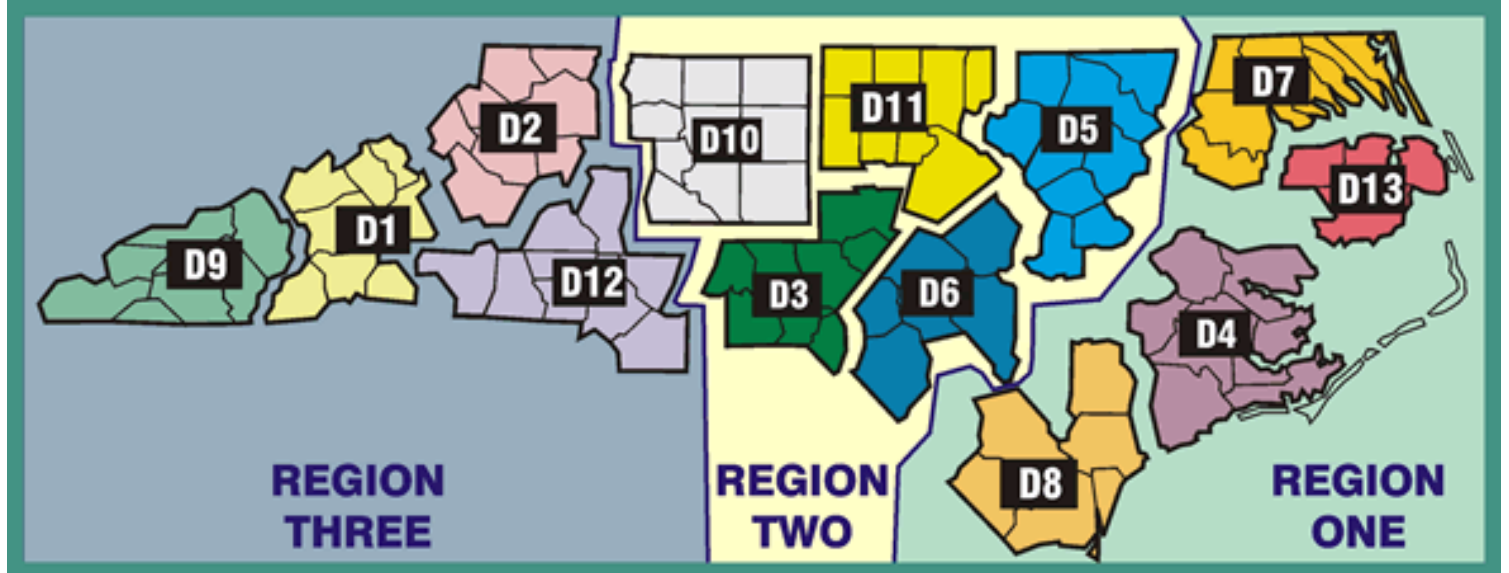
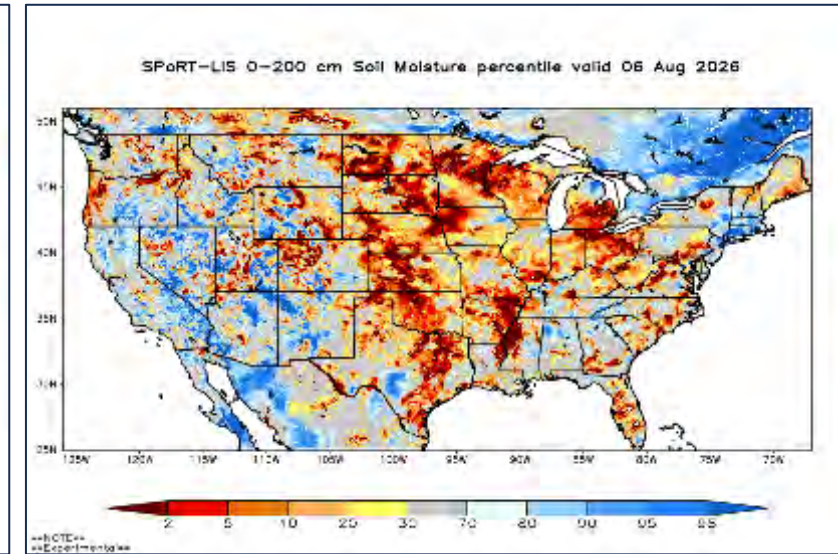
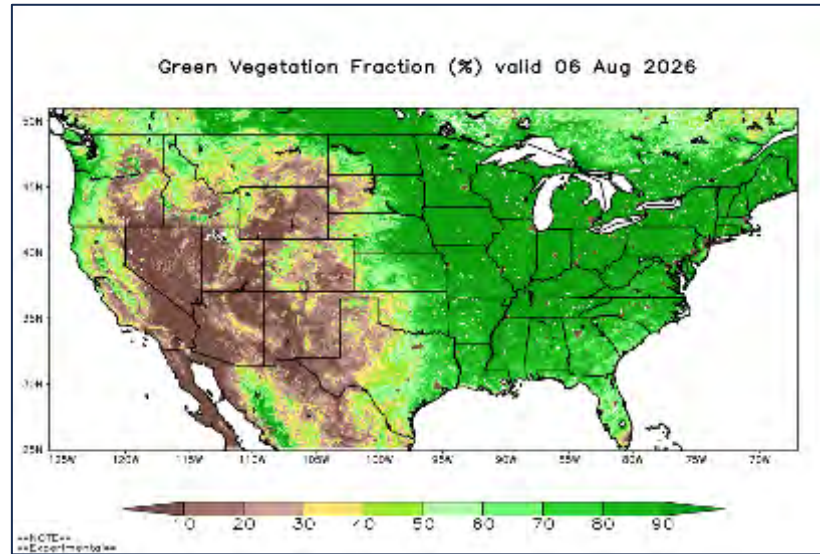


August - 2026

Monthly Fire Danger Assessment NCFS – All Regions



Date: August 7, 2026

Created by: Jamie Dunbar
Fire Environment Staff Forester
NC Forest Service

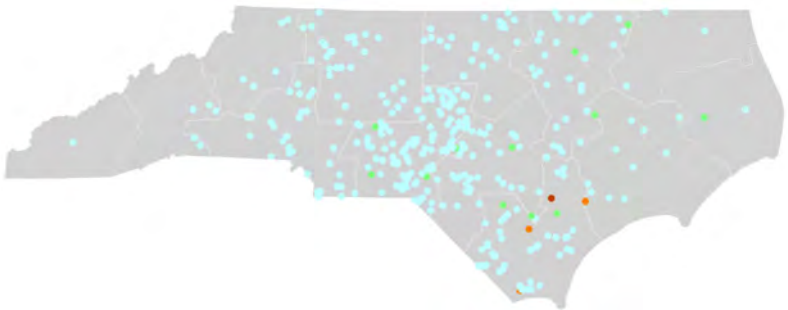
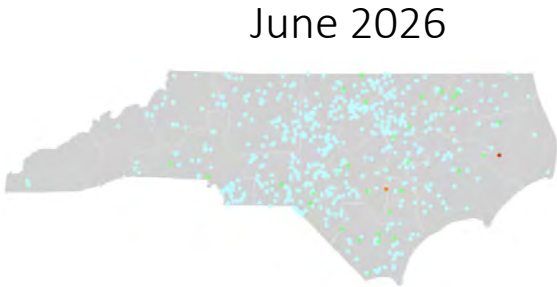
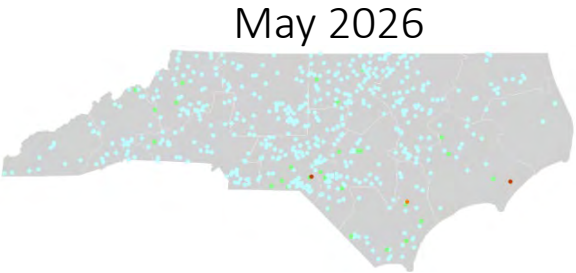
Statewide Wildfire Context

- January: 10-yr avg is 339 fires for 702 acres
- February: 10-yr avg is 639 fires for 1,683 acres
- March: 10-yr avg is 1,009 fires for 6,401 acres
- April: 10-yr avg is 627 fires for 6,803 acres
- May: 10-yr avg is 283 fires for 1,298 acres
- June: 10-yr avg is 231 fires for 2,383 acres
- July: 10-yr avg is 182 fires for 551 acres

*August: 10-yr avg is 126 fires for 420 acres

- September: 10-yr avg is 194 fires for 422 acres
- October: 10-yr avg is 265 fires for 1,996 acres
- November: 10-yr avg is 534 fires for 6,173 acres
- December: 10-yr avg is 372 fires for 733 acres

-
- April: 1,165 incidents for 2,503 acres
 - May: 566 incidents for 2,327 acres
 - June: 626 incidents for 2,332 acres
 - July: 357 incidents for 1,726 acres



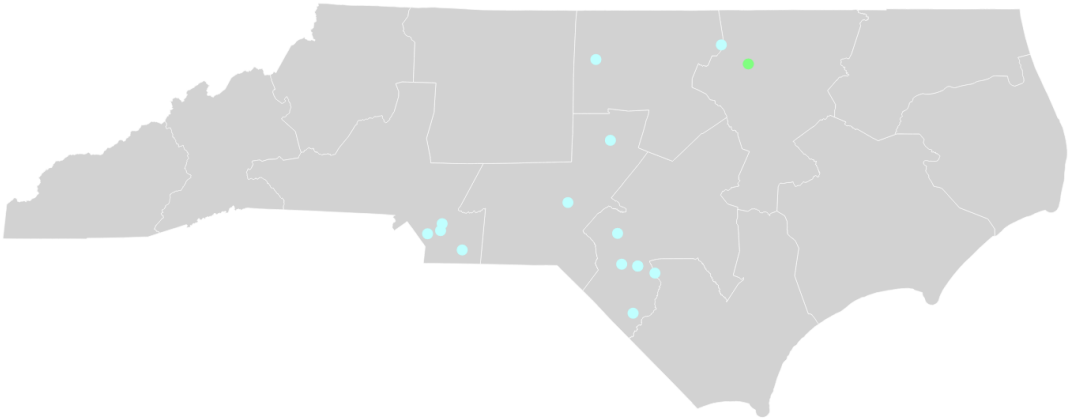
August - MTD Activity (ending 8/7 am): 15 incidents for 25.6 acres

All wildfire activity data is preliminary
Does not include additional federal wildfires/acres
2016-2025 CY Average

**Largest incidents by discovery date, 7-Day Activity:
from fiResponse & preliminary reporting only

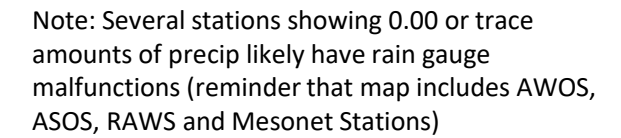
Incident Name	Discovery Date	Region	District	County	Acres
Reynolds Rd	8/1/2026	Region 2	District 5	Franklin County	15.00
Skipper St	8/1/2026	Region 2	District 6	Robeson County	5.00
W Great Marsh Church Rd	8/6/2026	Region 2	District 6	Robeson County	2.17
Love Dr	8/1/2026	Region 2	District 6	Robeson County	2.00
Old Blanchard	8/1/2026	Region 2	District 11	Alamance County	1.00
Chickenfoot Rd	8/5/2026	Region 1	District 8	Bladen County	0.10
Baker Cir	8/5/2026	Region 2	District 3	Moore County	0.10
Holly Ridge	8/7/2026	Region 2	District 3	Chatham County	0.10
Tea Cup Dr	8/3/2026	Region 2	District 6	Robeson County	0.05
Weddington Rd	8/3/2026	Region 3	District 12	Union County	0.01

August – MTD Activity (ending 8/7 am)



**Note: Dept. of War & other entirely federal ownership wildfires typically not shown on fiResponse, unless NCFS integrated into response.

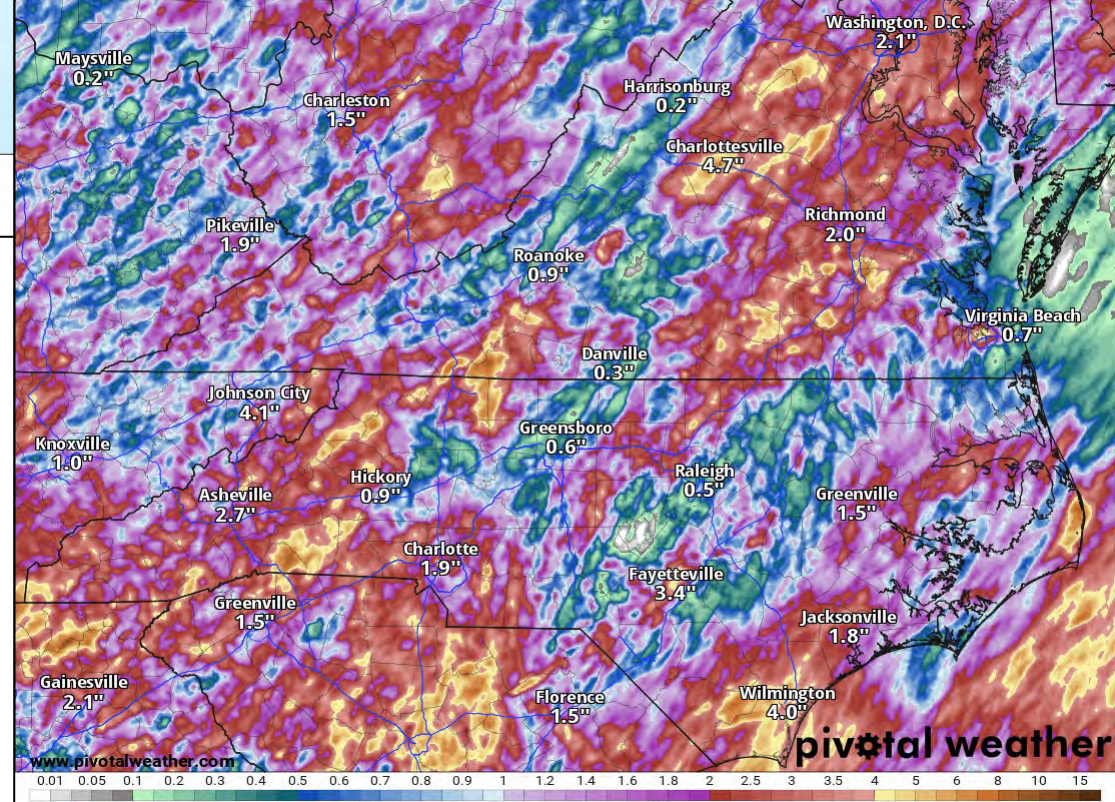
climate.ncsu.edu/fire



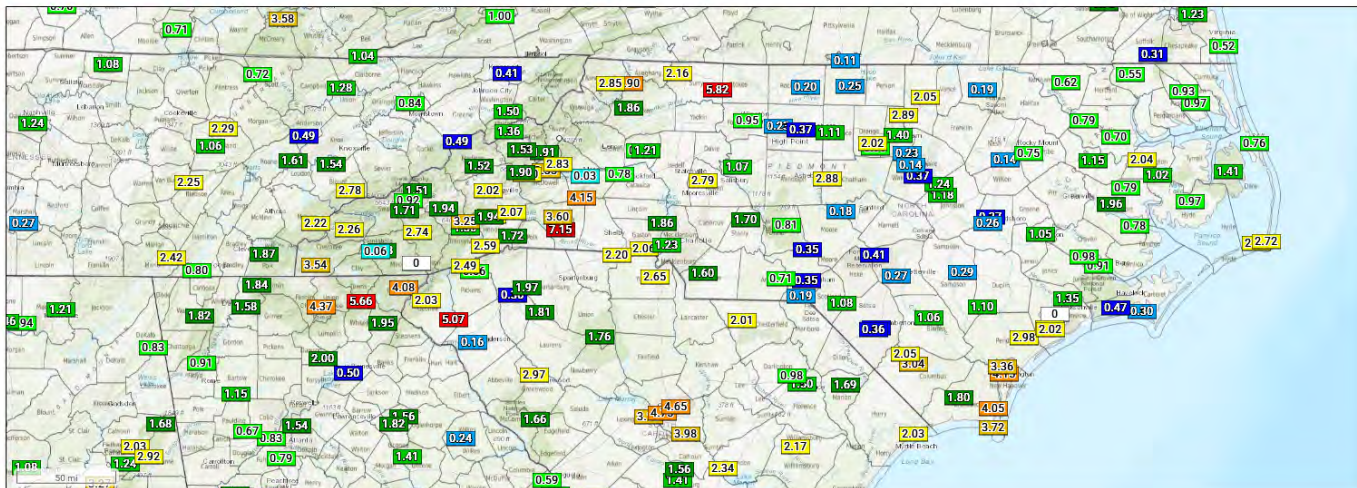
7-Day Precip Estimate

Ending Friday, Aug. 7, 2026 at 4 a.m. EDT

Init: Fri 2026-08-07 08z MRMS

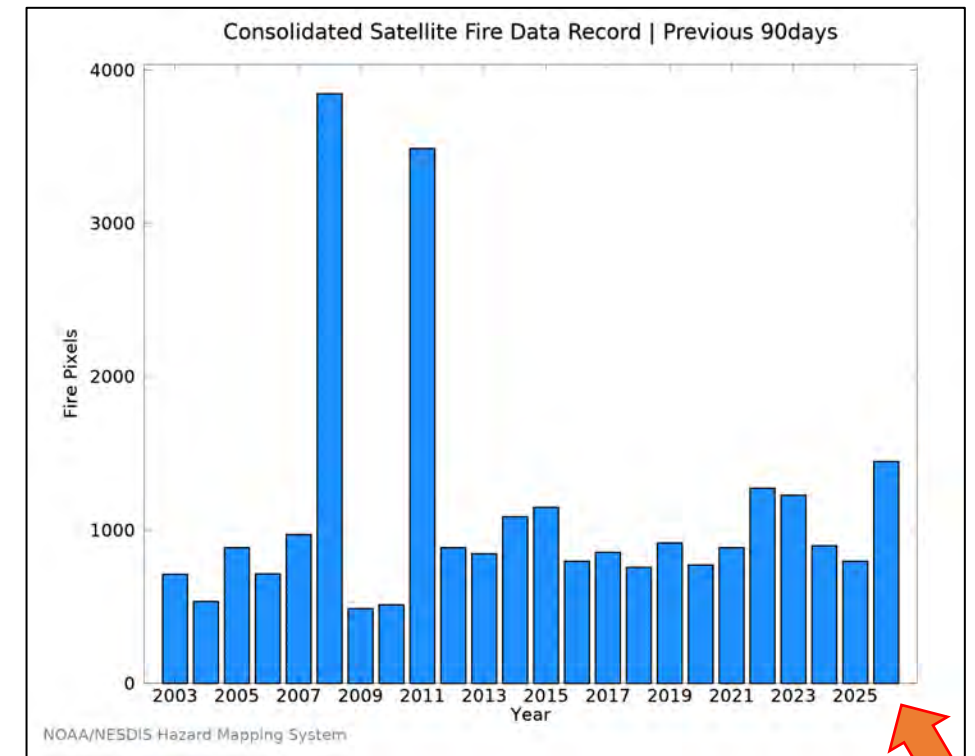
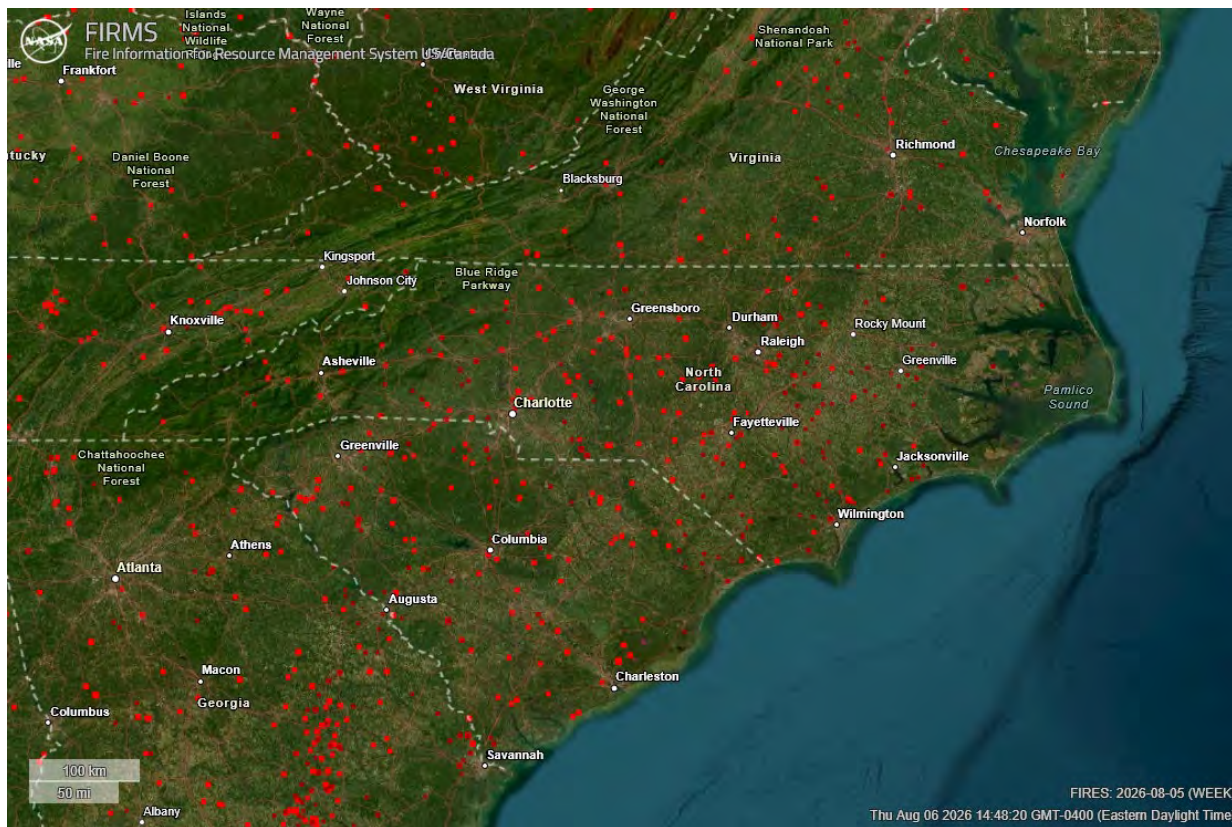


ncsu.edu/fire



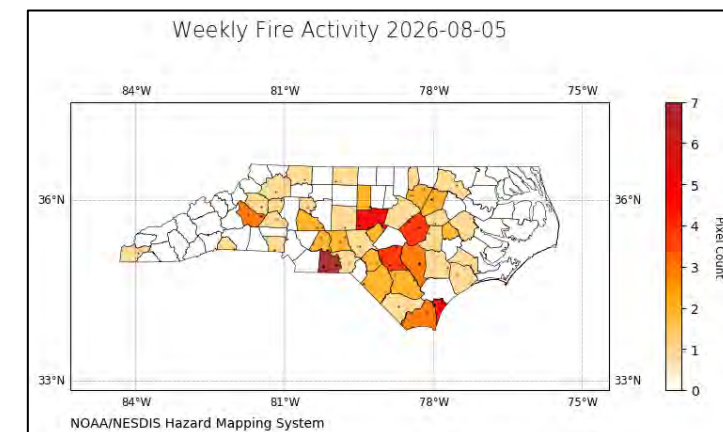
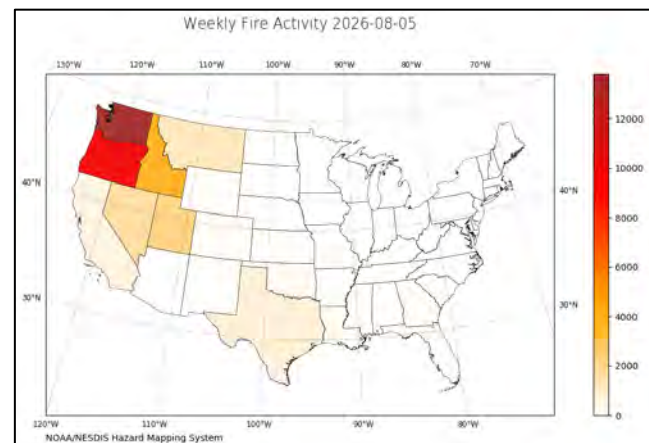
🕒 From Friday, Jul 31 at 9 am to Friday, Aug 7 at 9 am ET

Weekly Heat Detects

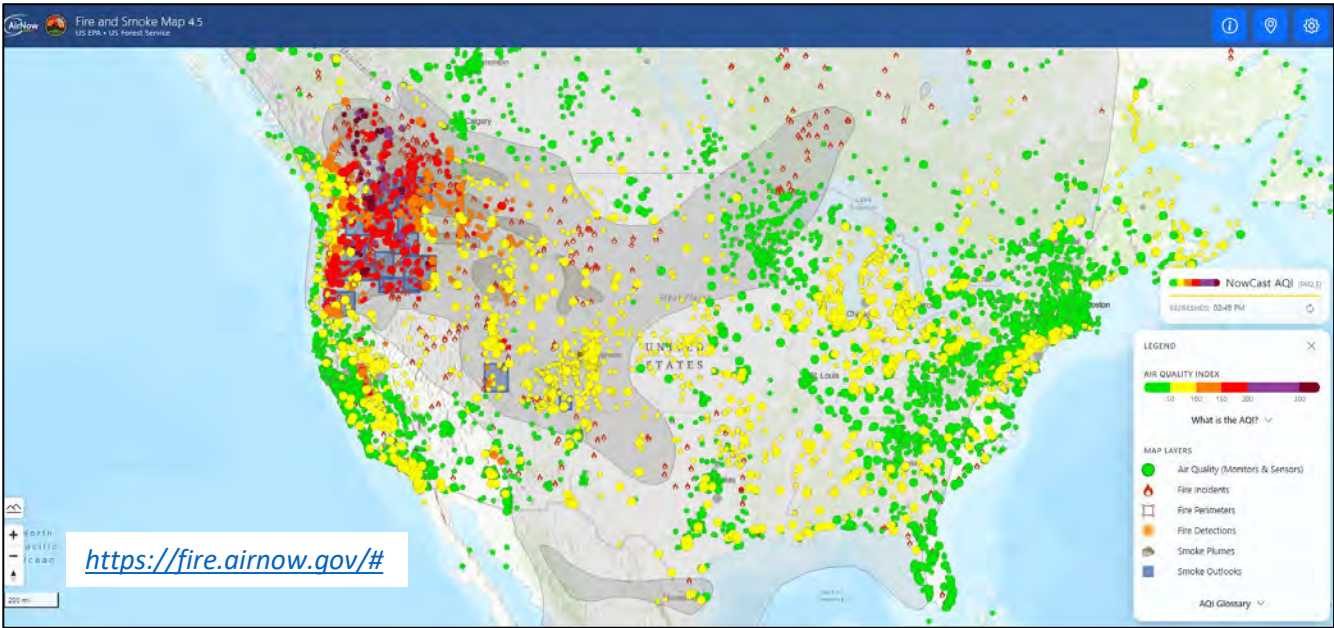


NC Map showing past week satellite detects from same source & bottom right maps display fire pixel counts. US & NC map below is Weekly, ending on 8/5/26. Note that cloud cover, heat intensity, and other factors can limit detections, not all detects may be “forestry related”. Top right is a bar graph showing total fire pixels by year for past 90-days (note 2008 & 2011). Hazard Mapping System link:

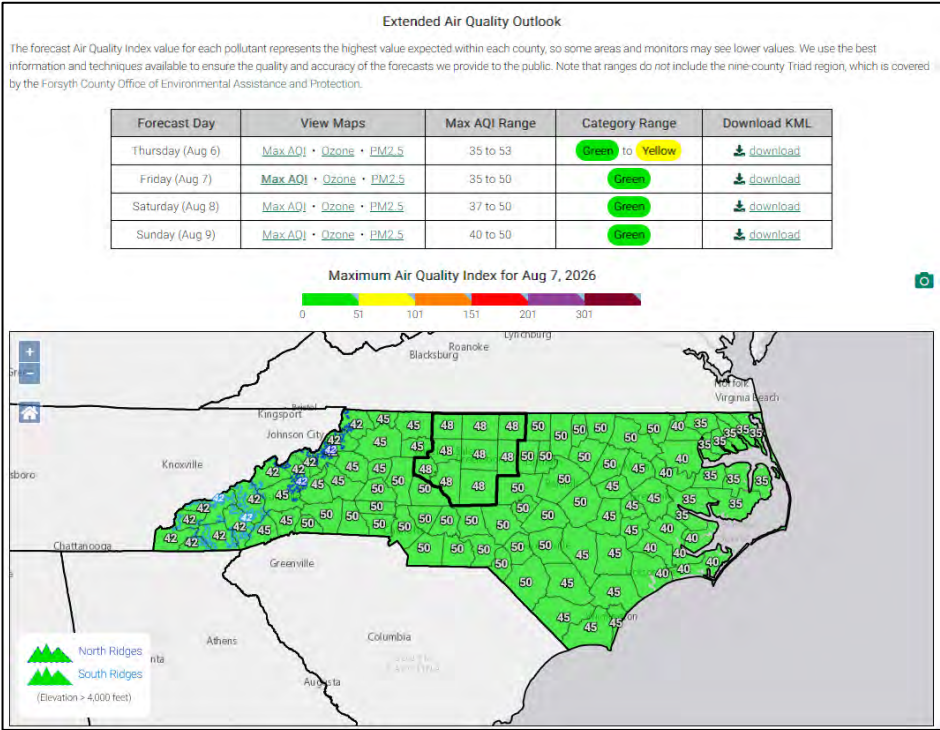
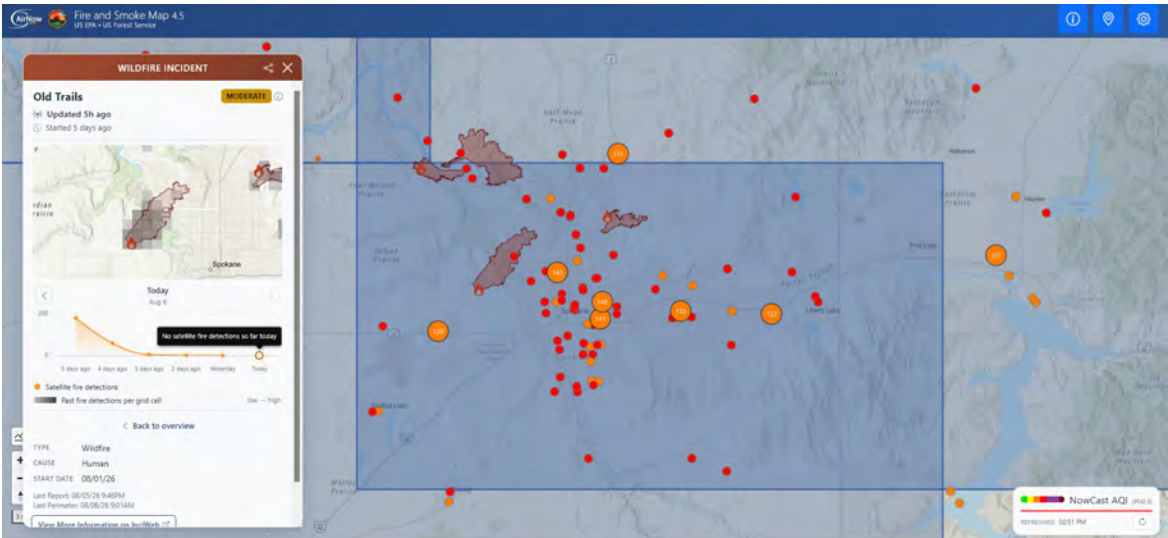
<https://www.ospo.noaa.gov/products/land/hms.html#maps>



Air Quality Notes



Updated to Version 4.5. Update includes new functionality for larger incidents – example below for the “Old Trails” Fire near Spokane, WA.



This forecast was issued on **Thursday, August 6, 2026 at 3:15 pm** ✓ This forecast is currently valid.

Today's Air Quality Conditions

Current daily average fine particulate levels are in the Code Yellow range in the Triangle and Wilmington metro areas thus far today, with Code Green conditions being observed elsewhere across the state. Ozone levels have predominantly been observed in the Code Green range today.

For a display of the most recent Air Quality Index (AQI) conditions throughout the day, visit the [Ambient Information Reporter \(AIR\) tool](#).

General Forecast Discussion

High pressure will dominate over the southeastern US on Friday and through the weekend with typical summer diurnal showers and storms continuing through the period. PM2.5 levels will hover in the upper Green to low Yellow range across the state. Ozone levels should hold in the Green range thanks to cloud cover.

Outlook

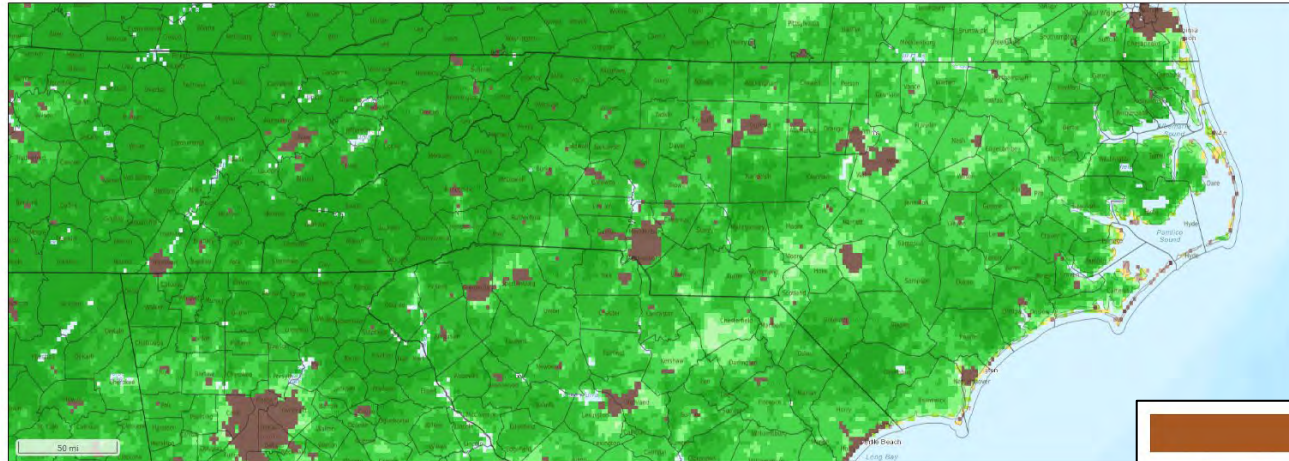
Overall good air quality is expected through Sunday, with some moderate Code Yellow hourly readings expected at times.

Author: [Sara Kreuser](#) (sara.kreuser@deq.nc.gov) - NC Division of Air Quality

<https://airquality.climate.ncsu.edu/discussion/?view=latest>

July 5, 2026

From the Fire Weather Intelligence Portal • products.climate.ncsu.edu/fire

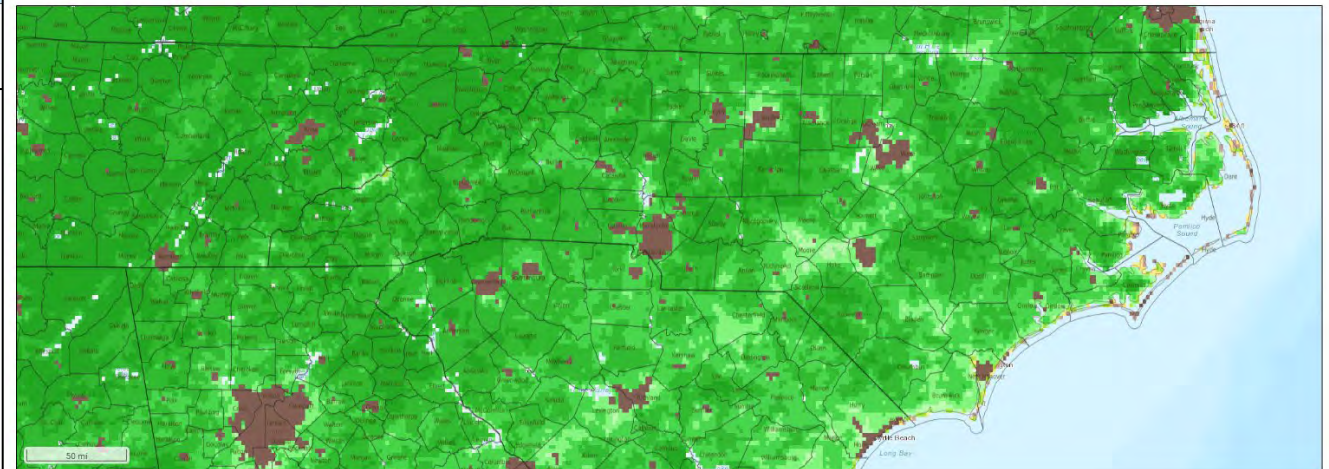


Green Vegetation Fraction
0 10 20 30 40 50 60 70 80 90 %
From Sunday, Jul 5 at 8 pm ET
Source: NASA SPoRT-LIS

SPoRT Modeled Green Vegetation Fraction

August 5, 2026

From the Fire Weather Intelligence Portal • products.climate.ncsu.edu/fire



Green Vegetation Fraction
0 10 20 30 40 50 60 70 80 90 %
From yesterday (Aug 5) at 8 pm ET
Source: NASA SPoRT-LIS

The daily GVF graphic show overall greenness across the state – left is 7/5, right is 8/5. Several areas of the state are exhibiting significantly more relative greenness following the recent period of rain events. These maps can help illustrate potential drought impacts & agricultural crop growth cycles. Actual greenness & moisture content depends on species, aspect, and drought impacts.

Drought impacts have an influence on herbaceous & woody shrub live fuel volatility, highly drought stressed species (especially waxy shrub and conifers) are much less resistant/contribute to spread in heaviest impacted areas. Higher GVF values **should not** always be interpreted as meaning “effective green” and lower forest volatility due to drought/seasonal progression. **This is especially the case for coastal/sandhill plant communities with deep fluffy duff/litter, organic soils, and conifer & waxy shrub species still in significant drought.**

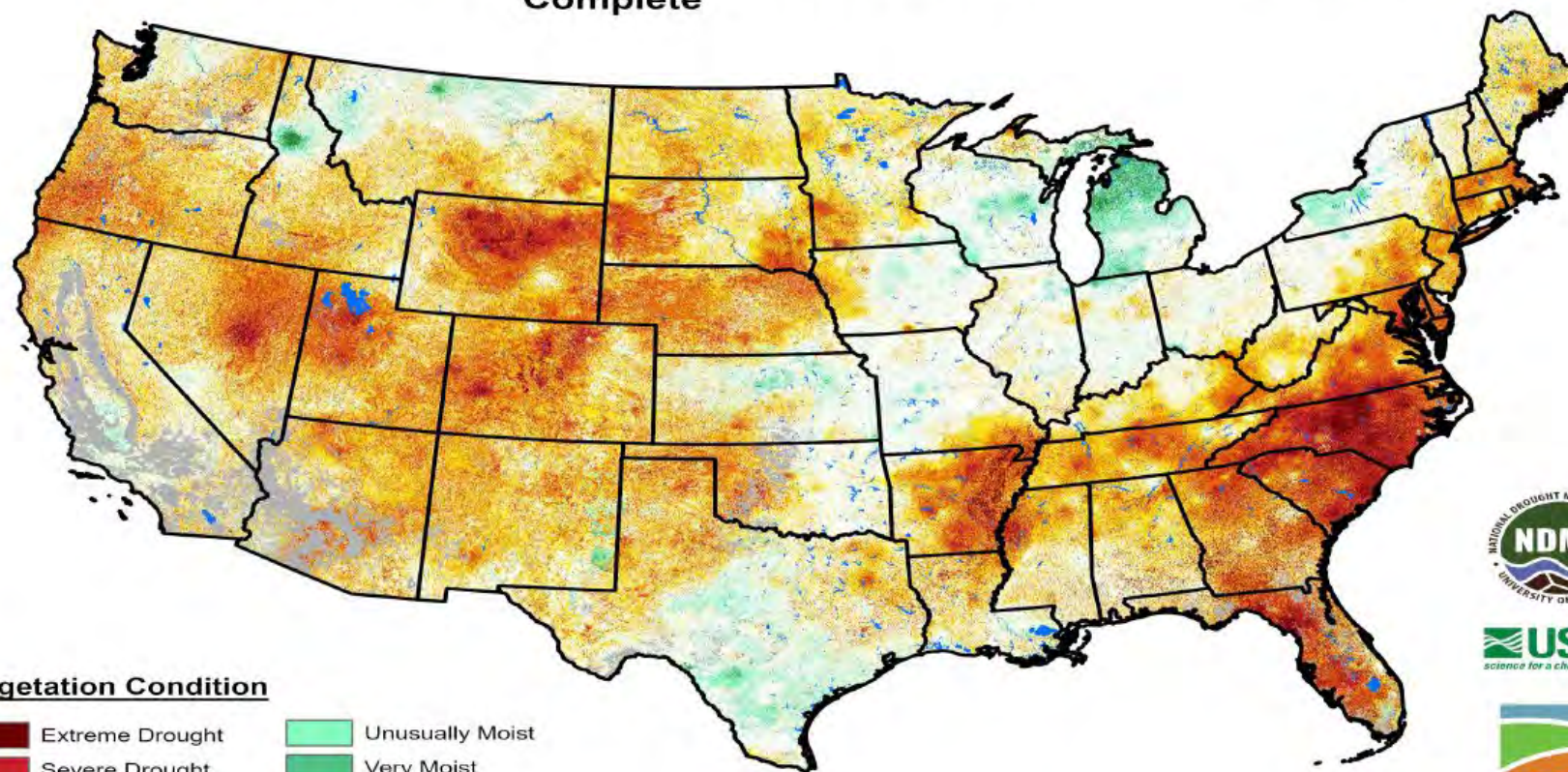


Early August VegDRI



Vegetation Drought Response Index Complete

August 2, 2026



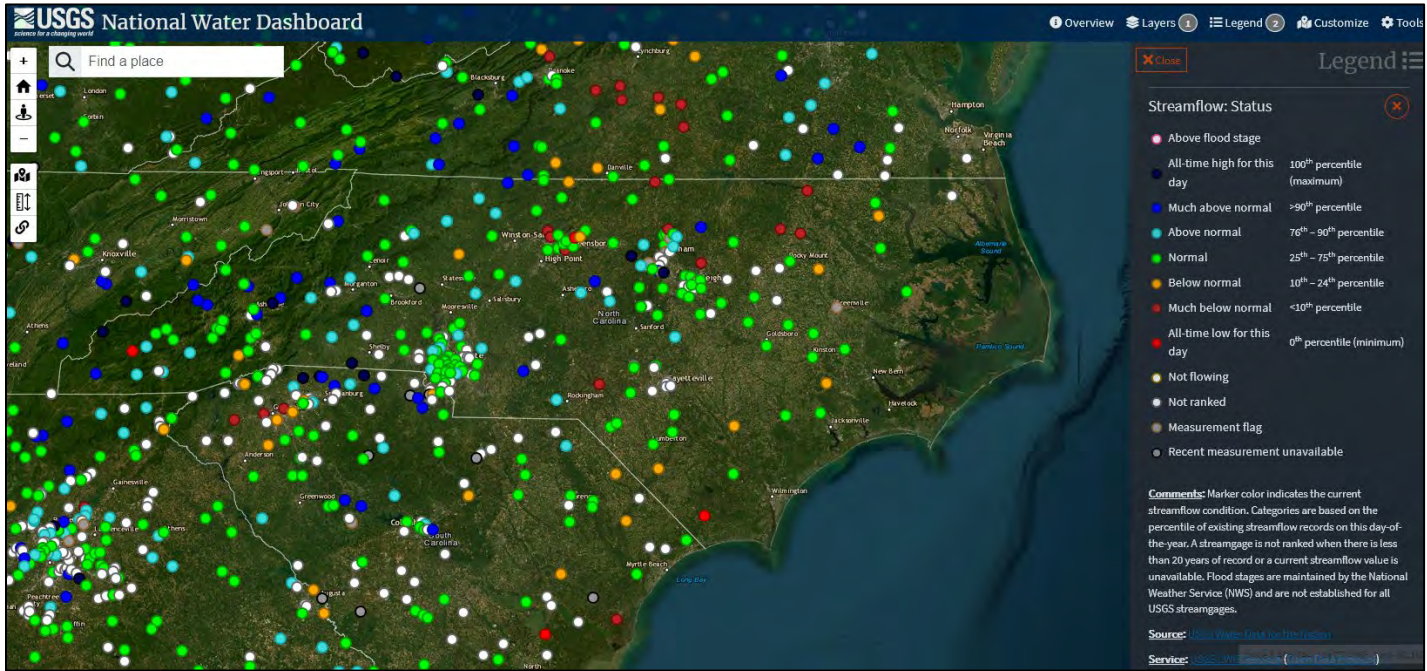
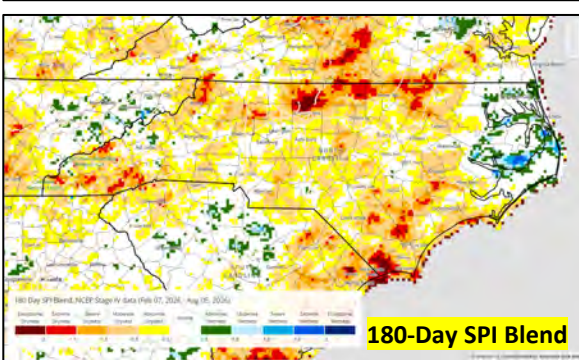
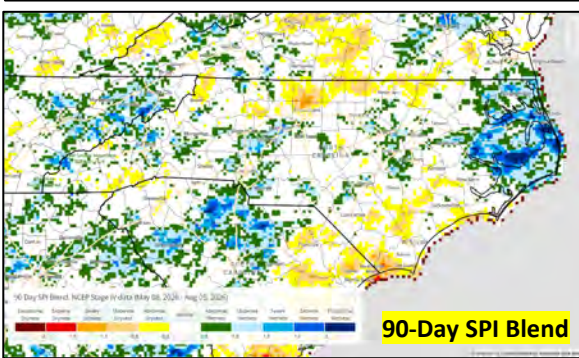
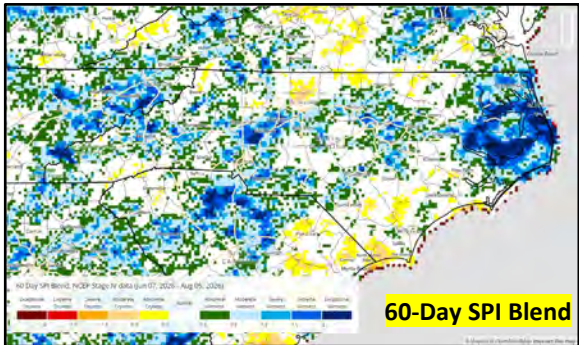
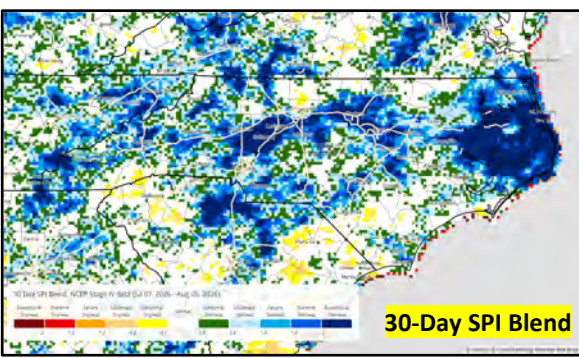
Vegetation Condition

Extreme Drought	Unusually Moist
Severe Drought	Very Moist
Moderate Drought	Extreme Moist
Pre-drought stress	Out of Season
Near Normal	Water

[Home](#) | [Vegetation Drought Response Index \(VegDRI\)](#)



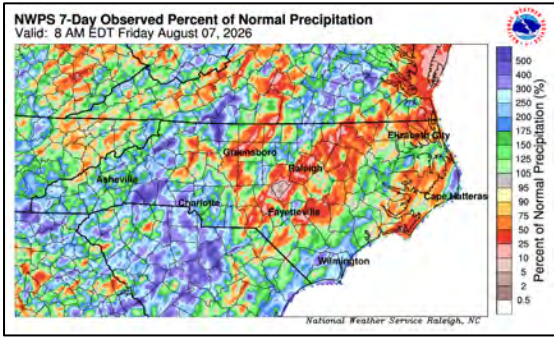
New USGS Streamflow Map: Real-time



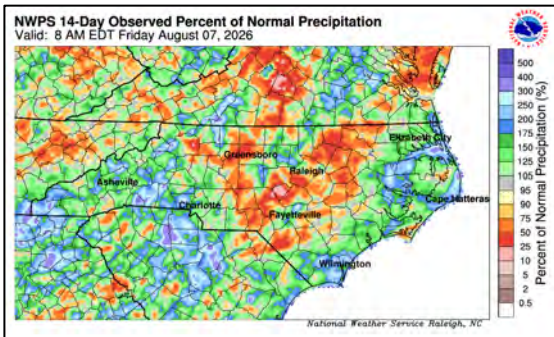
Improvements over short to medium time scale SPI maps, most pronounced in NE & Central Coast areas (D-7 & D-13). Longer time scale SPI products continue to indicate entrenched conditions scattered around state. As growing season continues it takes more rainfall to meet minimal evaporative demands & replenish shallow groundwater.

Real-time streamflow from 8/7/26 shows many station have returned to near normal for the time being. However, drought impacted soils + short-duration/high-intensity precip events lead to rapid run-off and limited absorption. Elevated larger system stream gauges don't adequately represent smaller scale hydrologic unit recovery. Some stations are already trending towards below normal as water moves through the system.

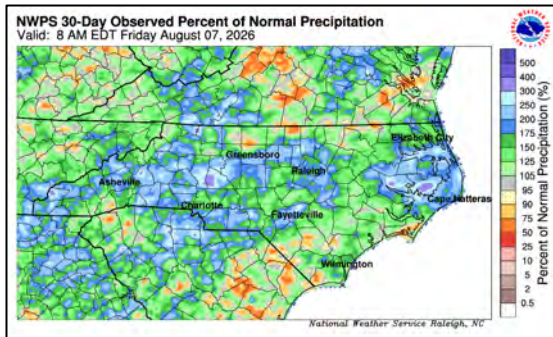
7-Day PNP



14-Day PNP



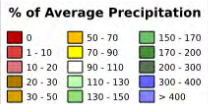
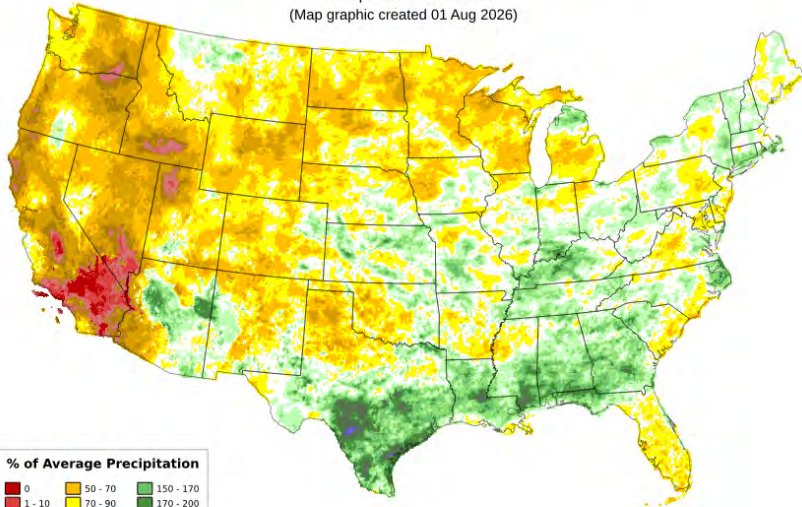
30-Day PNP



May-Jul 2026 National Scale Anomaly Maps

Total Precipitation Anomaly: May 2026 - Jul 2026

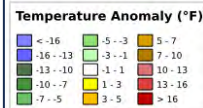
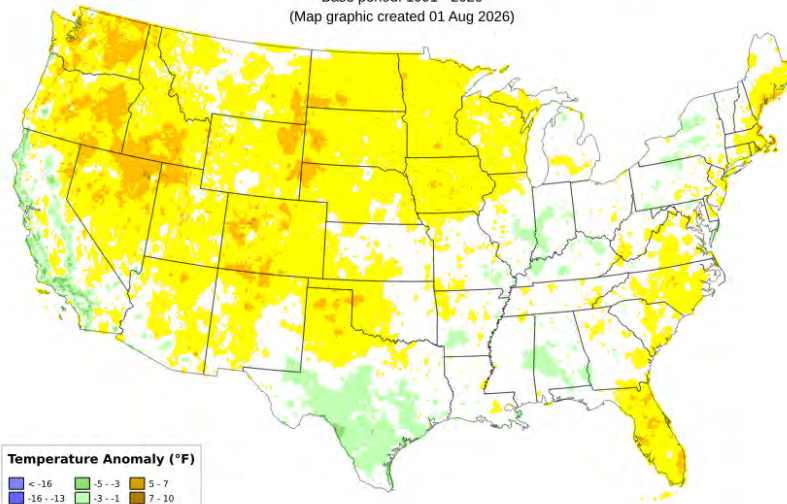
Period ending 7 AM EST 31 Jul 2026
Base period: 1991 - 2020
(Map graphic created 01 Aug 2026)



Copyright © 2026 PRISM/NACSE, Oregon State University

Daily Maximum Temperature Anomaly: May 2026 - Jul 2026

Period ending 7 AM EST 31 Jul 2026
Base period: 1991 - 2020
(Map graphic created 01 Aug 2026)



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NC SCO – July 2026 Precip and Temp Summary

July 2026

Precipitation Summary

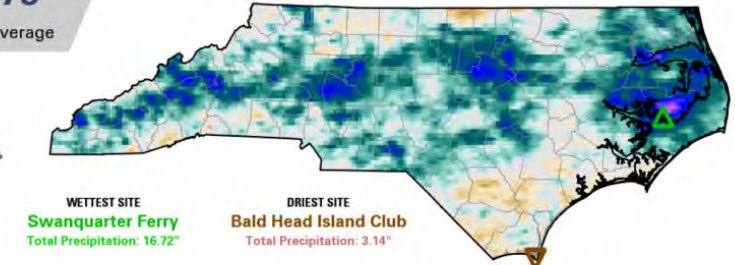


Preliminary Statewide Average Precipitation: **6.73"**
1.58" above the 1991 to 2020 average

Percent of Normal Precipitation



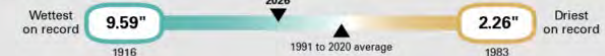
Map provided by:
The Climate Toolbox
www.climatetoolbox.org



Recent July Rankings
based on 132 years of data

2026	2025	2024	2023	2022	2021	2020	2019	2018	2017
30 th wettest	52 nd wettest	8 th wettest	44 th driest	35 th wettest	54 th wettest	27 th driest	43 rd driest	40 th wettest	39 th driest

Historical Perspective
comparing all Julys since 1895



Data provided by:
National Centers for
Environmental Information
www.ncei.noaa.gov

July 2026

Temperature Summary

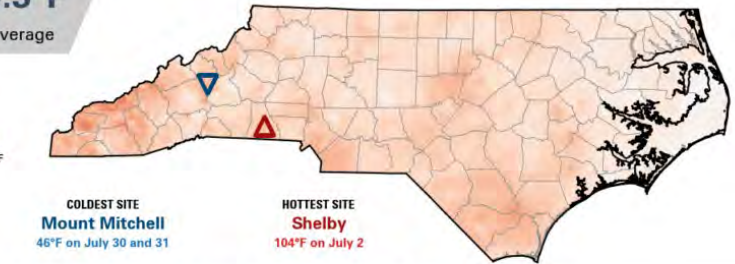


Preliminary Statewide Average Temperature: **79.3°F**
1.4°F above the 1991 to 2020 average

Mean Temperature Departure from Normal



Map provided by:
The Climate Toolbox
www.climatetoolbox.org



Recent July Rankings
based on 132 years of data

2026	2025	2024	2023	2022	2021	2020	2019	2018	2017
10 th warmest	2 nd warmest	21 st warmest	27 th warmest	14 th warmest	63 rd warmest	8 th warmest	17 th warmest	60 th warmest	23 rd warmest

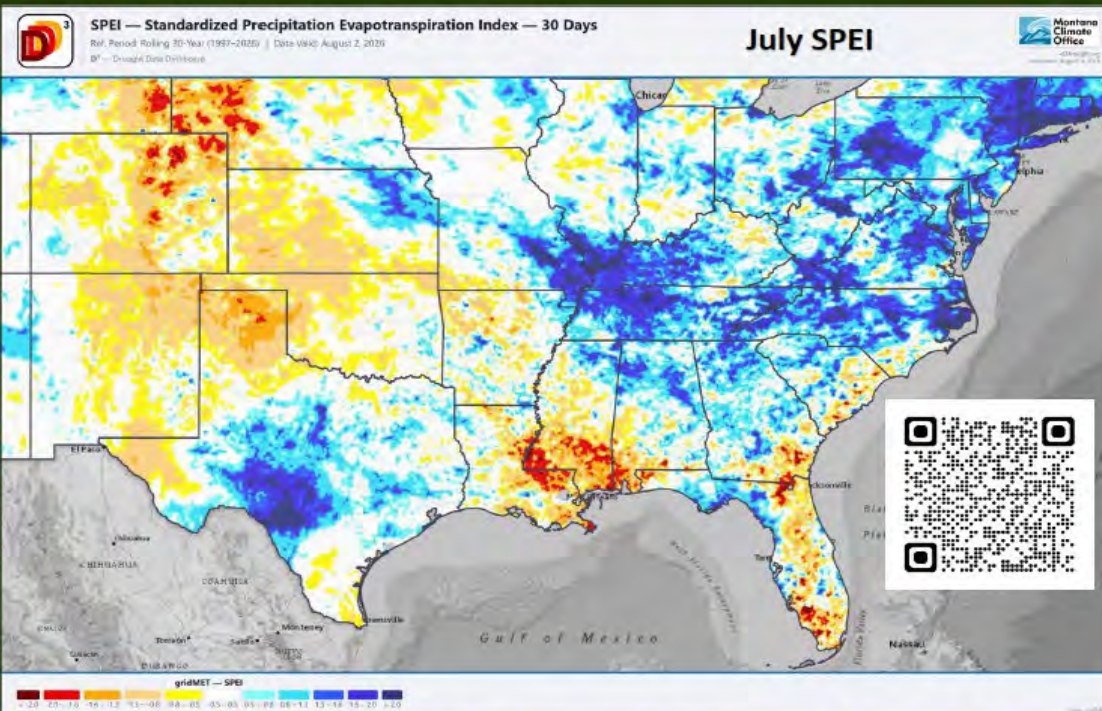
Historical Perspective
comparing all Julys since 1895



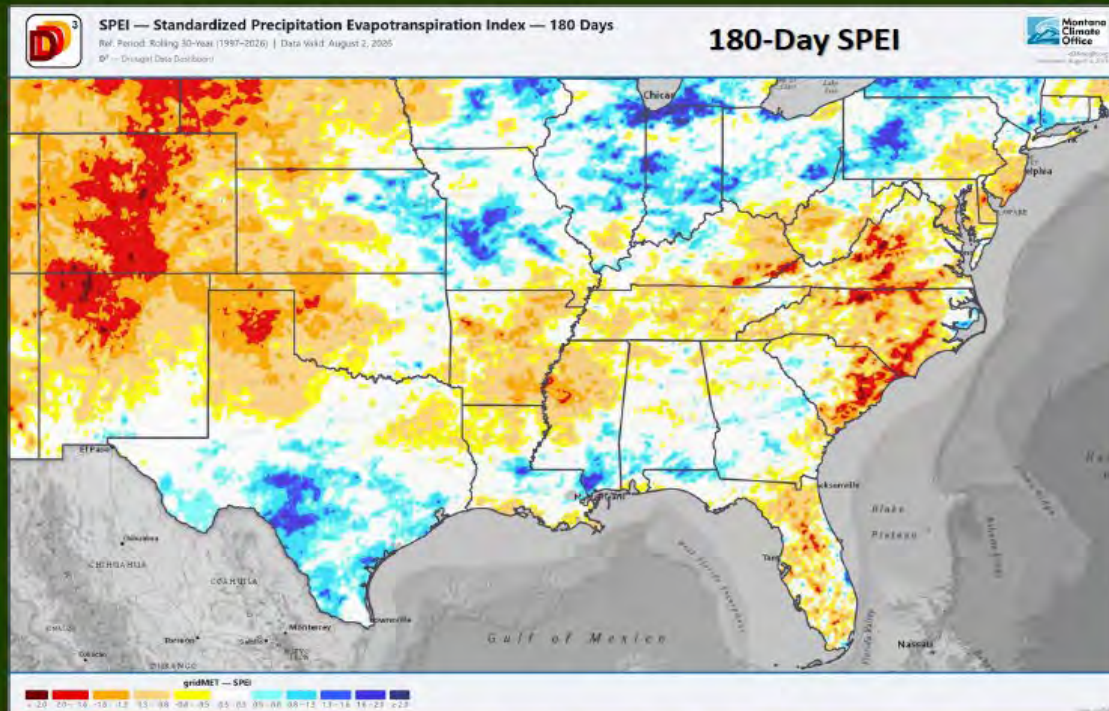
Data provided by:
National Centers for
Environmental Information
www.ncei.noaa.gov



Standardized Precipitation-Evapotranspiration Index

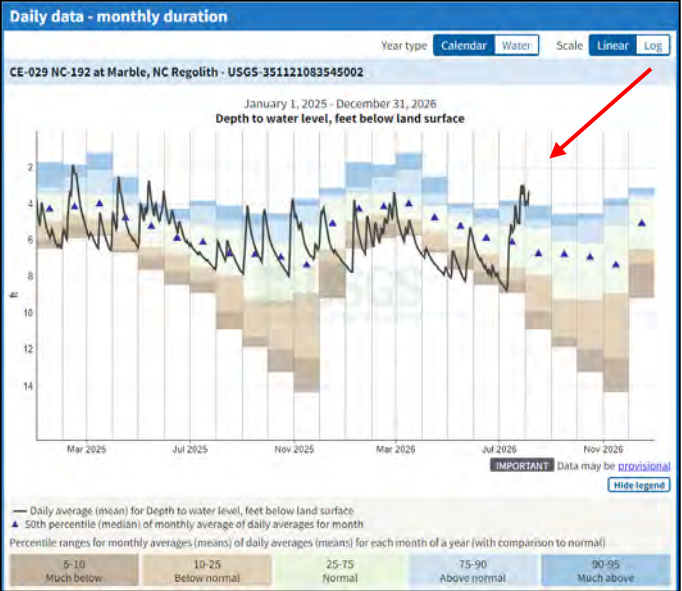


- Indications of flash drought in Florida and the coastal Southeast (prior to recent relief)
- Parts of Louisiana into south Mississippi and southwest Alabama saw flash drought begin in July
- High Plains and far western Oklahoma re-emerging dryness

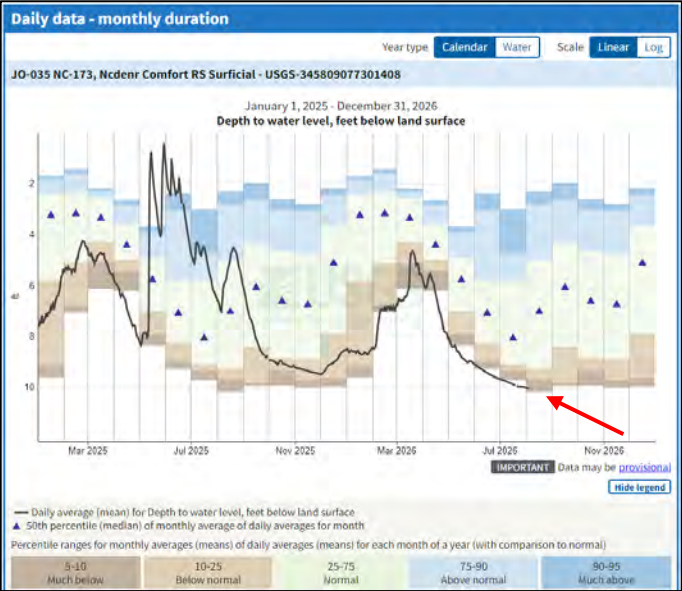


- Long-term drought remains significant in the Southeast despite recent relief
- Long-term drought also evident in the Mid-Mississippi Valley, western Oklahoma and the Texas panhandle
- Moisture elsewhere in Texas and along the Gulf Coast came in bursts

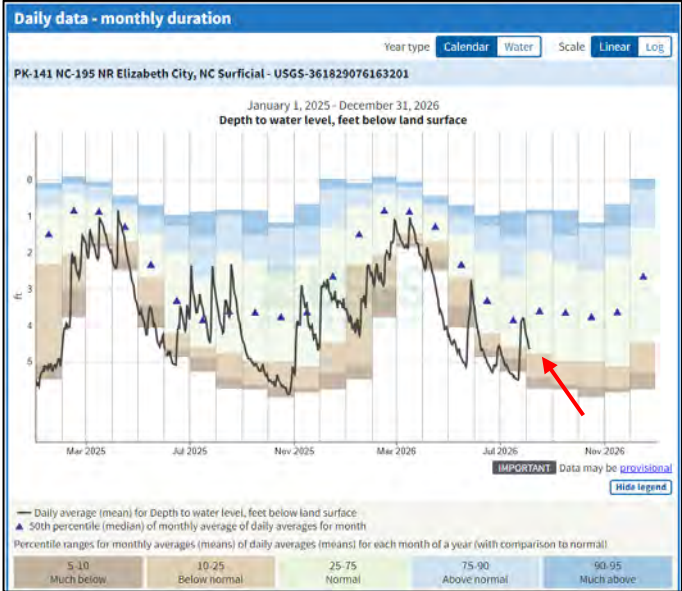
Marble Regolith – Cherokee Co.



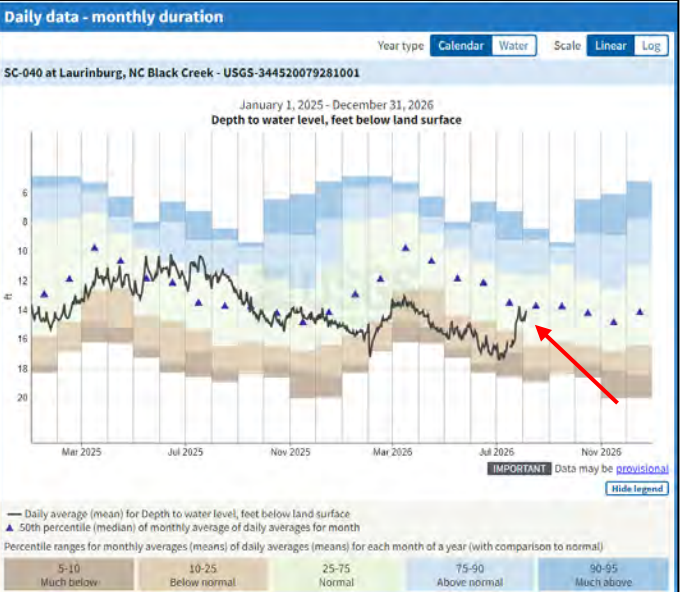
Comfort RS Surficial Well – Jones Co.



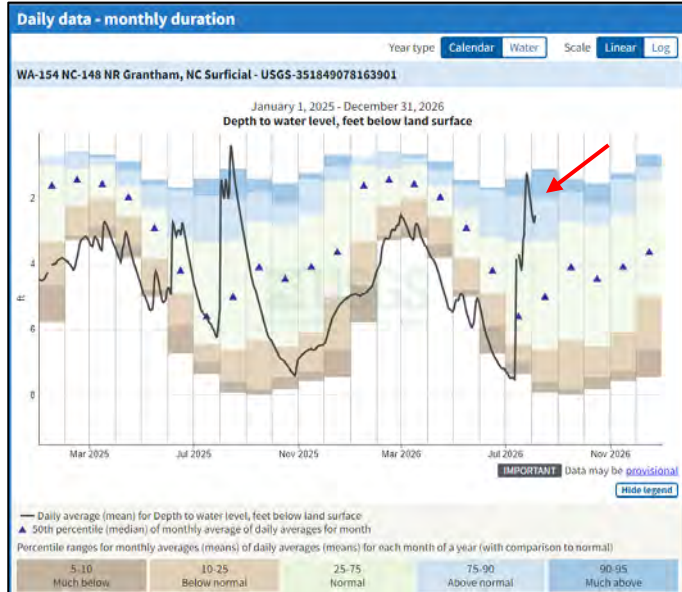
Elizabeth City Surficial Well – Pasquotank Co.



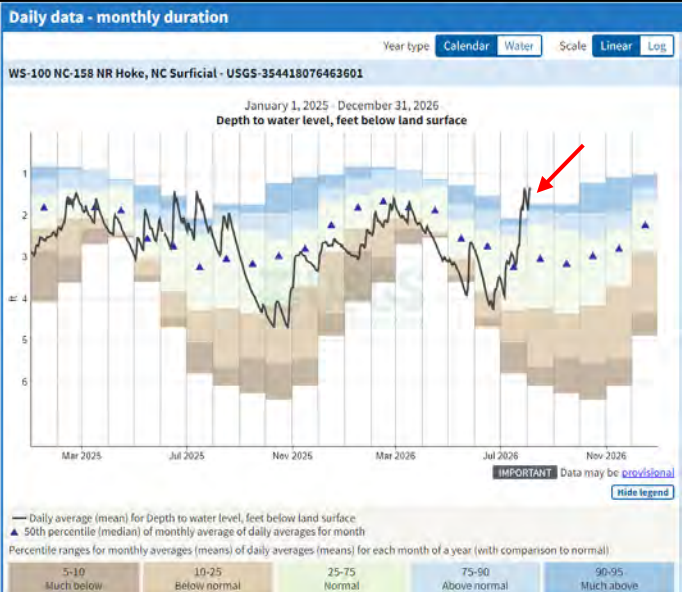
Black Creek – Scotland Co.



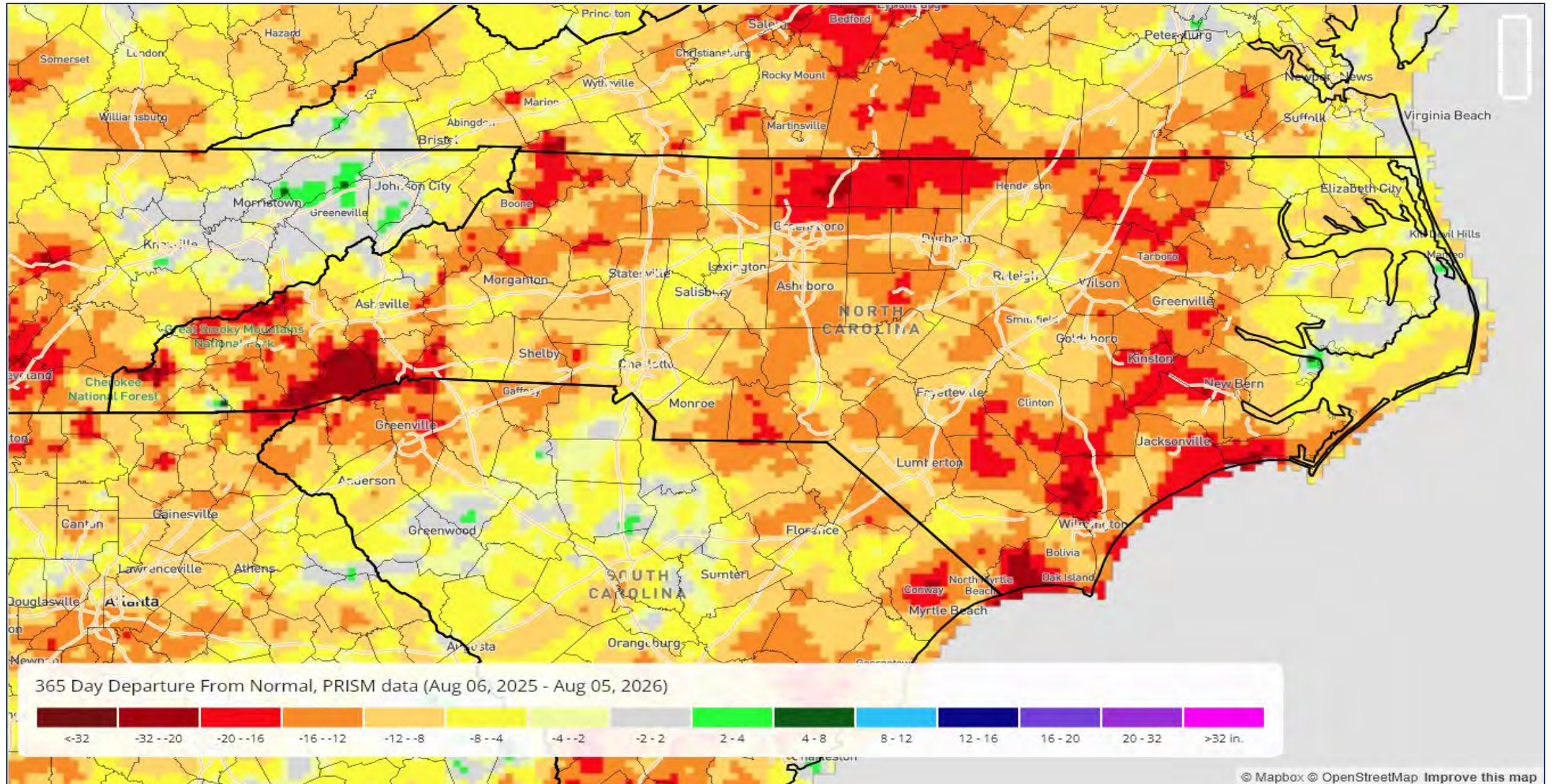
Grantham Surficial Well – Wayne Co.



Hoke Surficial Well – Washington Co.



12-Month Departure From Normal (inches)

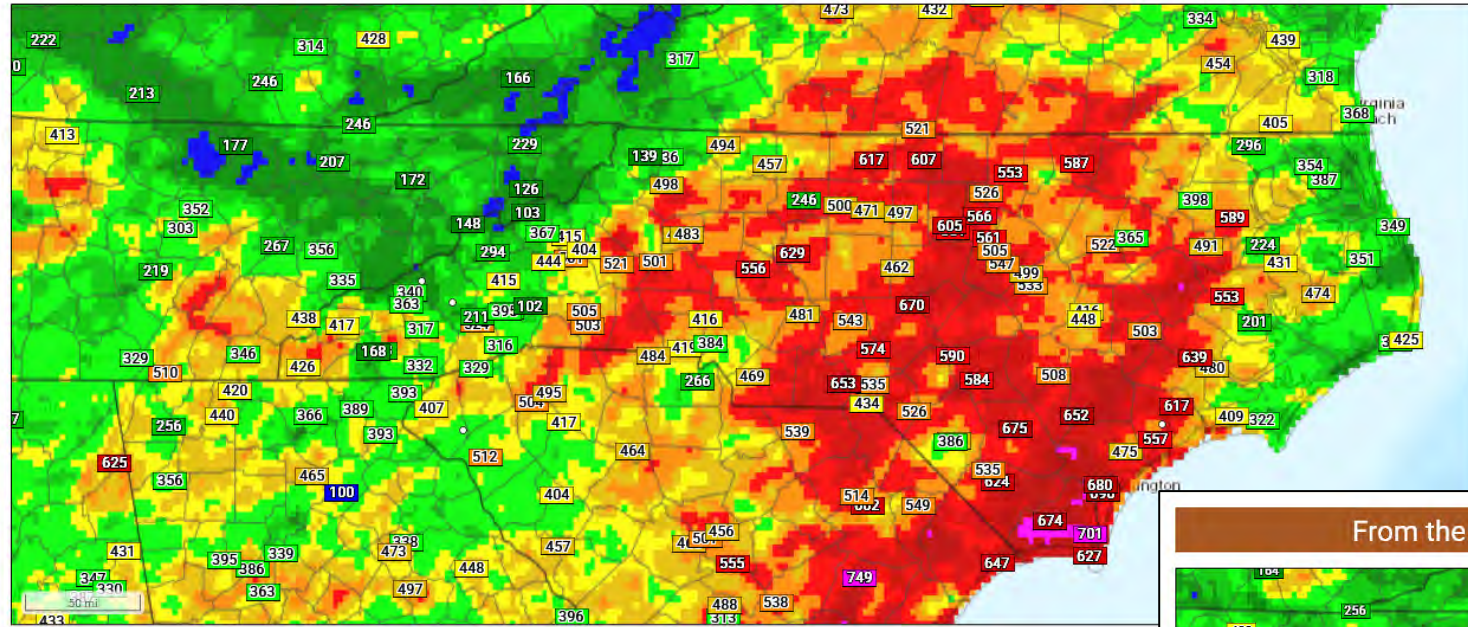


Still have significant deficits.

16"-20" deficits in bright red colored areas at 1-yr timescale.

July 5, 2026 - KBDI

From the Fire Weather Intelligence Portal • products.climate.ncsu.edu/fire

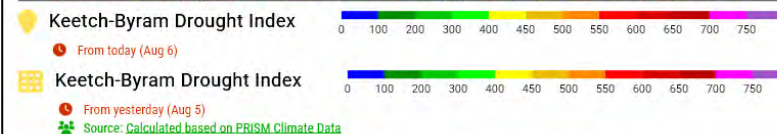
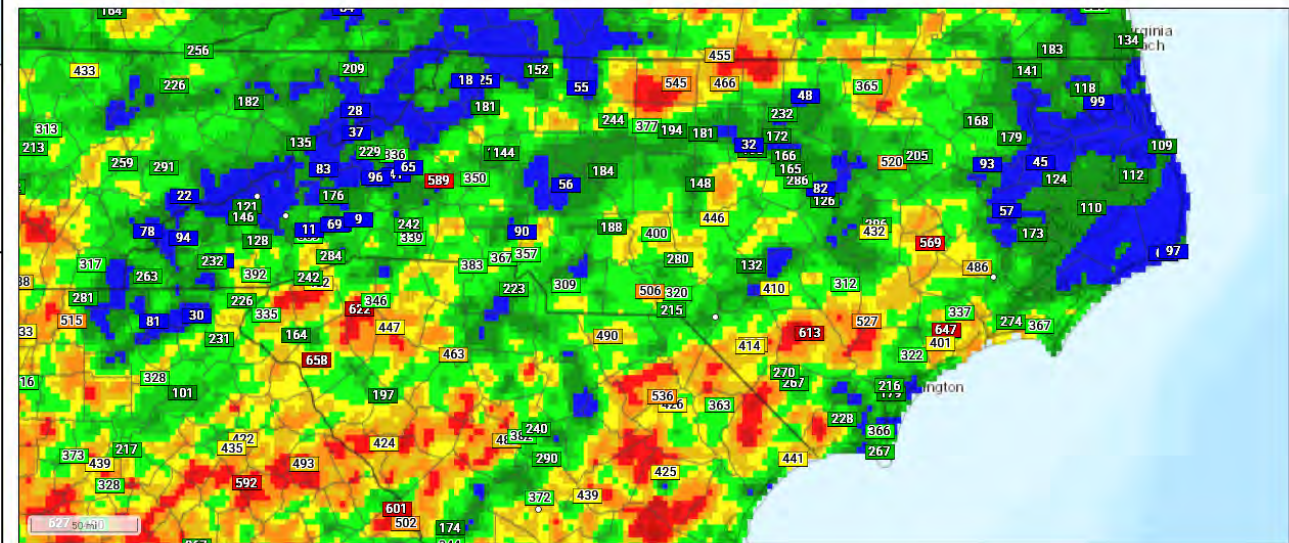


- KBDI values have decreased in many areas of the state due to wetting rains over the past several weeks – see July vs August map above & right. Rainfall has been generally convective/thunderstorm based, meaning that intense rainfall can quickly transition from 3"+ to < 0.20" over very small distances. Hence the popcorn effect being displayed.

Also, KBDI gridded outputs are coarse scale & can't model site specific conditions such as artificial drainage impacts or overall runoff vs absorption. Point values are calculated via FEMS using station observations, with similar overall limitations noted above. Short-duration & high intensity rainfall often runs off vs absorbing. KBDI can not adequately model this, or deep systemwide hydrologic drought influences.

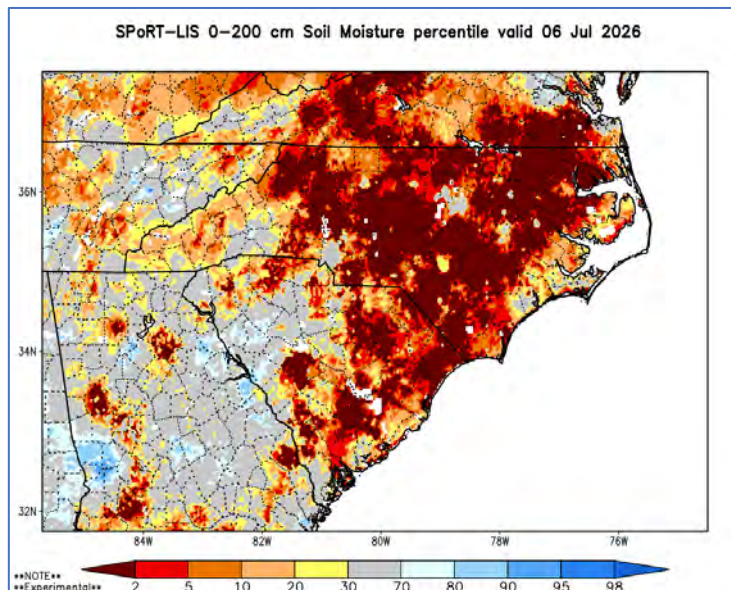
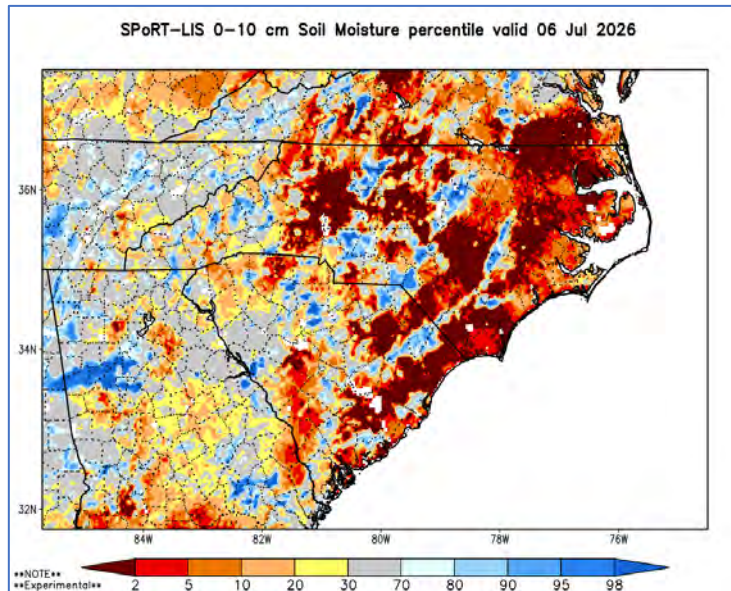
August 6, 2026 - KBDI

From the Fire Weather Intelligence Portal • products.climate.ncsu.edu/fire



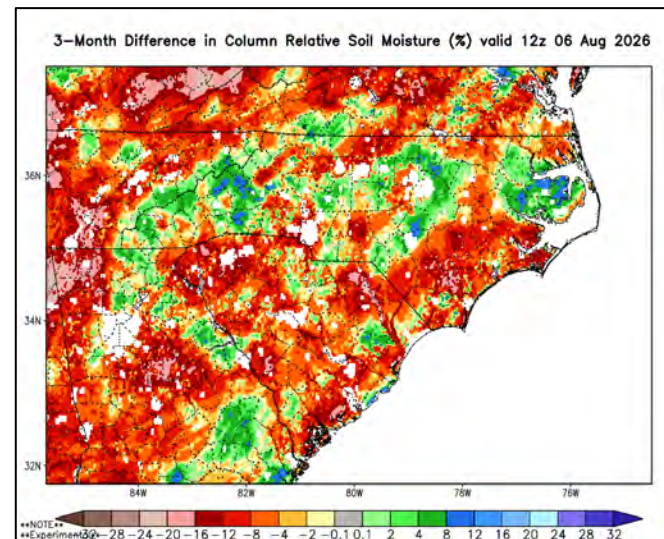
SPoRT Modeled Soil Moisture Percentiles for ~4" and ~72" profile.

7/6/26



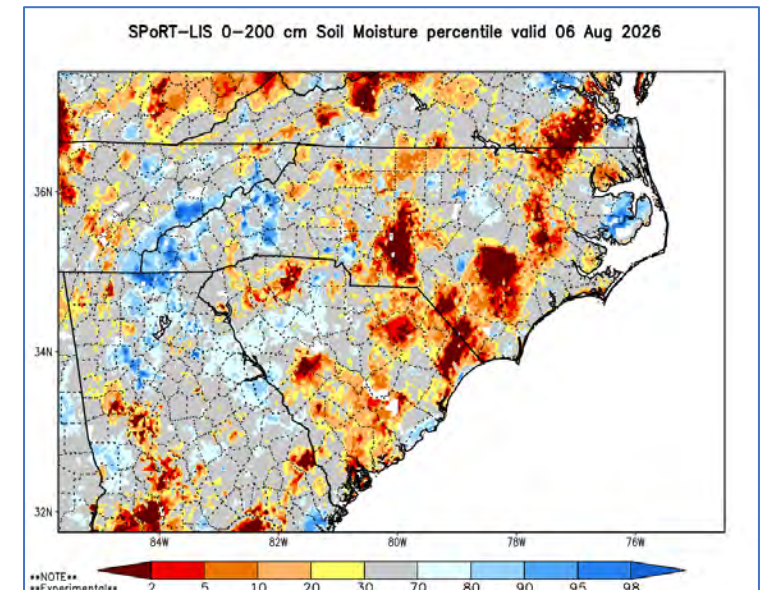
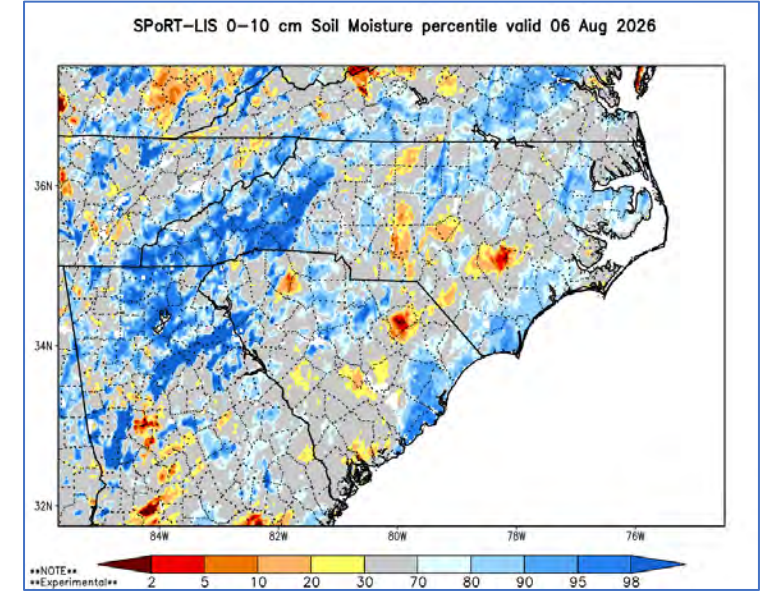
~ 4-Weeks ago Left, today on Right.
3-month difference graphic below.

More significant improvement at both shallow and deeper soil levels, but significant full profile dryness remains for several large areas of the state. Active growing season will hasten soil moisture depletion, without adequate weekly precip.



https://weather.ndc.nasa.gov/spo-rt/case_studies/lis_NC.html

8/6/26



North Carolina Drought Update

For the assessment period ending **Aug. 4, 2026**
From the US Drought Monitor, with input from the **NC DMAC**

The Main Takeaway

We've seen more reductions in Severe Drought (D2) as July's rain continued to soak in and showers over the first few days of August drenched parts of the state.

This Week's Summary

Slowly but surely, our recent rainfall continues to chip away at drought conditions across the state. While parts of the southern Mountains, northern Piedmont, and southern Coastal Plain have missed out on the higher amounts, they've seen enough to avoid further degradations and even bring improvements around the fringes of areas that are still in Extreme Drought (D3).

Next Week's Outlook

Pop-up showers and storms will decrease in coverage through Saturday, then we'll see a few hotter and drier days starting Sunday, with highs reaching the mid 90s.

For your local drought status, visit www.ncdrought.org

Created By: www.ncdrought.org climate.ncsu.edu @NCSCO

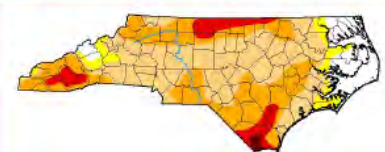
Lake Norman received almost three inches of rain last week, and has risen by 1.5 feet over the past two weeks.

The City of Raleigh ended Stage 1 water restrictions this week as Falls Lake has reached 84% of its water supply capacity.

The Tuckasee River has seen less rain and lower streamflows in the south, but higher totals and recovery farther north.

Rain was hit or miss at the southern coast, with 3.02" in Wilmington but only 0.71" in Longwood this week.

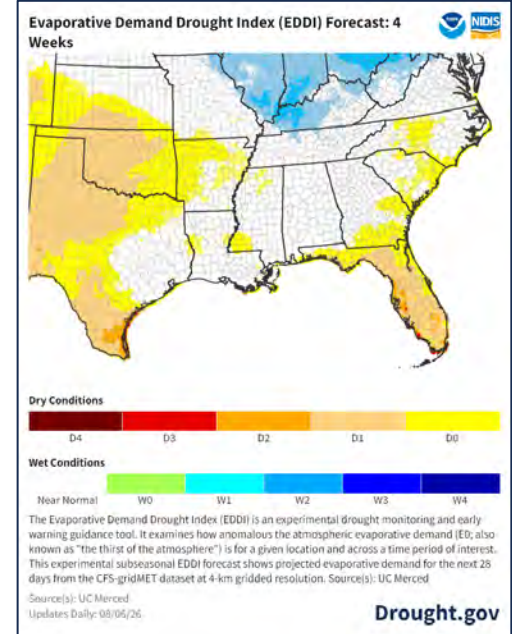
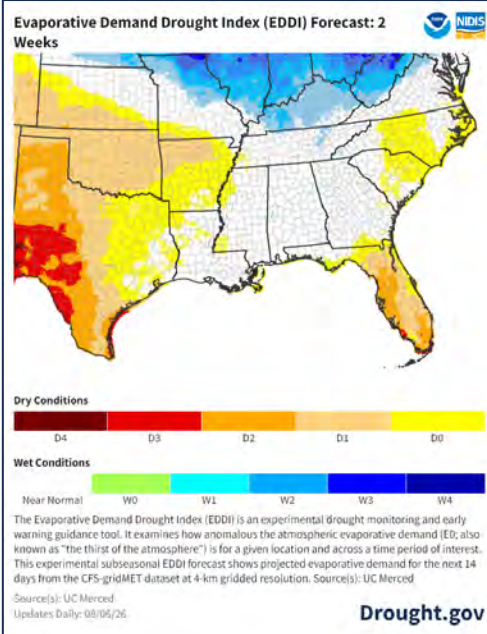
Last Week's Drought Status



Statewide Coverage by Category

Category	Current Coverage	Change Since Last Week
D0: Abnormally Dry	9.50%	+3.43%
D1: Moderate Drought	52.28%	+7.27%
D2: Severe Drought	22.96%	-9.44%
D3: Extreme Drought	5.72%	-2.60%
D4: Exceptional Drought	0.49%	-0.17%

<https://www.drought.gov/data-maps-tools/evaporative-demand-drought-index-eddi-subseasonal-forecasts>

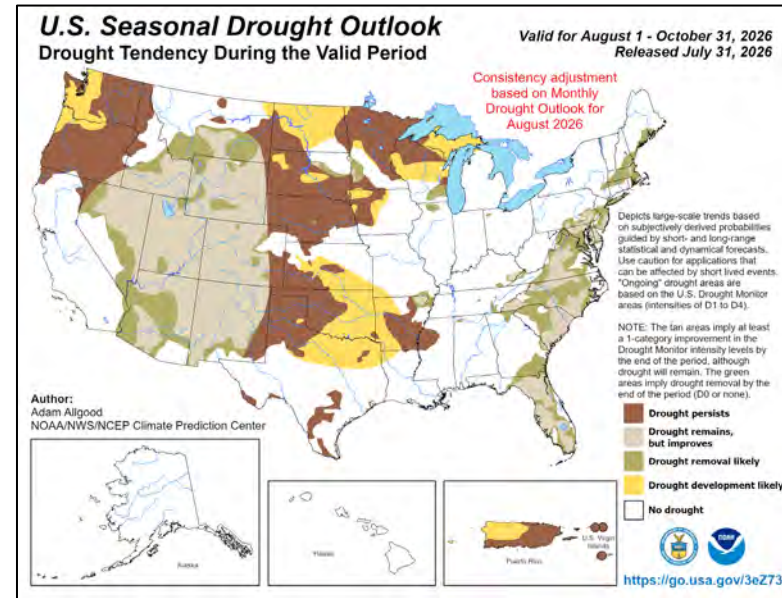
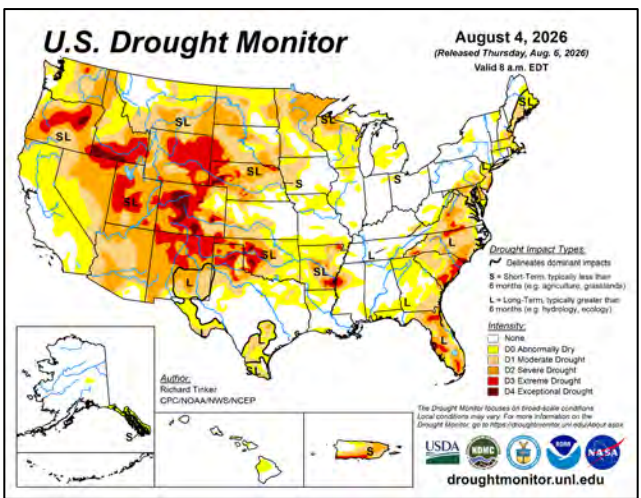


EDDI & Drought

EDDI Maps - The EDDI maps at the top right illustrate modeled evaporative demand at the two-week and four-week avg level. They are trending near to slightly above normal for parts of NC in the 2 & 4-week time scale. Warmth, lack of precip and dry air accelerates this index.

US Drought Monitor - Most recent USDM map release above (8/6/26).

Seasonal Drought Outlook - See detailed state/regional discussions [here](#). No clear signal on drought relief in statewide context (also see Aug-Sept CPC Outlook).

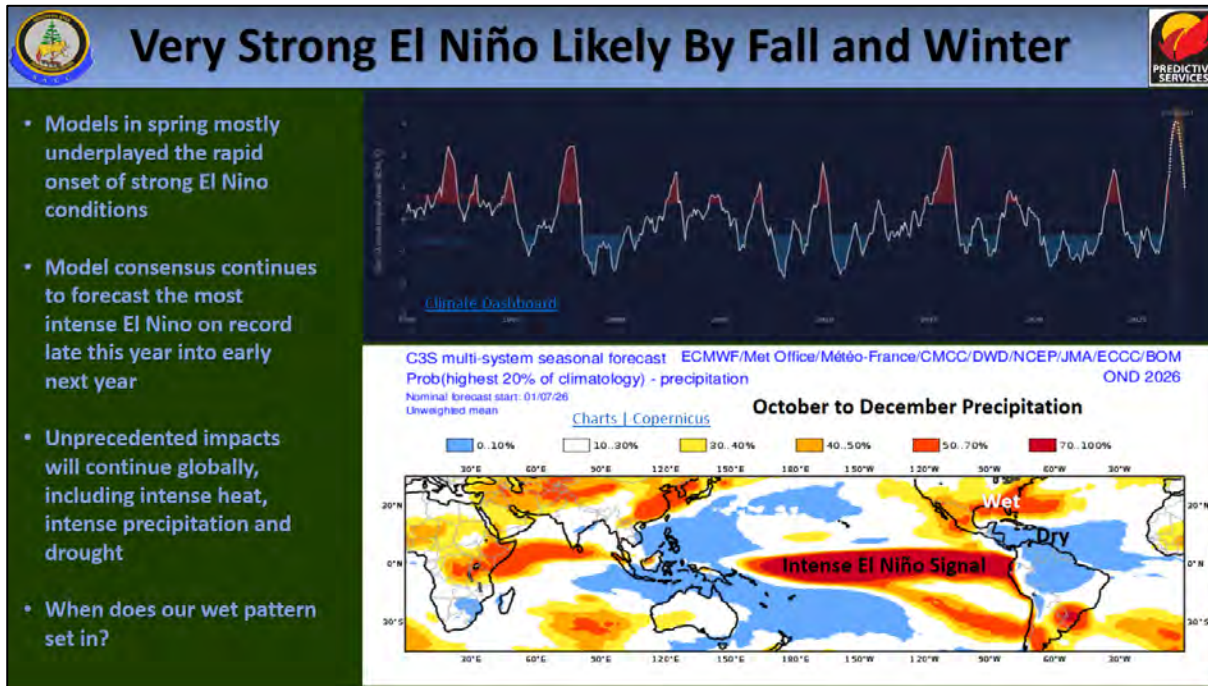


ENSO Notes from the CPC (8/3/26 Slide Update)

ENSO Alert System Status: **El Niño Advisory**

El Niño continues and will strengthen through the end of the year, with a 97% chance it will persist through early spring 2027.

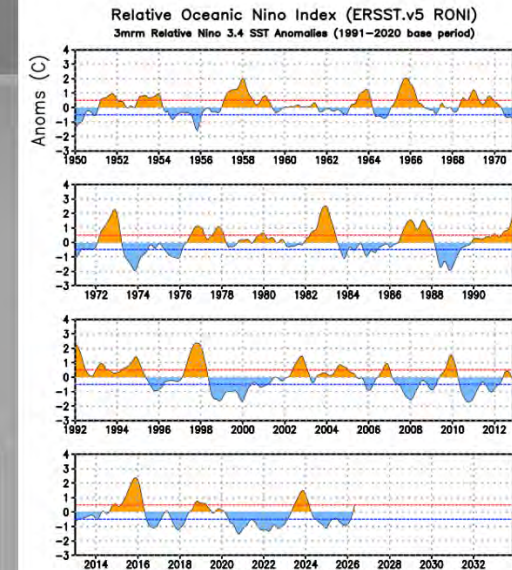
ENSO, or El Niño Southern Oscillation, is a fluctuation in the sea surface temperature (SST) in the equatorial Pacific Ocean. Research has shown that even slight changes in the SST, particularly in area 3.4, can influence weather in North America. Generally, when SSTs are lower than normal, known as La Niña, NC has drier than normal conditions and can have more fire occurrence. However, La Niña also can lead to more tropical activity. El Niño, on the other hand, usually means wetter weather for NC (typically later in fall/winter – not summer), but less opportunity for tropical landfalls due to increased wind shear. Recent changes in defining either ENSO state can be found [here](#).



From SA Fire Environment Briefing 8/7/26

RONI (°C): Evolution since 1950

The most recent RONI value (April - June 2026) is 0.5°C.



From the most recent CPC Diagnostic Discussion ([ENSO Diagnostics Discussion](#)):

The North American Multi-Model Ensemble (NMME) average, including the NCEP CFSv2 (Fig. 6), forecasts El Niño to intensify through 2026. Alongside model forecasts, a strong coupling of the atmospheric and oceanic circulation across the Pacific contributes to very high confidence that El Niño will continue through early 2027 (Fig. 7). There is an 81% chance of a very strong El Niño during October-December (Fig. 8) that would rank among the largest El Niño events in the historical record going back to 1950. Even the strongest El Niño events do not lead to the typical impact everywhere, but stronger events can more significantly tilt the odds in favor of expected outcomes (see CPC outlooks for probabilities of seasonal anomalies). In summary, El Niño continues and will strengthen through the end of the year, with a 97% chance it will last through early spring 2027.

Slide Source: https://www.cpc.ncep.noaa.gov/products/analysis_monitoring/lanina/enso_evolution-status-fcsts-web.ppt



El Niño Analogs



August Analogs

September Analogs

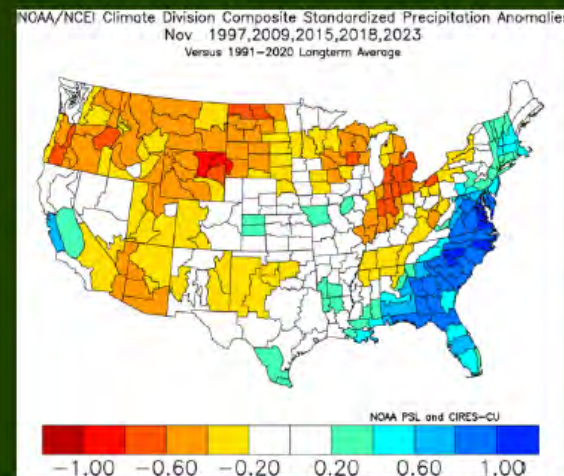
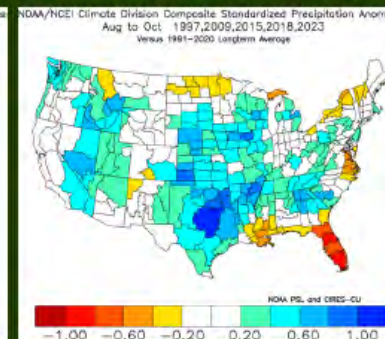
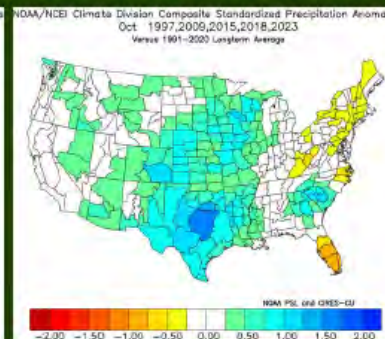
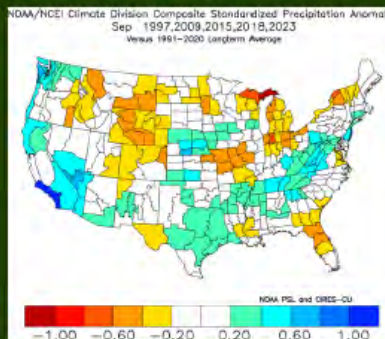
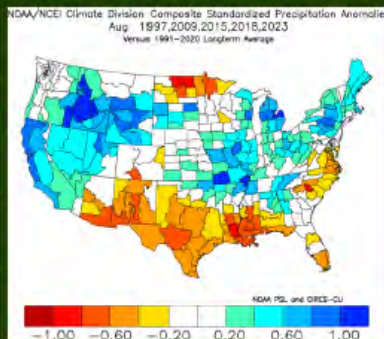
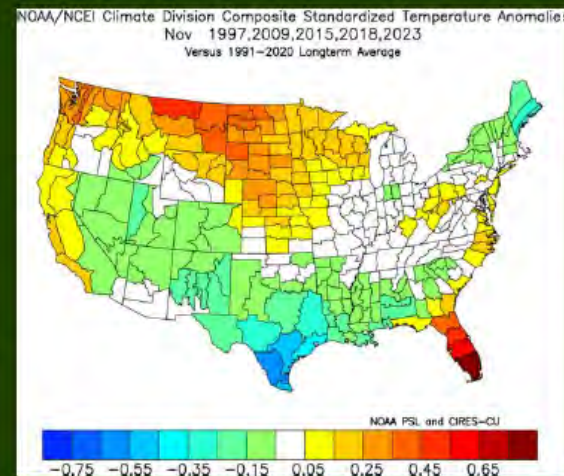
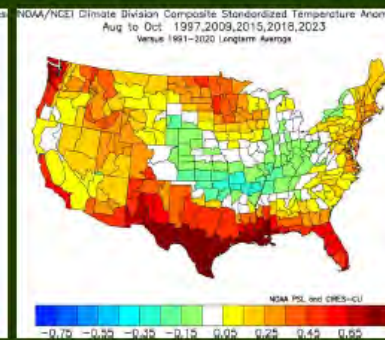
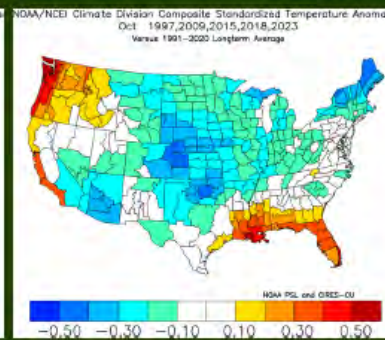
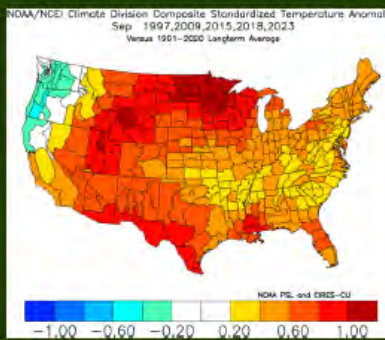
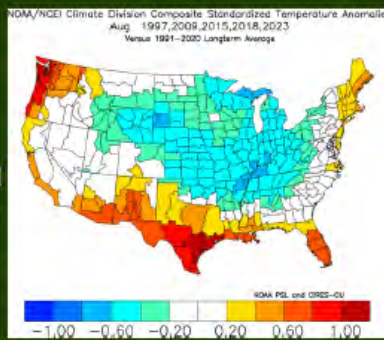
October Analogs

August - October Analogs

November ENSO Analogs

T
E
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P
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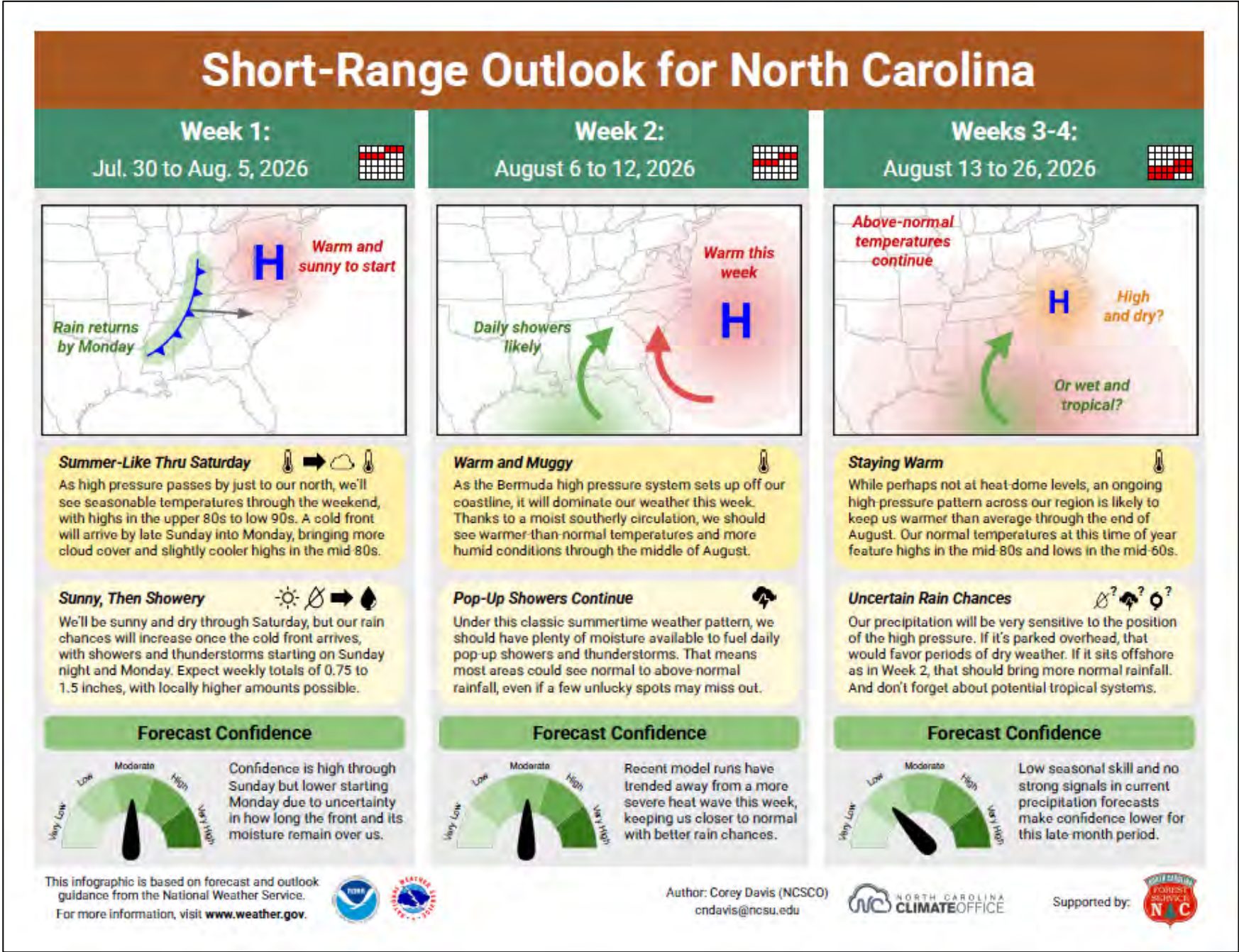


- Analogs include very strong El Niños in 1997 & 2015, strong El Niños in 2009 & 2023 and years with rapid transitions from La Niña to El Niño, including 2009, 2018 and 2023
- Tropical activity can greatly sway blended rainfall maps when only using a few years of data; expect drier conditions in August and September if the hurricane season stays quiet
- Images on the right for November are well supported by current model guidance

State Climate Office: Short-Range Monthly Outlook for NC

Released **7/30/26**

Location: <https://climate.ncsu.edu/fire/outlooks/>

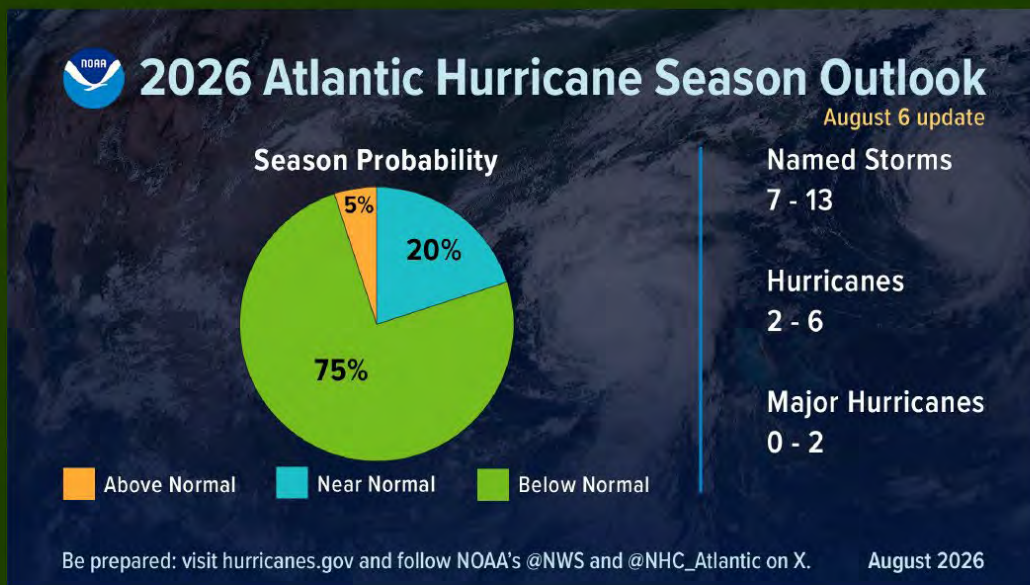




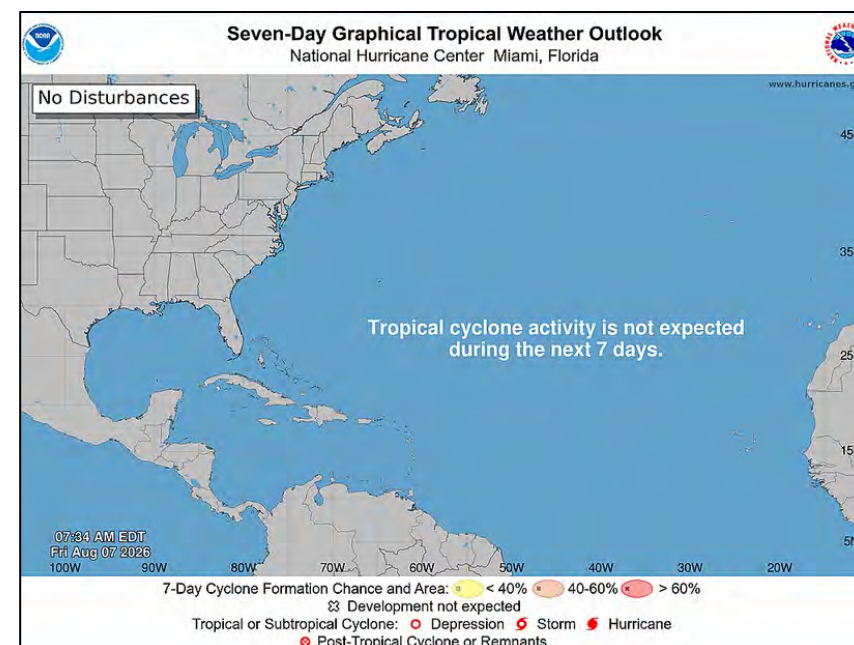
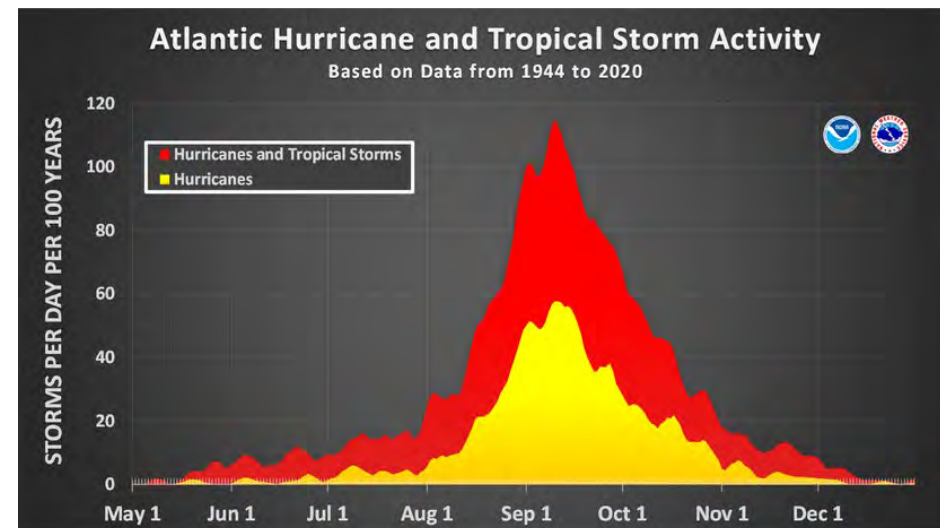
Not Much of a Hurricane Season Expected



- NOAA increased the odds for a below normal hurricane season
- Colorado State's August update also maintained high confidence in a below average season and low probabilities for a major hurricane striking the U.S. coast
- African waves could begin to develop late next week – will be a test of the expected seasonal conditions
- All it takes is one!

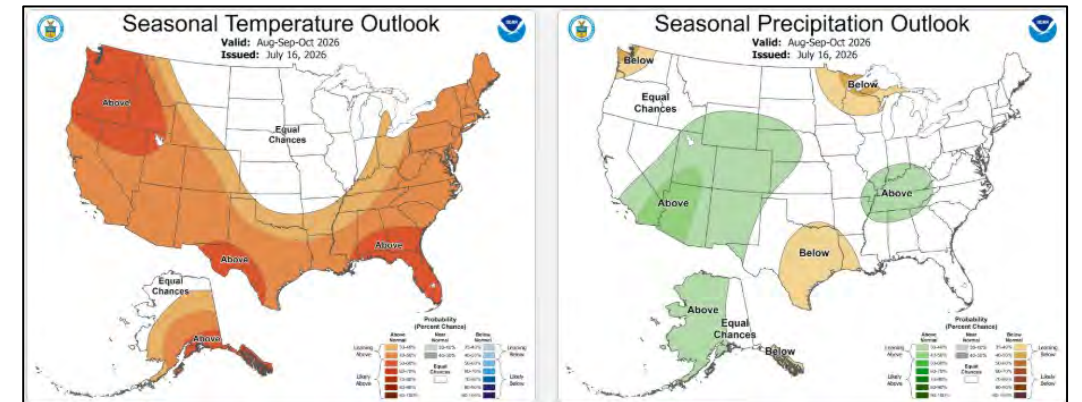
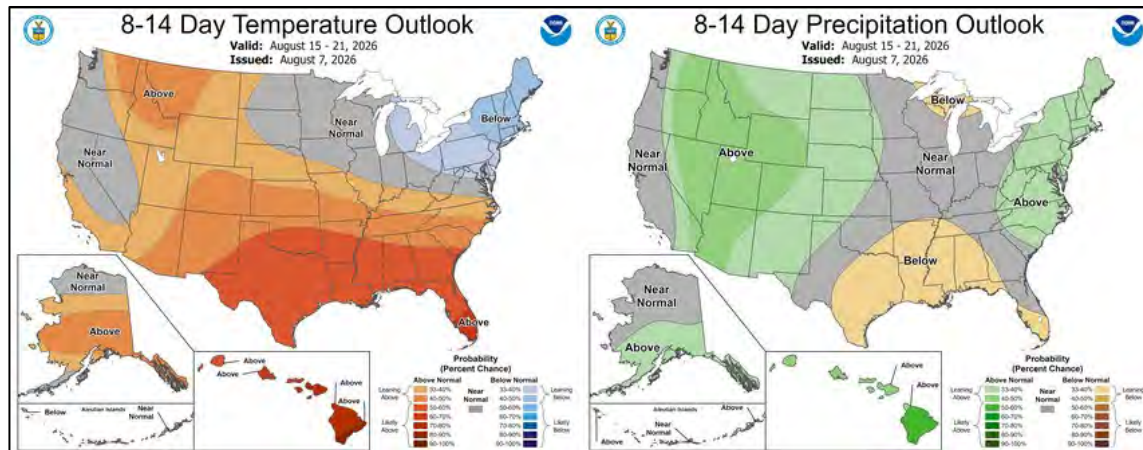
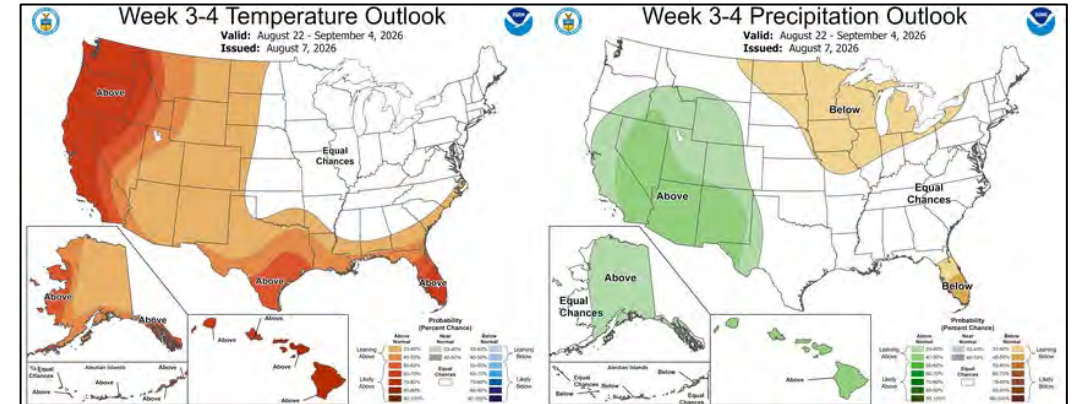
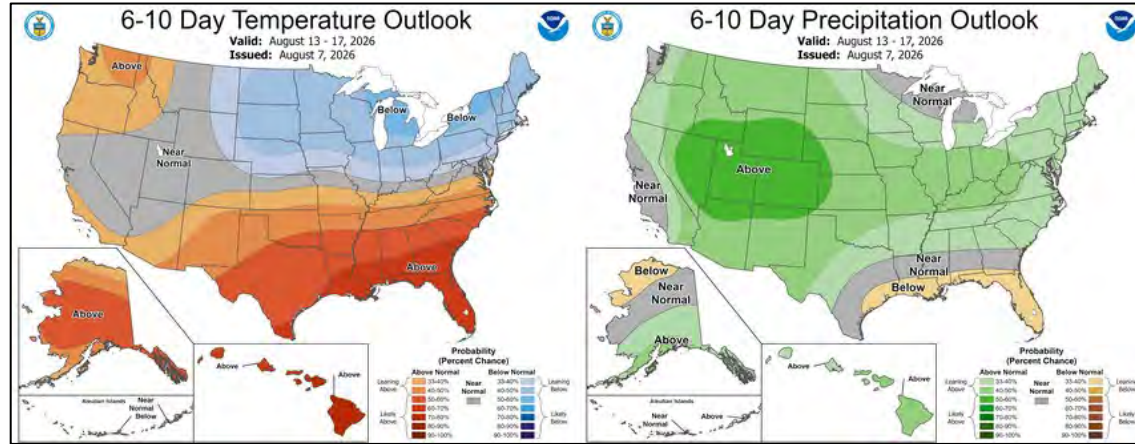


From SA Fire Environment Briefing 8/7/26



Temp & Precip Outlook

6-10 Day, 8-14 Day, Weeks 3-4, 3-Month Aug/Sept/Oct (released 7/18)



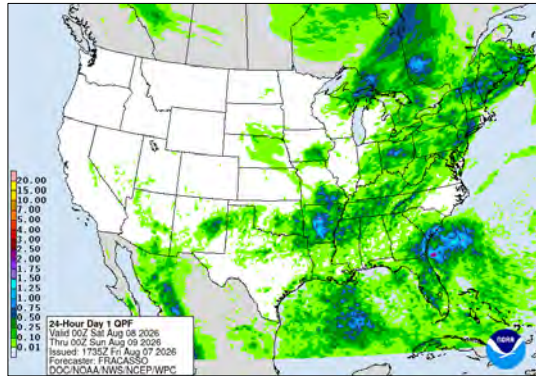
Source: <https://www.cpc.ncep.noaa.gov/>

Keep the current deficits in mind at longer time scales. Trend generally remains promising, but long way to go & forecast uncertainty, mainly driven by isolated thunderstorms or tropical (in)activity as we move through summer.

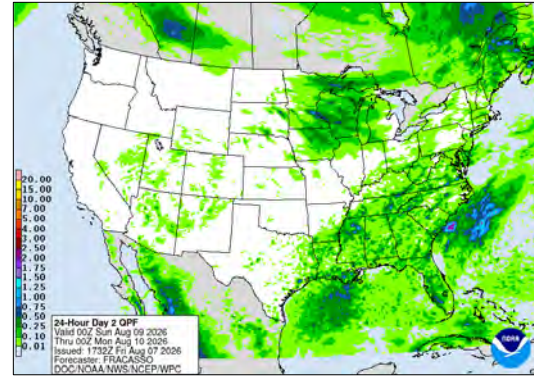
Quantitative Precipitation Forecast, 7-Day

Location: <https://www.wpc.ncep.noaa.gov/#>

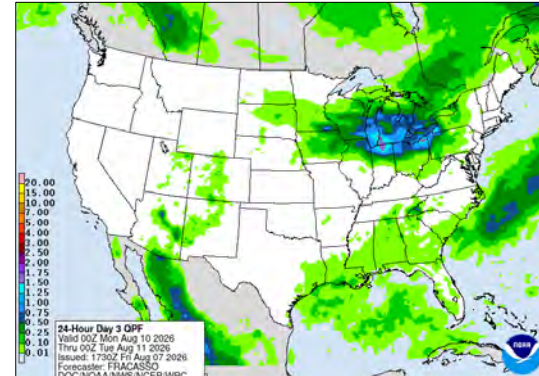
Day - 1



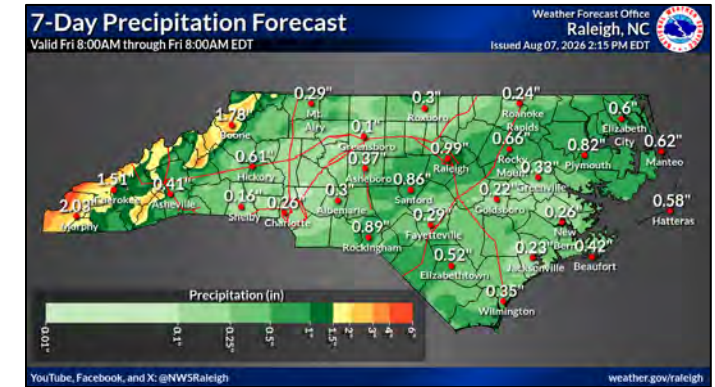
Day - 2



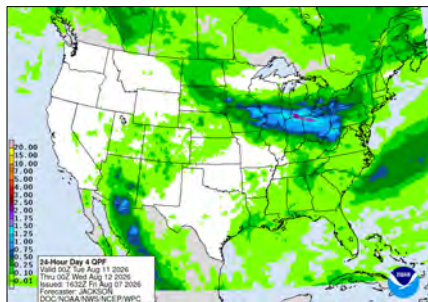
Day - 3



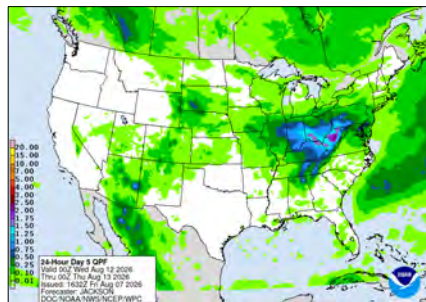
Zoom - Days 1 - 7 QPF



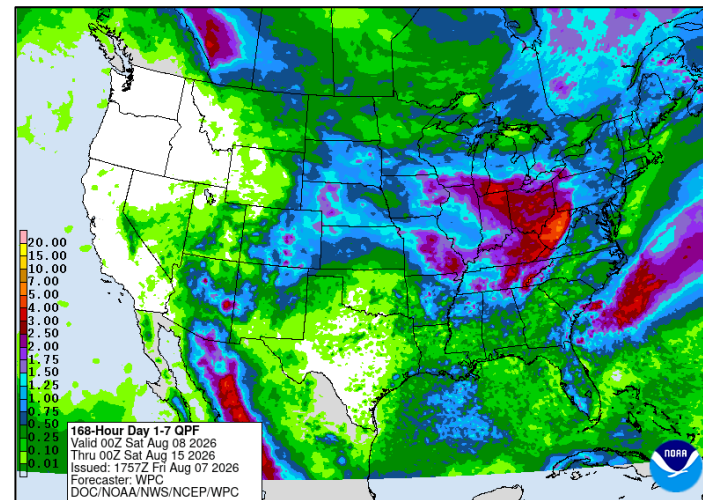
Day - 4



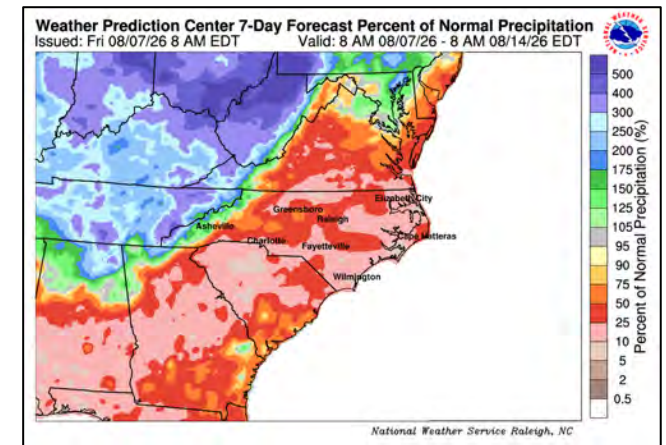
Day - 5



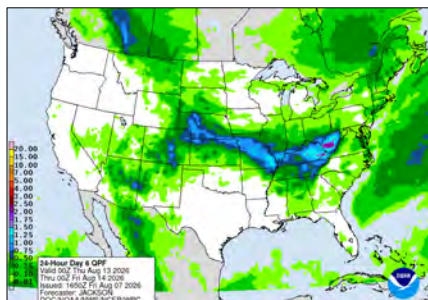
Days 1 - 7 QPF



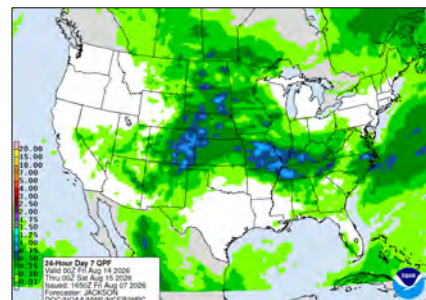
7-Day QPF Percent of Normal



Day - 6



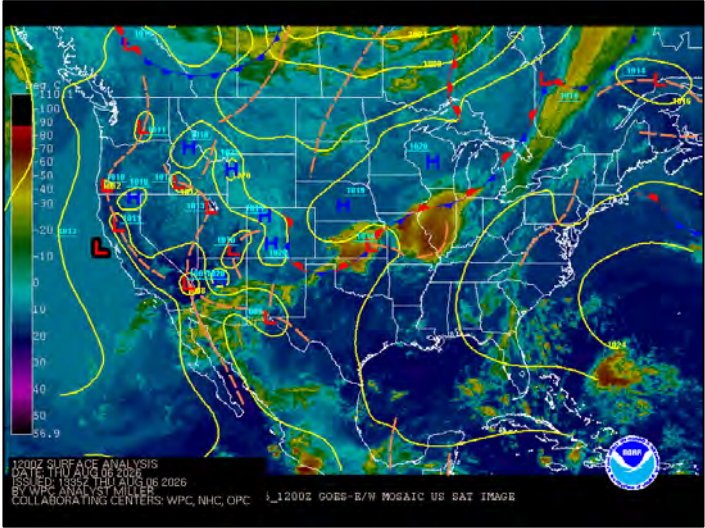
Day - 7



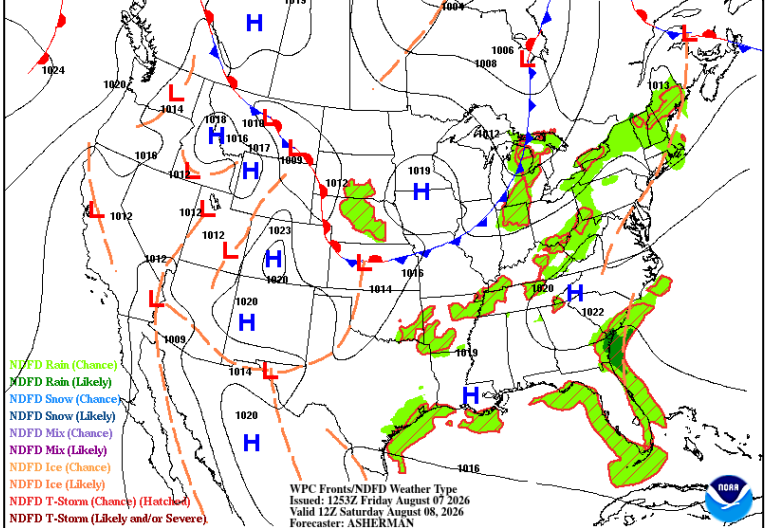
Precip chances generally trend down as we move into next week – with warmer and drier conditions (including drier air).

WPC Forecasted Surface Fronts & Sea-Level Pressures

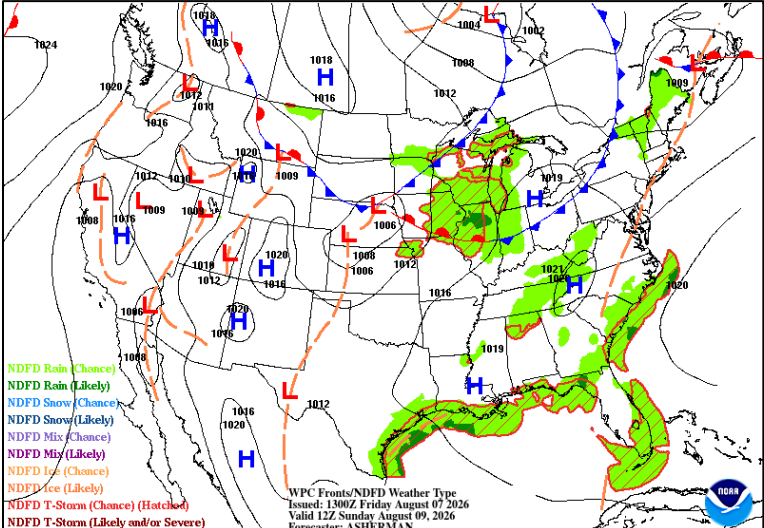
Day-1 @ 12Z Surface Analysis



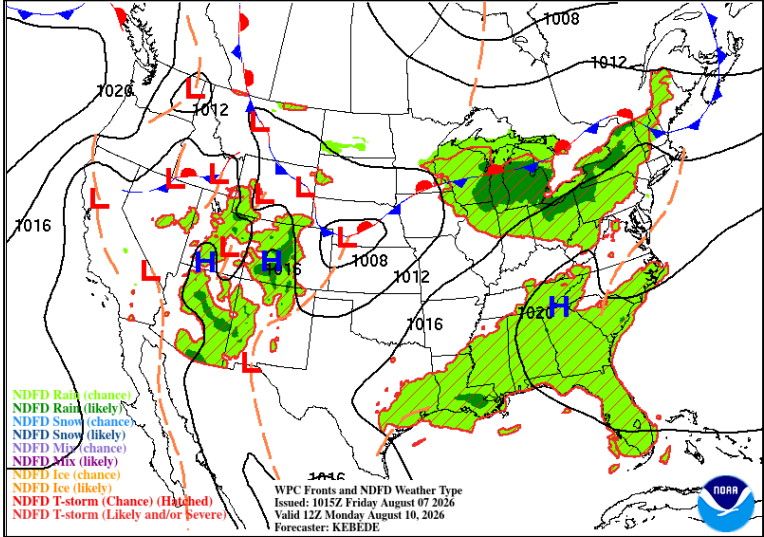
Day 2 - @ 12Z (0800 EDT)



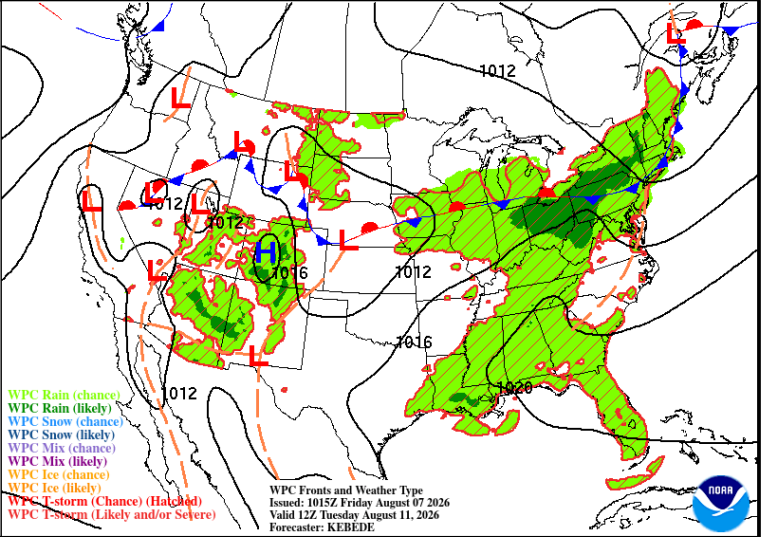
Day 3 @ 12Z (0800 EDT)



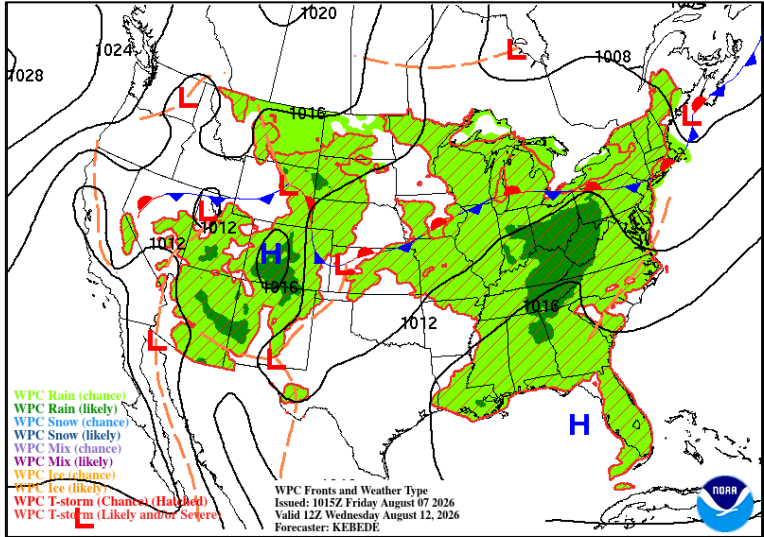
Day 4 @ 12Z (0800 EDT)



Day 5 @ 12Z (0800 EDT)

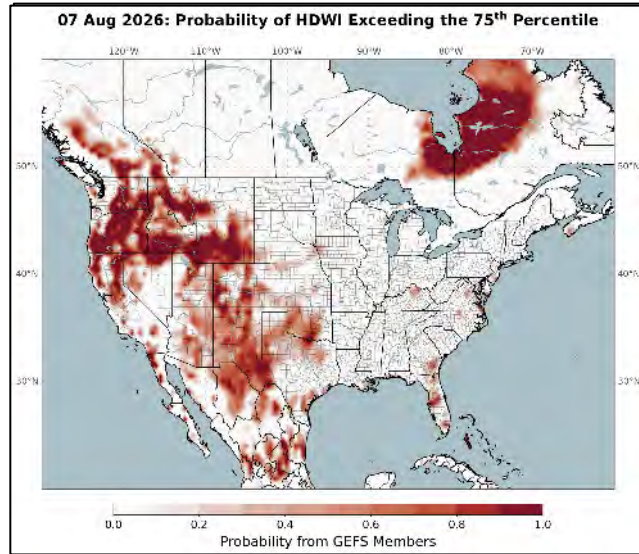


Day 6 @ 12Z (0800 EDT)

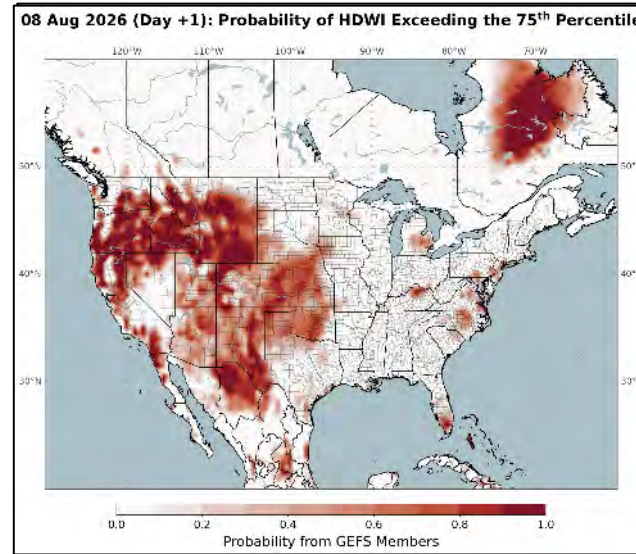


Hot-Dry-Windy Index (HDW)

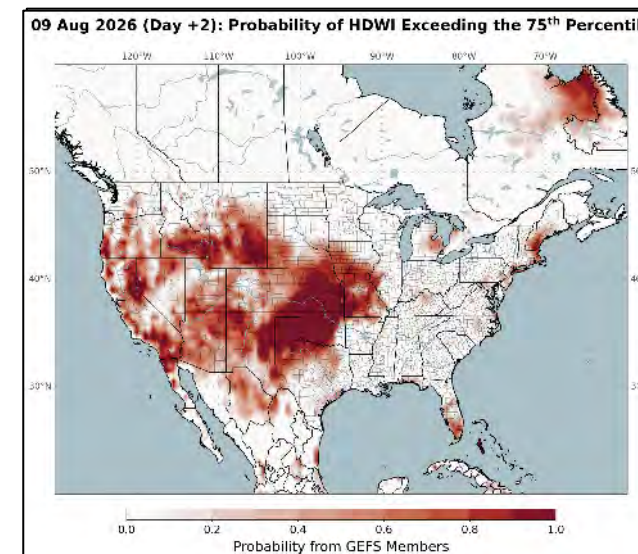
Friday > 75th Percentile



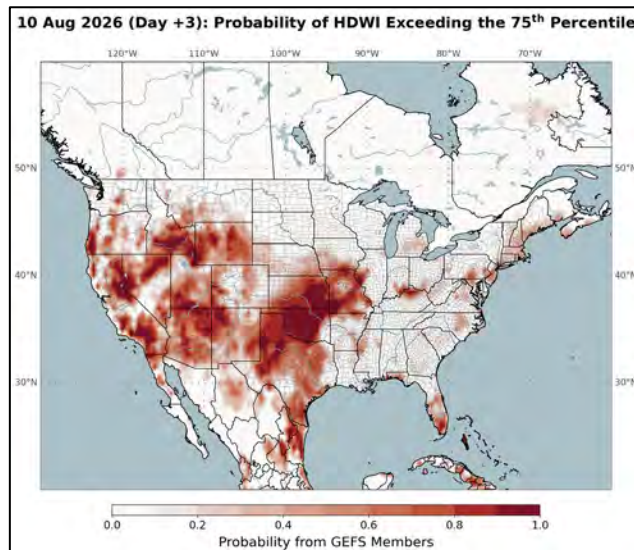
Saturday > 75th Percentile



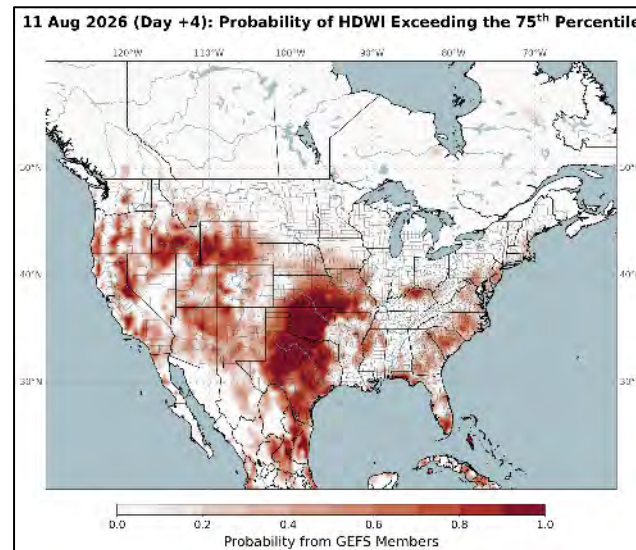
Sunday > 75th Percentile



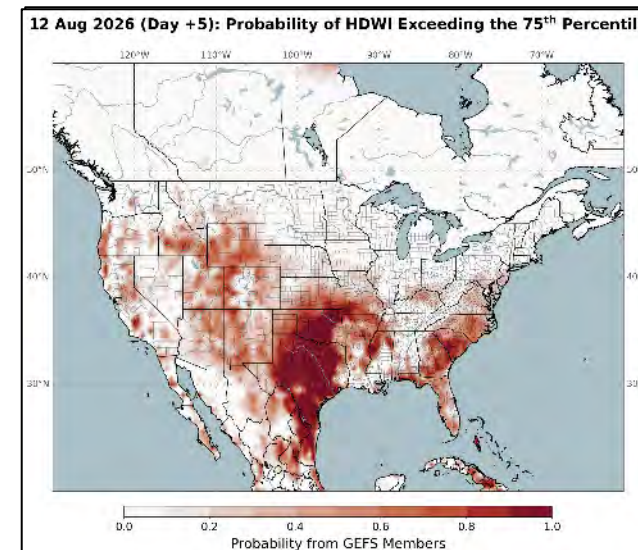
Monday > 75th Percentile



Tuesday > 75th Percentile



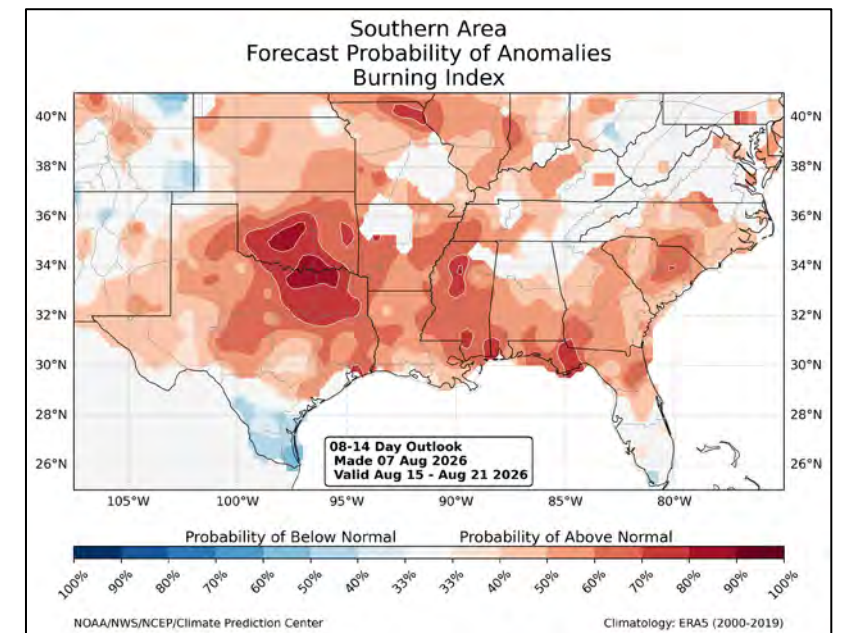
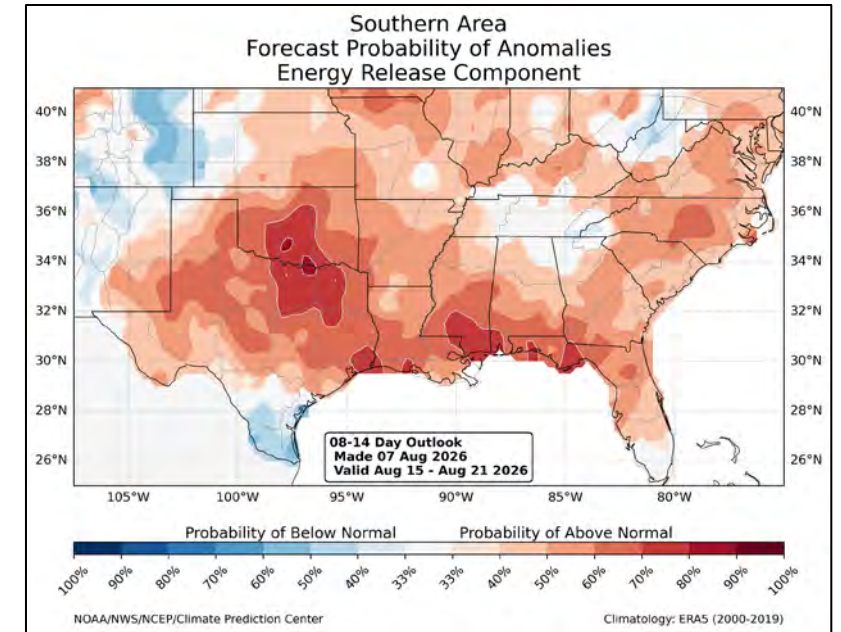
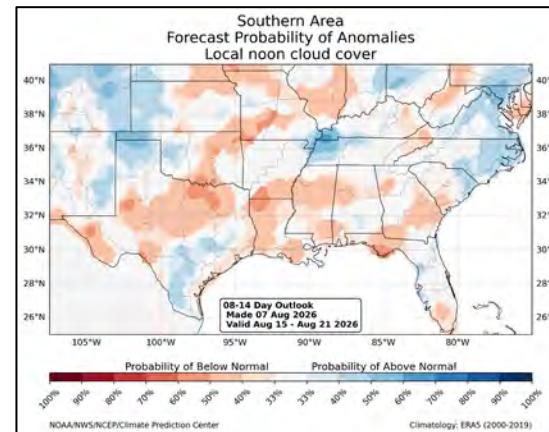
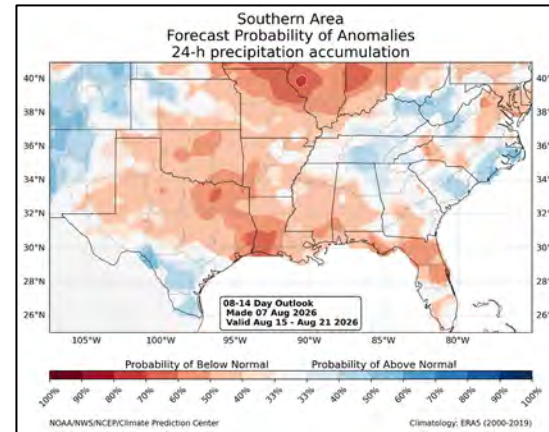
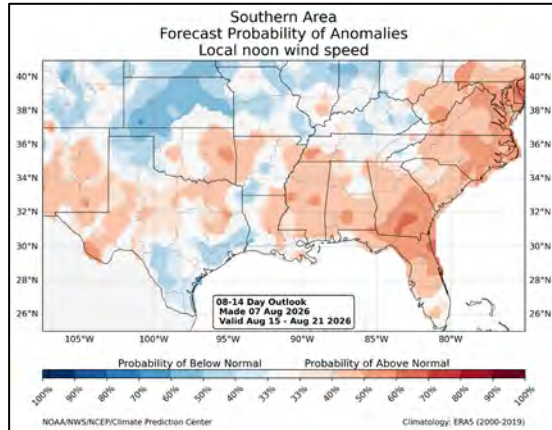
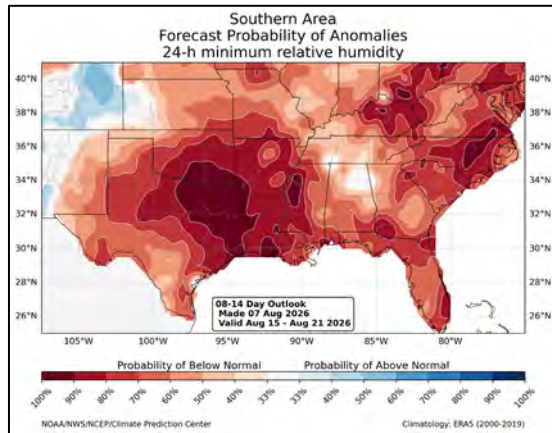
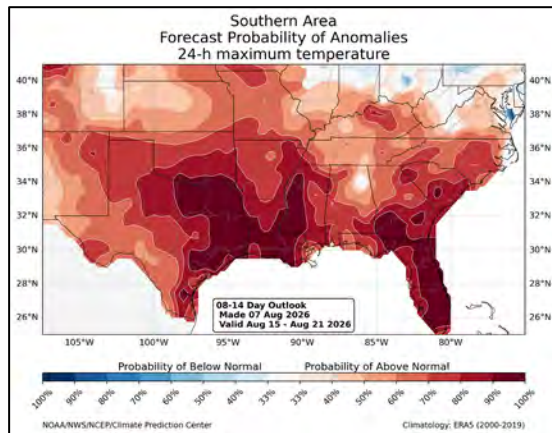
Wednesday > 75th Percentile



- Another visualization tool to pick up on broader weather, but with *limitations
- Only uses Max VPD (atmospheric moisture & temp) & Max Wind Speed to generate outputs
- Coarse Resolution - 0.5 Degree Grid
- No Account of Local Fuel Conditions (greenness, etc.) and Topo

Increasing level of overall dry air, days 4-7.

Week Two Forecast Anomalies: 8/15 – 8/21



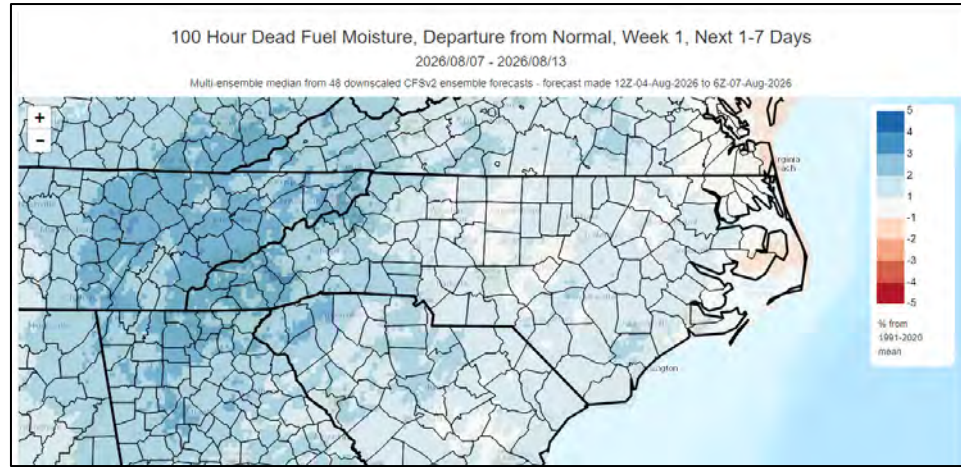
Important to note that there is significant forecast uncertainty as you go further out in time.

Models favor a return of drier than normal air and warmer than normal temps. Forecast then applies those weather variables to show potential for near normal BI & ERC at week two for much of NC. Remember to apply this in seasonal context.

Modeled Departure from Normal by Week: 100-hr Fuels

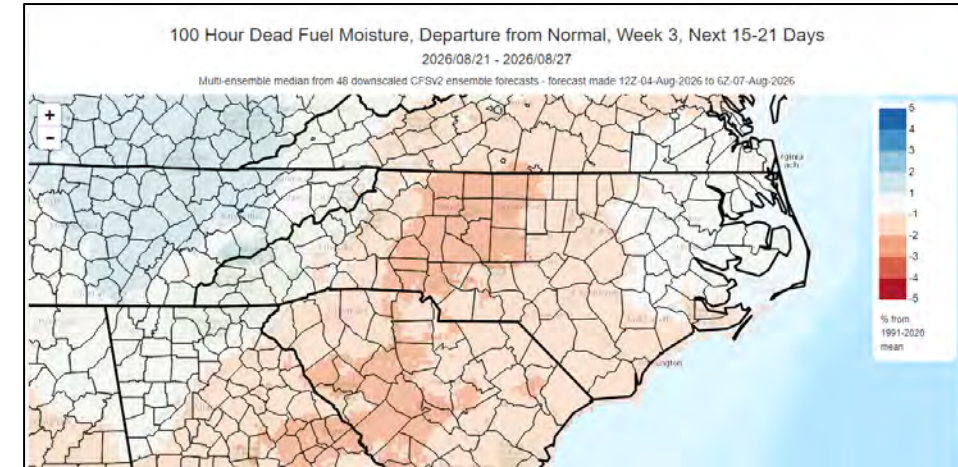
Output relies on experimental forecast outputs and is subject to change

Week-1

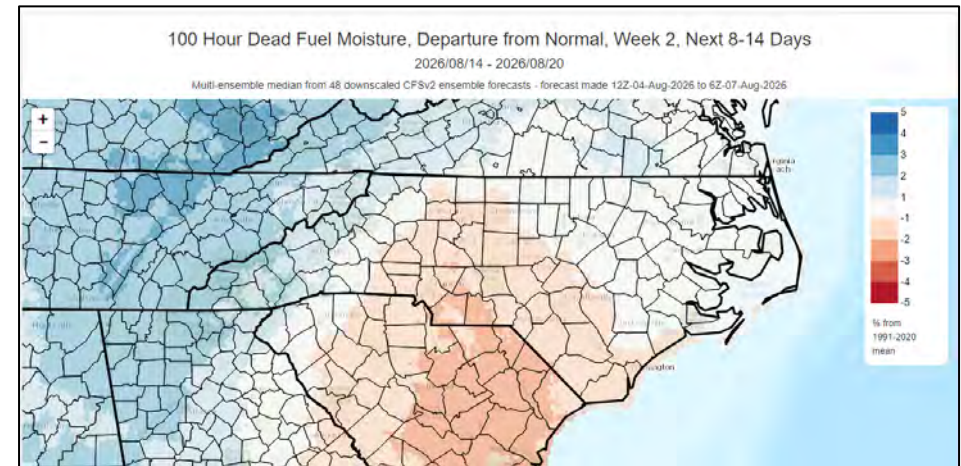


This output can provide insight into general drying trends and potential impacts to overall fire danger, especially prior to full green-up or in drought conditions. Outputs relate to interactions of warmer/colder temps, moist/dry air masses, precip amt/duration, wind and overnight RH recovery trends.

Week-3

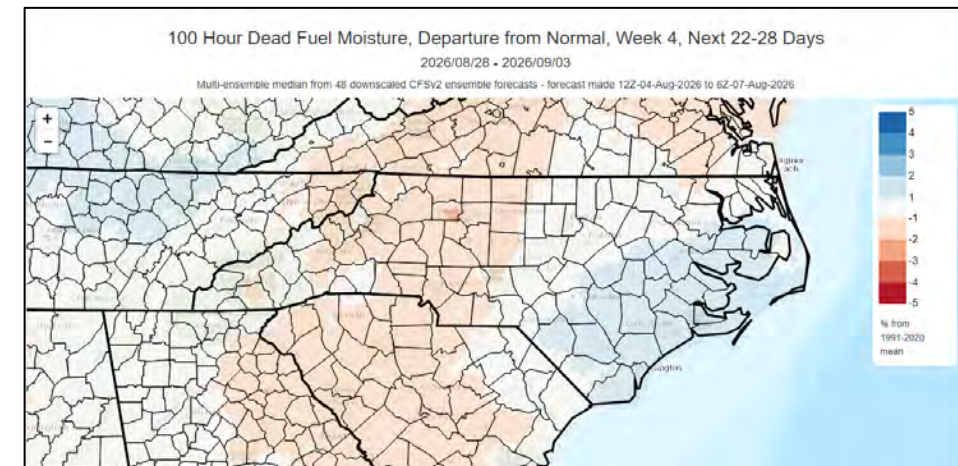


Week-2



Note that modeled impacts of warmer/drier conditions (lower % mc or “worse”) are forecast to be most significant during Weeks 2-3.

Week-4



Important to note that there is significant forecast uncertainty as you go further out in time, especially relating to any potential storm tracks.

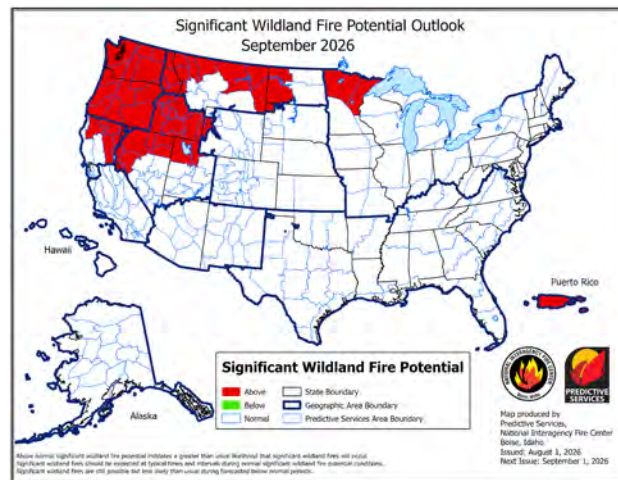
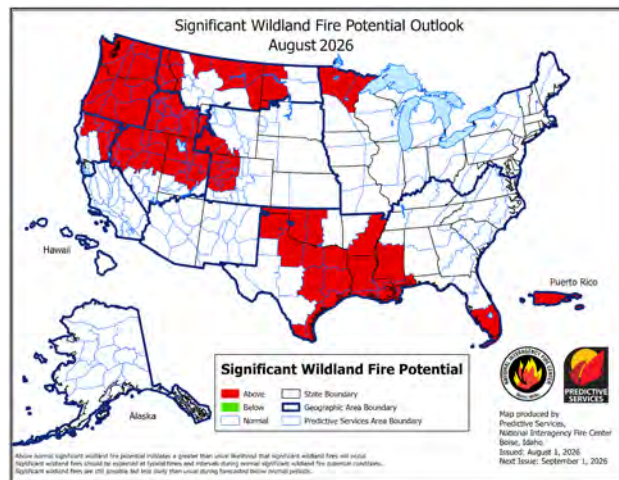
Significant Wildland Fire Potential Outlook: *Updated 8/1/26*

August

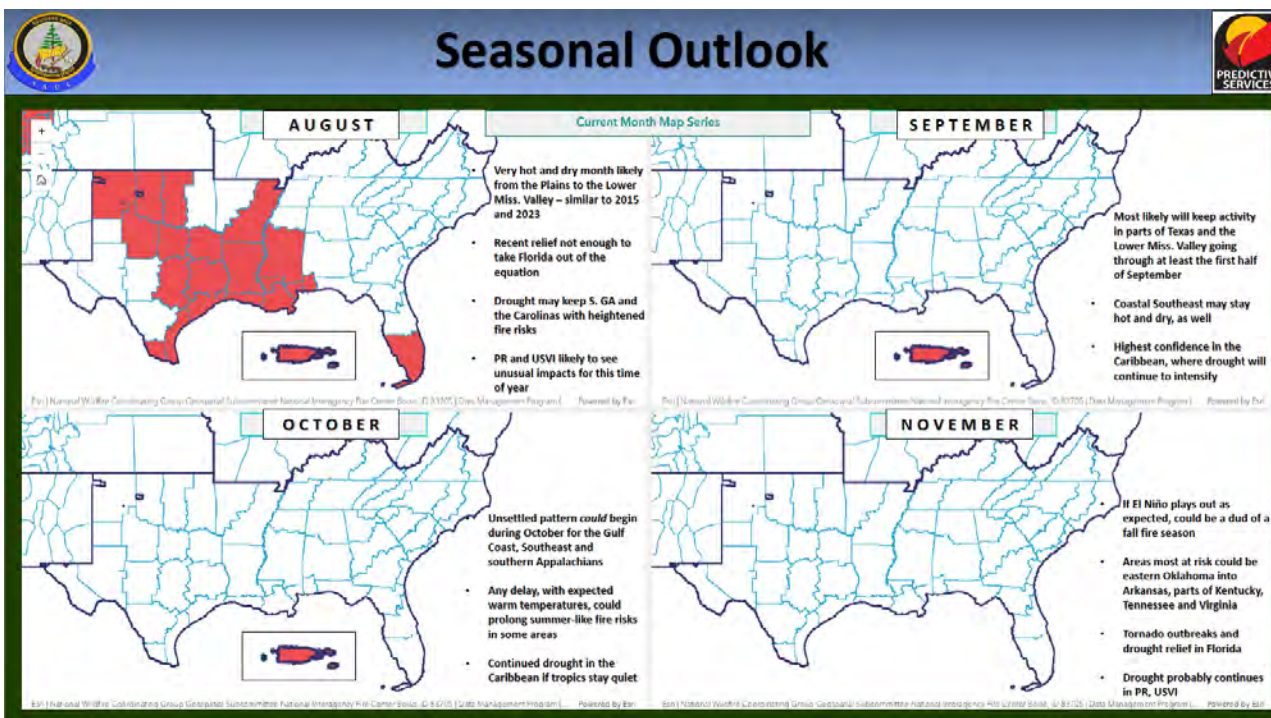
September

October

November



Seasonal Outlook



Drought intensification, especially at a smaller scale, can help push fuels to be more receptive, easily leading towards more/larger extended attack fires.

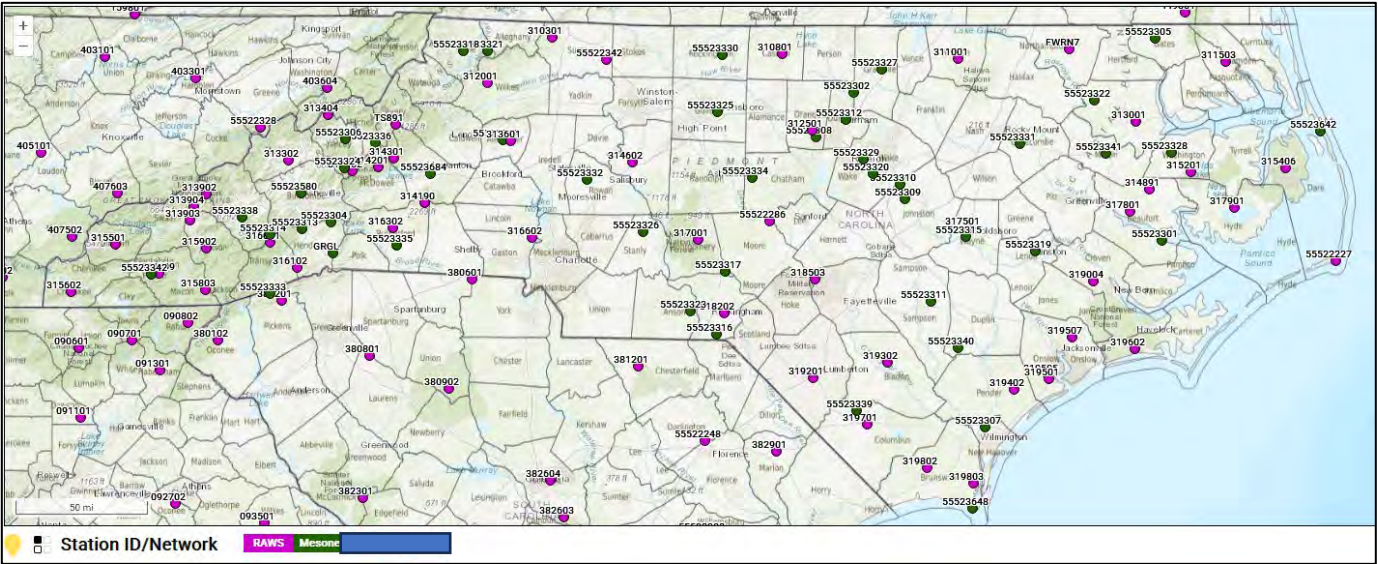
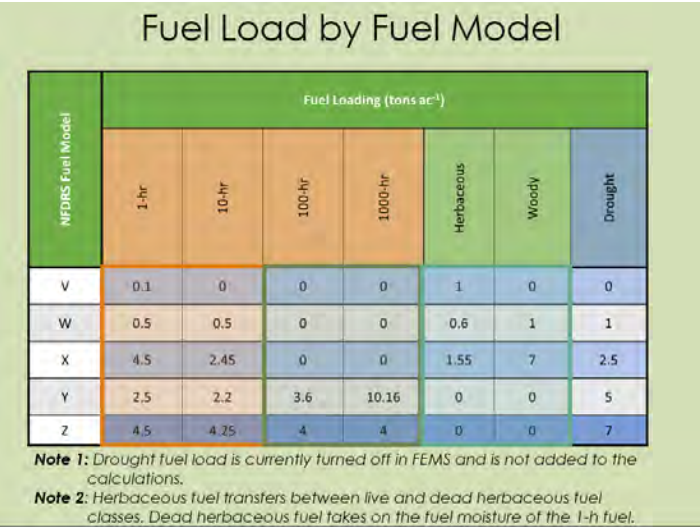
**A significant fire is one that requires resources from outside the district (other than aviation). IA potential is based more on shorter term weather factors. Just a few days of dry weather can increase IA activity considerably as we have consistently seen from year to year.*

https://www.nifc.gov/nicc-files/predictive/outlooks/monthly_seasonal_outlook.pdf

FEMS & NFDRS Notes:

- Mesonet Stations lost on 10/1/25, added back to FEMS on 1/29/26 (no prior period of record), added back to our SIGS on 3/12/26 after models better aligned.
- **Live Fuel Moisture Model remains at national catalog settings** – does not always align with local conditions, some stations continue to show being near dormancy despite observed “greenness.” Recent rains have increased modeled LFM, but likely to see a sharp crash again due to model limitations as weekly precip declines. See daily [HLEFM map](#).
- FM-Z and FM-Y include only dead fuels.
- Data & modeling updates will occur after next data update – will redownload/process FF+ data when FEMS data is adjusted again.
- GSI derived herbaceous fuel moisture (HFM) being used to help temper Adj & Hazard Ratings in Growing Season
- **Current working HFM thresholds to reduce FDRA specific Adj. Rating or Hazard Rating by 1 level is ≥ 130%, reduce by 2 levels is ≥ 190%; subject to adjustment as program updates occur.**
- Period of Record (Fires + Weather) now: **2010-2024**
- Period of Record for new analysis: **2011-2025**
- FDOP edits to be completed when we get the new data, process it and coordinate with cooperators.

Fuel Model Z does not include live fuels



FDRA	Special Interest Group Stations (SIG Stations)	Missing SIG Stations
Northern Coastal Plain	Dare Bomb Range, Elizabeth City, Fairfield, Greens Cross, Pocosin Lakes NWR	0
Southern Coastal Plain	Beaufort, CL1 Sandy Run, New Bern, Turnbull Creek, Hofmann, Whiteville, Sunny Point, Finch's Station	0
Eastern Piedmont	Central Crops RS**, Lake Wheeler**, Oxford Tob RS**, Upper Coastal RS**, Warrenton	0
Sand Hills	Fort Bragg, Horseshoe House, Rockingham, Sandhills RS**	0
Western Piedmont	Caswell Game Land, Duke Forest, Lexington, Mt Island Lake	0
Blue Ridge Escarpment	North Cove Pinnacle, Raven Knob, Redezvous Mtn, Rutherford Co Hq, Taylorsville (Lenior)	0
Central Mountains	Davidson River, Guion Farms, Mtn Hort RS**, Seven Mile Ridge	0
Northern Highlands	Busick, Jessen Station, Upper Mtn RS**	0
Southern Highlands	Highlands, Jackson County, Locust Gap, Tusquitee	0

Analysis Settings				Matrix Combinations	
FDRA	Time Range	Daily Extremes	FM	Staffing/Hazard Level	Adjective Rating
Northern Coastal Plain	2010-2024	Y	Z	ERC/BI	ERC
Southern Coastal Plain	2010-2024	Y	Z	ERC/BI	ERC
Eastern Piedmont	2010-2024	Y	Z	ERC/BI	ERC
Sand Hills	2010-2024	Y	Z	ERC/BI	ERC
Western Piedmont	2010-2024	Y	Z	ERC/BI	ERC
Blue Ridge Escarpment	2010-2024	Y	Z	ERC/IC	ERC
Central Mountains	2010-2024	Y	Z	ERC/IC	ERC
Northern Highlands	2010-2024	Y	Z	ERC/BI	ERC
Southern Highlands	2010-2024	Y	Z	ERC/IC	ERC

Fire Weather Intelligence Portal – Current Links & Notes

The interim breakpoints and percentiles based on FEMS implementation have been applied to the FWIP for North Carolina FDRAs. Content continues to be added and tools updated. Updated versions of the Hazard Assessment Tool, Adjective Fire Danger Rating Tool, and Daily Forecast/Observed Indices by Station have been implemented effective 3/12/26. The new versions automatically replaced the older versions. Additional features will be added (data analysis).

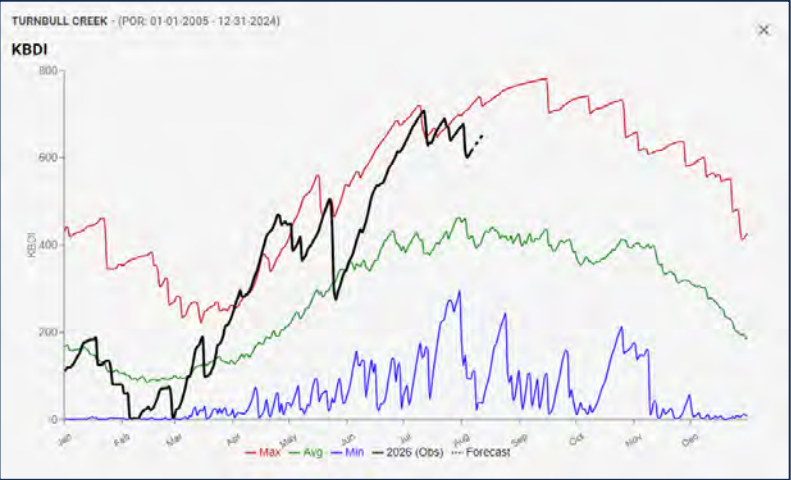
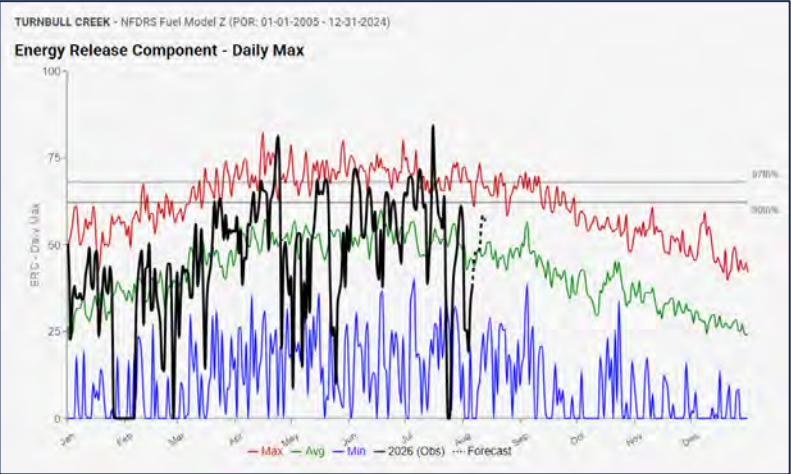
- [Public Facing Fire Danger Page](#) & [Fire Danger Digest Table](#)
(NC ratings based on ERC-Z analysis)
- [Station Viewer Portal](#)
(Past, Current, Forecast Conditions Tab)
*HOURLY Station Fire Danger Observations have been added on the PAST and CURRENT Conditions Tabs, as of 3/6/26
- [Hazard Assessment Tool](#)
(based on ERC-Z/BI-Z or ERC-Z/IC-Z depending on FDRA)
- [FEMS Forecast NFDRS Indices by Station](#)
- [FEMS Observed NFDRS Indices by Station](#)
- [Quality Control Viewer Tool](#)
- [Summary Site – Supplemental Tools](#)

The [Weekly Outlook Tool](#) is still offline – being revised to conform to new analysis/FEMS integration.

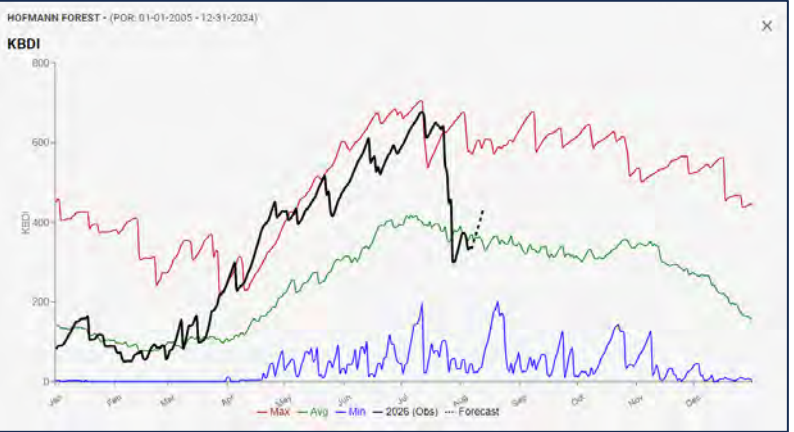
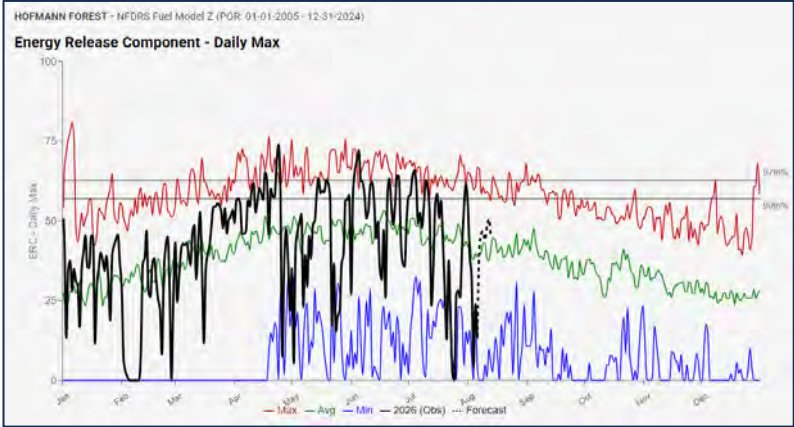
FEMS Note ([Portal Link](#))

Seasonal Trend Chart Examples – Coastal RAWS

R1/D8/Bladen Co – Turnbull Creek RAWS



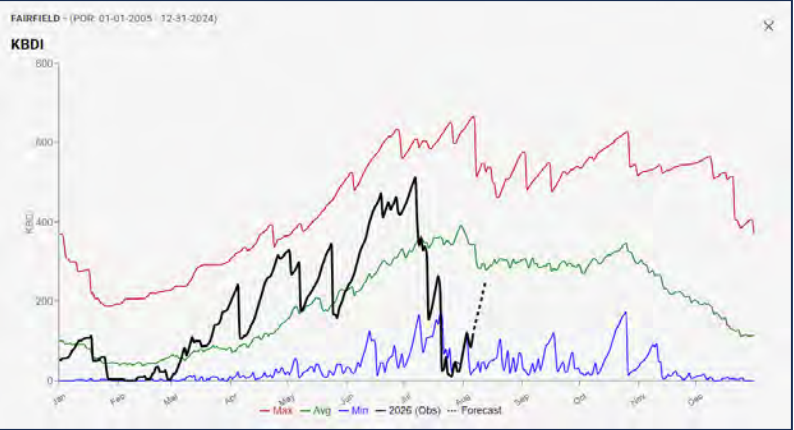
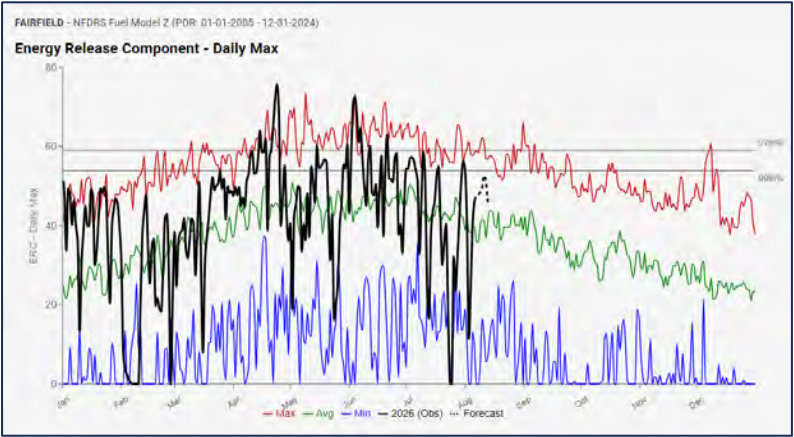
R1/D4/Onslow Co – Hofmann Forest RAWS



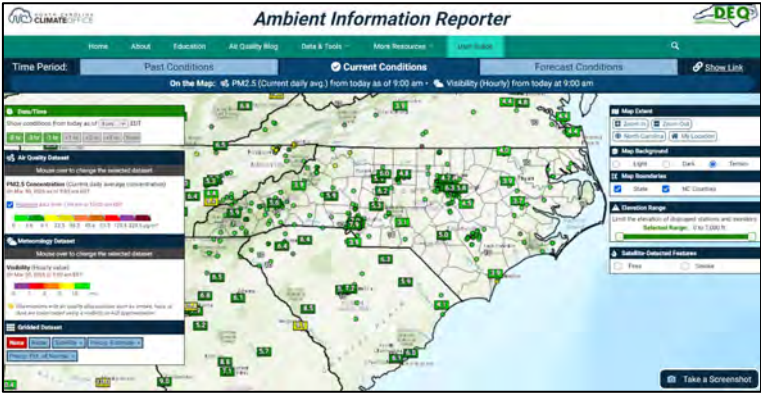
FEMS version 3.7 recently released. See the [Release Notice](#) for further details of enhanced tools/capabilities. Now includes VPD (max daily and hourly).

Newly released guide link:
[Understanding the Basics of NFDRSv4](#)

R1/D13/Hyde Co – Fairfield RAWS



Other Resources:



- <https://airquality.climate.ncsu.edu/air/>
- <https://fire.airnow.gov/>

Fuels and Fire Management Considerations for Hurricane Helene Damaged Areas

Executive Summary

Hurricane Helene has caused significant disruption to forested landscapes, resulting in widespread debris accumulation and altered fuel structure across the southeast particularly in the Southern Appalachians of southwest Virginia, western North Carolina, northeast Tennessee, northeast Georgia as well as the Piedmont of South Carolina, central Georgia and north Florida. The storm's high winds broke or toppled trees, and created extensive blowdown zones, transforming fuel conditions from lighter models, such as grass and leaf litter, to heavy slash and debris typical of Fuel Models 12, 1A, 5B2, and 5B3. This shift in fuel type presents substantial challenges for wildfire suppression efforts. The increased resistance to control, difficult access, and elevated potential for extreme fire behavior necessitates strategic adaptation of suppression tactics. The storm's aftermath has also underscored the need to revitalize older fire line production rules with the Scott and Burgan 40 fuel models used for modern fire behavior predictions, as the line production data for these newer models remains undeveloped. This report explores these challenges, provides practical insights for resource deployment, and outlines strategies for managing the complex landscape. The effects of Helene will be felt for some time. In a 2005 risk assessment for Hurricane Katrina, it was reported by the Mississippi Forestry Commission that debris from Hurricane Camille which struck in 1969 was still preventing access to certain areas.

This document provides fuel loading and modeling guidance, fire behavior expectations, and fire management considerations for both wildfire response and prescribed fire implementation for each of the hurricane damage severity categories described below.

Damage Severity	% of acreage altered/damaged
Catastrophic	>90%
Severe	74-90%
Moderate	26-73%
Light	<25%

“Fuels and Fire Management Considerations for Hurricane Damaged Areas”

Southern Area Seasonal Wildfire Assessment - May 2026

Southern Area Decision Support Group

Issued: May 6, 2026

https://gacc.nifc.gov/sacc/resources/predictive/MaySpringRiskAssessment_20260506.pdf

MOUNTAIN WAVE WIND EVENTS

Mountain waves occur amid stable air masses with strong temperature inversions near mountainous terrain and are most common through late fall and winter in the Appalachians. They may occur near any elevated terrain as the topographic air is long in the wind direction.

Indicators and Watchouts:

- Roll clouds aligned with ridge/line topography
- National Weather Service high wind warnings associated with pre-frontal (southeasterly) or post-frontal (northeasterly) winds
- Highly localized
- Not possible to forecast due to model and data limitations
- Higher winds often accompanied by much drier air mass
- Expect erratic fire behavior and rapid fire growth

Although their footprint is often quite narrow, extreme winds in excess of hurricane force (30 – 100 mph) can occur on the lee or downwind side of ridges, with a rapid and unexpected shift in wind direction also a common possibility. Hazard and civil conditions may be suddenly interrupted as drier air aloft accelerates towards the ground, resulting in extreme winds and a sudden decrease in relative humidity. Areas downstream of steep gradients in terrain are most susceptible. The east side of the Appalachians can see mountain wave events that lead to enhanced winds and subsidence in post-frontal environments as well. In addition to enhancing fire weather and potentially leading to extreme fire behavior, mountain waves can contribute to crew ignitions, their downed power lines and restrict air ops due to potential IFR conditions and severe to extreme turbulence.

CHIMNEY TOPS 2 FIRE

- Down November 28, 2018
- Location: GR020, near Grants, TN
- Personnel severe drought conditions
- 87 mph wind gusts due to Mountain Wave Wind event occurred
- Fire growth from 12 acres to 17,000 acres in 24 hours
- 14 deaths
- 2,351 structures impacted

<https://gacc.nifc.gov/sacc/predictive/looks/MountainWavesFactSheet.pdf>

Southern Fire Exchange

Superfog: State of the Science

Alan Long, Andrew Ryan, Marko Pericic, and Christian Baudouin

INTRODUCTION

Superfog is a very dense fog with visibility less than 10 feet and often less than 3 feet. It is the extreme condition of increased fog density associated with specific atmospheric and weather conditions. In the Southeast, superfog events have resulted in multiple major motor vehicle accidents on major travel corridors, and these events are almost always associated with smoke. Thus, predicting superfog is critically important for wildfire fire managers, especially for smoke management operations as prescribed when planning. The International Association of Wildland Fire Smoke Management Committee (IAWFS) published several presentations on the current “state of the science” for superfog prediction. The fact sheet summarizes these presentations in order to familiarize fire managers with the tools and information they can use to prepare for and minimize the likelihood of superfog events. The smoke response presentation summaries will be available on the Smoke Management website through the virtual response option until October 2024, available at <http://www.fireandland.org/intercom>.

WHAT CAUSES SUPERFOG?

Considerable water vapor, usually appearing as white smoke, is emitted from the smoldering combustion of forest fuels such as organic soil, duff, and logs. When water vapor mixes with cold air under the right temperature and relative humidity conditions, the cold air becomes saturated and fog forms. This is the same process that leads to dew or fog formation when an without smoke fuels in the dew point temperature. When particulate matter from smoldering fuels provides additional condensation nuclei for the water vapor in the smoke, the resulting small droplets water light and reduce visibility even more effectively than regular fog. The cool air mixed with smoldering smoke can result in superfog events and the formation of very dense fog (i.e., superfog). Conditions favorable for smoke dispersion, such as wind and atmospheric instability, generally reduce the likelihood of superfog formation and superfog development.

Key 5: Favorable Atmospheric Conditions for Smoke-induced Fog

- Surface air temperature less than 30°F
- Relative humidity greater than 80%
- Surface wind speed less than 1 mph
- Cloud cover less than 80%, with critical levels less than 40%
- Atmospheric Dispersion Index (ADI) less than 10
- Low Visibility Decrement Rate Index (LVDR) 1 or higher
- Turner Stability Index value of 5, 6, or 7 (stable to very stable surface layer)

SMOKE DISPERSION MATRIX

Given the physical process for the development of superfog, it is easy to understand the atmospheric conditions most conducive to superfog: cool, clear, calm.

Smoke and Roadway Safety Guide

PMS 477

OCTOBER 2020

University of Idaho

SACC Daily Outlook

Monday, March 30, 2026

Watches, Warnings And Advisories

- Red Flag Warnings in OK, TX today
- Wind Advisory today in OK

Today's Weather Outlook

- Returning Atlantic and dust moisture will accumulate in the Southeast through midweek and eastern portions of the region today.
- Scattered showers and embedded thunderstorms may affect the central Mississippi Valley and its periphery, while isolated dry thunderstorms are expected along a dryline in west TX late in the day.
- Look for dry and breezy weather near and east of the Appalachians, where easterly jet flows will strengthen through the midweek.
- The Plains will otherwise be hot, dry and breezy with the strong winds and/or clear fire weather most likely there.

Percent Of Normal Rainfall The Past 30 Days

- Dry weather the last two weeks has allowed 50-day rainfall to trend below average in most of the geographic area.
- Limited areas of wettest are depicted in a few states, most notably along the Ohio River in KY, for northwestern AR and portions of the central and southern FL peninsula.
- No rainfall has occurred in more than 50 days (over 50 days) TX, west TX, and much of northern, central and western OK.
- Still below average 50-day totals are also found in the Southeast, especially GA, north FL and the Carolinas.

<https://gacc.nifc.gov/sacc/resources/predictive/sacc-daily-outlook.pdf>

Prognosis: A Guide to Prevention and Thresholds

Prognosis and thresholds are used to help in assessing the significance of forecast fire danger. Prognosis is a forecast of fire danger for a specific area and time. Thresholds are the minimum conditions for fire danger to be considered a threat. The fire danger index (FDI) is a measure of fire danger. The fire danger index (FDI) is a measure of fire danger. The fire danger index (FDI) is a measure of fire danger.

Fire Danger Rating Area

The fire danger rating area (FDRA) is a measure of fire danger. The fire danger rating area (FDRA) is a measure of fire danger. The fire danger rating area (FDRA) is a measure of fire danger.

-NCES- NFDPS PRIMER & FIRE DANGER RATING AREA CRITICAL THRESHOLDS

Interim GUIDANCE Documents

11/7/25 Update

- [Southern Fire Exchange Superfog Publication](#)
- [NWCG - Smoke and Roadway Safety Pocket Card](#)
- [NWCG - Smoke and Roadway Safety Guide](#)



SACC Daily Outlook

Friday, August 7, 2026

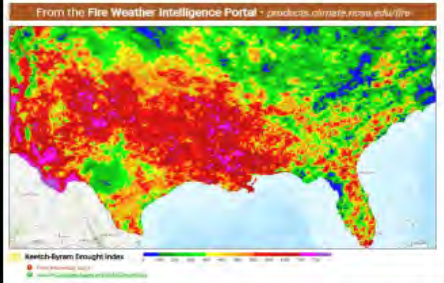


Watches, Warnings and Advisories



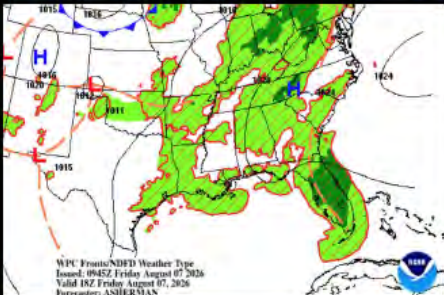
- **Heat Advisory** in Texas, Oklahoma, Arkansas, Mississippi, Puerto Rico, U.S. Virgin Islands
- **Air Quality Alert** for the Memphis metro
- **Flood Warning** in south Texas

Keetch-Byram Drought Index



- A gridded version of the Keetch-Byram Drought Index (KBDI), based on OSU PRISM data through Wednesday
- KBDIs above 600 are now widespread from large parts of the Southern Plains into the Lower Mississippi Valley
- Embedded areas of KBDIs above 700 in pink are estimated in the Trans Pecos, the High Plains into the Red River Valley and portions of east Texas, in addition to scattered areas of Arkansas, Louisiana and Mississippi
- Conditions are considerably more variable in the Southeast and Appalachian states due to the hit and miss nature of recent rainfall on top of some of the long-term drought
- While scattered relief is expected into early next week in the Plains and Lower Mississippi Valley, most areas will continue to see this leading indicator of drought trend higher over the next couple of weeks, with critical values above 700 becoming more widespread

Today's Weather



- A tropical wave approaching the coastal Southeast will trigger scattered to numerous showers and thunderstorms across the Florida peninsula, with more isolated activity just to the north
- Isolated to widely scattered thunderstorms are possible for the rest of the Gulf coastal plain
- A weakening front near the northern tier of the region will produce a few clusters of showers and storms from the High Plains into Arkansas, while scattered storms are possible over the higher elevations of the Appalachians
- Triple-digit heat will continue in most of north Texas into Oklahoma, with hot and humid weather affecting most of the rest of the region
- The Caribbean islands will continue to dry out, and elevated fire weather conditions are in store

Please contact your local National Weather Service office for spot forecasts and the latest watches and warnings.

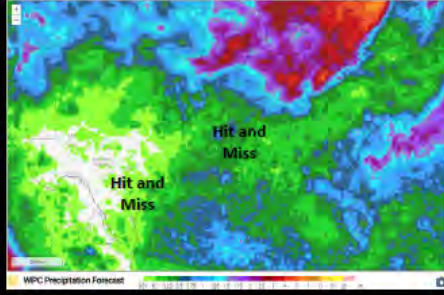


SACC Daily Outlook

Friday, August 7, 2026



Forecast Precipitation the Next Week



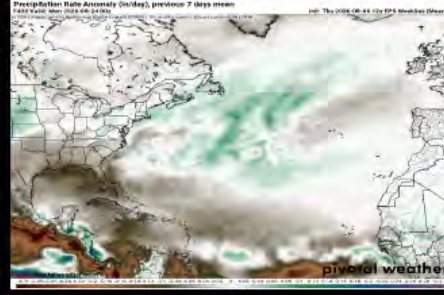
- Showers and thunderstorms today will result in some 1-3" rainfall totals in the coastal Southeast, but most areas will see much less due to their fast-moving nature
- Despite some opportunities for beneficial rain along the Gulf coastal plain into the Lower Mississippi Valley through early next week, heavy rainfall will be hit and miss – some areas may see 2-3" that runs off quickly, while other spots nearby stay dry
- Fronts occasionally making it near the northern edge of the region will produce the most widespread rainfall over the next week in parts of far northern Arkansas into Kentucky, the Tennessee Valley and portions of the Appalachians; flash flooding is possible, especially in the mountains
- Spotty showers and storms today in the Texas and Oklahoma panhandles into northern Oklahoma will be followed by a drier stretch this weekend into the middle of next week, but some monsoonal activity could drift in later in the week
- Widespread above average temperatures are in store next week, with records above 100° becoming increasingly likely over portions of the Plains, Lower Mississippi Valley and coastal Southeast

Week Two Hazards



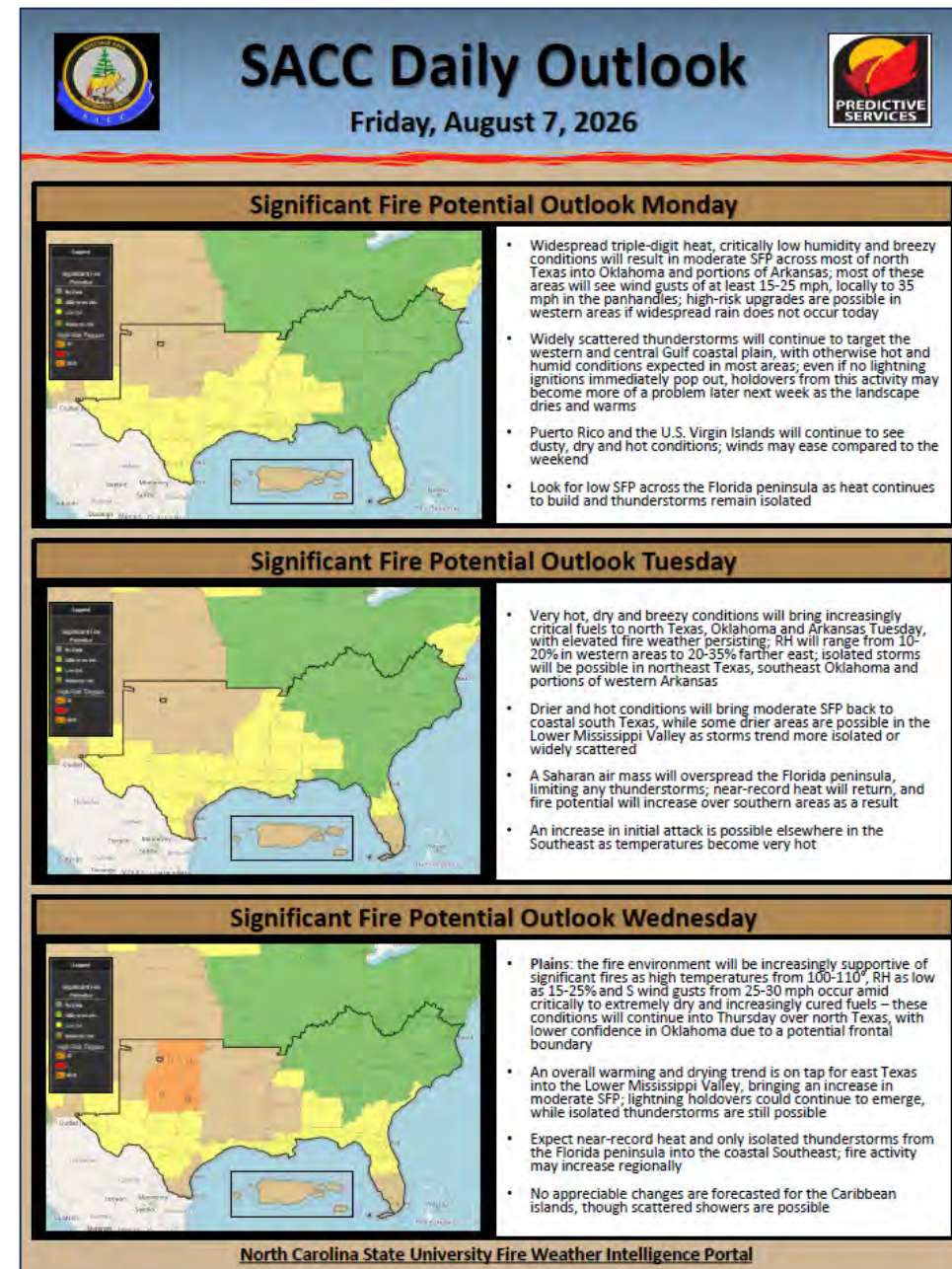
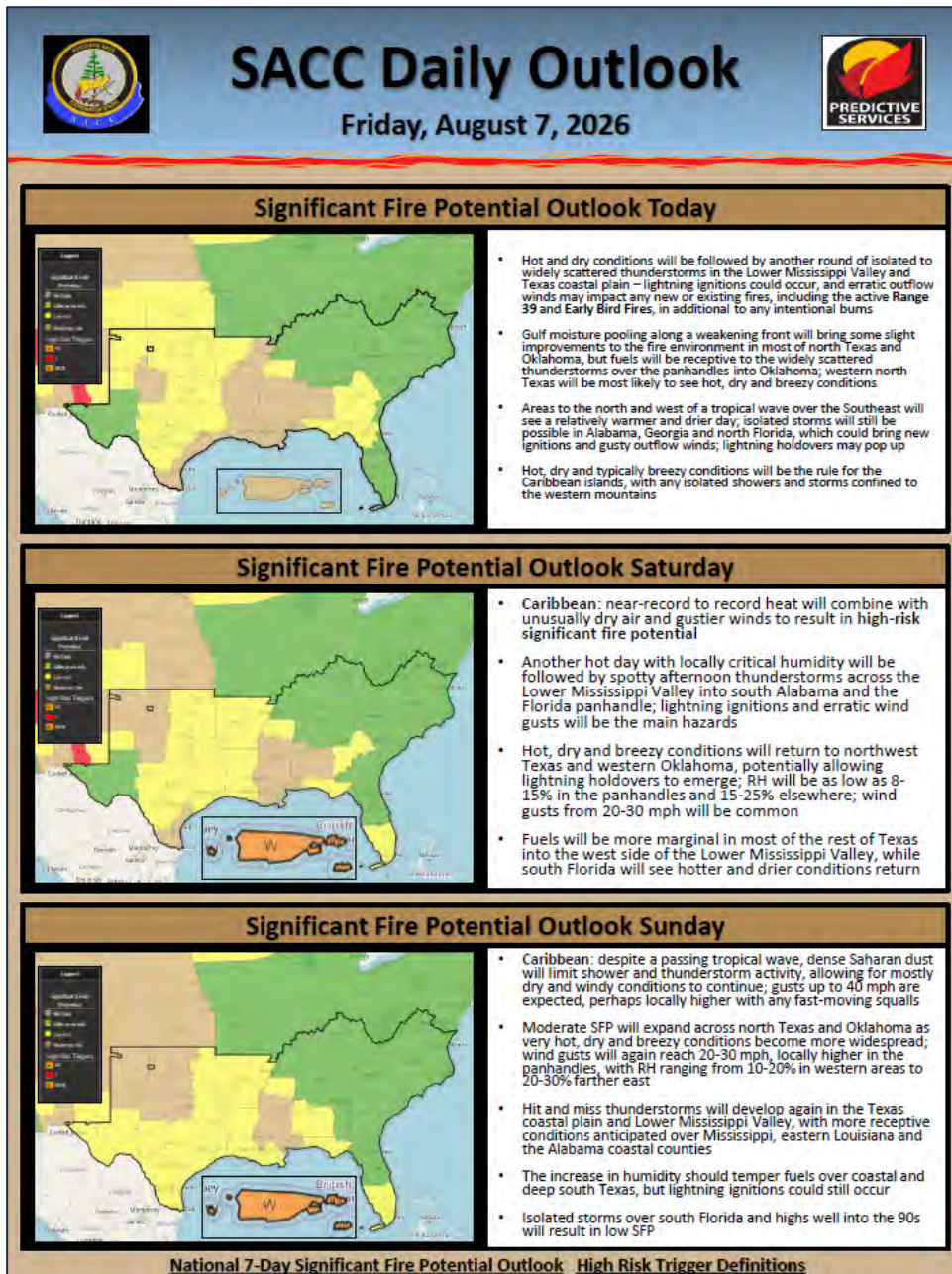
- A classic late summer El Niño weather pattern will persist through mid-month and beyond across the Southern Area
- Strong high pressure aloft will promote an extended stretch of hotter and drier than normal conditions from the Southern Plains to the coastal Southeast, with periods of extreme, triple-digit heat likely
- Flash drought onset is all but certain from the Plains to the Lower Mississippi Valley; CPC's confidence is higher farther north, but many areas already seeing flash drought impacts are likely to see a worsening trend, extending from the eastern Hill Country in Texas into Louisiana, Mississippi, portions of south Alabama and perhaps the Florida peninsula
- A more active weather pattern looks to continue across the Appalachians and adjacent areas, which could eventually lead to some river flooding
- The potential for tropical activity to affect the lower 48 is very low through the third week of the month

Week Three Precipitation



- Rainfall anomalies from the European ensembles for the week ending August 23rd are depicted; brown areas denote drier than average conditions for this time of year
- A high pressure ridge that sets up across the area next week is likely to persist into late August
- In addition to continued well above average temperatures across the region, a feed of dry air originating from the African continent will stream across the Caribbean and into the southern U.S.
- This pattern will limit typical rainy season thunderstorms along and well inland from the Gulf Coast, over the Florida peninsula and likely most of the period for the Caribbean islands
- Tropical waves exiting Africa may have limited windows to develop into tropical cyclones, but the areas of wetter conditions are currently favored well southeast and north of Puerto Rico and the U.S. Virgin Islands

Please contact your local National Weather Service office for spot forecasts and the latest watches and warnings.

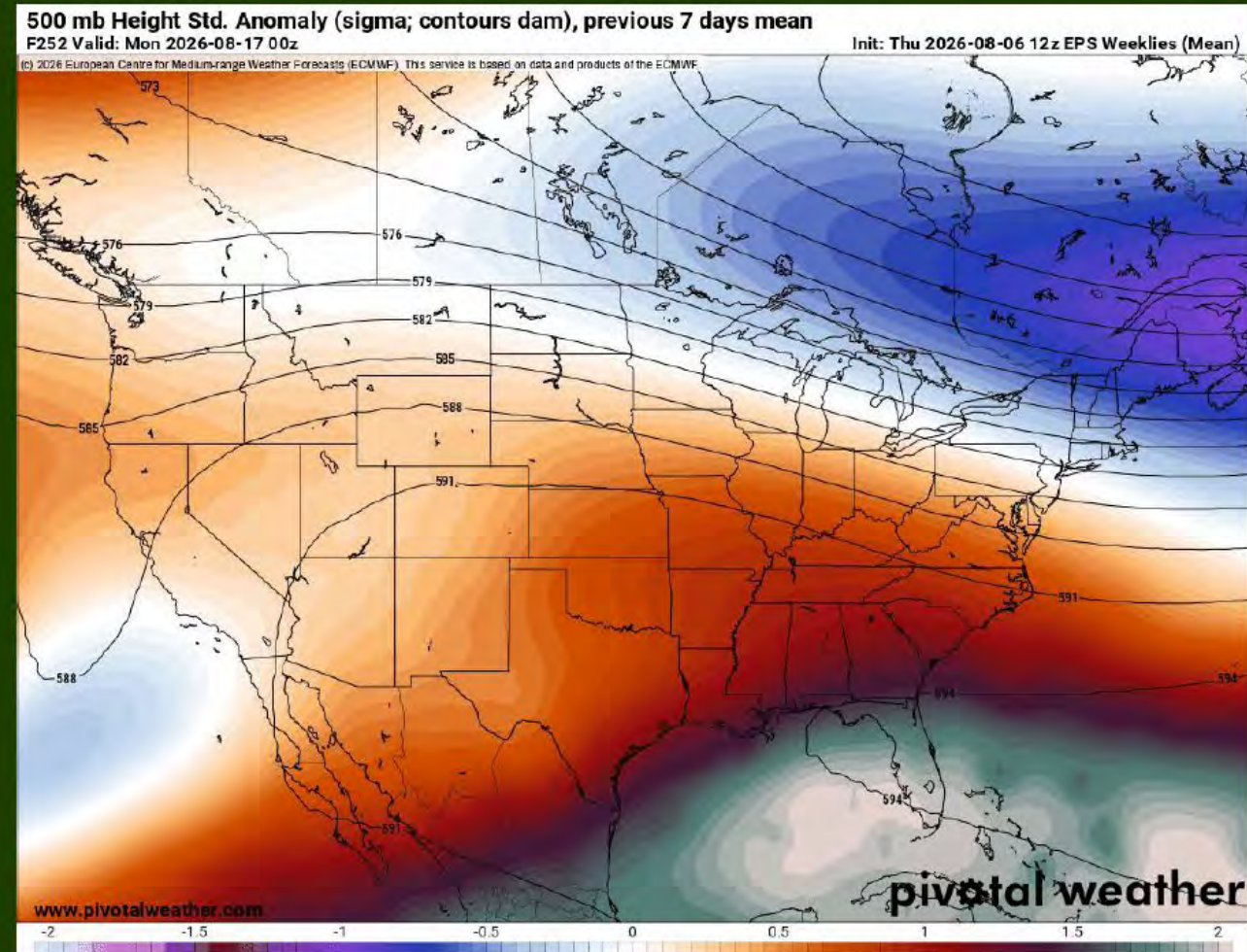




Pattern Into Early September



- Forcing from the strong El Niño will produce a classic pattern response over the Southern Area through the next few months
- Ridging aloft builds across the area next week, promoting a heating and drying trend for the Plains, Lower Mississippi Valley and coastal Southeast
- Could be persistent into September
- Very low potential for tropical impacts

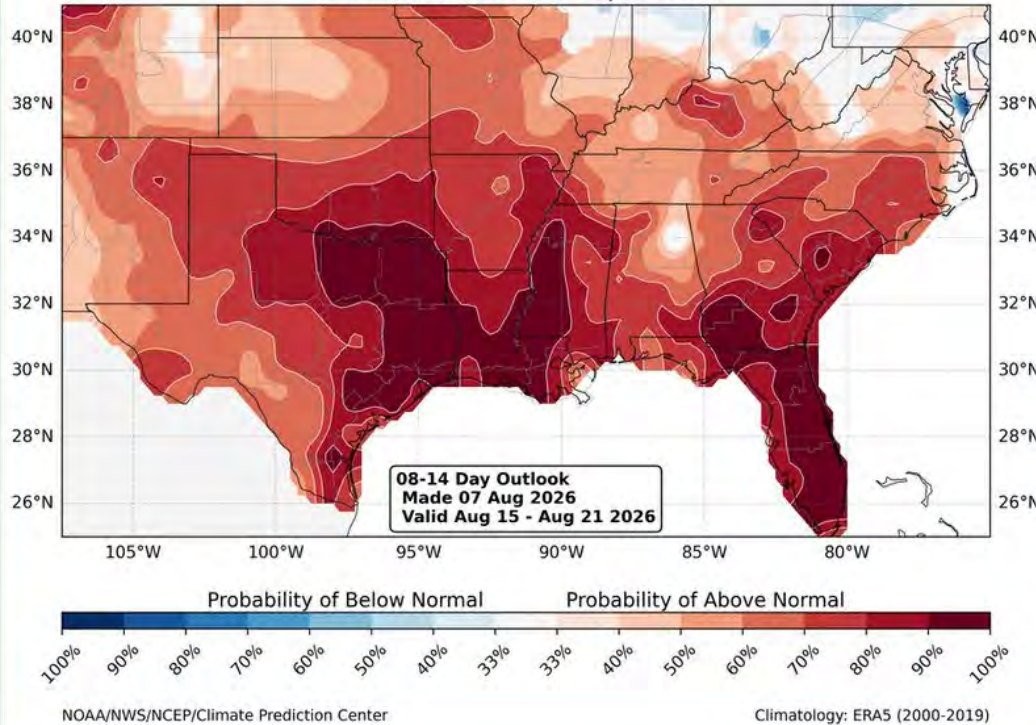




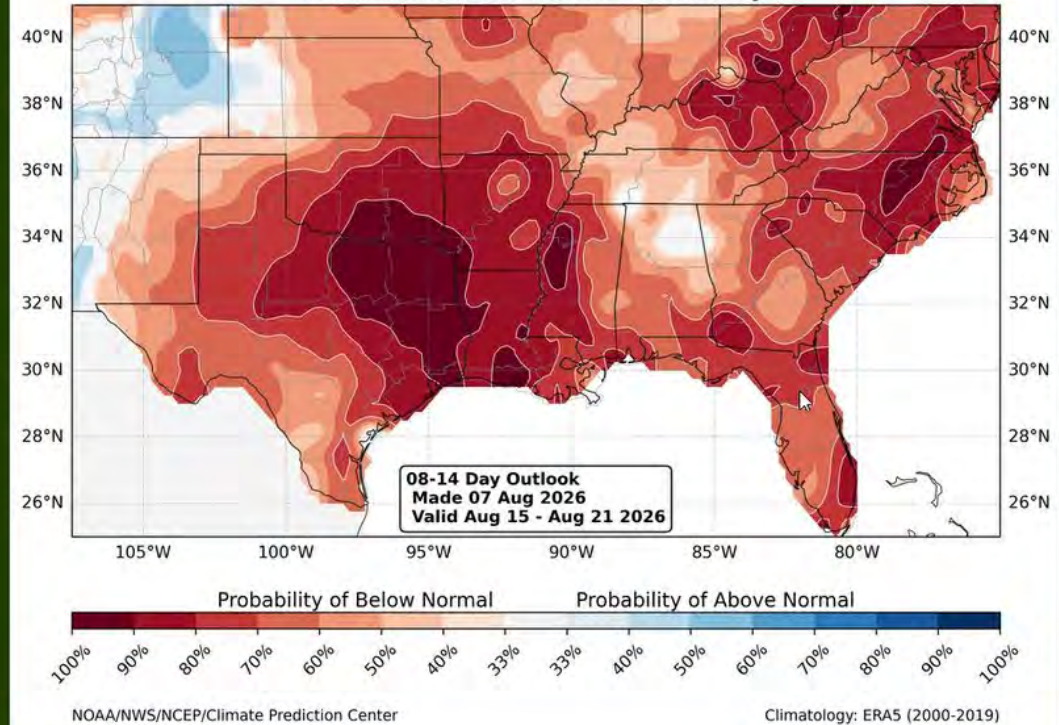
Week Two – Hot and Dry



Southern Area
Forecast Probability of Anomalies
24-h maximum temperature



Southern Area
Forecast Probability of Anomalies
24-h minimum relative humidity



Prepare for NWS minimum RH and NFDRS forecasts to perform poorly in this pattern, especially days 4-7

