

CONSERVE. PROTECT. LEAD.



# Texas Fire Potential Update

April 18<sup>th</sup> –April 23<sup>rd</sup>, 2024

Texas A&M Forest Service Predictive Services

# Fire Potential Notes April 18<sup>th</sup>- April 23<sup>rd</sup>, 2024

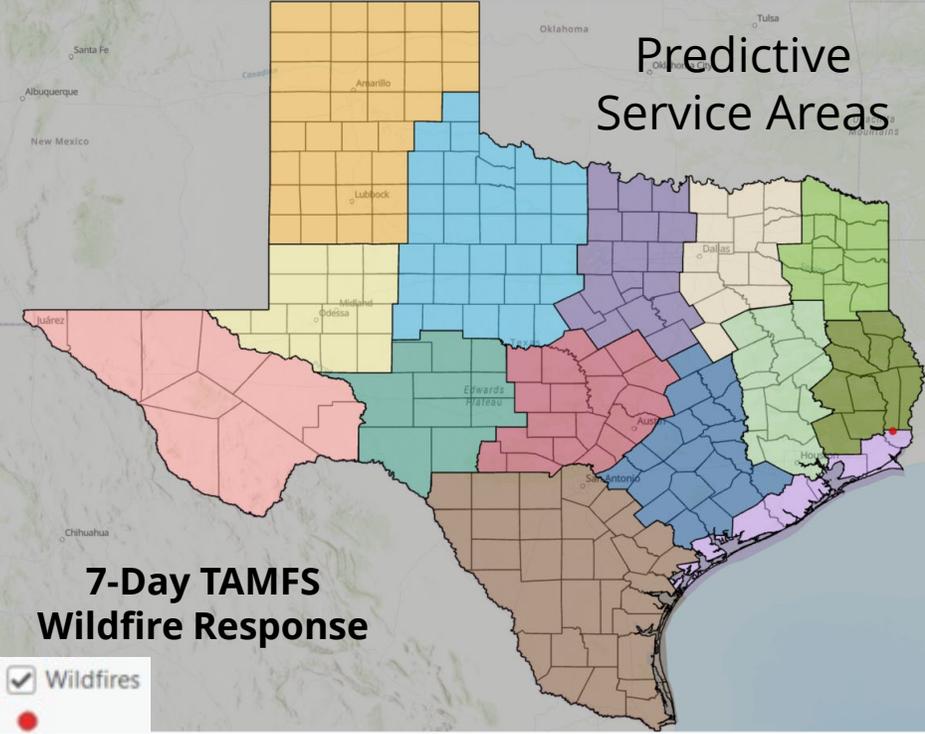
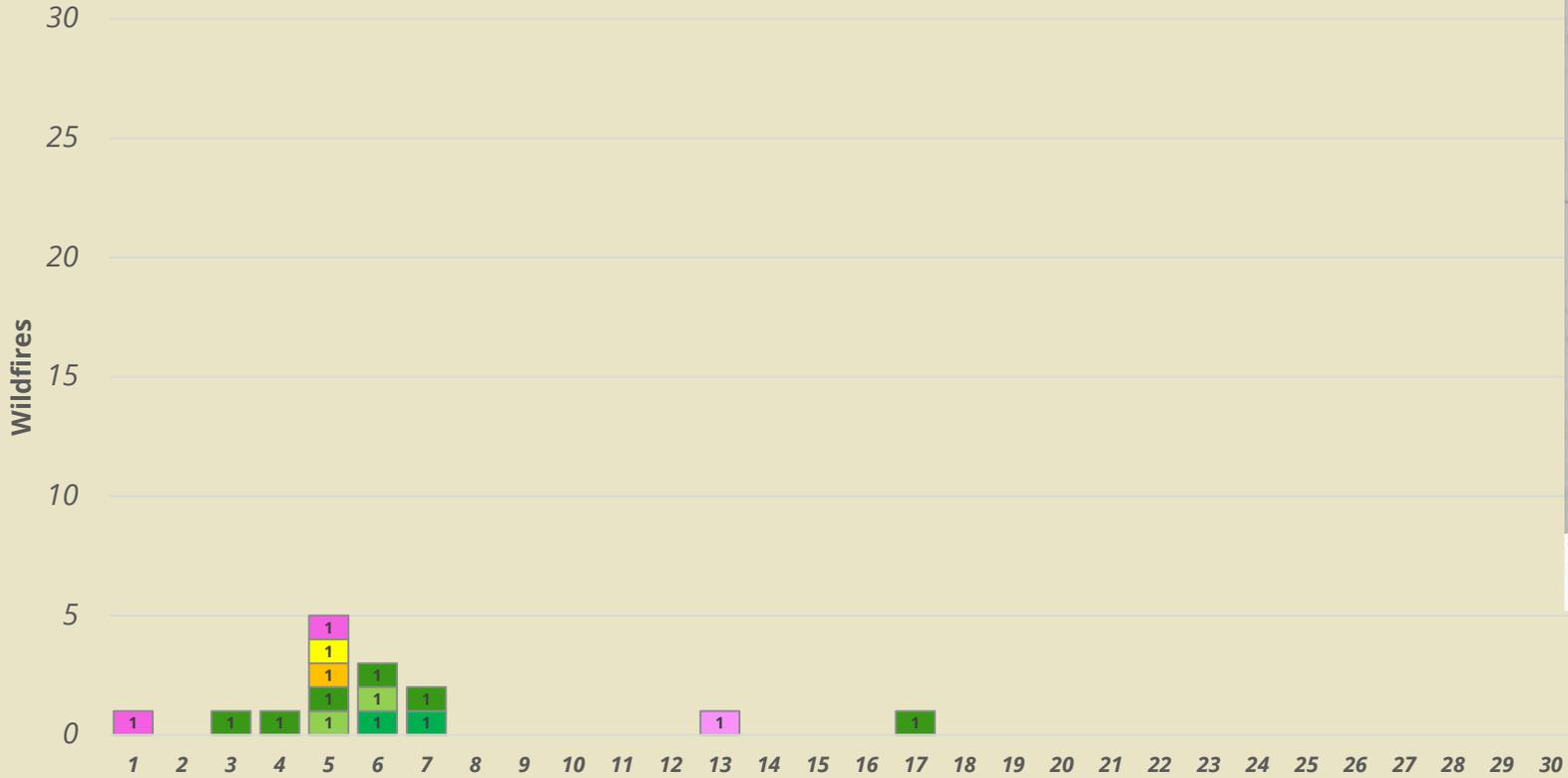


- The fire environment will support low potential for wildfire activity for most of the state through the outlook period as fuel moisture is expected to increase to near or above normal by Saturday as a cold front moves into the state resulting in cool and moist conditions.
- Isolated thunderstorms may occur Friday in parts of the western Trans Pecos where there will be low potential for lightning ignitions in dry fuel near the Davis and Chinati Mountains. Cooler temperatures and surface moisture should limit growth potential Saturday.
- A warmer and drier environment Monday through Wednesday is expected for most of the state. A weak dryline may be the mechanism to produce isolated thunderstorms in the Trans Pecos and over the mountains next Tuesday and Wednesday where there could be low potential for a wildfire to occur from a lightning ignition.



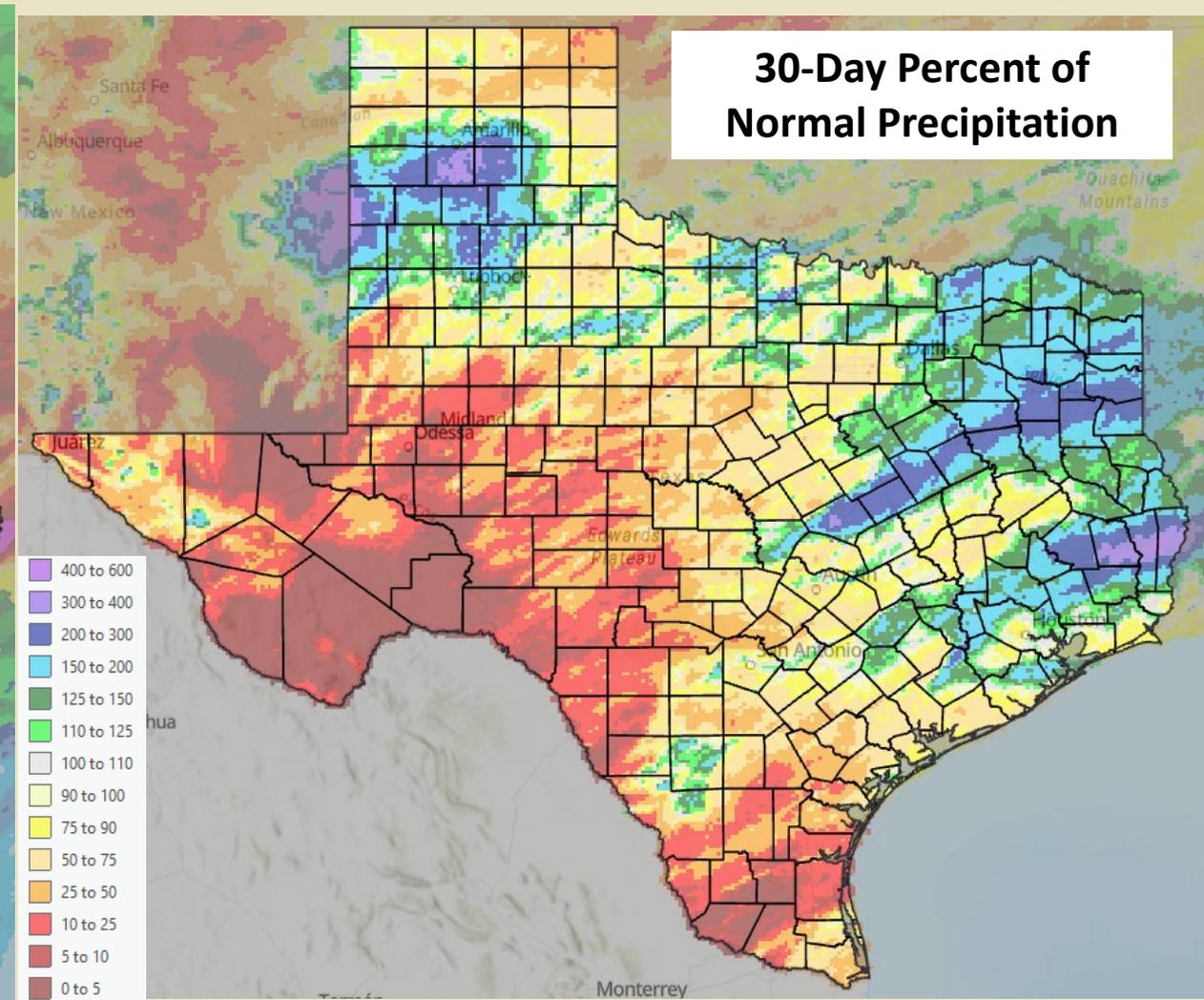
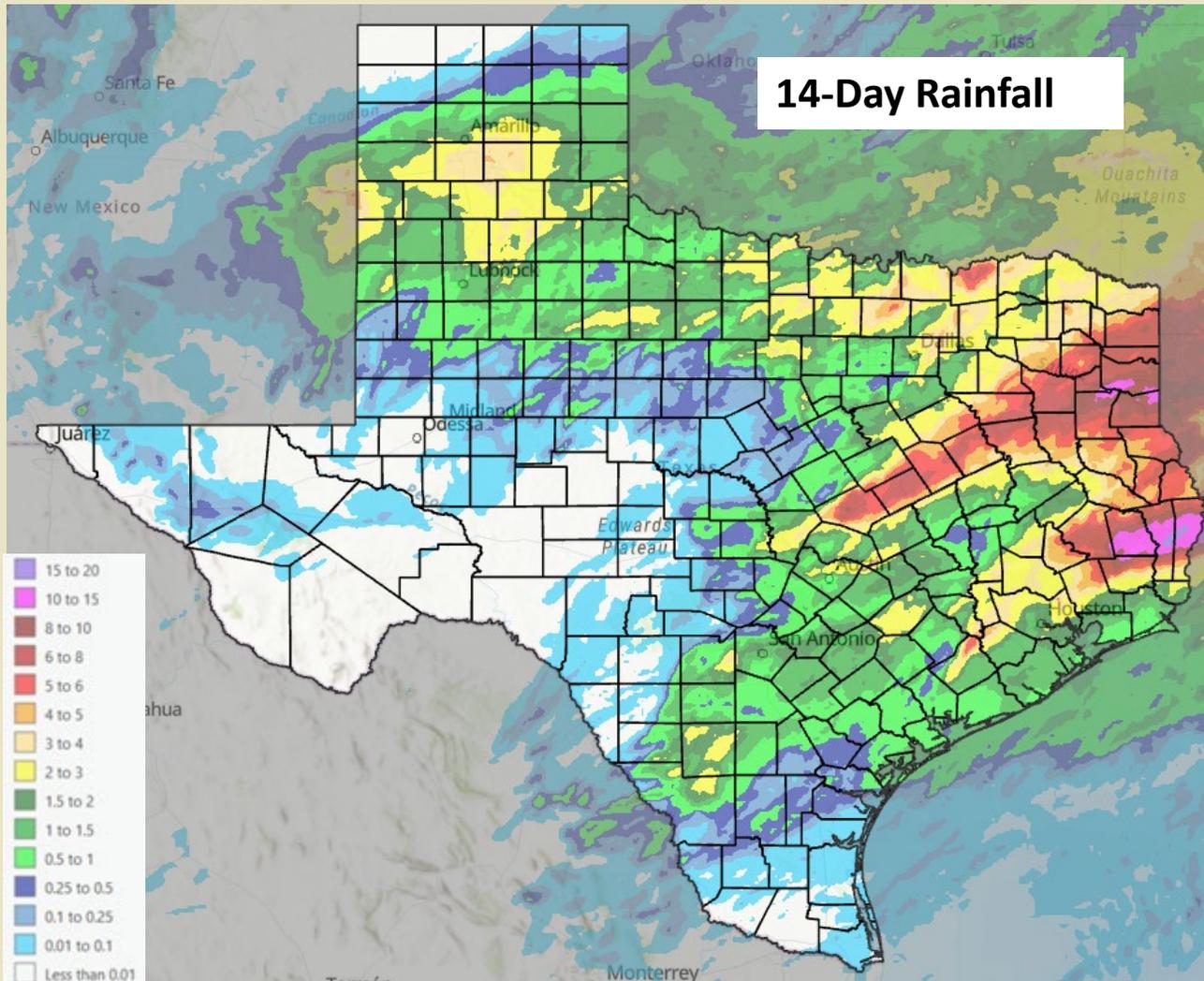
Texas A&M Forest Service Wildfire response continues to remain low with improvements in both live and dead fuel moistures for parts of the High Plains and moist conditions for the eastern half of the state. Wildfire potential will remain low through the weekend as a cold front will produce cooler temperatures and increased rainfall chances for most of Texas.

### April 1<sup>st</sup>-April 17<sup>th</sup> , 2024 TAMFS Wildfire Response by Predictive Service Area



■ Northeast Texas 
 ■ Western Pineywoods 
 ■ Southeast Texas 
 ■ High Plains 
 ■ Gulf Coast 
 ■ Southern Plains 
 ■ Trans Pecos

Long duration rainfall on Tuesday April 9<sup>th</sup> of 1-3 inches decreased rainfall deficits and has slowly initiated green-up for the High Plains along and south of Interstate-40. Much of the northern High Plains and Southwest Texas missed out on last week's rainfall. Underlying dryness will continue to be focused on Trans Pecos and Lower Pecos River Valley where less than 25% of normal precipitation is observed.



Field assessments and ground truthing over the past 7 days have confirmed the state of herbaceous greenness. Areas on the edges of the transitional-to-cured line are the most susceptible to improve or degrade depending on rainfall frequency. Transitional grasses slow the rate of spread of a wildfire, increasing the success of suppression efforts. Effective green grass has been observed for some areas between Lubbock and Amarillo.



The representation of spring herbaceous greenness shown here is based on assessments of soil moisture, soil temperature and visual observations. The amount of heat and energy required for fire spread in herbaceous fuels increases proportionately to the amount of moisture and greenness within the herbaceous fuels.

Spring 2024  
Herbaceous Greenness  
April 18, 2024

- Greenness**
- Cured
  - Effective Green
  - Transitional Green

1. Effective Green; Grasses provide an effective barrier or retardant to fire spread even in the presence of critical to extreme fire weather. The live to dead ratio is greater than 75% green.
2. Transitional Green; Grasses do not provide an effective barrier to fire spread in the presence of critical or extreme fire weather but rates of spread are slowed due to presence of some greenness. Live to dead ratio is less than 75% green.
3. Cured; Fire spread is not affected by any greenness present in grass profile. Live to dead ratio is less than 20% green.

Effective green in Garza County. Photos taken on 04/14/2024 by M. Gittinger, NWS.



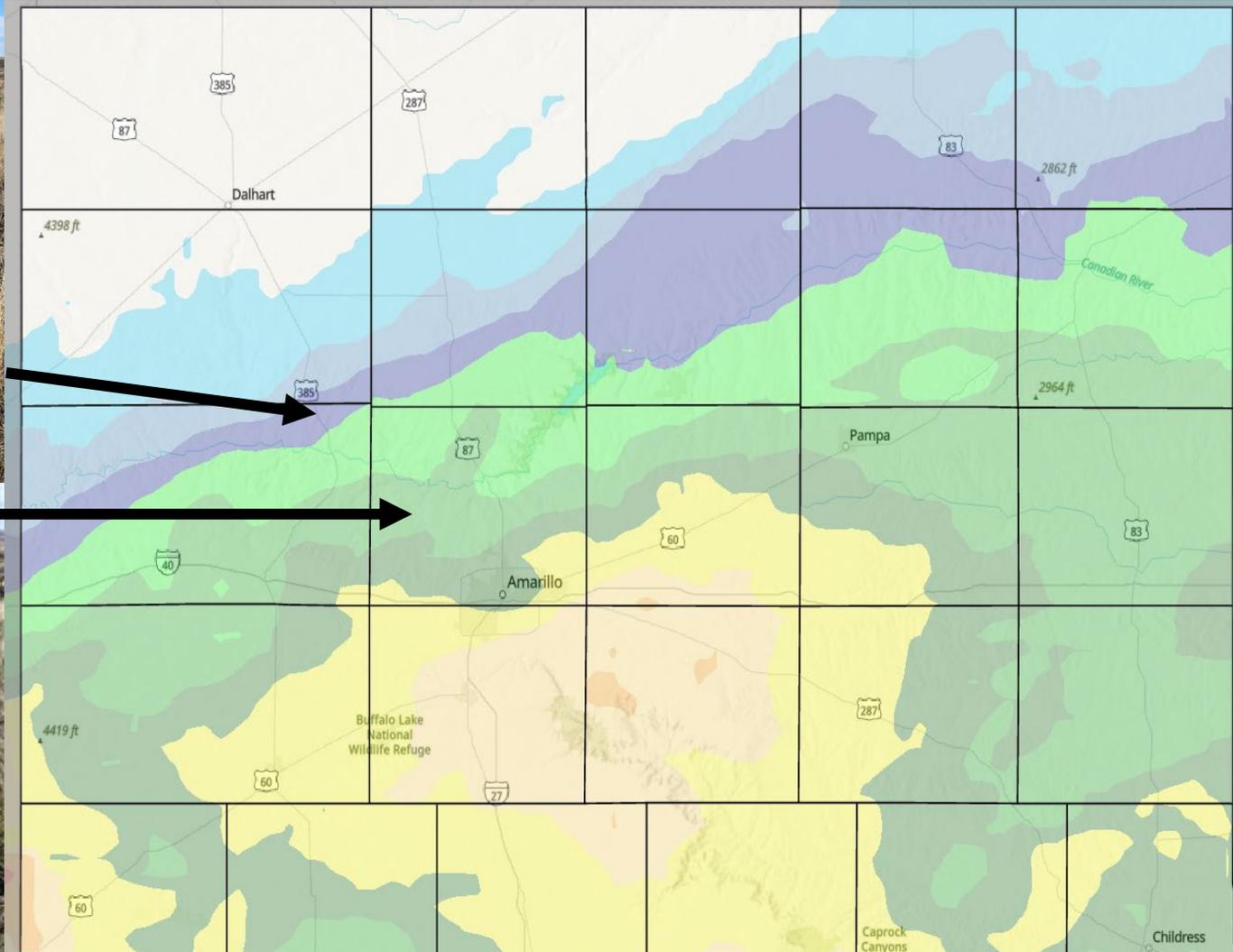
Photos from the western Canadian River Valley south of Channing show above normal loading of grasses that are >75% cured. The top photo has less than 0.5 inches of rain in the past 14 days, with less than 50% of normal rainfall. 20 miles south, grasses are in transitional green up in response to 1-1.5 inches of rain.



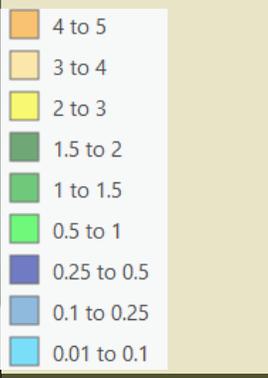
Cured (4/16/24)



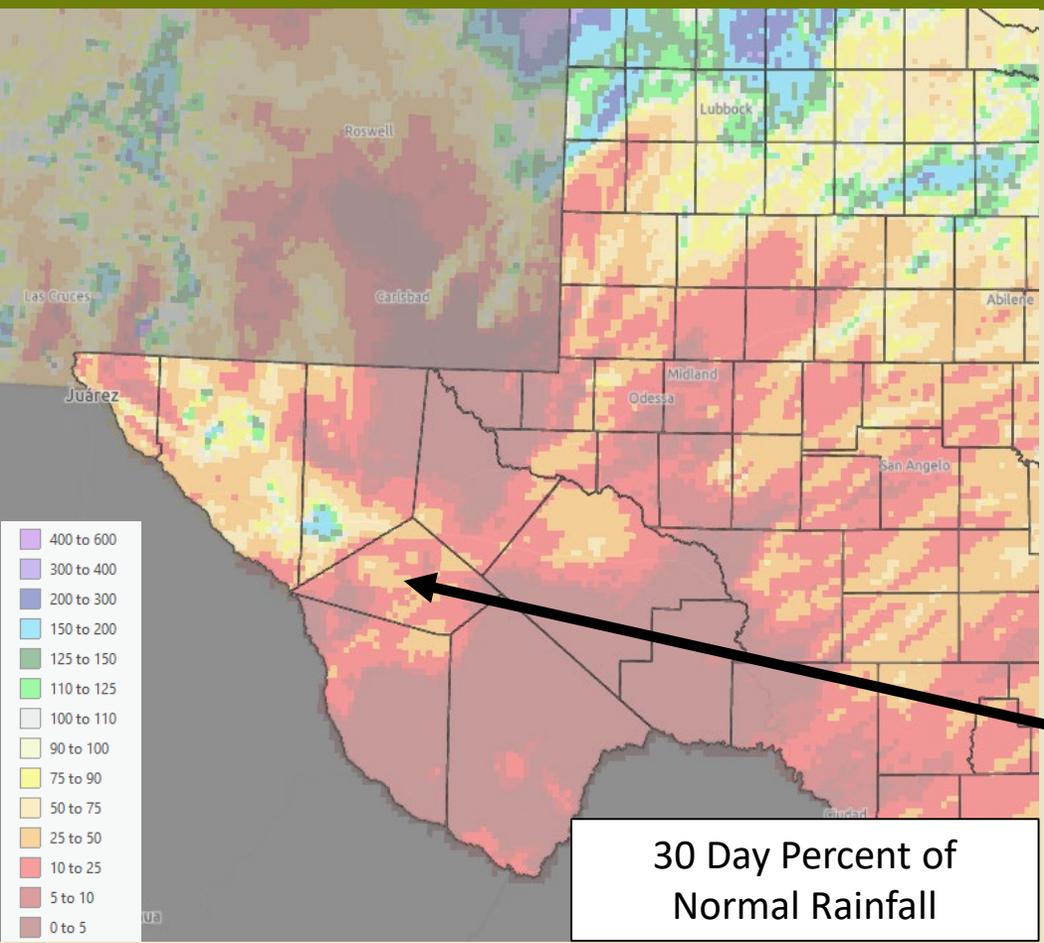
Low end transition (4/16/24)



14-Day Observed Rainfall



Grasses in the Davis Mountains are near average fuel loading and remain cured. Long-term drought has limited the herbaceous growing season, and ranches with active grazing in lower elevations show sparser fuels. Despite frequent fire weather concerns, fire occurrence in the low-populated mountains of west Texas is limited from lack of ignition sources. Cured grasses will continue to provide fire potential, with the possibility of lightning ignitions increasing as spring continues.

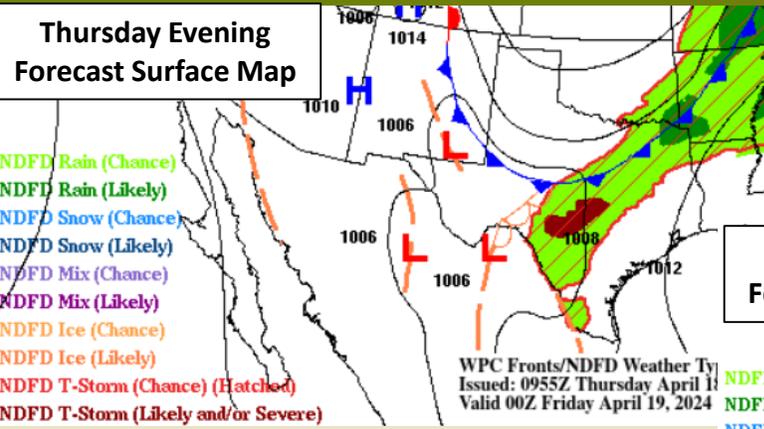


30 Day Percent of Normal Rainfall

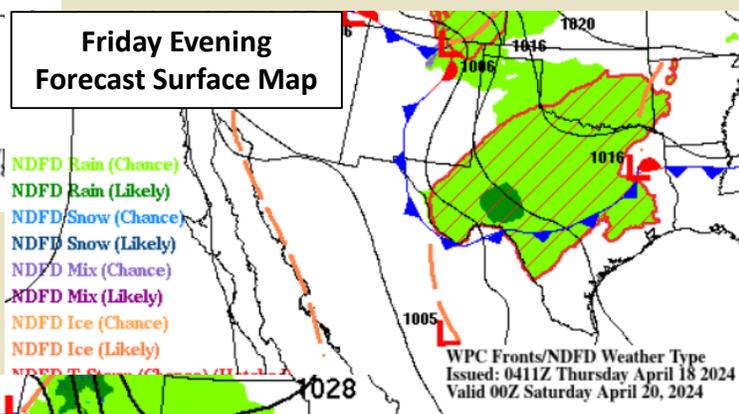


Photos taken on 04/15/2024 by J. Petrie.

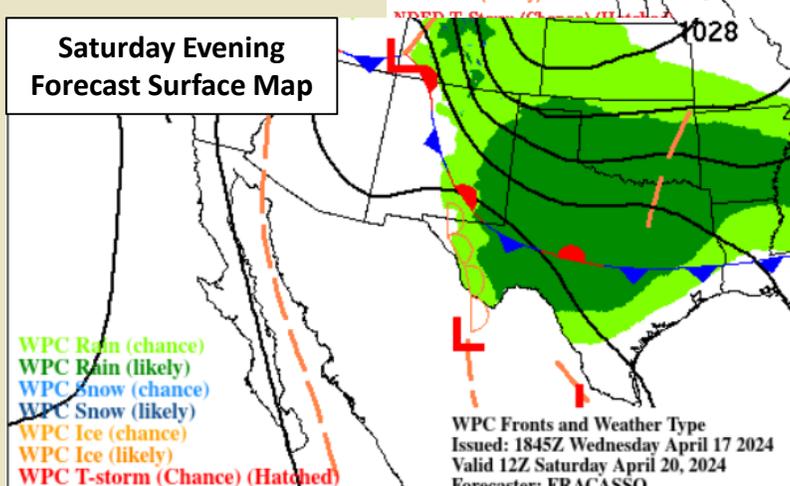
A cold front is forecast to move south into Texas Thursday and Friday before becoming stationary Saturday. No widespread pre-frontal or post-frontal critical fire weather is anticipated with this cold front passage. A cool and moist fire environment is expected across most of Texas Friday and Saturday.



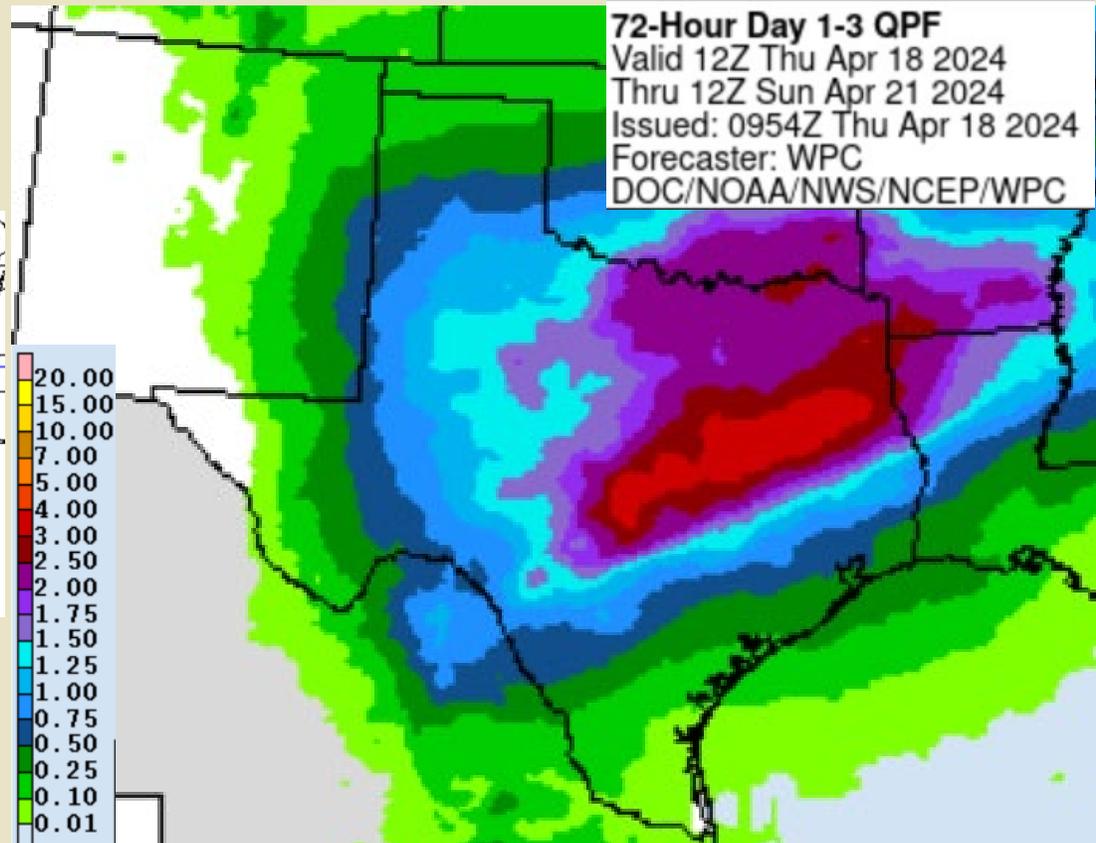
- NDFD Rain (Chance)
- NDFD Rain (Likely)
- NDFD Snow (Chance)
- NDFD Snow (Likely)
- NDFD Mix (Chance)
- NDFD Mix (Likely)
- NDFD Ice (Chance)
- NDFD Ice (Likely)
- NDFD T-Storm (Chance) (Hatched)
- NDFD T-Storm (Likely and/or Severe)



- NDFD Rain (Chance)
- NDFD Rain (Likely)
- NDFD Snow (Chance)
- NDFD Snow (Likely)
- NDFD Mix (Chance)
- NDFD Mix (Likely)
- NDFD Ice (Chance)
- NDFD Ice (Likely)
- NDFD T-Storm (Chance) (Hatched)



- WPC Rain (chance)
- WPC Rain (likely)
- WPC Snow (chance)
- WPC Snow (likely)
- WPC Ice (chance)
- WPC Ice (likely)
- WPC T-storm (Chance) (Hatched)



Thursday will feature the driest fire environment across parts of the Southern Plains and Trans Pecos where dry to critically dry fuel is present. Lower grass loading and the absence of increased wind will limit the potential for large fires that are resistant to control. Fuel moisture will increase across the state Friday and Saturday, resulting in low potential for small initial attack wildfires.



## Thursday

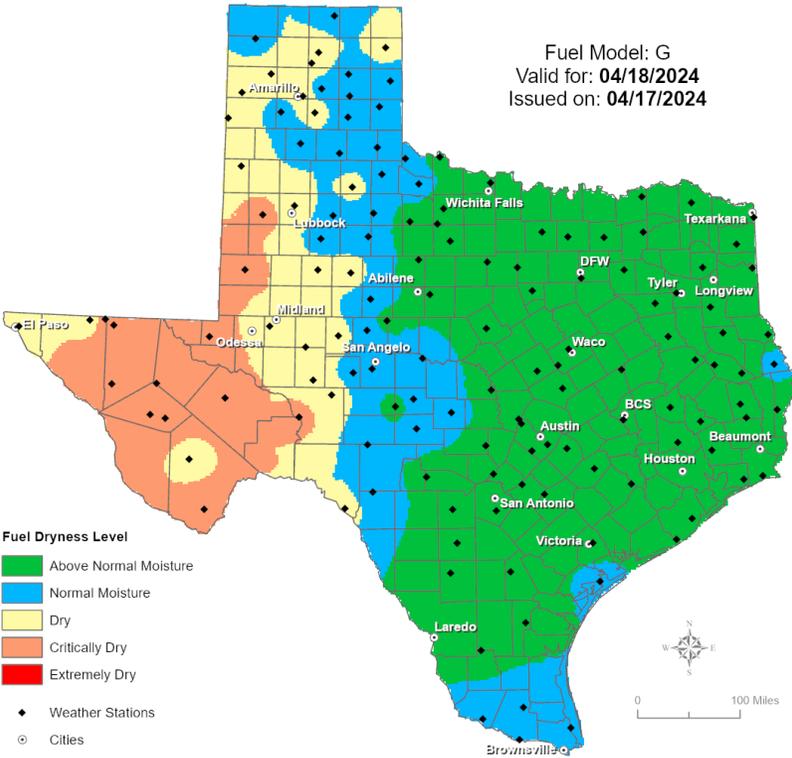
## Friday

## Saturday

### Forecast Fuel Dryness

(based on 100hr and ERC percentiles)

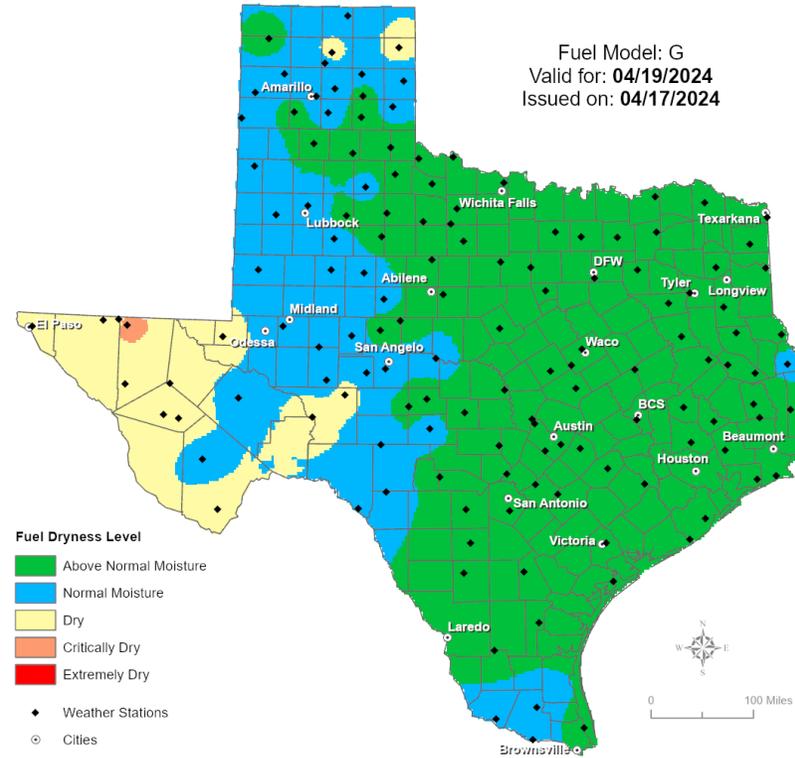
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Valid for: 04/18/2024  
Issued on: 04/17/2024



### Forecast Fuel Dryness

(based on 100hr and ERC percentiles)

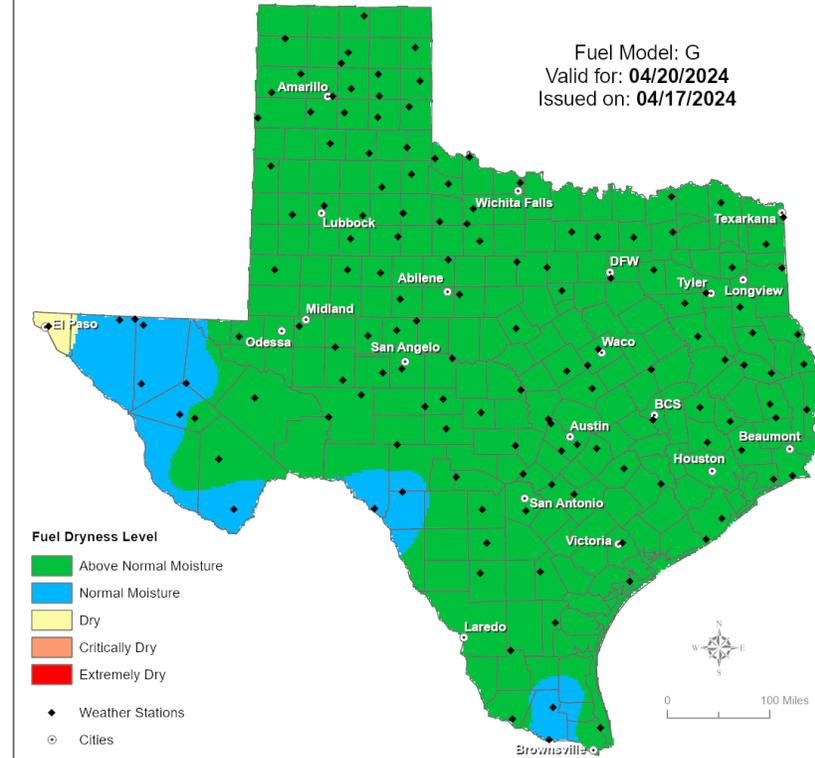
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### Forecast Fuel Dryness

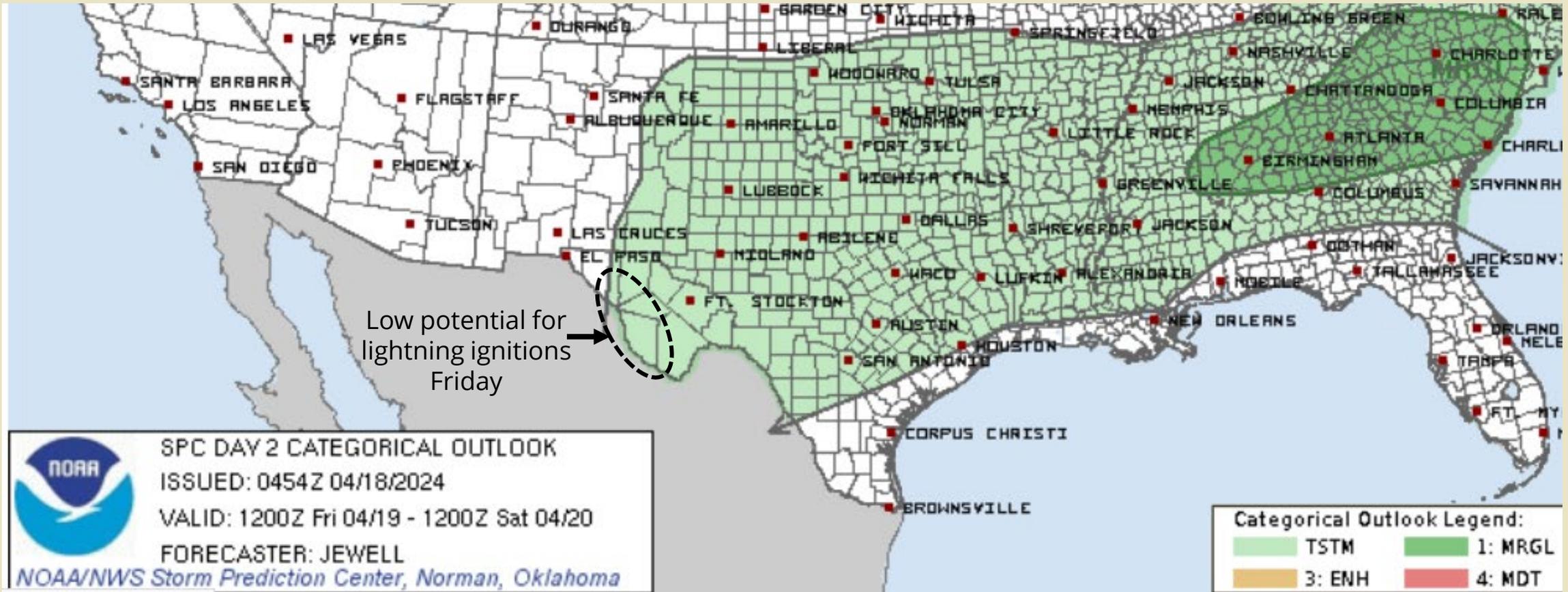
(based on 100hr and ERC percentiles)

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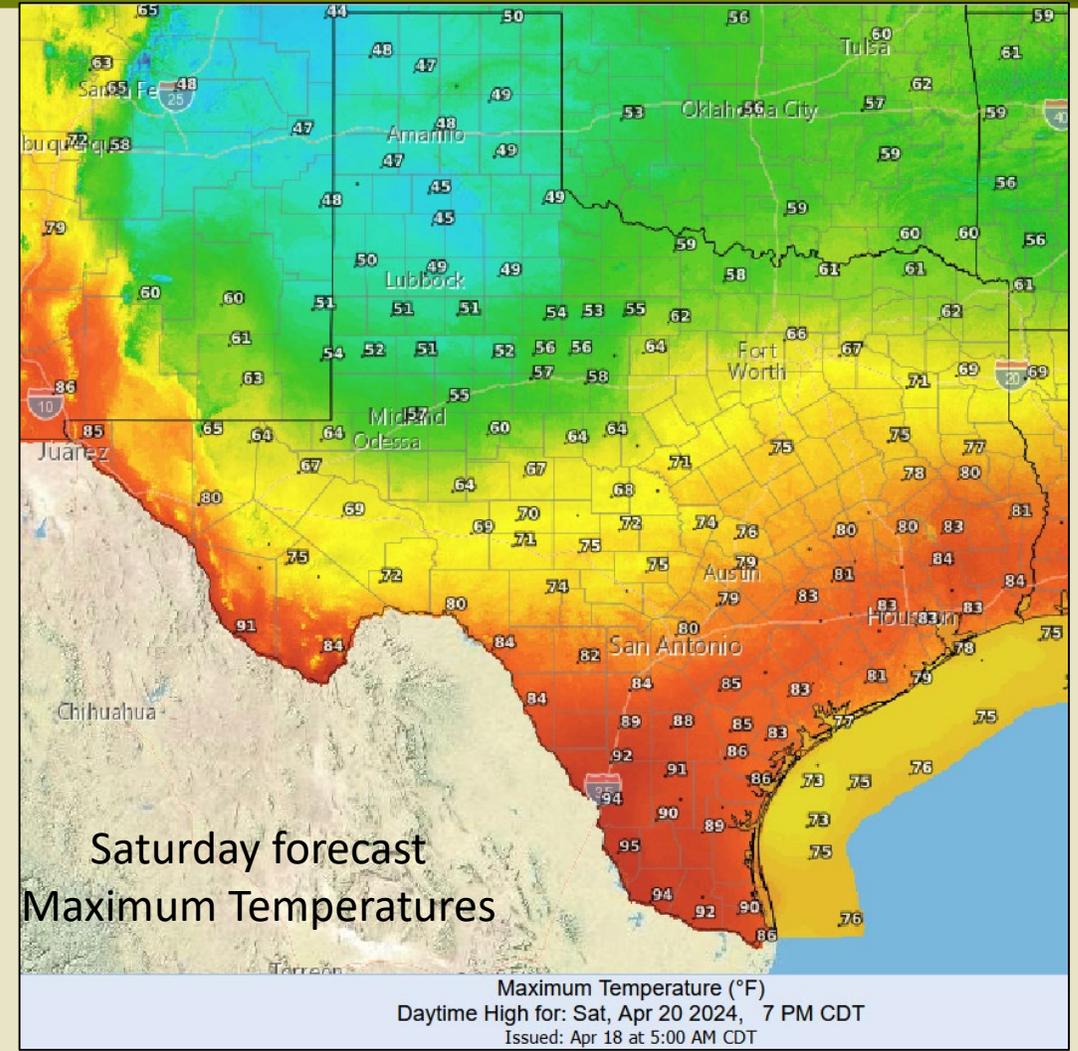
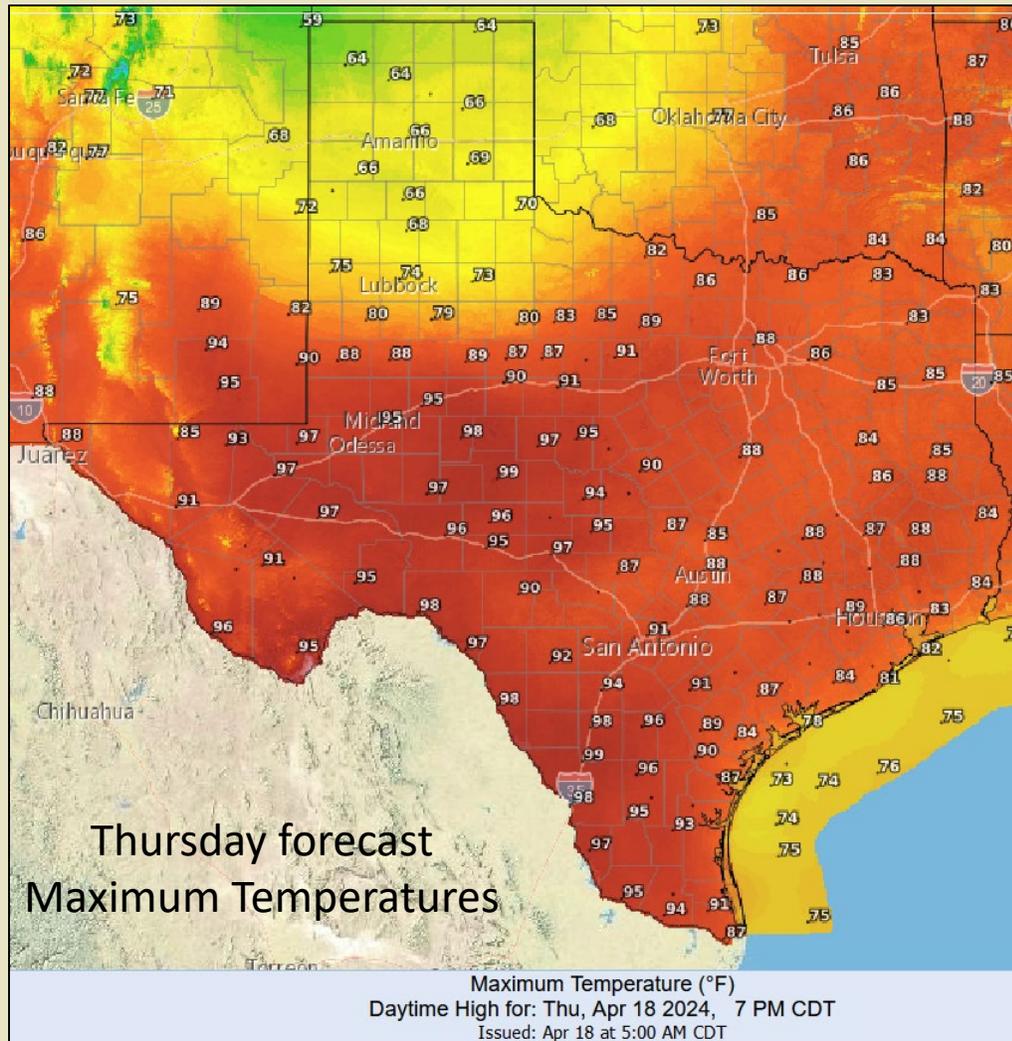




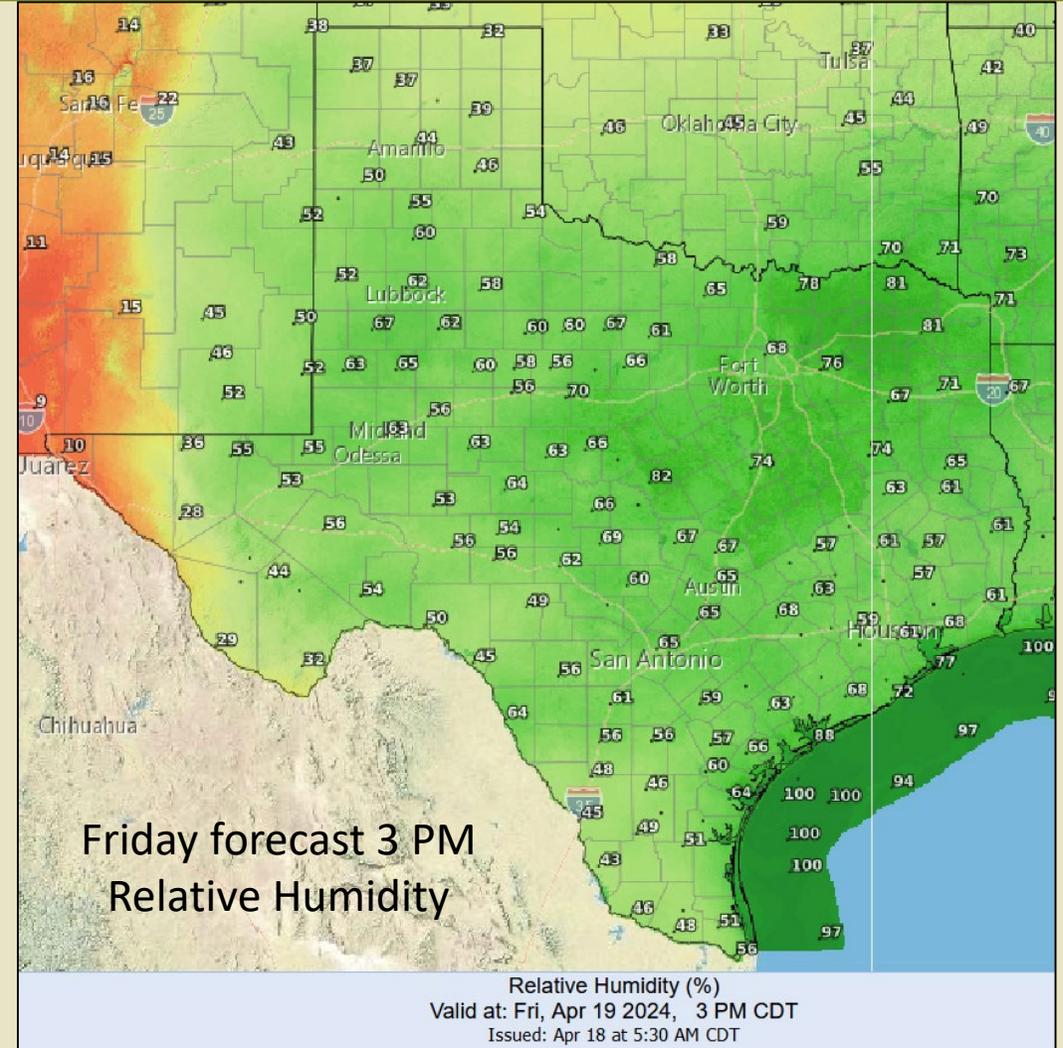
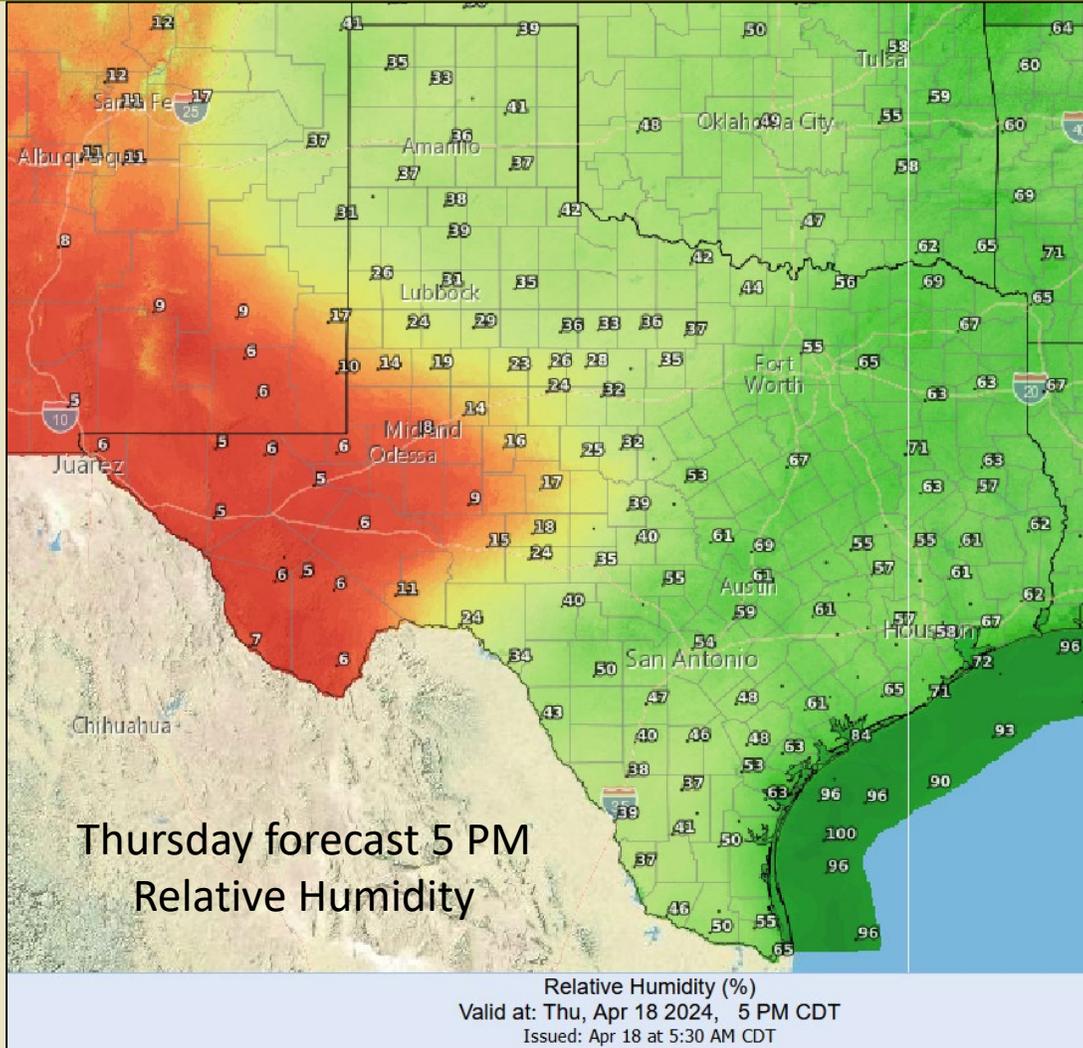
Isolated thunderstorms may occur Friday in parts of the western Trans Pecos where there will be low potential for lightning ignitions in dry fuel near the Davis and Chinati Mountains. Cooler temperatures and surface moisture should limit growth potential Saturday if a fire does occur and can become established Friday afternoon.



Compressional warming Thursday ahead of the cold front will result in hot temperatures in the upper 90's in the Southern Plains and Trans Pecos may support increased ignition potential in dry to critically dry fuel. Temperatures will trend cooler Friday through Sunday as the cold front bisects the state resulting in increased cloud cover and rainfall chances.

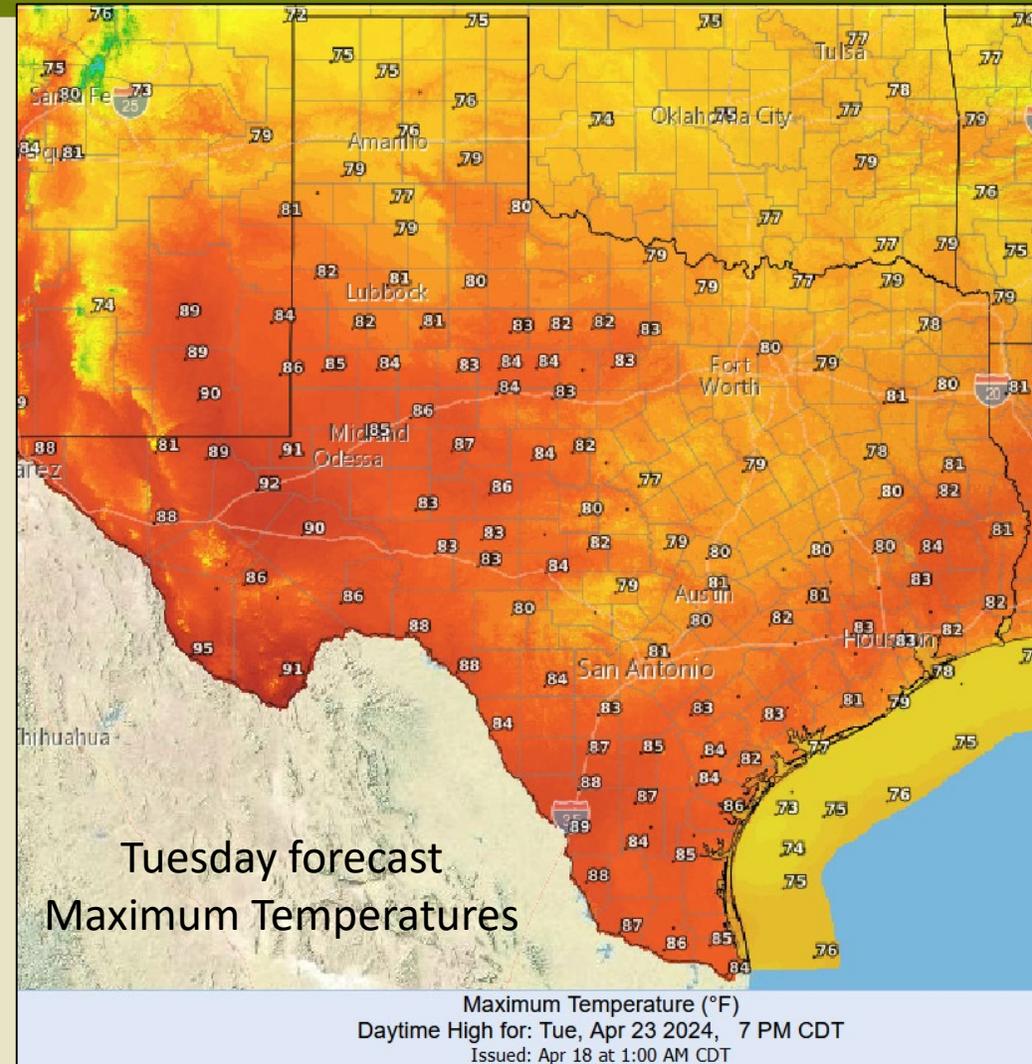
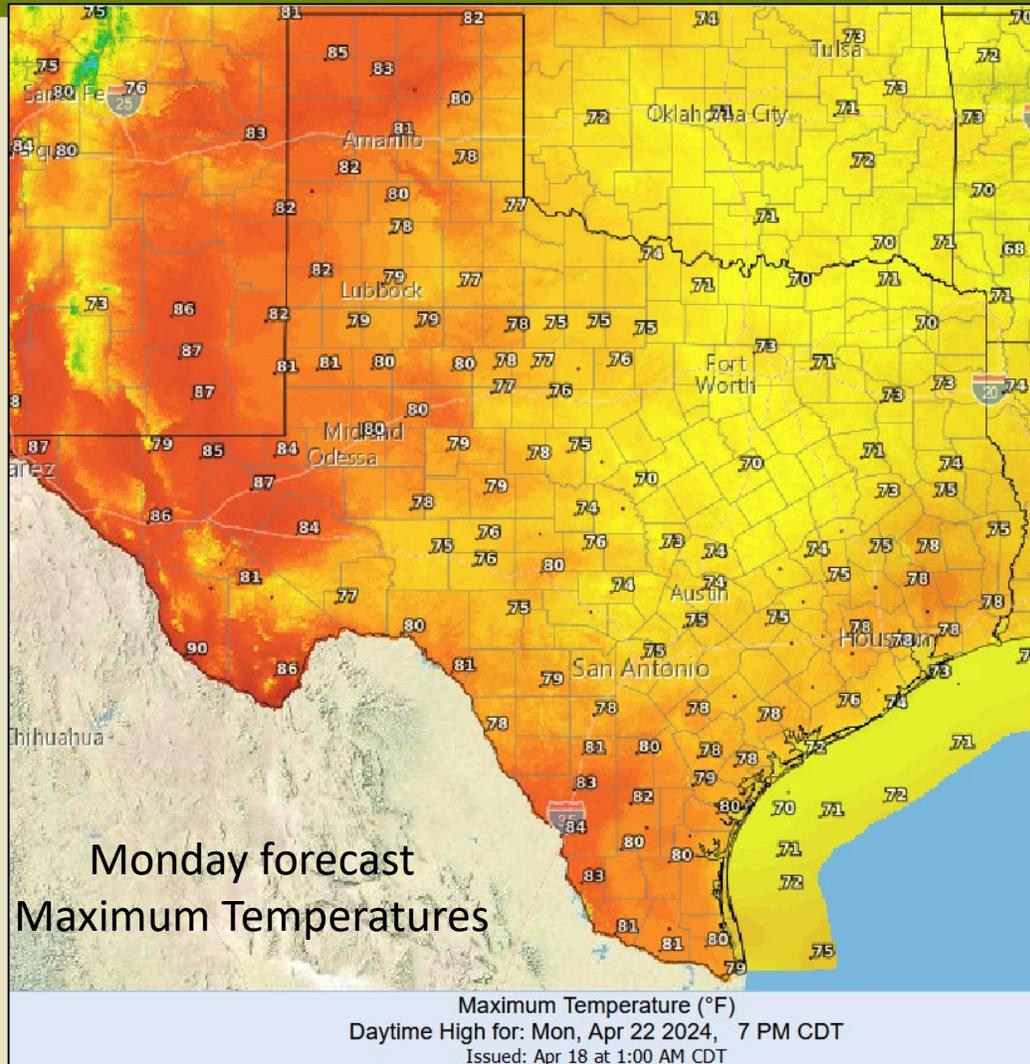


As the cold front progresses south, the driest environment Thursday will be confined to the Southern Plains and Trans Pecos. Increased moisture in the environment Friday through Sunday will help increase fuel moisture, resulting in low fire potential across the majority of Texas.

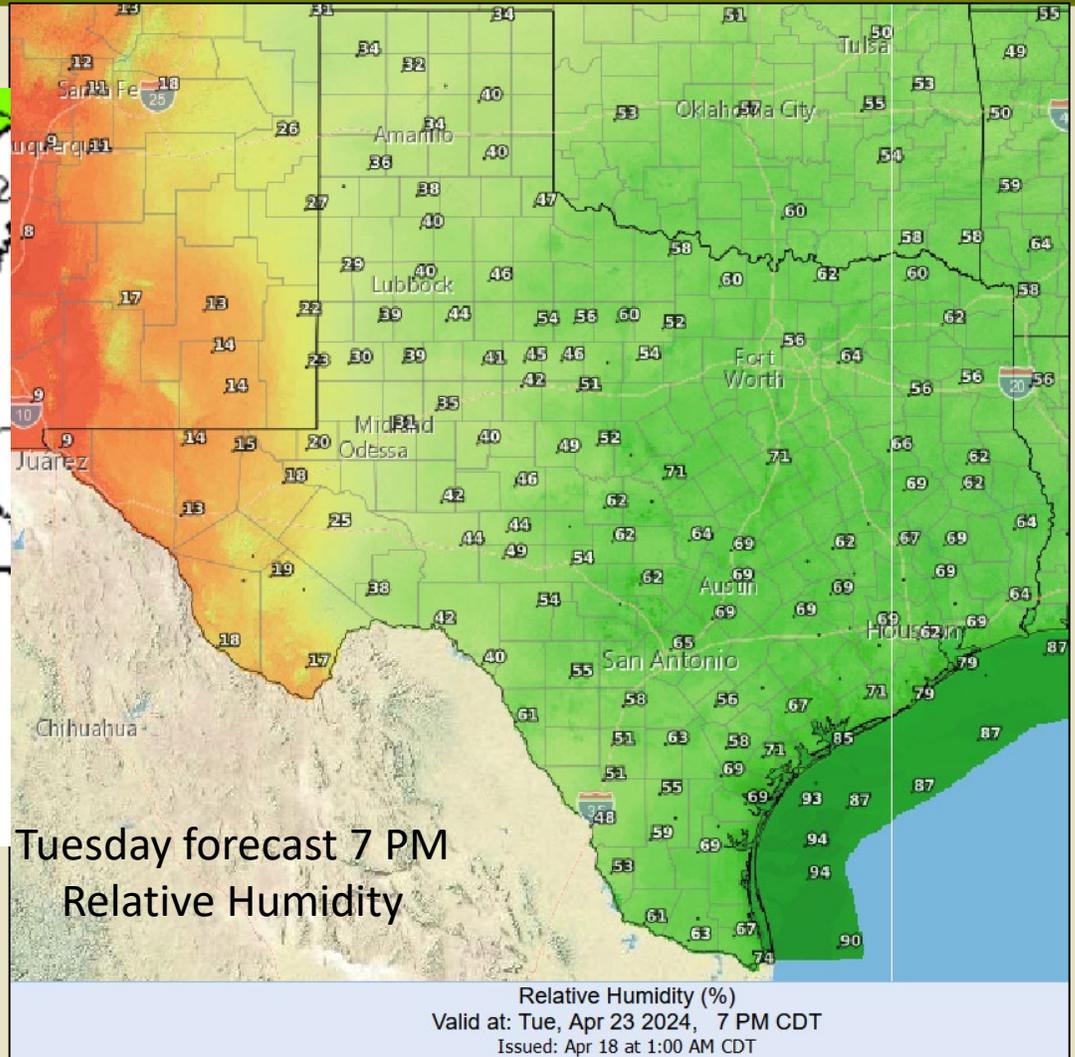
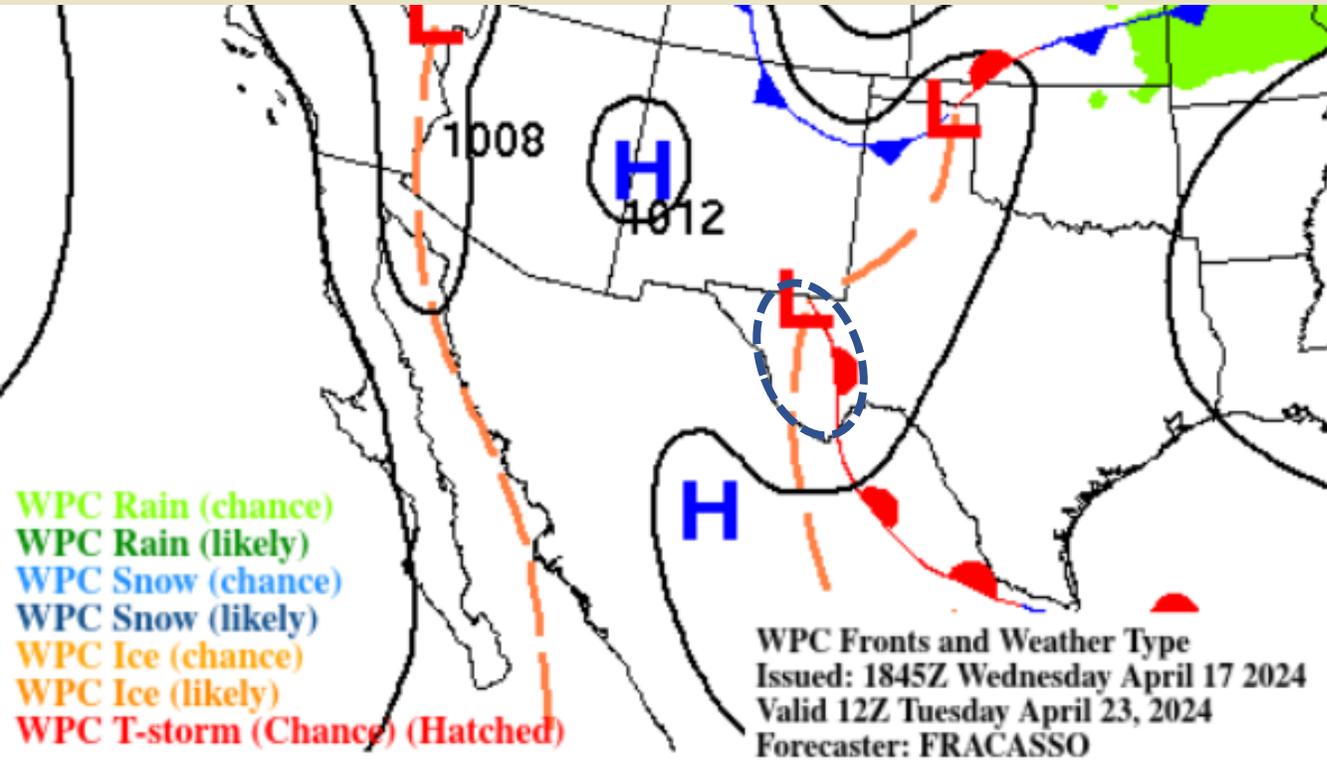




The environment will become warmer and drier across the state Monday and Tuesday.



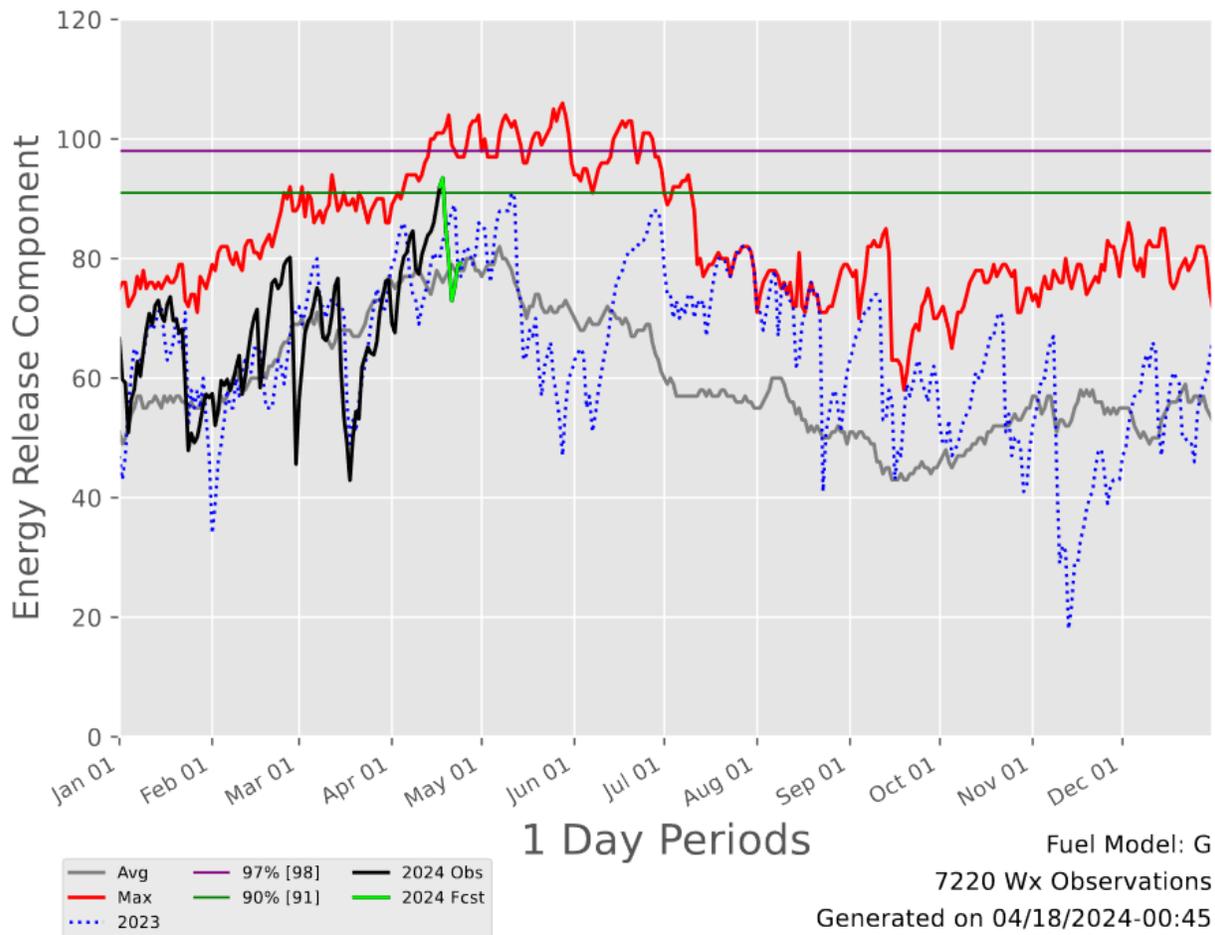
Remnant surface moisture, daytime heating, and a dryline may result in isolated afternoon thunderstorms over the high terrain for the Trans Pecos next Tuesday and Wednesday. The potential for wildfires from lightning ignitions and for a fire to spread will be dependent if fuel moisture is receptive after this weekend's moisture.



Energy Release Component (ERC) forecast trends across Texas indicate fuel moisture increasing as ERC values decrease from the cool and moist environment forecast Friday through Sunday. The Trans Pecos is at the critical 90<sup>th</sup> percentile, but will decrease back to near normal this weekend. The High Plains PSA ERC is forecast to decrease below normal Friday through Wednesday. Significant fire potential should remain limited through the middle of next week.



TRANS PECOS Predictive Service Area  
2007-2024



HIGH PLAINS Predictive Service Area  
2007-2024

