



# Wildfire and Response

*Luke Kanclerz, Fire Analyst*

*Jim Cooper, Asst. Chief Regional Fire Coordinator*

# Texas A&M Forest Service



The agency mission is centered around 3 tenets: *conserve*, *protect* and *lead*. Created in 1915, Texas A&M Forest Service is the state forestry agency and lead wildfire response organization for the state of Texas.

- Texas A&M Forest Service is charged with managing the state's forested lands and ensuring they remain productive and healthy while also protecting Texans, their property and the natural resources we all enjoy from wildfire and other disasters.

**CONSERVE.**

FORESTS *and*  
NATURAL RESOURCES

**PROTECT.**

LIVES, PROPERTY *and*  
NATURAL RESOURCES

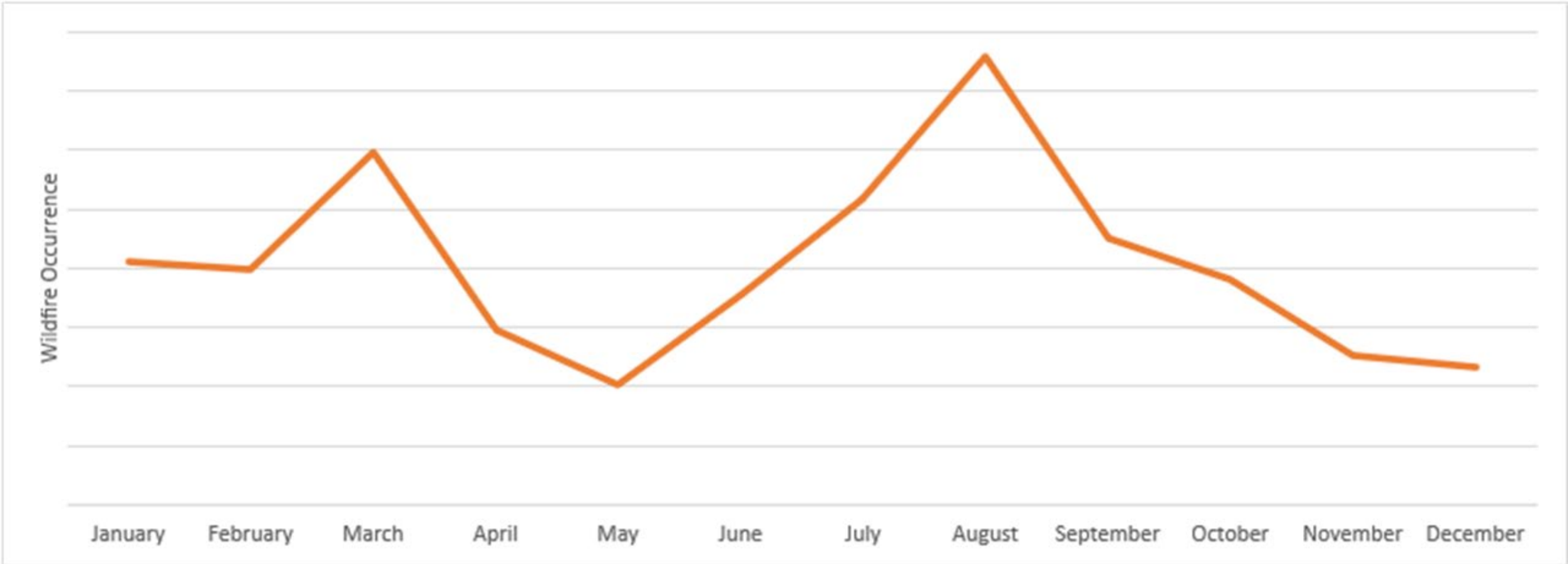
**LEAD.**

THROUGH SERVICE  
*and* PARTNERSHIPS



# Fire Environment

# Texas Wildfire Seasonal Trends

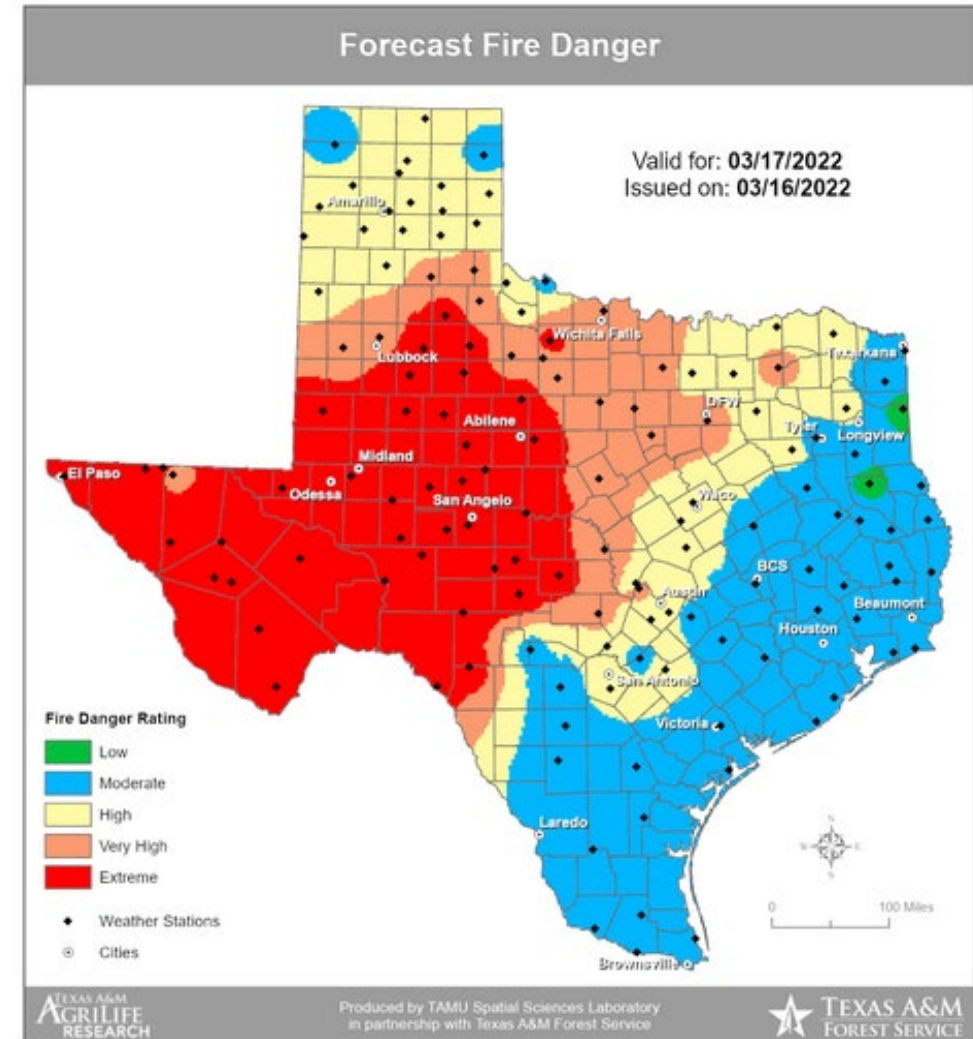


# Predictive Services

Formed after the 1998 Fire Season to identify areas across Texas where there is an enhanced risk for wildfire occurrence. Support decision making on where firefighters and resources should be strategically positioned....Reactive to Proactive

Analyze current and forecast vegetation/fuel moistures, weather conditions, and wildfire occurrence across the state to determine and communicate fire potential and the type of fire resources may encounter. Wildfire potential changes daily...no single product or metric that can paint the complete picture of fire potential.

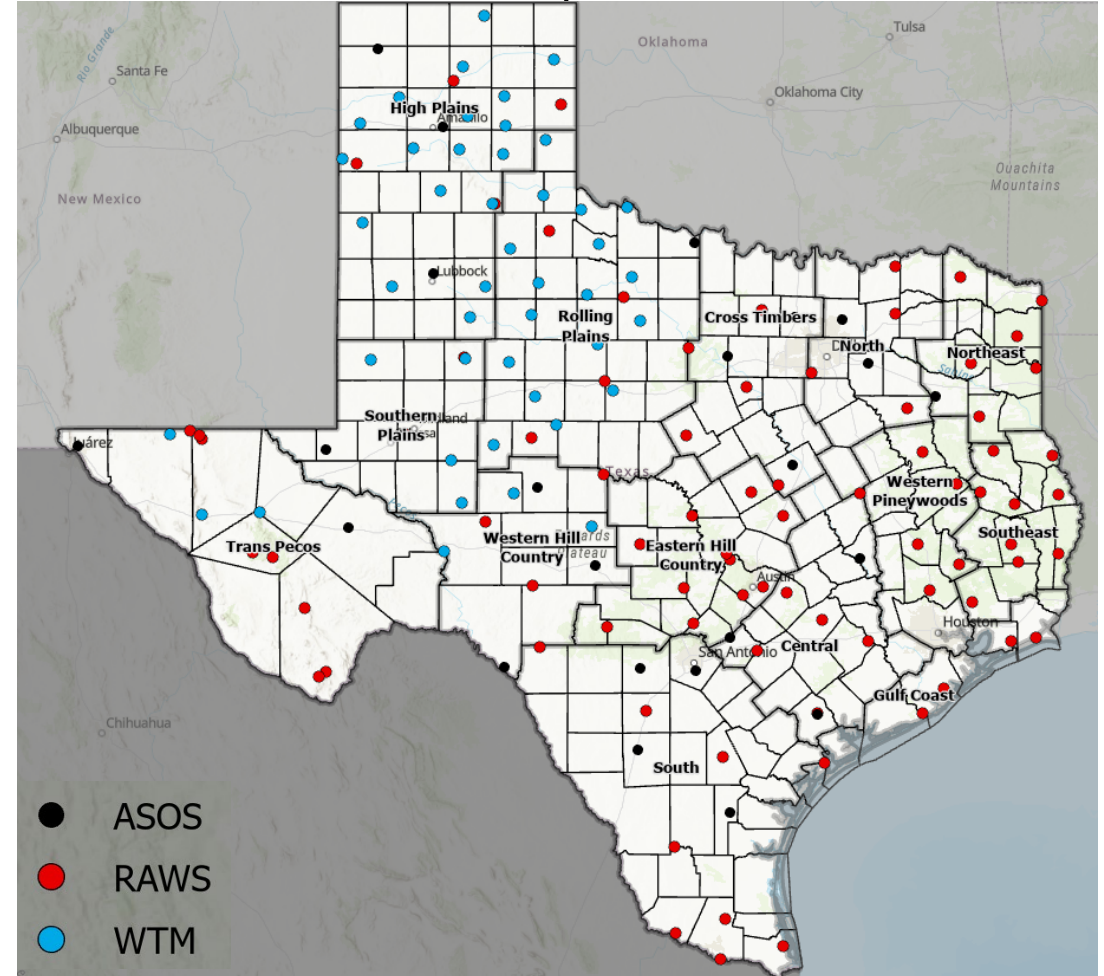
Predictive Services Products range from daily fire danger/fuel moisture maps (automated), weekly fire potential outlooks, seasonal outlook.





# Predictive Services

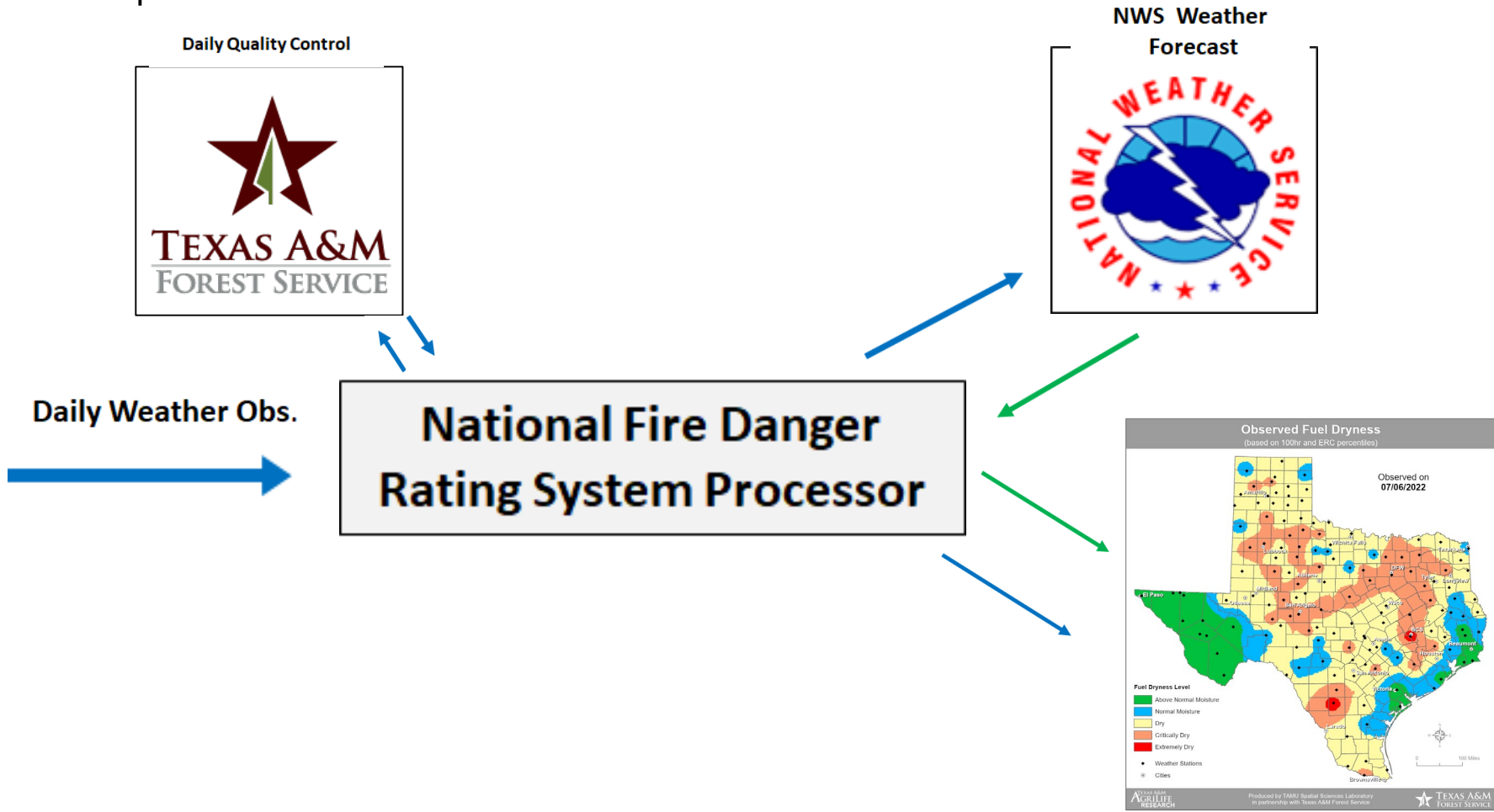
Texas Fire Weather Station Network: 151 Stations Total (81 RAWs, 24 ASOS, 46 WTM)



# Predictive Services



Fire Weather Data Collection flows into the National Fire Danger Rating System  
Key Partnership with 13 National Weather Service offices

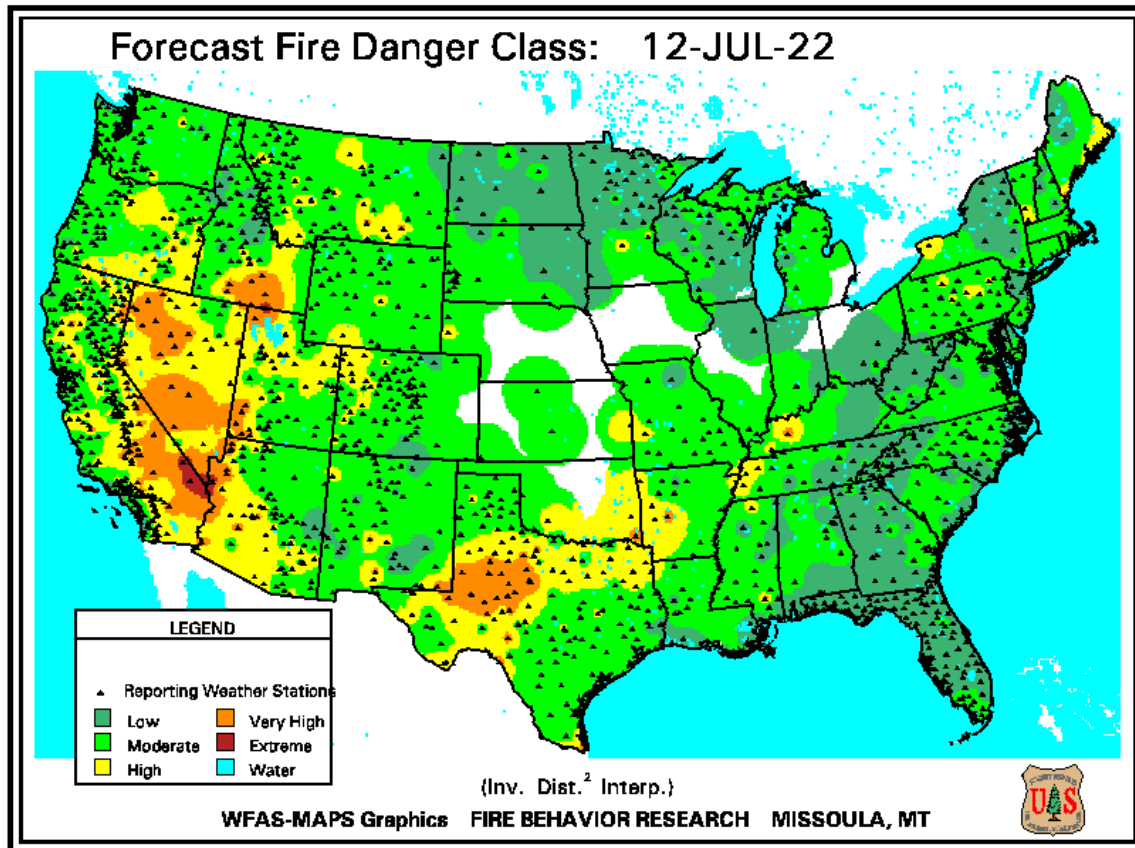




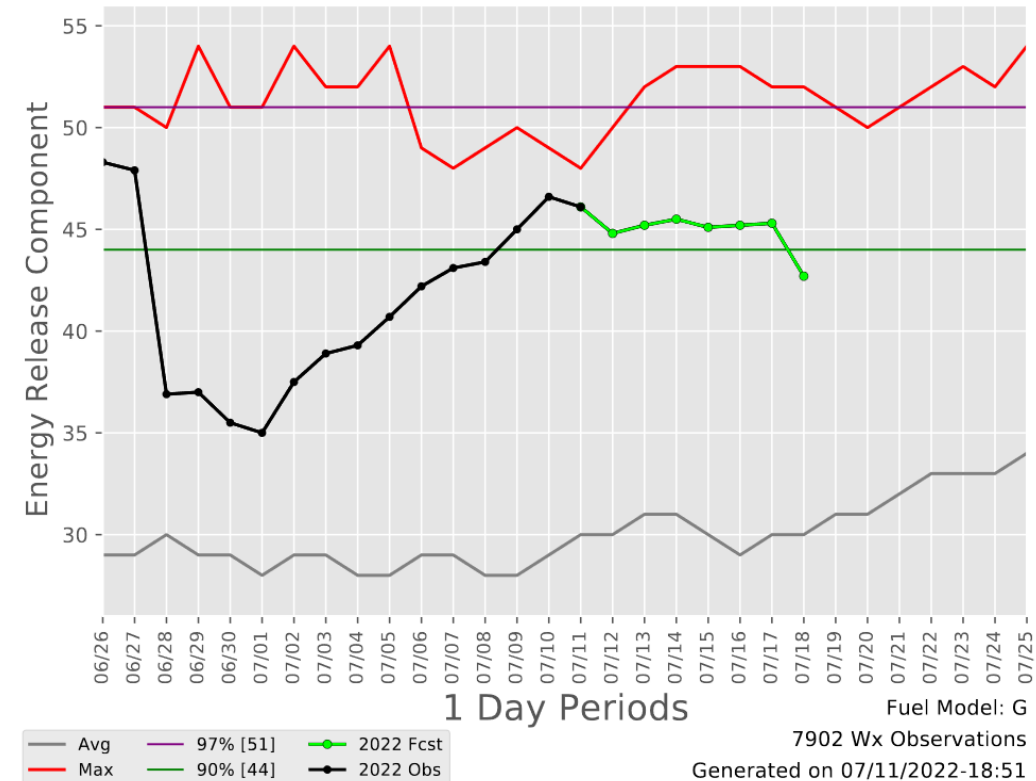
# Predictive Services

## National Fire Danger Rating System

Science based system using weather and modeled fuel moisture data to produce observed and forecast fire danger outputs



CENTRAL TEXAS Predictive Service Area  
2001-2022 - 30 Day Depiction





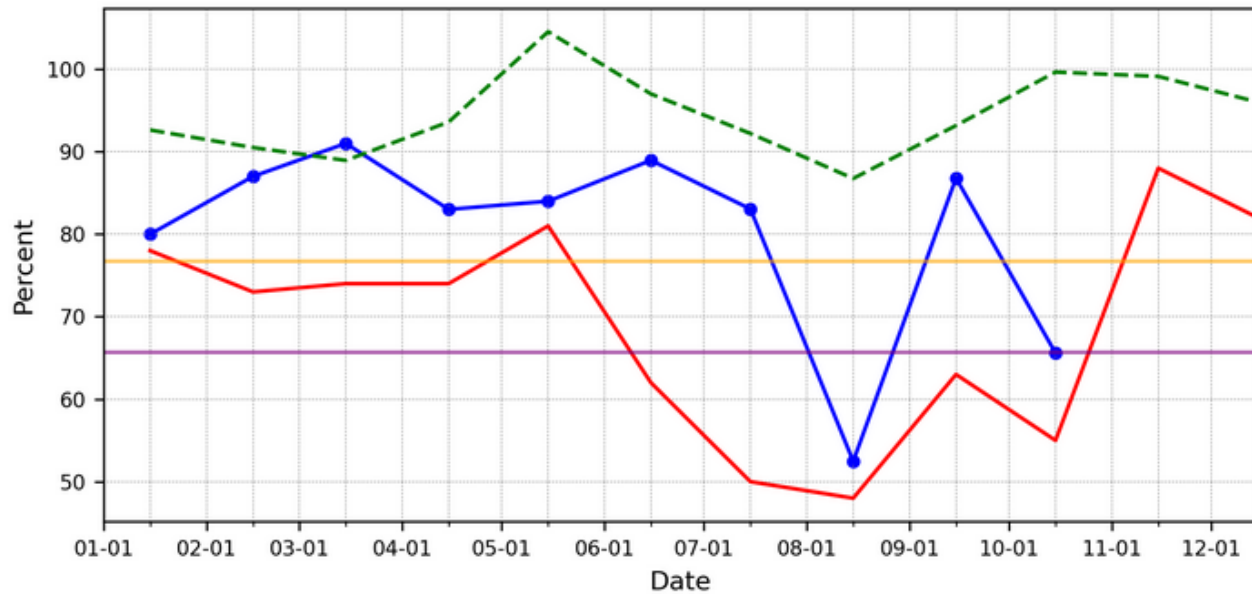
# Predictive Services

## Statewide Live Fuel Sampling of High-Risk Fuel Species (60 Sampling Sites)

Palo Pinto - Ashe Juniper

2003 - 2022

— Low Values    - - - Average Values    — 10th Percentile    — 3rd Percentile    ● 2022 Values

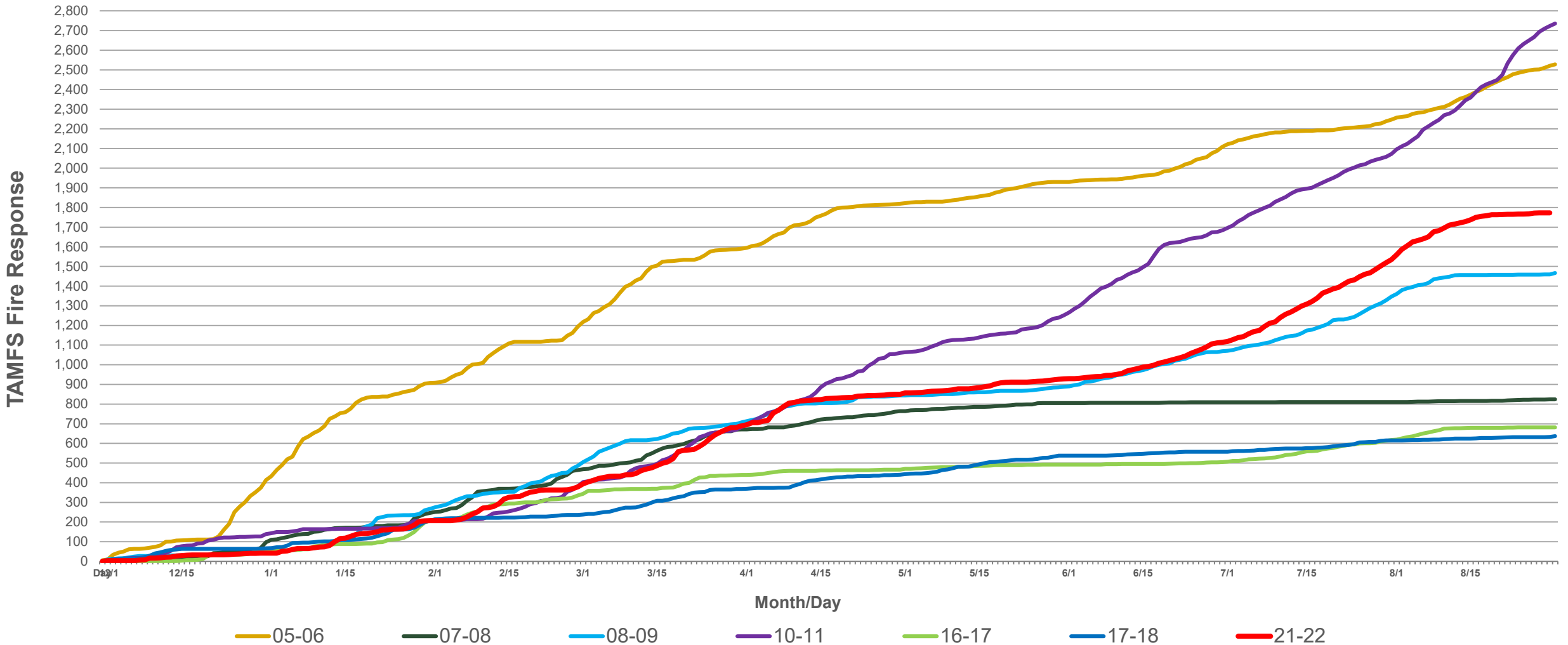


Bi-monthly values

	1-15	2-15	3-15	4-15	5-15	6-15	7-15	8-15	9-15	10-15	11-15	12-15
2022	80	87	91	83	84	89	83	52	87	66		
Avg	93	90	89	94	105	97	92	87	93	100	99	96
Low	78	73	74	74	81	62	50	48	63	55	88	82

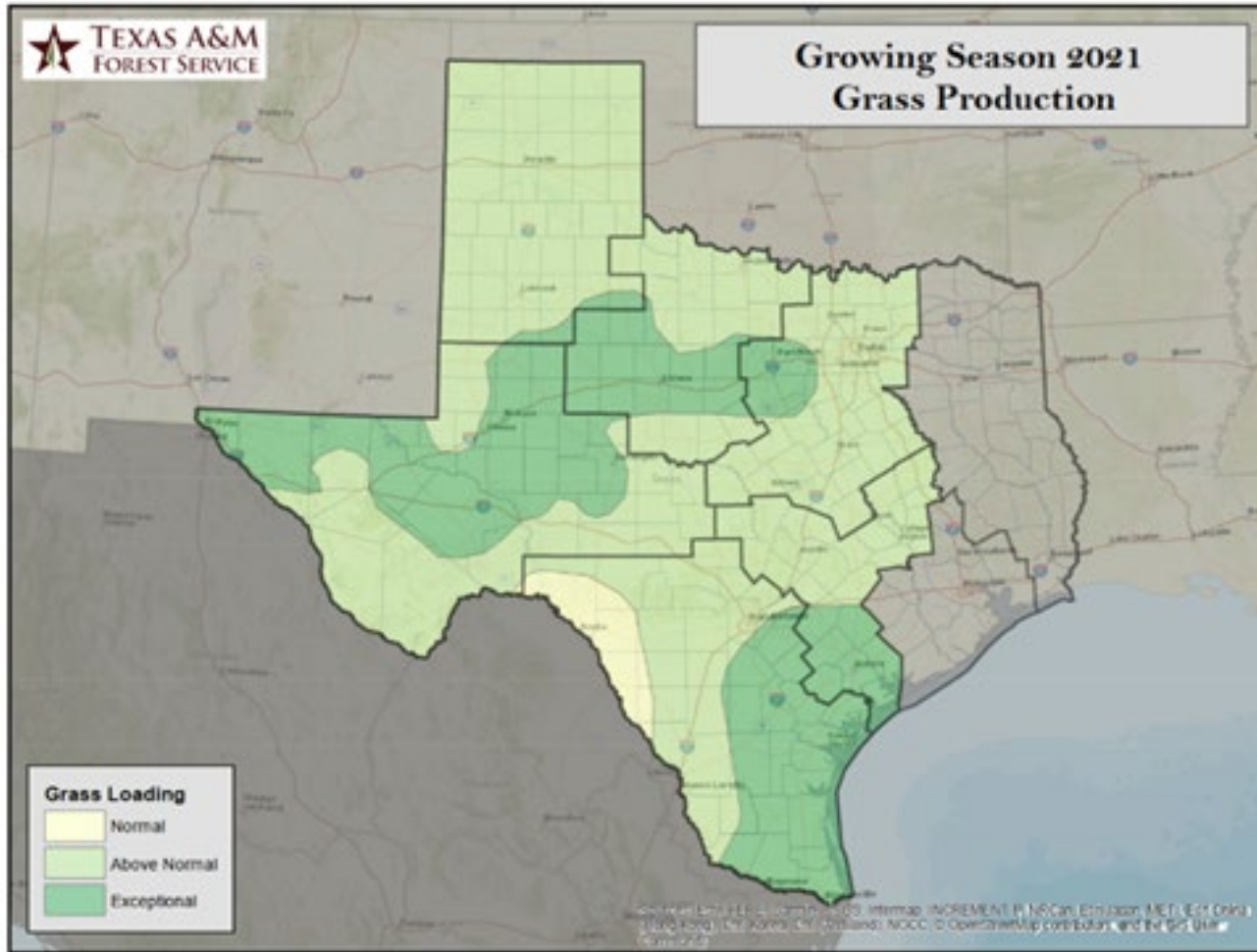


# December 1st-September 30th Historical Daily TAMFS Fire Response

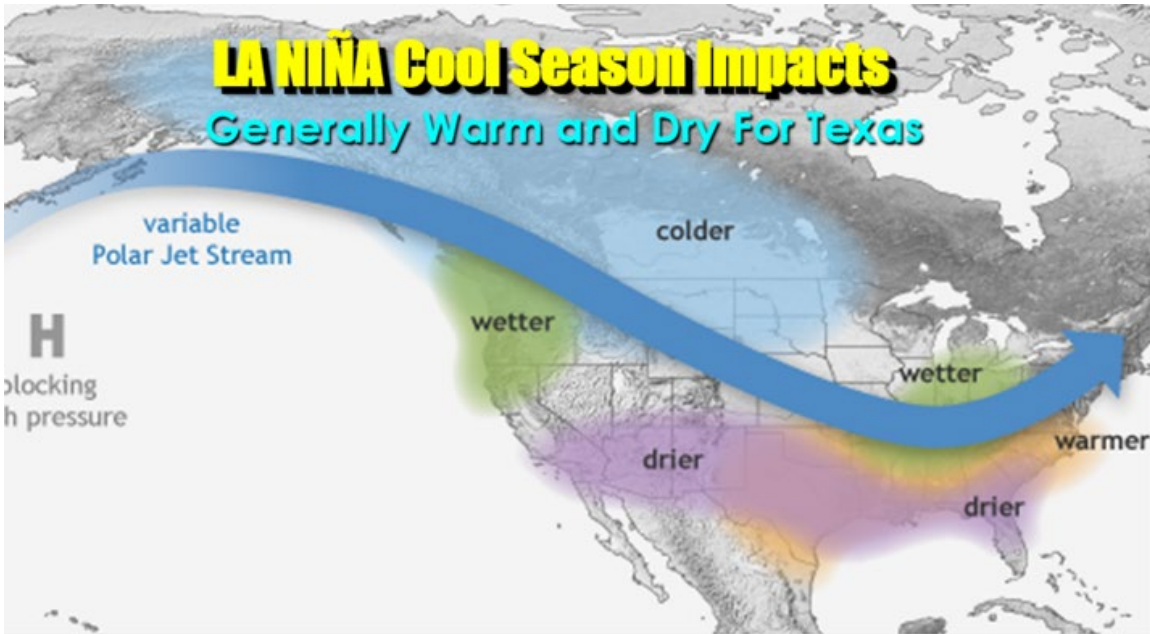




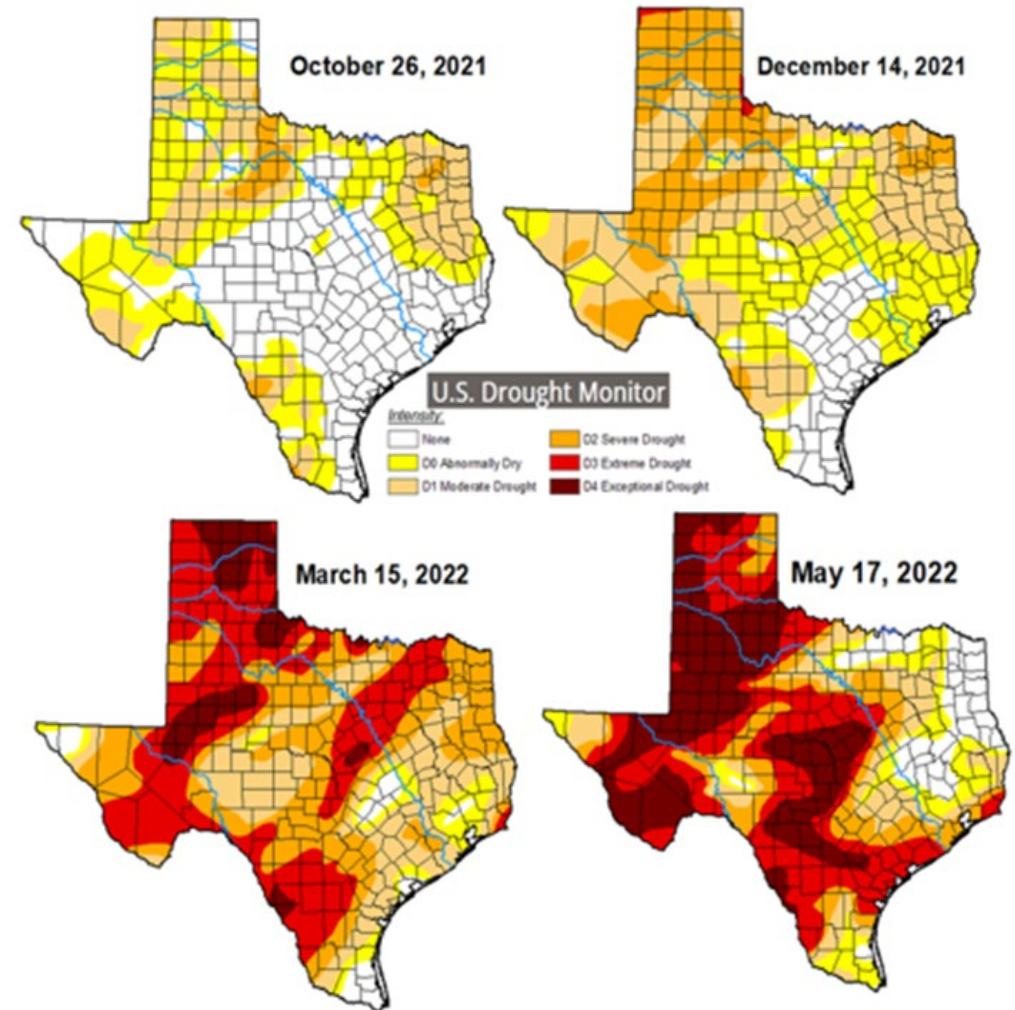
# 2021-2022 Fire Season Set-UP



# 2021-2022 Fire Season Set-UP



La Nina Advisory issued by Climate Prediction Center Fall of 2021





# 2021-2022 Fire Season Impacts



North 207 Fire North of Amarillo 12/15/21



Eastland Complex 03/17/22



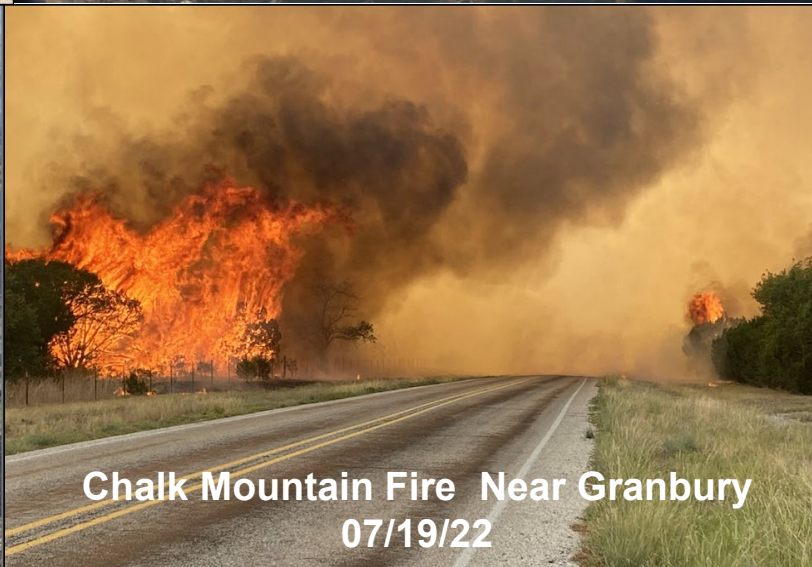
Das Goat Fire west of San Antonio  
03/15/22



Mesquite Heat Fire southwest of Abilene  
05/17/22



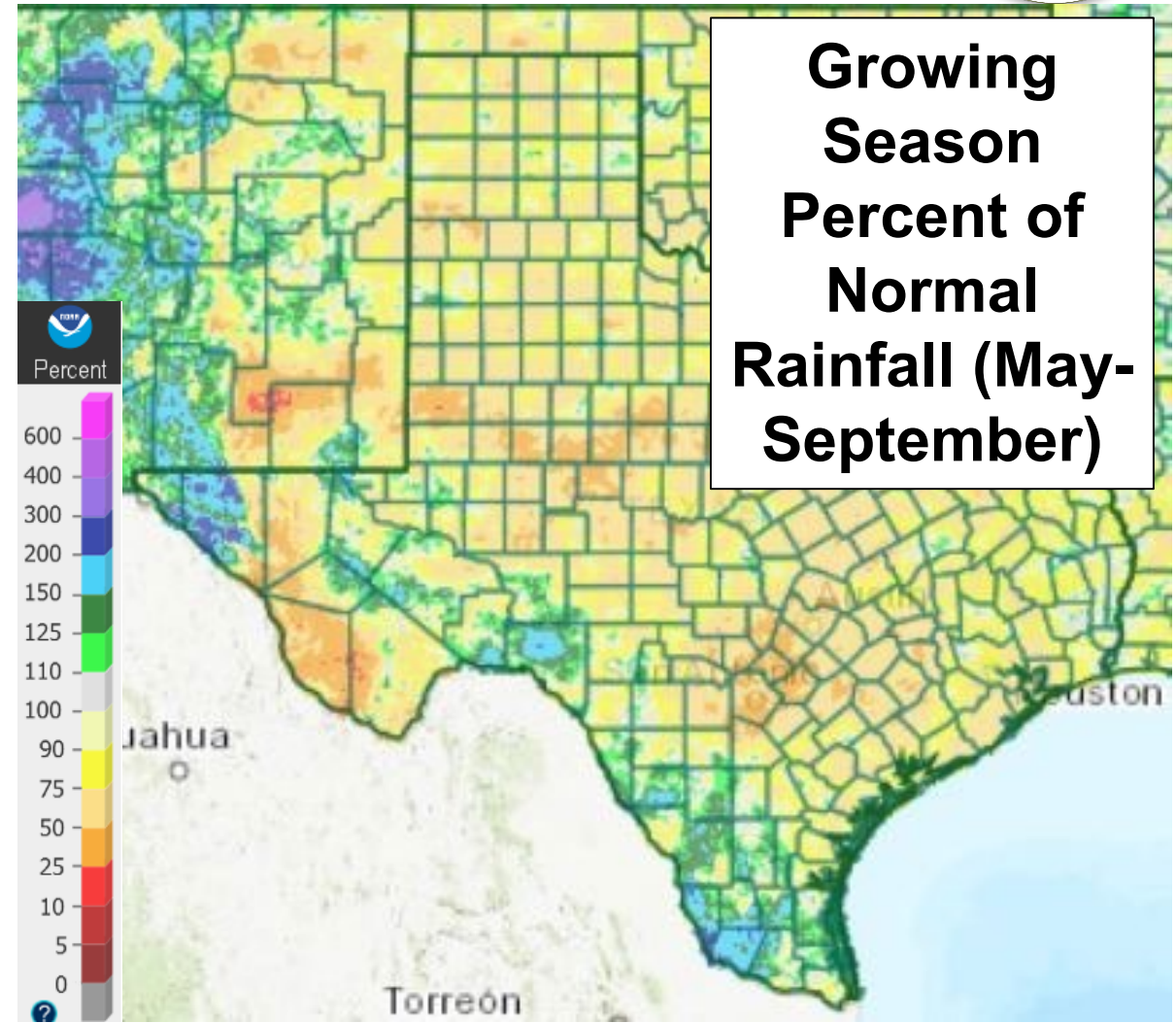
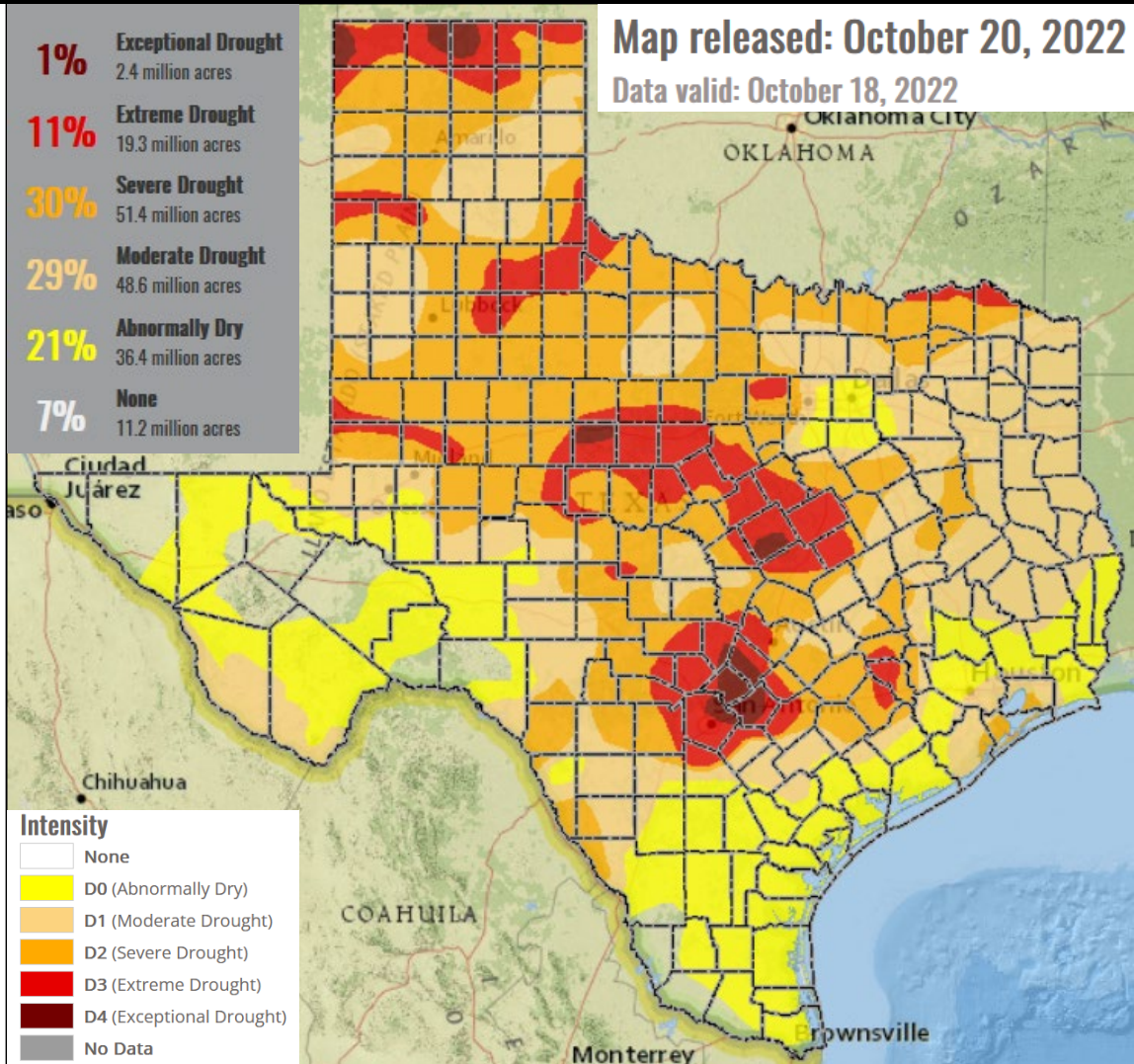
Nelson Creek Fire Near Huntsville  
07/19/22



Chalk Mountain Fire Near Granbury  
07/19/22



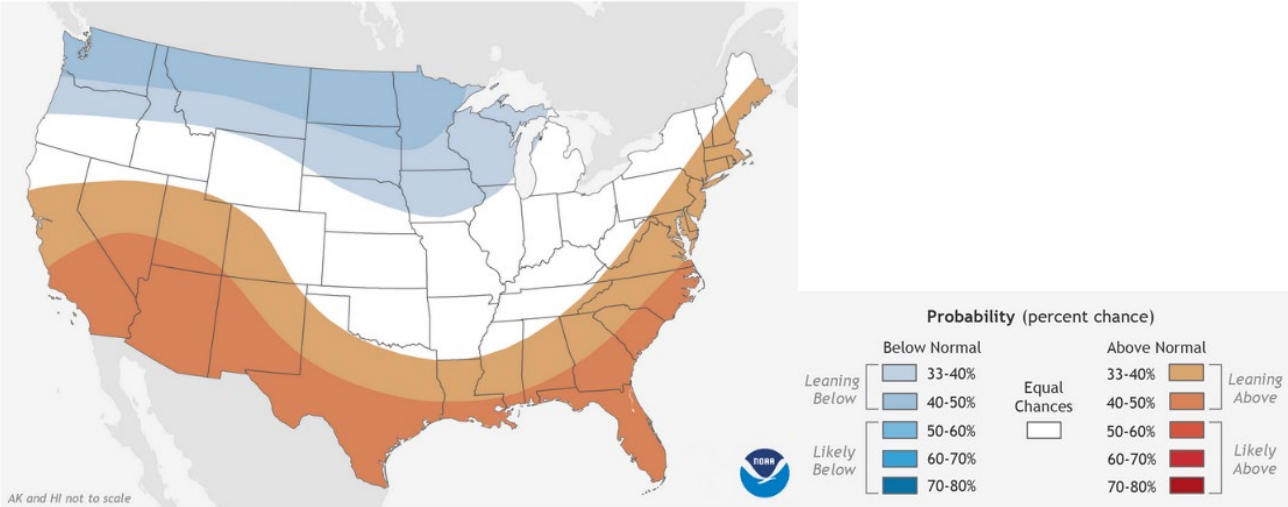
# Current Conditions and Winter 2023 Outlook



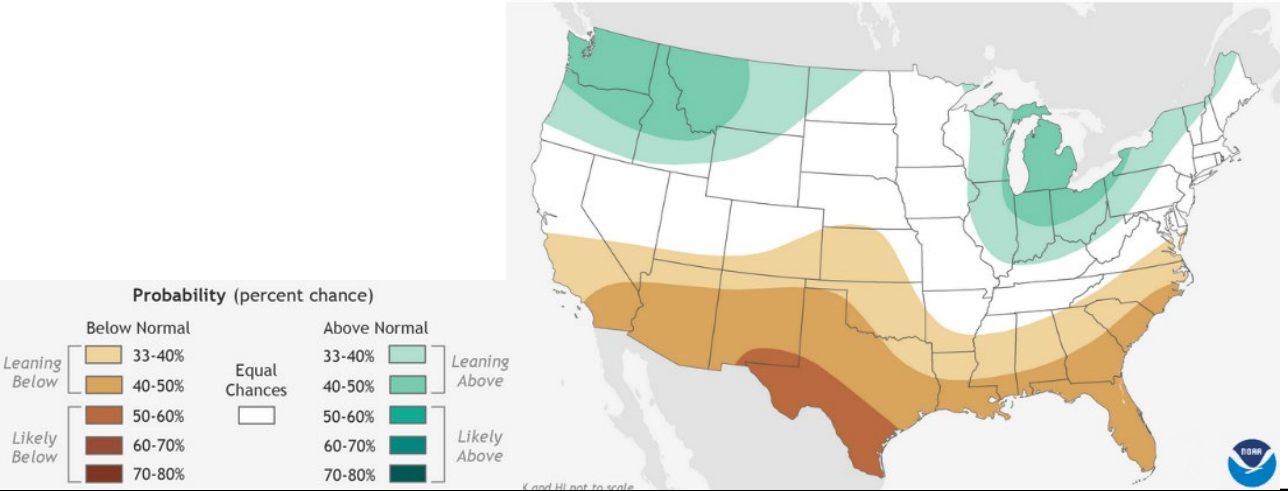


# Current Conditions and Winter 2023 Outlook

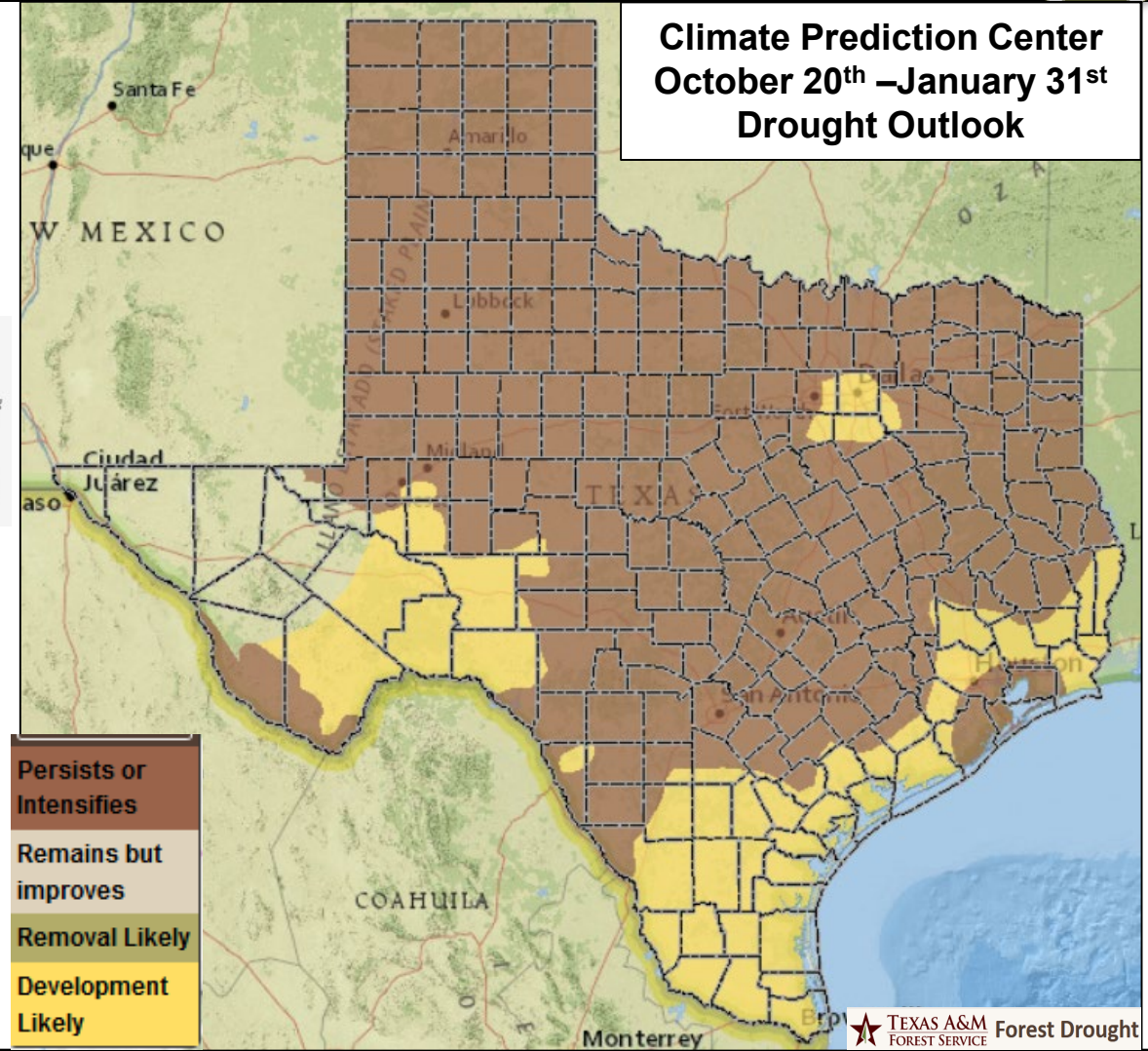
Winter 2022-23: U.S. Temperature Outlook



Winter 2022-23: U.S. Precipitation Outlook



Climate Prediction Center  
October 20<sup>th</sup> – January 31<sup>st</sup>  
Drought Outlook





# Incident Response



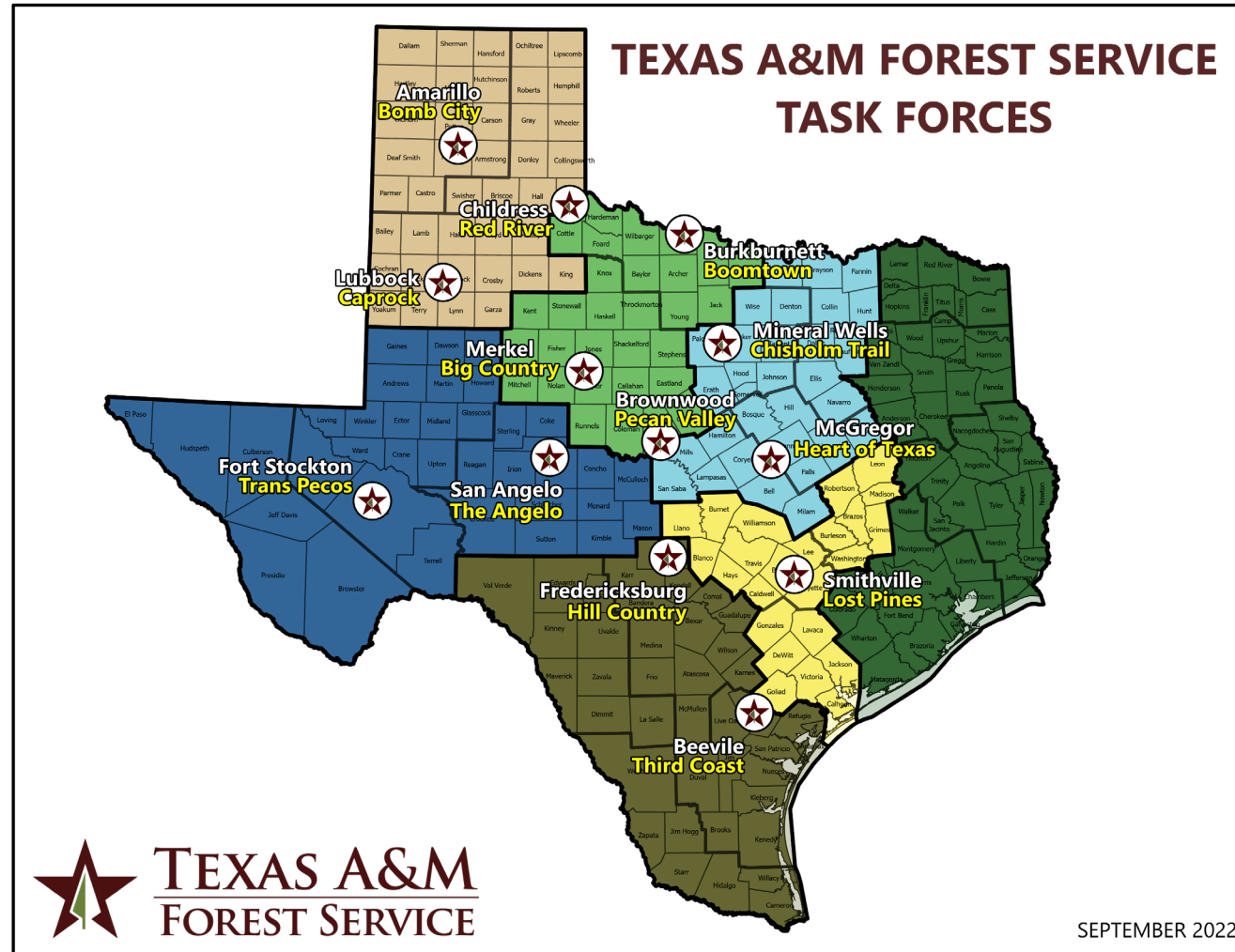
# Wildfire Response



- 10,598 wildfires for 640,184 acres
- 411 Homes Lost
- 8,086 Homes Saved

Since Jan 1, 2022

# Incident Response







# Tiered Approach to Wildfire Response

Local fire departments are first responders

*Most wildfires are suppressed by local response*

When a wildfire becomes complex and exceeds local capabilities, Texas A&M Forest Service is requested to respond

*In 2022, the agency responded to 18.5% of the wildfires but for 86.5% of the total acres burned*



# Tiered Approach to Wildfire Response

As the complexity of statewide wildfire response increases,

- Texas Intrastate Fire Mutual Aid System (TIFMAS) firefighters are mobilized
  - **Surge capacity for the state**
- Wildland firefighters from across the nation are brought in, under state control, to meet essential needs
- Aviation resources are staged in state
  - **Texas A&M Forest Service does not own any aviation resources but instead uses federal aviation contracts through the U.S. Forest Service and Bureau of Land Management for all firefighting aircraft**







# Questions/Comments