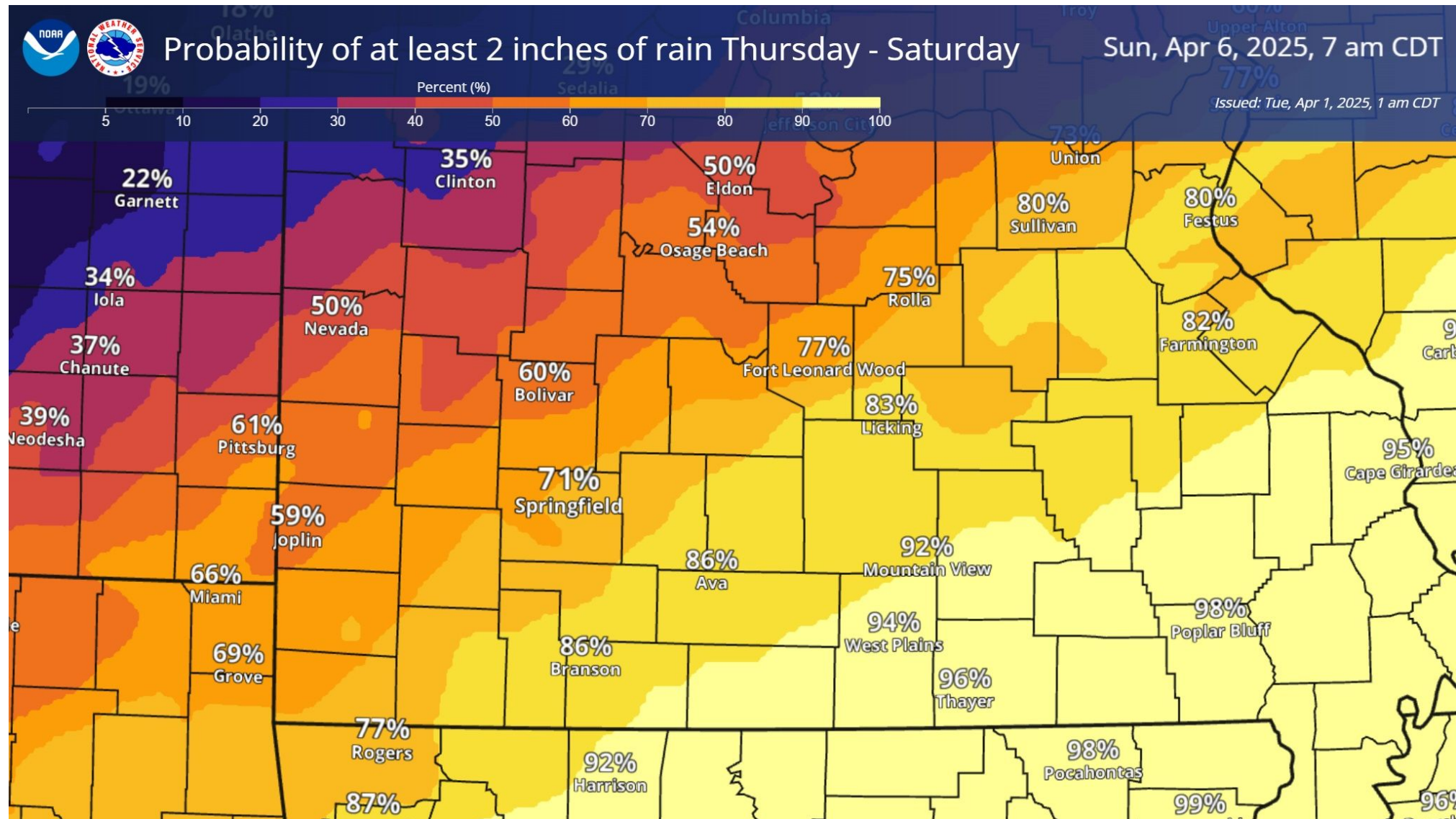


Probabilistic Rainfall Amounts

April 1, 2025
4:49 AM

Highlights

- The probabilities for 2 inches (this slide) and 4in/6in (following slides) of rainfall Thursday through Saturday are highest from south central Missouri and points southeast.
- This axis of heavy rainfall potential could still shift/change as we head through the week.

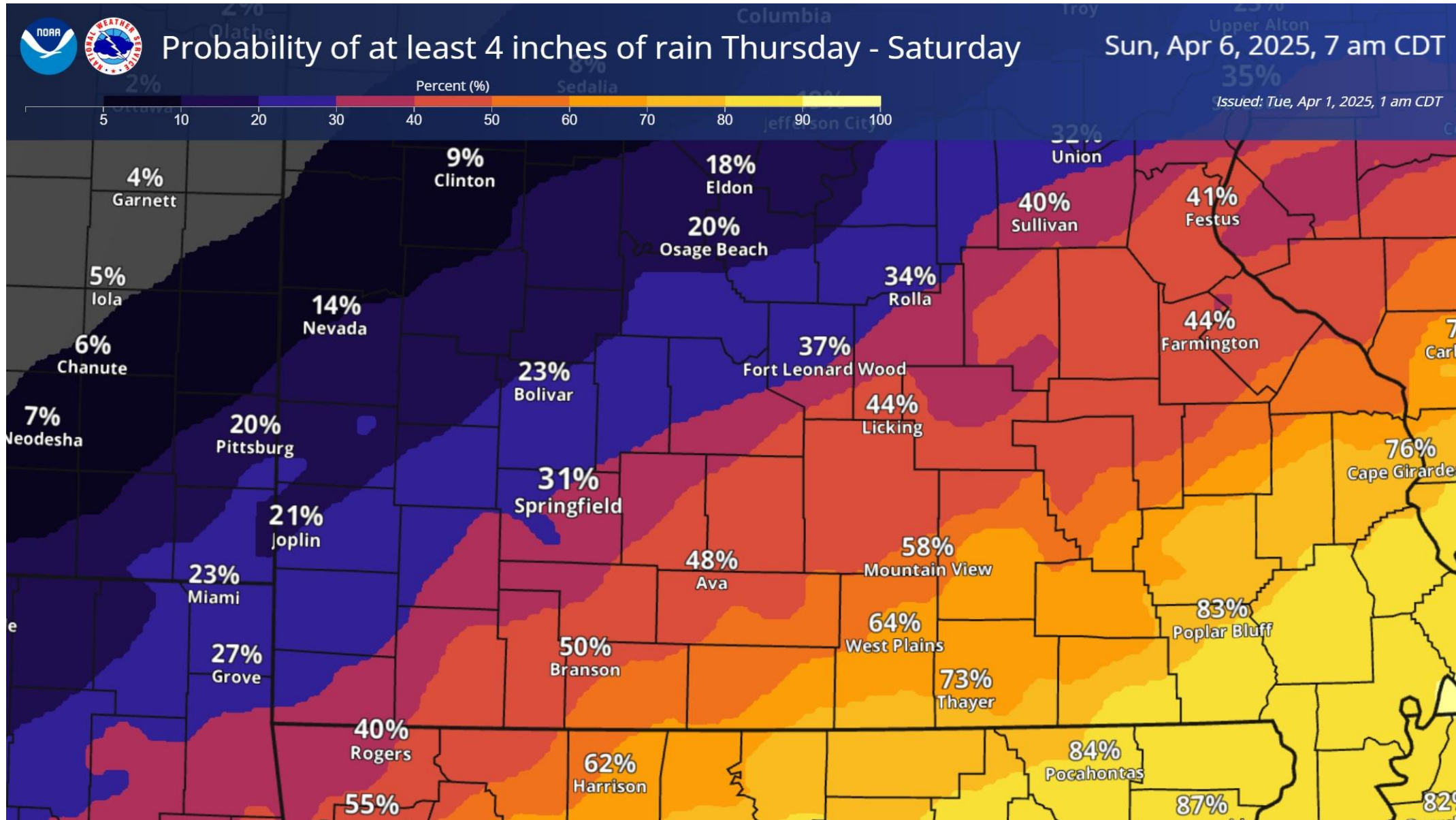


Probability of > 2.0" of rainfall (Thursday - Saturday)



Probabilistic Rainfall Amounts

April 1, 2025
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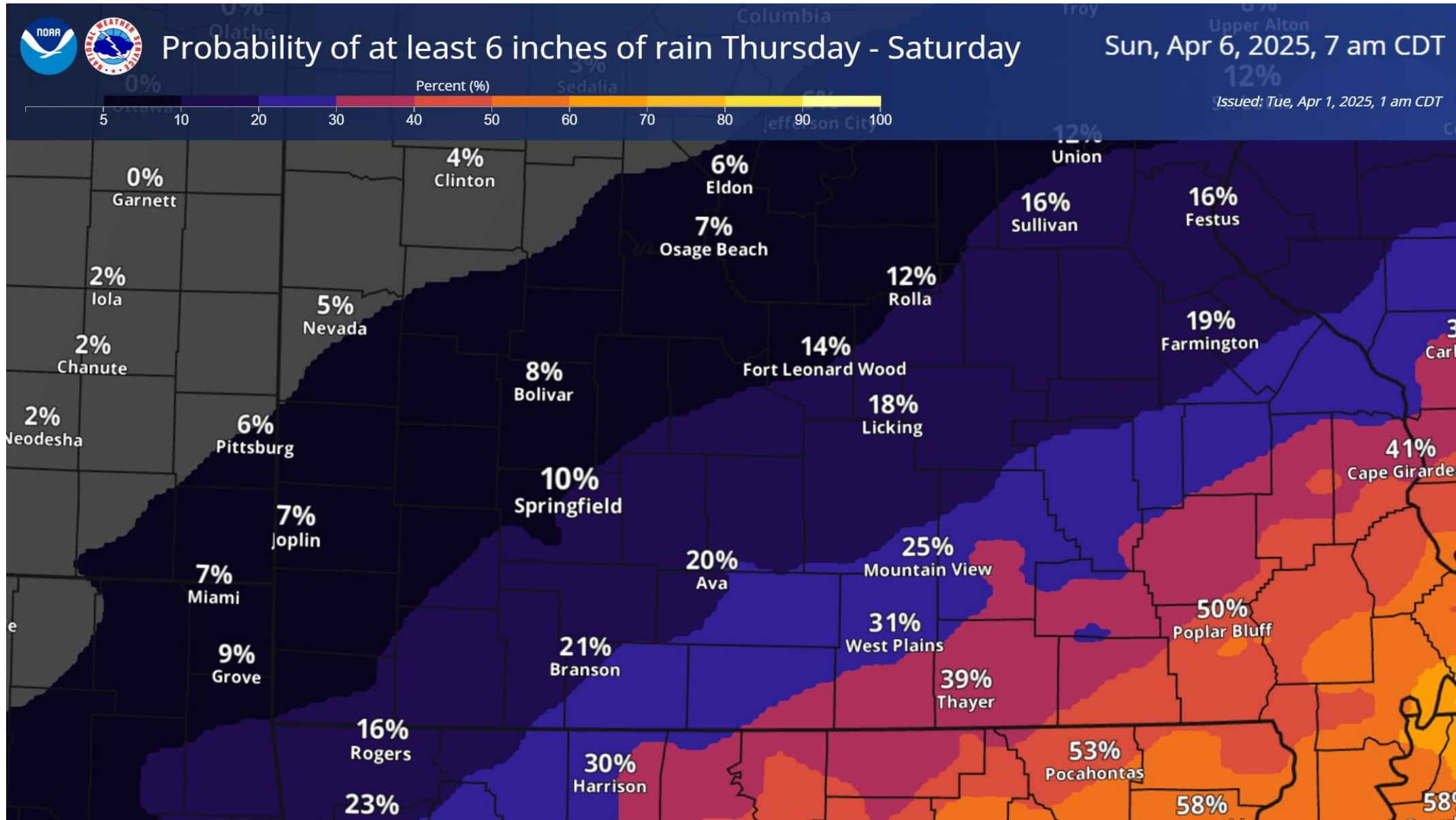


Probability of > 4.0" of rainfall (Thursday through Saturday)



Probabilistic Rainfall Amounts

April 1, 2025
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Probability of > 6.0" of rainfall (Thursday through Saturday)



River Flood Potential

April 1, 2025
4:49 AM

Highlights

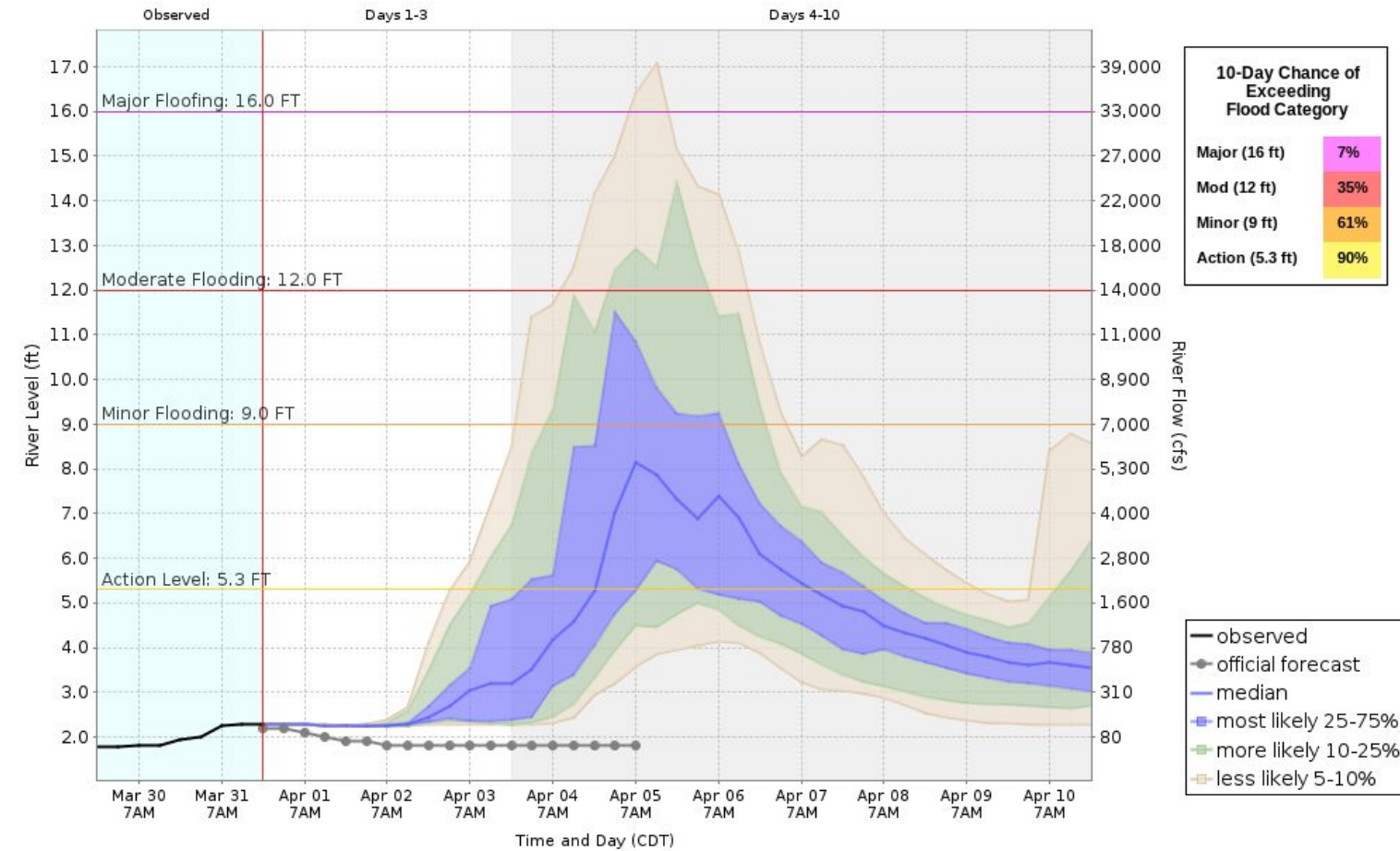
- Long range ensemble forecasts are showing increasing percentages for action to minor flood stages across the Jacks Fork and Current River basins.
- The image to the right is not a hydrograph but instead a probability of occurrence for the Jacks Fork River at Alley Spring, Missouri.
- There is now a 93% chance of exceeding action stage and a 61% chance of exceeding minor flood stage at this location within the next 10 days.
- Locations along creeks and rivers will need to monitor the situation closely later this week, especially southeast of Springfield.

HEFS - 10 Day River Level Probabilities

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



Apr 01 - Apr 11, 2025 JACKS FORK RIVER AT ALLEY SPRING



Model runtime: 07:00 PM CDT Mar 31 2025
Lower Mississippi River Forecast Center

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



River Flood Potential

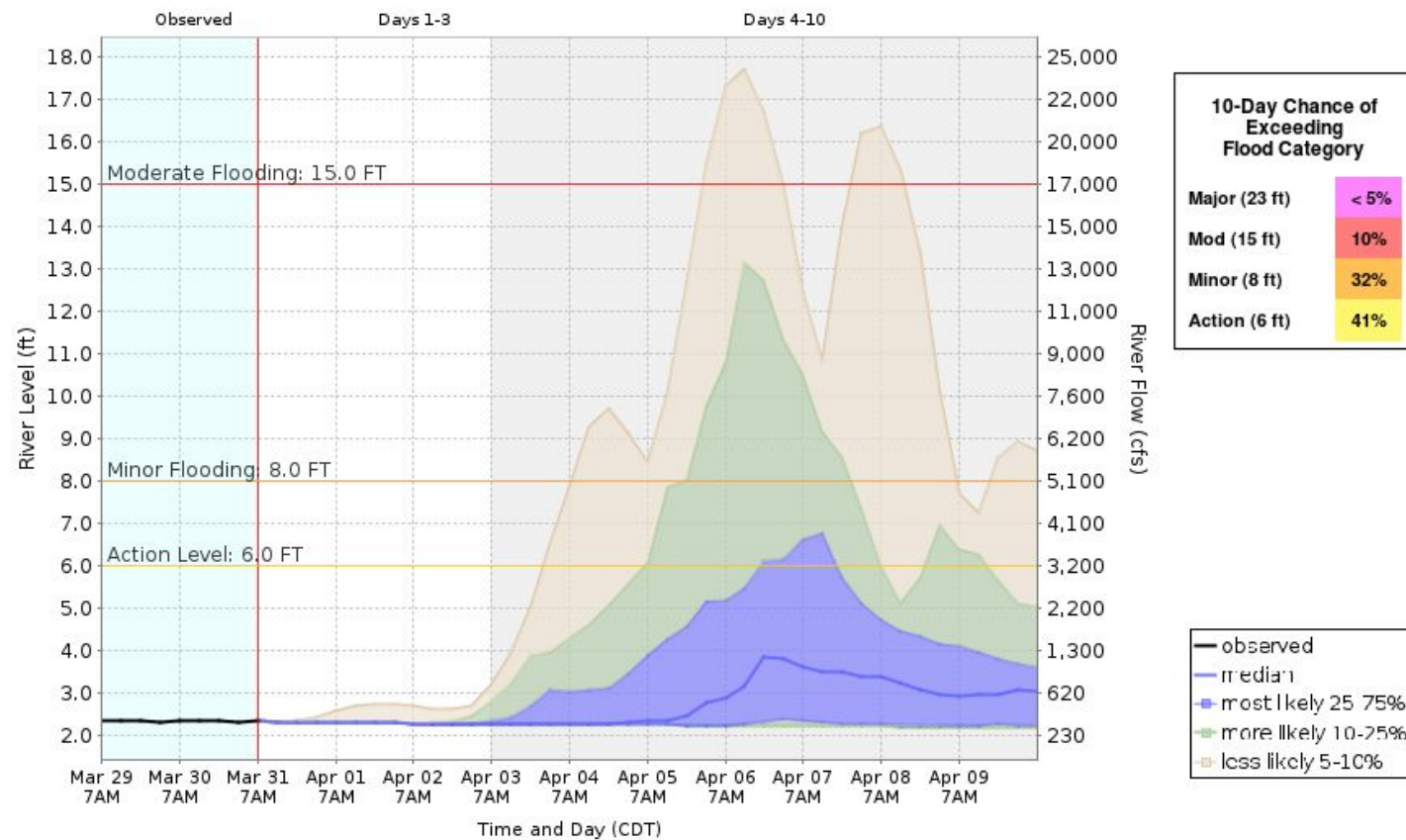
April 1, 2025
4:49 AM

HEFS - 10 Day River Level Probabilities

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



Mar 31 - Apr 10, 2025 BIG PINEY R at FT WOOD EAST GATE MO



Model runtime: 07:00 AM CDT Mar 31 2025
Missouri Basin River Forecast Center

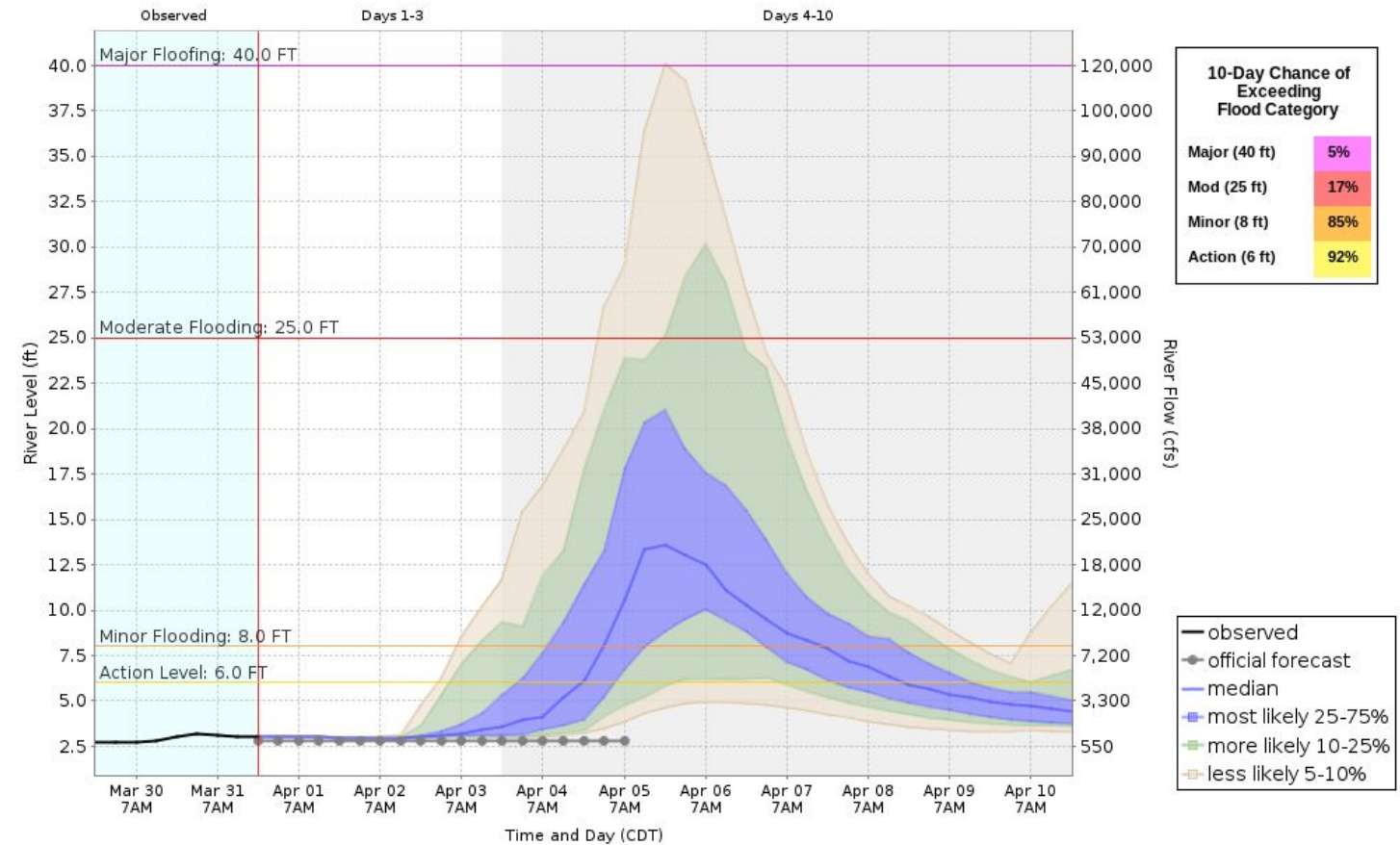
****Not a Hydrograph** - Probability of Occurrence
Big Piney River at Ft Wood, Missouri**

HEFS - 10 Day River Level Probabilities

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



Apr 01 - Apr 11, 2025 CURRENT RIVER AT POWDER MILL



Model runtime: 07:00 PM CDT Mar 31 2025
Lower Mississippi River Forecast Center

****Not a Hydrograph** - Probability of Occurrence
Current River at Powder Mill, Missouri**



Additional Resources

April 1, 2025
4:49 AM

For Additional Information

- [NWS Springfield Webpage](#)
- [IDSS Point Forecasts](#)
- [Graphical Hazardous Weather Outlook](#)
- [SPC Convective Outlooks](#)
- [WPC Excessive Rainfall Outlooks](#)
- [WPC Precipitation Outlooks](#)
- [Submit Storm Reports](#)

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The infographic features a central NOAA logo and the text "Have multiple ways to get warnings weather.gov". It illustrates six methods: 1. Internet: A laptop with hands typing. 2. Local TV and Radio: A television showing a weatherman. 3. Wireless Emergency Alerts and Weather Apps: A hand holding a smartphone. 4. Outdoor Sirens: A megaphone. 5. NOAA Weather Radio: A portable weather radio. 6. From your family, friends, and coworkers: Two speech bubbles.