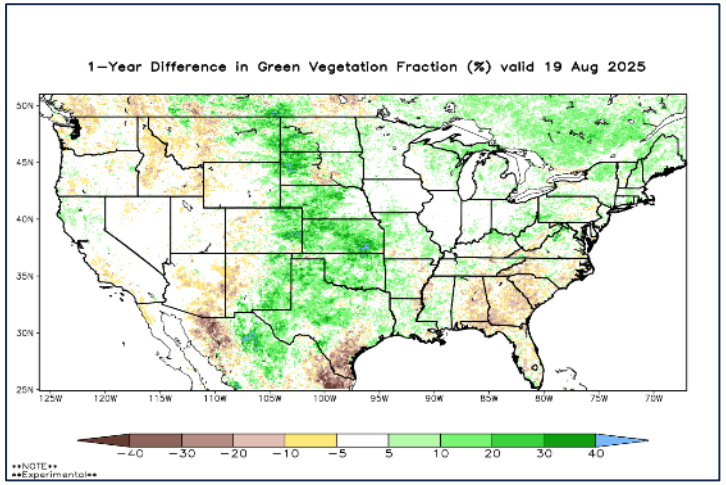
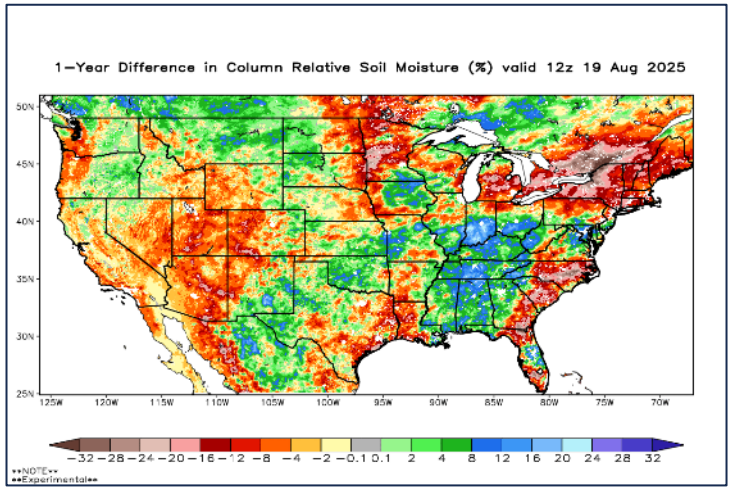
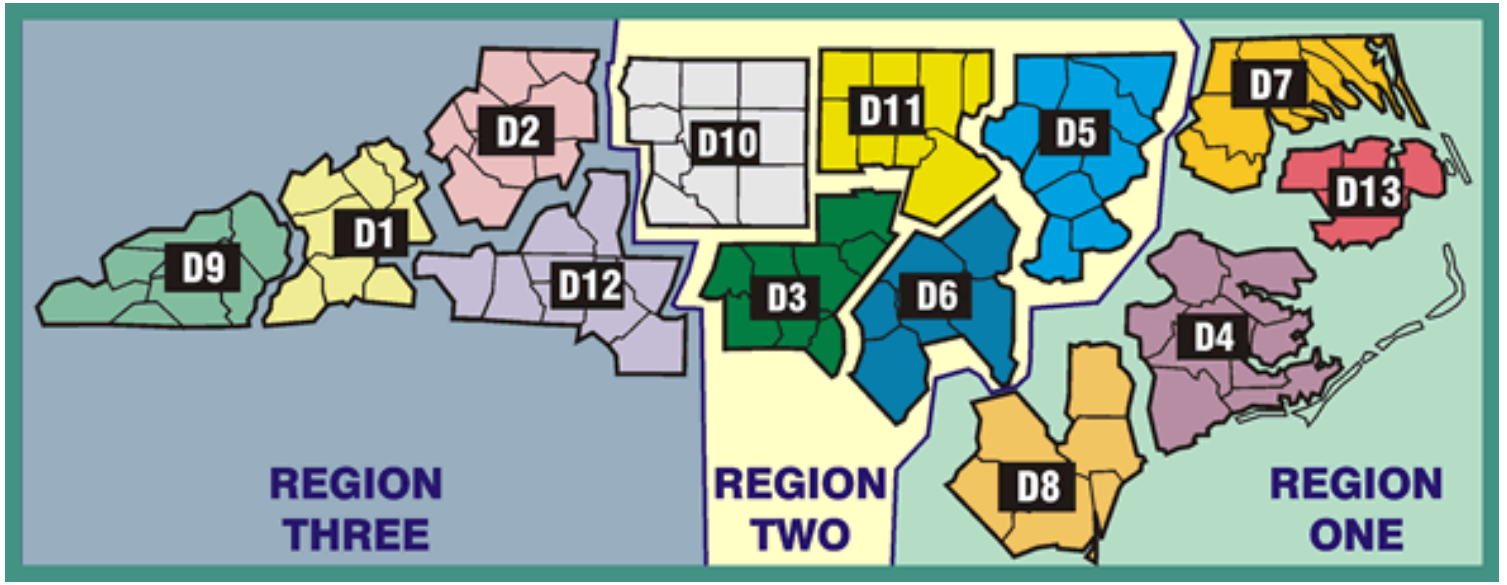
August - 2025

Monthly Fire Danger Assessment NCFS – All Regions







Date: August 20, 2025

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

Statewide Wildfire Context

January: 10-yr avg is 309 fires for 530 acres
February: 10-yr avg is 618 fires for 1,598 acres
March: 10-yr avg is 891 fires for 4,784 acres
April: 10-yr avg is 629 fires for 6,546 acres
May: 10-yr avg is 293 fires for 1,161 acres
June: 10-yr avg is 243 fires for 2,424 acres
July: 10-yr avg is 193 fires for 645 acres
***August: 10-yr avg is 138 fires for 395 acres**
September: 10-yr avg is 173 fires for 377 acres
October: 10-yr avg is 236 fires for 1,962 acres
November: 10-yr avg is 462 fires for 6,035 acres
December: 10-yr avg is 305 fires for 580 acres

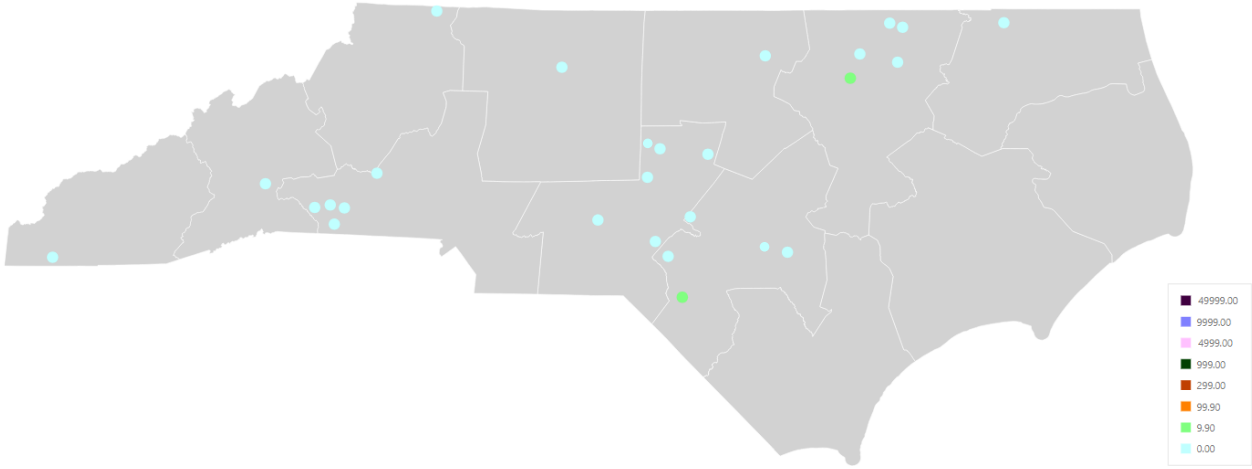
August MTD: 25 incidents for 32.5 acres
7-Day Activity: 11 incidents for 21.1 acres

All wildfire activity data is preliminary
Does not include additional federal wildfires/acres
2015-2024 CY Average

**Largest incidents by discovery date in August:
from fiResponse & preliminary reporting only

Incident Name	Discovery Date	Region	District	County	Acres
Mt Zion Church Rd	8/16/2025	Region 2	District 6	Robeson County	20.00
Big Ole Tract	8/4/2025	Region 2	District 5	Nash County	10.00
3 Tie	8/3/2025	Region 2	District 5	Northampton County	0.50
Five Bridge Rd	8/18/2025	Region 2	District 6	Sampson County	0.50
Terrapin Road Fire	8/17/2025	Region 2	District 5	Halifax County	0.25
I-85 South	8/9/2025	Region 2	District 11	Granville County	0.20
Pink Crow Line	8/1/2025	Region 3	District 12	Cleveland County	0.10
Shovel Outlaw	8/3/2025	Region 2	District 6	Harnett County	0.10
Harley Rdg Rd	8/4/2025	Region 2	District 3	Montgomery County	0.10
Tuggie Eure Road	8/5/2025	Region 1	District 7	Gates County	0.10

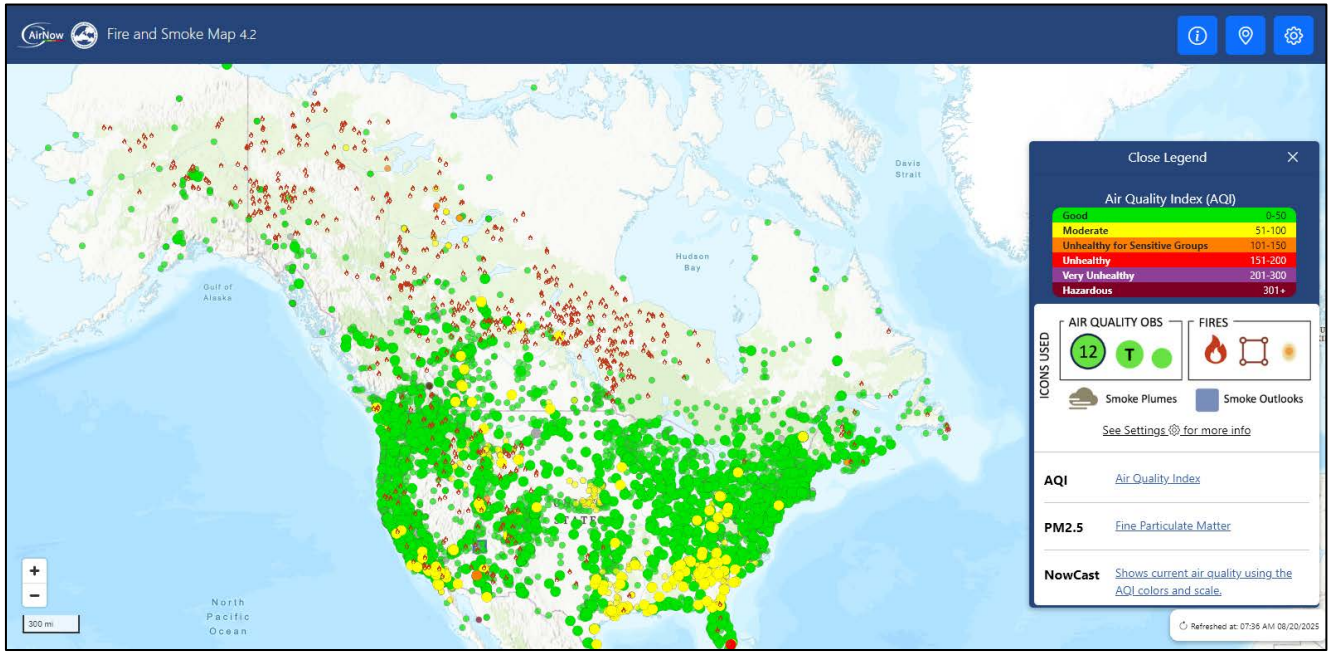
August MTD (ending 8/19)



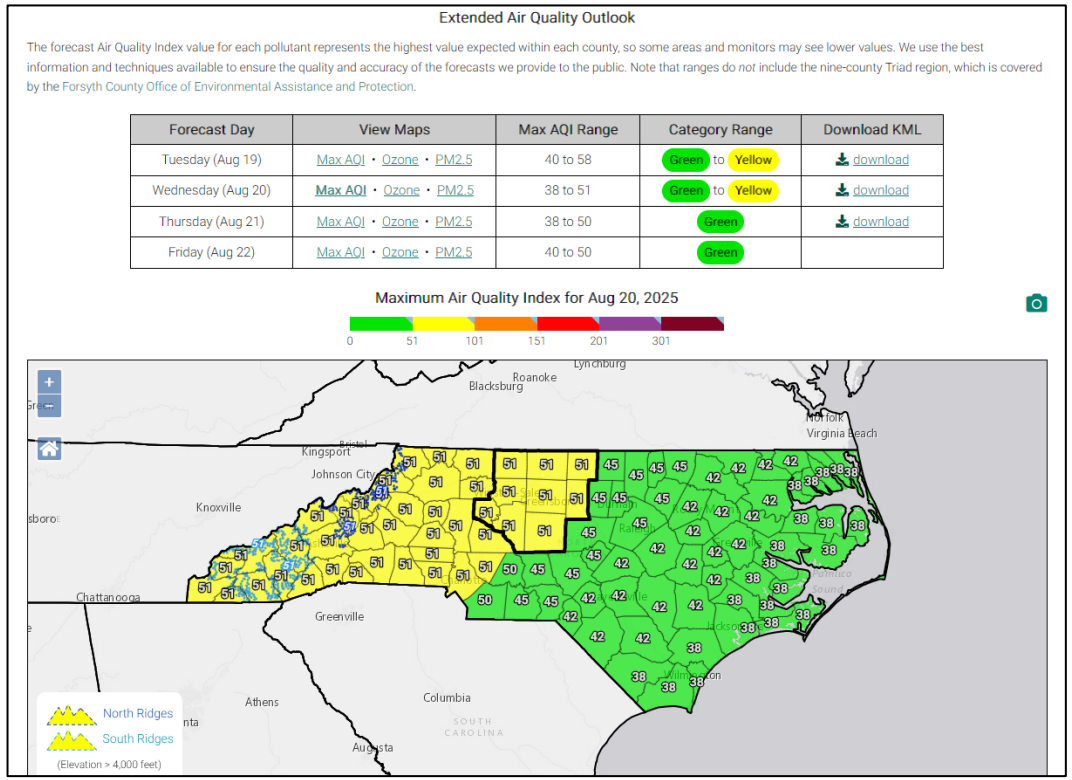
Last 7-Days (8/13 – 8/19)

***Note: DOD & other entirely federal ownership wildfires not shown on fiResponse*

Air Quality Notes



https://fire.airnow.gov/#



This forecast was issued on **Tuesday, August 19, 2025** at **3:04 pm**. This forecast is currently valid.

Today's Air Quality Conditions

Current daily average fine particulate levels are in the low Code Yellow across the Charlotte region. Ozone levels are predominantly in the Code Green range statewide.

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

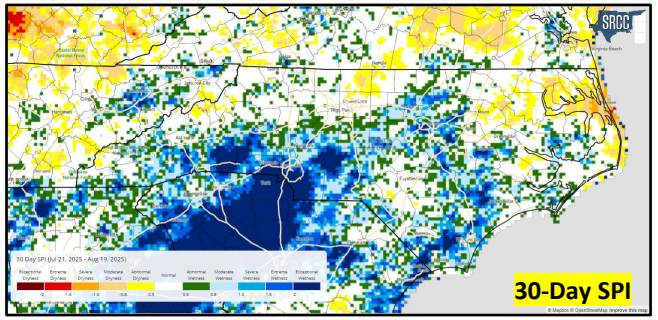
General Forecast Discussion

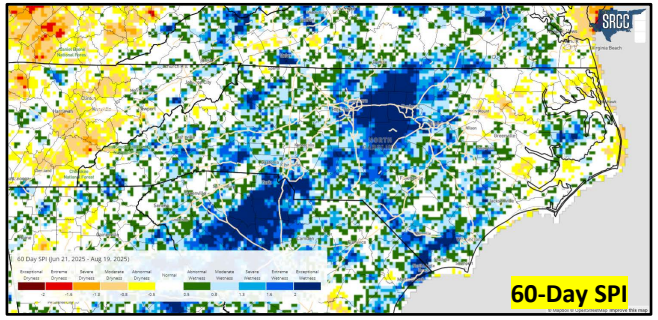
Through much of the week winds will turn northeasterly, resulting in a relatively clean fetch of upstream air. With northeasterly surface flow, low-level clouds become increasingly likely, which will significantly temper any ozone formation. Fine particulate levels will likely trend lowest in the east and higher in the west, with low Code Yellow being the top end of the gradient.

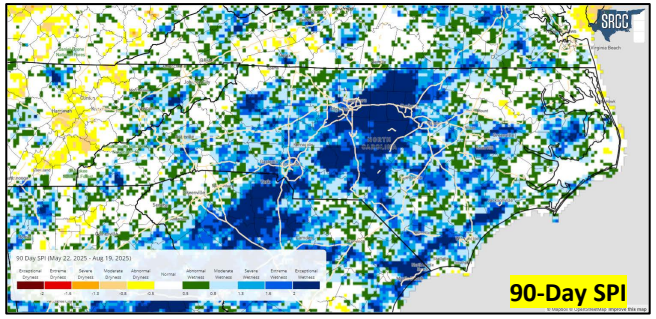
Outlook

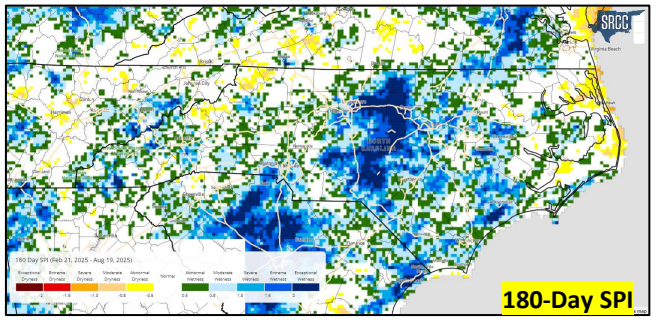
For much of this week, all eyes will remain in the Atlantic as major Hurricane Erin approaches from the southeast. It appears the storm will approach 75W before slowly turning back to the east, which should spare most of the eastern U.S. from significant impacts with the main exception being right along the beaches and the Outer Banks, where beach erosion and gustier winds may be possible. Air quality should remain fairly tame, with only low Code Yellow fine particulate levels being confined to mainly western NC.

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

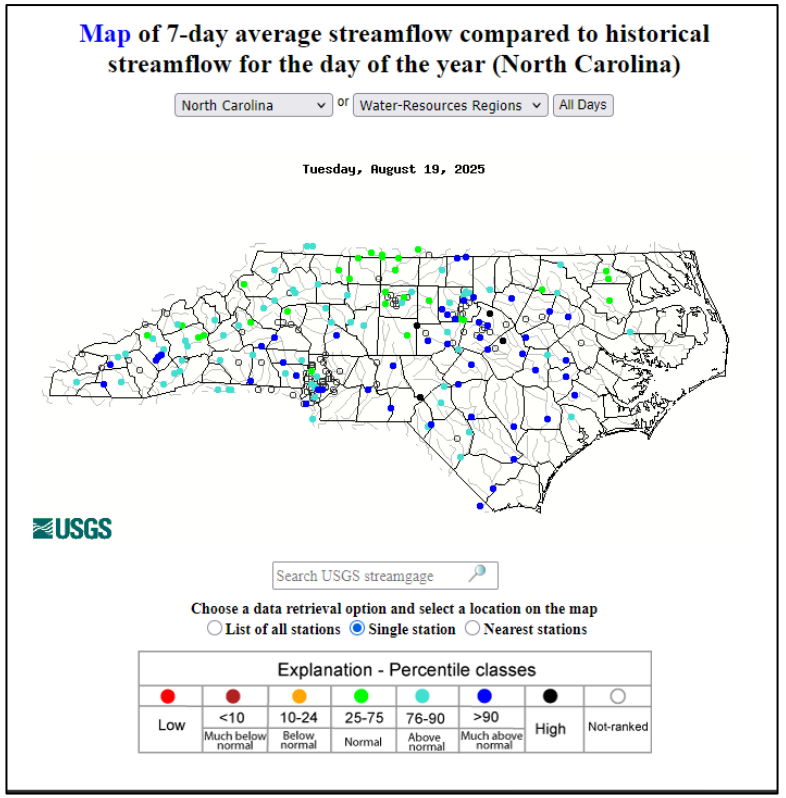


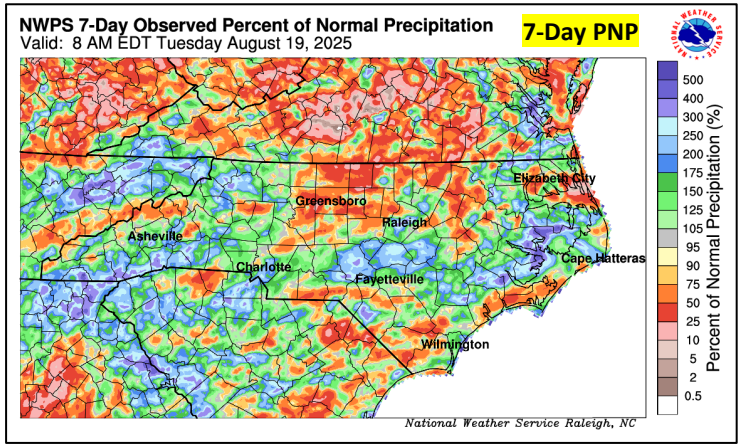


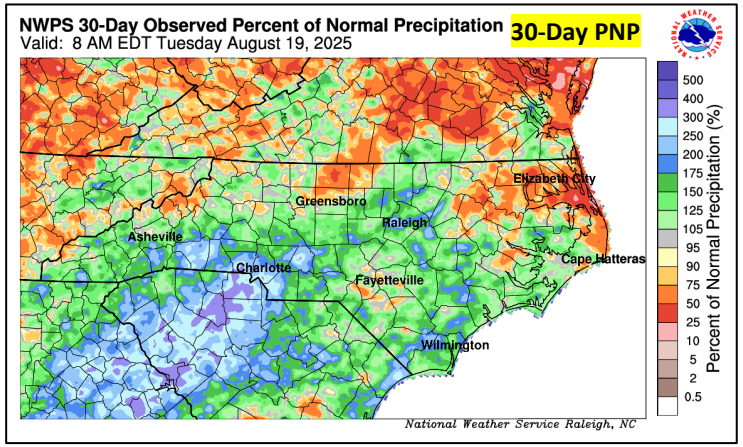




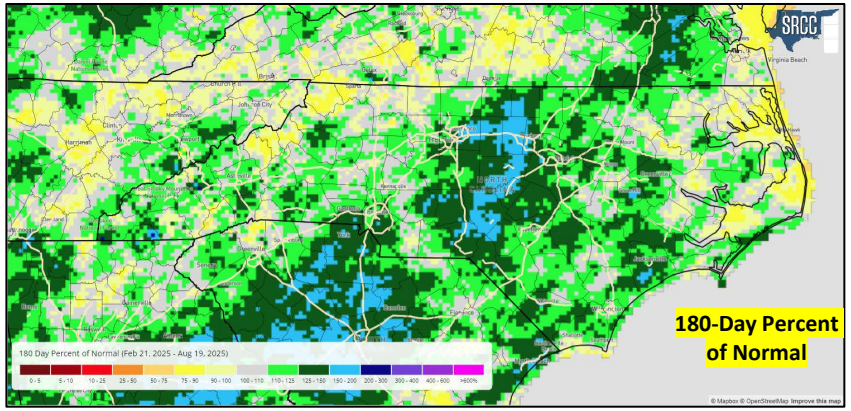
https://srcc.tamu.edu/water_portal/



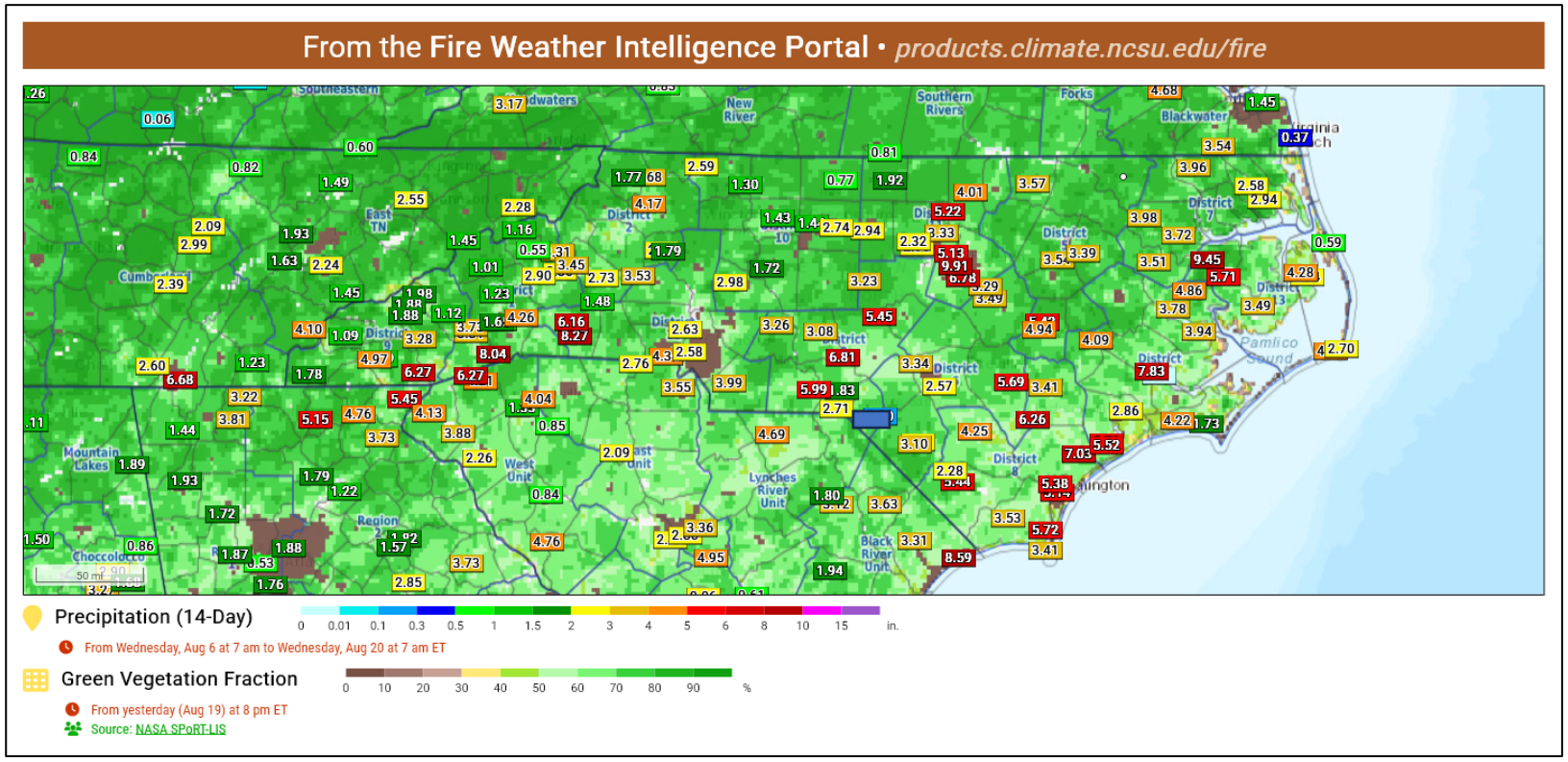


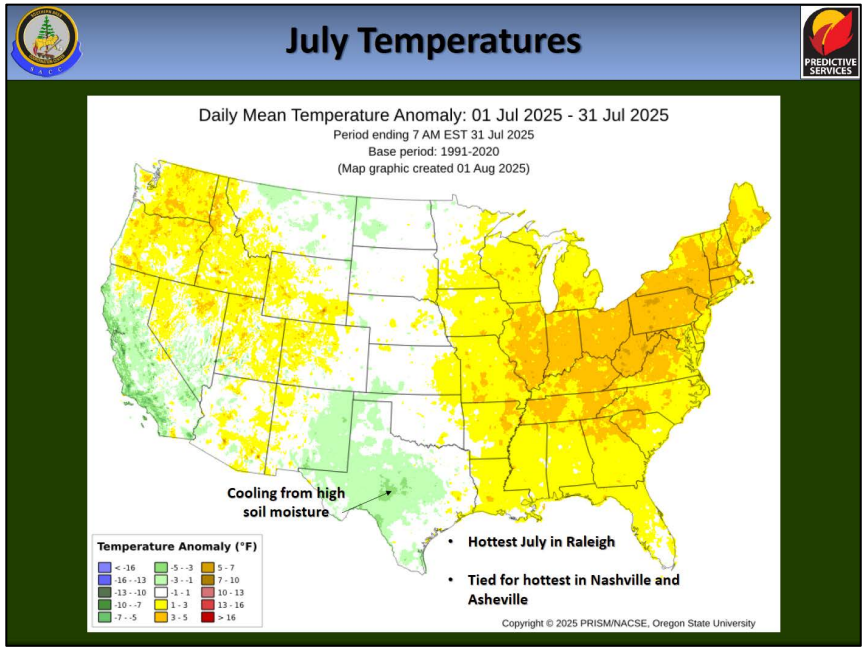


- Note the 7- & 30-day PNP graphics. Generally, much improved over longer term, while several shorter-term drier pockets are also evident at the 7- & 30-day time scales.
- Streamflow improvements throughout majority of state.
- 30/60/90/180 Day SPI picking up on improvements across most of the state. There are still scattered pockets of dryness at various time scales, although the extent and intensity of these have decreased (left).
- 180-Day Percent of Normal Precip – areas in darker yellow represent 75-90% of normal (bottom right).

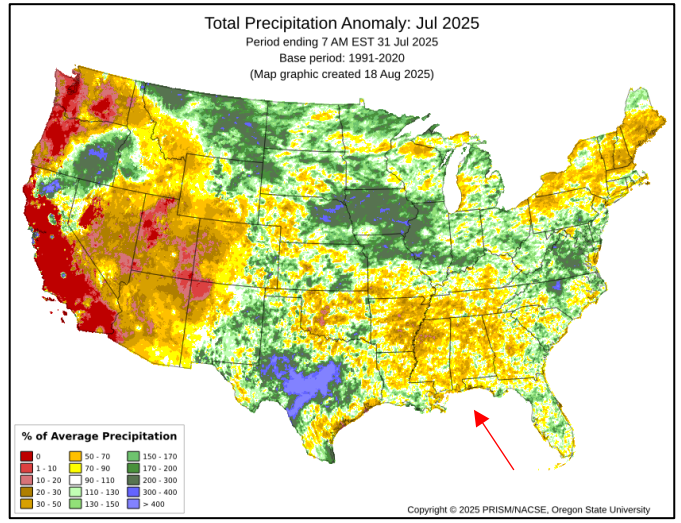


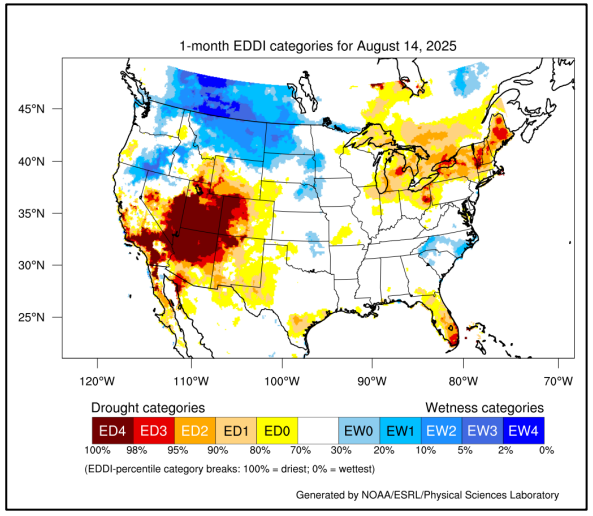
14-Day Station Precip Totals & GVF

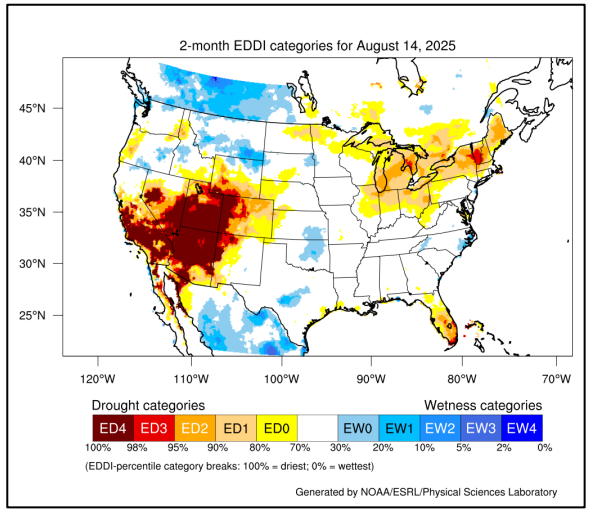




July Precip Anomalies







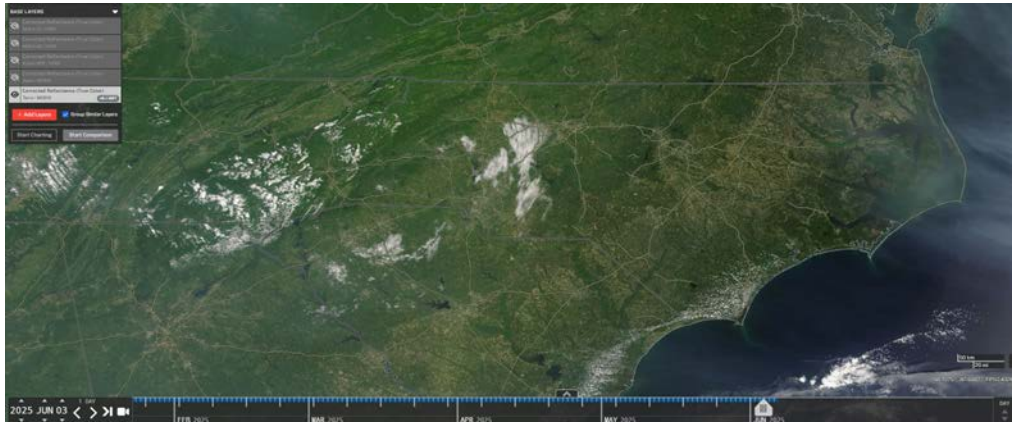
14-Day Precip ranges from ~0.70” to 9.0” + for stations in North Carolina.

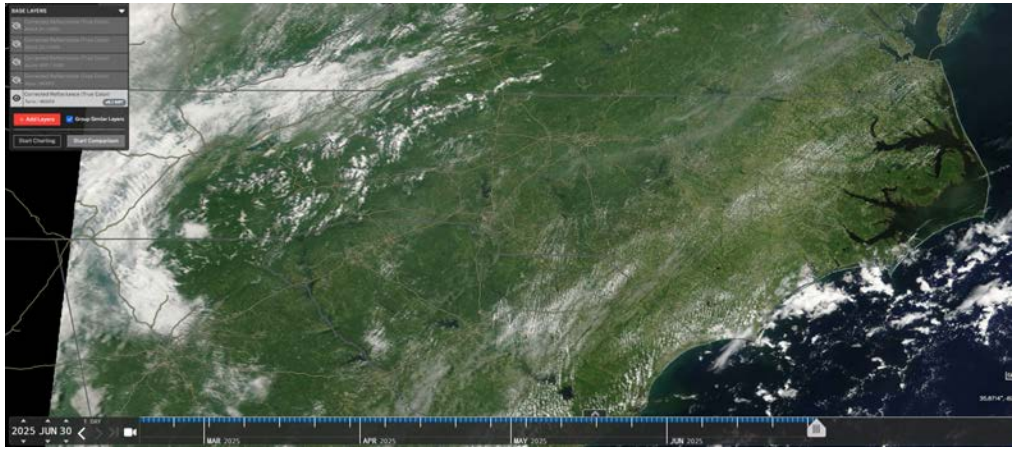
Very warm July for the Eastern US followed by cooler conditions more recently, dryness increased most significantly in western portion of SA.

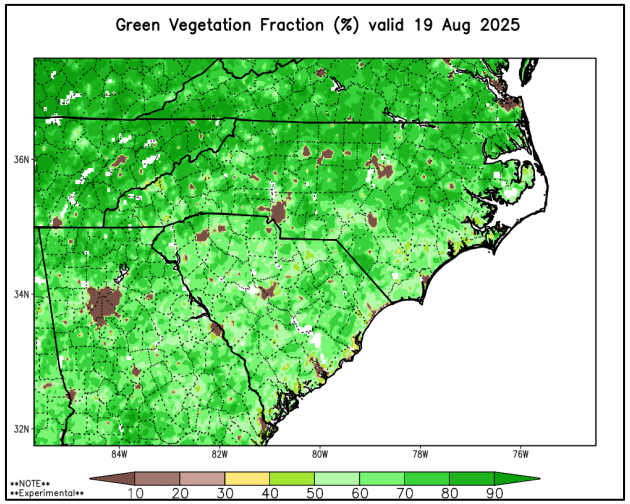
Observed EDDI values for most of NC have been near normal, with some areas averaging much lower evaporative demand (darker blue colors) over the past 4–8-week timescales for period ending on 8/14.

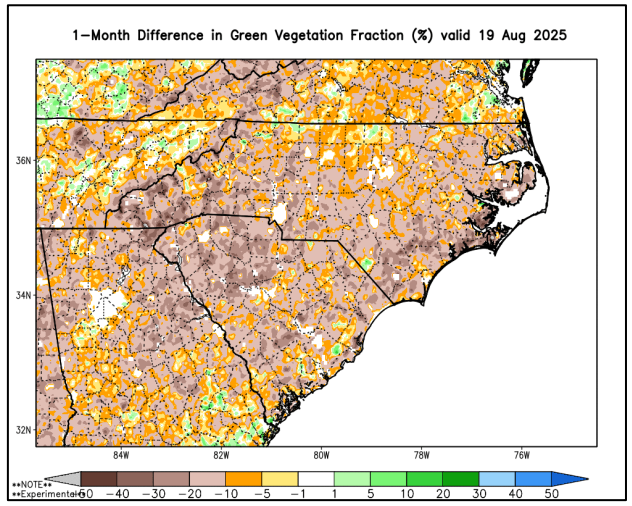
Green Fraction & Green-Up Anomaly

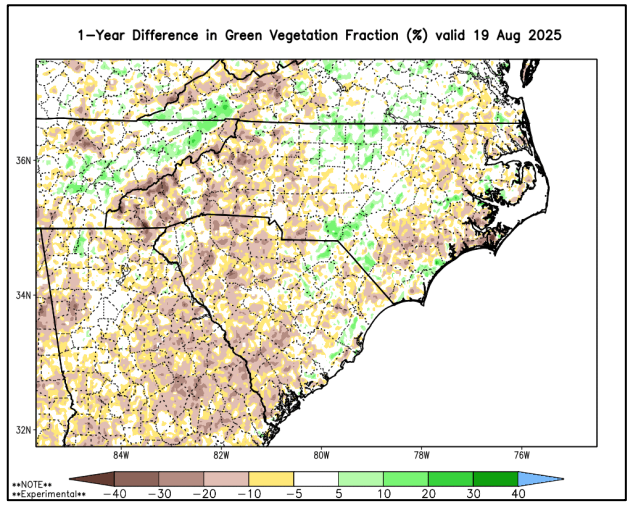
NASA Worldview Maps from Aqua/MODIS and Terra/MODIS sensors on left illustrate monthly true color representation – June 3 (top), June 30 (middle), and August 17 (bottom).











North Carolina Drought Update

Created By: North Carolina Drought Management Advisory Council www.ncdrought.org | NC CLIMATE OFFICE climate.ncsu.edu | NC STATE @NCSCO

For the assessment period ending **Aug. 12, 2025**

*From the US Drought Monitor, with input from the **NC DMAC***

The Main Takeaway

Some Abnormally Dry (D0) conditions in the Coastal Plain improved after our recent rainfall, leaving just one Abnormally Dry pocket near New Bern and Washington.

This Week's Summary

Shower activity ramped up again earlier this week, with widespread totals of at least 2 inches and some flash flooding in the wettest areas like downtown Raleigh. Streamflows are now at or above normal statewide, soil moisture levels have bounced back since the late July heat wave, and all but a small section of the central coastline is wetter than normal for the past 2 months.

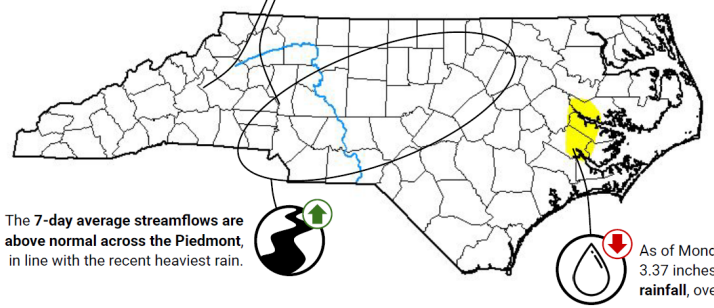
Next Week's Outlook

Expect near-normal high temperatures in the mid to upper 80s through early next week, along with chances for scattered showers and storms through Saturday.

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

Lake James and Lake Norman are a half-foot to a foot above their target levels after the recent heavy rainfall.

Statewide, **36% of corn has reached maturity with 78% in good or excellent condition**, per the latest USDA/NASS Crop Progress Report.



The **7-day average streamflows are above normal across the Piedmont**, in line with the recent heaviest rain.

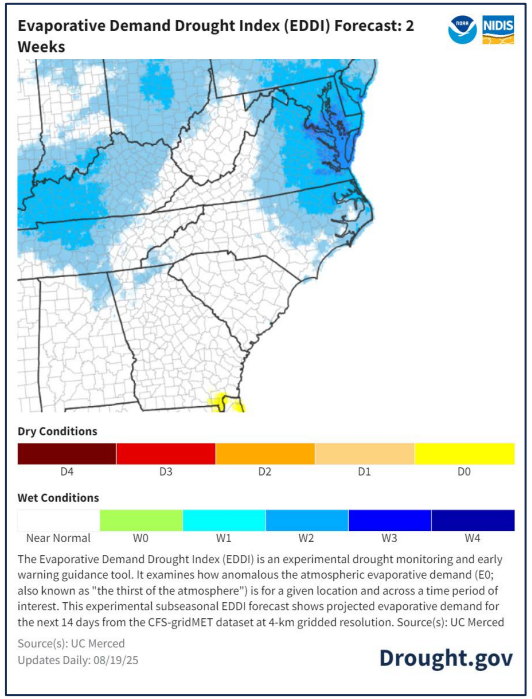
As of Monday, New Bern had just 3.37 inches, or **half of its normal rainfall**, over the previous 30 days.

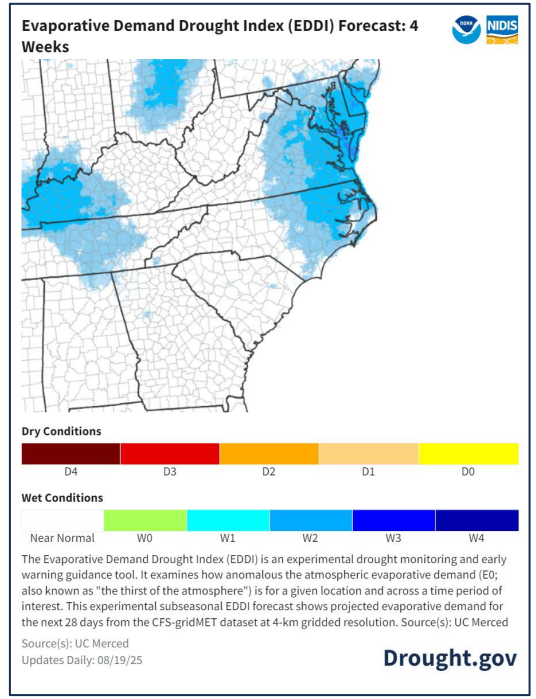
Last Week's Drought Status

Statewide Coverage by Category

Category	Current Coverage	Change Since Last Week
D0: Abnormally Dry	1.78%	-1.77%
D1: Moderate Drought	0.00%	0.00%
D2: Severe Drought	0.00%	0.00%
D3: Extreme Drought	0.00%	0.00%
D4: Exceptional Drought	0.00%	0.00%

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



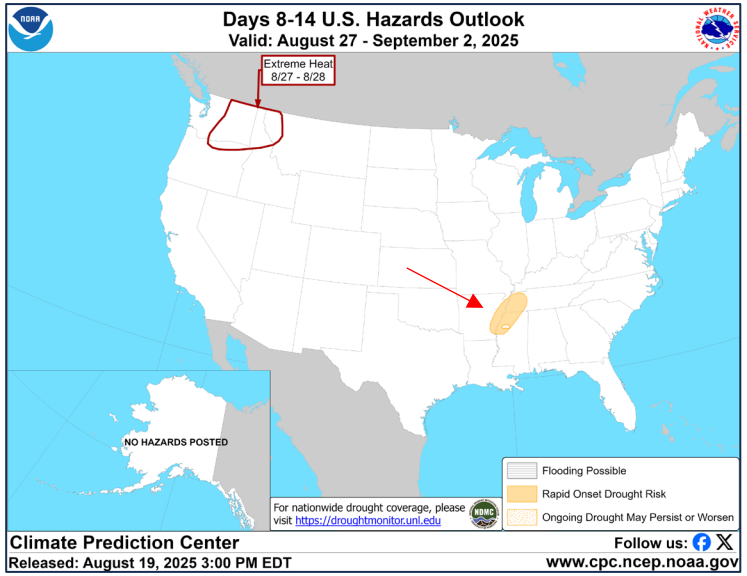


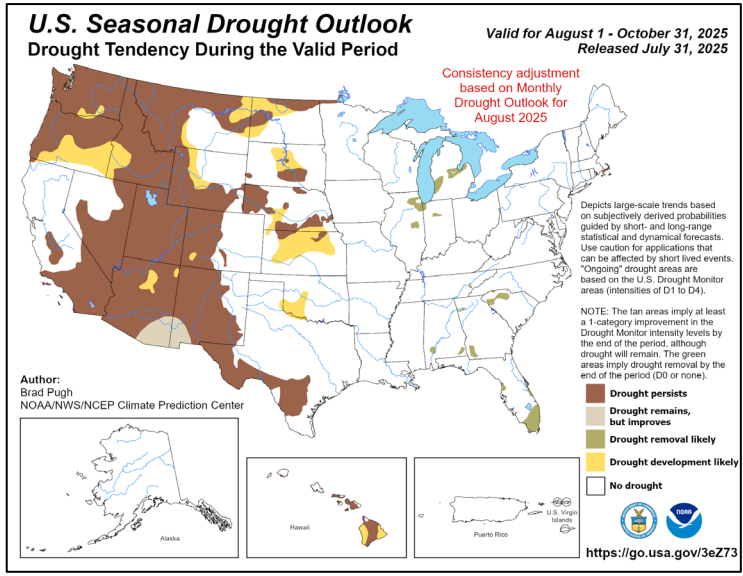
EDDI & Drought

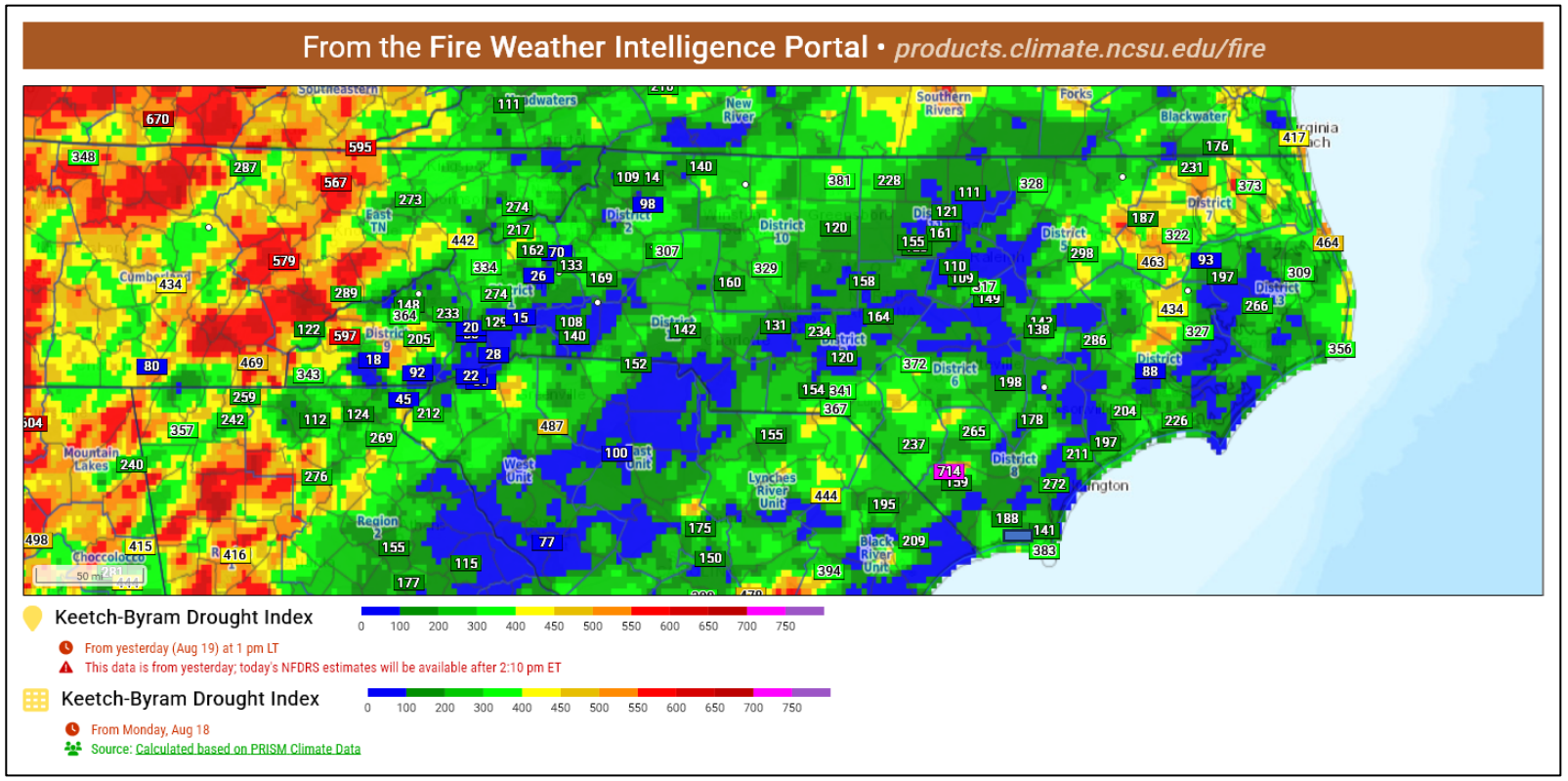
EDDI Maps - The EDDI maps at the top right illustrate modeled evaporative demand at the two-week and four-week avg level. They are generally trending near to below normal at both time scales. Warmth, lack of precip and dry air accelerates this index.

US Drought Monitor – USDM map released last week, note map has less than 2% of state in D-0 for 8/12 Assessment Period.

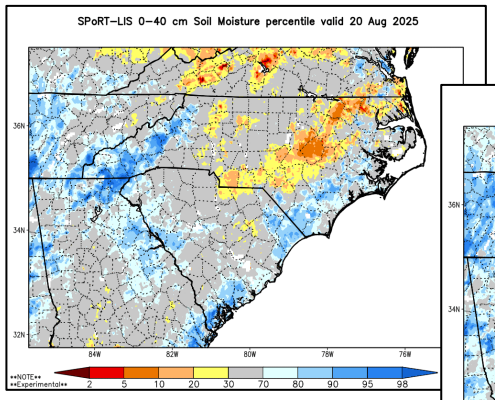
Rapid Onset Drought Risk & Seasonal Drought Outlook - shown at right. See detailed state/regional discussions here. Still favoring absence of widespread drought for much of the Southeast. *All of this is dependent upon any future tropical storm tracks and typical seasonal variability we see moving through late summer and early fall.*



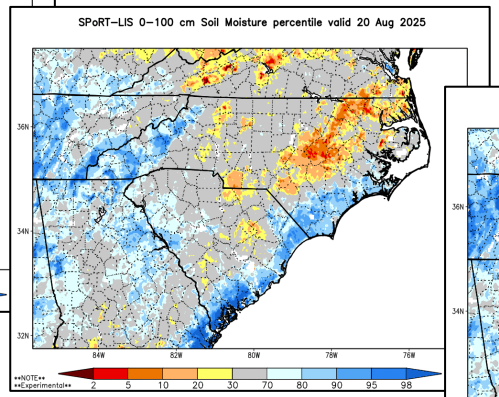




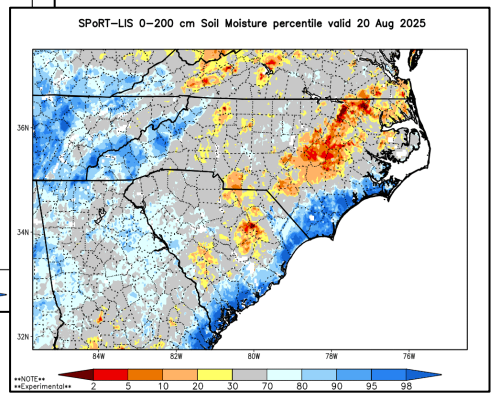
- KBDIs have generally decreased due to repeated rounds of unsettled weather over the past month for much of NC. Pockets of higher values remain due to the scattered, but heavy, nature of precip.
- Note modeled 0-200 cm soil moisture percentile, representing the ~0-6 ft. soil profile across the landscape (bottom left).
- USDM Map comparison – 2016, 2024, 2025.



0-40 cm

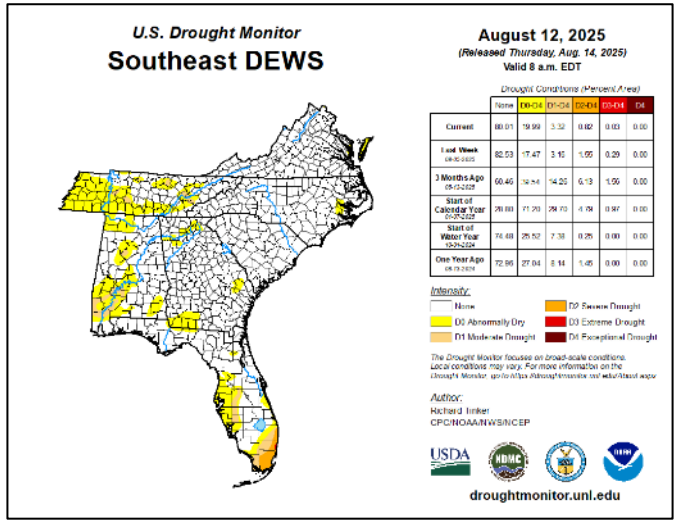


0-100 cm

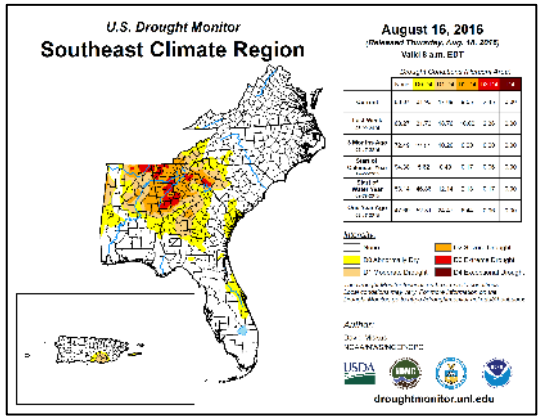


0-200 cm

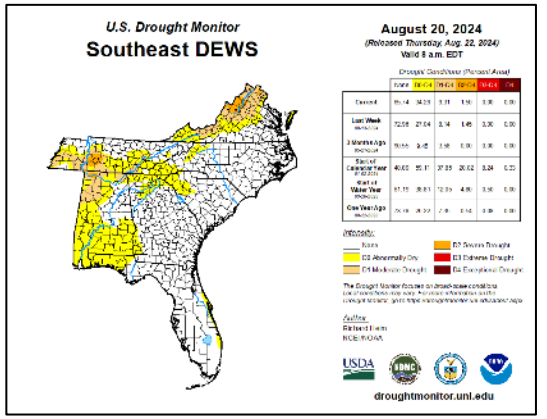
Current



2016

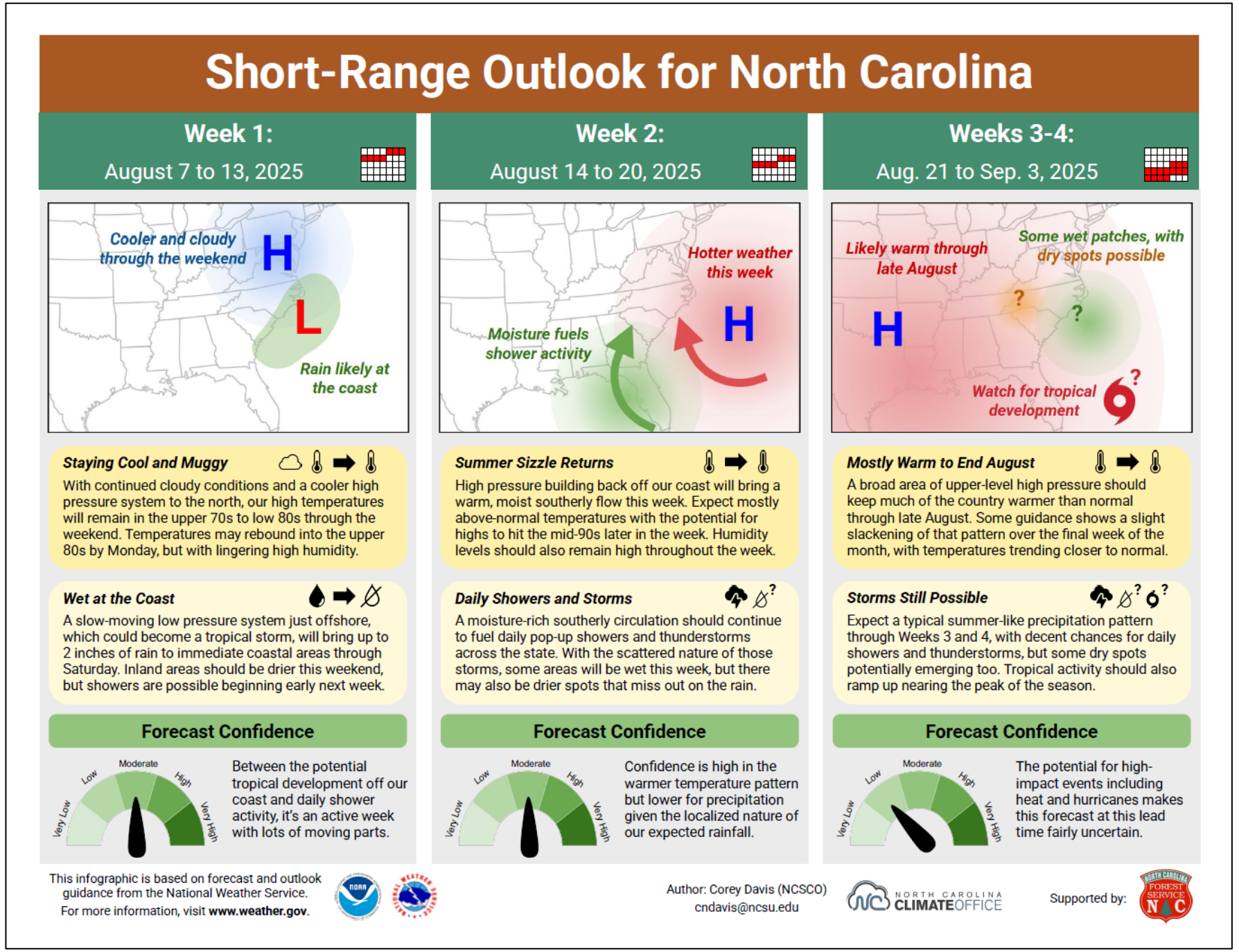


2024



State Climate Office: Short-Range Monthly Outlook for NC

Released ***8/7/25***
Location: https://climate.ncsu.edu/fire/outlooks/

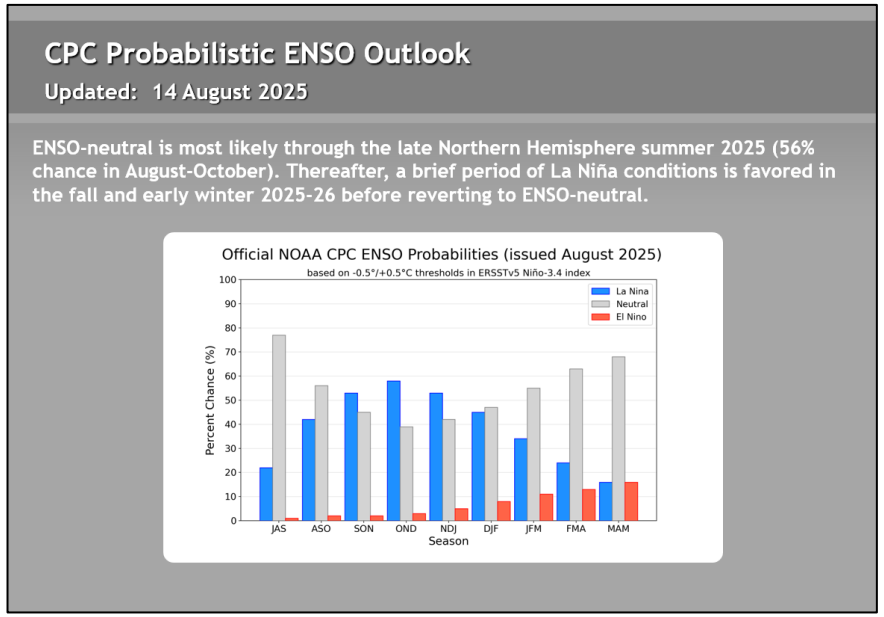


ENSO Notes from the CPC (8/18/25 Update)

ENSO Alert System Status: **La Niña Watch** (ENSO-neutral is present)

ENSO-neutral is most likely through the late Northern Hemisphere summer 2025 (56% chance in August-October). Thereafter, a brief period of La Niña conditions is favored in the fall and early winter 2025-26 before reverting to ENSO-neutral.

ENSO, or El Nino 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 Nina, NC has drier than normal conditions and can have more fire occurrence. However, La Nina also can lead to more tropical activity. El Nino, on the other hand, usually means wetter weather for NC, but less opportunity for tropical landfalls due to increased wind shear. In order to declare a La Nina, the departure from average SST must be at least -0.5^{o} C (line shown in green) for 3 consecutive months. For El Nino, the departure must be at least 0.5^{o} C above average for 3 consecutive months.



See this link for further discussion: https://www.climate.gov/news-features/blogs/enso/april-2025-enso-update-la-nina-has-ended

Historical El Niño and La Niña Episodes Based on the ONI computed using ERSST.v5

Recent Pacific warm (red) and cold (blue) periods based on a threshold of +/- 0.5 °C for the Oceanic Nino Index (ONI) [3 month running mean of ERSST.v5 SST anomalies in the Nino 3.4 region (5N-5S, 120-170W)]. For historical purposes, periods of below and above normal SSTs are colored in blue and red when the threshold is met for a minimum of 5 consecutive over-lapping seasons.

The ONI is one measure of the El Niño-Southern Oscillation, and other indices can confirm whether features consistent with a coupled ocean-atmosphere phenomenon accompanied these periods. The complete table going back to DJF 1950 can be found here.

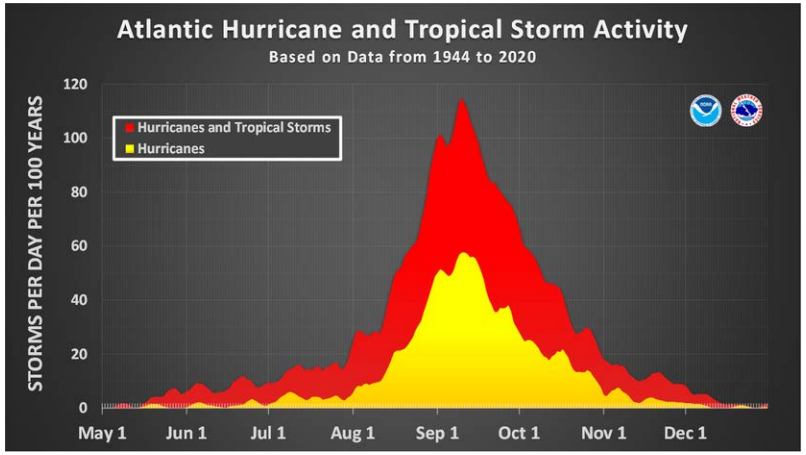
Year	DJF	JFM	FMA	MAM	AMJ	MJJ	JJA	JAS	ASO	SON	OND	NDJ
2013	-0.4	-0.4	-0.3	-0.3	-0.4	-0.4	-0.4	-0.3	-0.3	-0.2	-0.2	-0.3
2014	-0.4	-0.5	-0.3	0.0	0.2	0.2	0.0	0.1	0.2	0.5	0.6	0.7
2015	0.5	0.5	0.5	0.7	0.9	1.2	1.5	1.9	2.2	2.4	2.6	2.6
2016	2.5	2.1	1.6	0.9	0.4	-0.1	-0.4	-0.5	-0.6	-0.7	-0.7	-0.6
2017	-0.3	-0.2	0.1	0.2	0.3	0.3	0.1	-0.1	-0.4	-0.7	-0.8	-1.0
2018	-0.9	-0.9	-0.7	-0.5	-0.2	0.0	0.1	0.2	0.5	0.8	0.9	0.8
2019	0.7	0.7	0.7	0.7	0.5	0.5	0.3	0.1	0.2	0.3	0.5	0.5
2020	0.5	0.5	0.4	0.2	-0.1	-0.3	-0.4	-0.6	-0.9	-1.2	-1.3	-1.2
2021	-1.0	-0.9	-0.8	-0.7	-0.5	-0.4	-0.4	-0.5	-0.7	-0.8	-1.0	-1.0
2022	-1.0	-0.9	-1.0	-1.1	-1.0	-0.9	-0.8	-0.9	-1.0	-1.0	-0.9	-0.8
2023	-0.7	-0.4	-0.1	0.2	0.5	0.8	1.1	1.3	1.6	1.8	1.9	2.0
2024	1.8	1.5	1.1	0.7	0.4	0.2	0.0	-0.1	-0.2	-0.3	-0.4	-0.5
2025	-0.6	-0.4	-0.2	-0.1	-0.1	-0.1						

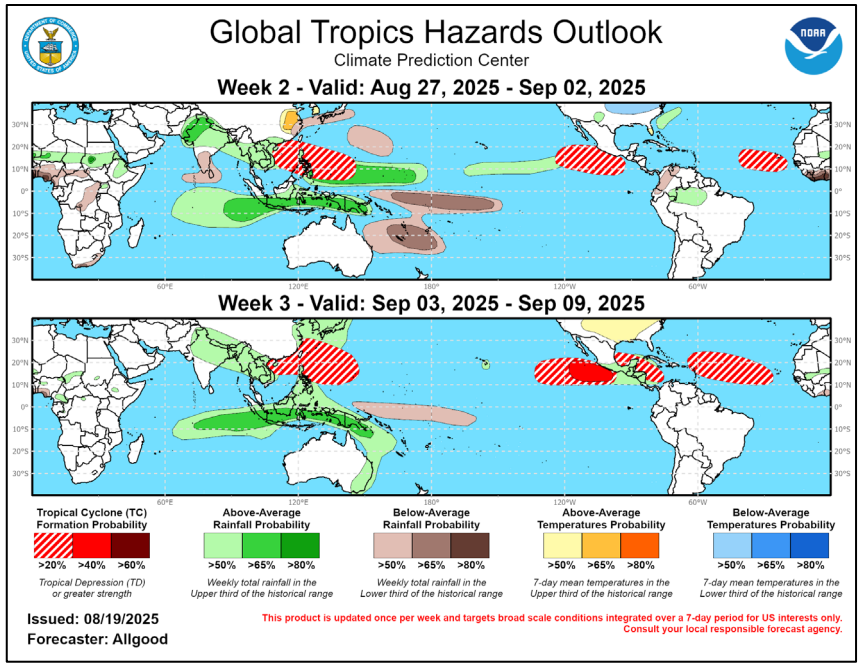
From the most recent CPC Diagnostic Discussion (ENSO Diagnostics Discussion):

The IRI predictions indicate ENSO-neutral is most likely to persist through the Northern Hemisphere winter 2025-26 [Fig. 6]. However, similar to last month, the North American Multi-Model Ensemble favors La Niña conditions for a short duration during the Northern Hemisphere fall and early winter. Based on this guidance and recent changes in the tropical Pacific, the forecast team narrowly favors La Niña thresholds being reached in three overlapping, 3-month seasons (Niño-3.4 index ≤ -0.5°C during September-November, October-December, and November-January). In summary, ENSO-neutral is most likely through the late Northern Hemisphere summer 2025 (56% chance in August-October). Thereafter, a brief period of La Niña conditions is favored in the fall and early winter 2025-26 before reverting to ENSO-neutral [Fig. 7].

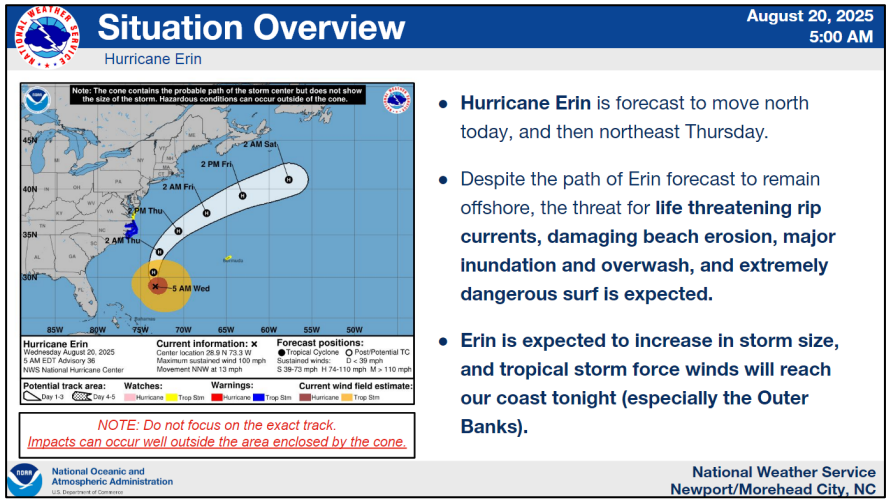
Slide Source: *https://www.cpc.ncep.noaa.gov/products/analysis_monitoring/lanina/enso_evolution-status-fcsts-web.ppt*

Tropical Related

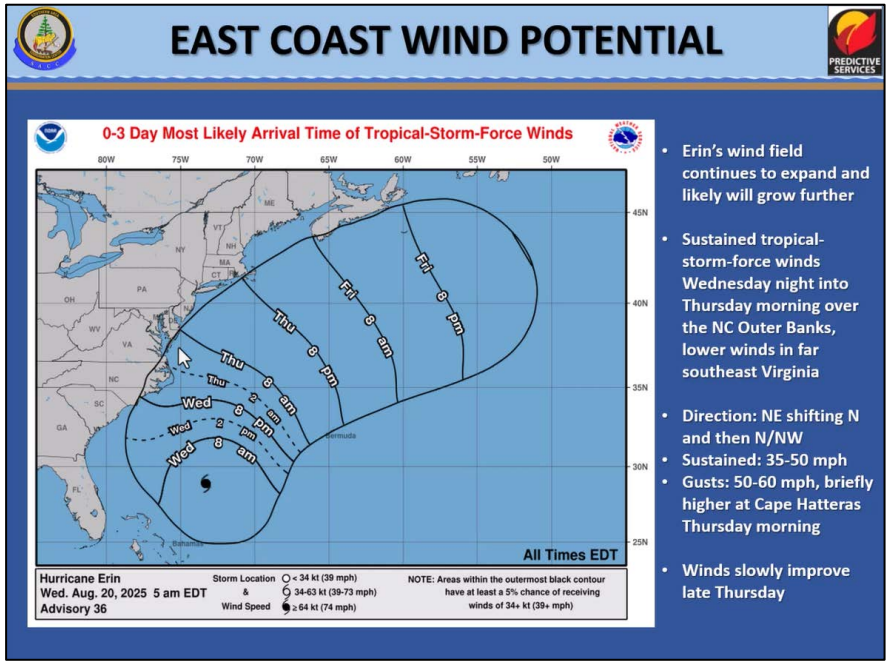




Hurricane Erin Note:



- **Hurricane Erin** is forecast to move north today, and then northeast Thursday.
- Despite the path of Erin forecast to remain offshore, the threat for **life threatening rip currents, damaging beach erosion, major inundation and overwash, and extremely dangerous surf is expected.**
- **Erin is expected to increase in storm size, and tropical storm force winds will reach our coast tonight (especially the Outer Banks).**



- Erin's wind field continues to expand and likely will grow further
- Sustained tropical-storm-force winds Wednesday night into Thursday morning over the NC Outer Banks, lower winds in far southeast Virginia
- Direction: NE shifting N and then N/NW
- Sustained: 35-50 mph
- Gusts: 50-60 mph, briefly higher at Cape Hatteras Thursday morning
- Winds slowly improve late Thursday

https://gacc.nifc.gov/sacc/resources/predictive/sacctropical.mp4

Tropical Related

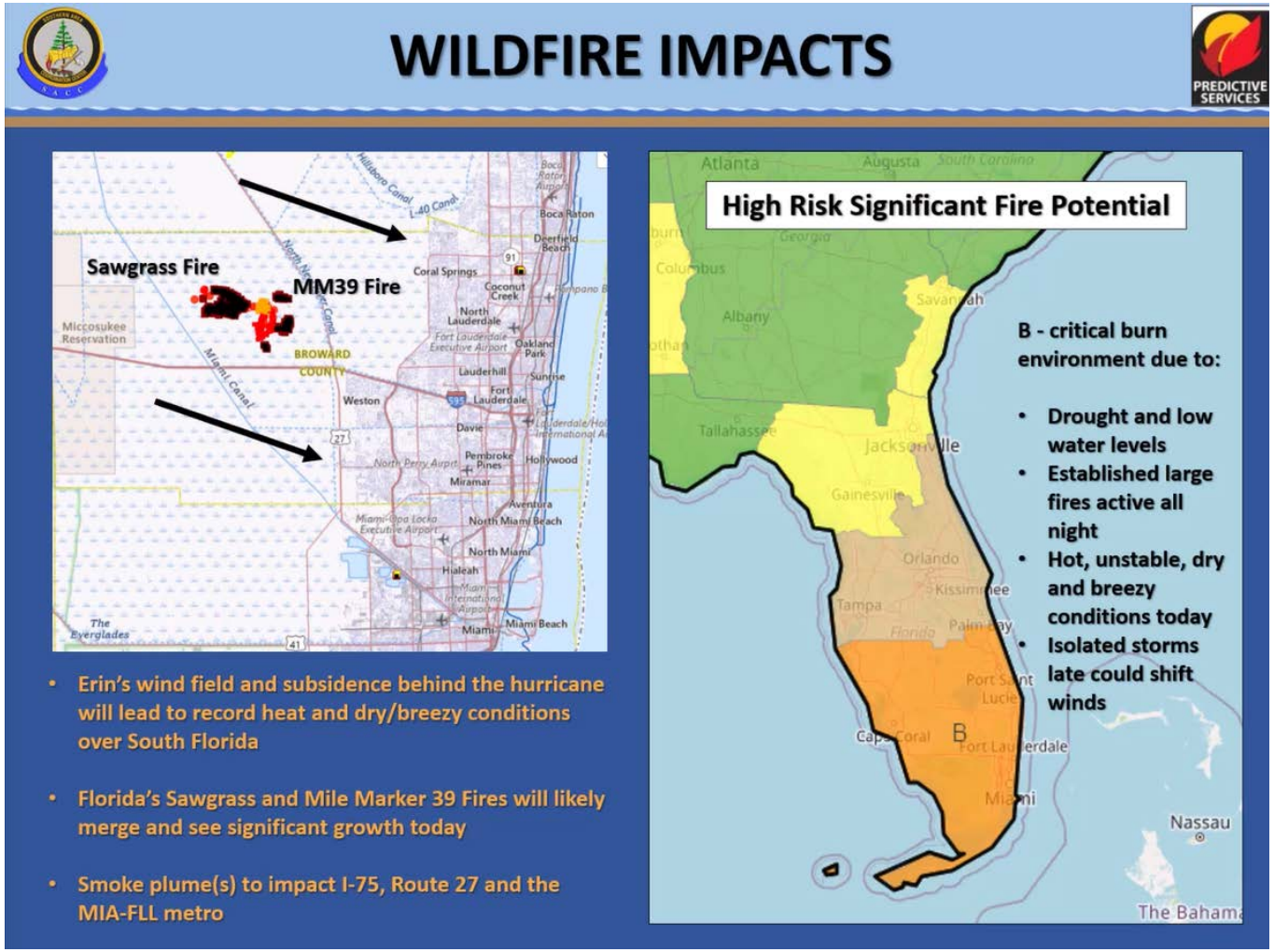
From SA Tropical Update on 8/20/25

Tropical Cyclones and Their Adjacent Dry and Breezy Conditions*

Dual Impact of Tropical Cyclones: While tropical cyclones can quickly alleviate drought conditions through heavy rainfall, they can also generate critical fire weather on their periphery. Strong winds, not directly linked to the cyclone's core, often occur between the cyclone and high-pressure systems. As high-pressure systems strengthen in fall, they generate dry air masses, which, combined with subsiding air from cyclones, can create corridors of dry, gusty winds.

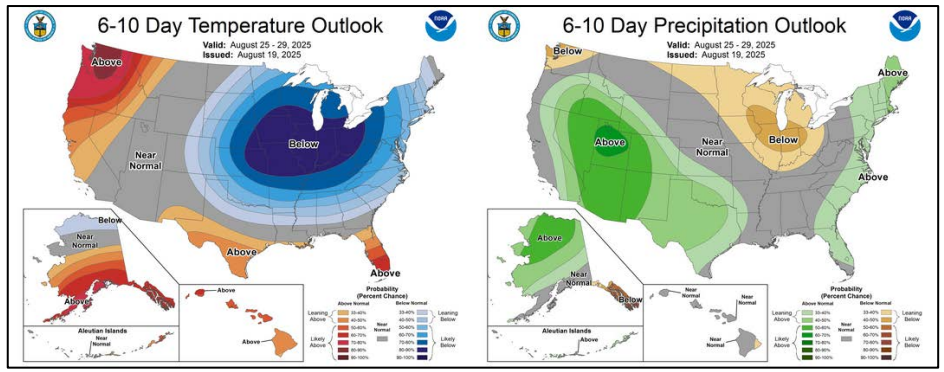
Subsidence and Fire Risk: Subsidence, or downward-moving air on the edges of a cyclone, can warm as it descends, further drying the atmosphere. This warming can create localized areas of extreme fire danger, with enhanced winds contributing to faster fire spread. Tropical Storm Harold and Hurricane Idalia demonstrated this effect, leading to enhanced fire weather conditions. Historically, many tropical storms have resulted in similar impacts.

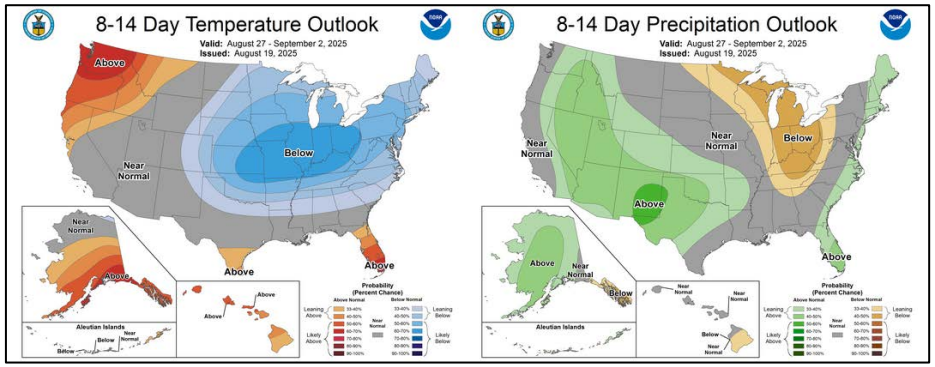
Text from SA 2024 Fall Risk Assessment

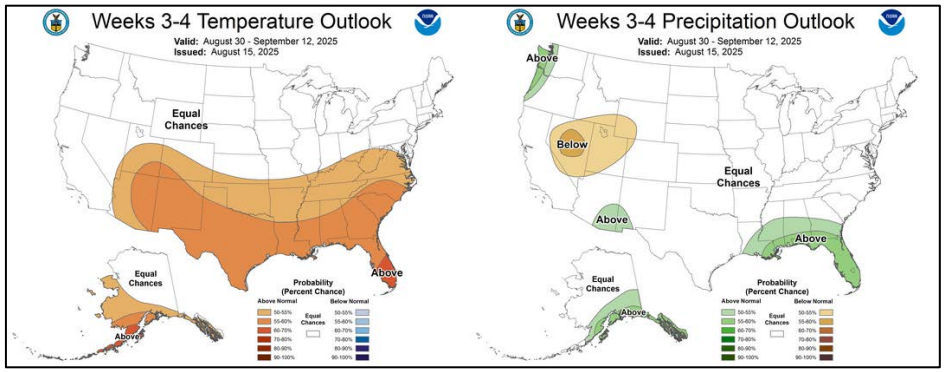


Temp & Precip Outlook

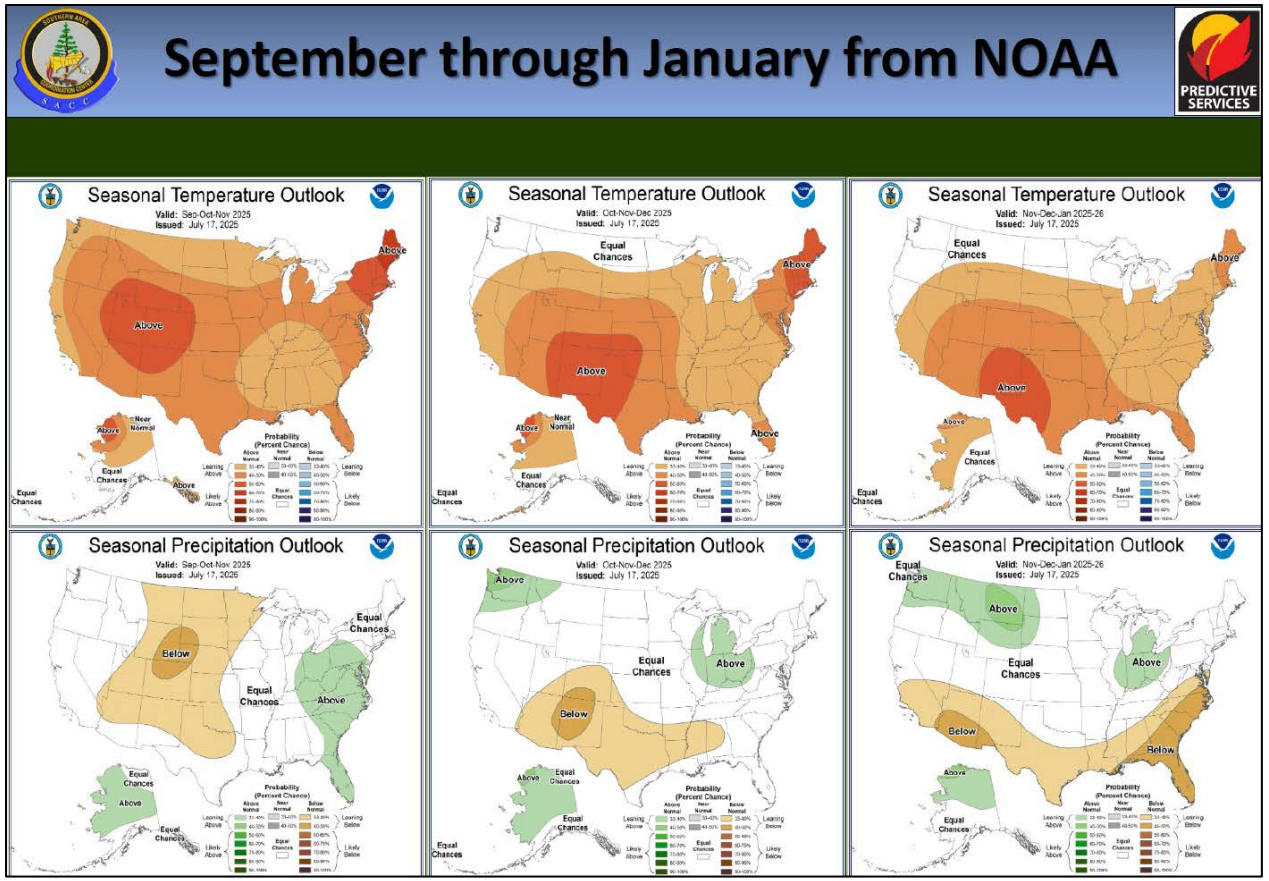
6-10 Day, 8-14 Day, Weeks 3-4, Seasonal (S/O/N, O/N/D, N/D/J)







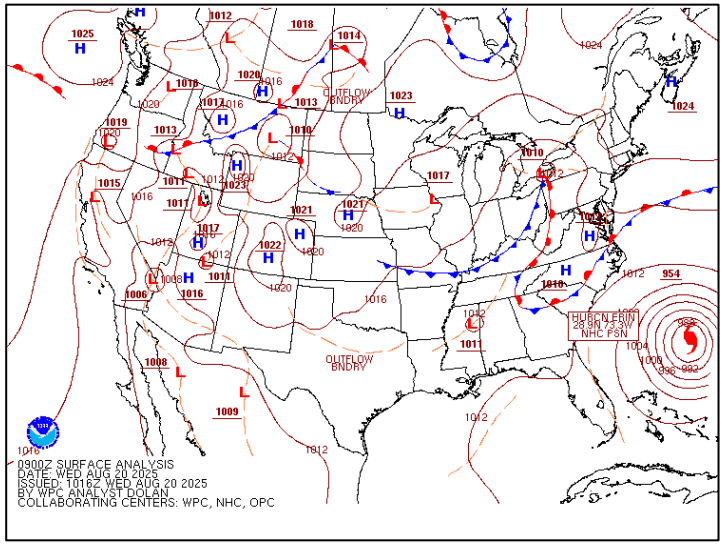
https://www.cpc.ncep.noaa.gov/products/predictions/long_range/fxus05.html



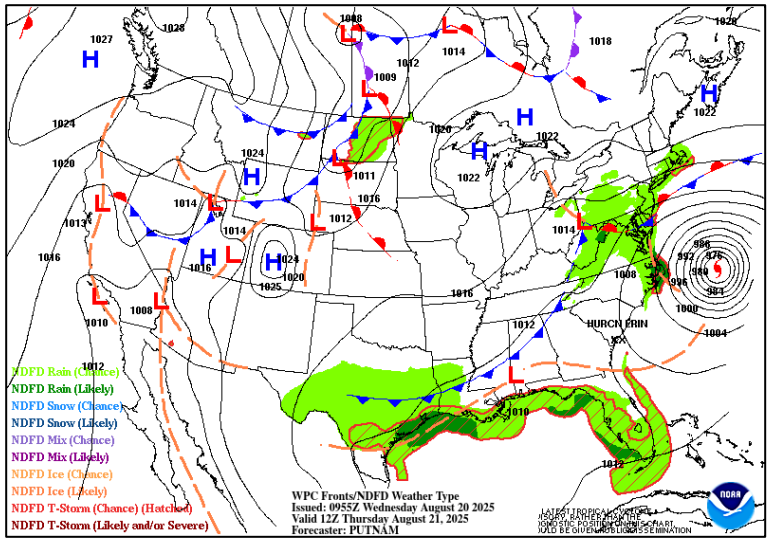
Last Updated by CPC on July 17th

WPC Forecasted Surface Fronts & Sea-Level Pressures

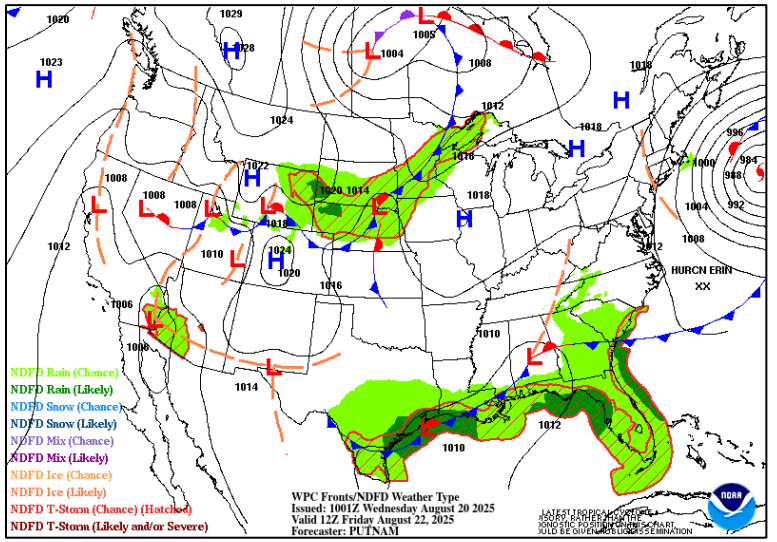
Day-1 @ 09Z Surface Analysis



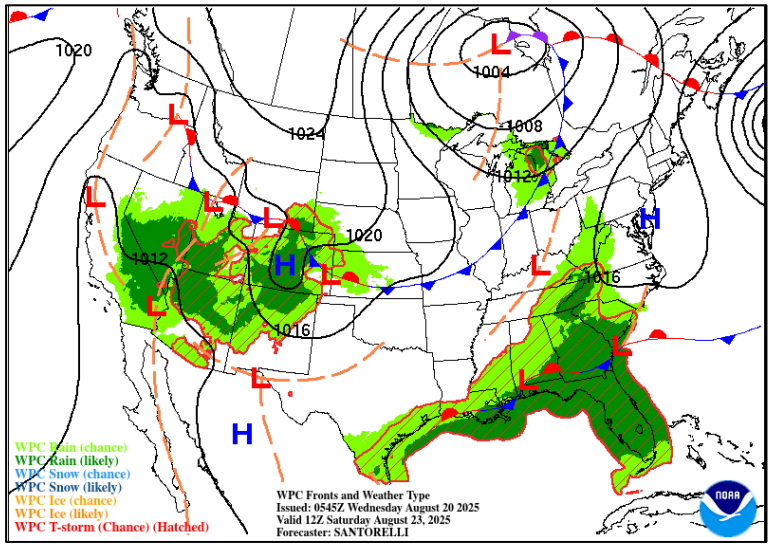
Day 2 - @ 12Z (0800 EDT)



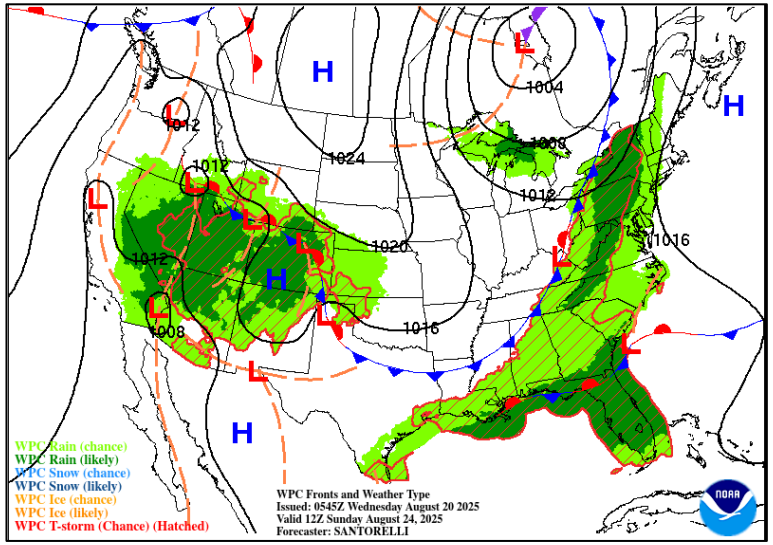
Day 3 @ 12Z (0800 EDT)



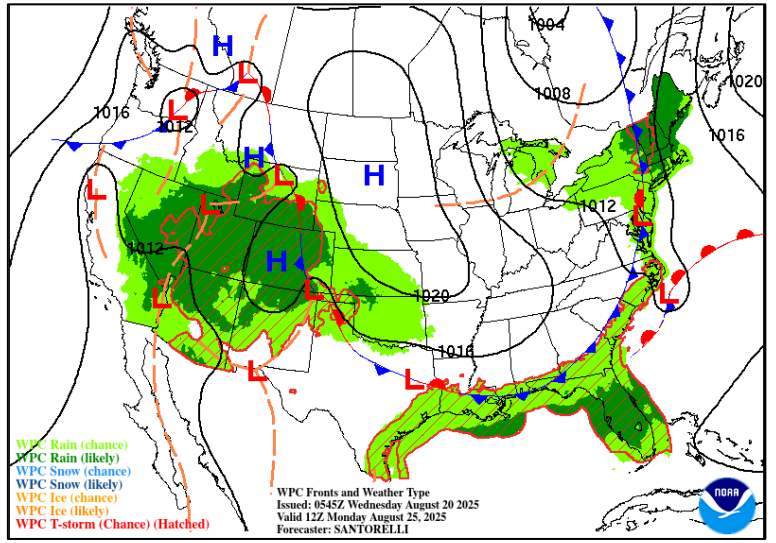
Day 4 @ 12Z (0800 EDT)



Day 5 @ 12Z (0800 EDT)



Day 6 @ 12Z (0800 EDT)

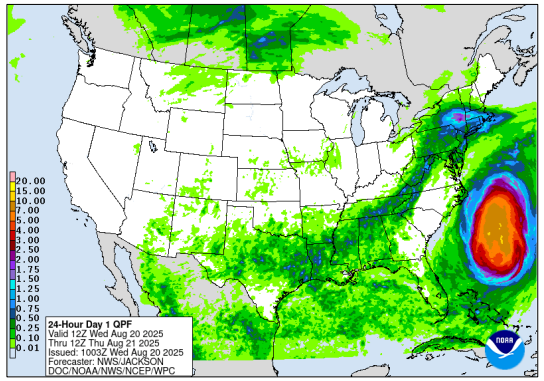


Location: https://www.wpc.ncep.noaa.gov/#

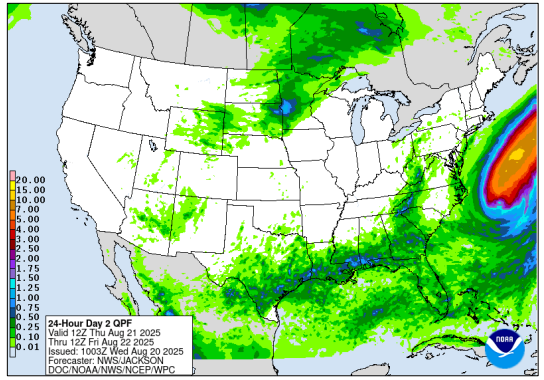
Quantitative Precipitation Forecast, 7-Day

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

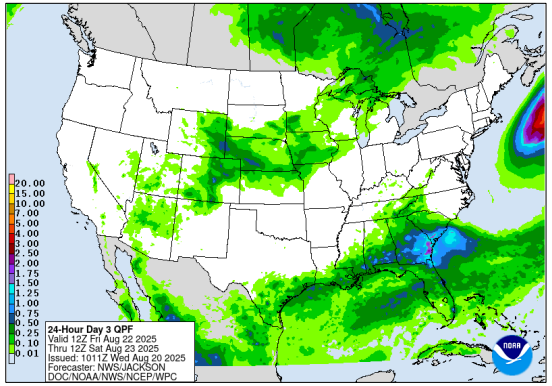
Day – 1



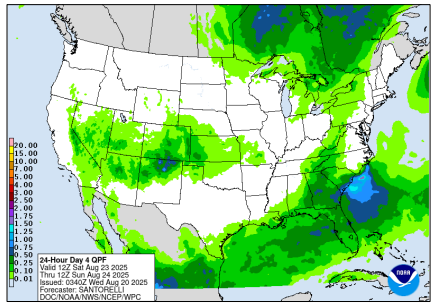
Day - 2



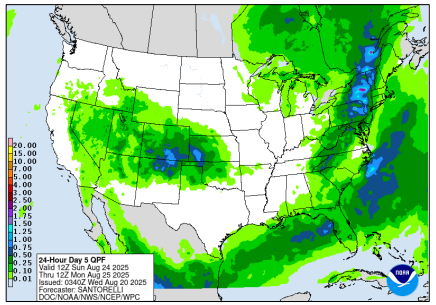
Day - 3



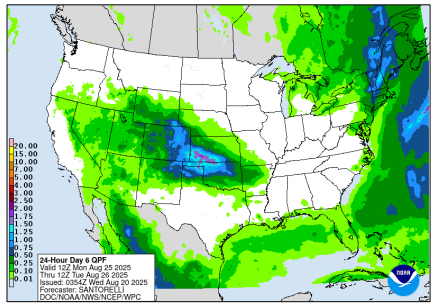
Day - 4



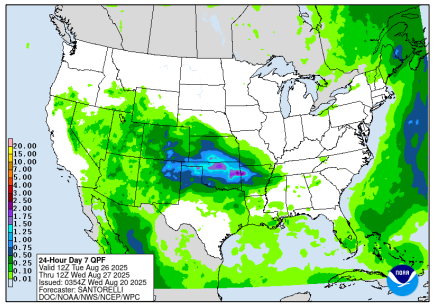
Day - 5



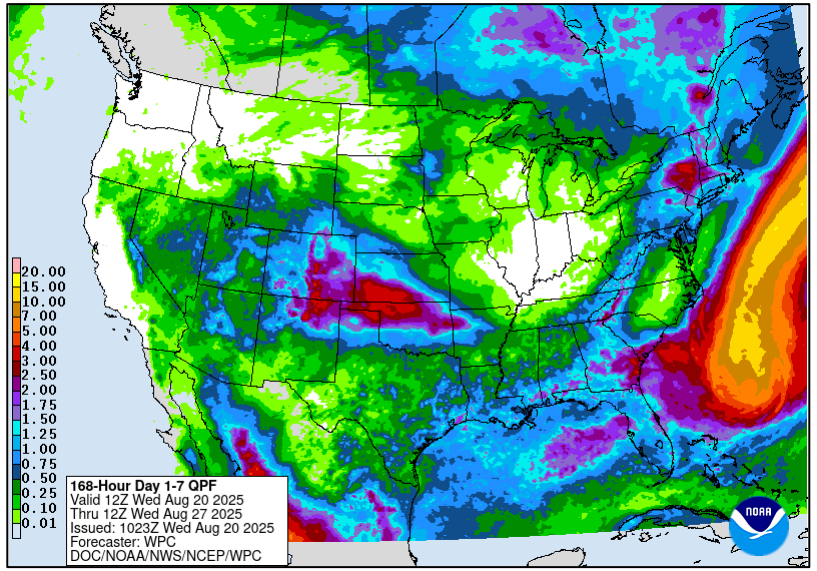
Day - 6



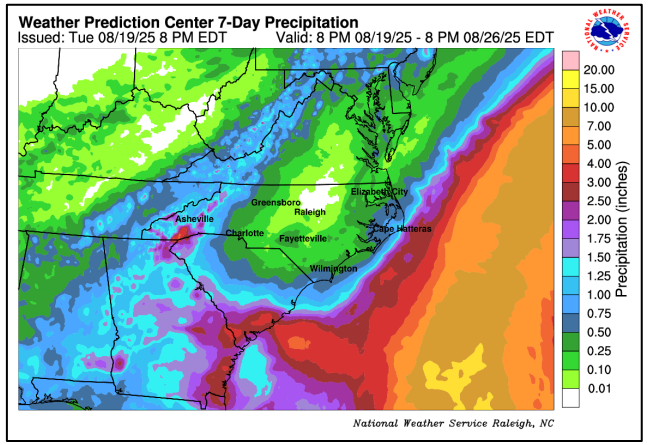
Day - 7

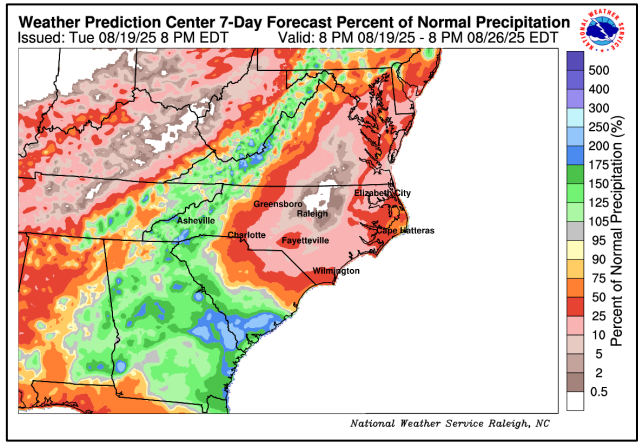


Days 1 – 7 QPF



Zoom - Days 1 – 7 QPF





NFDRS Observations from yesterday, August 19th

(Averaged for each FDRA by SIG Group & "All Days Filter")

Averages by FDRA

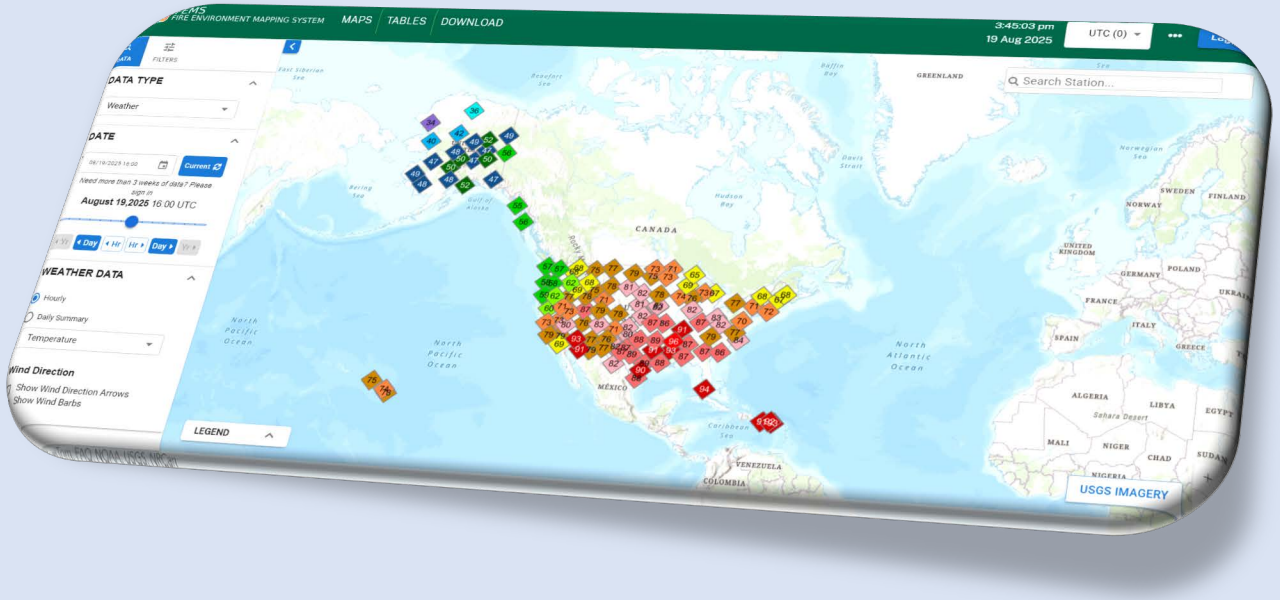
FDRA	STATION_COUNT	NFDR_DATE	BI	ERC	IC	SC	KBDI	1HR	10HR	100HR	1000HR	HRB	WOODY	TEMP	RH	WIND	PRECIP	DUR
Southern Highlands	3	2025-08-19	13.10 17.9%	6.93 21.9%	1.30 27.6%	3.90 16.1%	201.33	22.38 80.0%	23.64 81.7%	19.35 46.0%	23.47 87.0%	241.27	193.67	78.0°F	78.0%	SSE 3.3 mph	0.07 in.	2.0
Central Mountains	3	2025-08-19	7.60 13.4%	5.47 16.9%	0.93 26.3%	2.23 12.1%	171.00	19.86 77.1%	25.10 87.4%	18.94 49.8%	23.50 97.0%	250.00	200.00	82.0°F	67.7%	SW 2.0 mph	0.51 in.	5.0
Northern Highlands	2	2025-08-19	12.25 21.8%	4.60 22.1%	0.50 34.2%	4.65 31.2%	70.00	18.77 70.7%	25.08 86.5%	19.39 50.6%	24.88 98.5%	250.00	200.00	79.0°F	72.5%	WSW 5.0 mph	0.79 in.	6.0
Blue Ridge Escarpment	3	2025-08-19	9.83 16.1%	4.80 17.8%	0.53 23.1%	2.97 14.5%	113.00	20.21 77.7%	24.89 84.7%	20.12 58.2%	22.04 78.2%	239.67	192.67	78.0°F	76.7%	ESE 2.3 mph	0.05 in.	2.0
Western Piedmont	3	2025-08-19	12.83 13.0%	8.00 15.9%	0.73 18.6%	3.00 11.3%	208.67	17.33 78.3%	21.44 78.2%	16.81 33.5%	23.23 94.8%	250.00	200.00	79.7°F	72.3%	SE 2.3 mph	0.00 in.	0.0
Sandhills	3	2025-08-19	20.80 19.0%	21.53 21.5%	2.47 19.9%	3.40 20.5%	277.67	16.31 77.0%	20.77 77.7%	18.16 40.5%	23.62 97.7%	250.00	200.00	83.7°F	68.7%	SW 3.3 mph	0.00 in.	0.0
Eastern Piedmont	4	2025-08-19	12.58 9.6%	7.15 12.4%	0.50 15.8%	3.23 6.8%	208.75	18.95 83.4%	20.40 72.9%	17.08 22.6%	22.52 95.6%	250.00	200.00	77.8°F	80.8%	NE 4.5 mph	0.00 in.	0.0
Southern Coastal	7	2025-08-19	9.01 7.5%	4.46 8.8%	0.63 16.0%	2.73 7.2%	204.86	20.31 83.9%	24.16 86.1%	19.09 46.5%	23.80 95.3%	244.60	197.71	84.9°F	73.9%	NE 3.4 mph	0.59 in.	2.3
Northern Coastal	4	2025-08-19	7.95 9.7%	7.30 14.4%	0.40 12.2%	1.23 6.8%	289.50	18.02 78.6%	22.31 80.9%	19.22 52.8%	21.49 70.2%	250.00	191.50	84.3°F	74.0%	NW 2.8 mph	0.51 in.	2.0

BI/ERC/IC/SC Percentiles (%) 0 10 20 30 40 50 60 70 80 90

Fuel Moisture Percentiles (%) 0 10 20 30 40 50 60 70 80 90

Note decline in 100-hr dead fuel class, while recent unsettled weather/precip has led to increase in 1000-hr fuel moisture and modeled live fuel moisture across most FDRAs.

WIMS Retirement
&
Fire Environment Mapping System (FEMS)



Pending WIMS Retirement

WIMS is being retired and replaced by FEMS, part of the multi-year NFDRS V4 implementation plan.

- Key Date #1: 9/15/25 – WIMS portal access ends for users, users fully transition to using FEMS for NFDRS outputs
- Key Date #2: 9/30/25 – WIMS will go end of life with all access, including WXML data feed, turned off
- Key Date #3: 10/1/25 – FEMS becomes the operational and authoritative NFDRSv4 database

- Please refer to the Transition Materials link for briefing materials, updating as needed by the national program.

- Please read the "Summary of Changes from WIMS to Fire Environment Mapping System (FEMS)" document.

Fundamental Differences with FEMS:

Weather Forecasts & Data Management

- **Forecast Source & Updates**
  - Hourly forecasts are provided directly from the **Office of Atmospheric Research (OAR)**, not from local weather service offices.
  - Forecast periods align with **NWS Midnight–Midnight** windows (not 1300–1300).
  - Forecasts are updated daily at **0300z**.
- **Snow Flags**
  - Snow flag observations are automated and updated daily at **1600z**.
  - Snow flags are **not part of the NOAA forecast**.
- **Weather Observations & Station Metadata**
  - Data and metadata are linked from **WXx-weather**; field users cannot adjust them directly in FEMS.
  - Station metadata can be updated in WXx by field staff and will sync to FEMS daily.
  - Missing or incorrect observation data **cannot be corrected at the field level**.
  - Large data gaps (e.g., due to transmission issues) must be downloaded from the station and submitted to the national program via coordinators for inclusion in FEMS.
  - The national program is developing a **standard process for gap-filling and quality control (QC)**.
- **System-Level Management**
  - FEMS uses **catalog-based fire danger parameters**; multiple stations can be assigned to a single catalog.
  - Regional-level catalogs (e.g., Southeast, Midwest, Northwest) will be developed to tailor GSI and related settings.
  - The old method of individual station adjustments created wide inconsistencies across agencies, regions, and from station to station.
  - A **QA/QC'd climatological dataset** provides consistent historical weather records (2005–2022, or from station establishment if later - through 2022). Currently limited to permanent Satellite RAWS.
- **Access & Use Differences: FEMS vs WIMS**
  - Most field staff will **not need a FEMS login** via FamAuth.
  - Field staff will not edit catalogs, weather observations, or individual station parameters (not same format as WIMS).
  - A **public-facing FEMS site** allows staff to manipulate maps, view stations, and download most data.
  - The FEMS portal is intuitive and provides a variety of **graphs, tables, and visualization tools**.

Current Limitations (at rollout)

•FEMS is not yet fully built out (see referenced briefing documents).

•Mesonet stations are not currently included in FEMS.
- •ASOS and AWOS stations have recently been added as additional data sources.
- •State mesonet networks (such as the NC State Climate Office “ECONet”) are planned for inclusion in late Fall 2025.

•Portable RAWS stations will be incorporated later in the “Weather” display.
- •These stations will not generate fire danger calculations (unlike WIMS).

•The Fire Weather Intelligence Portal currently uses automated queries from WIMS to pull NFDRS data. Additional weather variables are queried separately depending on the network. These queries and scripts will be adjusted to align with FEMS specifications and available stations.

•Fire Danger will no longer be calculated once per day at 1300 Local Time. As intended with NFDRS V4, calculations now occur hourly from midnight to midnight on a UTC framework.
- •The focus is on capturing daily maximums and minimums, rather than relying on a single 1300 snapshot—which rarely represented the “worst-case” hour.
- •Because of this change, WIMS 1300 NFDRS outputs and FEMS numerical outputs should **not** be treated as interchangeable, especially when using fuel models with live fuels.

•All users are in a learning phase as the system continues to be developed and refined.

•Transitioning during the start of the Eastern U.S. fall fire season is not ideal, but necessary due to factors outside of program control.

****Expect some hiccups as the new system is fully integrated into daily operations.****

Impacts Specific to NC: FDOP and Fire Danger Outputs

Weather Stations

•State Mesonet Stations (e.g., NC ECONet) have not yet been added.
  Several North Carolina FDRAs rely on stations from alternate gateway sources (SCO ECONet).
  For example, the East Piedmont FDRA currently utilizes four of these ECONet stations.
•FEMS has recently incorporated ASOS and AWOS stations as a stopgap measure; however, these stations (e.g., RDU Airport) have no prior period of record.

Live Fuel Moisture (LFM) Model

•Currently set to a national preliminary standard in FEMS.
•Four main drivers are used: Day Length, Minimum Temperature, Vapor Pressure Deficit, and Running Total Precipitation.
•The GSI-derived LFM Model standard settings create fundamental limitations that directly affect FM-V, FM-W, and FM-X.
•National standard settings do not allow regional adjustments for local growing conditions. This will evolve over time as bugs are addressed, stations are added, and further analysis is completed.

Data and Modeling Updates

•FF+ Databases are being recalculated to align with new FEMS standards (see earlier documentation).
•For this update of the NC FDOP, only dead fuel models will be used due to the known LFM limitations in the initial FEMS rollout.
•A reevaluation will be necessary over the next year as additional alternate gateway station types are integrated.

FDOP Revision Status

•NC FDOP updates were started but then paused to allow time for FEMS development through early summer 2025.
•This pause has been recommended nationwide to ensure consistency as development progresses.

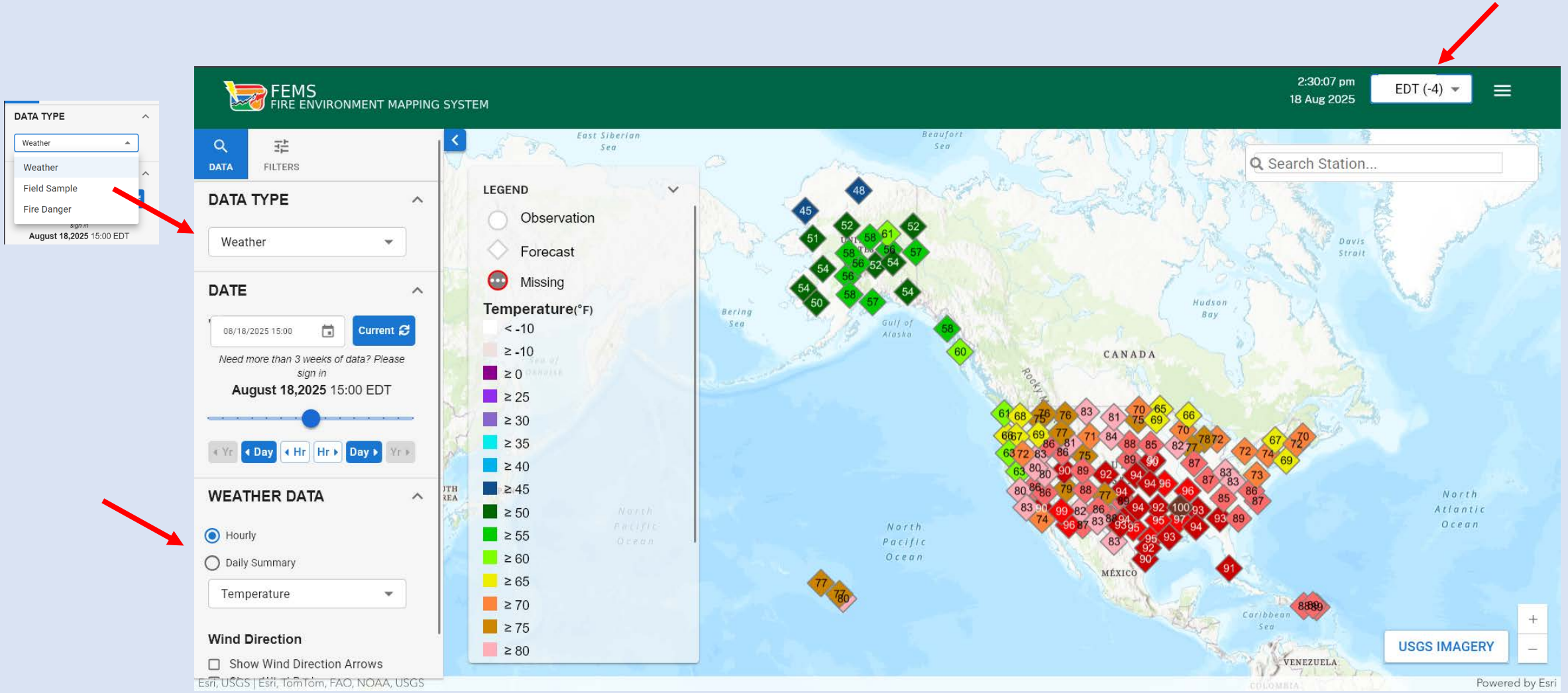
Current FDOP Work and Next Steps

•Weather and fire occurrence data (**2010–2024**) are being processed to establish initial working breakpoints for FEMS/V4 outputs.
•These breakpoints will drive fire danger products (e.g., adjective ratings and hazard levels) moving into Fall 2025 and Spring 2026.
•Updated values will be incorporated into FWIP products currently in use.
•Pocket Cards will be updated to reflect changes in the new period of record, fuel models and associated breakpoints.
•FWIP product updates may be delayed depending on station availability and data connections.

Work at the national, regional, state, and FDRA levels will continue as FEMS is updated following rollout.

Weather, Fire Danger and Live Fuels Mapping View Options

FEMS web address: here

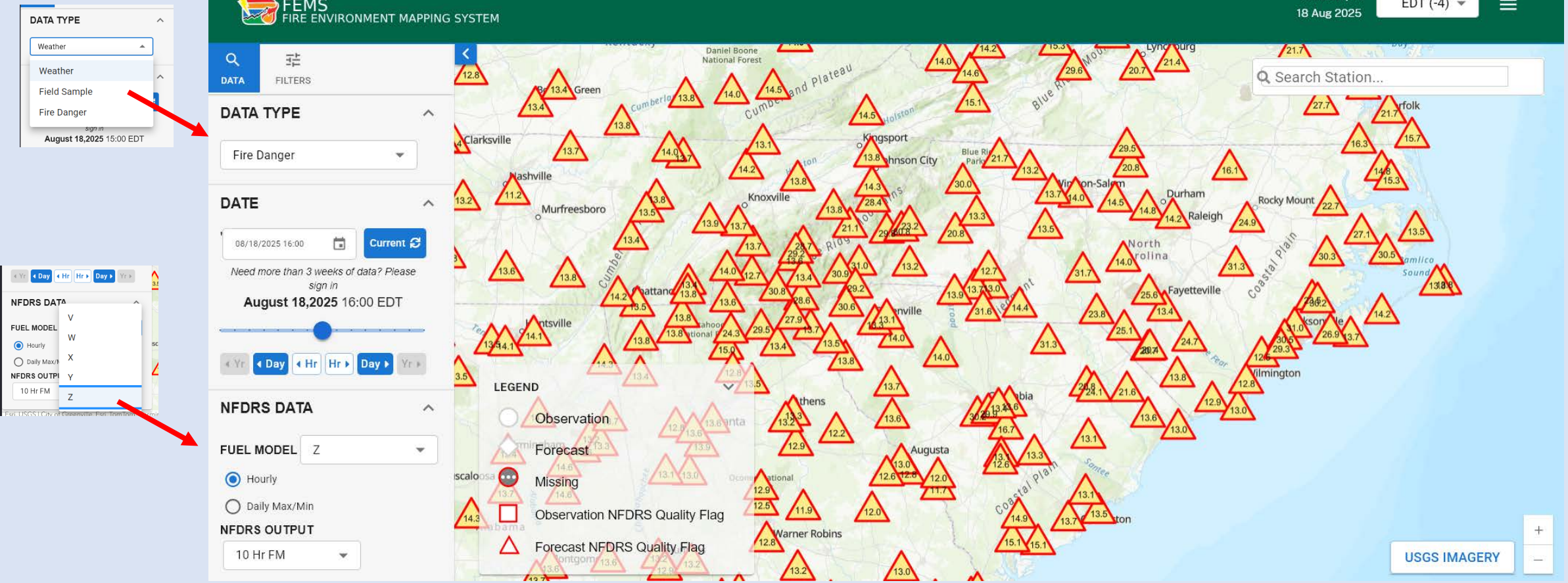


Choose between Weather, Field Sample, and Fire Danger.
Then choose hourly or daily summary when in weather.
Also select time zone, default is UTC.

Note the legend shapes and colors. Stations with missing data over specific thresholds will cause interruption of fire danger calculations.

Weather, Fire Danger and Live Fuels Mapping View Options

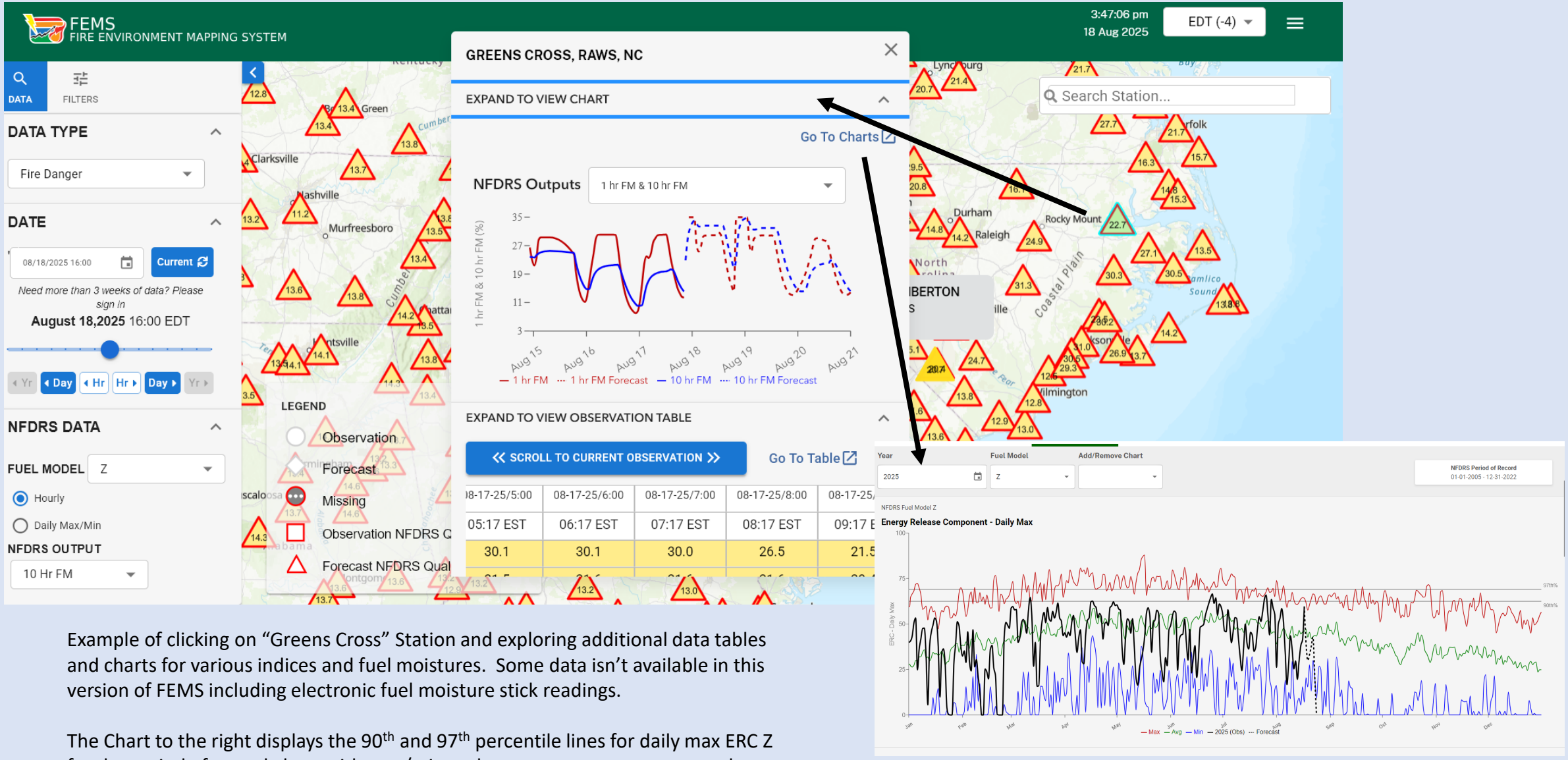
FEMS web address: here



All five models are output automatically; there is no priority fuel model like in WIMS. You can choose between fuel model, hourly vs daily max/min and various outputs.

Weather, Fire Danger and Live Fuels Mapping View Options

FEMS web address: here



Example of clicking on “Greens Cross” Station and exploring additional data tables and charts for various indices and fuel moistures. Some data isn’t available in this version of FEMS including electronic fuel moisture stick readings.

The Chart to the right displays the 90th and 97th percentile lines for daily max ERC Z for the period of record along with max/min and current year – as one example.

A. Current ERC, KBDI, VPD-Max, GSI, 10-Hr, 100-Hr & 1000-Hr Graphics:

- These are extracts from FF+ using daily observation data downloaded from WIMS
- Graphs run in calendar year format from Jan-Dec to stay consistent with FDOP and yearly Percentiles. Averages from SIG stations across each FDRA.
- **Using current approved FDOP related settings (not FEMS, not daily extremes)**

B. Weekly Outlook - FDRA General Fire Danger Forecast Matrix:

- Available on the FWIP within the "Resources for NCFS" page.
- The operation link is: https://products.climate.ncsu.edu/fwip/outlook.php
- The matrix updates daily - please review the tool notes below for more details.

*Growing Season Index (GSI) has greened the live herbaceous & woody vegetation in the Fire Danger Rating Areas (FDRAs) within the NFDRS model. This greening directly impacts Fuel Model X outputs. Remember that it is only a model, and actual live fuel moisture depends on a variety of factors. There is variability across the broader landscape, especially with the nature of summer precip patterns. Values are averaged across the FDRA SIG Station Group.

Tool Summary:

The forecast matrix was created using **standard NFDRS and weather forecast data:**

- Weather conditions and NFDRS outputs are forecasted over the next 7 days by NWS for SIG stations in each FDRA.
- Weather variable ranges and breakpoints were defined by FDRA stakeholders and relate to Pocket Card notes.
- Maximum temperatures in the Critical range are color-coded with shades of red to help visually distinguish daily variations. The brightest red color corresponds to temperatures of 100°F or greater.

Fire danger forecast indices and component values are grouped into three categories based on historical percentiles, assessed using the FF+ All Days filter through 2021:

- Low to Moderate (0 to 74th percentile); shown in blue-green
- High (75th to 89th percentile); shown in yellow
- Very High to Extreme (90th+ percentile); shown in red and labeled as Critical

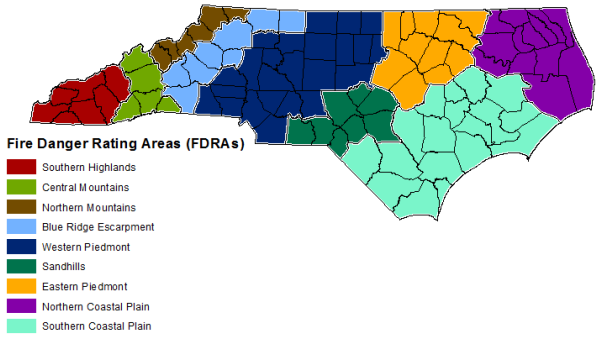
Dead fuel moisture forecast values are grouped into three categories based on historical percentiles, assessed using the FF+ All Days filter through 2021:

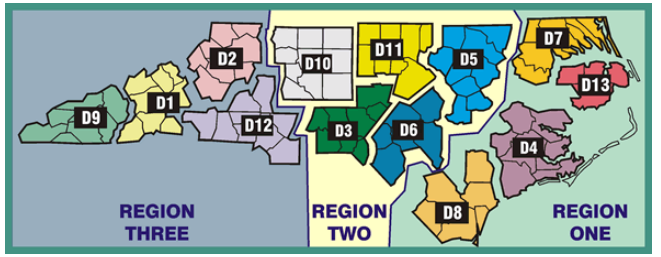
- Low to Moderate (26th to 100th percentile); shown in blue-green
- High (11th to 25th percentile); shown in yellow
- Very High to Extreme (0 to 10th percentile); shown in red and labeled as Critical

Other Notes:

- Read the key and notes for each FDRA, included on the outlook matrix page.
- Forecasts are variable and can change significantly over a forecast cycle and across the landscape.
- This is another tool for gaining better situational awareness, and should be used for general planning purposes only.
- The outlook matrix is refreshed when an FDRA is selected, using the most recent forecast data available at that time. The 7th day may drop off or display partial data prior to the afternoon/evening forecast update.
- Daily updates to NFDRS forecasts occur around **1530** daily, while general weather forecasts are updated around **1730** daily.

Important notes for next slide group:



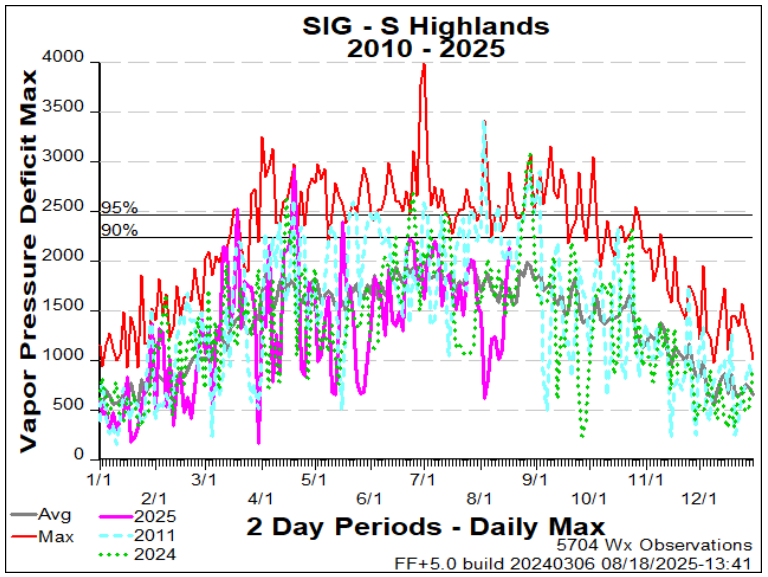


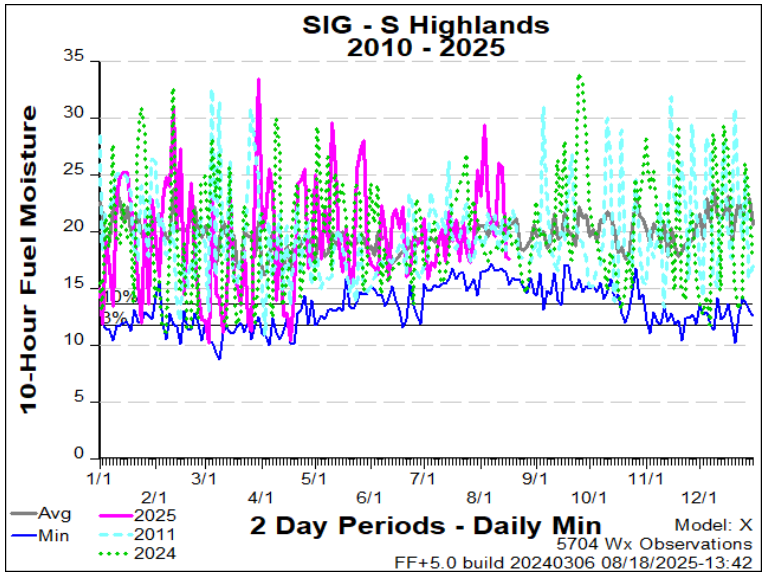
To reduce duplication & increase situational awareness, slides are organized by FDRA in this order:

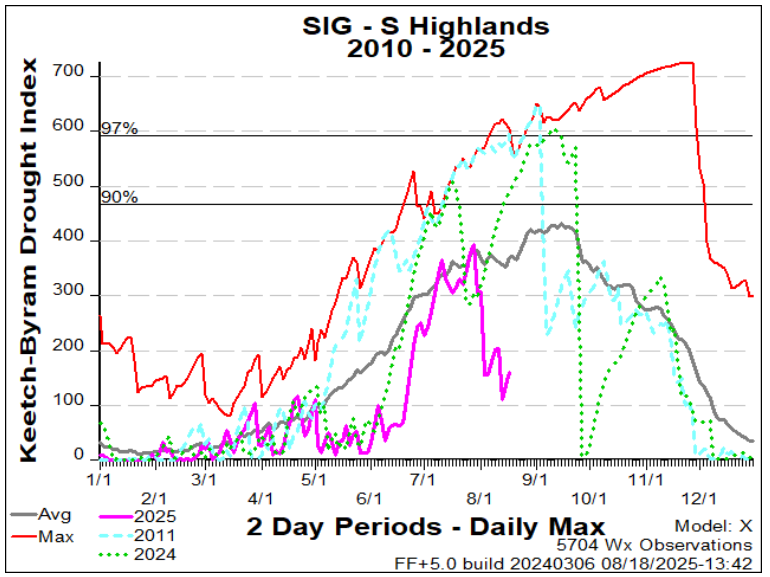
**(R3 = Region 3, R2 = Region 2, R1 = Region 1)*

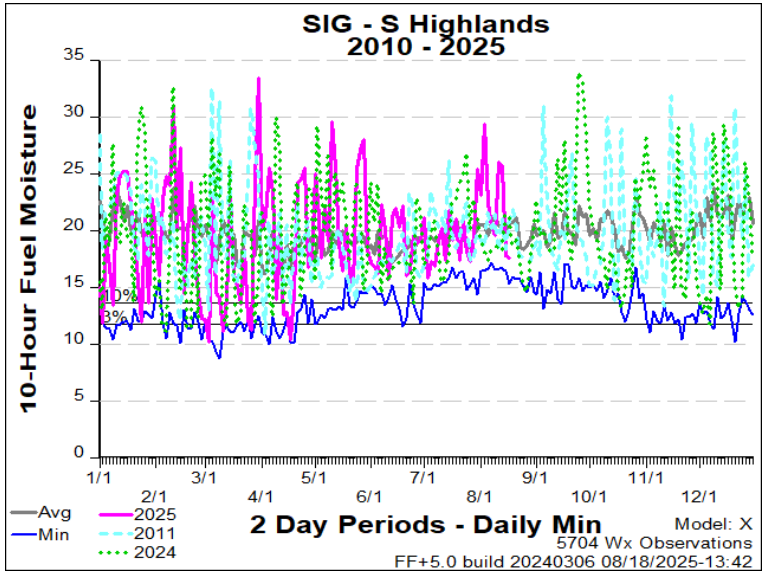
- Southern Highlands (R3)
- Central Mountains (R3)
- Northern Highlands (R3)
- Blue Ridge Escarpment (R2 & R3)
- Western Piedmont (R2 & R3)
- Eastern Piedmont (R2)
- Sandhills (R2)
- North Coast (R1)
- South Coast (R1 & R2)

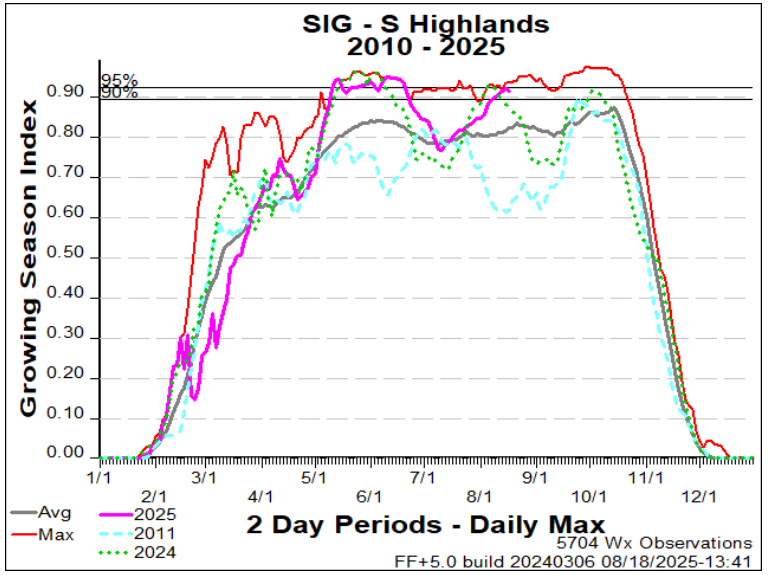
FDRA – Southern Highlands

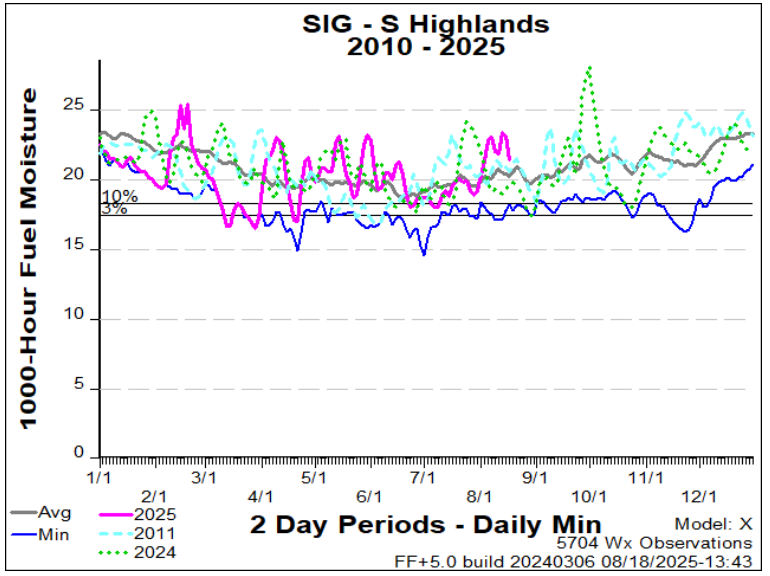






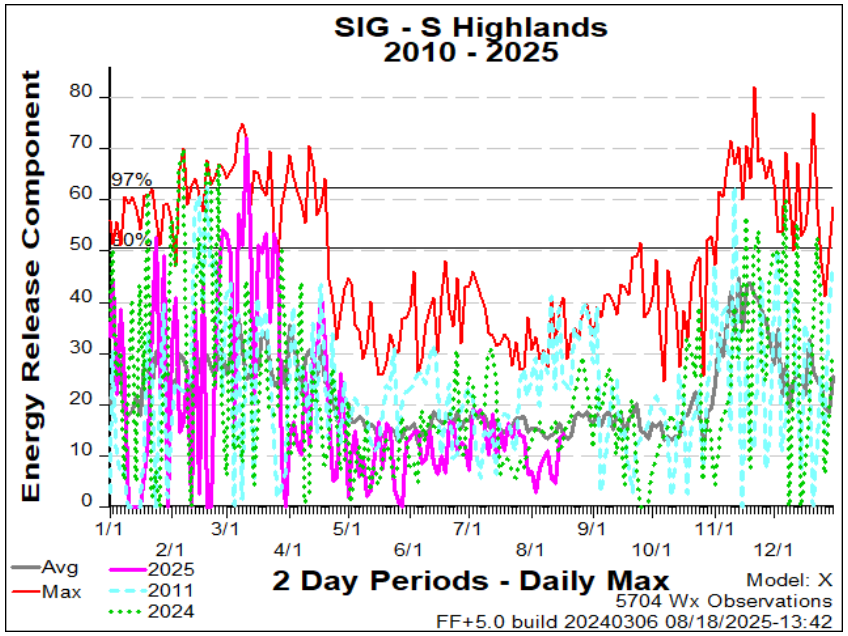




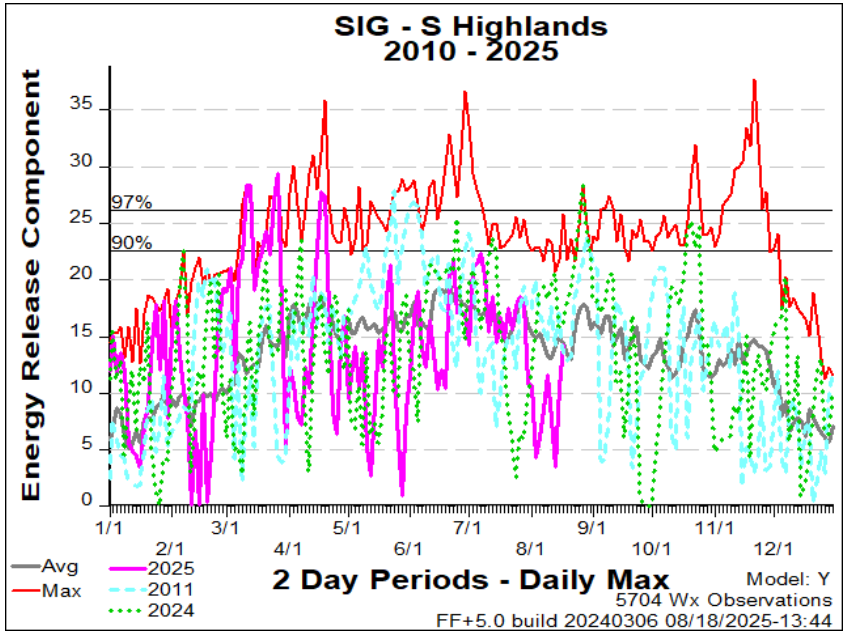


FDRA – Southern Highlands

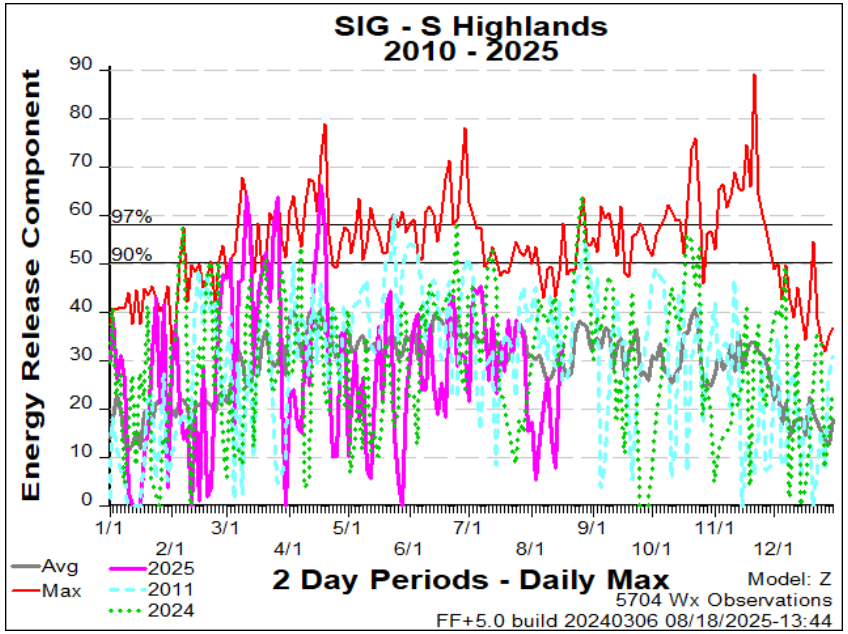
ERC-X



ERC-Y



ERC-Z



Comparison of ERC by NFDRS Fuel Model

X: 1's, 10's, Live Component (GSI driven); + Drought Loading

Y: Heavily weighted on 1000's, less on smaller dead; No live; + Drought Loading

Z: Near even distribution between the four dead size classes of 1's, 10's, 100's, 1000's; No live; + Drought Loading

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Average, Max, CY Year 2011, 2024 are displayed along with Year-to-Date 2025

FDRA – Southern Highlands

Weekly Outlook

Southern Highlands FDRA - General Fire Danger Forecast

For planning purposes only; forecast is subject to change

Four or more RED blocks in a day signals the potential for a **Critical Fire Day**

DAY	TUE 19-Aug	WED 20-Aug	THU 21-Aug	FRI 22-Aug	SAT 23-Aug	SUN 24-Aug	MON 25-Aug
Avg. Max. Temp. (°F)	80	82	80	76	76	78	
Avg. Min. Humidity (%)	75	69	73	81	81	72	
Avg. 20' Wind Speed (mph)	2	1	2	2	2	2	
Avg. Wind Direction*	SE	SSE	SSE	SE	SE	W	
Avg. Probability of Precip. (%)	55	57	62	64	68	53	
Days Since a Wetting Rain**	0.0	0.0	1.0				
Forecast ERC (Fuel Model X)	11.1	10.1	9.9	8.8	7.7	8.2	11.3
Forecast BI (Fuel Model X)	18.0	16.7	17.1	15.7	14.5	15.9	19.5
Forecast IC (Fuel Model X)	1.7	1.3	1.3	1.0	0.7	1.1	1.8
Forecast 100-Hr. FMC	18.8	18.7	18.7	19.1	19.7	22.1	21.5
Forecast 1000-Hr. FMC	23.2	22.8	22.5	22.2	22.0	22.0	21.9
KBDI	182.0						

Data Source:

- Weather forecasts come from the National Weather Service's Digital Forecast Database. The wind speed and direction, and probability of precipitation, are calculated as averages of the 1 am, 7 am, 1 pm, and 7 pm forecasts. The 20-foot wind speed is estimated from the 10-meter forecast using the log wind profile method.
- Days since a wetting rain is calculated using a combination of historical data (to determine the most recent wetting rain event) and forecasted precipitation amounts. These forecasted amounts are only available for the first three days of the forecast period.
- Fire danger forecasts for the next 7 days are issued by National Weather Service through WIMS. KBDI is only available on the first forecast day since the NFDRS Forecast product does not include precipitation amounts, which are used to adjust KBDI from day to day

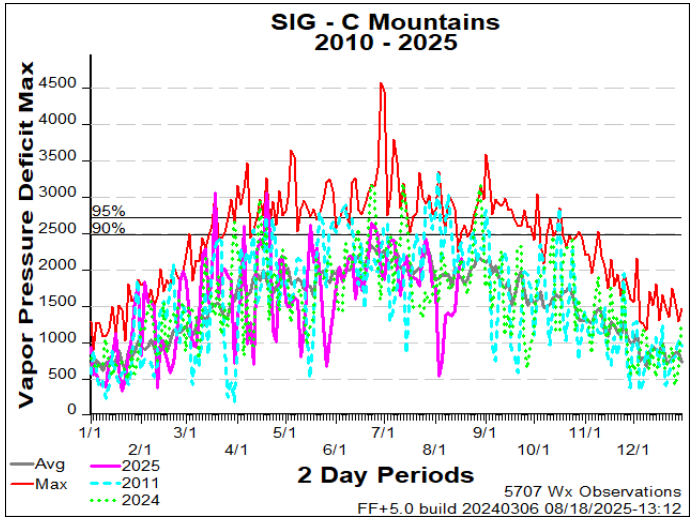
Values in the table above are averages from 3 stations in this FDRA:

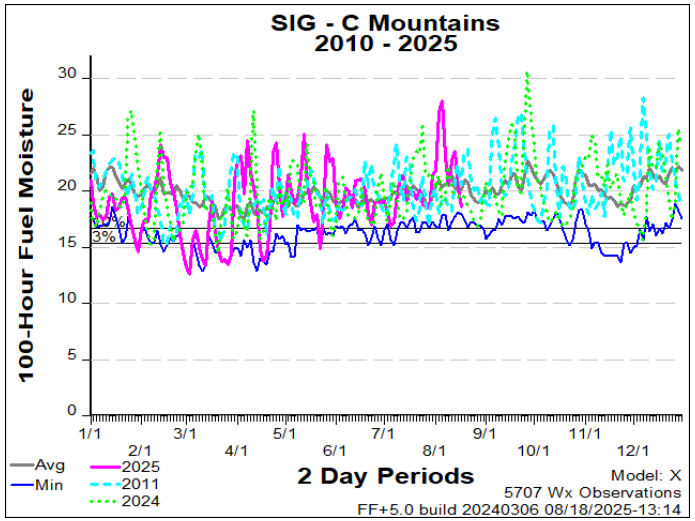
- **Tusquitee** (315602)
- **Locust Gap** (315802)
- **Highlands** (315803)

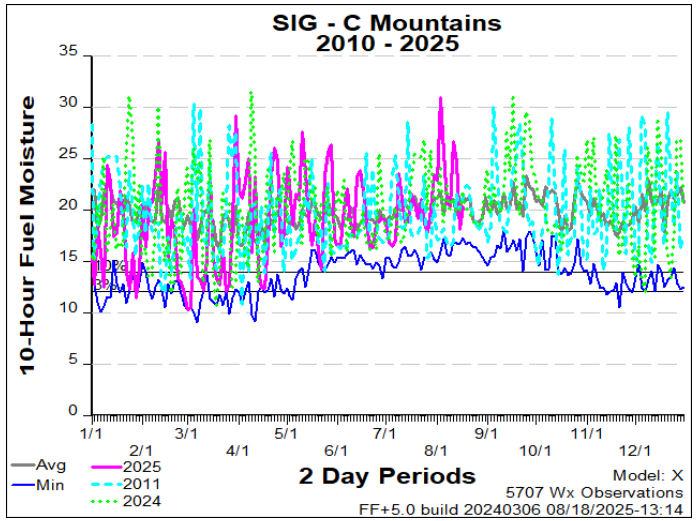
KEY	Low to Moderate Burning Conditions	Burning Conditions Can be High CAUTION	Burning Conditions Can be Critical WATCH OUT!
Avg. Max. Temp.	Less than 50°F	Between 50°F and 55°F	Greater than 55°F
Avg. Min. Humidity	Greater than 35%	Between 30% and 35%	Less than 30%
Avg. 20' Wind Speed	Less than 5 mph	Between 5 mph and 7 mph	Greater than 7 mph
Avg. Wind Direction*	Criticality of wind direction is highly dependent on burn operations and/or structures threatened.		
Days Since a Wetting Rain**	A wetting rain is defined as 0.10" or greater. This is an average of the FDRA stations noted above.		
Energy Release Comp.	Less than 40	Between 40 and 52	Greater than 52
Burning Index	Less than 95	Between 95 and 118	Greater than 118
Ignition Component	Less than 9	Between 9 and 14	Greater than 14
100-Hour Fuel Moisture	Greater than 18%	Between 17% and 18%	Less than 17%
1000-Hour Fuel Moisture	Greater than 19%	Between 18% and 19%	Less than 18%
KBDI	Less than 345	Between 345 and 479	Greater than 479

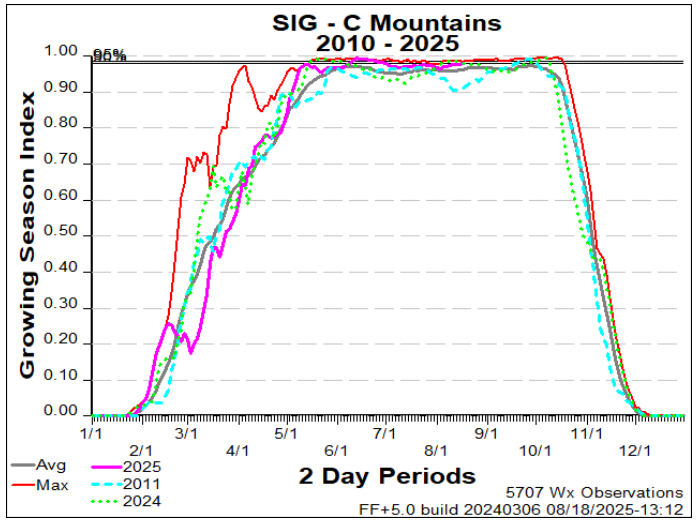
Other factors to consider when determining fire danger: **sky conditions**, **precipitation amount**, **number of days since rain**, and **season**

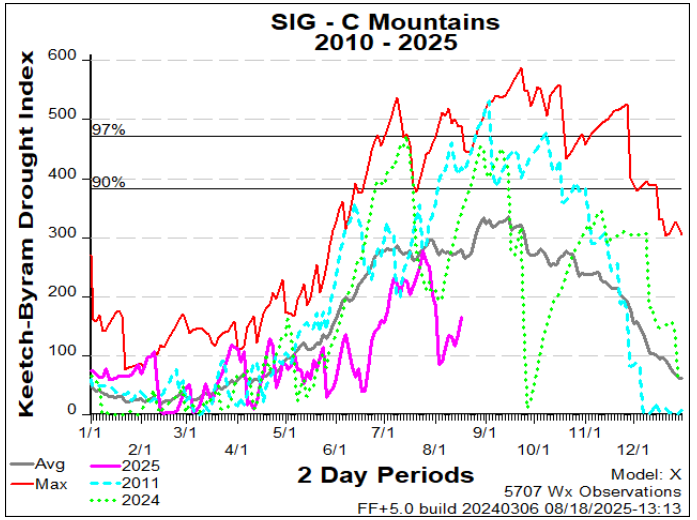
FDRA – Central Mountains

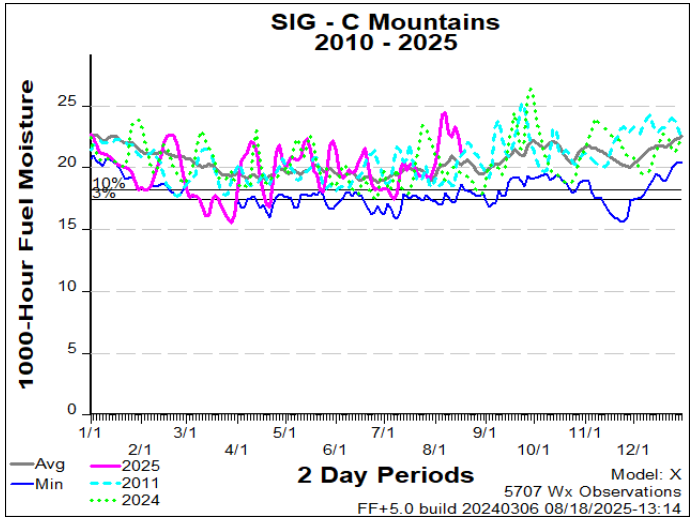






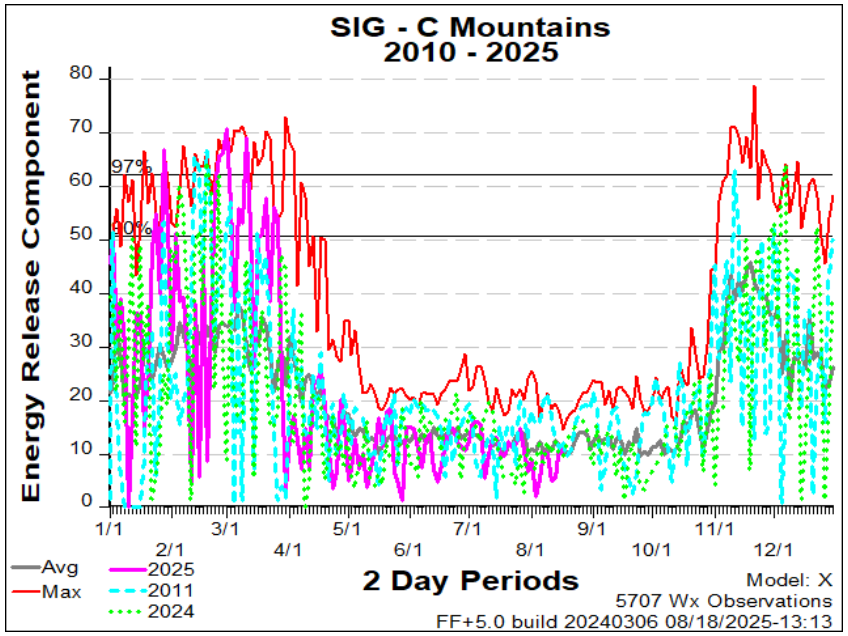




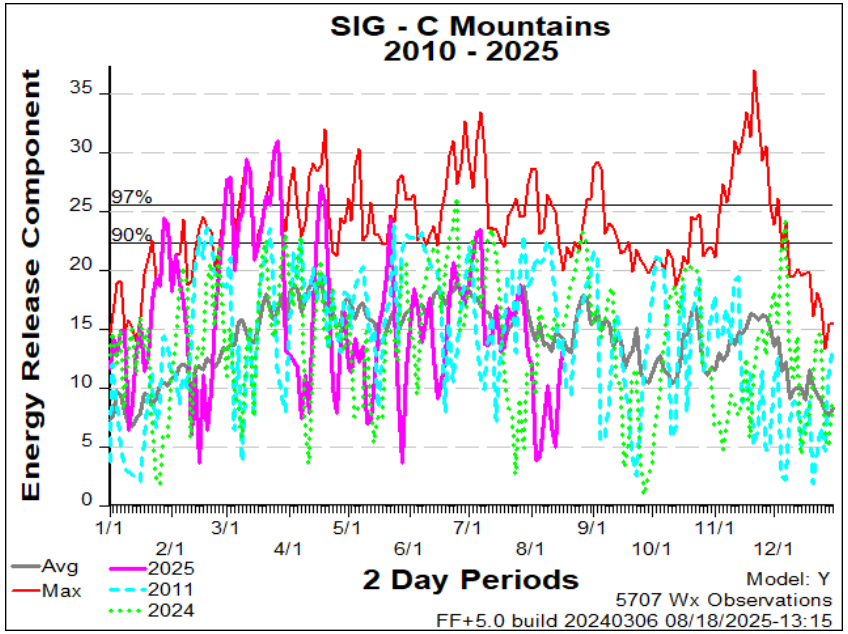


FDRA – Central Mountains

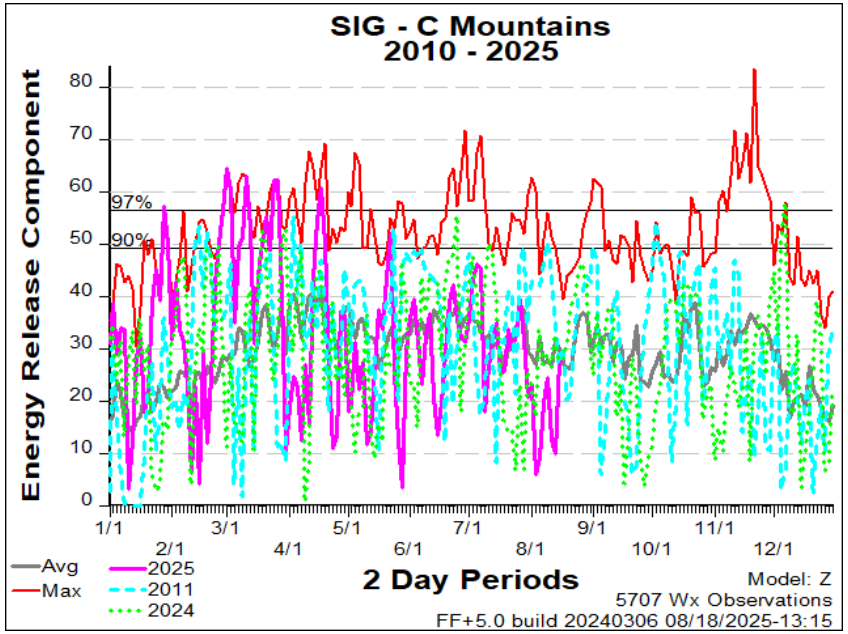
ERC-X



ERC-Y



ERC-Z



Comparison of ERC by NFDRS Fuel Model

X: 1's, 10's, Live Component (GSI driven); + Drought Loading

Y: Heavily weighted on 1000's, less on smaller dead; No live; + Drought Loading

Z: Near even distribution between the four dead size classes of 1's, 10's, 100's, 1000's; No live; + Drought Loading

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Average, Max, CY Year 2011, 2024 are displayed along with Year-to-Date 2025

FDRA – Central Mountains

Weekly Outlook

Central Mountains FDRA - General Fire Danger Forecast

For planning purposes only; forecast is subject to change

Four or more RED blocks in a day signals the potential for a **Critical Fire Day**

DAY	TUE 19-Aug	WED 20-Aug	THU 21-Aug	FRI 22-Aug	SAT 23-Aug	SUN 24-Aug	MON 25-Aug
Avg. Max. Temp. (°F)	84	86	83	78	77	80	
Avg. Min. Humidity (%)	72	64	73	80	81	70	
Avg. 20' Wind Speed (mph)	2	2	2	2	2	2	
Avg. Wind Direction*	SE	E	SW	SSE	SSE	WNW	
Avg. Probability of Precip. (%)	43	56	65	65	71	60	
Days Since a Wetting Rain**	0.0	0.0	1.0				
Forecast ERC (Fuel Model X)	11.2	10.7	10.3	8.6	7.4	8.7	11.1
Forecast BI (Fuel Model X)	16.9	16.9	16.1	14.2	13.1	14.9	18.1
Forecast IC (Fuel Model X)	1.5	1.4	1.2	0.8	0.6	0.9	1.7
Forecast 100-Hr. FMC	17.9	17.9	18.0	19.0	19.6	20.2	19.7
Forecast 1000-Hr. FMC	23.2	22.8	22.4	22.1	22.1	22.0	21.8
KBDI	187.3						

Data Source:

- Weather forecasts come from the National Weather Service's Digital Forecast Database. The wind speed and direction, and probability of precipitation, are calculated as averages of the 1 am, 7 am, 1 pm, and 7 pm forecasts. The 20-foot wind speed is estimated from the 10-meter forecast using the log wind profile method.
- Days since a wetting rain is calculated using a combination of historical data (to determine the most recent wetting rain event) and forecasted precipitation amounts. These forecasted amounts are only available for the first three days of the forecast period.
- Fire danger forecasts for the next 7 days are issued by National Weather Service through WIMS. KBDI is only available on the first forecast day since the NFDRS Forecast product does not include precipitation amounts, which are used to adjust KBDI from day to day

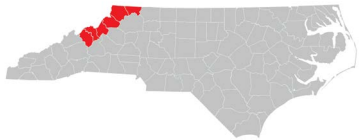
Values in the table above are averages from 3 stations in this FDRA:

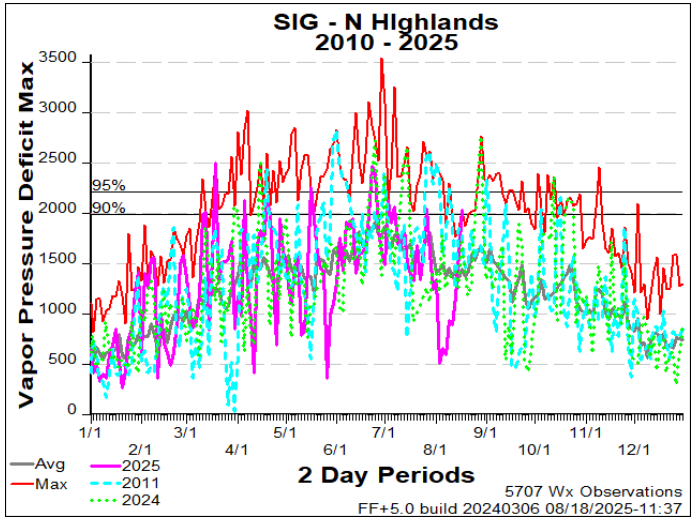
- **7 Mile Ridge** (313302)
- **Davidson River** (316001)
- **Mtn Horticultural Crops Res Stn** (316141)

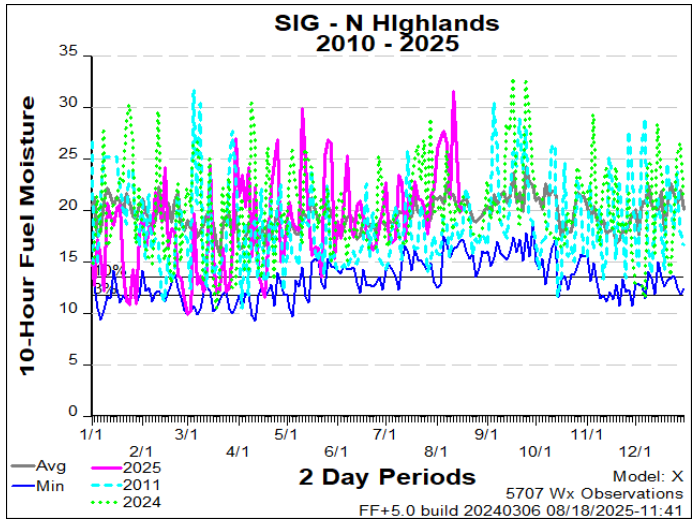
KEY	Low to Moderate Burning Conditions	Burning Conditions Can be High CAUTION	Burning Conditions Can be Critical WATCH OUT!
Avg. Max. Temp.	Less than 50°F	Between 50°F and 60°F	Greater than 60°F
Avg. Min. Humidity	Greater than 35%	Between 30% and 35%	Less than 30%
Avg. 20' Wind Speed	Less than 5 mph	Between 5 mph and 10 mph	Greater than 10 mph
Avg. Wind Direction*	Criticality of wind direction is highly dependent on burn operations and/or structures threatened.		
Days Since a Wetting Rain**	A wetting rain is defined as 0.10" or greater. This is an average of the FDRA stations noted above.		
Energy Release Comp.	Less than 33	Between 33 and 50	Greater than 50
Burning Index	Less than 78	Between 78 and 106	Greater than 106
Ignition Component	Less than 6	Between 6 and 11	Greater than 11
100-Hour Fuel Moisture	Greater than 19%	Between 17% and 19%	Less than 17%
1000-Hour Fuel Moisture	Greater than 20%	Between 19% and 20%	Less than 19%
KBDI	Less than 319	Between 319 and 417	Greater than 417

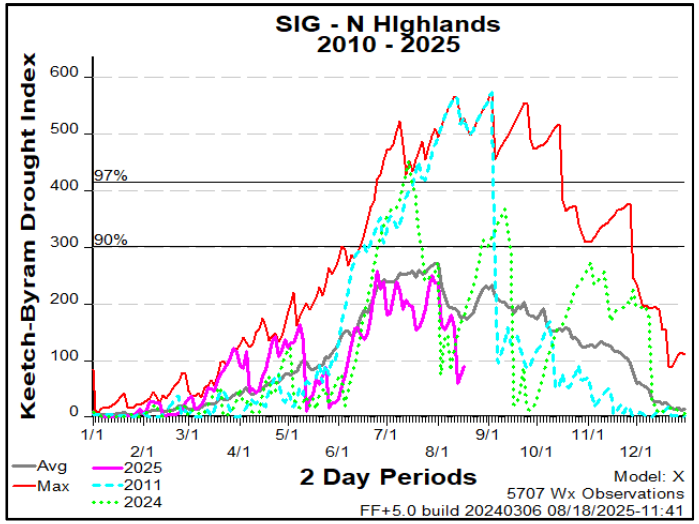
Other factors to consider when determining fire danger: **sky conditions**, **precipitation amount**, **number of days since rain**, and **season**

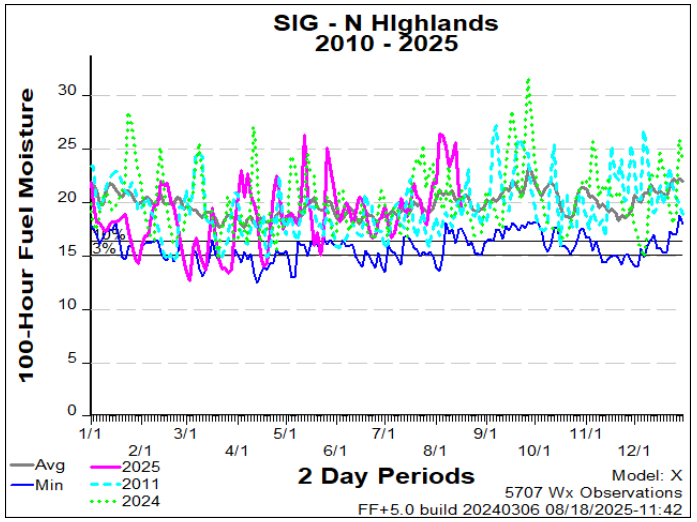
FDRA – Northern Highlands

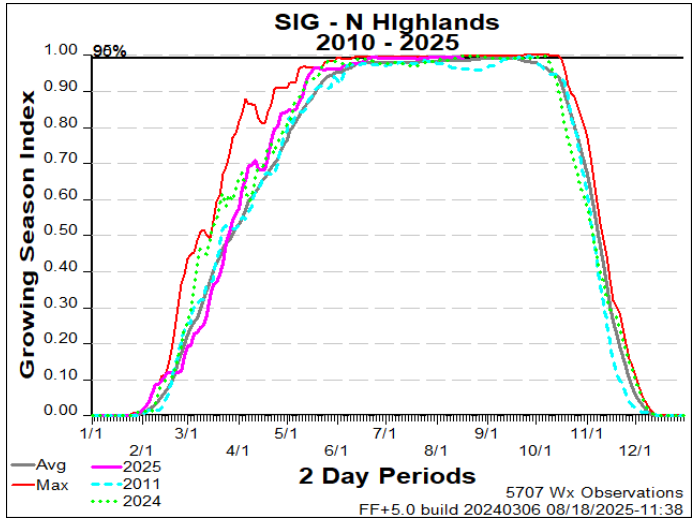


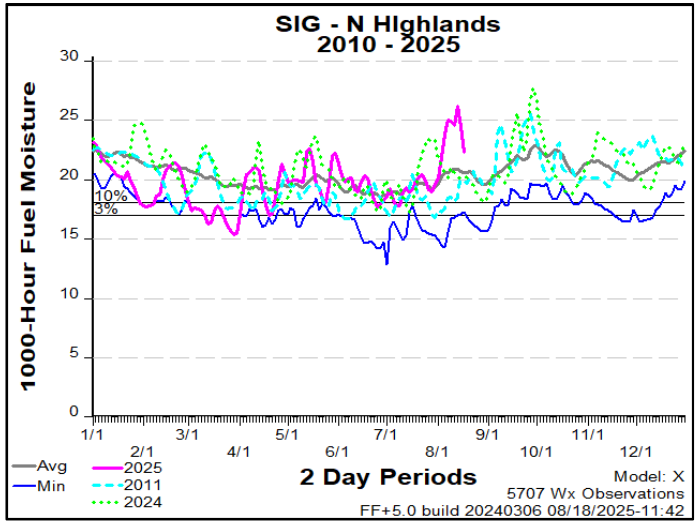




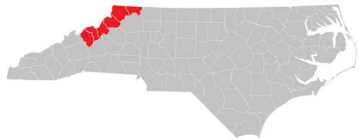




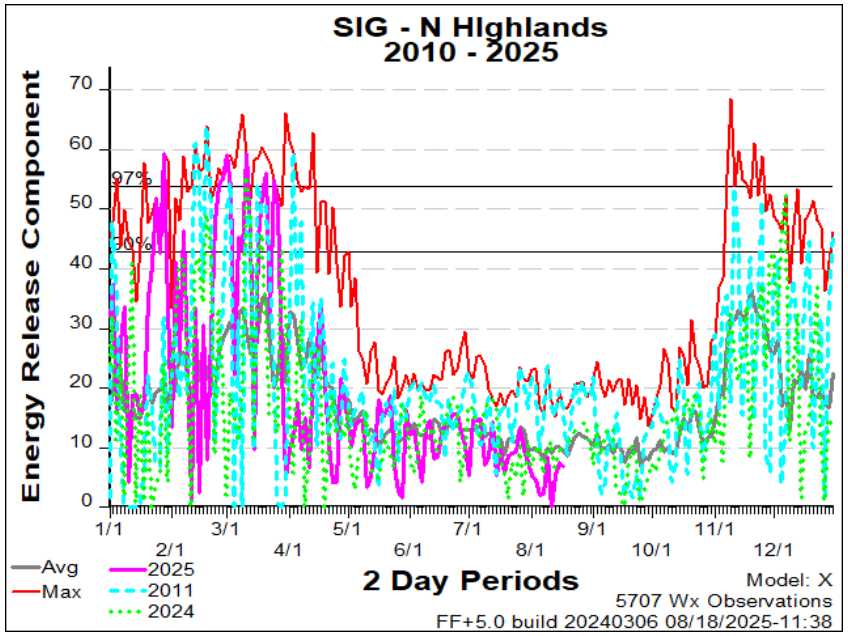




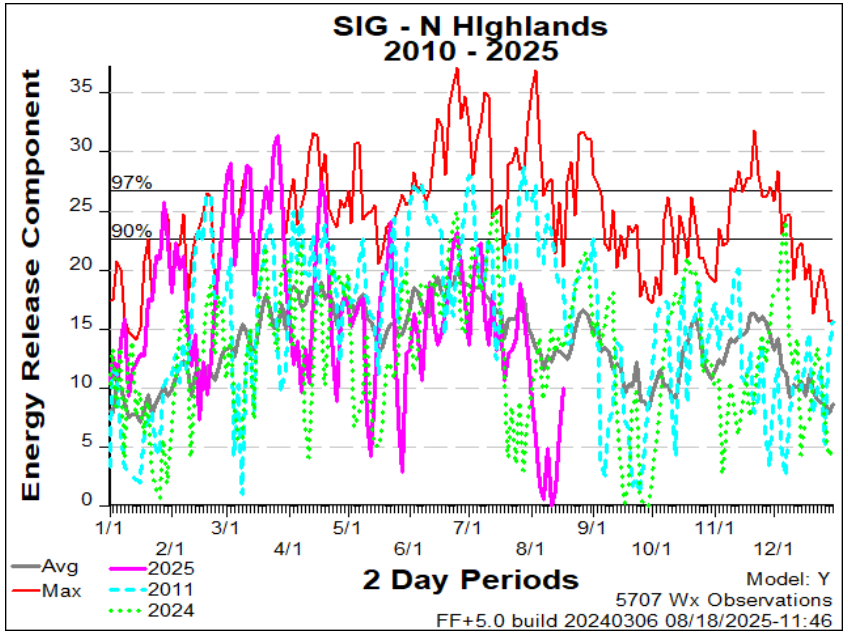
FDRA – Northern Highlands



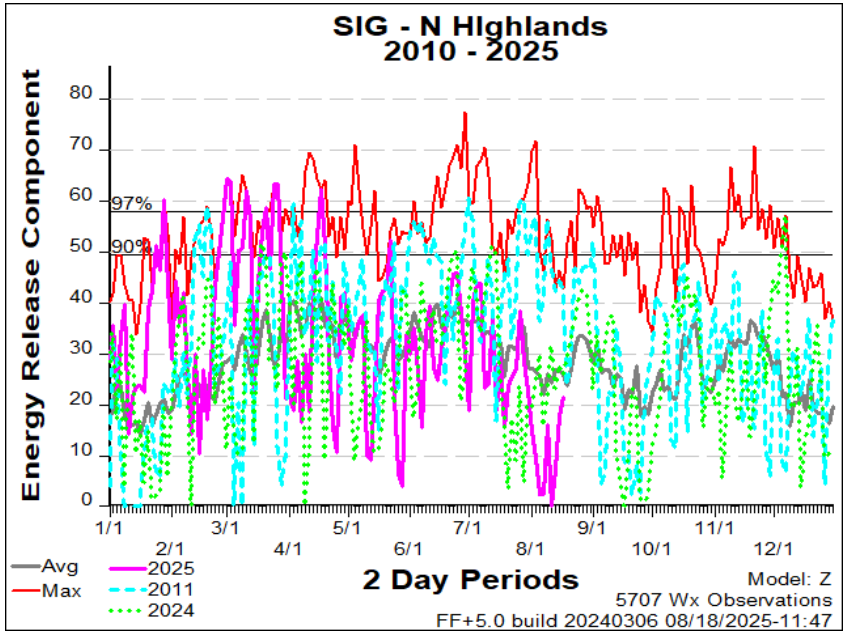
ERC-X



ERC-Y



ERC-Z



Comparison of ERC by NFDRS Fuel Model

X: 1's, 10's, Live Component (GSI driven); + Drought Loading

Y: Heavily weighted on 1000's, less on smaller dead; No live; + Drought Loading

Z: Near even distribution between the four dead size classes of 1's, 10's, 100's, 1000's; No live; + Drought Loading

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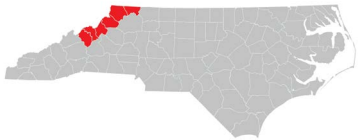
Average, Max, CY Year 2011, 2024 are displayed along with Year-to-Date 2025

FDRA – Northern Highlands



Weekly Outlook

Northern Highlands FDRA - General Fire Danger Forecast

For planning purposes only; forecast is subject to change

Four or more **RED** blocks in a day signals the potential for a **Critical Fire Day**

DAY	TUE 19-Aug	WED 20-Aug	THU 21-Aug	FRI 22-Aug	SAT 23-Aug	SUN 24-Aug	MON 25-Aug
Avg. Max. Temp. (°F)	77	80	78	74	74	76	
Avg. Min. Humidity (%)	75	75	80	85	90	77	
Avg. 20' Wind Speed (mph)	2	2	3	2	3	2	
Avg. Wind Direction*	E	E	WNW	ESE	SSE	W	
Avg. Probability of Precip. (%)	28	46	55	55	67	59	
Days Since a Wetting Rain**	0.7	1.3	2.3				
Forecast ERC (Fuel Model X)	9.6	9.0	8.7	7.9	6.9	7.7	10.8
Forecast BI (Fuel Model X)	17.0	16.4	16.5	15.2	14.3	15.0	19.7
Forecast IC (Fuel Model X)	1.3	1.1	1.1	0.8	0.5	0.8	2.0
Forecast 100-Hr. FMC	18.2	18.4	18.5	18.5	18.6	20.1	20.0
Forecast 1000-Hr. FMC	24.4	23.9	23.5	23.1	22.9	22.6	22.5
KBDI	110.5						

Data Source:

- Weather forecasts come from the National Weather Service's Digital Forecast Database. The wind speed and direction, and probability of precipitation, are calculated as averages of the 1 am, 7 am, 1 pm, and 7 pm forecasts. The 20-foot wind speed is estimated from the 10-meter forecast using the log wind profile method.
- Days since a wetting rain is calculated using a combination of historical data (to determine the most recent wetting rain event) and forecasted precipitation amounts. These forecasted amounts are only available for the first three days of the forecast period.
- Fire danger forecasts for the next 7 days are issued by National Weather Service through WIMS. KBDI is only available on the first forecast day since the NFDRS Forecast product does not include precipitation amounts, which are used to adjust KBDI from day to day

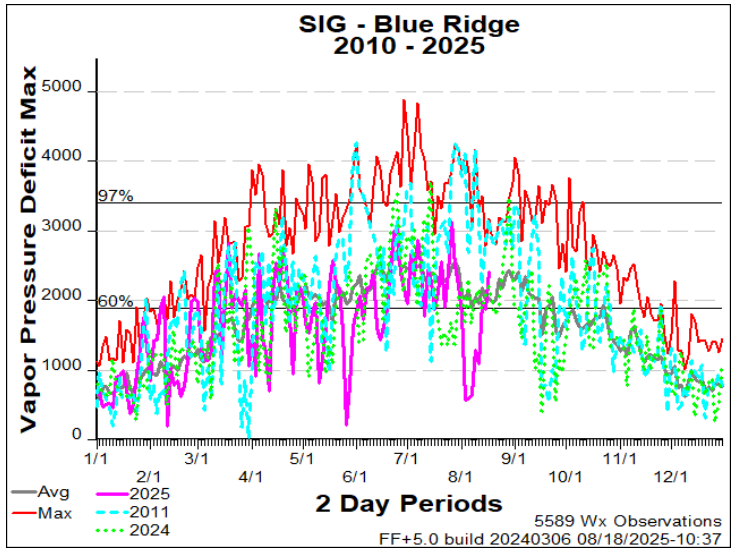
Values in the table above are averages from 3 stations in this FDRA:

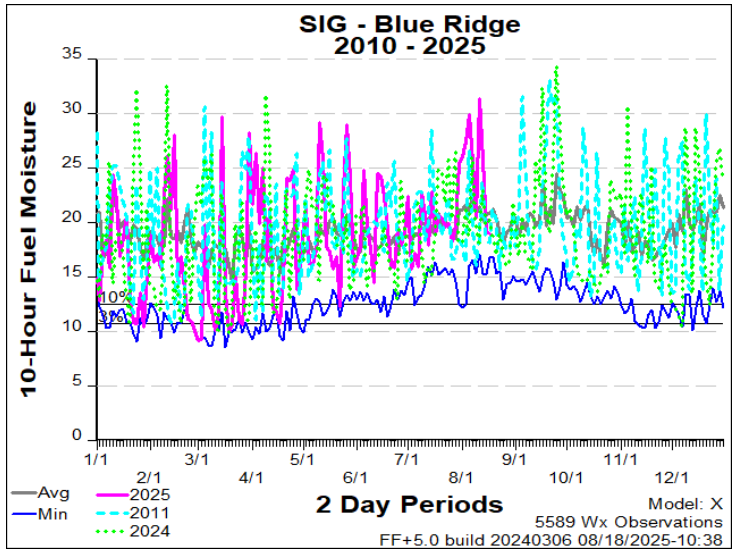
- **Laurel Springs** (310101)
- **Upper Mountain Research Stn** (310141)
- **Busick** (313402)

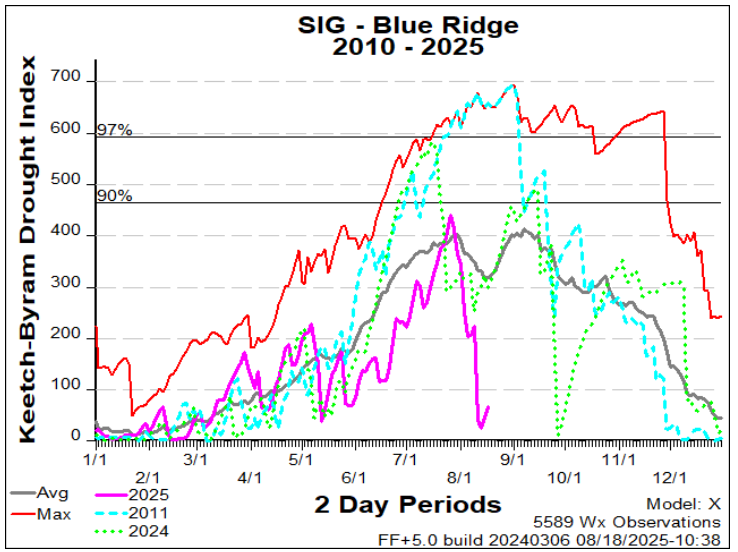
KEY	Low to Moderate Burning Conditions	Burning Conditions Can be High CAUTION	Burning Conditions Can be Critical WATCH OUT!
Avg. Max. Temp.	Less than 50°F	Between 50°F and 58°F	Greater than 58°F
Avg. Min. Humidity	Greater than 35%	Between 30% and 35%	Less than 30%
Avg. 20' Wind Speed	Less than 2 mph	Between 2 mph and 5 mph	Greater than 5 mph
Avg. Wind Direction*	Criticality of wind direction is highly dependent on burn operations and/or structures threatened.		
Days Since a Wetting Rain**	A wetting rain is defined as 0.10" or greater. This is an average of the FDRA stations noted above.		
Energy Release Comp.	Less than 26	Between 26 and 46	Greater than 46
Burning Index	Less than 67	Between 67 and 108	Greater than 108
Ignition Component	Less than 5	Between 5 and 9	Greater than 9
100-Hour Fuel Moisture	Greater than 18%	Between 17% and 18%	Less than 17%
1000-Hour Fuel Moisture	Greater than 20%	Between 19% and 20%	Less than 19%
KBDI	Less than 192	Between 192 and 330	Greater than 330

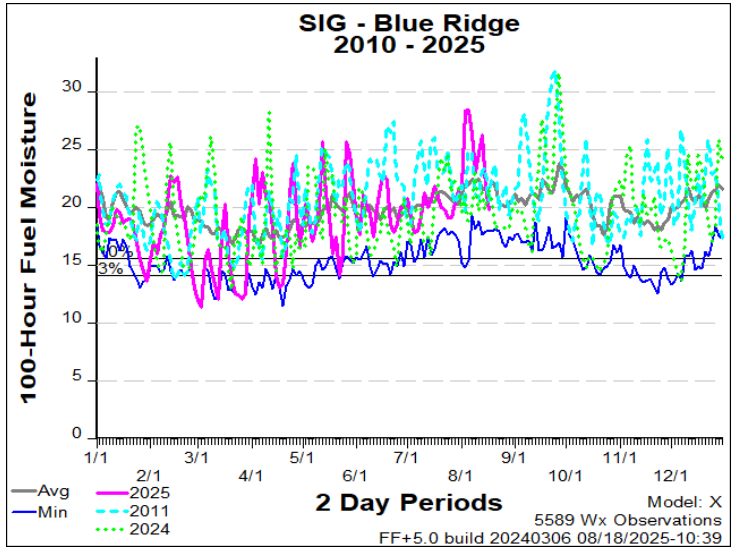
Other factors to consider when determining fire danger: **sky conditions, precipitation amount, number of days since rain,** and **season**

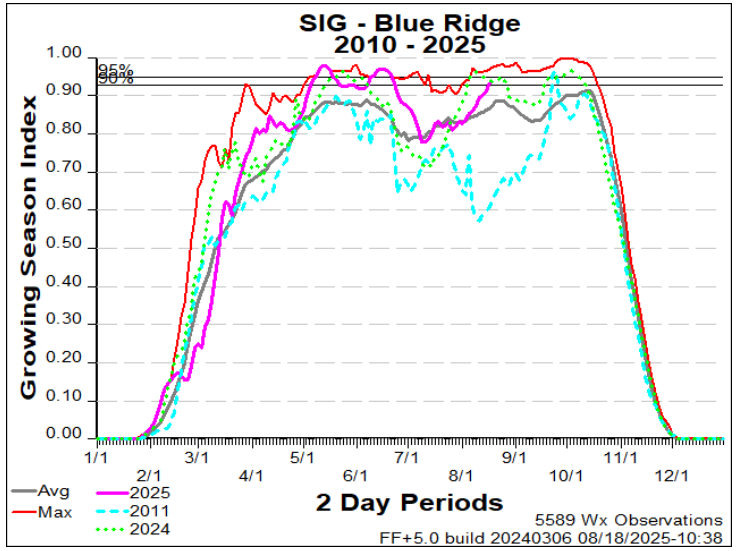
FDRA – Blue Ridge Escarpment

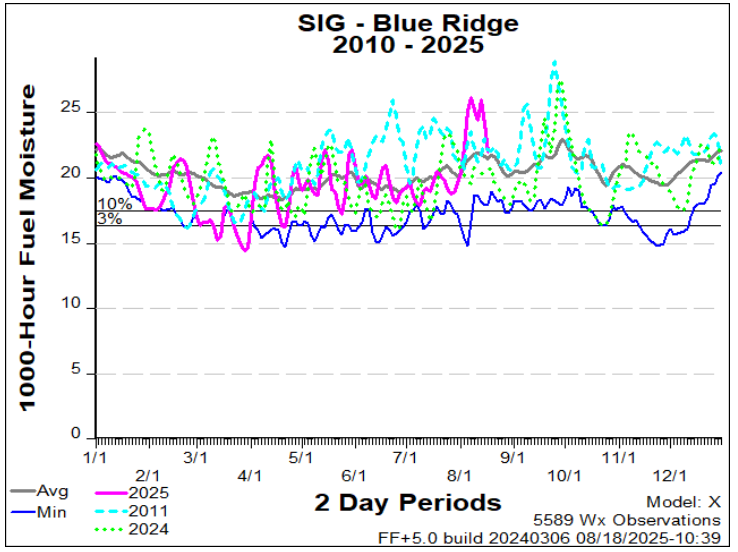




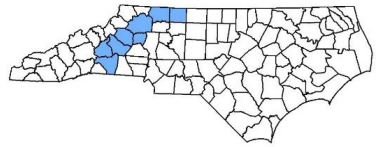




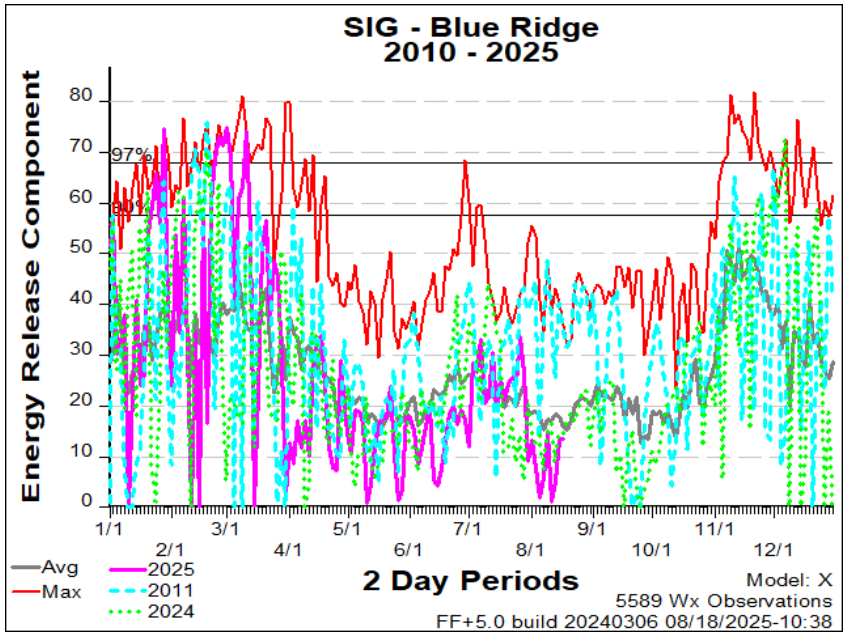




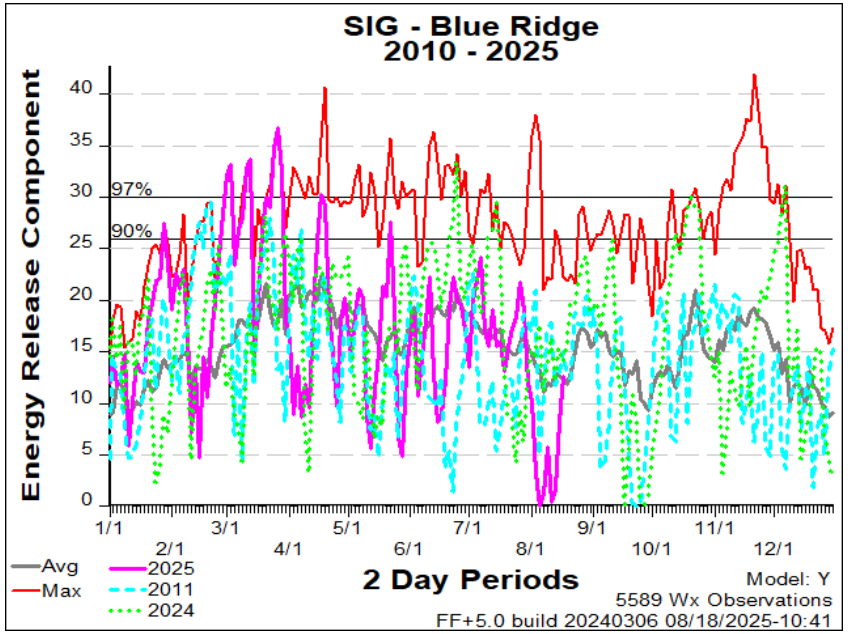
FDRA – Blue Ridge Escarpment



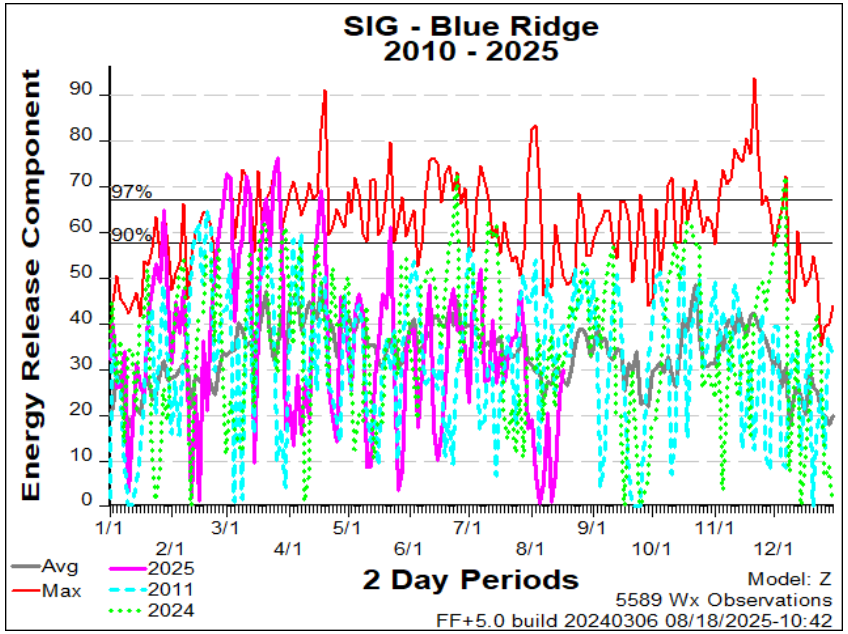
ERC-X



ERC-Y



ERC-Z



Comparison of ERC by NFDRS Fuel Model

X: 1's, 10's, Live Component (GSI driven); + Drought Loading

Y: Heavily weighted on 1000's, less on smaller dead; No live; + Drought Loading

Z: Near even distribution between the four dead size classes of 1's, 10's, 100's, 1000's; No live; + Drought Loading

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Average, Max, CY Year 2011, 2024 are displayed along with Year-to-Date 2025

FDRA – Blue Ridge Escarpment

Weekly Outlook

Blue Ridge Escarpment FDRA - General Fire Danger Forecast

For planning purposes only; forecast is subject to change

Four or more RED blocks in a day signals the potential for a **Critical Fire Day**

DAY	TUE 19-Aug	WED 20-Aug	THU 21-Aug	FRI 22-Aug	SAT 23-Aug	SUN 24-Aug	MON 25-Aug
Avg. Max. Temp. (°F)	82	84	82	77	76	79	
Avg. Min. Humidity (%)	70	66	72	81	84	72	
Avg. 20' Wind Speed (mph)	2	2	2	2	2	2	
Avg. Wind Direction*	ENE	NE	SSE	ESE	SE	W	
Avg. Probability of Precip. (%)	24	36	49	52	63	55	
Days Since a Wetting Rain**	3.0	3.0	4.0				
Forecast ERC (Fuel Model X)	9.9	9.3	9.1	7.9	6.7	7.9	10.7
Forecast BI (Fuel Model X)	16.6	15.5	15.2	13.6	12.9	13.9	16.5
Forecast IC (Fuel Model X)	1.4	1.3	1.2	0.8	0.5	0.8	1.7
Forecast 100-Hr. FMC	19.0	19.0	19.0	19.0	19.0	19.0	18.9
Forecast 1000-Hr. FMC	21.8	21.5	21.2	21.0	20.8	20.7	20.6
KBDI	91.7						

Data Source:

- Weather forecasts come from the National Weather Service's Digital Forecast Database. The wind speed and direction, and probability of precipitation, are calculated as averages of the 1 am, 7 am, 1 pm, and 7 pm forecasts. The 20-foot wind speed is estimated from the 10-meter forecast using the log wind profile method.
- Days since a wetting rain is calculated using a combination of historical data (to determine the most recent wetting rain event) and forecasted precipitation amounts. These forecasted amounts are only available for the first three days of the forecast period.
- Fire danger forecasts for the next 7 days are issued by National Weather Service through WIMS. KBDI is only available on the first forecast day since the NFDRS Forecast product does not include precipitation amounts, which are used to adjust KBDI from day to day

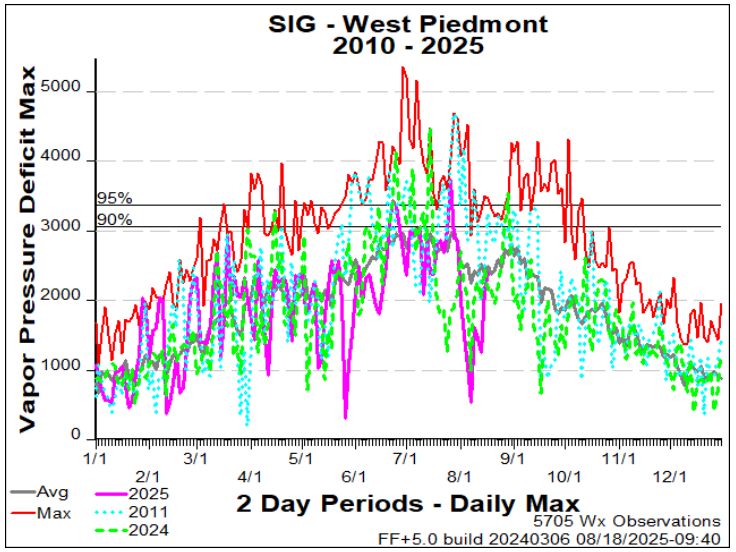
Values in the table above are averages from 3 stations in this FDRA:

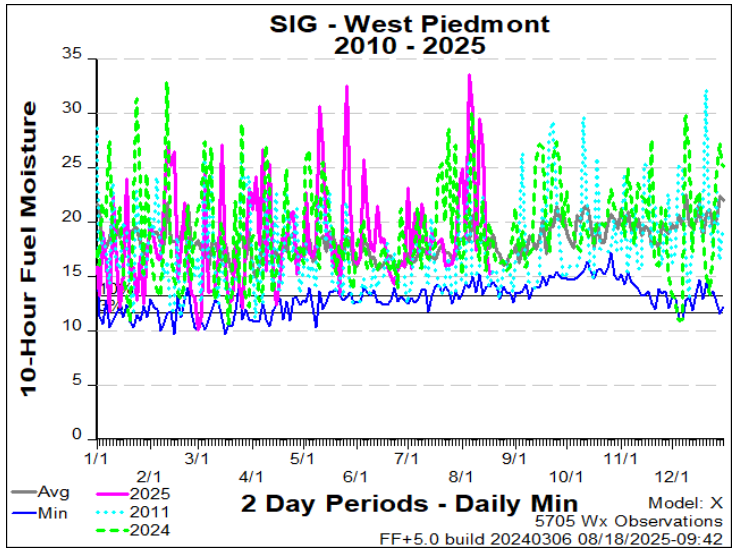
- **Rendezvous Mtn.** (312001)
- **North Cove Pinnacle (fr1)** (314301)
- **Rutherford County** (316302)

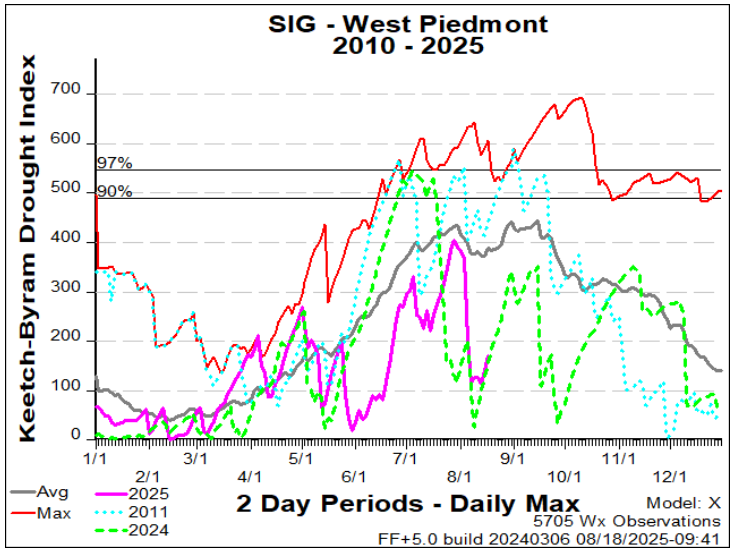
KEY	Low to Moderate Burning Conditions	Burning Conditions Can be High CAUTION	Burning Conditions Can be Critical WATCH OUT!
Avg. Max. Temp.	Less than 40°F	Between 40°F and 50°F	Greater than 50°F
Avg. Min. Humidity	Greater than 35%	Between 30% and 35%	Less than 30%
Avg. 20' Wind Speed	Less than 2 mph	Between 2 mph and 4 mph	Greater than 4 mph
Avg. Wind Direction*	Criticality of wind direction is highly dependent on burn operations and/or structures threatened.		
Days Since a Wetting Rain**	A wetting rain is defined as 0.10" or greater. This is an average of the FDRA stations noted above.		
Energy Release Comp.	Less than 52	Between 52 and 62	Greater than 62
Burning Index	Less than 116	Between 116 and 136	Greater than 136
Ignition Component	Less than 14	Between 14 and 20	Greater than 20
100-Hour Fuel Moisture	Greater than 18%	Between 16% and 18%	Less than 16%
1000-Hour Fuel Moisture	Greater than 19%	Between 18% and 19%	Less than 18%
KBDI	Less than 351	Between 351 and 508	Greater than 508

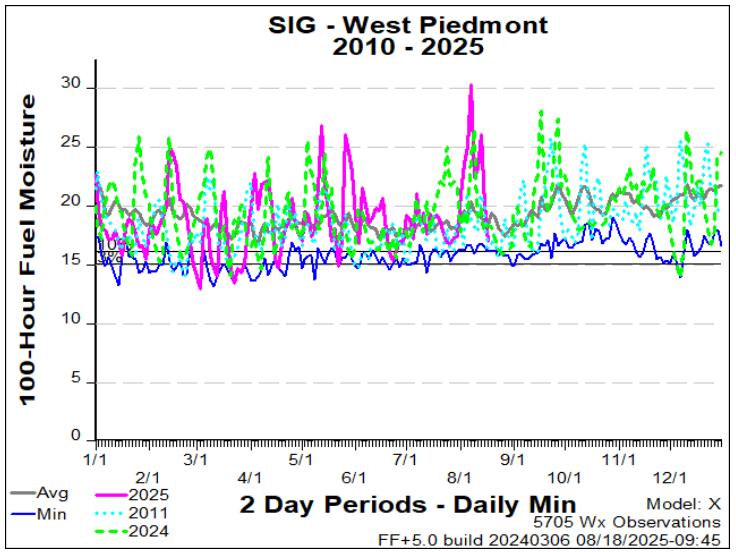
Other factors to consider when determining fire danger: **sky conditions**, **precipitation amount**, **number of days since rain**, and **season**

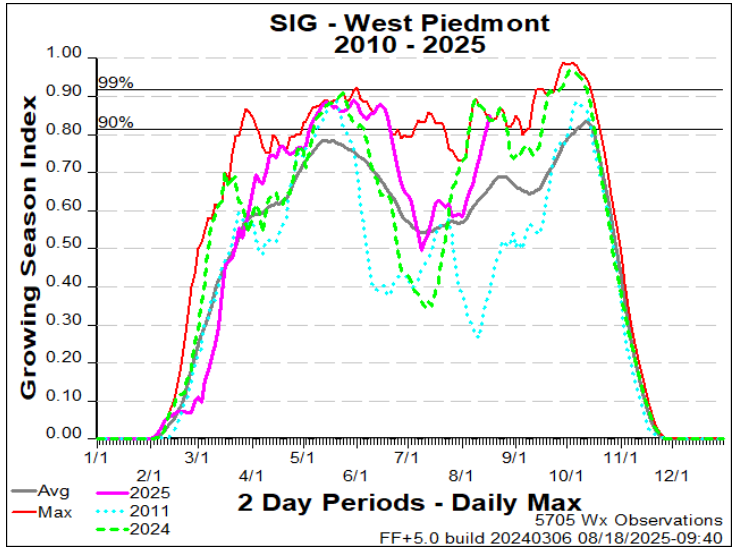
FDRA – Western Piedmont

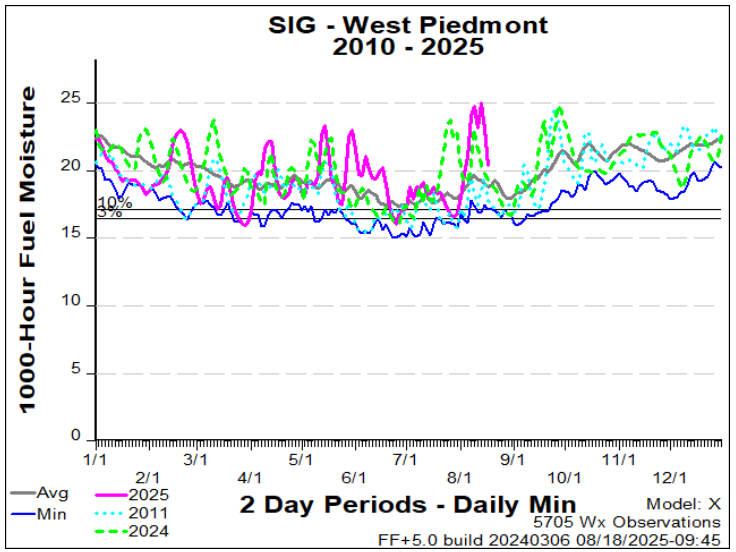






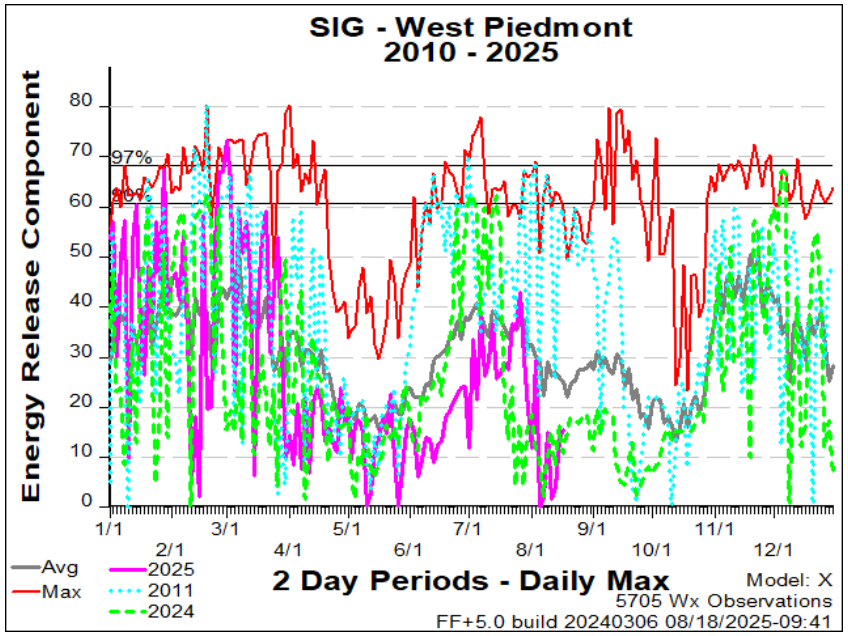




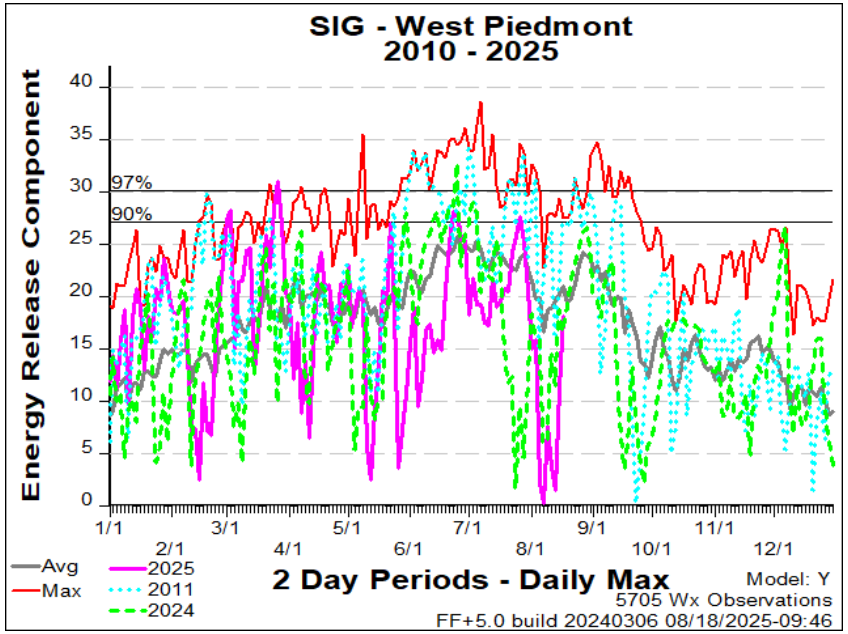


FDRA – Western Piedmont

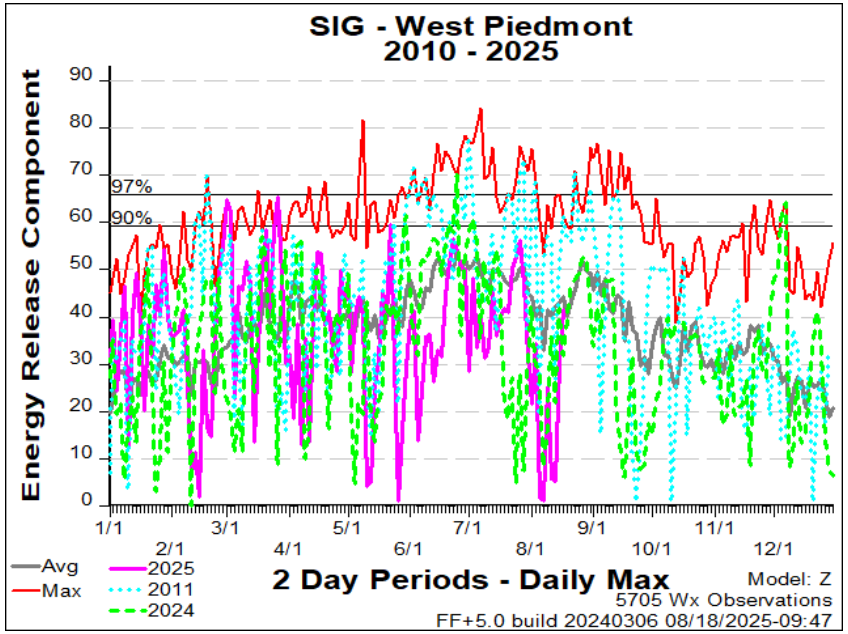
ERC-X



ERC-Y



ERC-Z



Comparison of ERC by NFDRS Fuel Model

X: 1's, 10's, Live Component (GSI driven); + Drought Loading

Y: Heavily weighted on 1000's, less on smaller dead; No live; + Drought Loading

Z: Near even distribution between the four dead size classes of 1's, 10's, 100's, 1000's; No live; + Drought Loading

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Average, Max, CY Year 2011, 2024 are displayed along with Year-to-Date 2025

FDRA – Western Piedmont

Weekly Outlook

Western Piedmont FDRA - General Fire Danger Forecast

For planning purposes only; forecast is subject to change

Four or more **RED** blocks in a day signals the potential for a **Critical Fire Day**

DAY	TUE 19-Aug	WED 20-Aug	THU 21-Aug	FRI 22-Aug	SAT 23-Aug	SUN 24-Aug	MON 25-Aug
Avg. Max. Temp. (°F)	83	85	85	82	80	83	
Avg. Min. Humidity (%)	73	68	64	72	79	73	
Avg. 20' Wind Speed (mph)	5	5	4	3	3	3	
Avg. Wind Direction*	NE	NE	NNE	ESE	SSE	SSW	
Avg. Probability of Precip. (%)	9	10	24	28	40	40	
Days Since a Wetting Rain**	6.3	7.3	8.3				
Forecast ERC (Fuel Model X)	11.4	10.0	10.5	11.5	10.5	10.0	11.1
Forecast BI (Fuel Model X)	17.9	17.1	18.5	15.4	16.1	15.2	14.6
Forecast IC (Fuel Model X)	1.5	1.1	1.4	1.4	1.3	1.1	1.2
Forecast 100-Hr. FMC	16.8	17.3	17.6	17.8	18.0	18.1	18.0
Forecast 1000-Hr. FMC	23.2	22.7	22.2	21.9	21.6	21.3	21.1
KBDI	192.0						

Data Source:

- Weather forecasts come from the National Weather Service's Digital Forecast Database. The wind speed and direction, and probability of precipitation, are calculated as averages of the 1 am, 7 am, 1 pm, and 7 pm forecasts. The 20-foot wind speed is estimated from the 10-meter forecast using the log wind profile method.
- Days since a wetting rain is calculated using a combination of historical data (to determine the most recent wetting rain event) and forecasted precipitation amounts. These forecasted amounts are only available for the first three days of the forecast period.
- Fire danger forecasts for the next 7 days are issued by National Weather Service through WIMS. KBDI is only available on the first forecast day since the NFDRS Forecast product does not include precipitation amounts, which are used to adjust KBDI from day to day

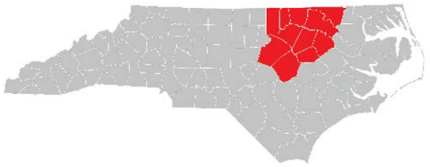
Values in the table above are averages from 3 stations in this FDRA:

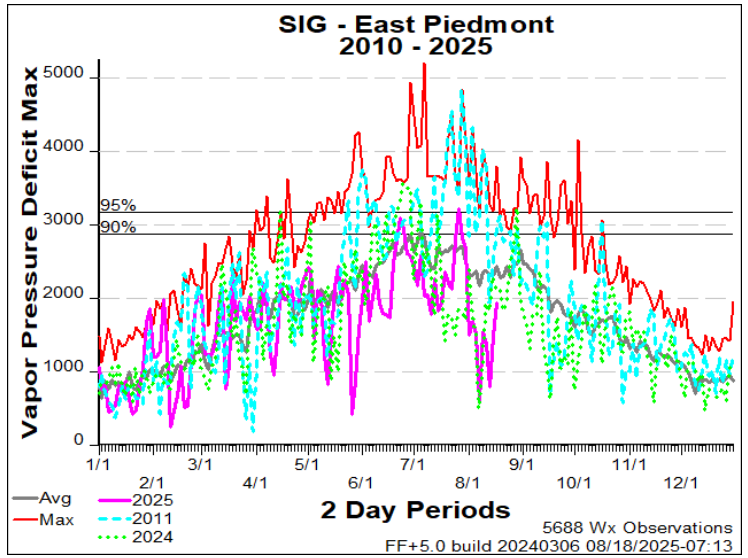
- **Duke Forest** (312501)
- **Lexington** (314602)
- **Mt. Island Lake** (316602)

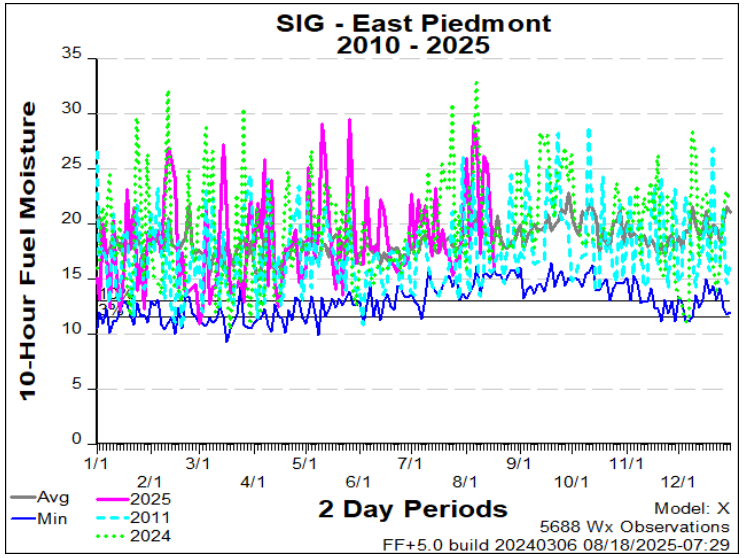
KEY	Low to Moderate Burning Conditions	Burning Conditions Can be High CAUTION	Burning Conditions Can be Critical WATCH OUT!
Avg. Max. Temp.	Less than 40°F	Between 40°F and 50°F	Greater than 50°F
Avg. Min. Humidity	Greater than 35%	Between 30% and 35%	Less than 30%
Avg. 20' Wind Speed	Less than 2 mph	Between 2 mph and 4 mph	Greater than 4 mph
Avg. Wind Direction*	Criticality of wind direction is highly dependent on burn operations and/or structures threatened.		
Days Since a Wetting Rain**	A wetting rain is defined as 0.10" or greater. This is an average of the FDRA stations noted above.		
Energy Release Comp.	Less than 40	Between 40 and 52	Greater than 52
Burning Index	Less than 95	Between 95 and 120	Greater than 120
Ignition Component	Less than 9	Between 9 and 14	Greater than 14
100-Hour Fuel Moisture	Greater than 18%	Between 17% and 18%	Less than 17%
1000-Hour Fuel Moisture	Greater than 19%	Between 18% and 19%	Less than 18%
KBDI	Less than 344	Between 344 and 479	Greater than 479

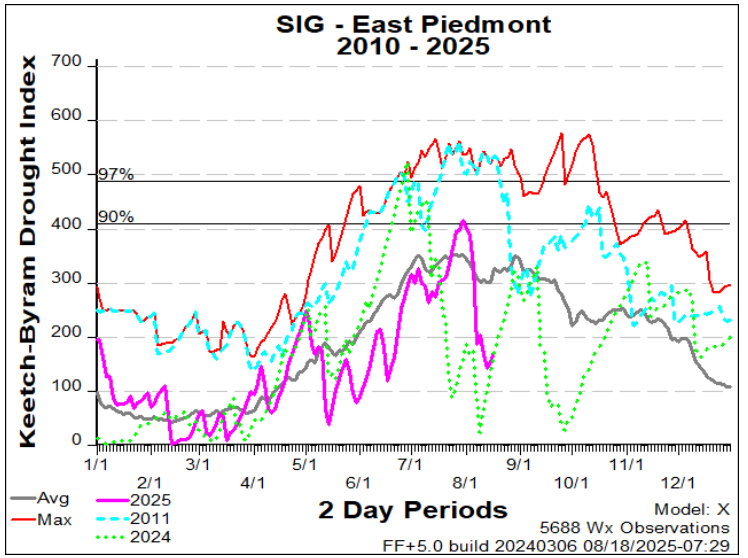
Other factors to consider when determining fire danger: **sky conditions, precipitation amount, number of days since rain,** and **season**

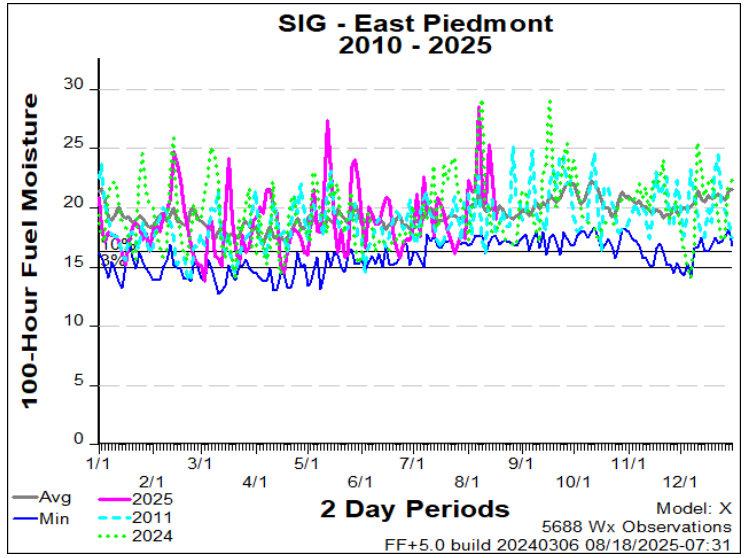
FDRA – Eastern Piedmont

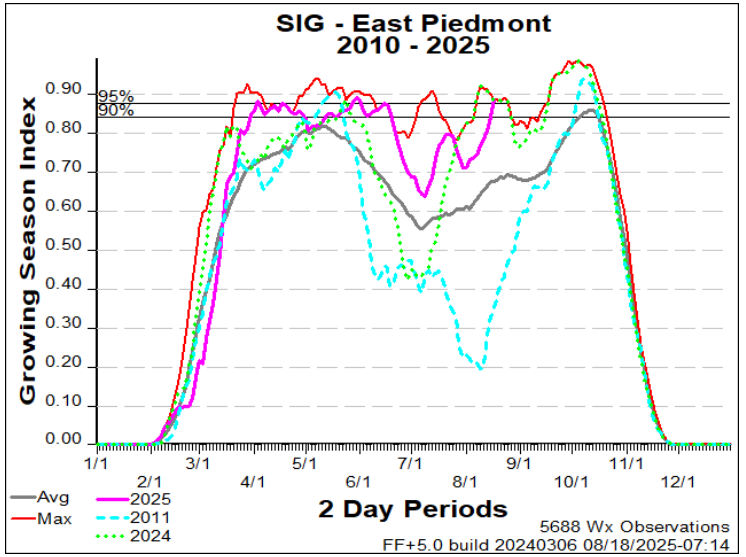


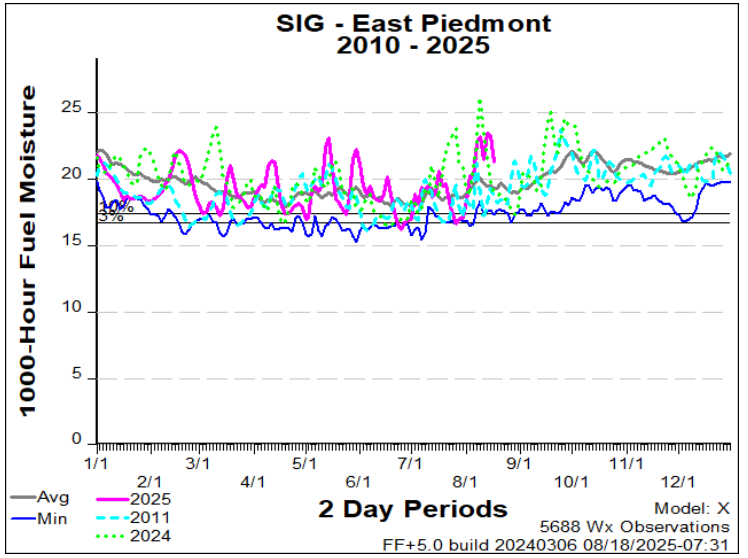




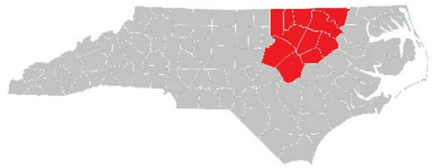




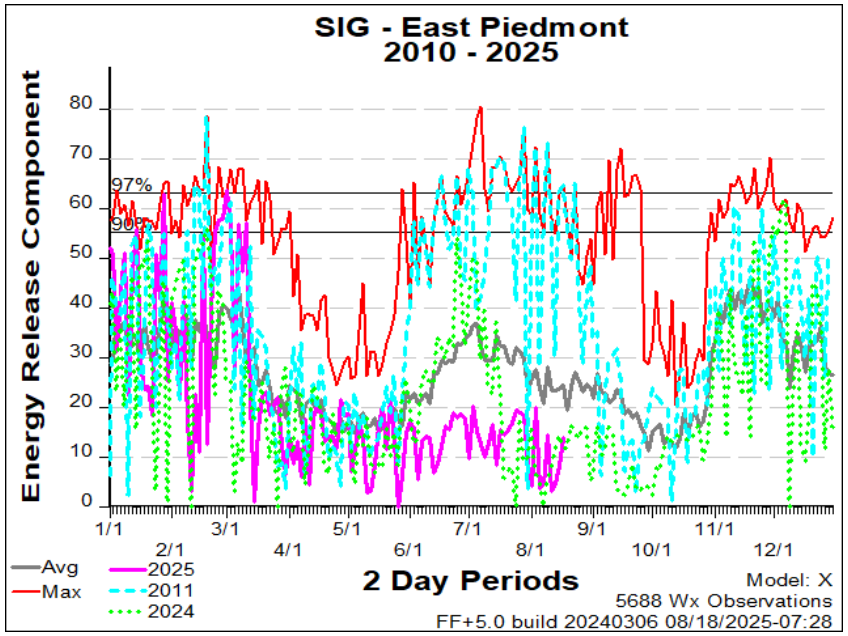




FDRA – Eastern Piedmont



ERC-X



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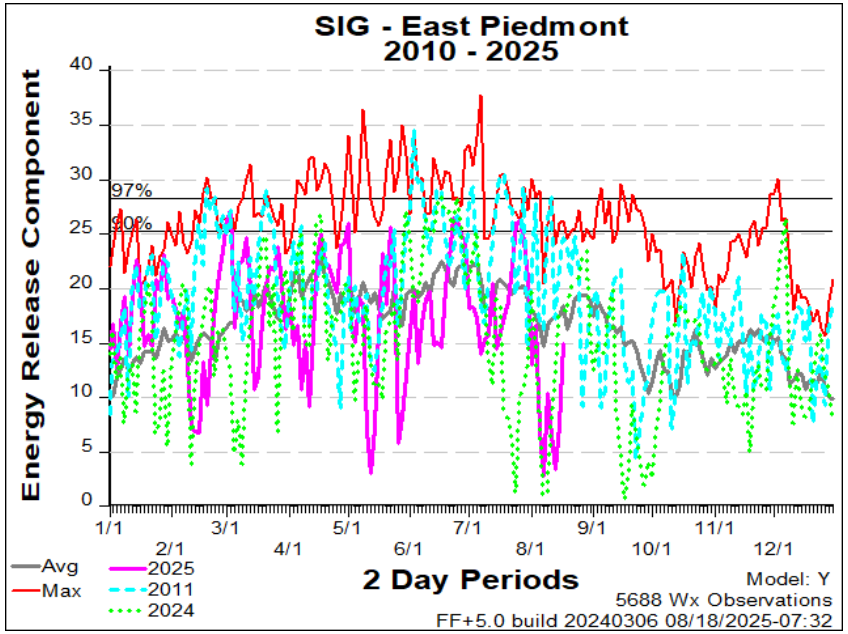
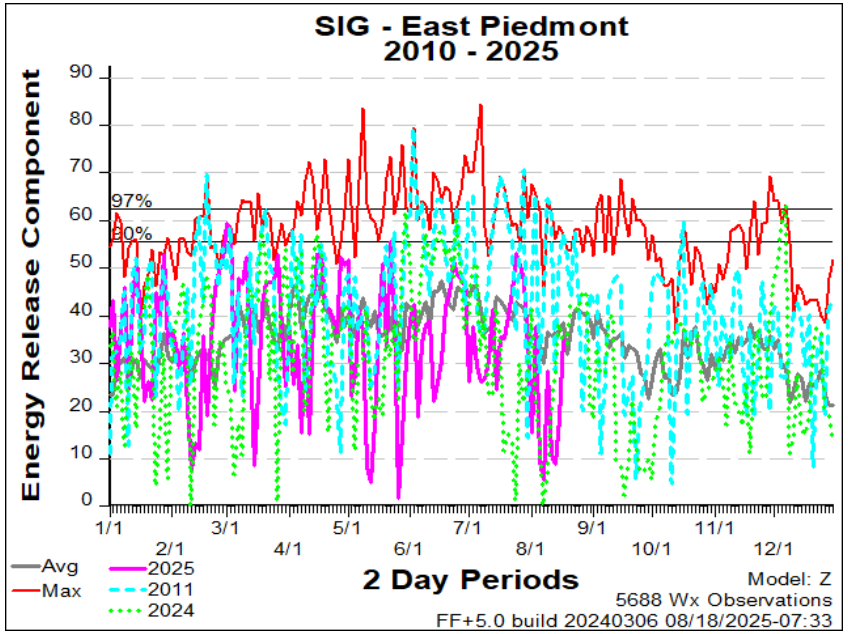


ERC-Z



Comparison of ERC by NFDRS Fuel Model

X: 1's, 10's, Live Component (GSI driven); + Drought Loading

Y: Heavily weighted on 1000's, less on smaller dead; No live; + Drought Loading

Z: Near even distribution between the four dead size classes of 1's, 10's, 100's, 1000's; No live; + Drought Loading

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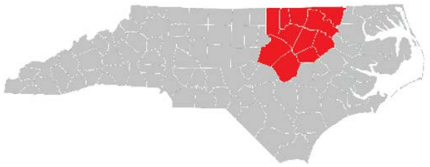
Average, Max, CY Year 2011, 2024 are displayed along with Year-to-Date 2025

FDRA – Eastern Piedmont



Weekly Outlook

Eastern Piedmont FDRA - General Fire Danger Forecast

For planning purposes only; forecast is subject to change

Four or more **RED** blocks in a day signals the potential for a **Critical Fire Day**

DAY	TUE 19-Aug	WED 20-Aug	THU 21-Aug	FRI 22-Aug	SAT 23-Aug	SUN 24-Aug	MON 25-Aug
Avg. Max. Temp. (°F)	85	86	85	83	82	84	
Avg. Min. Humidity (%)	74	70	66	67	73	73	
Avg. 20' Wind Speed (mph)	6	6	7	3	3	3	
Avg. Wind Direction*	NNE	NNE	NNE	E	SSE	SSW	
Avg. Probability of Precip. (%)	20	18	15	15	26	38	
Days Since a Wetting Rain**	1.0	2.0	3.0				
Forecast ERC (Fuel Model X)	11.5	10.2	10.9	12.5	12.7	11.6	11.1
Forecast BI (Fuel Model X)	18.9	20.8	23.6	17.9	17.6	17.5	15.5
Forecast IC (Fuel Model X)	1.6	1.3	1.9	2.0	2.0	1.6	1.3
Forecast 100-Hr. FMC	16.9	17.0	17.0	17.0	17.2	17.4	17.3
Forecast 1000-Hr. FMC	22.4	21.9	21.5	21.2	20.9	20.6	20.4
KBDI	193.0						

Data Source:

- Weather forecasts come from the National Weather Service's Digital Forecast Database. The wind speed and direction, and probability of precipitation, are calculated as averages of the 1 am, 7 am, 1 pm, and 7 pm forecasts. The 20-foot wind speed is estimated from the 10-meter forecast using the log wind profile method.
- Days since a wetting rain is calculated using a combination of historical data (to determine the most recent wetting rain event) and forecasted precipitation amounts. These forecasted amounts are only available for the first three days of the forecast period.
- Fire danger forecasts for the next 7 days are issued by National Weather Service through WIMS. KBDI is only available on the first forecast day since the NFDRS Forecast product does not include precipitation amounts, which are used to adjust KBDI from day to day

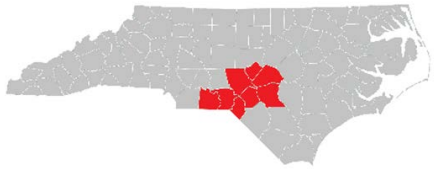
Values in the table above are averages from 4 stations in this FDRA:

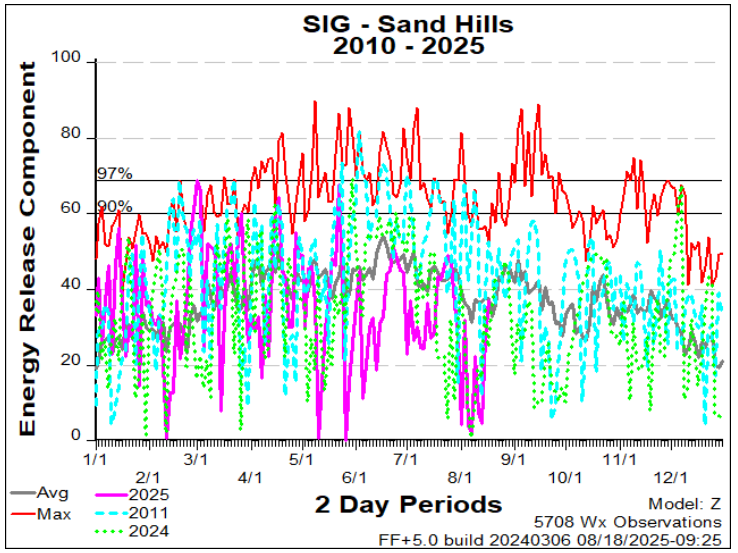
- **Oxford Tobacco Research Stn** (310841)
- **Upper Coastal Plain Res Stn** (312940)
- **Lake Wheeler Rd Field Lab** (314941)
- **Central Crops Research Station** (317441)

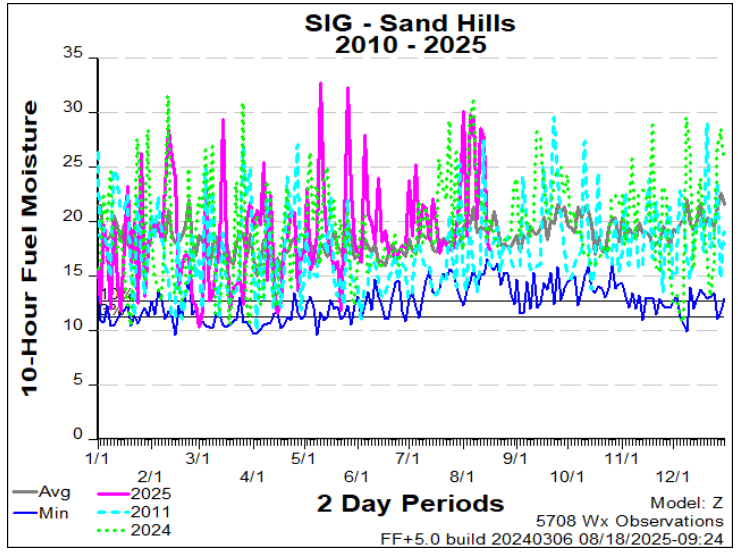
KEY	Low to Moderate Burning Conditions	Burning Conditions Can be High CAUTION	Burning Conditions Can be Critical WATCH OUT!
Avg. Max. Temp.	Less than 50°F	Between 50°F and 60°F	Greater than 60°F
Avg. Min. Humidity	Greater than 40%	Between 35% and 40%	Less than 35%
Avg. 20' Wind Speed	Less than 10 mph	Between 10 mph and 15 mph	Greater than 15 mph
Avg. Wind Direction*	Criticality of wind direction is highly dependent on burn operations and/or structures threatened.		
Days Since a Wetting Rain**	A wetting rain is defined as 0.10" or greater. This is an average of the FDRA stations noted above.		
Energy Release Comp.	Less than 54.2	Between 54.2 and 61.7	Greater than 61.7
Burning Index	Less than 109.3	Between 109.3 and 130.5	Greater than 130.5
Ignition Component	Less than 12.7	Between 12.7 and 16.8	Greater than 16.8
100-Hour Fuel Moisture	Greater than 17.6%	Between 16.4% and 17.6%	Less than 16.4%
1000-Hour Fuel Moisture	Greater than 18.3%	Between 17.5% and 18.3%	Less than 17.5%
KBDI	Less than 337	Between 337 and 460	Greater than 460

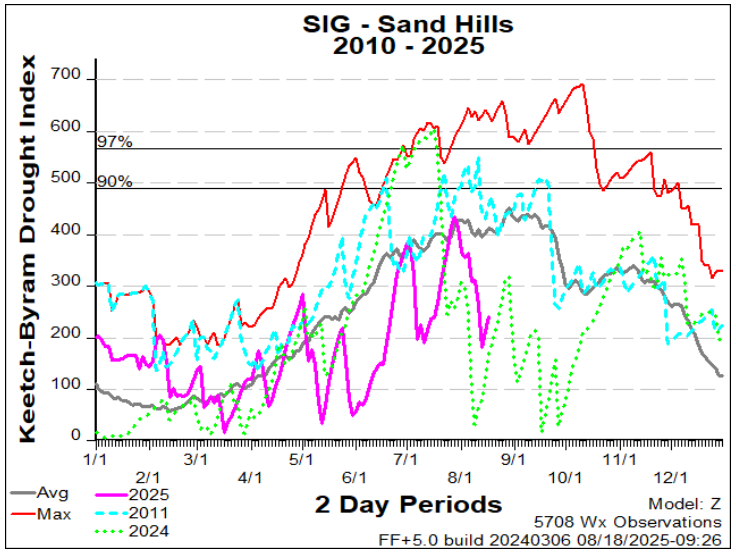
Other factors to consider when determining fire danger: **sky conditions, precipitation amount, number of days since rain,** and **season**

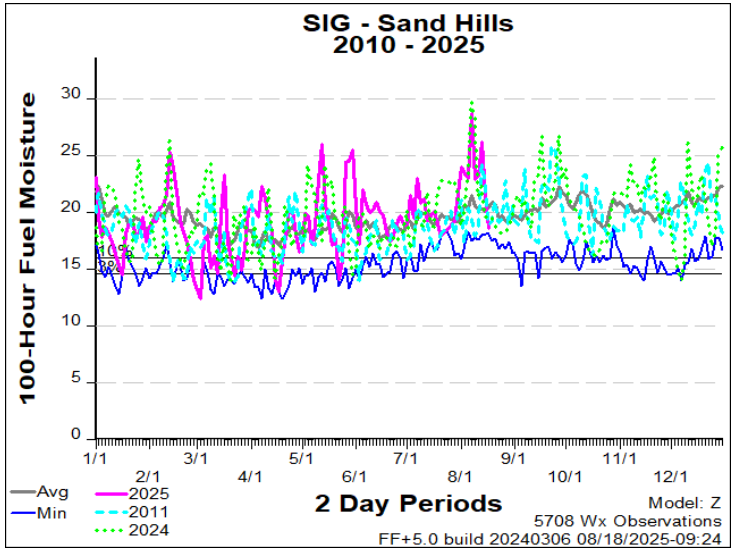
FDRA – Sandhills

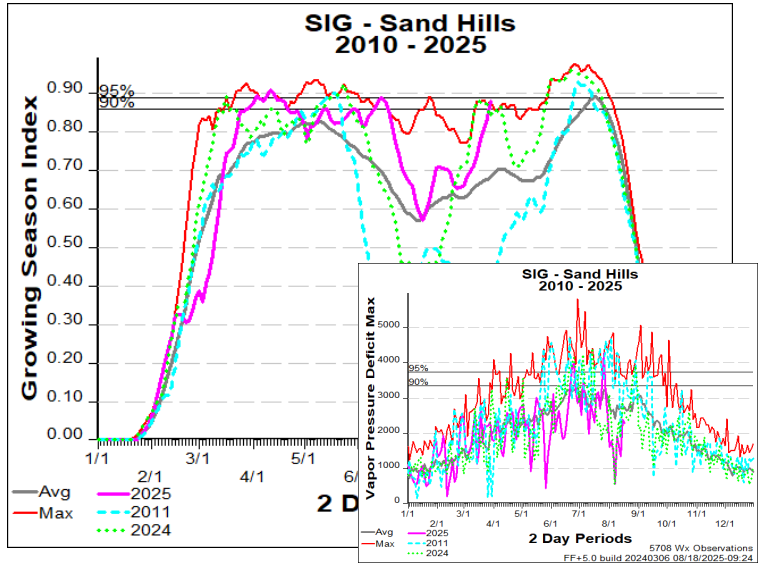


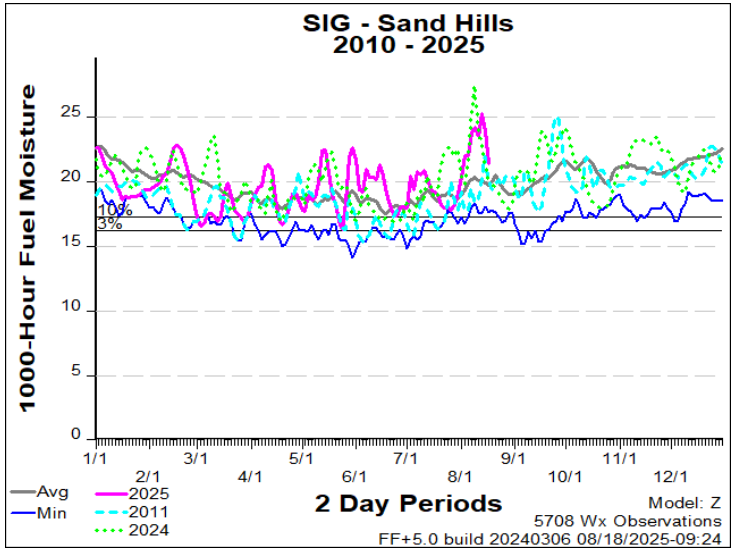




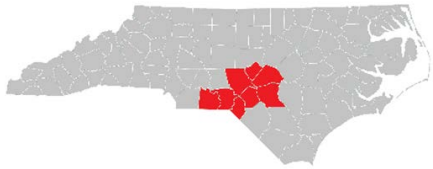








FDRA – Sandhills



Weekly Outlook

Sandhills FDRA - General Fire Danger Forecast

For planning purposes only; forecast is subject to change

Four or more RED blocks in a day signals the potential for a **Critical Fire Day**

DAY	TUE 19-Aug	WED 20-Aug	THU 21-Aug	FRI 22-Aug	SAT 23-Aug	SUN 24-Aug	MON 25-Aug
Avg. Max. Temp. (°F)	86	87	87	84	82	85	
Avg. Min. Humidity (%)	66	59	56	64	72	65	
Avg. 20' Wind Speed (mph)	6	7	5	3	3	3	
Avg. Wind Direction*	NE	NNE	NNE	E	SE	S	
Avg. Probability of Precip. (%)	17	11	19	30	40	45	
Days Since a Wetting Rain**	2.3	3.3	4.3				
Forecast ERC (Fuel Model Z)	30.2	29.9	31.2	33.1	32.3	30.7	31.6
Forecast BI (Fuel Model Z)	31.5	34.2	35.3	28.1	28.1	28.2	27.2
Forecast IC (Fuel Model Z)	4.6	4.7	5.5	5.5	4.6	3.4	3.5
Forecast 100-Hr. FMC	17.9	17.9	17.9	18.0	18.1	18.2	18.1
Forecast 1000-Hr. FMC	23.5	23.0	22.5	22.1	21.8	21.5	21.2
KBDI	259.7						

Data Source:

- Weather forecasts come from the National Weather Service's Digital Forecast Database. The wind speed and direction, and probability of precipitation, are calculated as averages of the 1 am, 7 am, 1 pm, and 7 pm forecasts. The 20-foot wind speed is estimated from the 10-meter forecast using the log wind profile method.
- Days since a wetting rain is calculated using a combination of historical data (to determine the most recent wetting rain event) and forecasted precipitation amounts. These forecasted amounts are only available for the first three days of the forecast period.
- Fire danger forecasts for the next 7 days are issued by National Weather Service through WIMS. KBDI is only available on the first forecast day since the NFDRS Forecast product does not include precipitation amounts, which are used to adjust KBDI from day to day

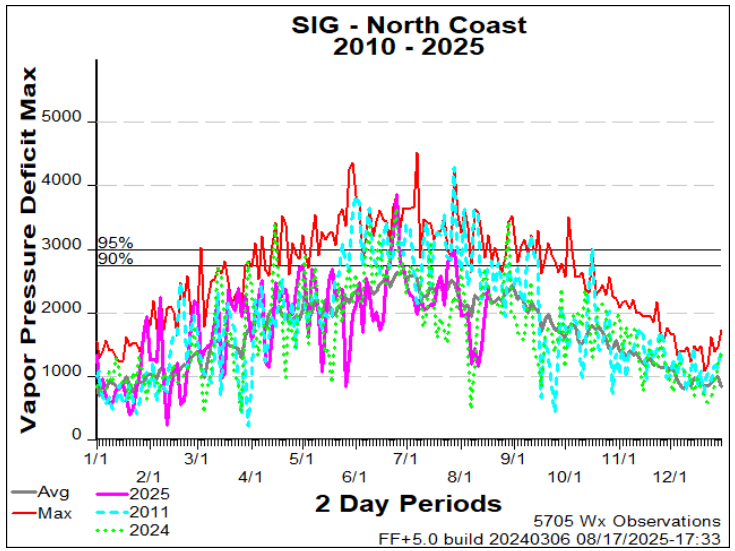
Values in the table above are averages from 3 stations in this FDRA:

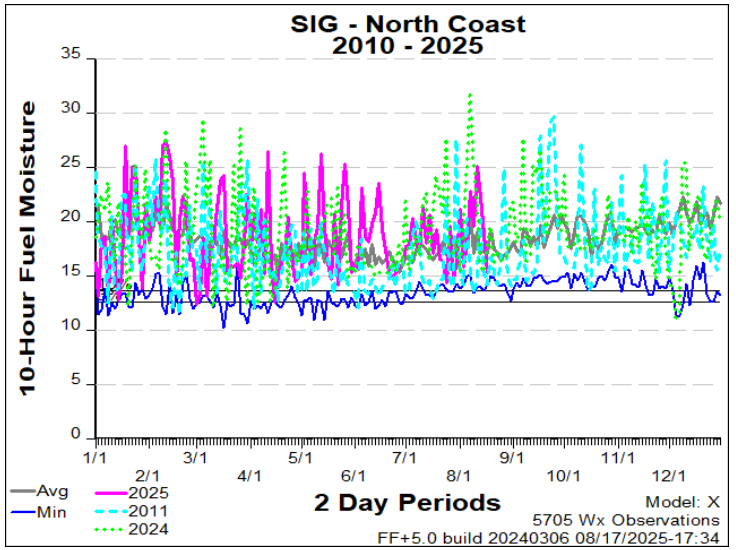
- **Sandhills Research Station** (317040)
- **Rockingham** (318202)
- **Fort Liberty** (318503)

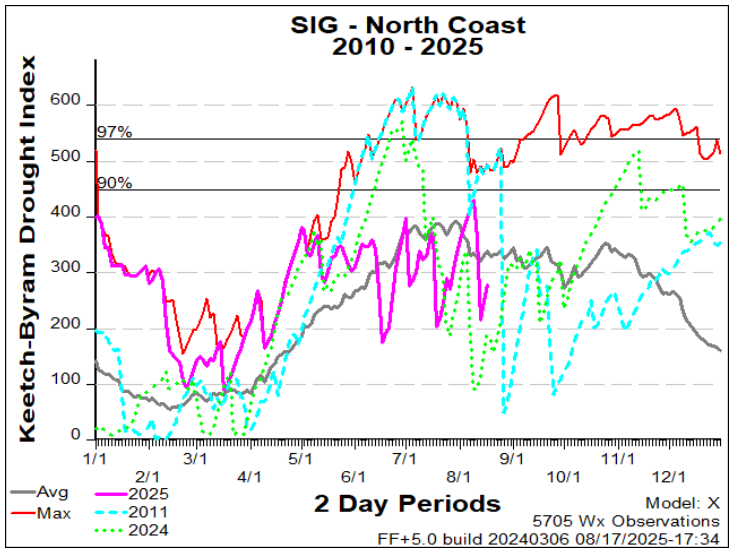
KEY	Low to Moderate Burning Conditions	Burning Conditions Can be High CAUTION	Burning Conditions Can be Critical WATCH OUT!
Avg. Max. Temp.	Less than 50°F	Between 50°F and 60°F	Greater than 60°F
Avg. Min. Humidity	Greater than 40%	Between 30% and 40%	Less than 30%
Avg. 20' Wind Speed	Less than 4 mph	Between 4 mph and 8 mph	Greater than 8 mph
Avg. Wind Direction*	Criticality of wind direction is highly dependent on burn operations and/or structures threatened.		
Days Since a Wetting Rain**	A wetting rain is defined as 0.10" or greater. This is an average of the FDRA stations noted above.		
Energy Release Comp.	Less than 52.4	Between 52.4 and 62	Greater than 62
Burning Index	Less than 45.6	Between 45.6 and 53.3	Greater than 53.3
Ignition Component	Less than 13.6	Between 13.6 and 18.8	Greater than 18.8
100-Hour Fuel Moisture	Greater than 17.4%	Between 16% and 17.4%	Less than 16%
1000-Hour Fuel Moisture	Greater than 18.2%	Between 17.2% and 18.2%	Less than 17.2%
KBDI	Less than 397	Between 397 and 500	Greater than 500

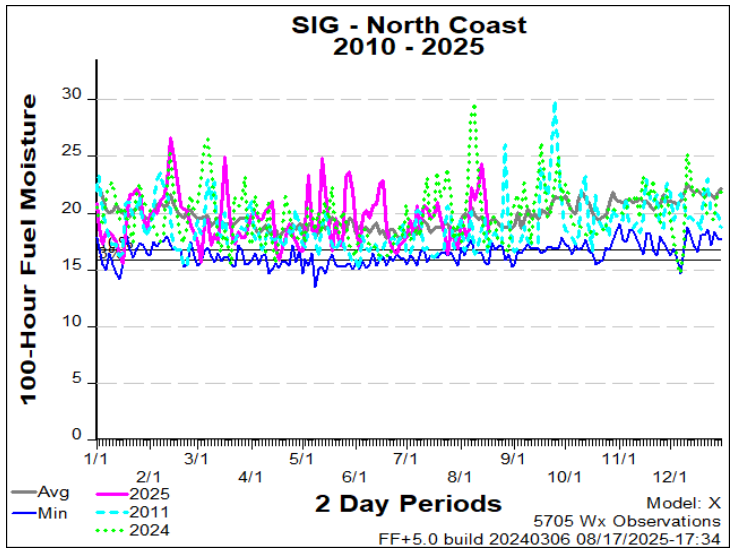
Other factors to consider when determining fire danger: **sky conditions**, **precipitation amount**, **number of days since rain**, and **season**

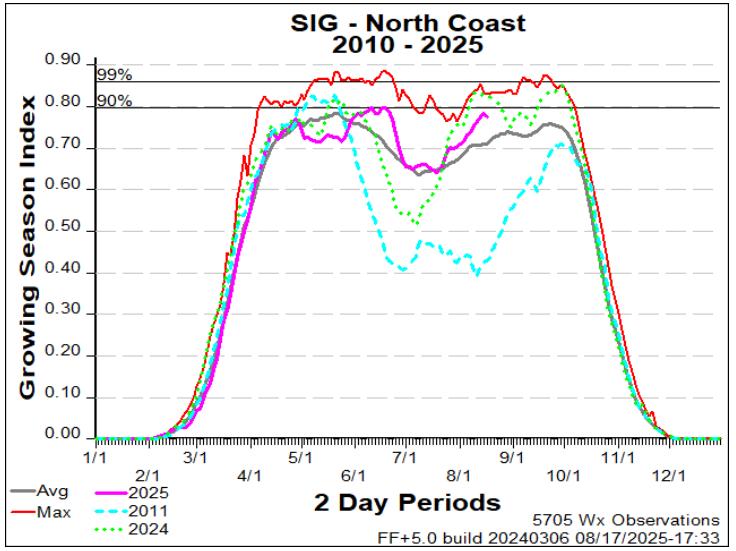
FDRA – North Coast

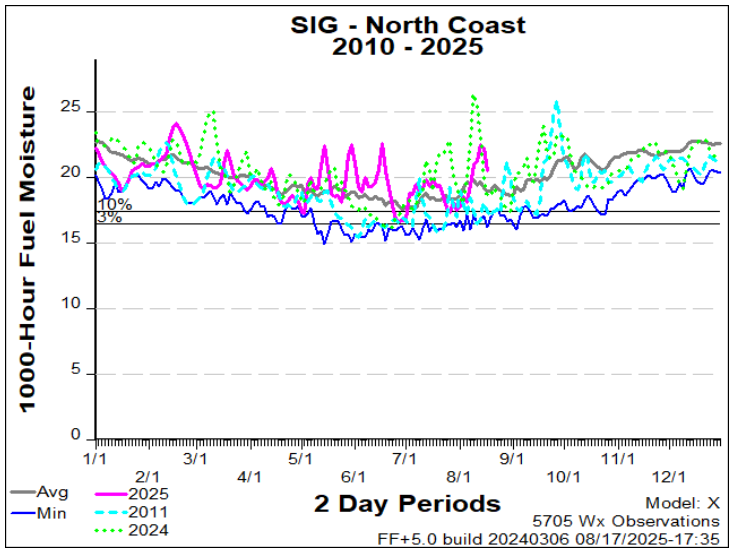






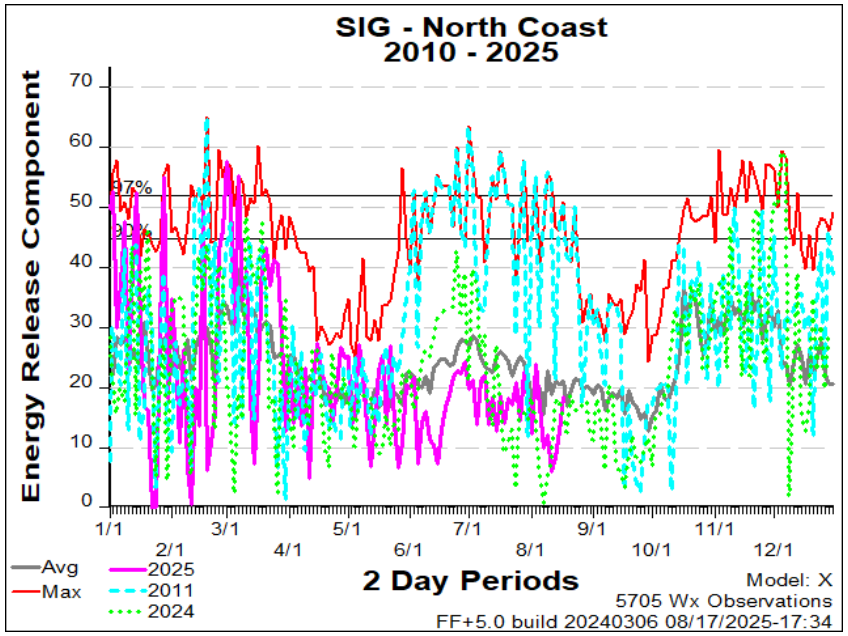




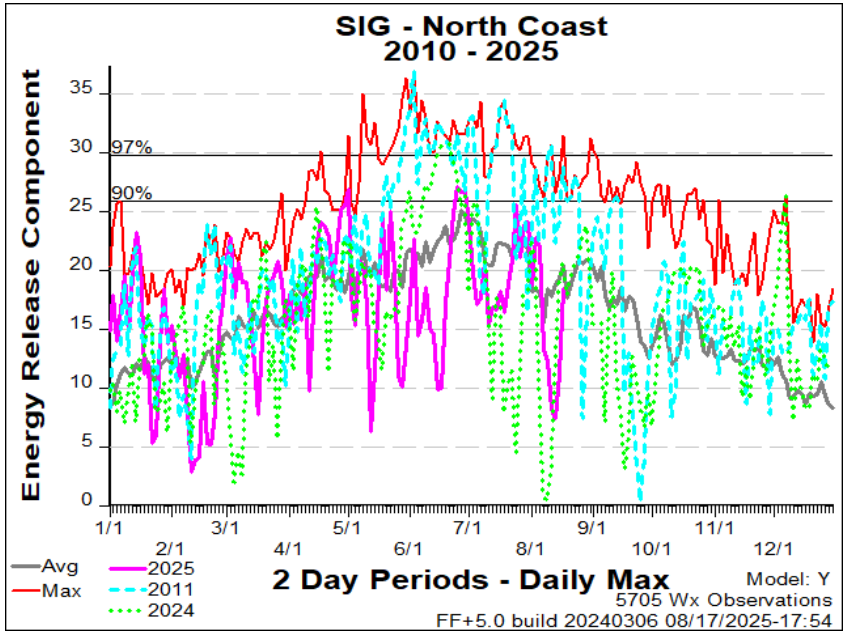


FDRA – North Coast

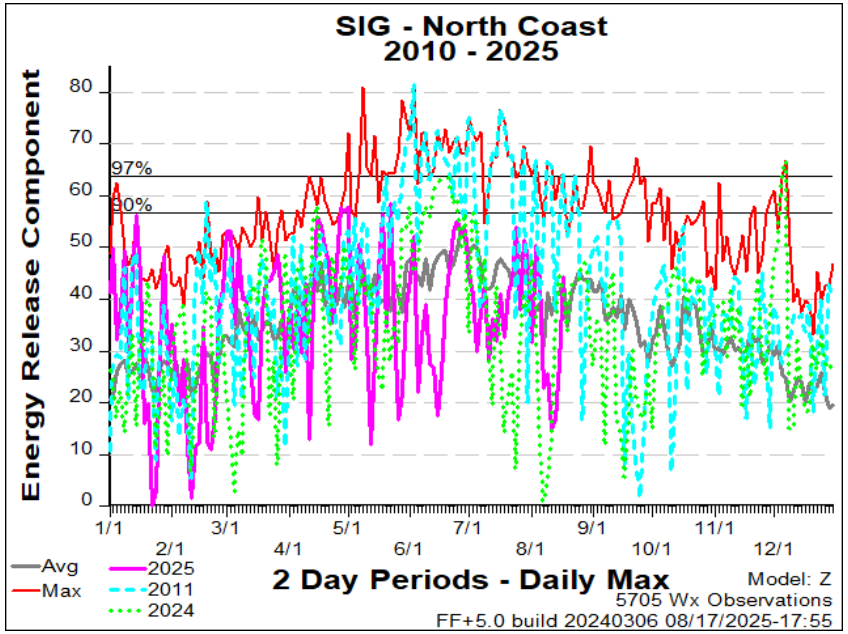
ERC-X



ERC-Y



ERC-Z



Comparison of ERC by NFDRS Fuel Model

X: 1's, 10's, Live Component (GSI driven); + Drought Loading

Y: Heavily weighted on 1000's, less on smaller dead; No live; + Drought Loading

Z: Near even distribution between the four dead size classes of 1's, 10's, 100's, 1000's; No live; + Drought Loading

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Average, Max, CY Year 2011, 2024 are displayed along with Year-to-Date 2025

FDRA – North Coast

Weekly Outlook

Northern Coastal FDRA - General Fire Danger Forecast

For planning purposes only; forecast is subject to change

Four or more RED blocks in a day signals the potential for a **Critical Fire Day**

DAY	TUE 19-Aug	WED 20-Aug	THU 21-Aug	FRI 22-Aug	SAT 23-Aug	SUN 24-Aug	MON 25-Aug
Avg. Max. Temp. (°F)	86	86	84	85	85	86	
Avg. Min. Humidity (%)	69	72	67	61	64	69	
Avg. 20' Wind Speed (mph)	5	7	12	6	4	4	
Avg. Wind Direction*	ENE	NE	N	E	SE	S	
Avg. Probability of Precip. (%)	27	29	30	10	15	37	
Days Since a Wetting Rain**	2.8	2.3	3.3				
Forecast ERC (Fuel Model X)	11.4	11.3	11.6	13.3	12.9	12.5	12.3
Forecast BI (Fuel Model X)	18.6	26.4	31.4	20.5	19.1	18.4	13.8
Forecast IC (Fuel Model X)	1.6	2.1	2.5	2.3	2.0	1.8	1.2
Forecast 100-Hr. FMC	18.7	18.6	18.3	18.1	18.1	18.1	18.1
Forecast 1000-Hr. FMC	21.4	21.1	20.9	20.8	20.6	20.5	20.3
KBDI	298.8						

Data Source:

- Weather forecasts come from the National Weather Service's Digital Forecast Database. The wind speed and direction, and probability of precipitation, are calculated as averages of the 1 am, 7 am, 1 pm, and 7 pm forecasts. The 20-foot wind speed is estimated from the 10-meter forecast using the log wind profile method.
- Days since a wetting rain is calculated using a combination of historical data (to determine the most recent wetting rain event) and forecasted precipitation amounts. These forecasted amounts are only available for the first three days of the forecast period.
- Fire danger forecasts for the next 7 days are issued by National Weather Service through WIMS. KBDI is only available on the first forecast day since the NFDRS Forecast product does not include precipitation amounts, which are used to adjust KBDI from day to day

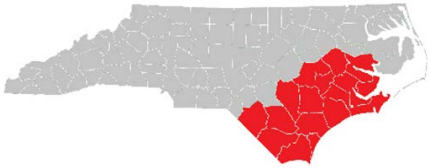
Values in the table above are averages from 4 stations in this FDRA:

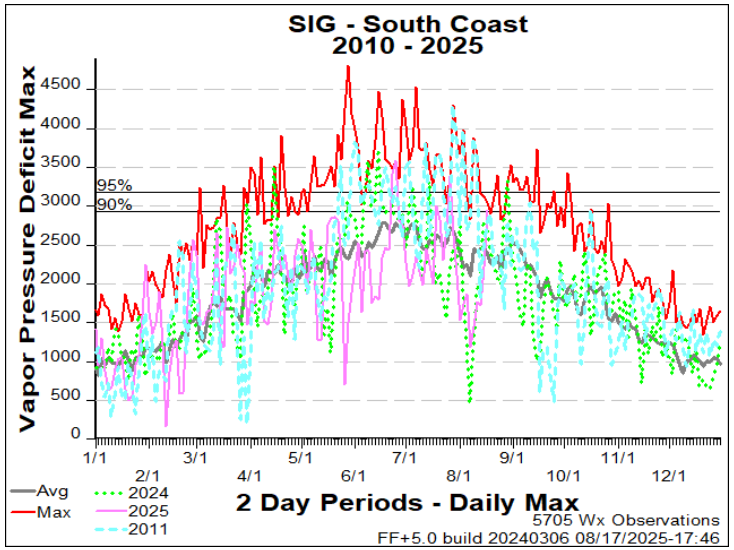
- **Elizabeth City** (311503)
- **Greens Cross** (313001)
- **Pocosin Lakes** (315201)
- **Fairfield** (317901)

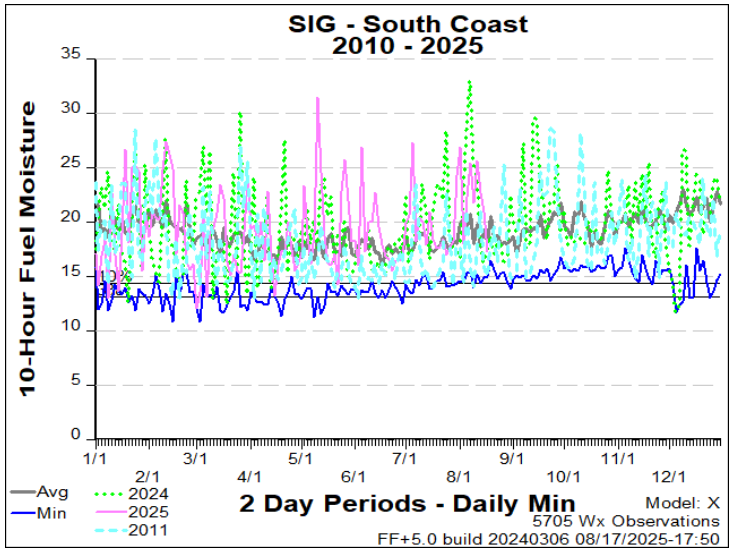
KEY	Low to Moderate Burning Conditions	Burning Conditions Can be High CAUTION	Burning Conditions Can be Critical WATCH OUT!
Avg. Max. Temp.	Less than 45°F	Between 45°F and 55°F	Greater than 55°F
Avg. Min. Humidity	Greater than 40%	Between 35% and 40%	Less than 35%
Avg. 20' Wind Speed	Less than 10 mph	Between 10 mph and 15 mph	Greater than 15 mph
Avg. Wind Direction*	Criticality of wind direction is highly dependent on burn operations and/or structures threatened.		
Days Since a Wetting Rain**	A wetting rain is defined as 0.10" or greater. This is an average of the FDRA stations noted above.		
Energy Release Comp.	Less than 39.3	Between 39.3 and 48	Greater than 48
Burning Index	Less than 78	Between 78 and 96.8	Greater than 96.8
Ignition Component	Less than 9.3	Between 9.3 and 12.8	Greater than 12.8
100-Hour Fuel Moisture	Greater than 17.7%	Between 16.8% and 17.7%	Less than 16.8%
1000-Hour Fuel Moisture	Greater than 18.5%	Between 17.5% and 18.5%	Less than 17.5%
KBDI	Less than 365	Between 365 and 463	Greater than 463

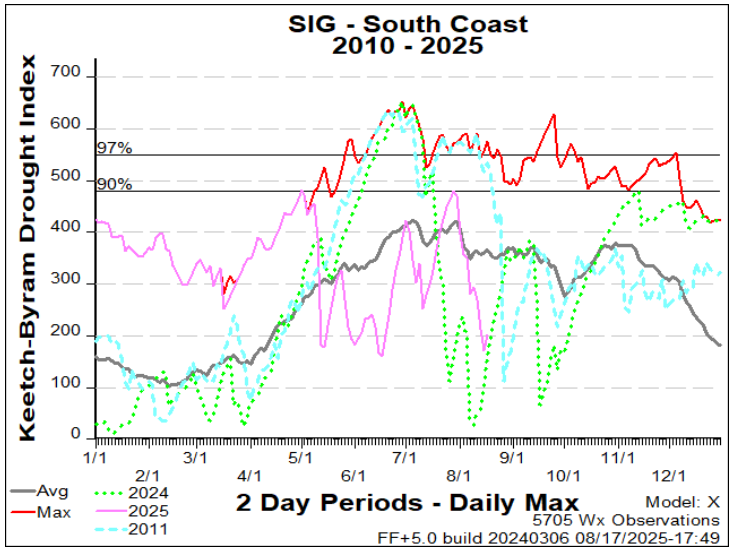
Other factors to consider when determining fire danger: **sky conditions, precipitation amount, number of days since rain,** and **season**

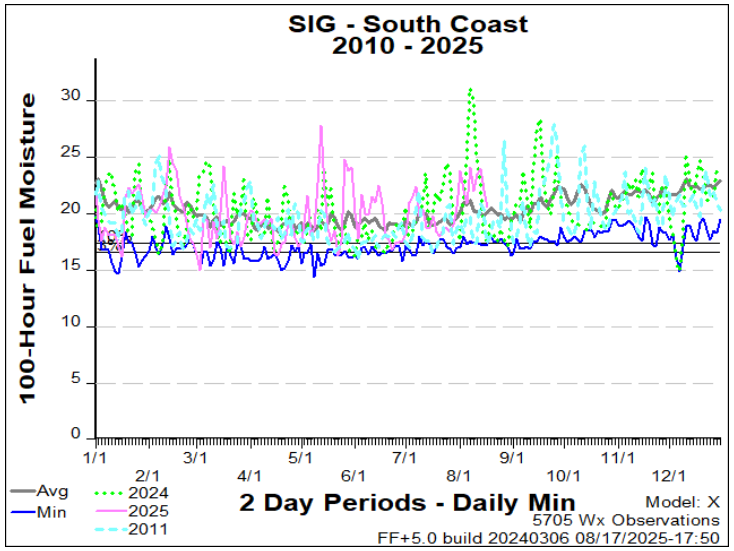
FDRA – South Coast

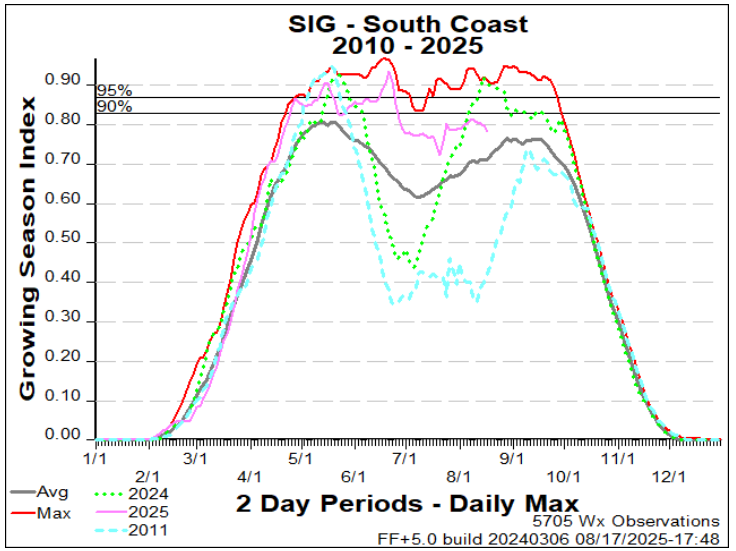


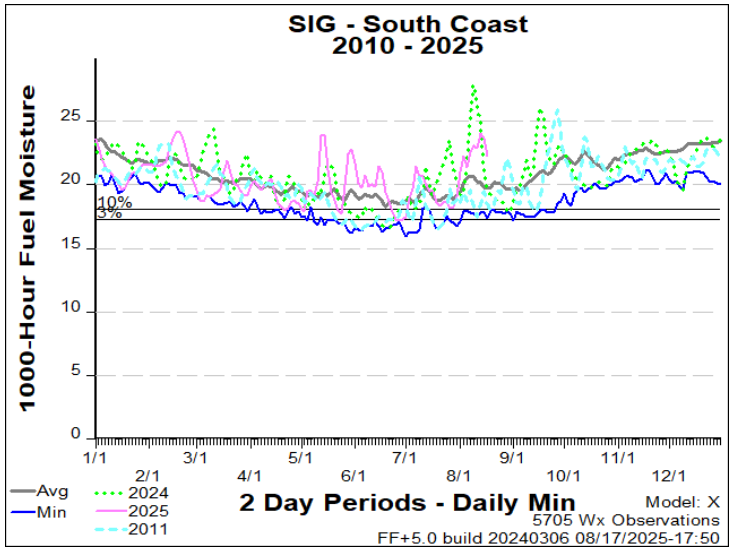






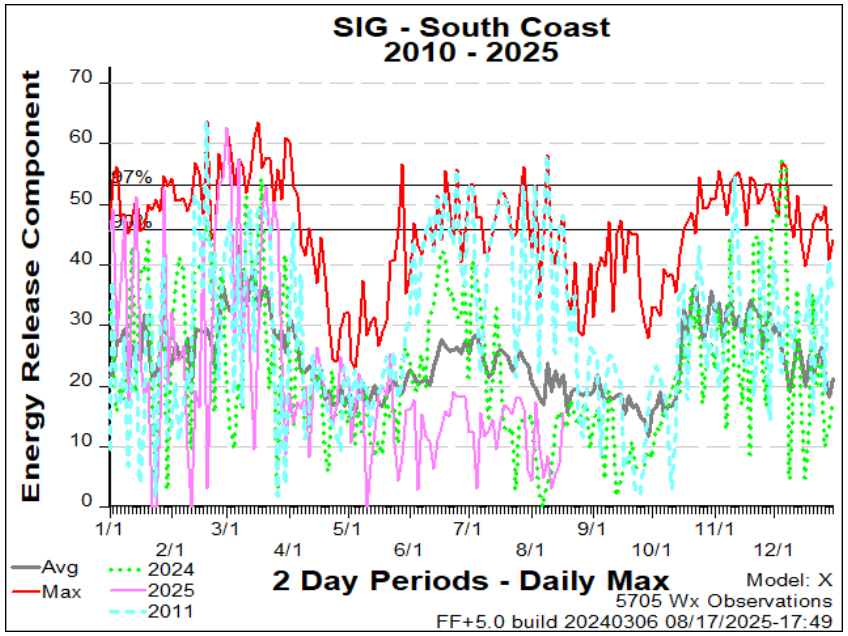




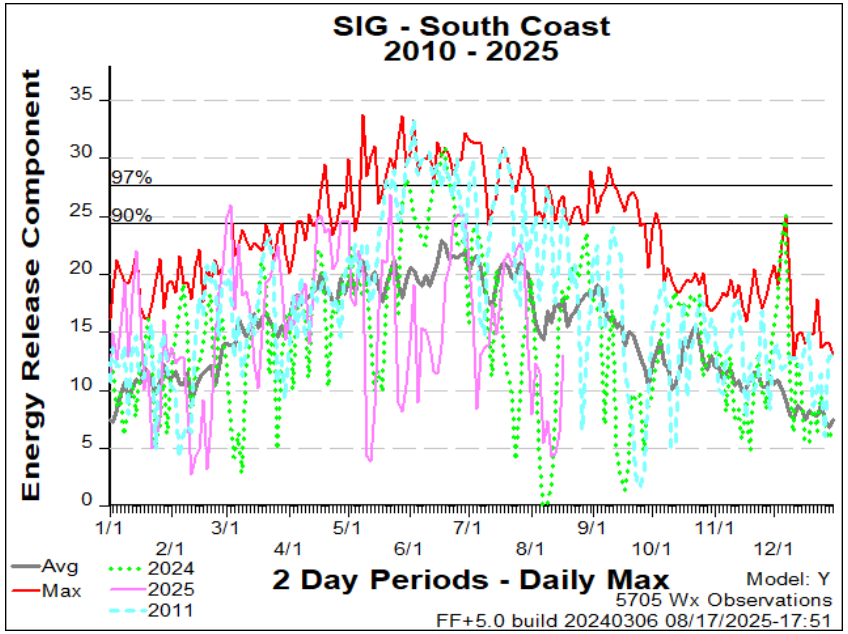


FDRA – South Coast

ERC-X



ERC-Y



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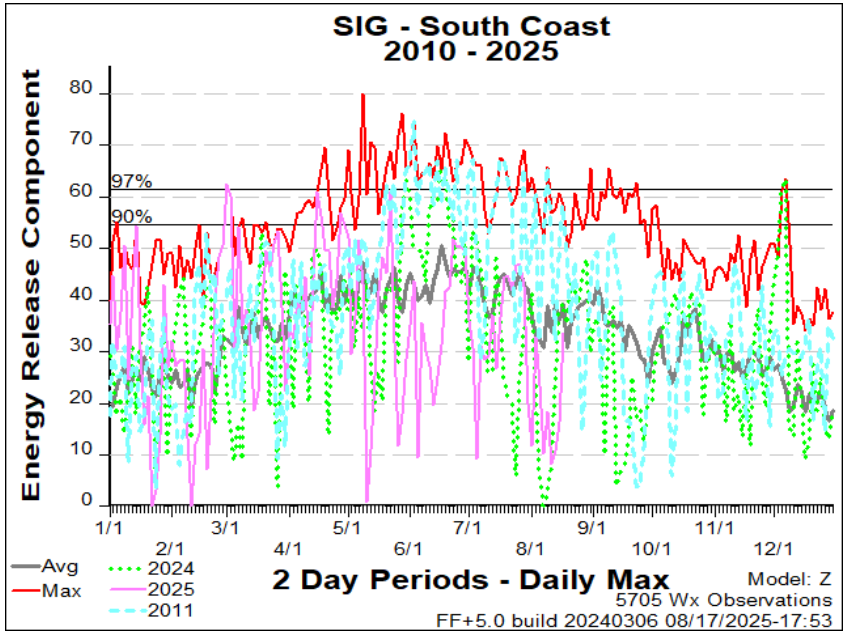

Comparison of ERC by NFDRS Fuel Model

X: 1's, 10's, Live Component (GSI driven); + Drought Loading

Y: Heavily weighted on 1000's, less on smaller dead; No live; + Drought Loading

Z: Near even distribution between the four dead size classes of 1's, 10's, 100's, 1000's; No live; + Drought Loading

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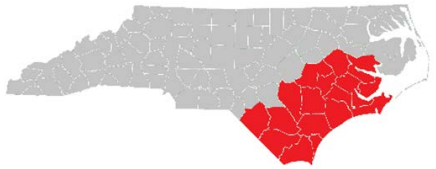
Average, Max, CY Year 2011, 2024 are displayed along with Year-to-Date 2025

FDRA – South Coast



Weekly Outlook

Southern Coastal FDRA - General Fire Danger Forecast

For planning purposes only; forecast is subject to change

Four or more RED blocks in a day signals the potential for a **Critical Fire Day**

DAY	TUE 19-Aug	WED 20-Aug	THU 21-Aug	FRI 22-Aug	SAT 23-Aug	SUN 24-Aug	MON 25-Aug
Avg. Max. Temp. (°F)	88	88	87	86	84	86	
Avg. Min. Humidity (%)	68	67	64	64	69	72	
Avg. 20' Wind Speed (mph)	4	6	7	4	3	3	
Avg. Wind Direction*	NE	NE	S	ENE	ESE	SSE	
Avg. Probability of Precip. (%)	26	29	19	19	28	43	
Days Since a Wetting Rain**	2.6	2.7	3.7				
Forecast ERC (Fuel Model X)	12.0	10.8	11.4	13.0	12.9	11.8	11.0
Forecast BI (Fuel Model X)	19.4	23.9	26.3	19.5	19.6	18.0	15.9
Forecast IC (Fuel Model X)	2.0	2.1	2.6	2.4	2.4	1.8	1.4
Forecast 100-Hr. FMC	18.2	18.3	18.6	18.6	18.6	18.6	18.7
Forecast 1000-Hr. FMC	23.4	22.9	22.5	22.2	21.8	21.6	21.3
KBDI	227.1						

Data Source:

- Weather forecasts come from the National Weather Service's Digital Forecast Database. The wind speed and direction, and probability of precipitation, are calculated as averages of the 1 am, 7 am, 1 pm, and 7 pm forecasts. The 20-foot wind speed is estimated from the 10-meter forecast using the log wind profile method.
- Days since a wetting rain is calculated using a combination of historical data (to determine the most recent wetting rain event) and forecasted precipitation amounts. These forecasted amounts are only available for the first three days of the forecast period.
- Fire danger forecasts for the next 7 days are issued by National Weather Service through WIMS. KBDI is only available on the first forecast day since the NFDRS Forecast product does not include precipitation amounts, which are used to adjust KBDI from day to day

Values in the table above are averages from 7 stations in this FDRA:

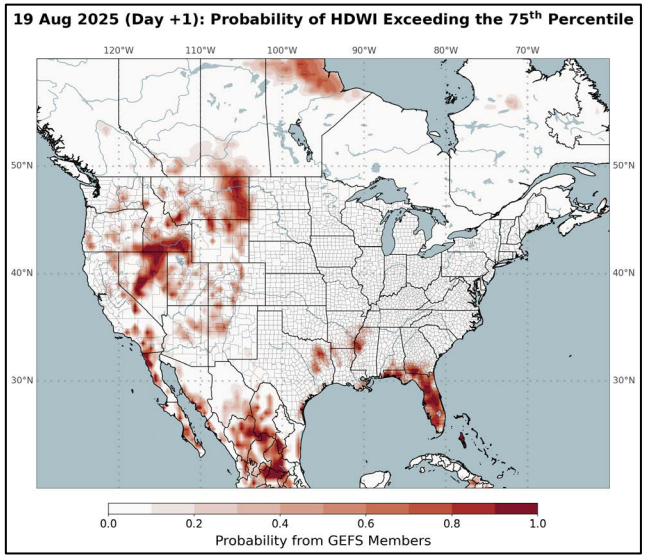
- **Finch's Station** (317501)
- **Beaufort** (317801)
- **New Bern** (319004)
- **Turnbull Creek** (319302)
- **Hofmann Forest** (319507)
- **Whiteville** (319701)
- **Sunny Point** (319803)

KEY	Low to Moderate Burning Conditions	Burning Conditions Can be High CAUTION	Burning Conditions Can be Critical WATCH OUT!
Avg. Max. Temp.	Less than 50°F	Between 50°F and 65°F	Greater than 65°F
Avg. Min. Humidity	Greater than 40%	Between 35% and 40%	Less than 35%
Avg. 20' Wind Speed	Less than 5 mph	Between 5 mph and 10 mph	Greater than 10 mph
Avg. Wind Direction*	Criticality of wind direction is highly dependent on burn operations and/or structures threatened.		
Days Since a Wetting Rain**	A wetting rain is defined as 0.10" or greater. This is an average of the FDRA stations noted above.		
Energy Release Comp.	Less than 36.4	Between 36.4 and 47.2	Greater than 47.2
Burning Index	Less than 68.3	Between 68.3 and 89.5	Greater than 89.5
Ignition Component	Less than 7.9	Between 7.9 and 12	Greater than 12
100-Hour Fuel Moisture	Greater than 18.2%	Between 17.3% and 18.2%	Less than 17.3%
1000-Hour Fuel Moisture	Greater than 19%	Between 18% and 19%	Less than 18%
KBDI	Less than 385	Between 385 and 486	Greater than 486

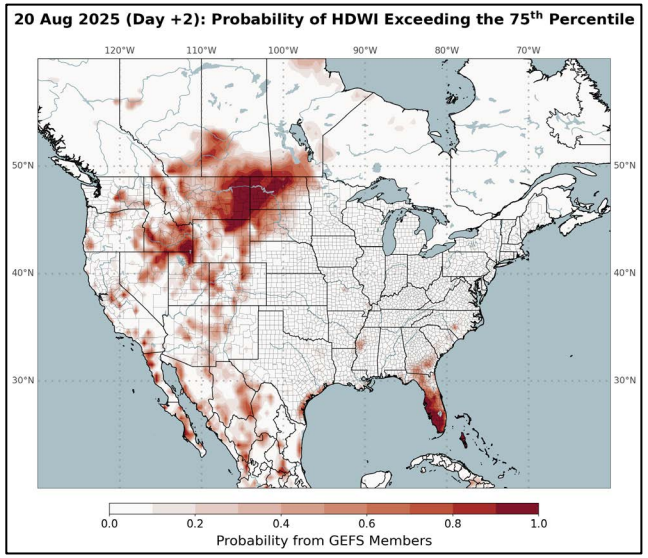
Other factors to consider when determining fire danger: **sky conditions, precipitation amount, number of days since rain,** and **season**

Hot-Dry-Windy Index (HDW)

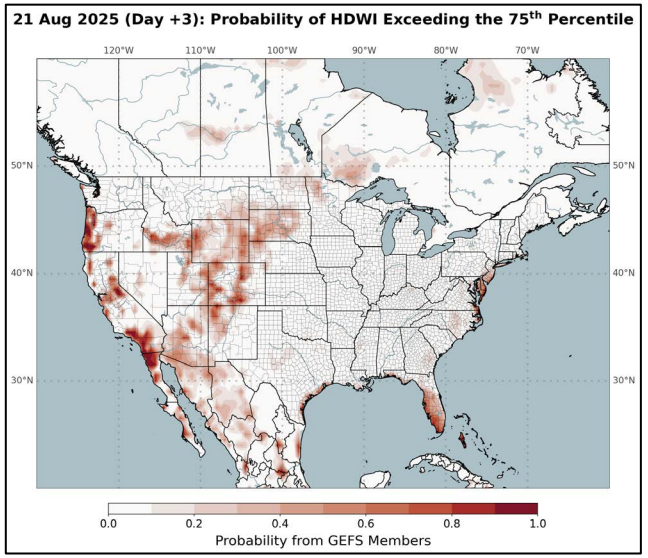
Tuesday > 75th Percentile



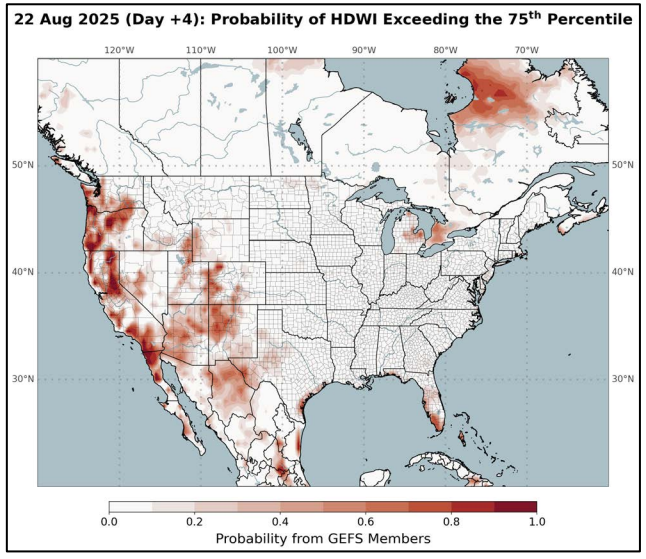
Wednesday > 75th Percentile



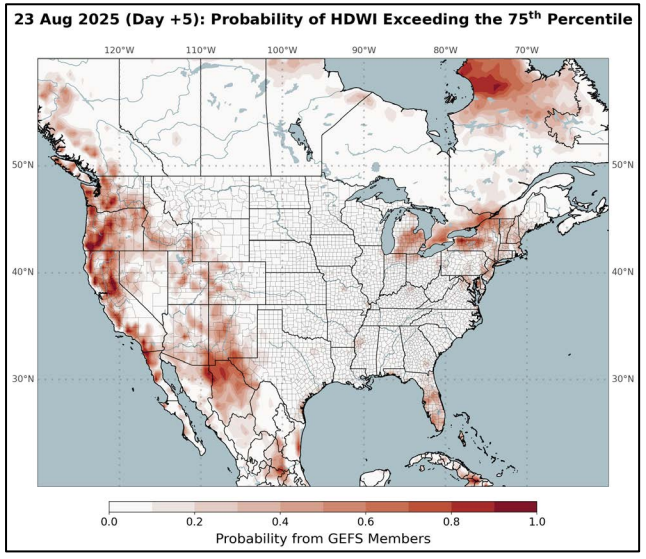
Thursday > 75th Percentile



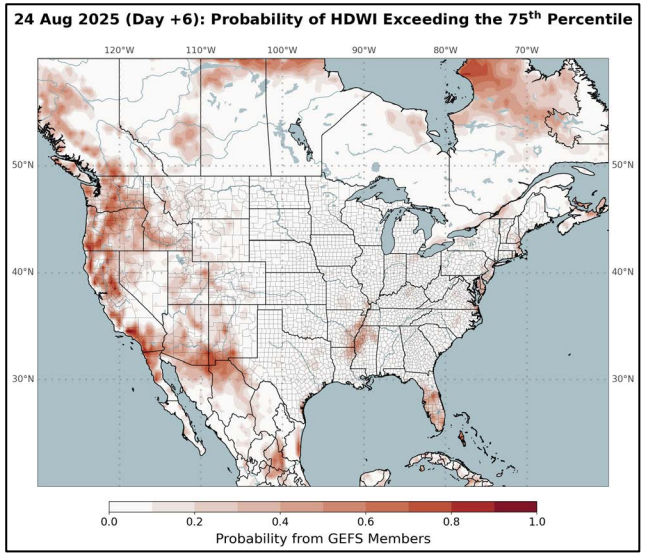
Friday > 75th Percentile



Saturday > 75th Percentile



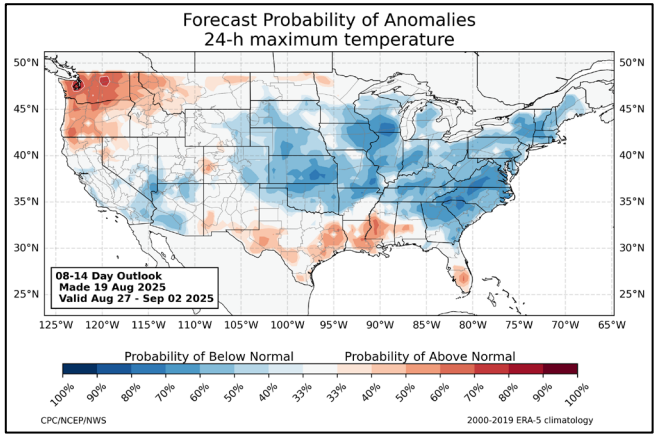
Sunday > 75th Percentile

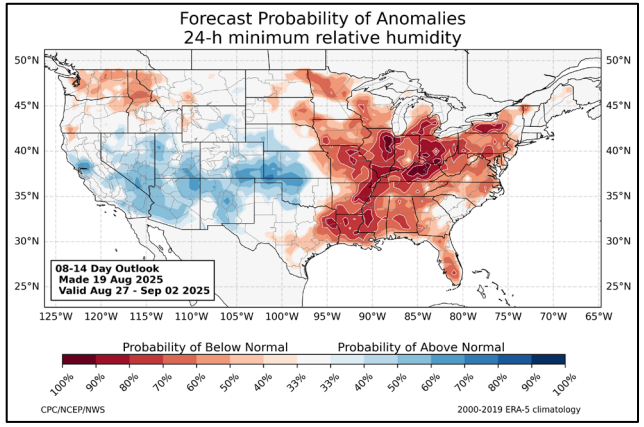


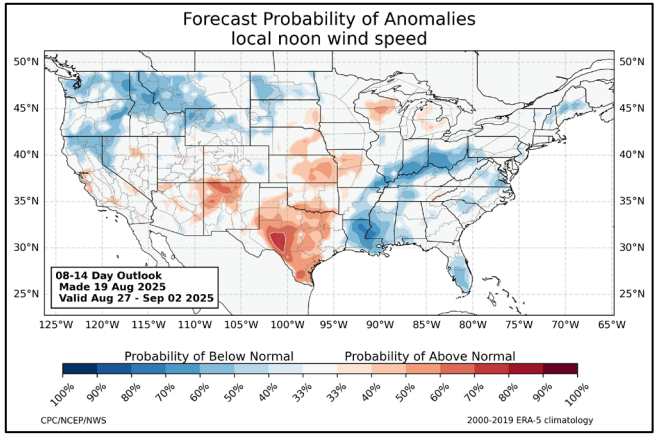
- Another visualization tool to pick up on broader weather, but with *limitations
- Only uses Max VPD (atmospheric moisture & temp) & Max Wind Speed to generate outputs
- Coarse Resolution - 0.5 Degree Grid
- No Account of Local Fuel Conditions and Topo

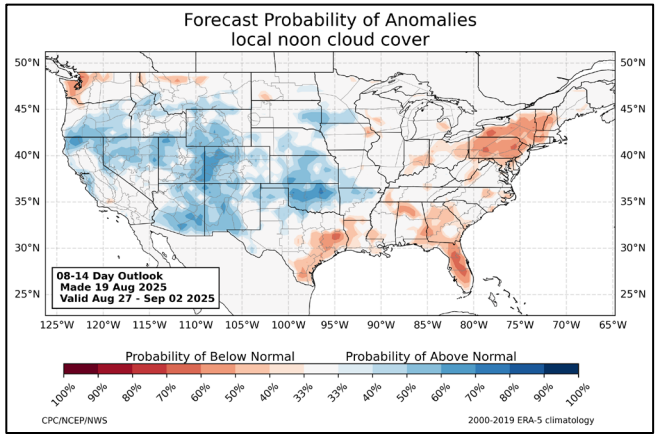
https://www.hdwindex.org/probs.html

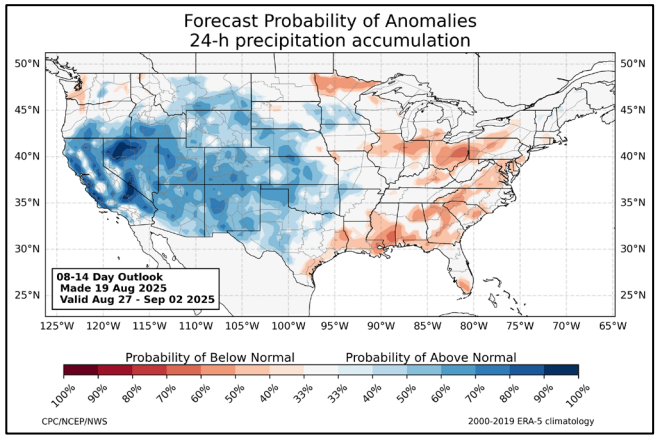
Week Two Forecast Anomalies: 8/27 - 9/2



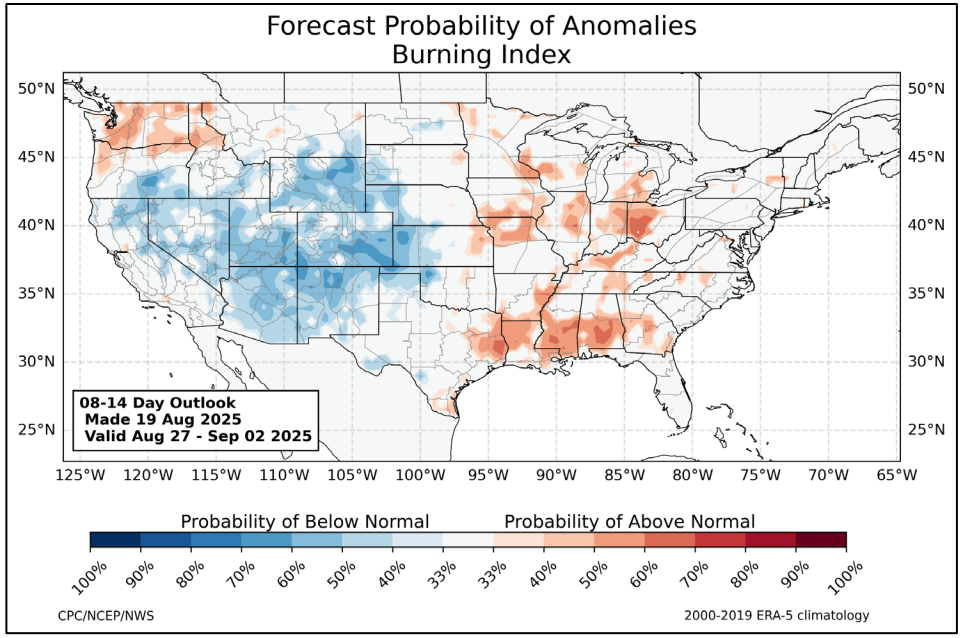


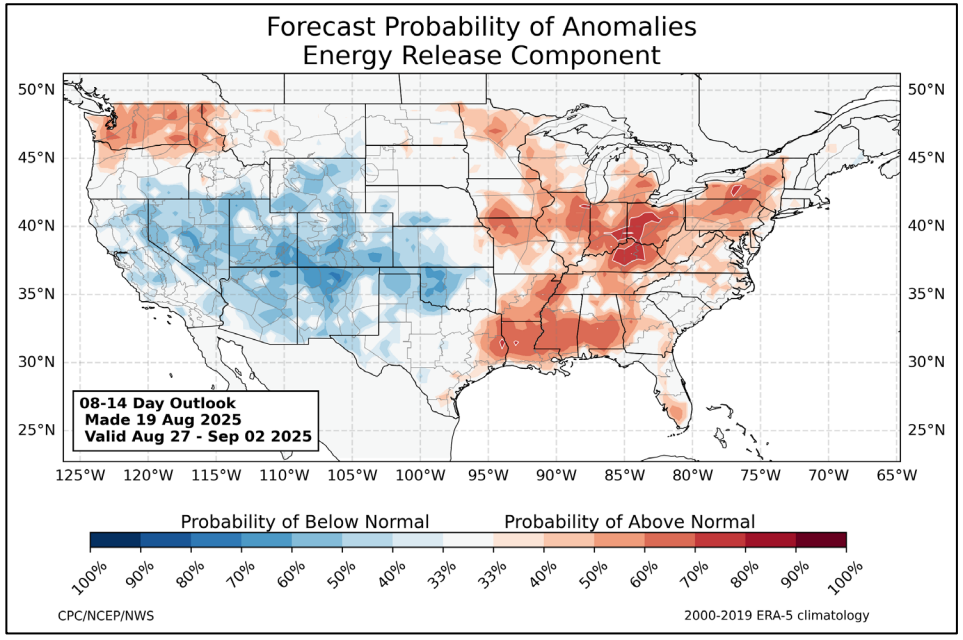






Important to note that there is significant forecast uncertainty as you go further out in time.



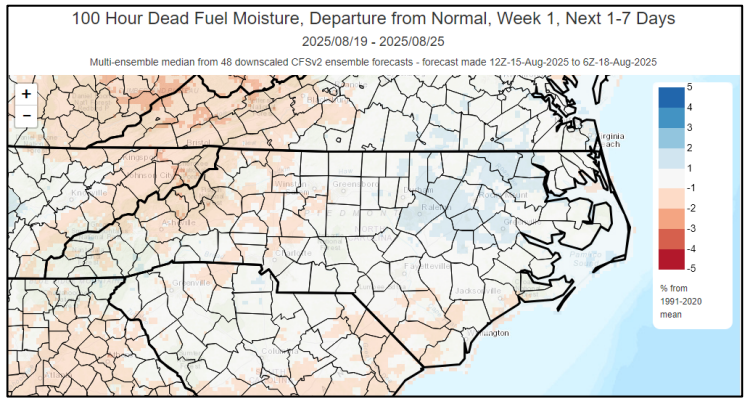


https://www.cpc.ncep.noaa.gov/products/people/mchen/fireWeather/cpc_wk2fw_index.html

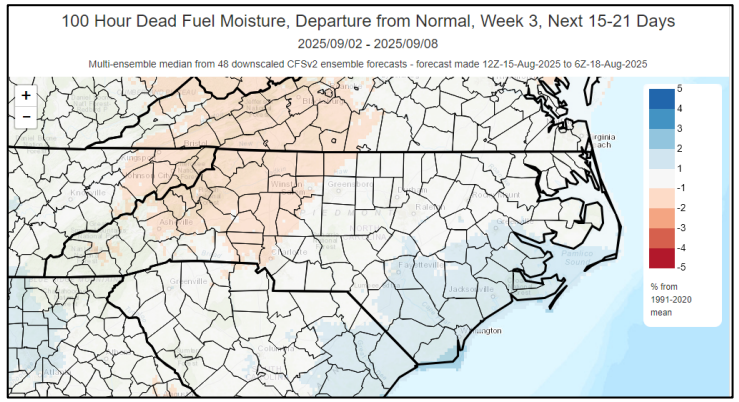
Modeled Departure from Normal by Week: 100-hr Fuels

Output relies on experimental forecast outputs and is subject to change

Week-1



Week-3

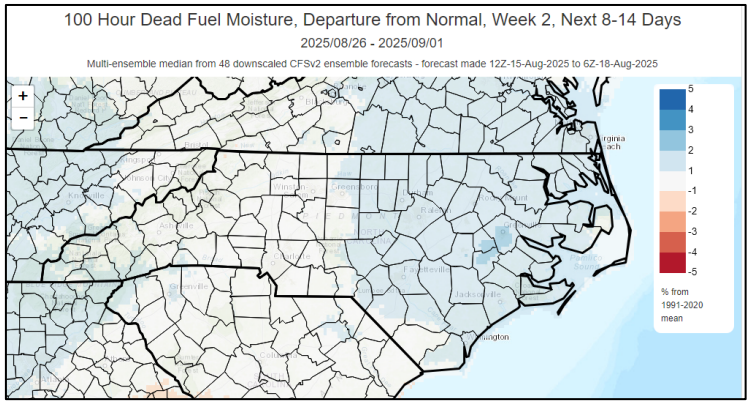


This output can provide insight into general drying trends and potential impacts to overall fire danger, especially prior to full green-up or in drought conditions. Outputs relate to interactions of warmer/colder temps, moist/dry air masses, precip amt/duration and overnight RH recovery trends.

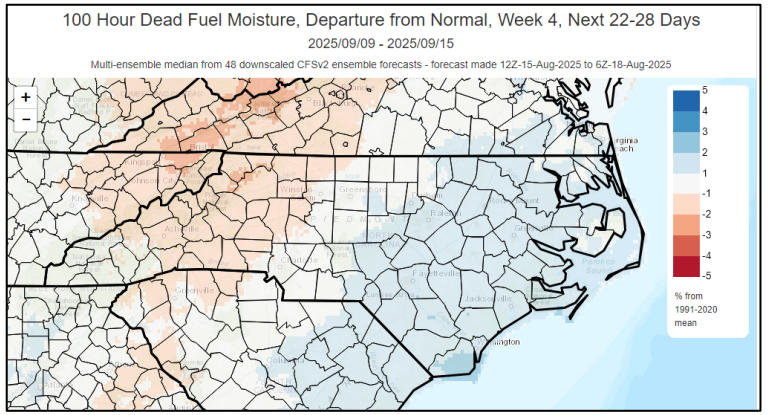
Note that <u>modeled</u> impacts of warmer/drier conditions (lower % mc or "worse") is focused most intensely on Weeks 3-4 in the NW & Central Mtns, with the East favoring near to higher-than-normal fuel moisture.

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

Week-2



Week-4



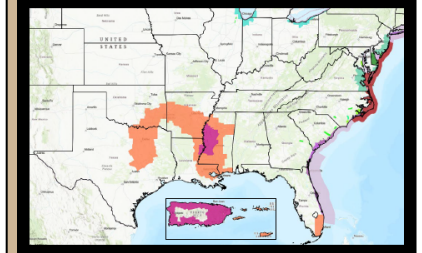
From: https://climatetoolbox.org/tool/Climate-Mapper

SACC Daily Outlook, Selected Snips from Wednesday - 8/20

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

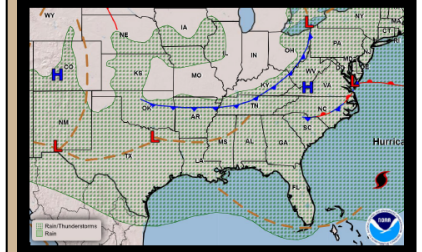
SACC Daily Outlook
Wednesday, August 20, 2025

Watches, Warnings and Advisories



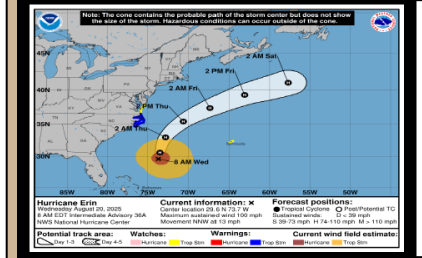
- **Tropical Storm Warnings and Storm Surge Warnings** in coastal NC; **Tropical Storm Watches** in coastal VA
- **Coastal Flood Watches**, **Warnings** and/or **Advisories** along the East Coast
- **Extreme Heat Warnings** in LA, MS, PR
- **Heat Advisories** in FL, PR, USVI, TX, OK, AR, LA, MS

Today's Weather Outlook



- Hurricane Erin will remain offshore today but will bring tropical-storm-force winds and increasing coastal flooding to the East Coast late, with intensifying impacts overnight
- Gusty winds on the outskirts of Erin will result in increasing fire danger over the FL peninsula, with thunderstorms expected to be more isolated than the last few days
- A cold front will drop into the rest of the region, triggering scattered showers and thunderstorms from the Southern Plains to the Appalachians, but more areas will be dry than not
- Look for very hot conditions south of the front, from portions of TX to the Lower Mississippi Valley, while South FL and the Caribbean islands may see record heat, as well

Hurricane Erin

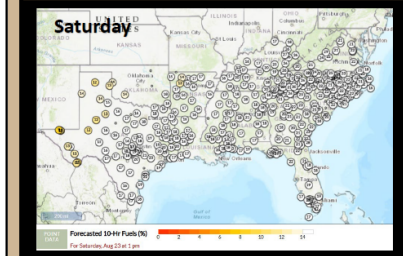


- Hurricane Erin began to re-intensify overnight while growing further in size
- Coastal impacts will increase today for the East Coast, with tropical-storm-force winds overspreading the NC Outer Banks tonight and peaking with gusts to near 60 mph Thursday morning
- Moderate to major coastal flooding and a significant storm surge will team up with battering waves to result in major beach erosion in far eastern NC and perhaps far southeast VA much of the day Thursday
- Dry air and breezy conditions on the outskirts of Erin will enhance fire environment concerns over FL today, as well
- Conditions will improve Thursday night and Friday, but for additional details, see the SACC Tropical Outlook

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

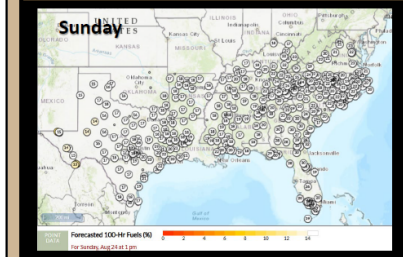
SACC Daily Outlook
Wednesday, August 20, 2025

10-Hour Fuels



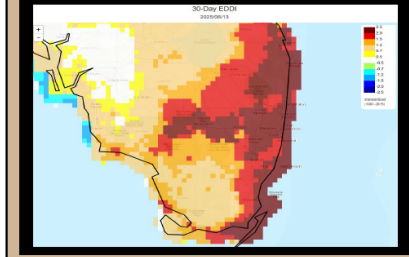
- 10-hour dead fuel moisture for Saturday is depicted
- A quick drying trend will occur behind a cold front that will initially stall along the Gulf Coast and then shift into the rest of the region next Tuesday or Wednesday
- FM10 forecasts have trended drier in AR, OK and TX Friday into the weekend and will likely continue to do so, likely placing some areas below the 10th percentile this weekend
- Moisture will increase with rain chances along another front across OK and some adjacent portions of northern TX and AR next week, but confidence is low in the timing and placement of this activity; drier conditions will likely prevail farther south

100-Hour Fuels



- 100-hour dead fuel moisture for Sunday is depicted
- FM100 will follow similar trends but with the driest conditions delayed by a day or two compared to finer fuels
- Areas without recent rain over the FL peninsula are drier than average and may see some slight drying the next few days before conditions improve this weekend; an early season surge of dry air is possible next week and should be monitored closely throughout the state

South Florida 30-Day Evaporative Demand

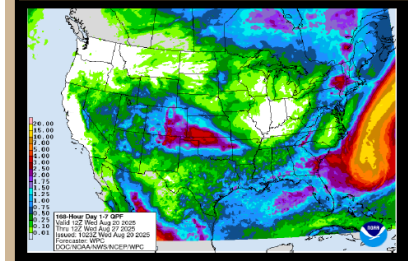


- The Evaporative Demand Drought Index over South FL for the 30-day period ending August 13th is depicted
- Extreme to exceptional drought conditions have occurred in the two darkest red-shaded areas, indicative of the hotter, drier, sunnier and breezier than average conditions from mid-July to mid-August
- Most of South FL has also experienced below average rainfall, with coastal areas near 25-50% of average for the most recent 30 days
- This and the long-term drought's impacts to lower-than-average water levels will likely maintain large fire risks in the region until multiple days of widespread heavy rain occur, which is not foreseen for the next one to two weeks unless a tropical system unexpectedly overspreads the state

North Carolina State University Fire Weather Intelligence Portal

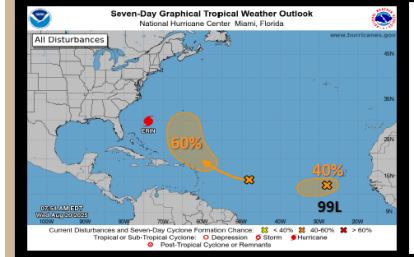
SACC Daily Outlook
Wednesday, August 20, 2025

Forecast Rainfall the Next Week



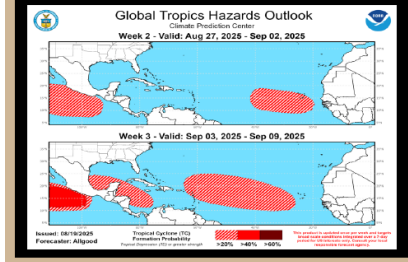
- Rainfall during the week ahead will largely be driven by two cold fronts; one that will stall along the coastal plain and another that will drop into the Plains and Mississippi Valley by early next week
- Hurricane Erin's outer bands may graze the immediate coast of NC, resulting in an inch or so of rain there tonight into Thursday
- Low pressure forming along the front across the coastal plain may bring a swath of heavier rain to the coastal Southeast early next week, but models are in poor agreement on amounts and inland extent of rainfall
- South FL has trended drier as tropical waves likely miss the state and the better frontal forcing remains farther north
- Any wet weather just inland from the coastal plain will be widely scattered, but some localized flash flooding is possible
- Rain depicted in OK and AR next week could shift around as time draws closer

NHC 7-Day Tropical Outlook



- The wave with a 60% chance of development remains poorly organized and elongated this morning, but conditions will become more conducive for tropical cyclone formation as it tracks northwest the next few days
- While the system may just graze the Caribbean and will probably recurve well east of Erin's track, heavy rain bands could affect the USVI and PR Friday night and Saturday, resulting in localized flash flooding and potential landslides; St. John may be most at risk given Erin's rainfall and closer proximity to the system
- Invest 99L appears to be on the verge of becoming a tropical cyclone in early day satellite imagery, but models remain consistent in showing thunderstorms being sheared away from the wave over the next few days
- Assuming this occurs, the remnants of the wave will generally track west through the Caribbean over the next week before potentially emerging in the Gulf next week
- Low pressure forecast to form along a front in the Southeast could eventually acquire some tropical characteristics next week, with heavy rain the main threat along the immediate Southeast Coast

Extended Tropical Outlook



- There will continue to be at least a 20% chance of tropical cyclone development in the Atlantic from late August to September 9th
- NOAA's CPC is highlighting risks in the far eastern Atlantic during week two, but Invest 99L could move into the Gulf during this period, with low confidence in impacts to the Gulf Coast
- Thereafter, development is possible in the western Caribbean and southern Gulf, in addition to the Atlantic's main development region
- While tropical storms and hurricanes are possible during this period, conditions may return to a more conducive state for major hurricanes by mid-September

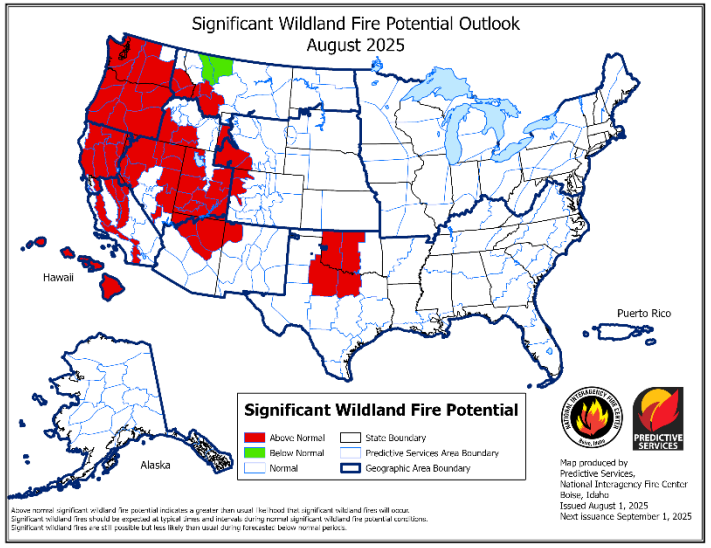
Please contact your local National Weather Service office for spot forecasts and the latest watches and warnings.

Significant Wildland Fire Potential Outlook:

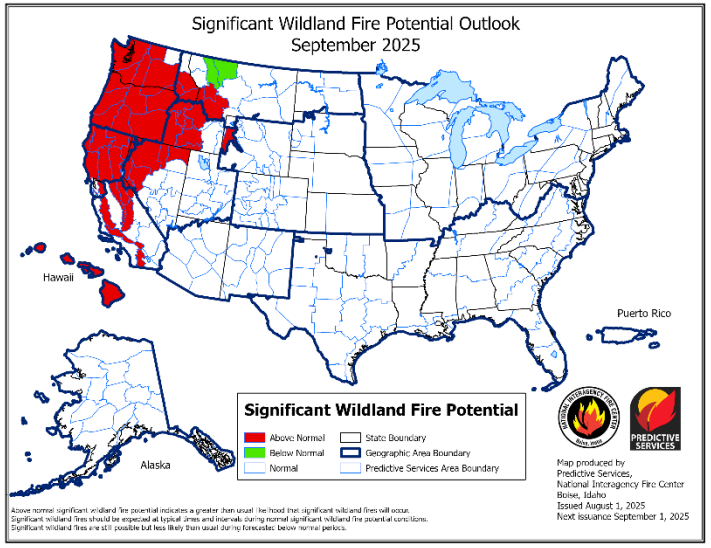
Updated 8/1/25

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

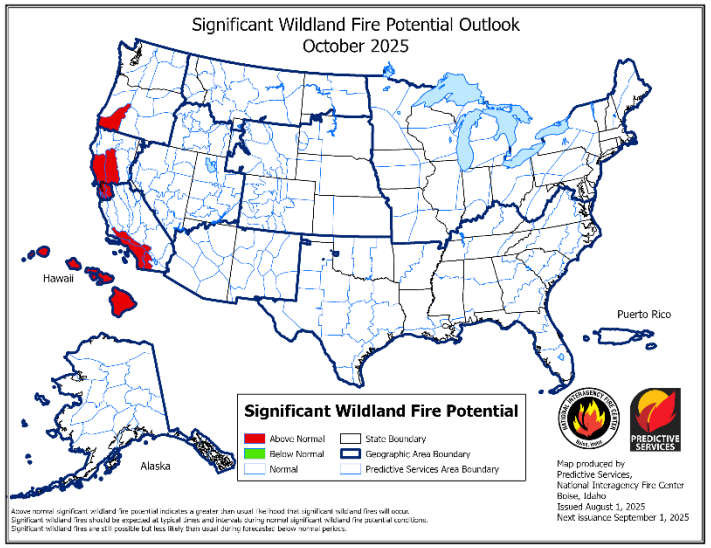
August



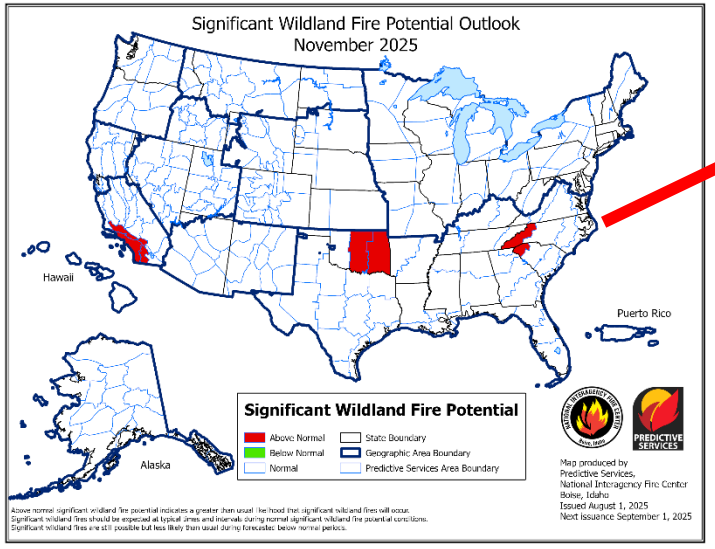
September

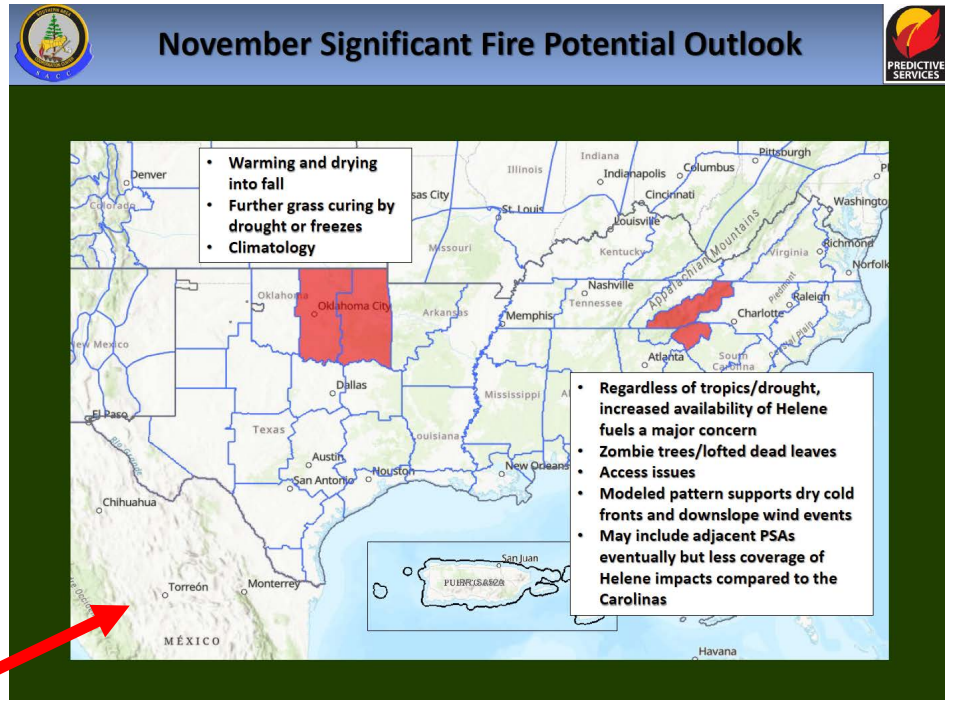


October



November





**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.*

Predicted Adjective Rating - Fire Danger *(ERC & 100-HR)*

Overall Summary

FDRAs continue to benefit from seasonally green conditions, despite periodic increases in 100-hour dead fuel dryness. Continued rounds of unsettled weather, including beneficial rainfall and slightly cooler temperatures, have improved live fuel moisture and moderated drying in larger dead fuels (see FF+ Charts).

Overall, declines in dead fuel moisture have generally been offset by effective green vegetation, residual soil moisture, and higher dew points that support reasonable nighttime recovery. Statewide fire activity and control difficulty have remained near or below seasonal norms through mid-August.

However, notable precipitation deficits persist in scattered pockets across the state. The 7- and 30-day PNP maps highlight the "popcorn" distribution of recent rainfall events. Shallow soil moisture can be depleted quickly under active growing conditions, particularly on engineered, altered, or drained soils. As we move into fall, shorter day lengths and seasonal vegetation changes will begin reducing the moderating effect of green conditions.

Early browning of roadside and yard grasses could lead to more ignitions spreading into forested areas. Fire activity and control difficulty can increase rapidly if live fuels and dead fuels reach critical dryness in combination with conducive weather.

Hurricane season remains an important factor, as storm tracks could quickly alter fuel and moisture conditions.

Special Note: Tropical Storm Helene impact areas remain an outlier for the Mountain and Foothills regions. Even if precipitation returns to normal and drought is absent entering fall 2025, accessibility challenges, increased fuel loading, and related issues will persist. After frost/freeze events & subsequent dormancy remove the moderating effect of green vegetation, post-hurricane impacts will again contribute to atypical/higher fire intensity and difficulty of control.

Reminder: The NFDRS premise reflects landscape-scale **fire danger**—rather than site-specific **fire behavior**. FDRA values are based on averages across stations. The transition from WIMS to FEMS is scheduled for later in September (see previous slides 17-24). More transition information will be forwarded as available.

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

Forecasted Adjective Rating for FDRAs in North Carolina

FDRA	Tue Aug 19	Wed Aug 20	Thu Aug 21	Fri Aug 22	Sat Aug 23	Sun Aug 24	Mon Aug 25
Southern Highlands	L	L	L	L	L	L	L
Central Mountains	M	M	M	L	L	L	L
Northern Highlands	L	L	L	L	L	L	L
Blue Ridge	L	L	L	L	L	L	L
Western Piedmont	M	M	M	M	M	M	M
Sandhills	M	M	M	M	M	M	M
Eastern Piedmont	M	M	M	M	M	M	M
Southern Coast	L	L	L	L	L	L	L
Northern Coast	L	L	L	L	L	L	L

100-hr Fuels, Modeled Trends – Percentiles

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

Forecasted Dead FM (100-Hr) Pctl. for FDRAs in North Carolina

FDRA	Tue Aug 19	Wed Aug 20	Thu Aug 21	Fri Aug 22	Sat Aug 23	Sun Aug 24	Mon Aug 25
Southern Highlands	46.0%	46.0%	46.0%	79.4%	90.7%	94.0%	86.1%
Central Mountains	19.3%	34.3%	34.3%	62.9%	82.3%	88.6%	82.3%
Northern Highlands	35.9%	35.9%	35.9%	63.1%	73.3%	73.3%	63.1%
Blue Ridge	45.9%	45.9%	45.9%	45.9%	45.9%	45.9%	45.9%
Western Piedmont	33.5%	33.5%	49.4%	49.4%	49.4%	49.4%	49.4%
Sandhills	25.7%	40.5%	40.5%	40.5%	40.5%	40.5%	40.5%
Eastern Piedmont	11.4%	22.6%	22.6%	22.6%	22.6%	22.6%	22.6%
Southern Coast	30.4%	30.4%	30.4%	30.4%	46.5%	46.5%	46.5%
Northern Coast	52.8%	52.8%	38.0%	38.0%	38.0%	38.0%	38.0%

1000-hr Fuels, Modeled Trends - Percentiles

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

Forecasted Dead FM (1000-Hr) Pctl. for FDRAs in North Carolina

FDRA	Tue Aug 19	Wed Aug 20	Thu Aug 21	Fri Aug 22	Sat Aug 23	Sun Aug 24	Mon Aug 25
Southern Highlands	87.0%	76.3%	76.3%	76.3%	76.3%	76.3%	76.3%
Central Mountains	92.5%	83.1%	83.1%	83.1%	83.1%	83.1%	83.1%
Northern Highlands	96.1%	96.1%	91.2%	91.2%	91.2%	91.2%	91.2%
Blue Ridge	66.0%	66.0%	66.0%	66.0%	50.8%	50.8%	50.8%
Western Piedmont	94.8%	87.4%	87.4%	76.6%	76.6%	76.6%	76.6%
Sandhills	94.5%	86.8%	86.8%	86.8%	77.5%	77.5%	77.5%
Eastern Piedmont	89.0%	78.3%	78.3%	78.3%	62.9%	62.9%	62.9%
Southern Coast	88.7%	88.7%	77.3%	77.3%	77.3%	64.1%	64.1%
Northern Coast	70.2%	70.2%	70.2%	70.2%	70.2%	55.0%	55.0%