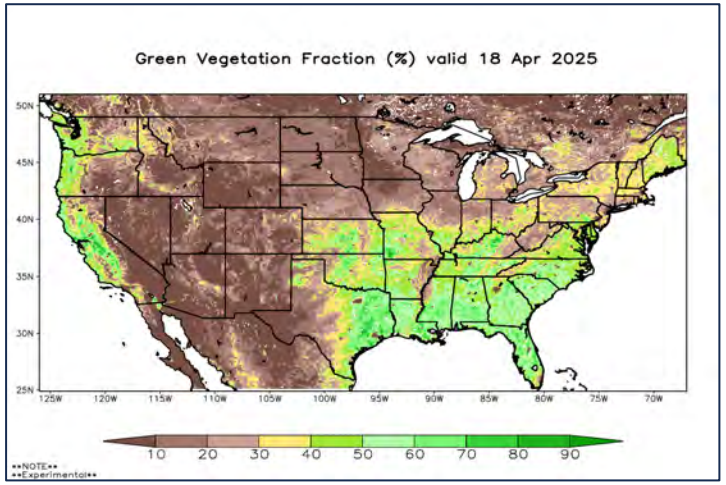
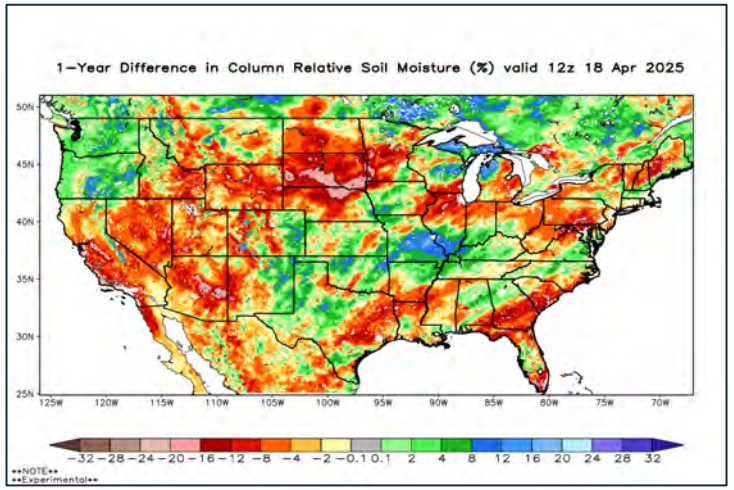
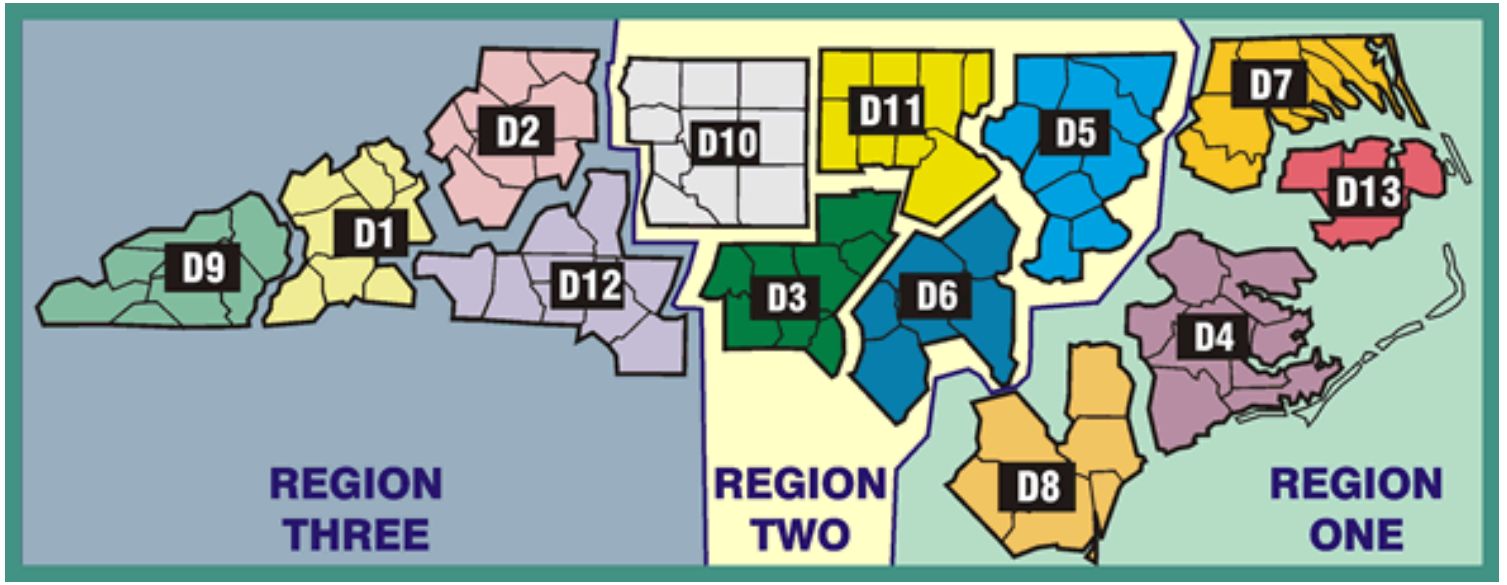
For Time Period:

Friday (4/18/25) to Thursday (4/24/25)

Weekly Fire Danger Assessment NCFS – All Regions







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

Statewide 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

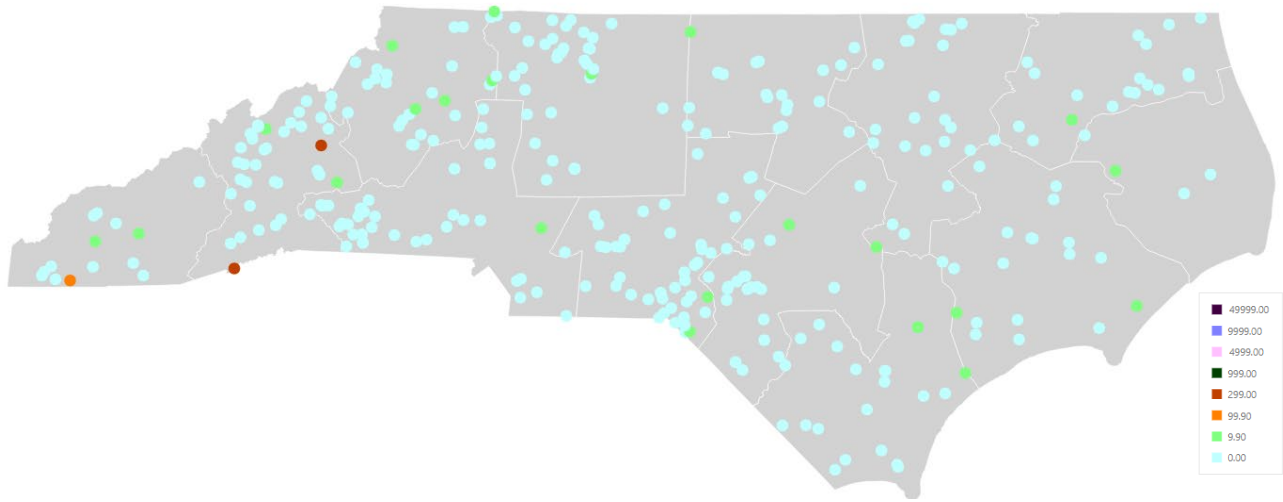
MTD: 334 incidents for 2,190 acres
7-Day Activity: 160 incidents for 1,291 acres

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

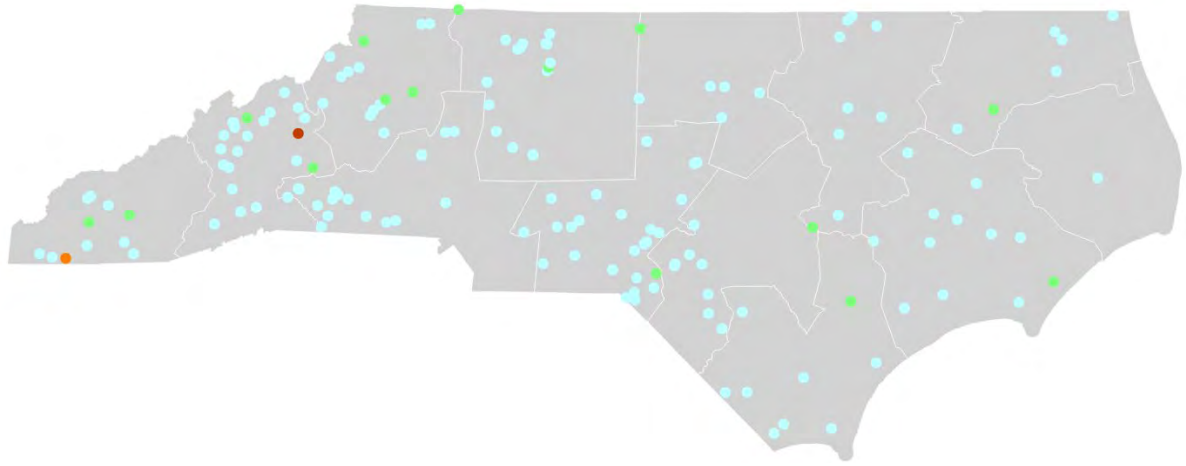
Largest incidents last **MTD** (Ending 4/17):
from fiResponse & preliminary reporting only

Incident Name	Discovery Date	Region	District	County	Acres
Table Rock Complex	4/2/2025	Region 3	District 1	Transylvania County	635.00
Bee Rock Creek	4/15/2025	Region 3	District 1	McDowell County	504.00
S Carter Cove	4/15/2025	Region 3	District 9	Clay County	150.00
Bald Fork	4/17/2025	Region 3	District 2	Ashe County	80.00
Deer Run	4/17/2025	Region 3	District 2	Caldwell County	70.00
- Lowgap Mtn	4/16/2025	Region 2	District 10	Surry County	65.00
Old Murray Road	4/17/2025	Region 3	District 1	Madison County	60.00
Zion Church Road	4/5/2025	Region 3	District 12	Cabarrus County	40.00
308 Cabin	4/15/2025	Region 1	District 7	Bertie County	40.00
Rose Acre Fire	4/7/2025	Region 1	District 13	Hyde County	35.00
Drag Strip	4/8/2025	Region 1	District 8	Pender County	30.00
Muddy Cutover	4/15/2025	Region 2	District 5	Wayne County	30.00
Old Orchard	4/15/2025	Region 3	District 2	Wilkes County	30.00
Topton Bridge	4/17/2025	Region 3	District 9	Macon County	30.00
Horse barn	4/5/2025	Region 2	District 3	Scotland County	22.00

April MTD (ending 4/17)

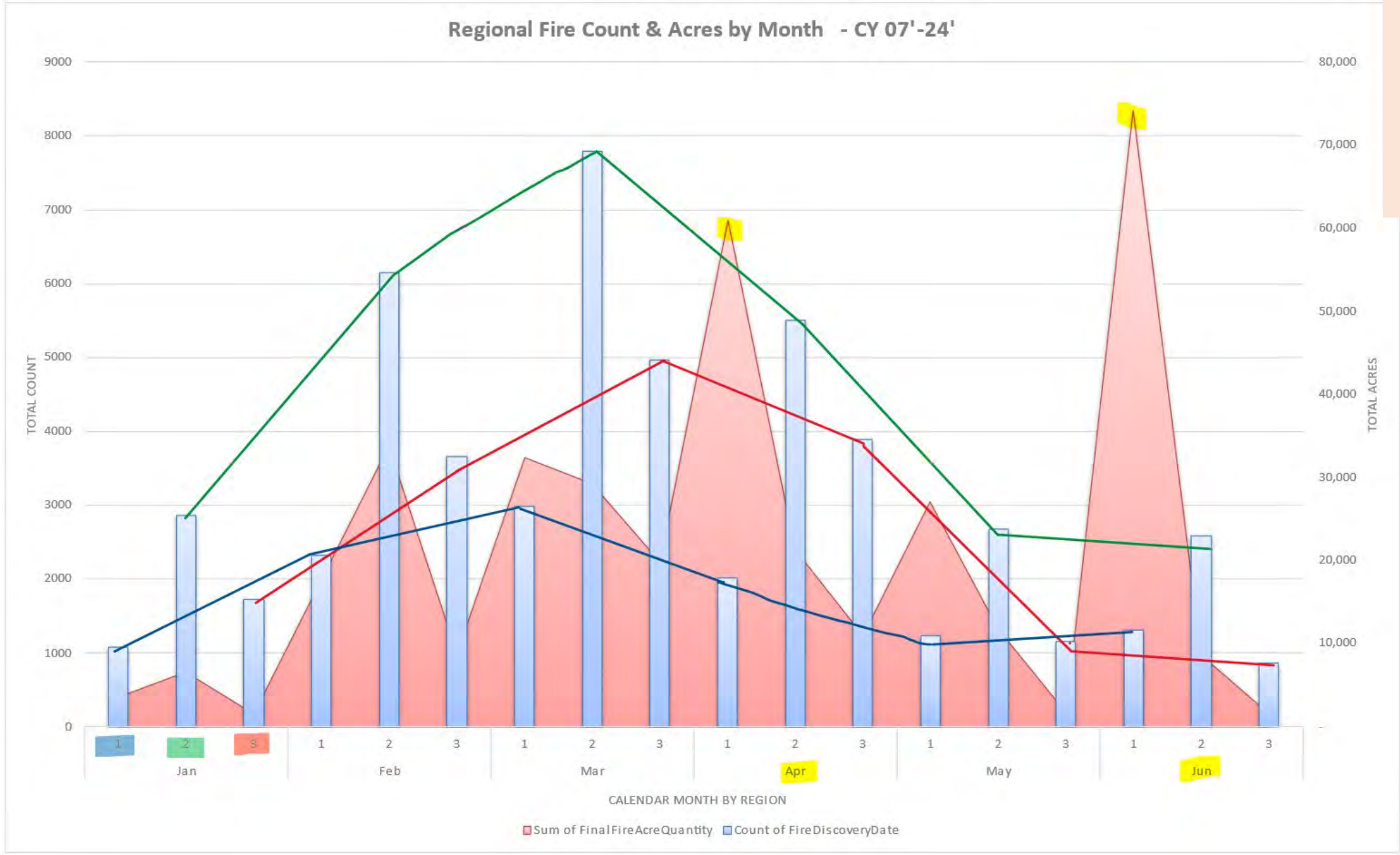


Last 7-Days (4/11 - 4/17)



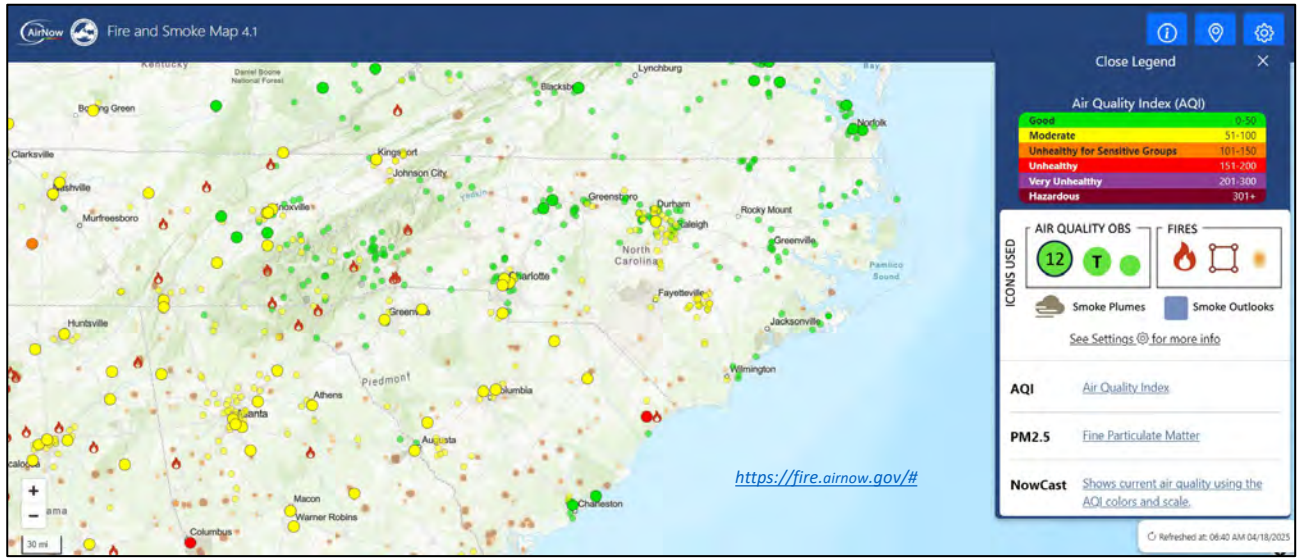
Note: DOD & other federal ownership fires not shown on fiResponse

Distribution of **All Fires & Acres By Month *Regional*** from 2007 - 2024

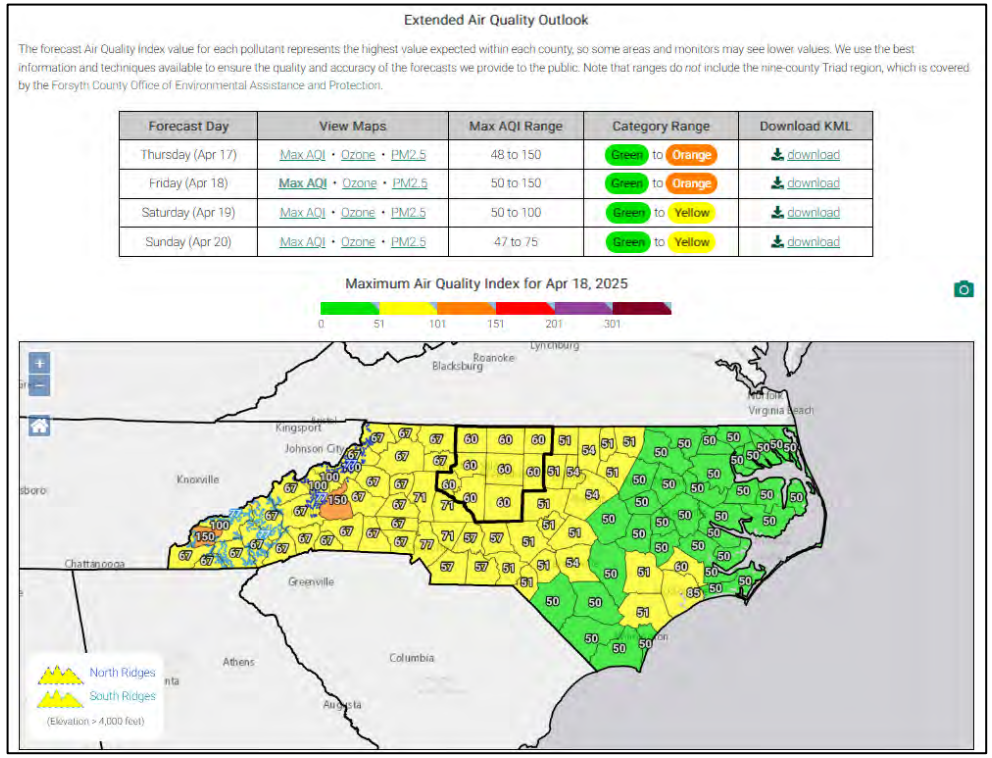


Cause: All Cause Codes, Regional Binning, NCFS Reported Fires Only

Air Quality Notes



https://fire.airnow.gov/#



This forecast was issued on **Thursday, April 17, 2025** at **2:48 pm** This forecast is currently valid

Today's Air Quality Conditions

The wildfires in both Graham and McDowell County continue to burn and the Code Orange Air Quality Action Days for PM2.5 remain in effect. There was some localized heavy smoke/fog in Onslow County this morning, but little smoke can be seen currently on satellite in this area. Areas to the northwest of the fires could experience intermittent smoke this afternoon and evening as winds slowly increase out of the southeast. Elsewhere across the state, fine particulate levels remain in the Code Green range.

Ozone levels have began to rise into the low Code Yellow range at many sites across the state except for in the Triangle north and east where hourly levels remain in the upper Code Green range.

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 Sunday, an H5 ridge will continue to build overhead while surface high pressure remains centered just west of Bermuda. Surface winds will remain persistent out of the south-southwest through the period. Ongoing wildfire smoke will likely remain an issue in Graham and McDowell County until firefighting efforts are able to reduce fire growth.

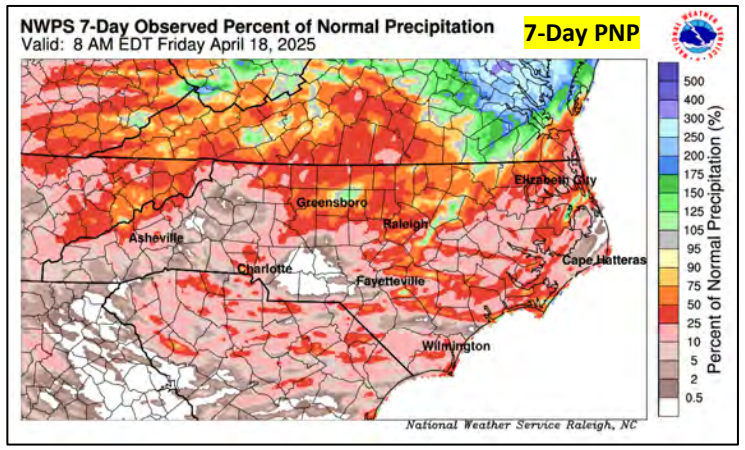
Mostly sunny skies and an increasingly stagnant air mass will likely result in both ozone and fine particulate levels gradually rising into the Code Yellow range across the state, outside of smoke-impacted areas. Additionally, persistent prescribed burning activity (especially in GA and SC) that continues today will likely result in an increasingly smoke laden air mass moving into at least western NC starting tomorrow (as indicated by smoke model guidance). This will have the potential to exacerbate conditions. Ozone and fine particulate levels as soon as tomorrow could elevate significantly depending on the amount of smoke in the air shed and we will continue to monitor for this potential and adjust the forecast based on trends.

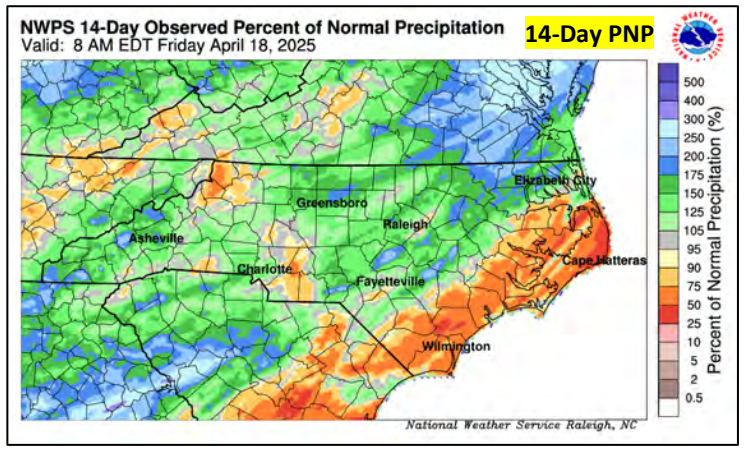
Outlook

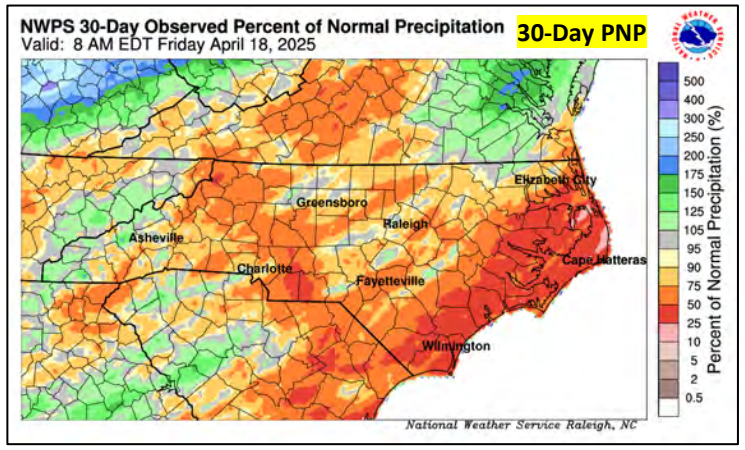
We will continue to track the ongoing wildfires in western NC (and in Onslow County) and adjust the forecast as needed.

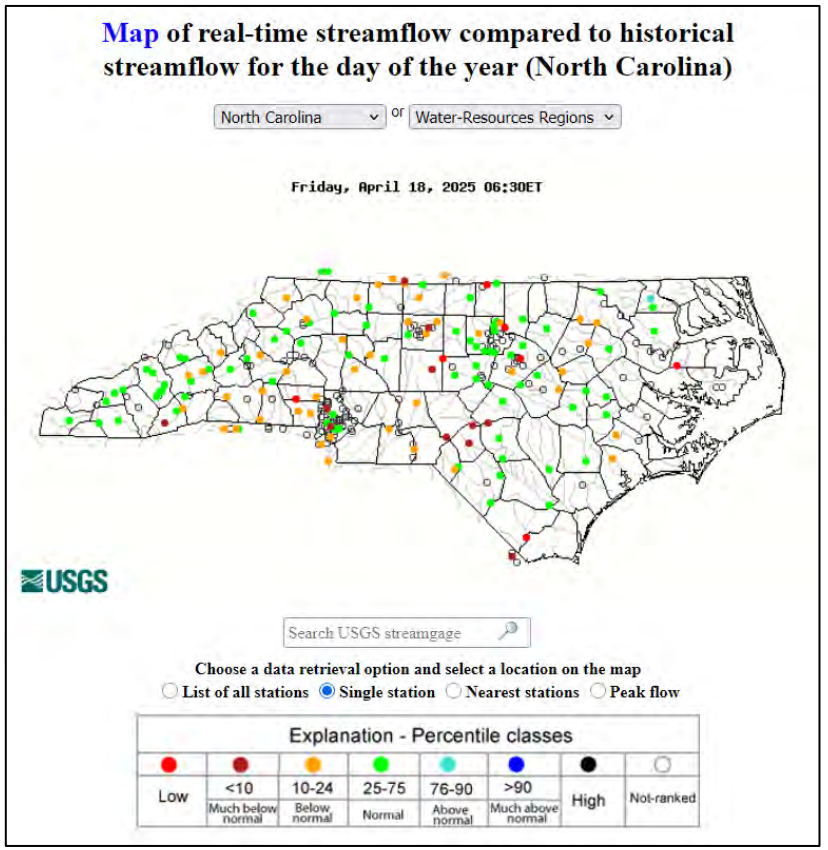
Author: *Bradley McLamb (bradley.mclamb@deq.nc.gov) - NC Division of Air Quality*

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



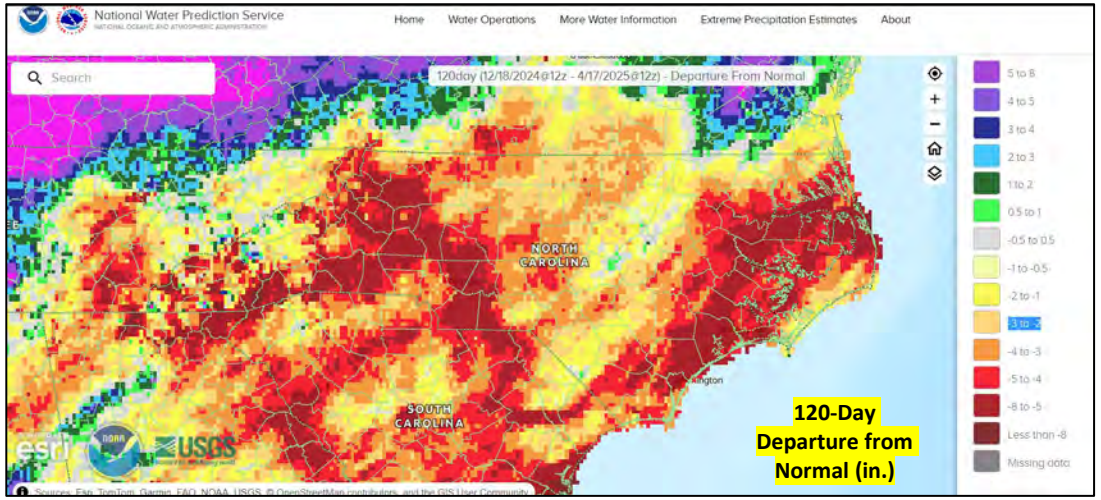


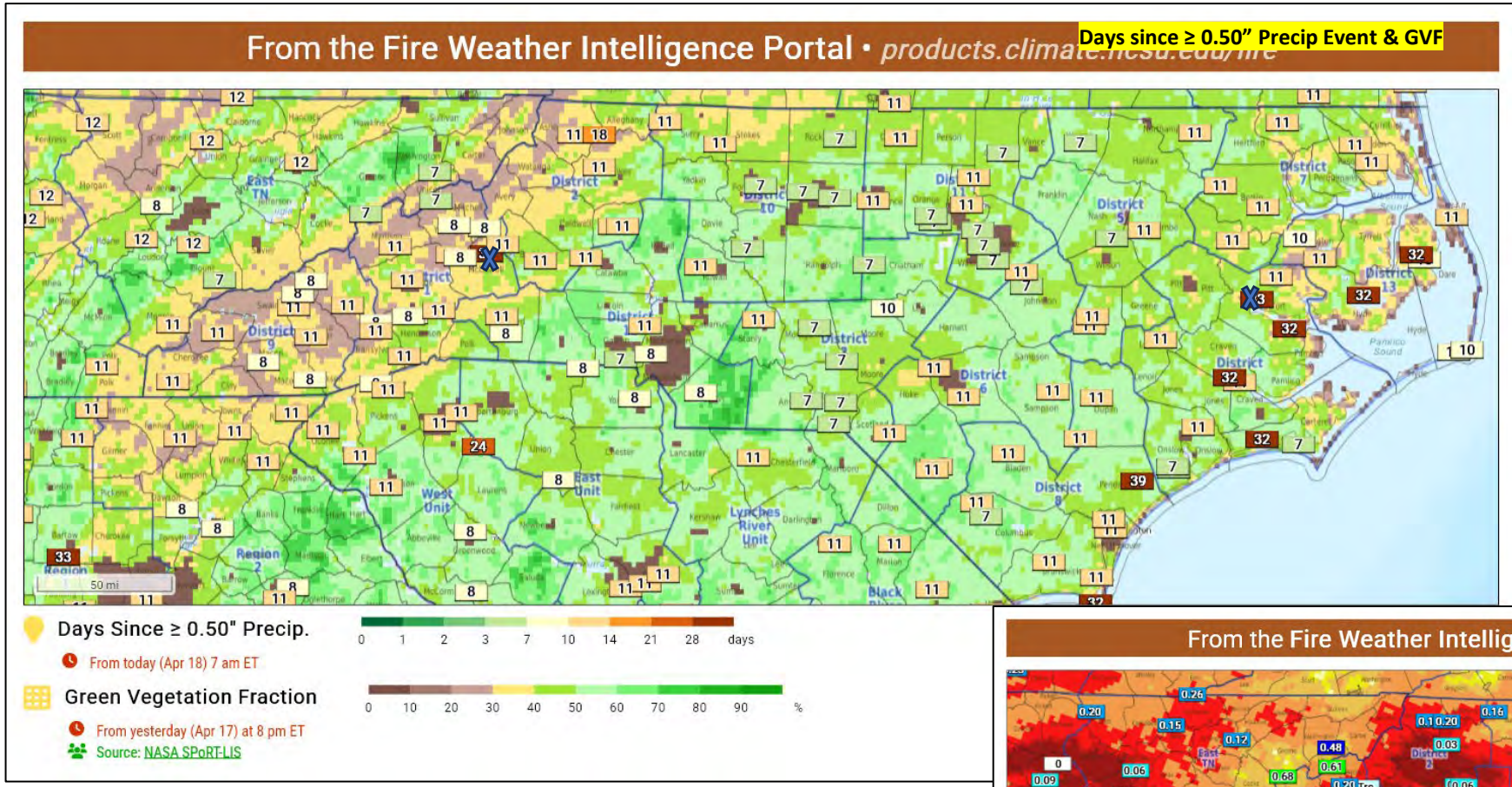




- Note the 7-, 14- & 30-day PNP graphics (left).
- Streamflow improvements remain in some areas, general decline north/south central & east (center top).
- 120-Day Departure from Normal Precip – areas in darker orange & red represent 5-8" + (bottom right).
- Current SPI maps & associated data no longer available due to SRCC and other Regional Climate Centers funding having lapsed yesterday.

https://water.noaa.gov

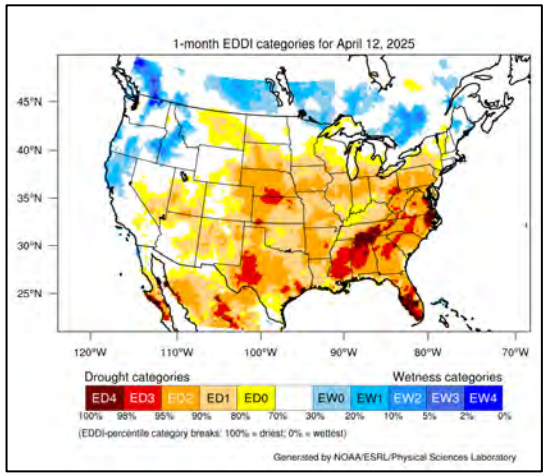


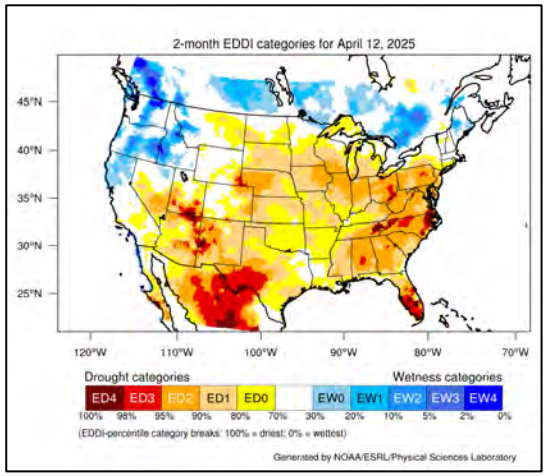


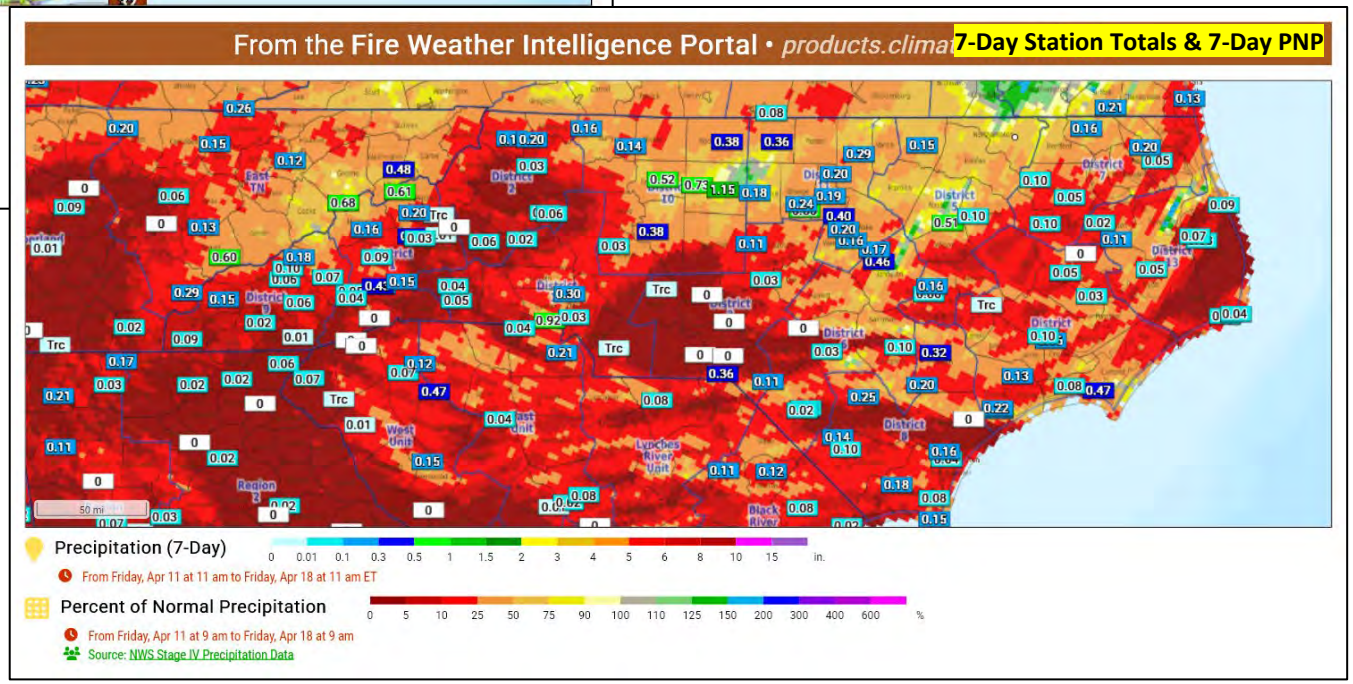
Days since ≥ 0.50" Precip Event
Some of East at 30+ days

Note very high EDDI values for parts of NC, at one- and two-month timescales for period ending on 4/12.

7 Day PNP vs Station Totals – note increasing dryness, again across much of the state.







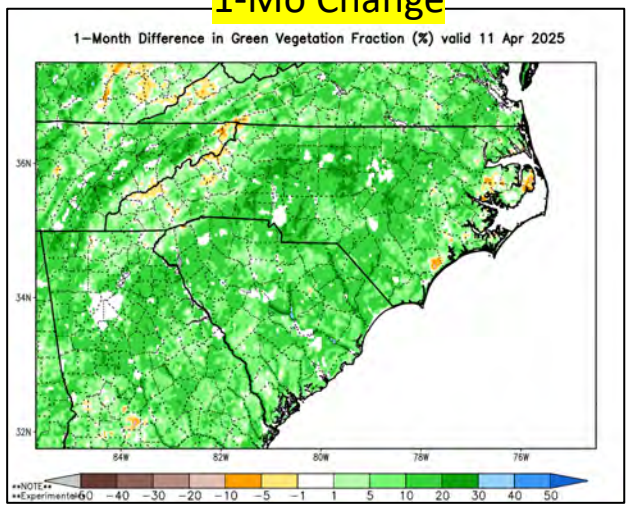
Green Fraction & Green-Up Anomaly

Greenup processes accelerating with warming soils, higher average air temps, and returning warmer nights. Recent overnight cold/frost have been of generally shorter duration and interacting with warmer soils. Available soil water will quickly become limiting without adequate, repeated wetting events.

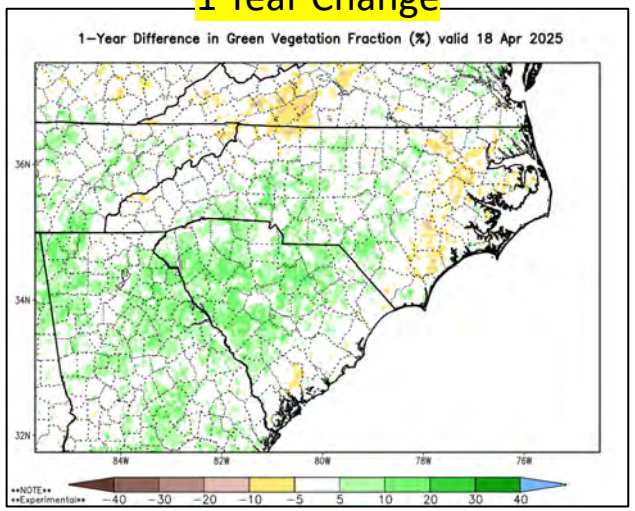
Forest leaf-out traditionally varies by species (early vs late), soil moisture regime, and elevation across the landscape. The GVF maps provide useful context on overall greenup across the landscape.

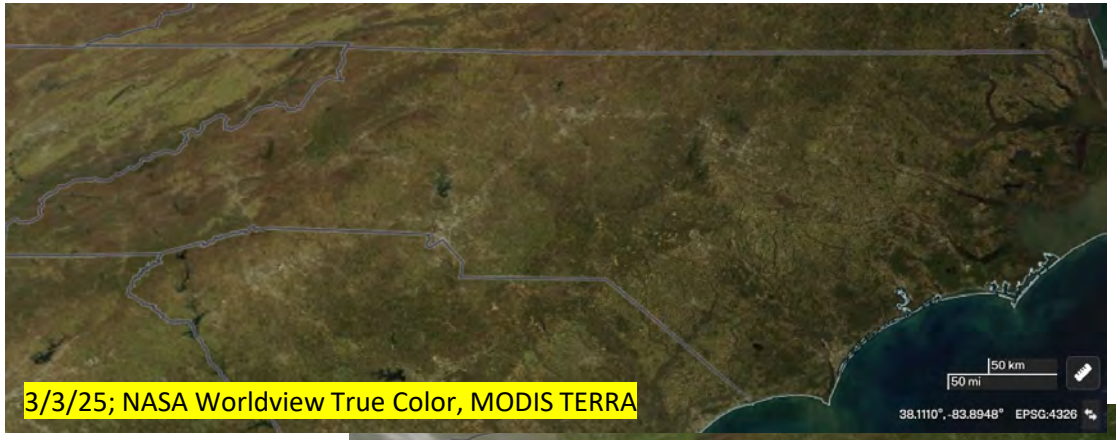
- **Generally,** 50% + leaf out below 2200' elv. More at lower elevations and lower latitudes.
- Highest elevations still seeing initial bud break and/or start of leaf out
- Road shoulders, yards and understory herbs have had & continue to see the most immediate response at all elevations.

1-Mo Change



1 Year Change

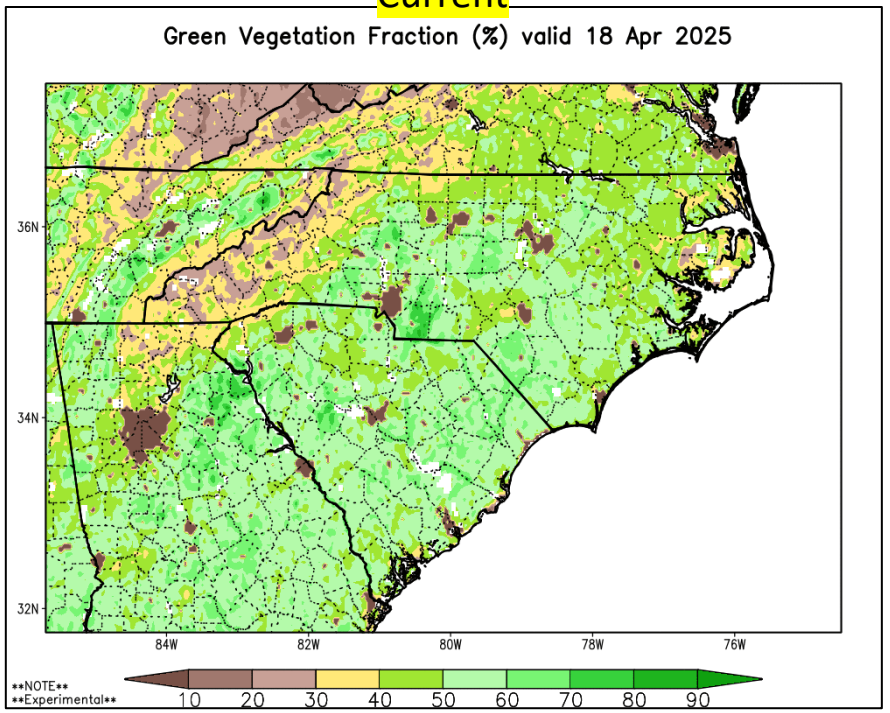




3/3/25; NASA Worldview True Color, MODIS TERRA

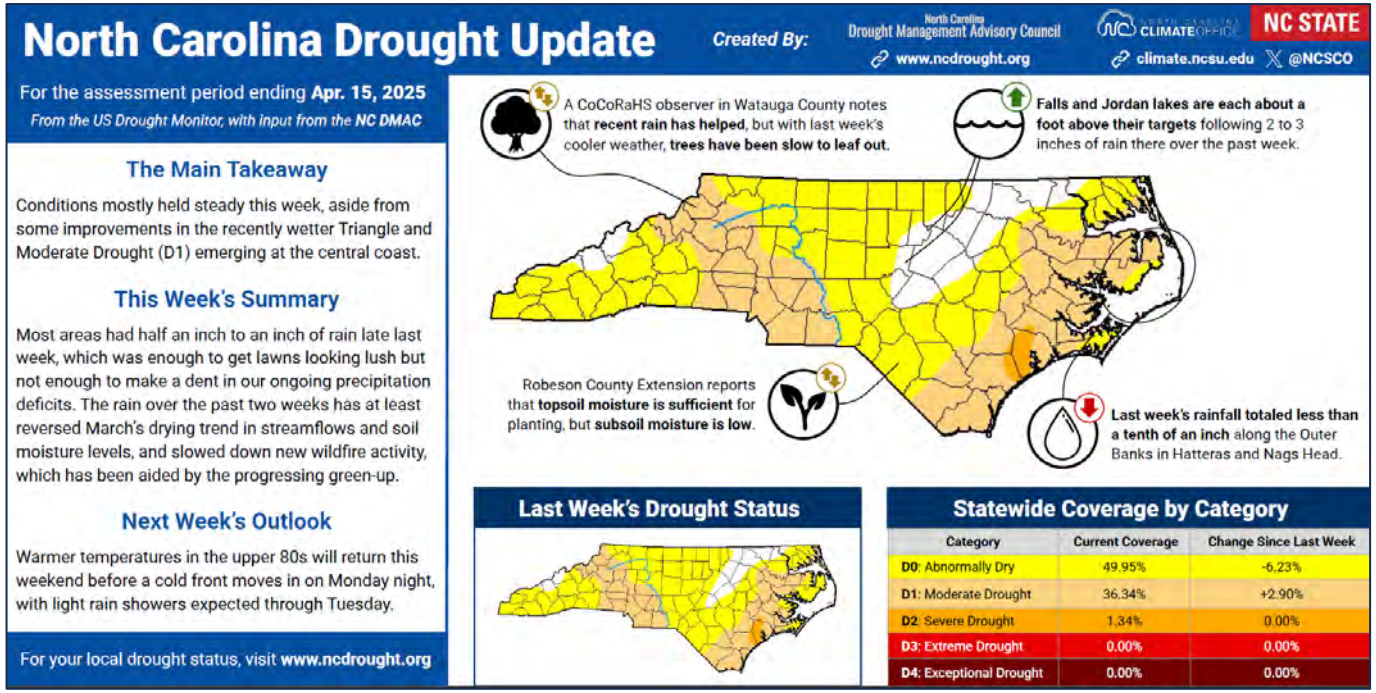
4/17/25; NASA Worldview True Color, MODIS TERRA

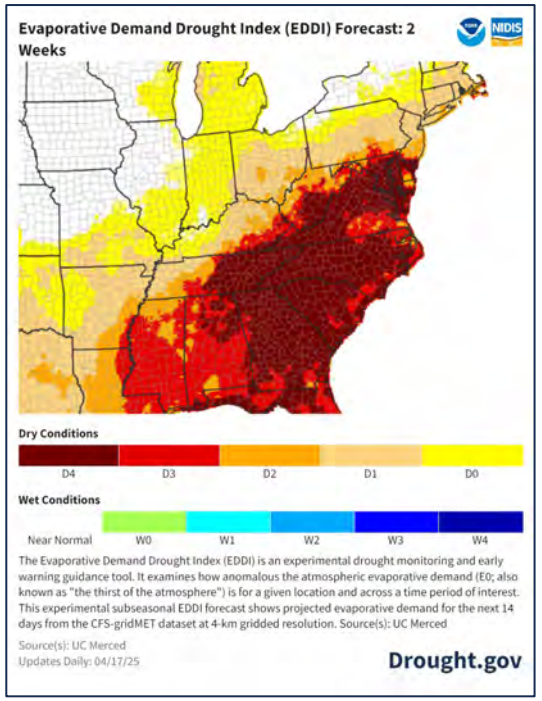
Current

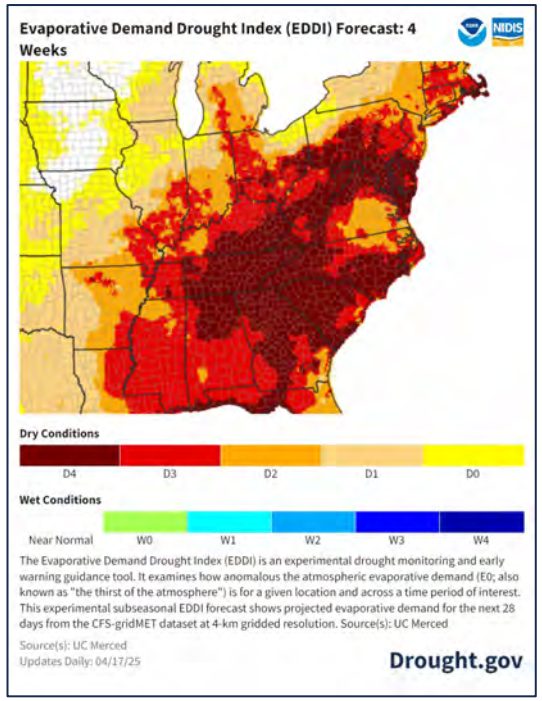


Link: https://weather.ndc.nasa.gov/sport/case_studies/lis_NC.html

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





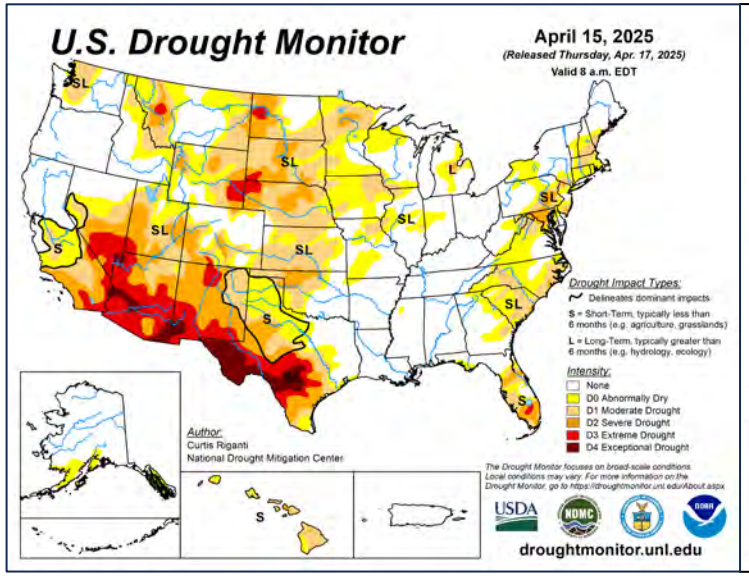


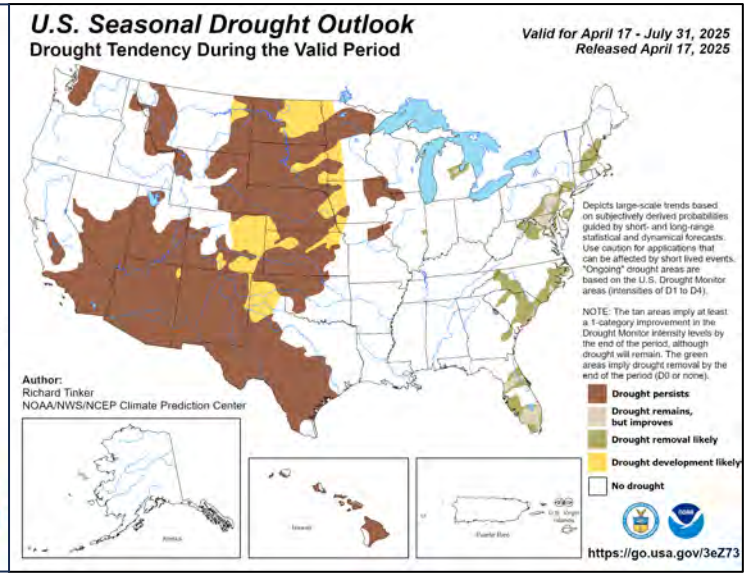
EDDI & Drought

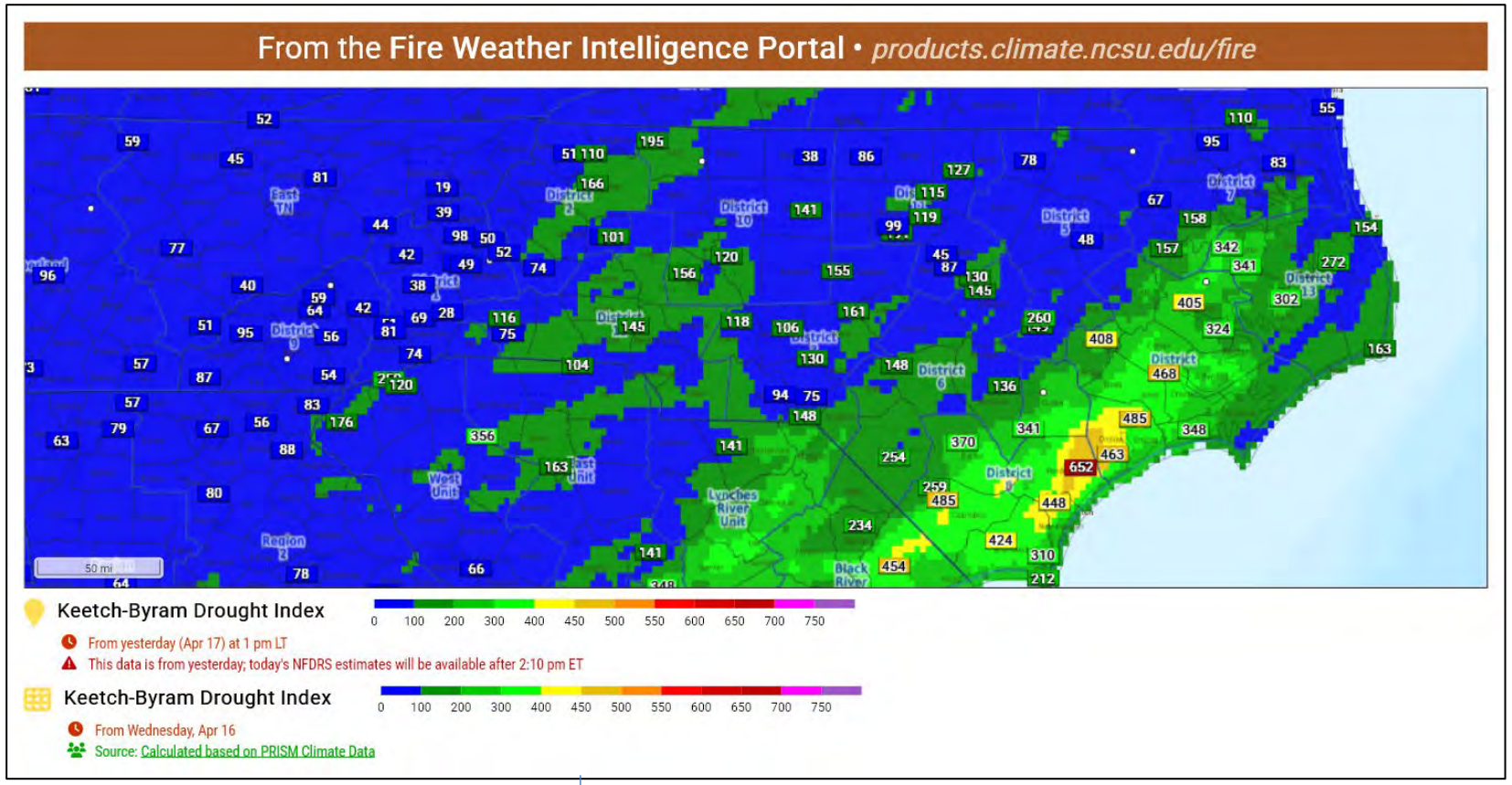
EDDI Maps - The EDDI maps at the top right illustrate modeled evaporative demand at the two-week and four-week avg level. They represent influence of warmer conditions and enhanced evaporative demand expected over the next several weeks. Warmth and dry air accelerates this index (Spring Weather).

US Drought Monitor – USDM map released last week, note D1 & D2 areas

USDM & Seasonal Drought Outlook - shown at right. See detailed state/regional discussions here. *All of this is dependent upon any future storm tracks and likely seasonal variability we begin to experience moving to summer.*

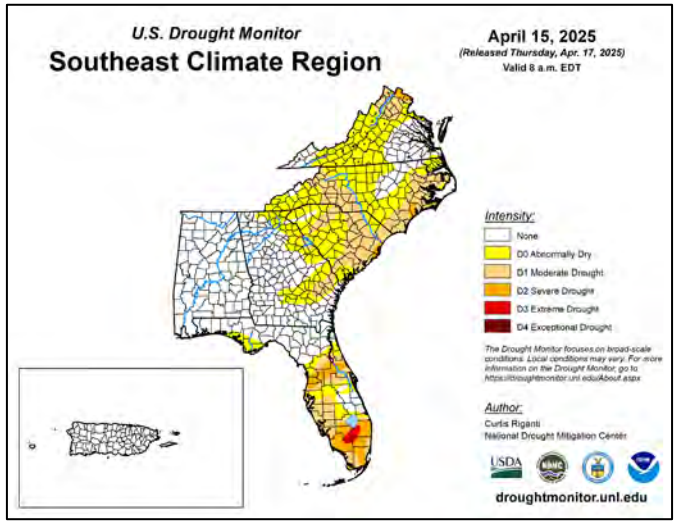


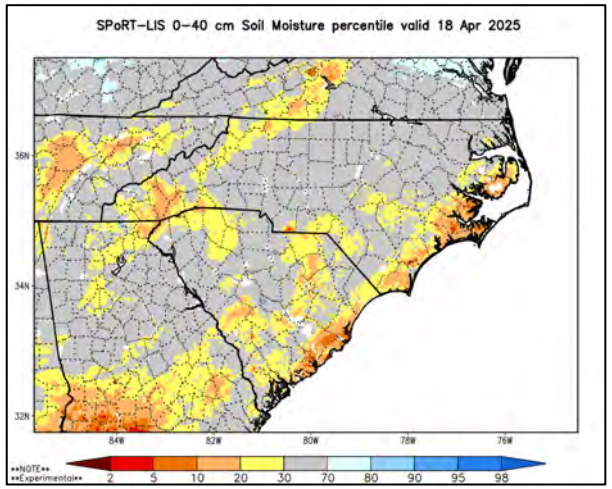




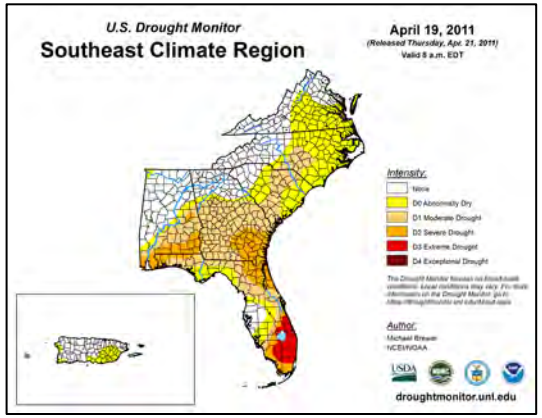
- KBDIs increasing more rapidly with warmer temps.
- Note modeled changes to profile from 0-16 inches (bottom left).
- USDM Map comparison – 2011, 2017, 2018, 2025.

Current

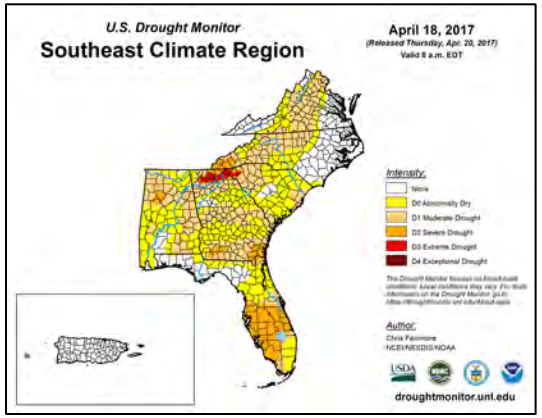




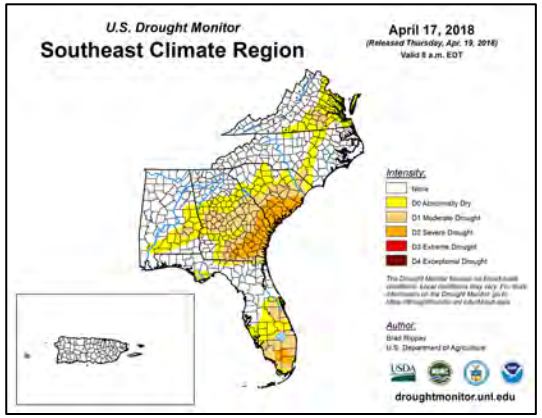
2011



2017

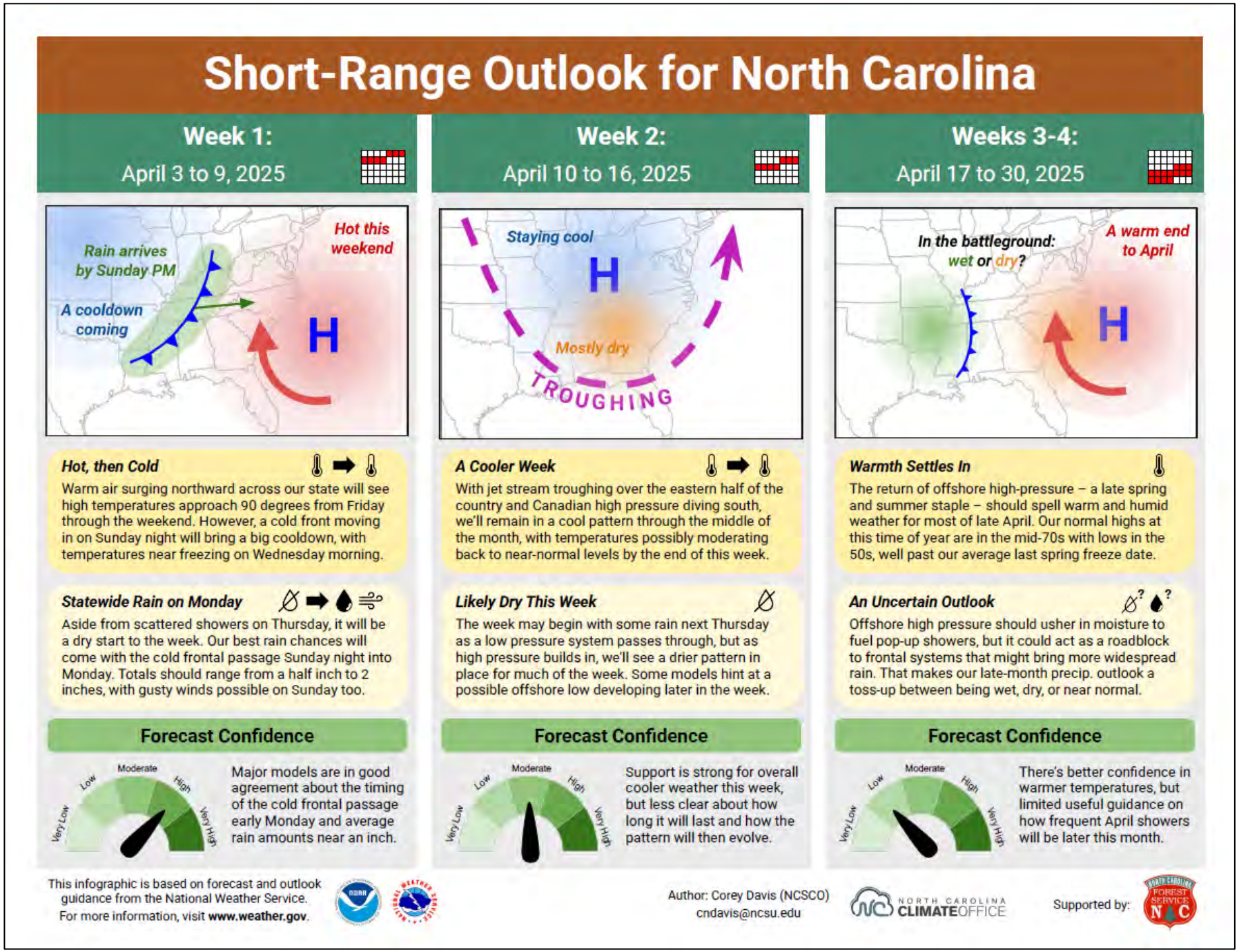


2018



State Climate Office: Short-Range Monthly Outlook for NC

Released 4/3/25 & Location:
https://climate.ncsu.edu/fire/outlooks/

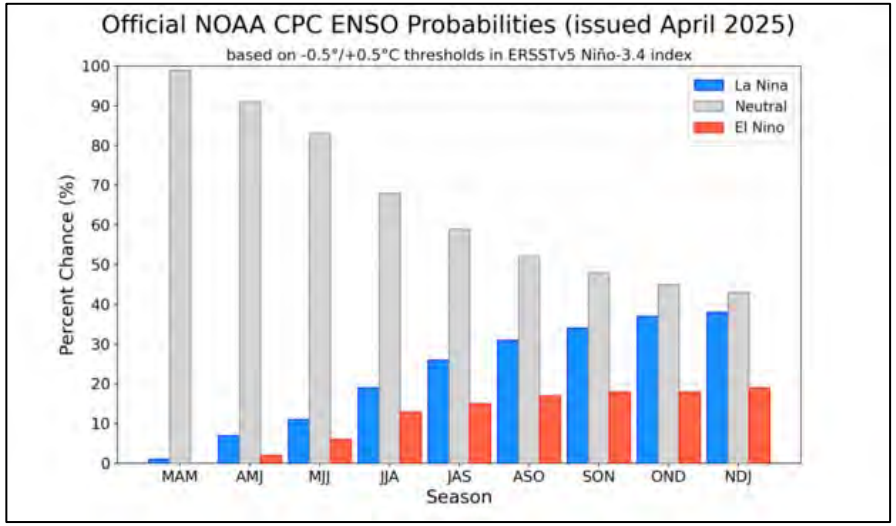


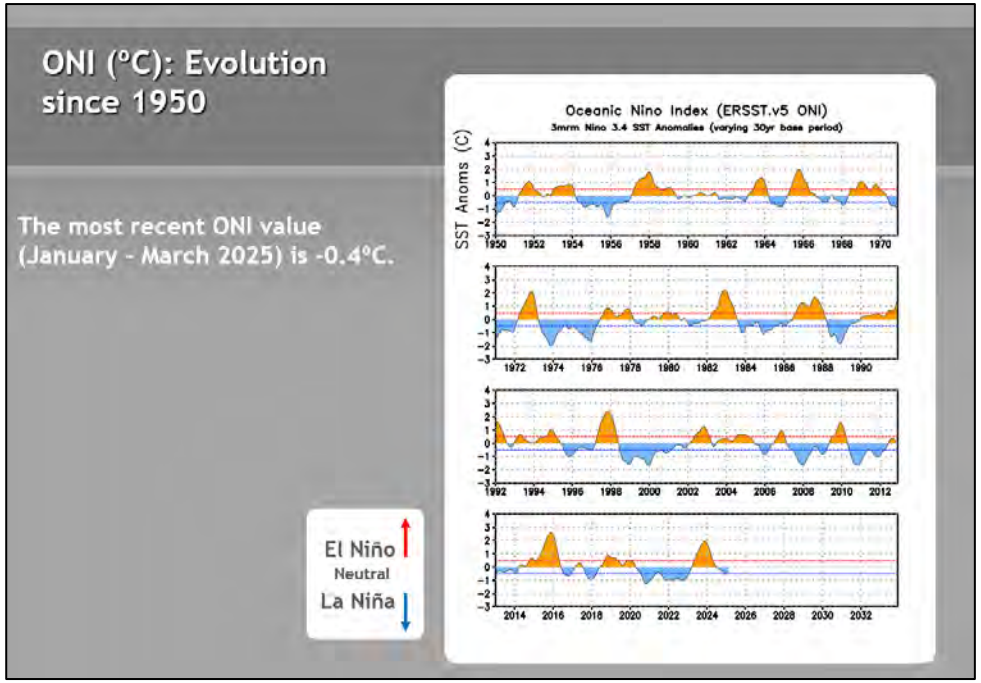
ENSO Notes from the CPC (4/10/25 Update)

ENSO Alert System Status: **Final La Niña Advisory**

ENSO-neutral is favored during the Northern Hemisphere summer, with a greater than 50% chance through August-October 2025.

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° C (line shown in green) for 3 consecutive months. For El Nino, the departure must be at least 0.5° C above average for 3 consecutive months.





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

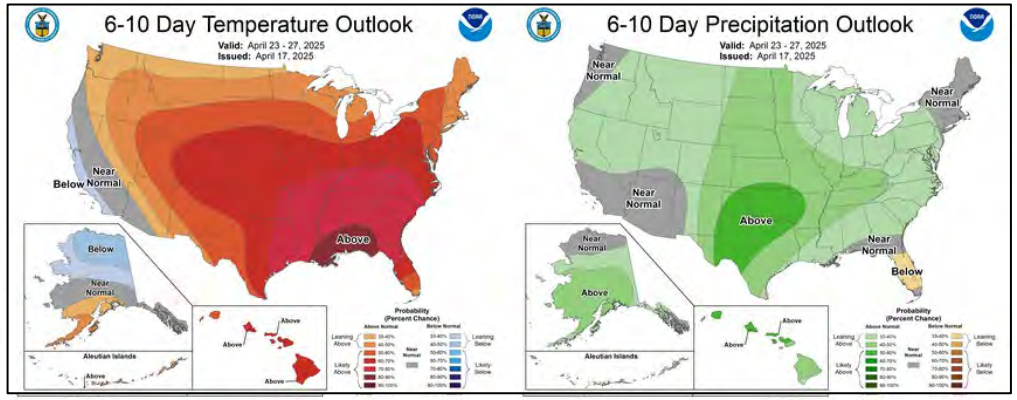
The IRI and North American multi-model ensemble indicate ENSO-neutral will continue through the summer [Fig. 6]. The forecast team also favors ENSO-neutral, with chances well over 50% through summer 2025. Because of reduced forecast accuracy in the spring, the uncertainty increases at longer time horizons, with a 43% chance of ENSO-neutral and a 38% chance of La Niña during November 2025 - January 2026 (chances of El Niño are under 20%). In summary, ENSO-neutral is favored during the Northern Hemisphere summer, with a greater than 50% chance through August-October 2025 [Fig. 7].

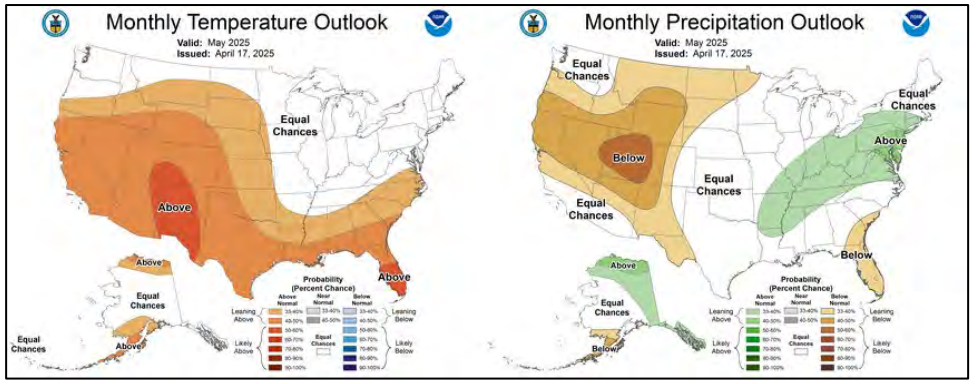
See this link for further discussion: https://www.climate.gov/news-features/blogs/enso/april-2025-enso-update-la-nina-has-ended

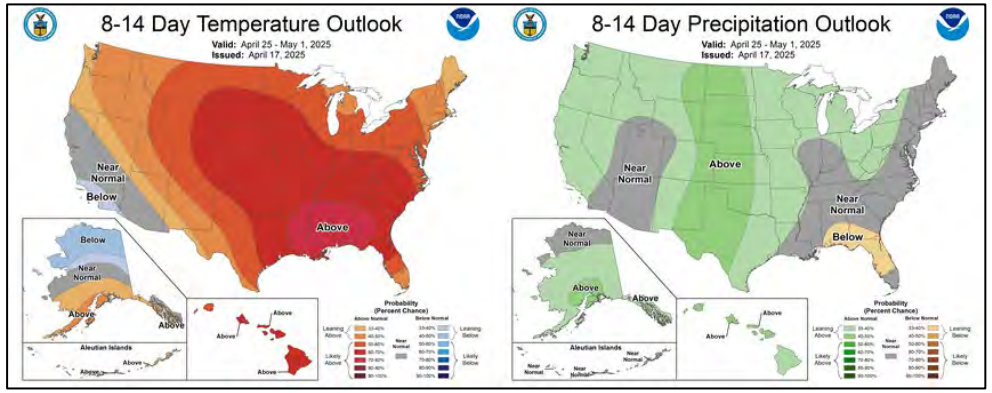
Slide Source: *https://www.cpc.ncep.noaa.gov/products/analysis_monitoring/lanina/enso_evolution-status-fcsts-web.ppt*

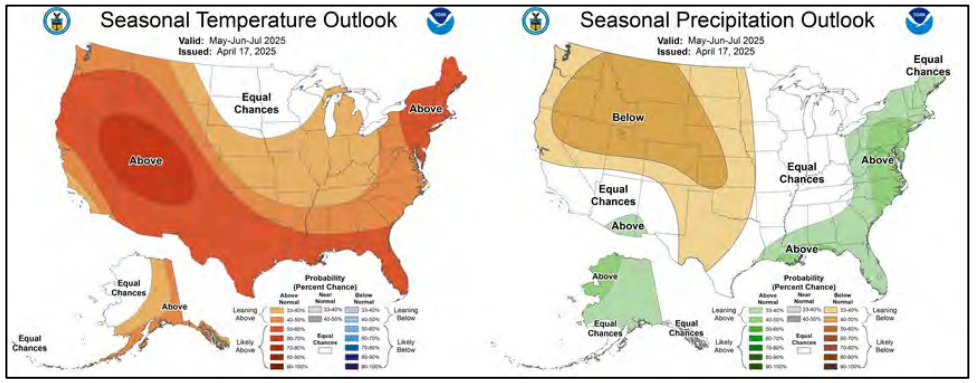
Temp & Precip Outlook

6-10 Day, 8-14 Day, Monthly (May), & Updated Seasonal (May-June-July)







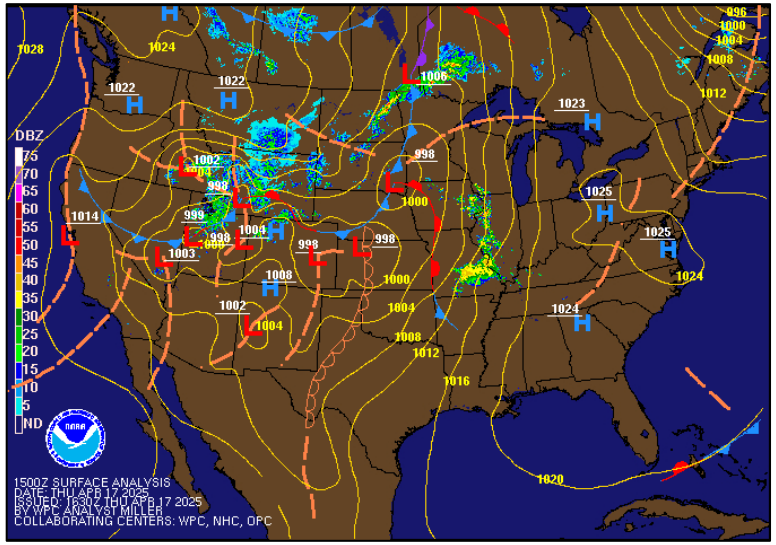


Source: https://www.cpc.ncep.noaa.gov/

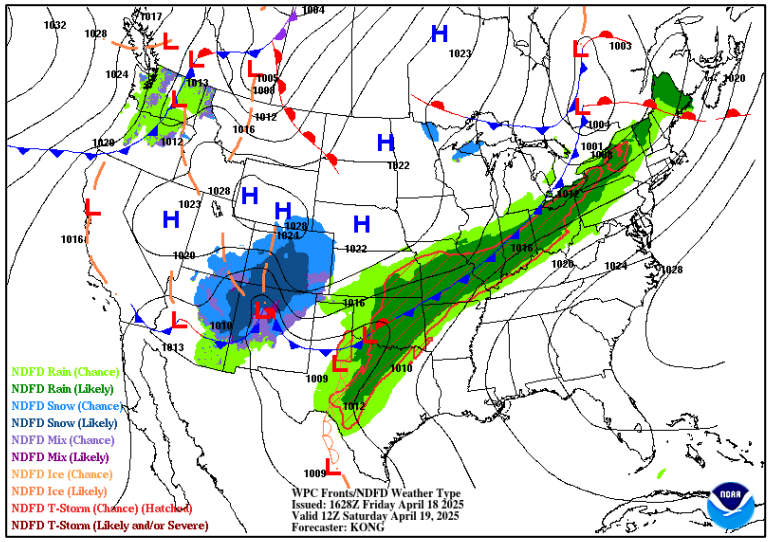
https://www.cpc.ncep.noaa.gov/products/predictions/long_range/fxus05.html

WPC Forecasted Surface Fronts & Sea-Level Pressures

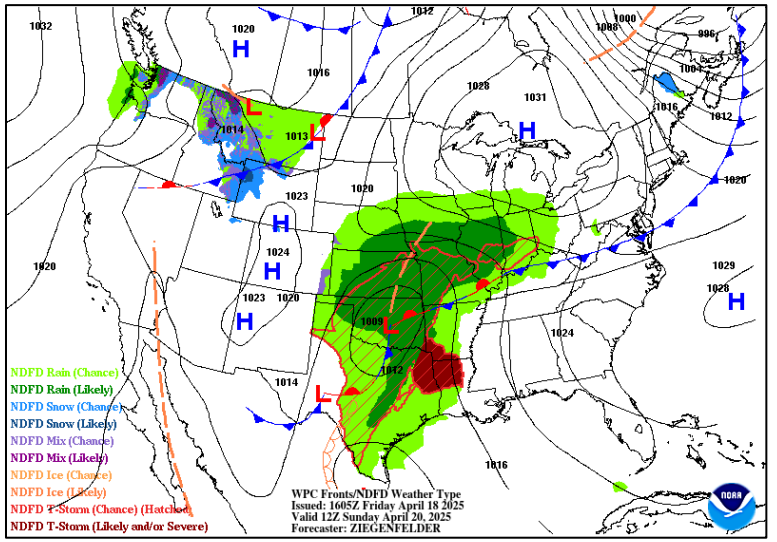
Day-1 @ 15Z Surface Analysis



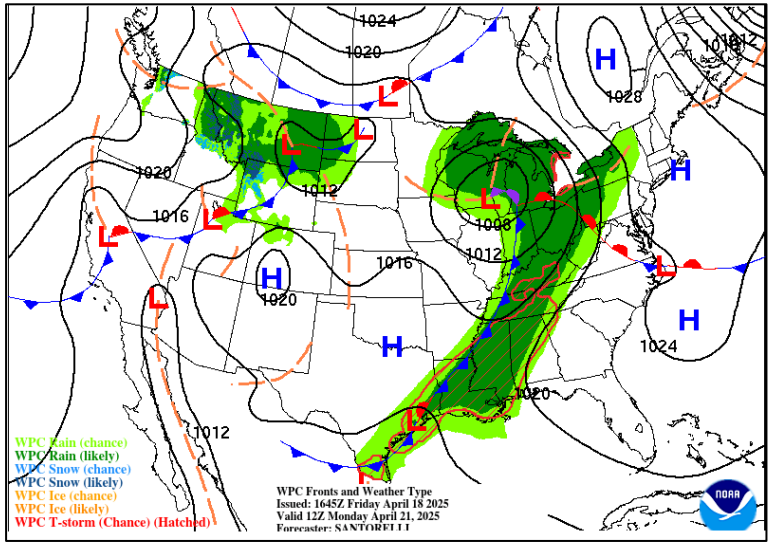
Day 2 - @ 12Z (0800 EDT)



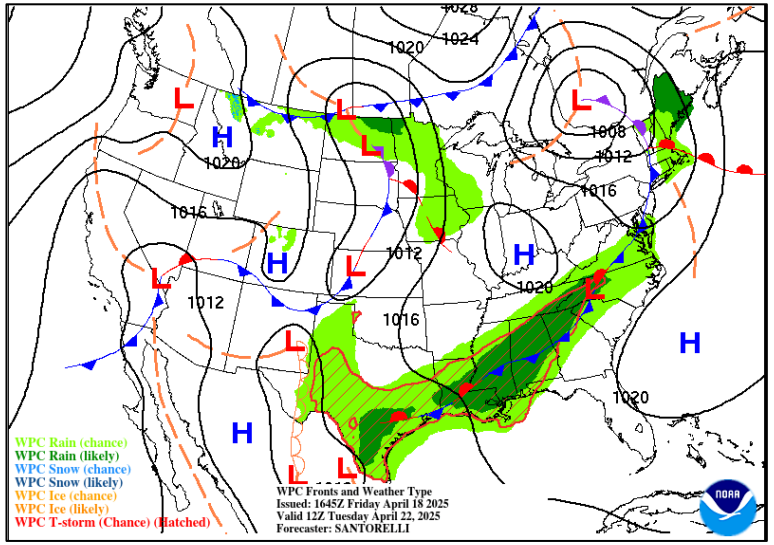
Day 3 @ 12Z (0800 EDT)



Day 4 @ 12Z (0800 EDT)



Day 5 @ 12Z (0800 EDT)



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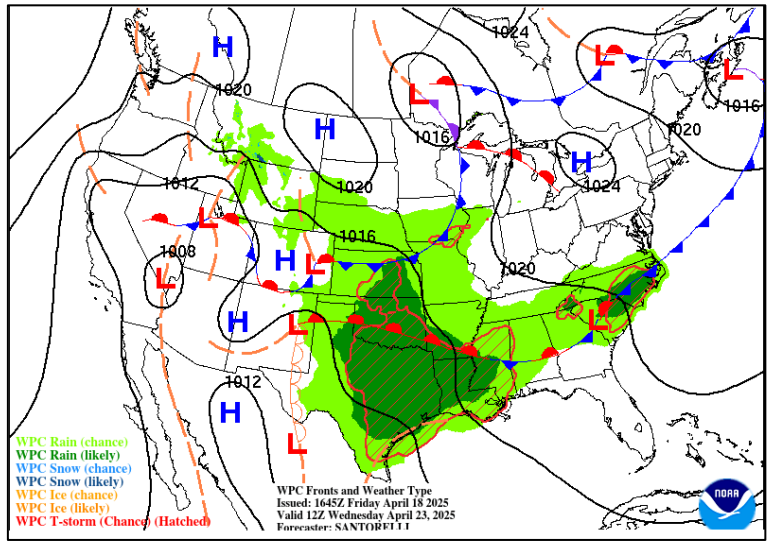
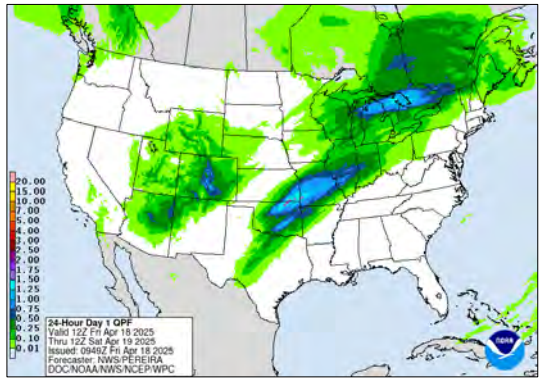


Location: https://www.wpc.ncep.noaa.gov/#

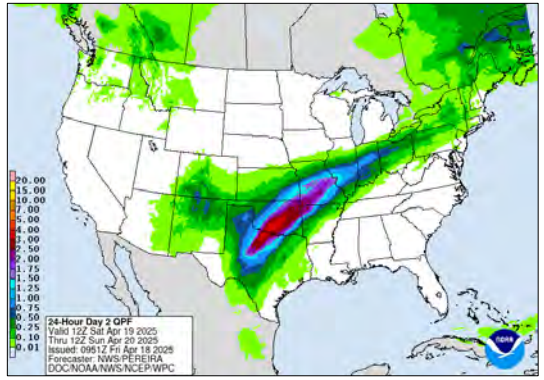
Quantitative Precipitation Forecast, 7-Day

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

Day – 1



Day - 2



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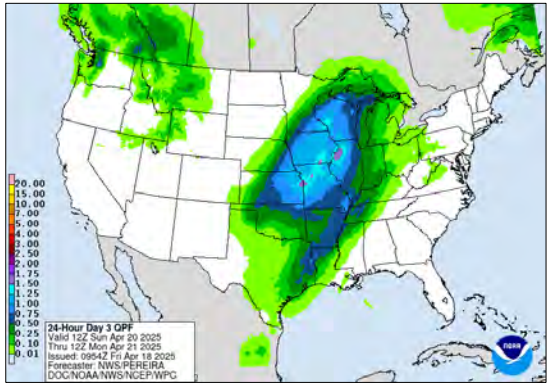

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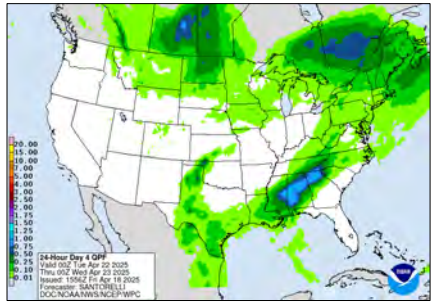
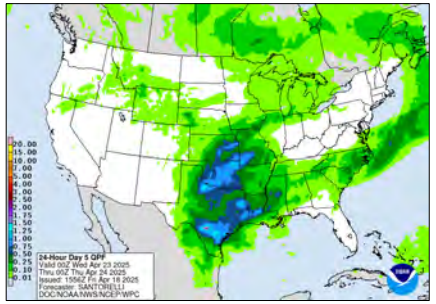
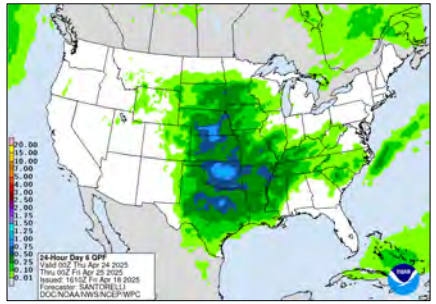


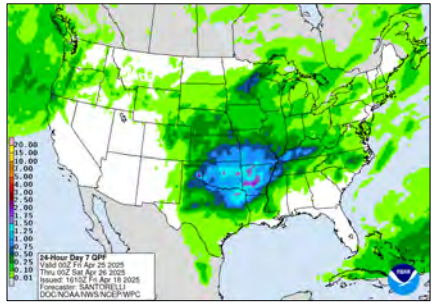
Day - 5



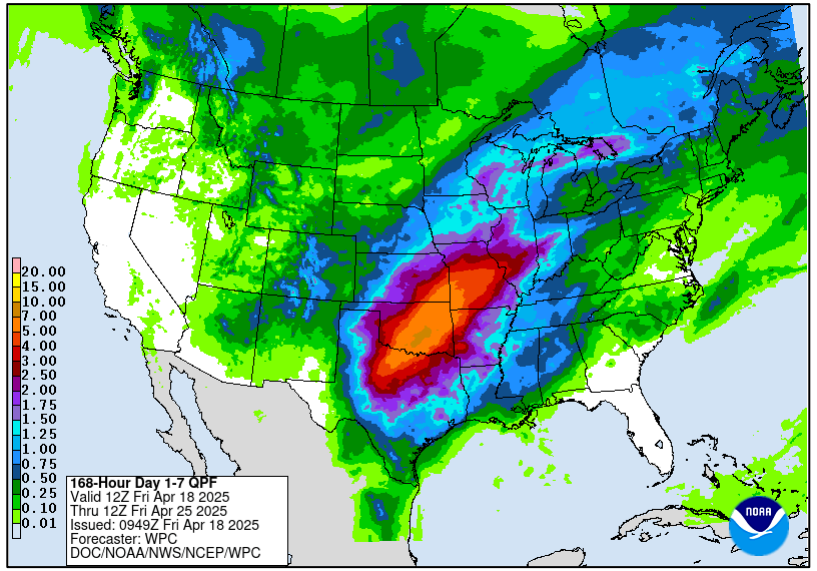
Day - 6



Day - 7



Days 1 – 7 QPF



Zoom - Days 1 – 7 QPF

Subject to significant change in precip amounts farther out in time (decrease).

Higher Dew Points, but no widespread significant wetting rains modeled in Days 1-7.

NFDRS Observations from Yesterday

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

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

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	2025-04-17	72.00 77.2%	40.47 86.0%	17.13 97.6%	24.70 70.4%	65.67	7.28 0.4%	11.40 1.4%	15.62 6.7%	22.35 76.3%	145.53	130.67	70.3°F	20.7%	SSW 4.7 mph	0.00 in.	0.3
Central Mountains	3	2025-04-17	32.77 58.9%	25.40 70.9%	6.93 81.4%	7.23 48.8%	64.00	8.82 6.9%	12.24 4.1%	15.56 8.1%	21.80 83.1%	203.00	162.00	69.7°F	21.0%	SSE 5.3 mph	0.00 in.	0.0
Northern Highlands	2	2025-04-17	63.35 71.9%	35.05 79.5%	11.55 92.3%	21.50 66.6%	79.50	8.89 5.0%	12.27 5.2%	15.62 10.4%	21.44 66.8%	145.00	134.00	64.0°F	25.0%	WNW 7.0 mph	0.00 in.	0.0
Blue Ridge Escarpment	3	2025-04-17	58.47 67.4%	39.73 78.3%	13.40 87.9%	17.03 61.8%	111.33	7.30 2.5%	10.25 2.0%	13.31 0.9%	17.82 20.5%	165.17	142.67	70.3°F	21.0%	SSW 5.3 mph	0.00 in.	0.0
Western Piedmont	3	2025-04-17	22.47 21.8%	22.93 47.1%	5.27 49.6%	3.47 11.3%	121.33	8.43 7.0%	14.71 39.5%	15.95 17.5%	21.15 76.6%	226.27	180.67	71.3°F	21.7%	WSW 3.7 mph	0.00 in.	0.0
Sandhills	3	2025-04-17	29.70 33.6%	48.23 67.5%	11.77 69.4%	3.13 20.5%	117.67	7.43 3.1%	11.90 9.1%	14.40 2.9%	20.63 77.5%	249.30	199.67	75.0°F	18.7%	WNW 3.7 mph	0.00 in.	0.0
Eastern Piedmont	4	2025-04-17	22.40 13.3%	21.05 25.0%	4.58 36.2%	3.78 7.7%	98.00	9.30 12.2%	13.79 22.7%	15.51 11.4%	21.09 78.3%	245.18	198.25	67.3°F	28.0%	E 4.5 mph	0.00 in.	0.0
Southern Coastal	7	2025-04-17	24.49 17.8%	23.94 36.0%	5.19 44.6%	4.17 9.3%	397.57	9.07 11.4%	16.38 38.7%	16.74 14.3%	21.51 77.3%	245.90	169.00	75.4°F	25.4%	SSE 2.9 mph	0.00 in.	0.0
Northern Coastal	4	2025-04-17	33.00 23.7%	26.13 37.8%	6.60 54.4%	7.18 15.5%	221.00	9.11 11.2%	15.00 34.8%	16.76 21.9%	21.28 70.2%	220.28	142.25	69.5°F	31.5%	SSE 5.3 mph	0.00 in.	0.0

NFDRS Forecast Observations for Today

(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	DUR1	DUR2
Southern Highlands	3	2025-04-18	66.97 76.0%	28.33 77.4%	11.60 92.7%	30.23 72.7%	65.67	10.18 11.3%	12.94 7.7%	14.44 0.6%	21.88 76.3%	147.67	129.67	72.7°F	35.7%	S 9.0 mph	0.0	0.0
Central Mountains	3	2025-04-18	45.30 66.5%	22.83 67.3%	8.70 87.1%	16.13 63.6%	64.00	9.96 14.2%	12.56 8.1%	14.11 0.9%	21.39 68.1%	202.37	167.33	74.3°F	34.0%	S 11.0 mph	0.0	0.0
Northern Highlands	2	2025-04-18	67.30 72.9%	29.10 75.2%	12.50 93.3%	29.65 71.3%	79.50	9.57 10.2%	11.78 5.2%	14.26 1.0%	21.08 66.8%	153.80	142.00	70.5°F	39.5%	S 10.0 mph	0.0	0.0
Blue Ridge Escarpment	3	2025-04-18	68.43 70.4%	29.33 67.6%	10.87 83.1%	33.83 72.0%	111.33	10.26 24.9%	13.07 15.8%	12.43 0.1%	16.59 9.3%	166.43	144.00	74.7°F	37.3%	SSW 9.7 mph	0.0	0.0
Western Piedmont	3	2025-04-18	36.37 47.7%	19.03 35.0%	6.67 64.2%	11.83 50.9%	121.33	10.69 43.9%	15.55 50.3%	15.70 17.5%	21.14 76.6%	219.53	180.00	77.0°F	39.3%	SSW 10.3 mph	0.0	0.0
Sandhills	3	2025-04-18	45.67 77.2%	35.47 40.6%	11.73 69.4%	10.73 93.9%	117.67	10.76 46.1%	17.34 54.1%	14.35 2.9%	20.29 64.0%	250.00	200.00	78.0°F	38.0%	SSW 10.3 mph	0.0	0.0
Eastern Piedmont	4	2025-04-18	31.23 17.2%	15.85 20.1%	5.15 36.2%	10.23 14.6%	98.00	11.58 51.1%	16.92 53.3%	15.43 5.2%	20.87 78.3%	246.13	197.50	76.0°F	42.0%	SSW 10.5 mph	0.0	0.0
Southern Coastal	7	2025-04-18	31.61 25.4%	17.89 25.2%	4.59 44.6%	9.39 23.5%	397.57	11.96 47.5%	17.95 57.8%	16.60 14.3%	21.22 64.1%	248.20	176.14	77.9°F	41.1%	S 7.9 mph	0.0	0.0
Northern Coastal	4	2025-04-18	35.03 25.2%	18.73 26.8%	5.43 41.2%	11.10 23.3%	221.00	11.56 48.6%	16.43 46.2%	16.59 21.9%	21.16 70.2%	218.85	147.50	75.8°F	41.0%	S 9.3 mph	0.0	0.0

Important notes for next slide group:

A. Current ERC, KBDI, 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.

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) is greening the live herbaceous & woody vegetation in multiple 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 this Spring has not been typical based on snows, freezes, rain events, extremely dry air, and warm spells relating to actual plant growth. There is variability across the broader landscape.

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:

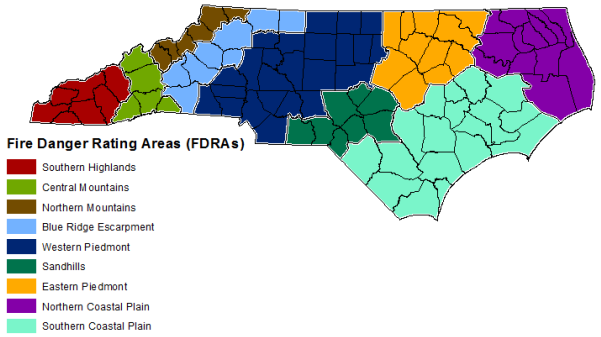
- Low to Moderate (0 to 74th percentile); shown in blue-green
- High (75th to 89th percentile); shown in yellow
- Very High to Extreme (90th+ percentile); shown in red and labeled as Critical

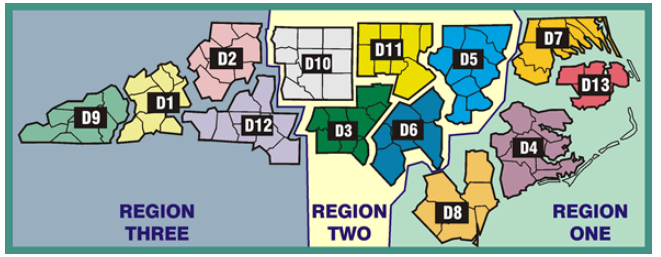
Dead fuel moisture forecast values are grouped into three categories based on historical percentiles, assessed using the FF+ All Days filter through 2021:

- 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.



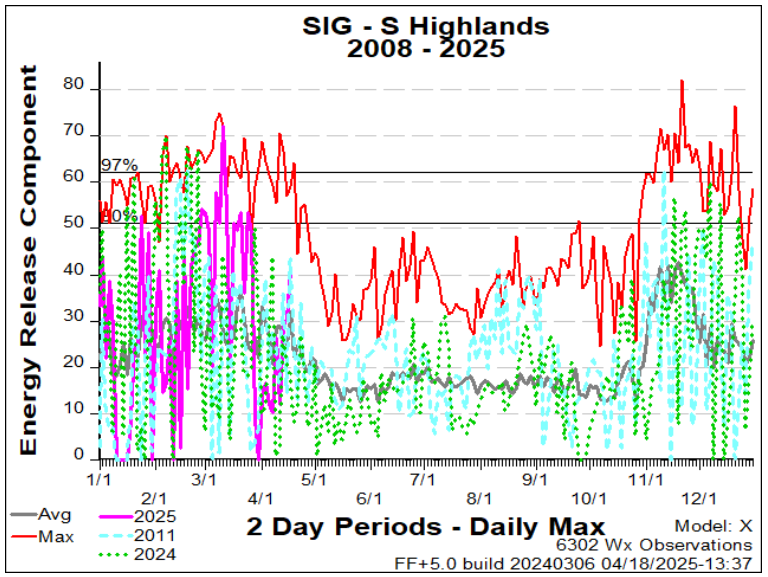


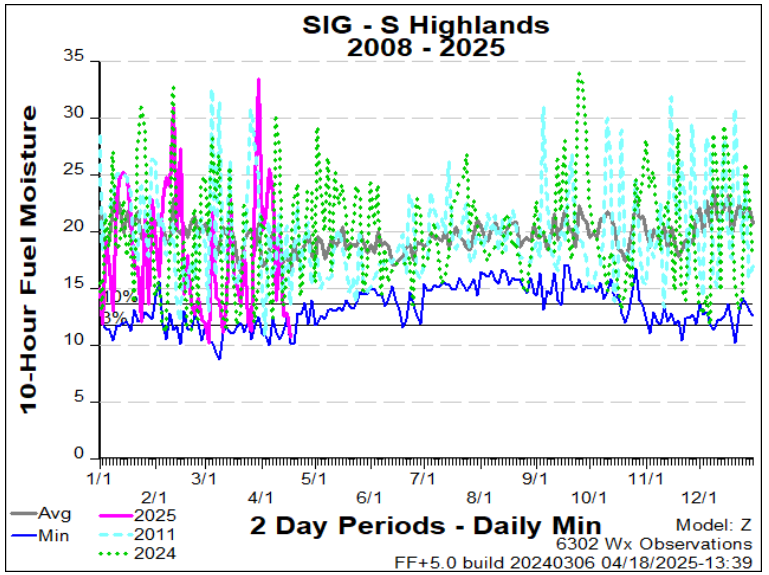
To reduce duplication & increase situational awareness, slides are organized by FDRA in this order:

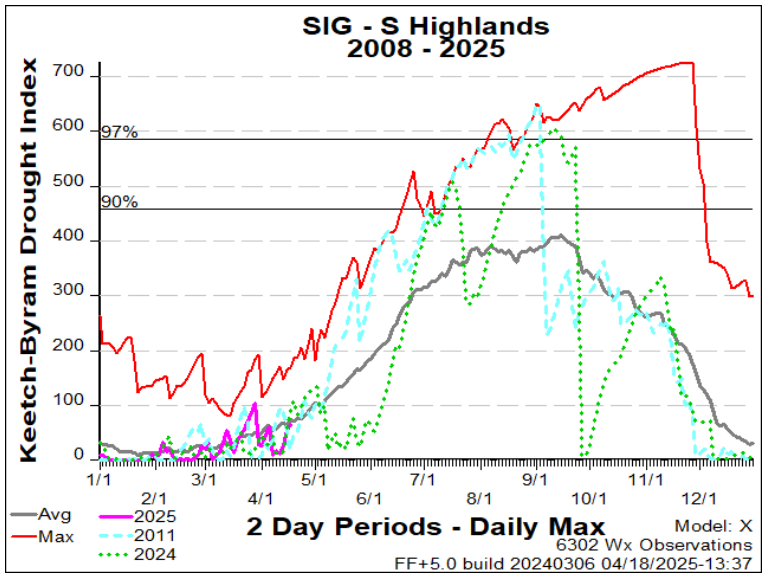
(R3 = Region 3, R2 = Region 2, R1 = Region 1)

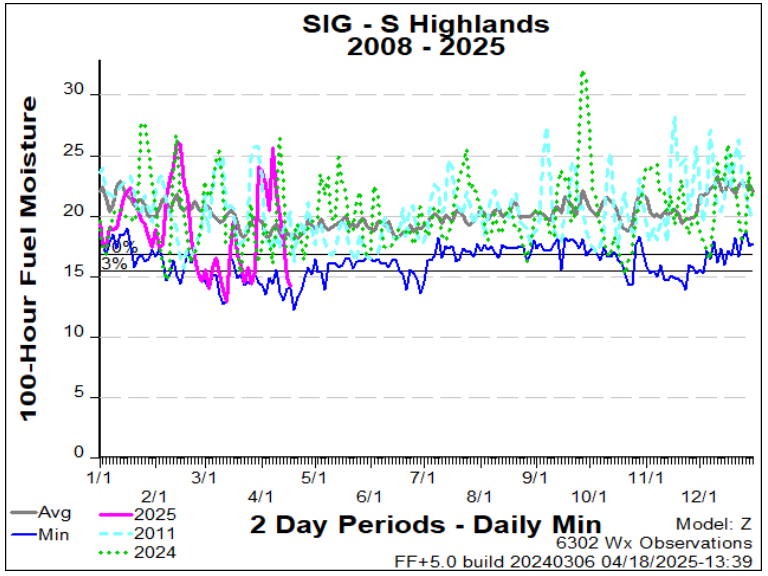
- Southern Highlands (R3)
- Central Mountains (R3)
- Northern Highlands (R3)
- Blue Ridge Escarpment (R2 & R3)
- Western Piedmont (R2 & R3)
- Eastern Piedmont (R2)
- Sandhills (R2)
- North Coast (R1)
- South Coast (R1 & R2)

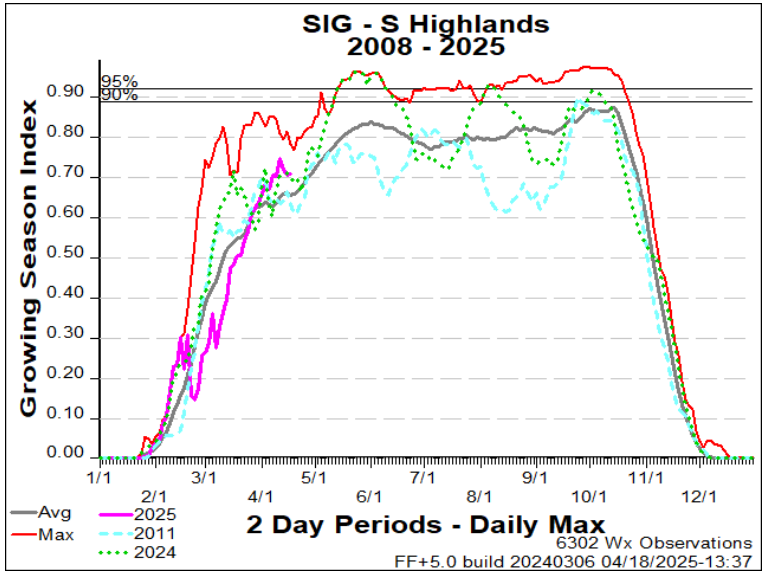
FDRA – Southern Highlands

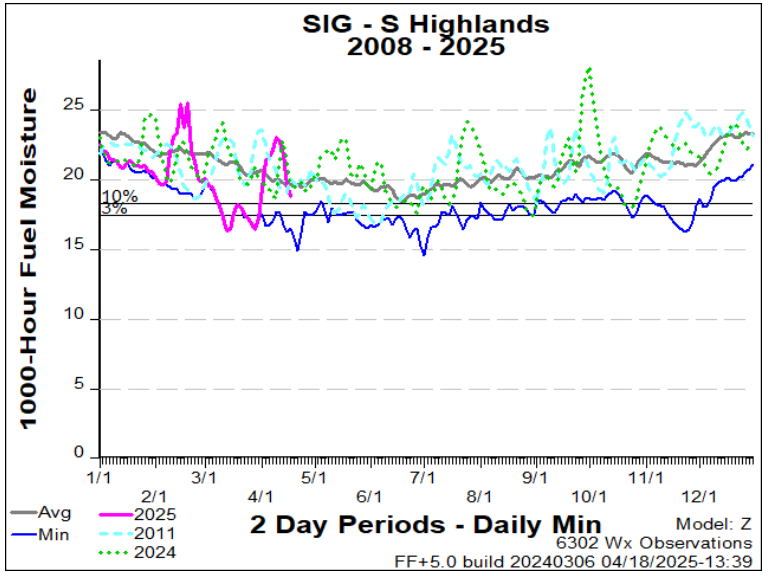






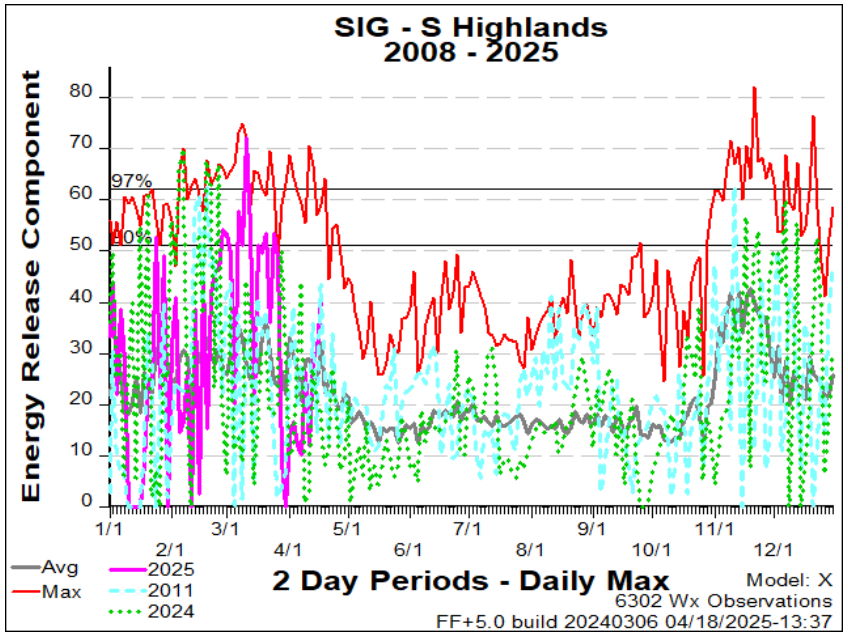




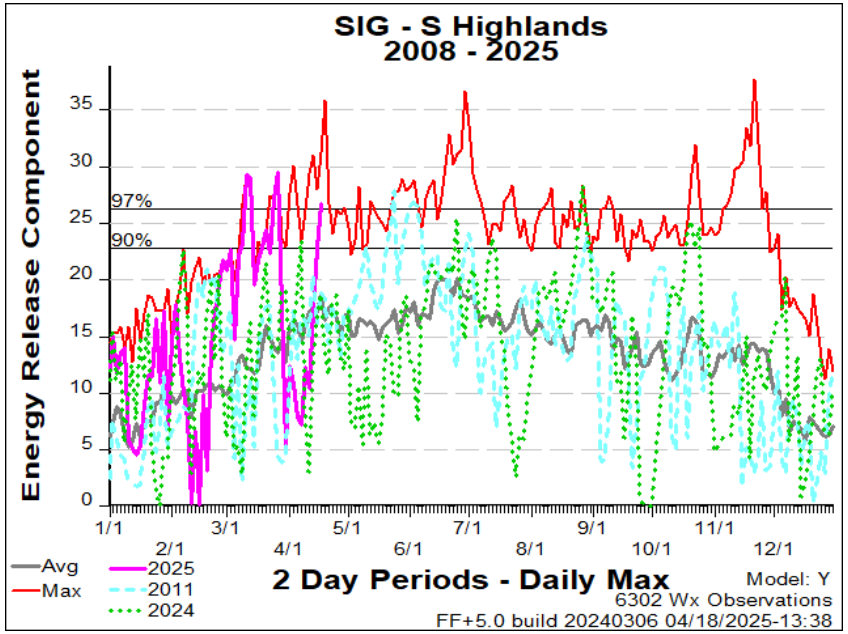


FDRA – Southern Highlands

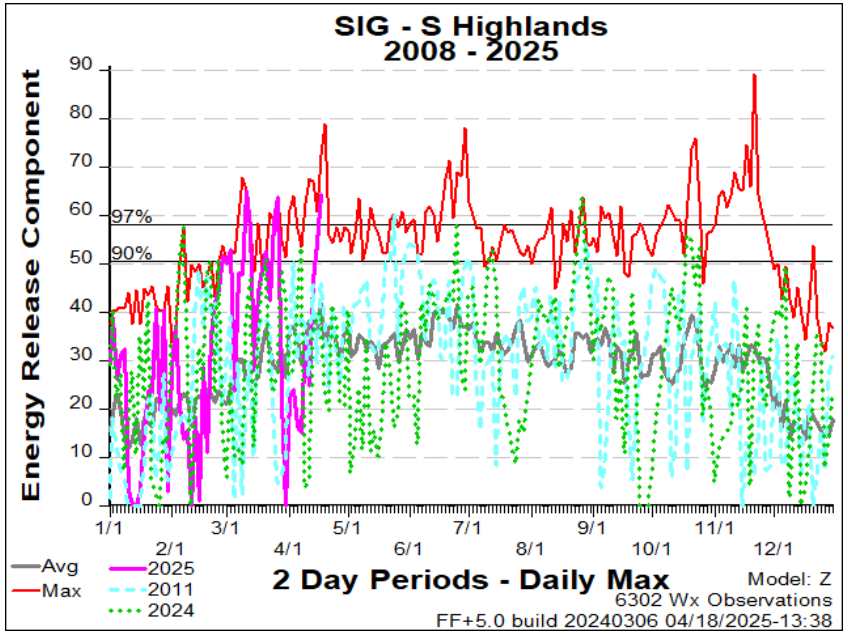
ERC-X



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	FRI 18-Apr	SAT 19-Apr	SUN 20-Apr	MON 21-Apr	TUE 22-Apr	WED 23-Apr	THU 24-Apr
Avg. Max. Temp. (°F)	75	80	79	76	73	74	74
Avg. Min. Humidity (%)	33	32	38	41	44	46	53
Avg. 20' Wind Speed (mph)	7	4	3	5	3	3	4
Avg. Wind Direction*	S	SSW	S	S	WNW	ESE	SE
Avg. Probability of Precip. (%)	0	0	6	48	46	39	45
Days Since a Wetting Rain**	8.7	9.7	10.7	11.7			
Forecast ERC (Fuel Model X)	28.3	19.3	21.4	22.1	17.1	18.2	16.9
Forecast BI (Fuel Model X)	67.0	39.5	42.6	56.1	32.9	35.3	37.3
Forecast IC (Fuel Model X)	11.6	6.3	6.8	8.3	3.9	4.3	4.1
Forecast 100-Hr. FMC	14.4	14.3	15.3	15.7	16.3	16.9	17.3
Forecast 1000-Hr. FMC	21.9	21.5	21.1	20.8	20.6	20.5	20.3
KBDI	65.7						

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

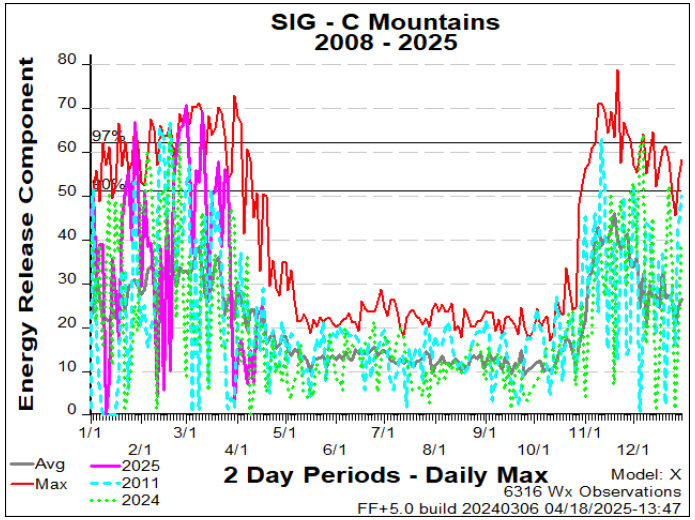
Values in the table above are averages from 3 stations in this FDRA:

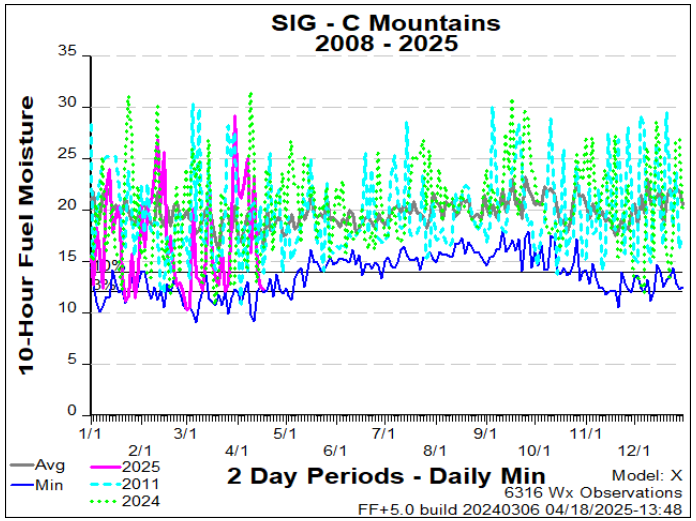
- **Tusquitee** (315602)
- **Locust Gap** (315802)
- **Highlands** (315803)

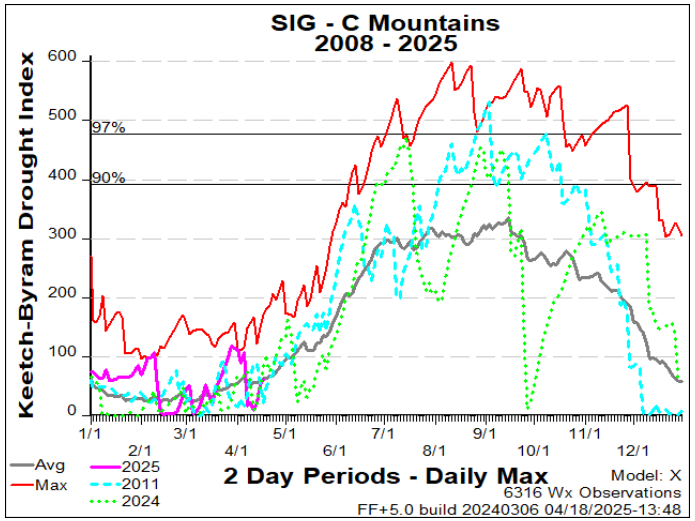
KEY	Low to Moderate Burning Conditions	Burning Conditions Can be High CAUTION	Burning Conditions Can be Critical WATCH OUT!
Avg. Max. Temp.	Less than 50°F	Between 50°F and 55°F	Greater than 55°F
Avg. Min. Humidity	Greater than 35%	Between 30% and 35%	Less than 30%
Avg. 20' Wind Speed	Less than 5 mph	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

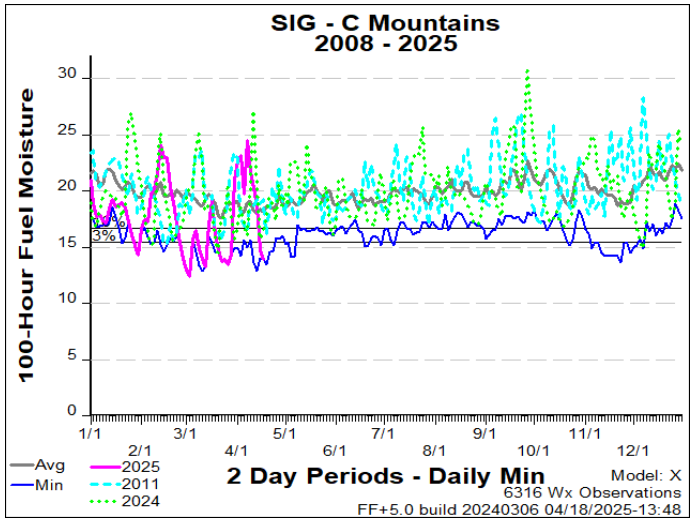
Other factors to consider when determining fire danger: **sky conditions, precipitation amount, number of days since rain,** and **season**

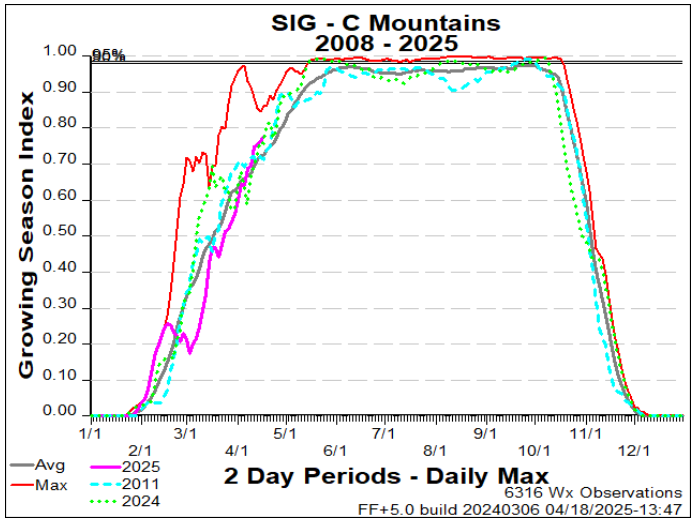
FDRA – Central Mountains

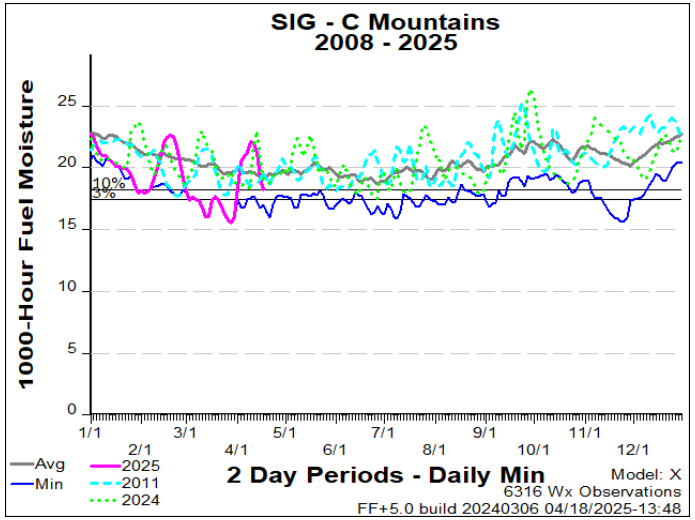






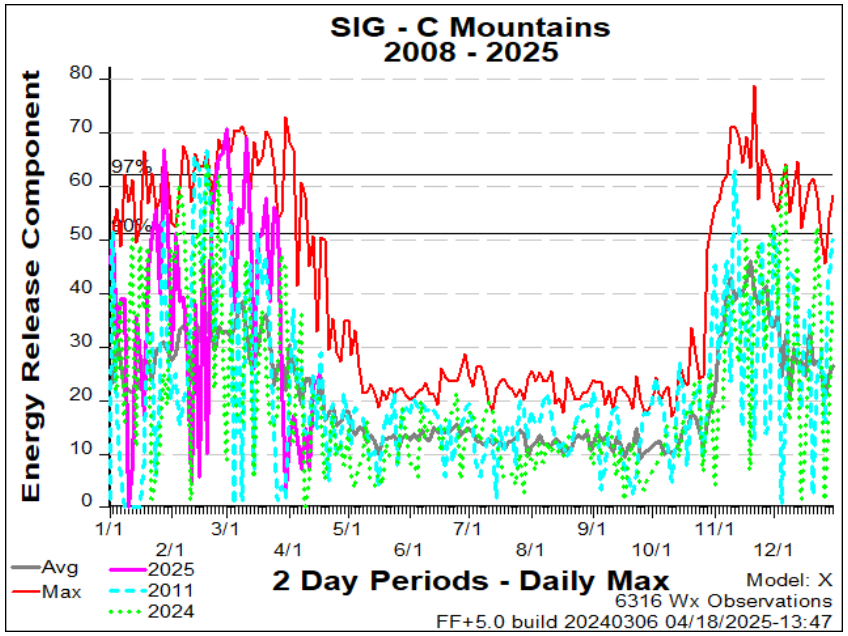




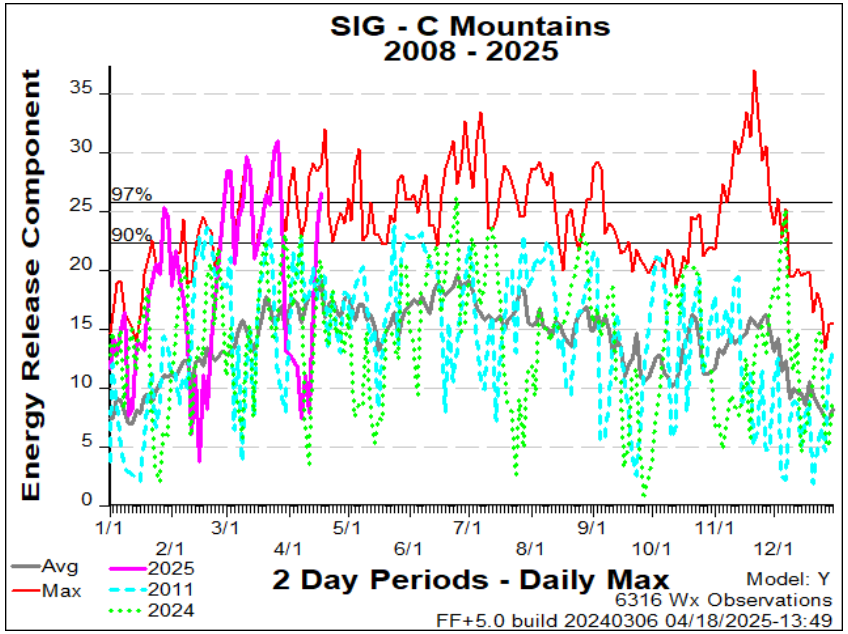


FDRA – Central Mountains

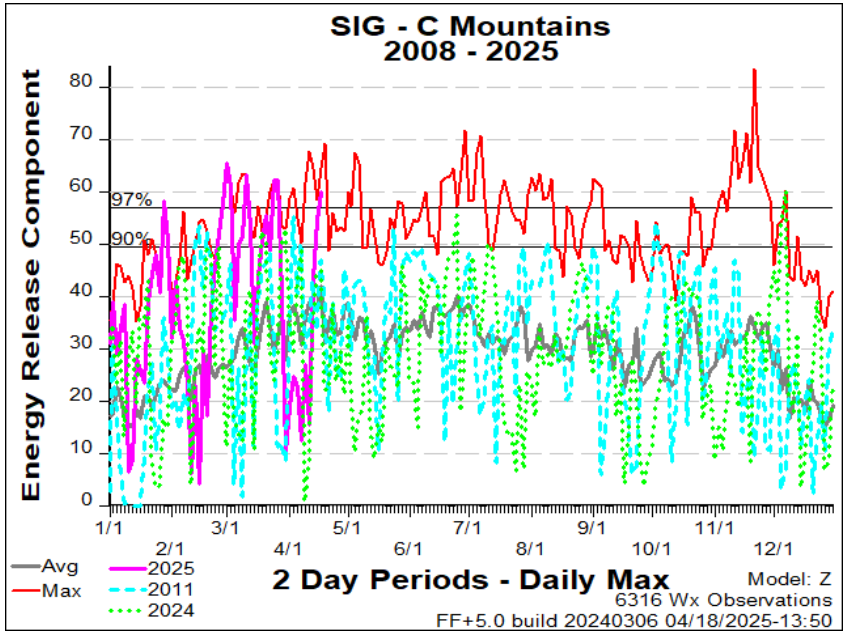
ERC-X



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	FRI 18-Apr	SAT 19-Apr	SUN 20-Apr	MON 21-Apr	TUE 22-Apr	WED 23-Apr	THU 24-Apr
Avg. Max. Temp. (°F)	79	86	84	82	77	77	78
Avg. Min. Humidity (%)	32	29	35	37	44	45	51
Avg. 20' Wind Speed (mph)	7	4	3	5	3	2	3
Avg. Wind Direction*	S	S	SSW	SSW	WNW	SW	SSE
Avg. Probability of Precip. (%)	0	1	8	42	44	37	47
Days Since a Wetting Rain**	6.0	7.0	8.0	9.0			
Forecast ERC (Fuel Model X)	22.8	18.9	18.3	18.3	15.8	15.9	14.1
Forecast BI (Fuel Model X)	45.3	32.2	29.9	32.5	24.0	24.0	23.6
Forecast IC (Fuel Model X)	8.7	6.2	5.7	5.7	3.5	3.4	2.8
Forecast 100-Hr. FMC	14.1	14.0	14.5	15.1	15.7	16.2	16.5
Forecast 1000-Hr. FMC	21.4	20.9	20.5	20.2	20.0	19.9	19.9
KBDI	64.0						

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

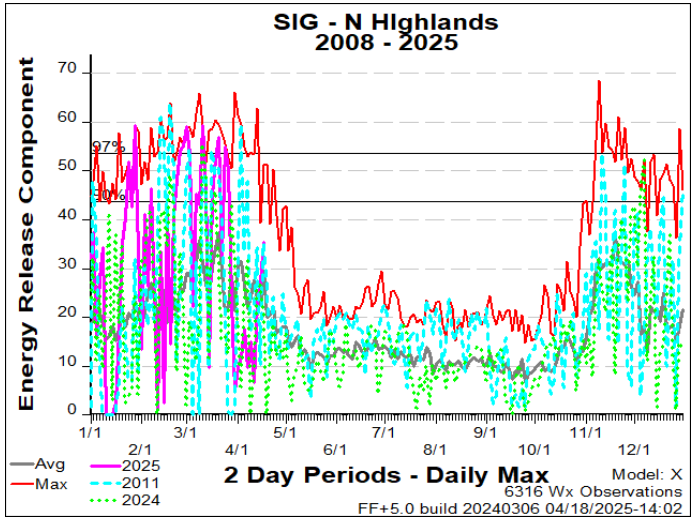
Values in the table above are averages from 3 stations in this FDRA:

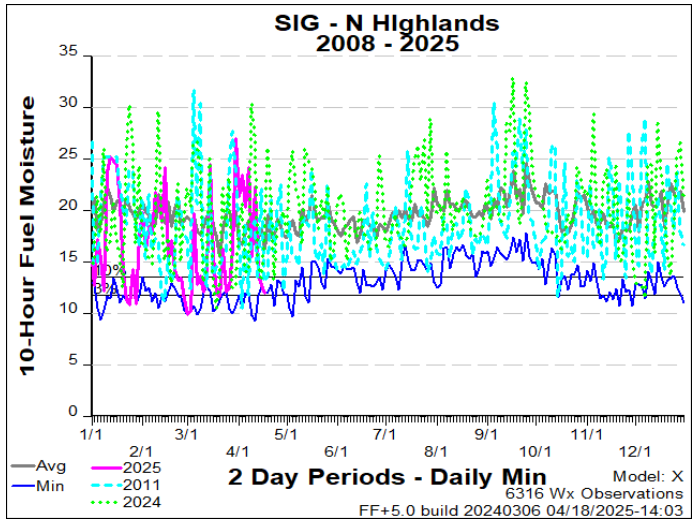
- **7 Mile Ridge** (313302)
- **Davidson River** (316001)
- **Mtn Horticultural Crops Res Stn** (316141)

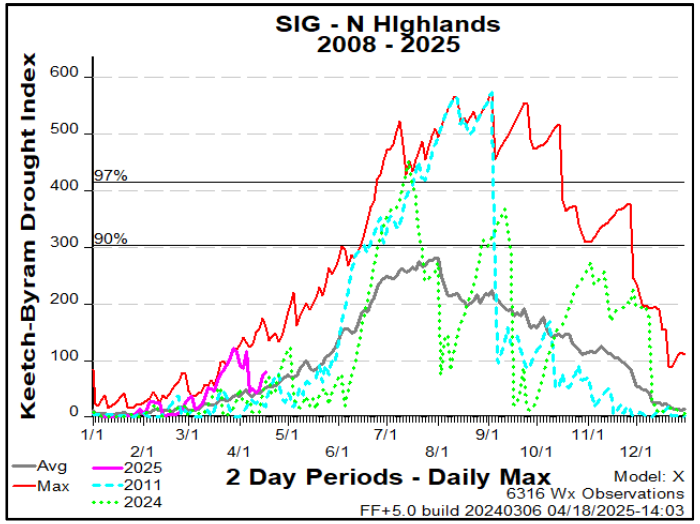
KEY	Low to Moderate Burning Conditions	Burning Conditions Can be High CAUTION	Burning Conditions Can be Critical WATCH OUT!
Avg. Max. Temp.	Less than 50°F	Between 50°F and 60°F	Greater than 60°F
Avg. Min. Humidity	Greater than 35%	Between 30% and 35%	Less than 30%
Avg. 20' Wind Speed	Less than 5 mph	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

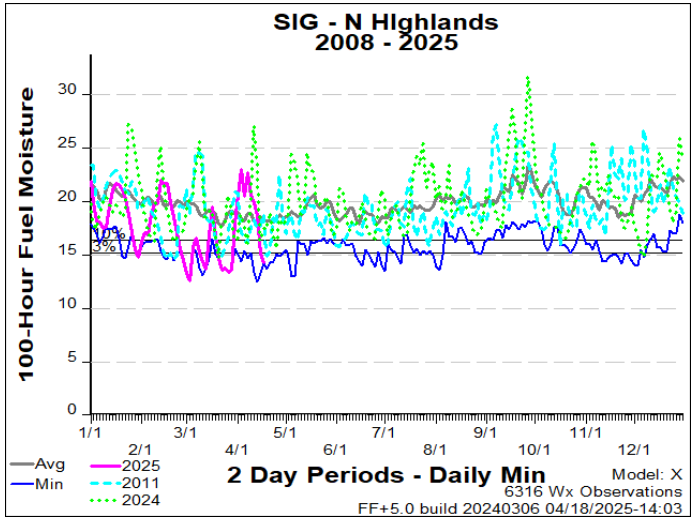
Other factors to consider when determining fire danger: **sky conditions, precipitation amount, number of days since rain,** and **season**

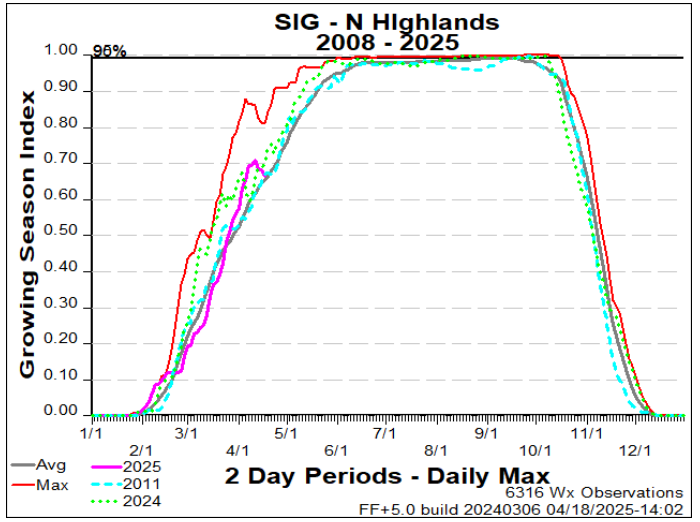
FDRA – Northern Highlands

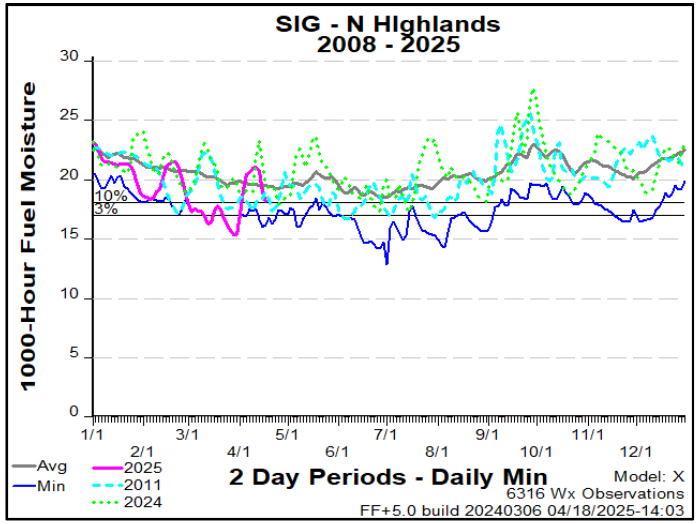






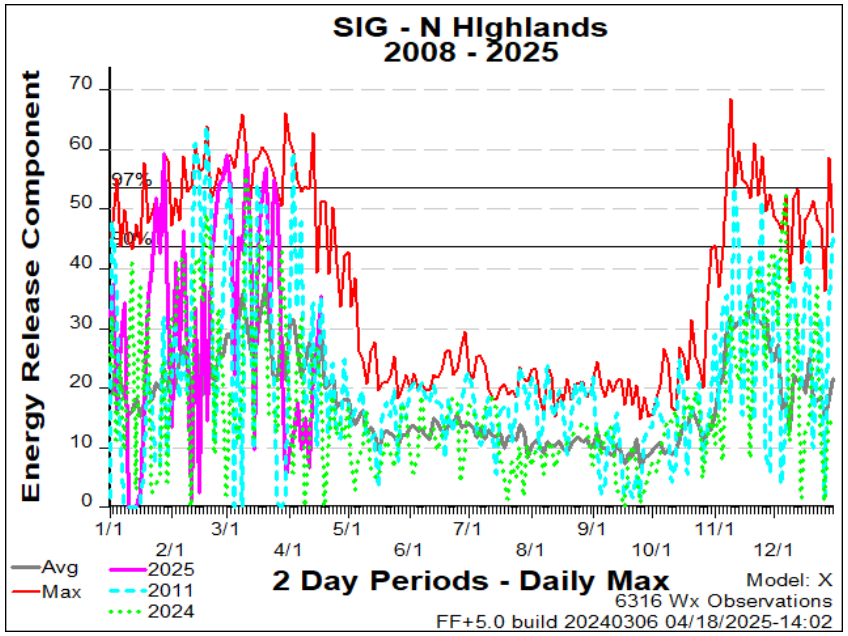




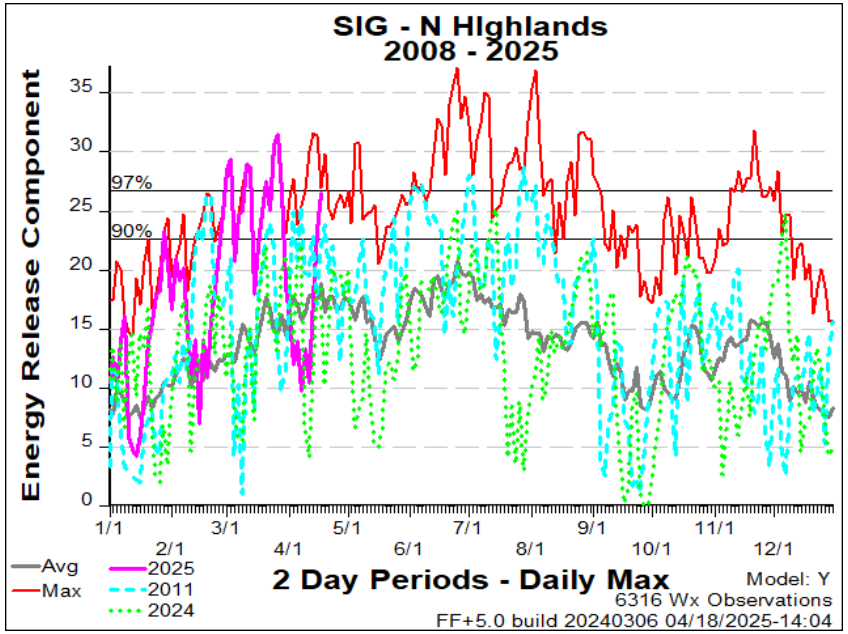


FDRA – Northern Highlands

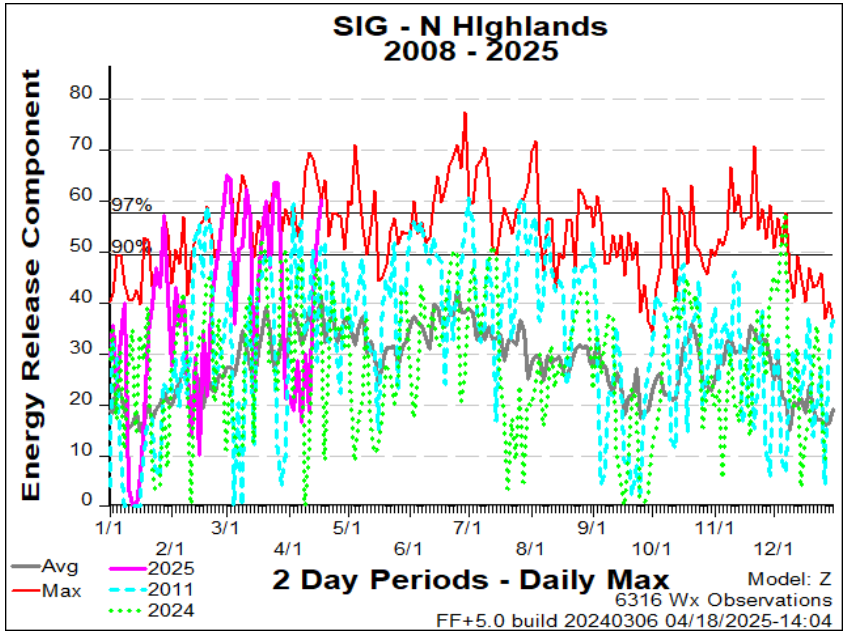
ERC-X



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	FRI 18-Apr	SAT 19-Apr	SUN 20-Apr	MON 21-Apr	TUE 22-Apr	WED 23-Apr	THU 24-Apr
Avg. Max. Temp. (°F)	74	82	79	77	74	74	73
Avg. Min. Humidity (%)	37	36	44	43	45	49	55
Avg. 20' Wind Speed (mph)	10	6	5	6	5	4	4
Avg. Wind Direction*	SSW	SSW	SW	SSW	WNW	SW	SSE
Avg. Probability of Precip. (%)	1	0	9	35	40	32	43
Days Since a Wetting Rain**	3.7	4.7	5.7	6.7			
Forecast ERC (Fuel Model X)	29.1	22.2	22.4	18.8	17.7	18.5	15.4
Forecast BI (Fuel Model X)	67.3	38.2	37.5	36.8	30.5	29.7	28.5
Forecast IC (Fuel Model X)	12.5	6.7	6.6	5.5	4.3	4.2	3.3
Forecast 100-Hr. FMC	14.3	14.0	14.2	14.8	15.2	15.8	16.0
Forecast 1000-Hr. FMC	21.1	20.7	20.3	20.0	19.8	19.7	19.7
KBDI	79.5						

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

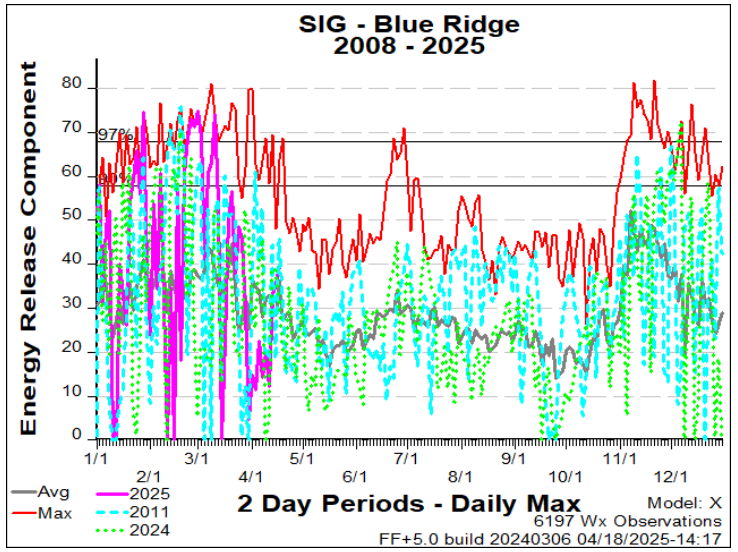
Values in the table above are averages from 3 stations in this FDRA:

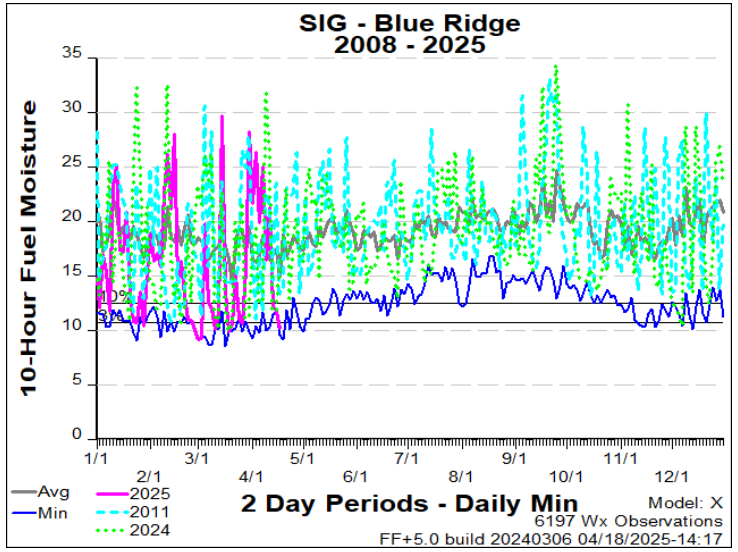
- **Laurel Springs** (310101)
- **Upper Mountain Research Stn** (310141)
- **Busick** (313402)

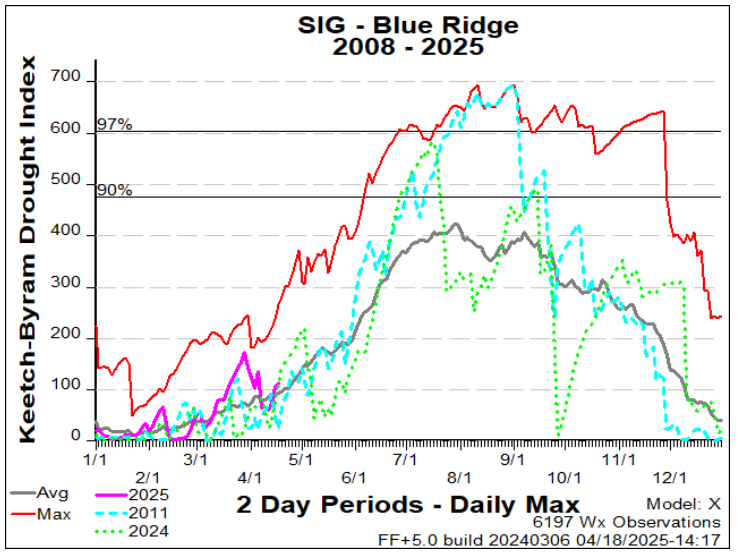
KEY	Low to Moderate Burning Conditions	Burning Conditions Can be High CAUTION	Burning Conditions Can be Critical WATCH OUT!
Avg. Max. Temp.	Less than 50°F	Between 50°F and 58°F	Greater than 58°F
Avg. Min. Humidity	Greater than 35%	Between 30% and 35%	Less than 30%
Avg. 20' Wind Speed	Less than 2 mph	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

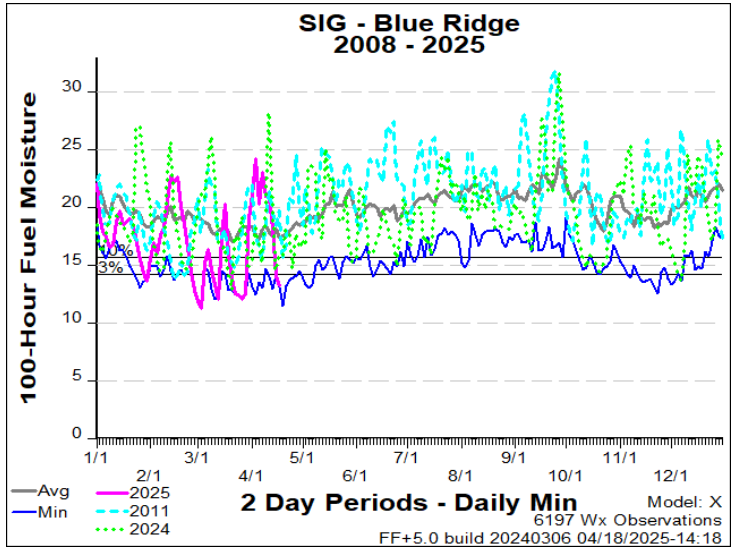
Other factors to consider when determining fire danger: **sky conditions, precipitation amount, number of days since rain,** and **season**

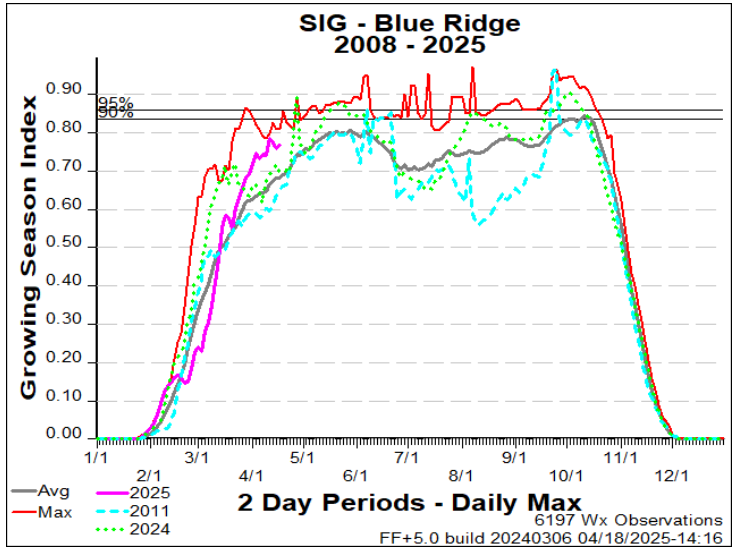
FDRA – Blue Ridge Escarpment

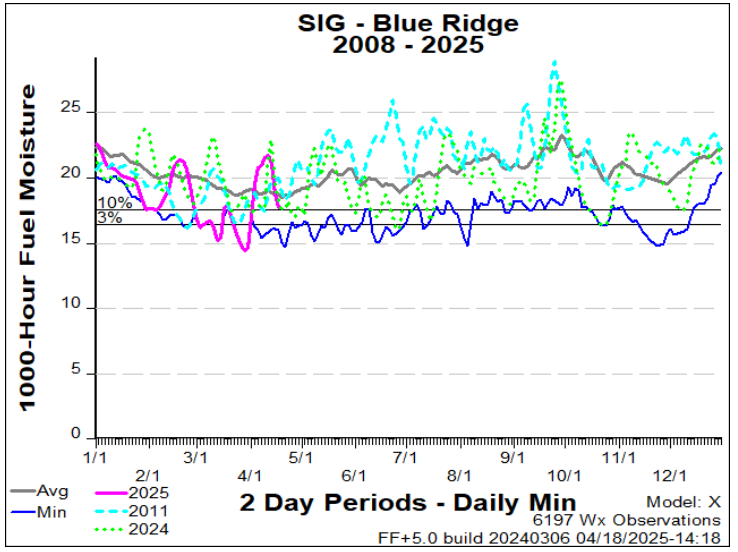






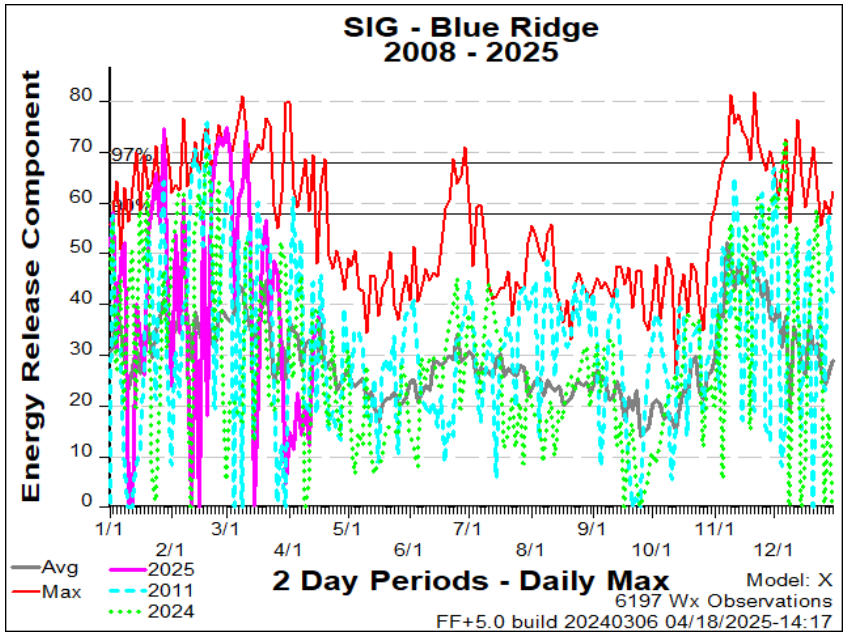




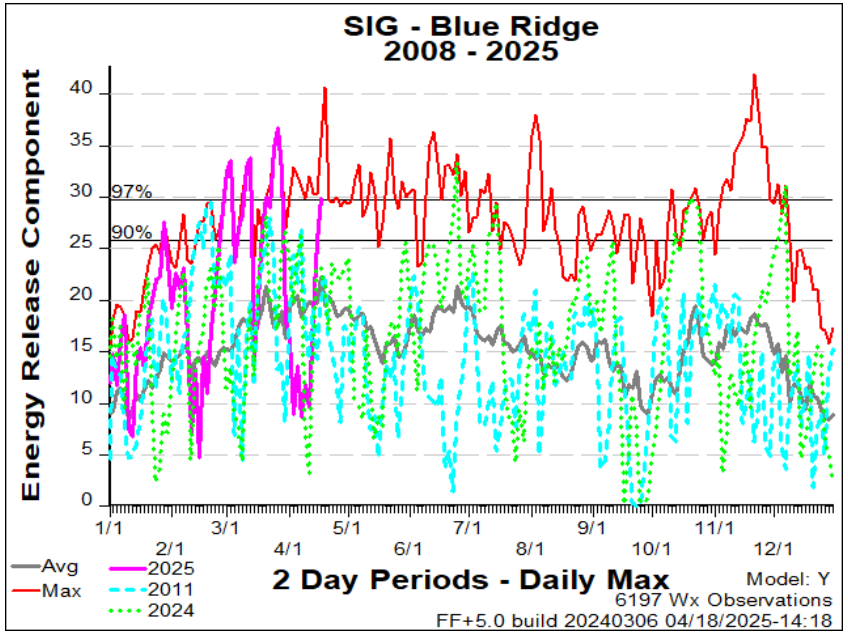


FDRA – Blue Ridge Escarpment

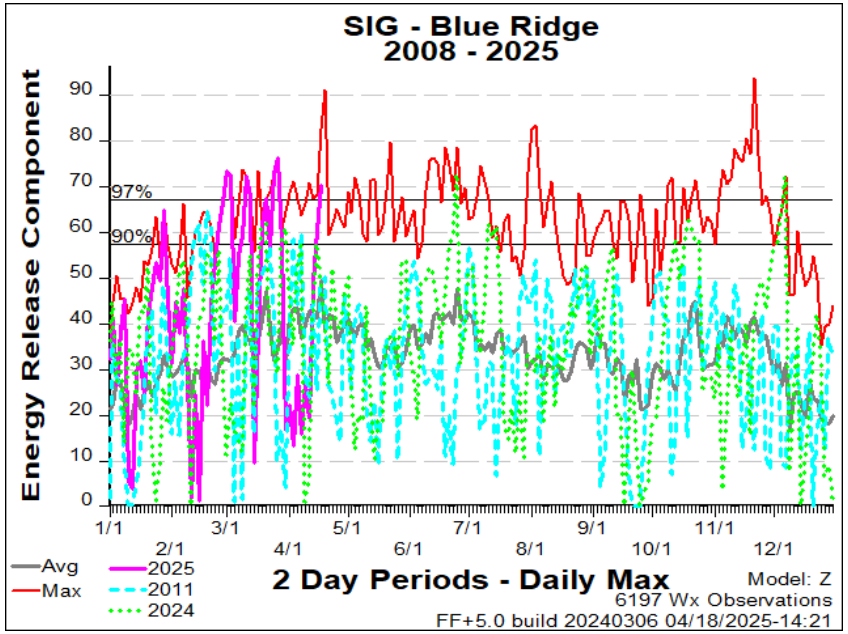
ERC-X



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	FRI 18-Apr	SAT 19-Apr	SUN 20-Apr	MON 21-Apr	TUE 22-Apr	WED 23-Apr	THU 24-Apr
Avg. Max. Temp. (°F)	78	83	82	81	78	77	77
Avg. Min. Humidity (%)	33	35	37	36	40	41	48
Avg. 20' Wind Speed (mph)	9	6	3	5	3	2	3
Avg. Wind Direction*	SSW	SSW	SW	SSW	W	S	ESE
Avg. Probability of Precip. (%)	0	1	6	30	41	32	42
Days Since a Wetting Rain**	9.0	10.0	11.0	12.0			
Forecast ERC (Fuel Model X)	29.3	22.5	28.3	26.8	28.3	29.2	25.8
Forecast BI (Fuel Model X)	68.4	52.7	47.3	62.1	46.0	42.7	45.4
Forecast IC (Fuel Model X)	10.9	7.1	7.5	8.9	6.3	5.7	5.1
Forecast 100-Hr. FMC	12.4	13.5	14.7	15.0	15.5	15.5	15.9
Forecast 1000-Hr. FMC	16.6	16.5	16.2	16.1	16.1	16.2	16.2
KBDI	111.3						

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

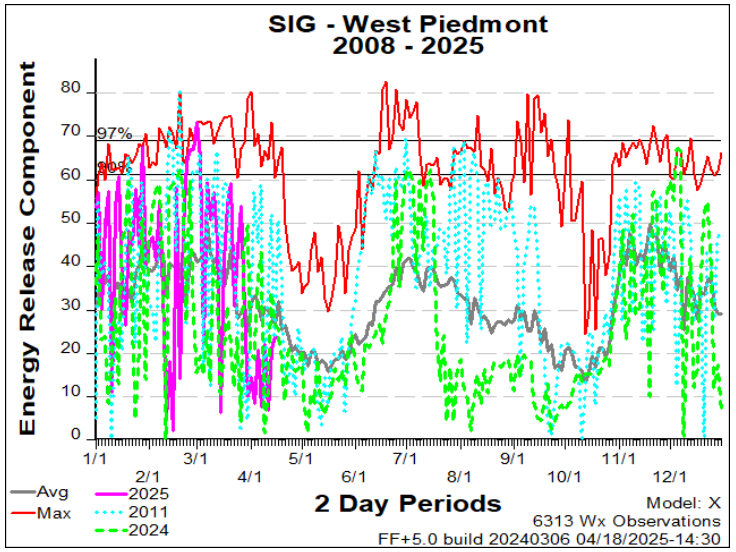
Values in the table above are averages from 3 stations in this FDRA:

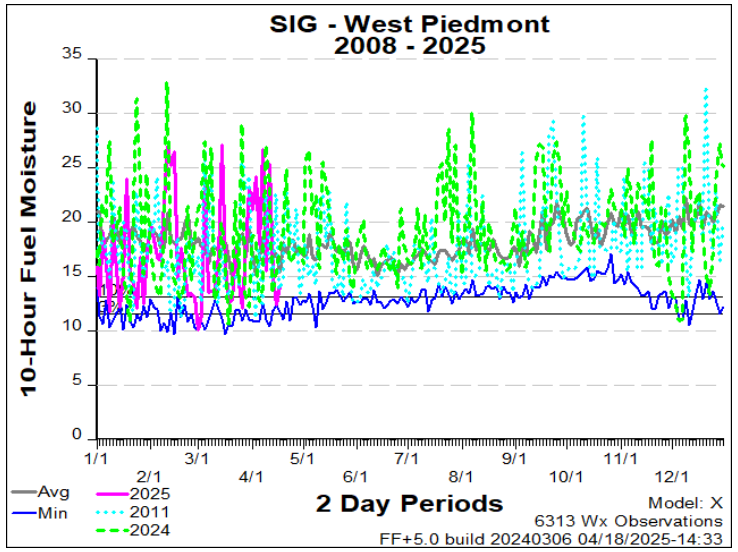
- **Rendezvous Mtn.** (312001)
- **North Cove Pinnacle (fr1)** (314301)
- **Rutherford County** (316302)

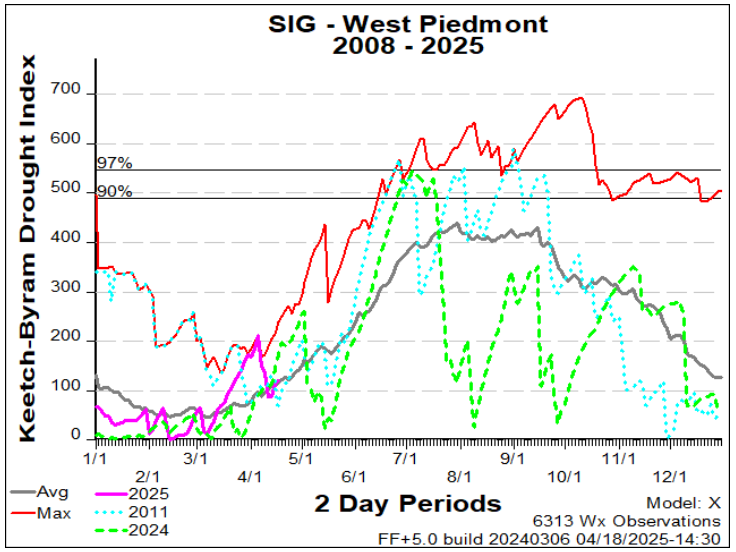
KEY	Low to Moderate Burning Conditions	Burning Conditions Can be High CAUTION	Burning Conditions Can be Critical WATCH OUT!
Avg. Max. Temp.	Less than 40°F	Between 40°F and 50°F	Greater than 50°F
Avg. Min. Humidity	Greater than 35%	Between 30% and 35%	Less than 30%
Avg. 20' Wind Speed	Less than 2 mph	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

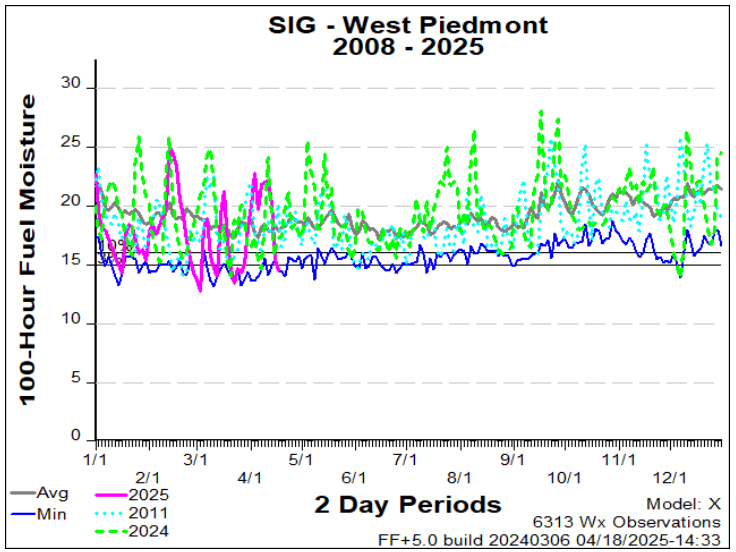
Other factors to consider when determining fire danger: **sky conditions**, **precipitation amount**, **number of days since rain**, and **season**

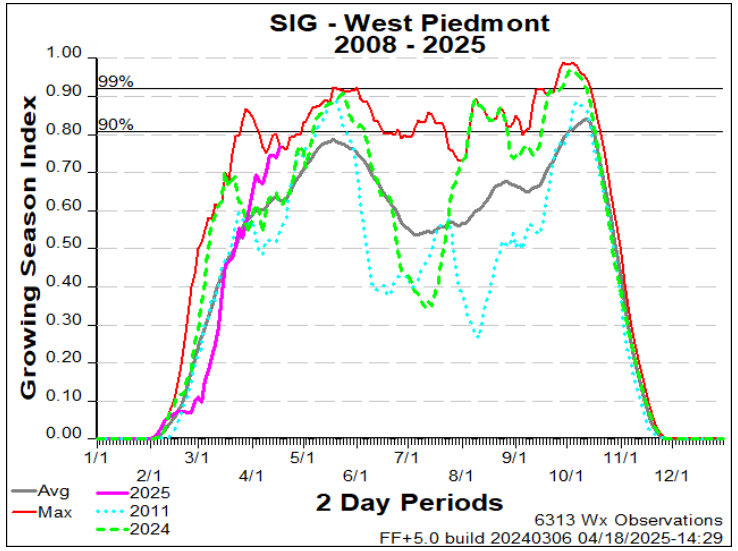
FDRA – Western Piedmont

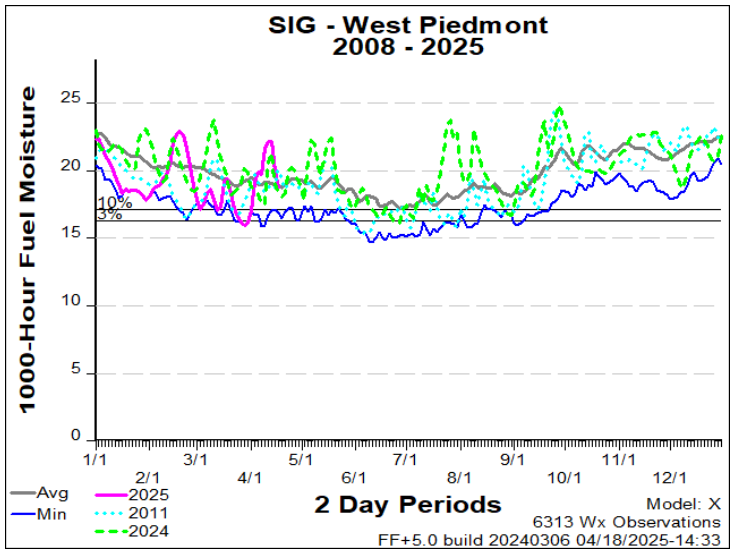






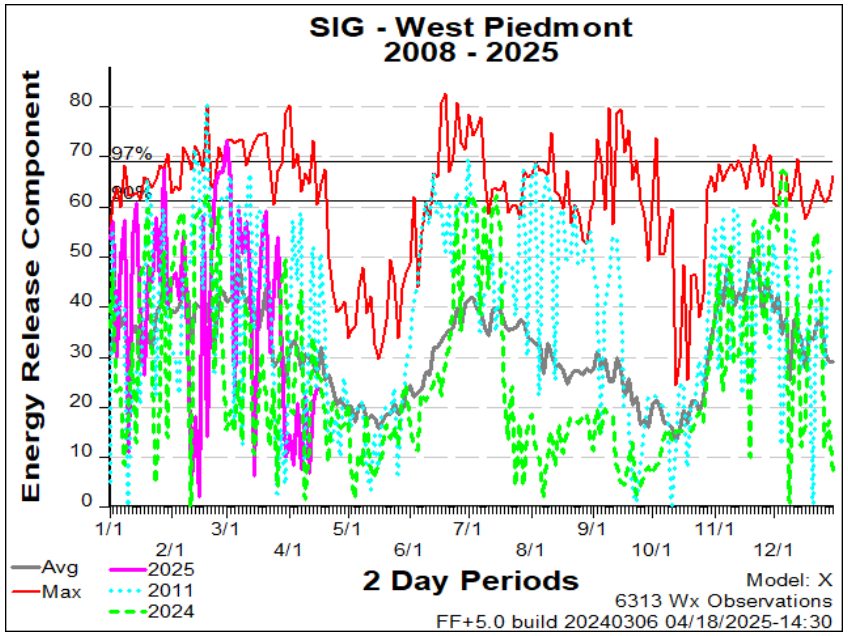




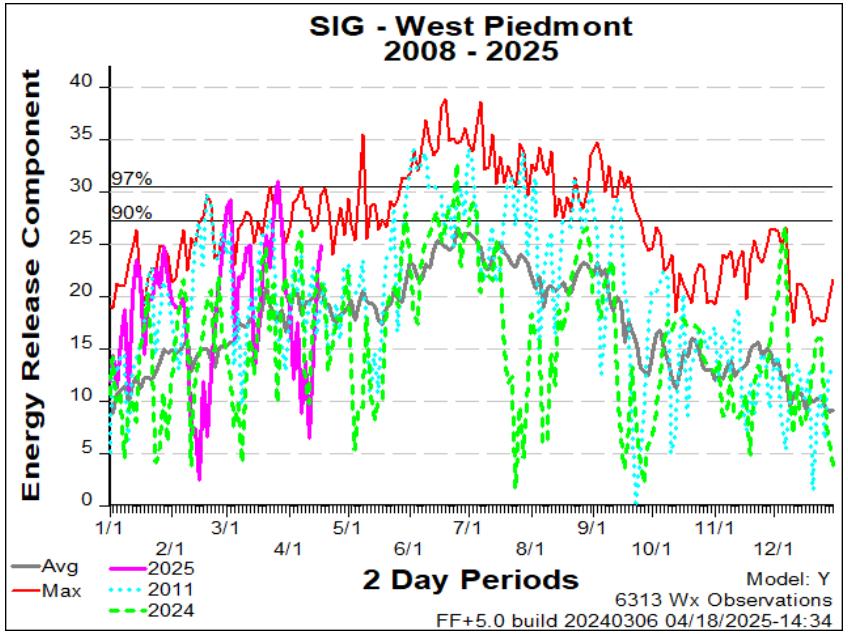


FDRA – Western Piedmont

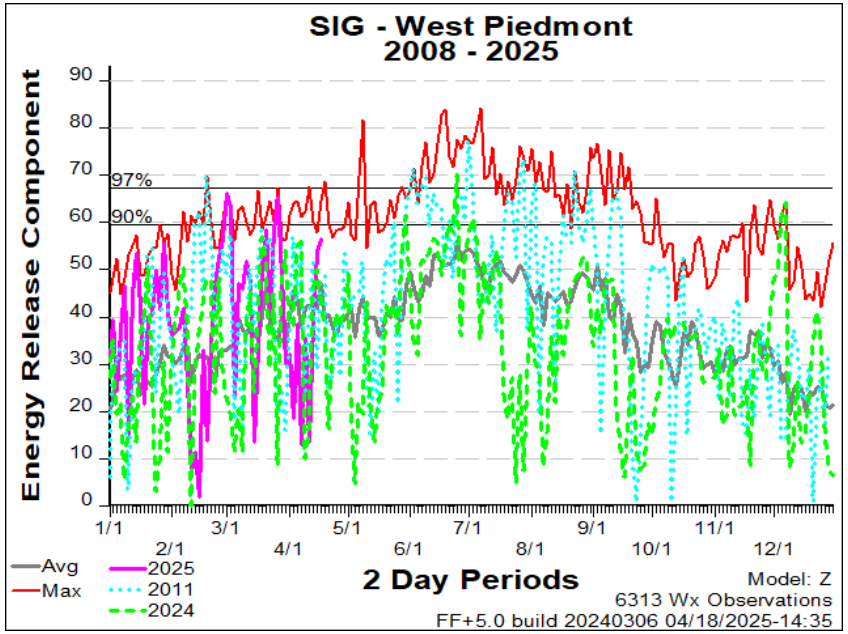
ERC-X



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	FRI 18-Apr	SAT 19-Apr	SUN 20-Apr	MON 21-Apr	TUE 22-Apr	WED 23-Apr	THU 24-Apr
Avg. Max. Temp. (°F)	82	86	87	86	84	82	83
Avg. Min. Humidity (%)	33	38	41	36	44	44	49
Avg. 20' Wind Speed (mph)	9	8	4	5	5	3	3
Avg. Wind Direction*	SSW	SSW	SSW	S	WSW	E	SSE
Avg. Probability of Precip. (%)	0	0	3	15	44	32	42
Days Since a Wetting Rain**	8.0	9.0	10.0	11.0			
Forecast ERC (Fuel Model X)	19.0	16.9	17.7	17.7	18.5	17.3	15.1
Forecast BI (Fuel Model X)	36.4	33.1	23.0	29.8	24.4	21.5	21.5
Forecast IC (Fuel Model X)	6.7	6.2	4.2	5.3	4.3	3.4	2.8
Forecast 100-Hr. FMC	15.7	15.6	15.9	16.2	16.3	16.4	16.6
Forecast 1000-Hr. FMC	21.1	20.8	20.5	20.2	20.0	19.8	19.7
KBDI	121.3						

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

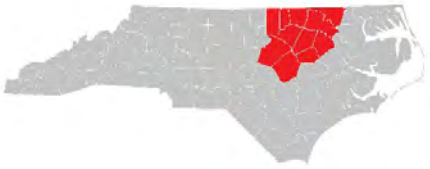
Values in the table above are averages from 3 stations in this FDRA:

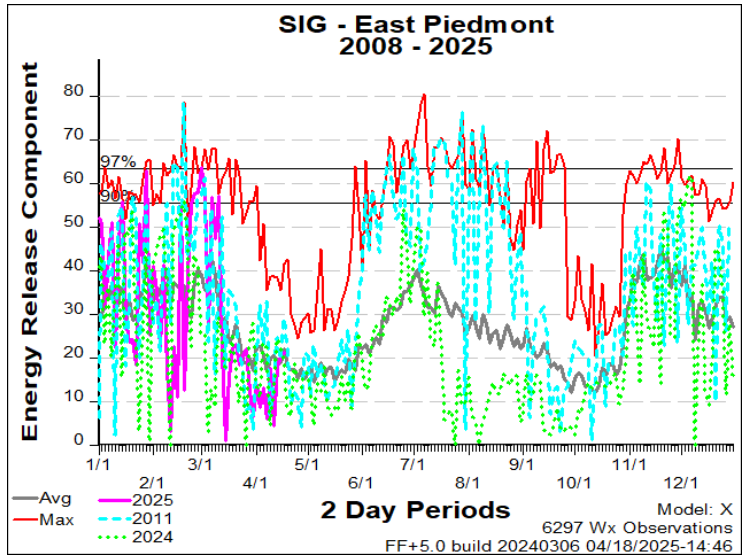
- **Duke Forest** (312501)
- **Lexington** (314602)
- **Mt. Island Lake** (316602)

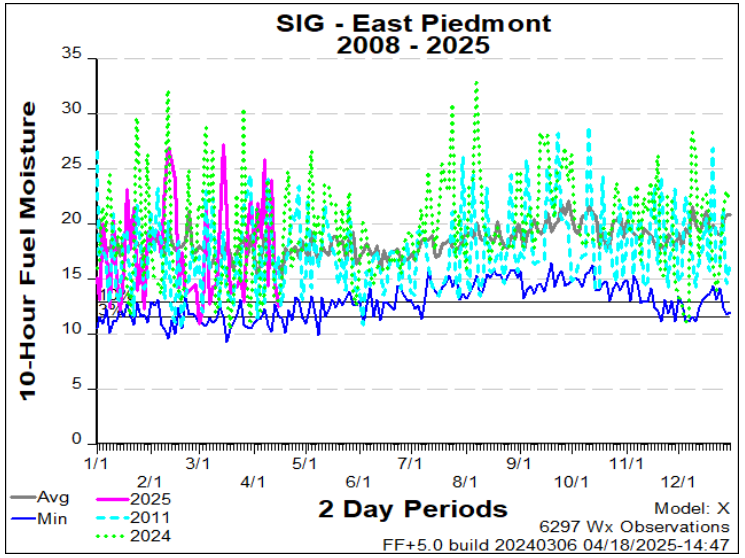
KEY	Low to Moderate Burning Conditions	Burning Conditions Can be High CAUTION	Burning Conditions Can be Critical WATCH OUT!
Avg. Max. Temp.	Less than 40°F	Between 40°F and 50°F	Greater than 50°F
Avg. Min. Humidity	Greater than 35%	Between 30% and 35%	Less than 30%
Avg. 20' Wind Speed	Less than 2 mph	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

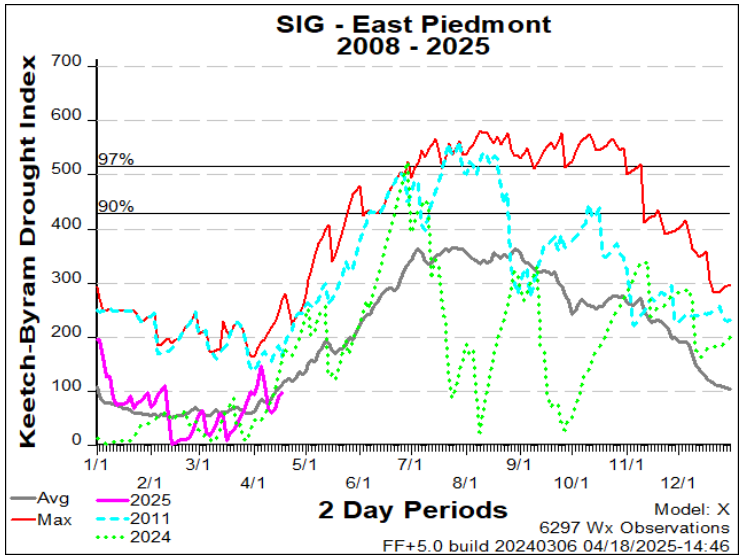
Other factors to consider when determining fire danger: **sky conditions, precipitation amount, number of days since rain,** and **season**

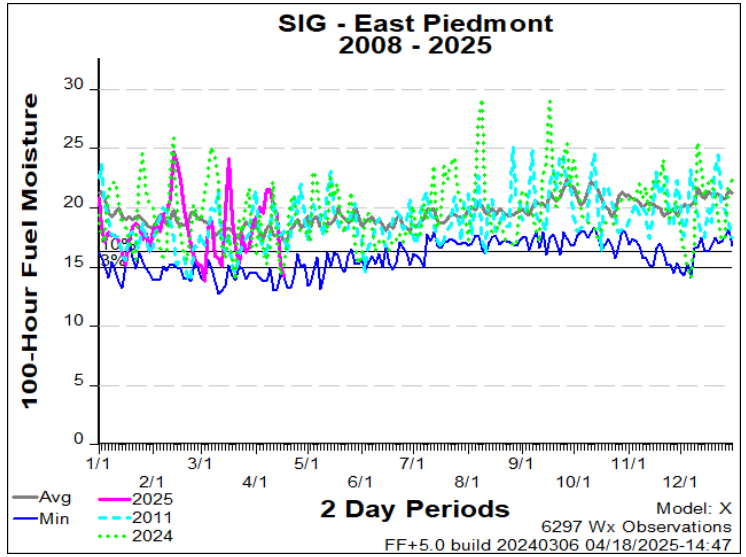
FDRA – Eastern Piedmont

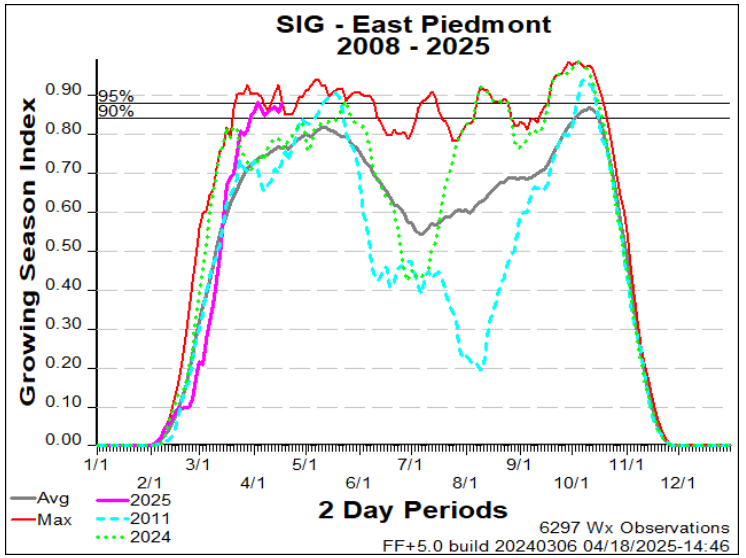


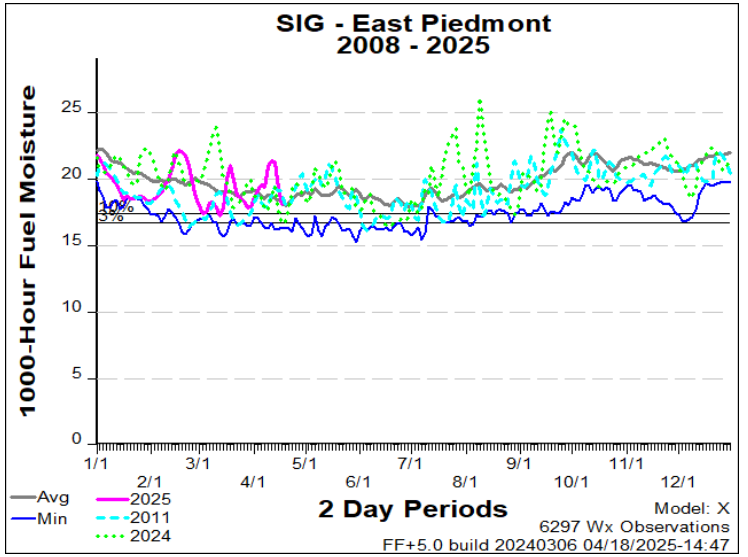




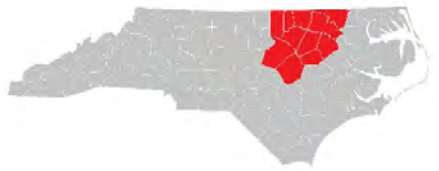




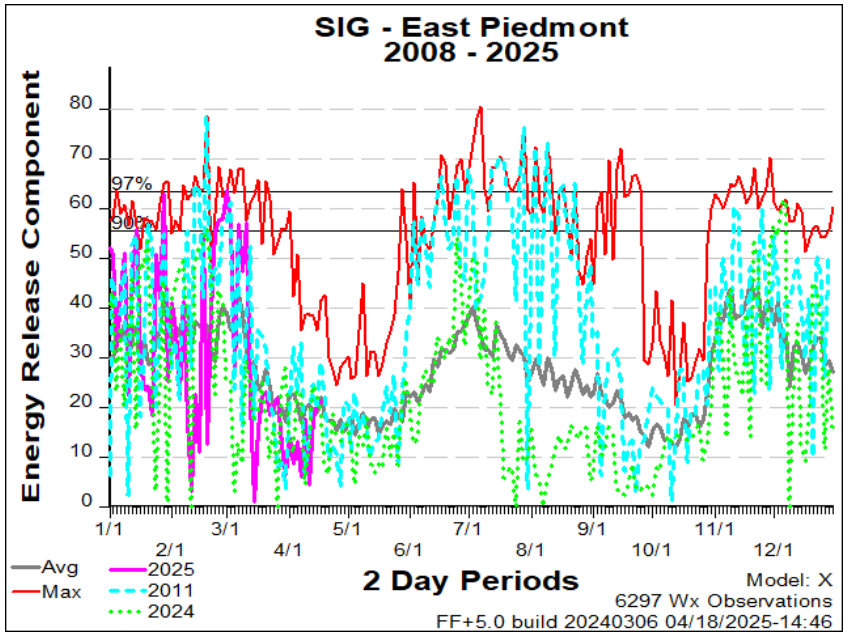




FDRA – Eastern Piedmont



ERC-X



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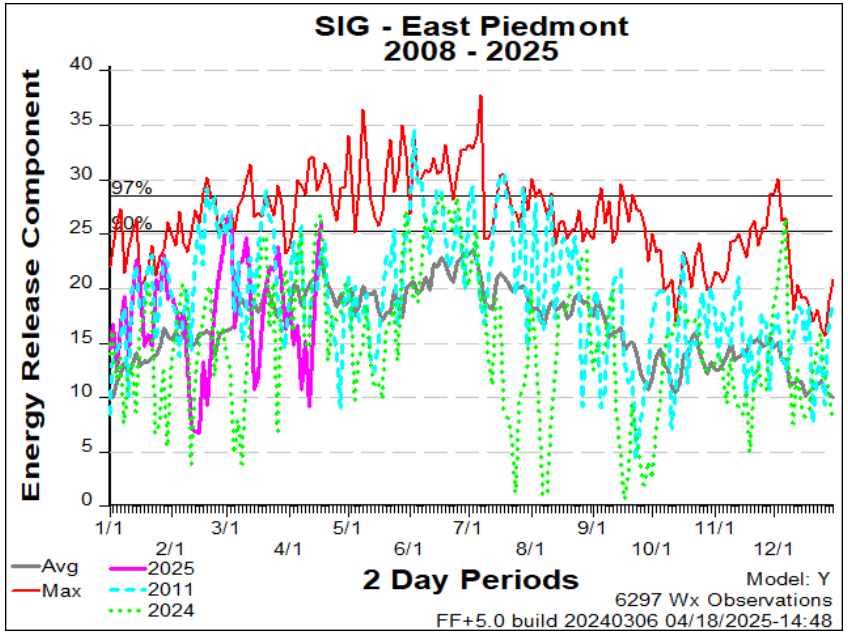
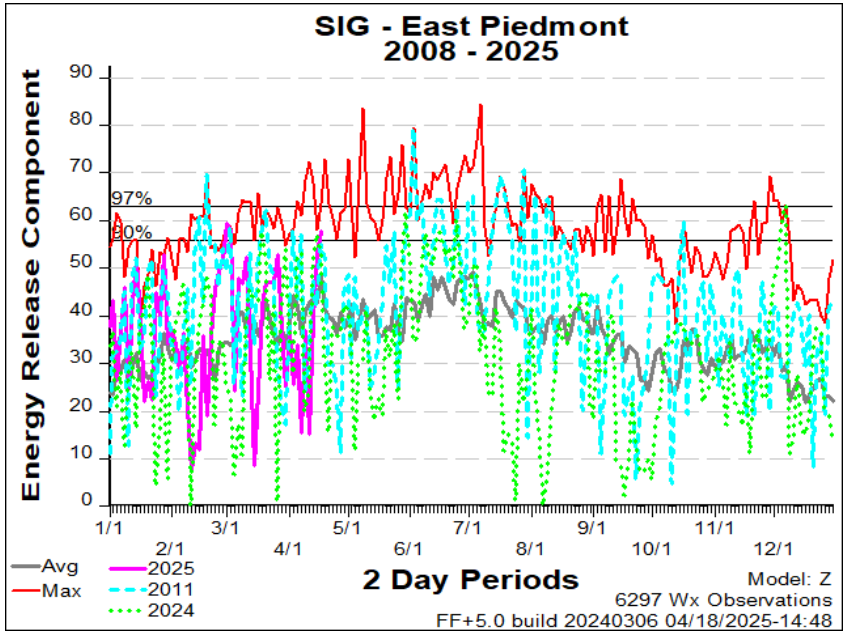


ERC-Z



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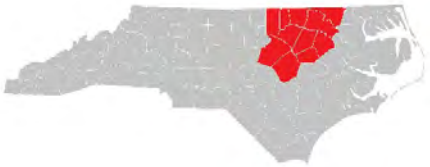
Average, Max, CY Year 2011, 2024 are displayed along with Year-to-Date 2025

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	FRI 18-Apr	SAT 19-Apr	SUN 20-Apr	MON 21-Apr	TUE 22-Apr	WED 23-Apr	THU 24-Apr
Avg. Max. Temp. (°F)	83	88	87	86	85	82	83
Avg. Min. Humidity (%)	32	41	44	38	45	46	49
Avg. 20' Wind Speed (mph)	11	10	6	5	5	3	3
Avg. Wind Direction*	SSW	SSW	SSW	S	SW	SE	SE
Avg. Probability of Precip. (%)	0	0	3	9	38	30	35
Days Since a Wetting Rain**	1.0	2.0	3.0	4.0			
Forecast ERC (Fuel Model X)	15.9	17.6	17.2	16.7	16.5	16.4	14.3
Forecast BI (Fuel Model X)	31.2	31.3	21.5	25.8	22.1	20.3	19.1
Forecast IC (Fuel Model X)	5.2	6.2	4.0	4.5	3.7	3.2	2.5
Forecast 100-Hr. FMC	15.4	15.5	15.5	15.7	15.9	16.1	16.3
Forecast 1000-Hr. FMC	20.9	20.5	20.2	19.9	19.6	19.4	19.3
KBDI	98.0						

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

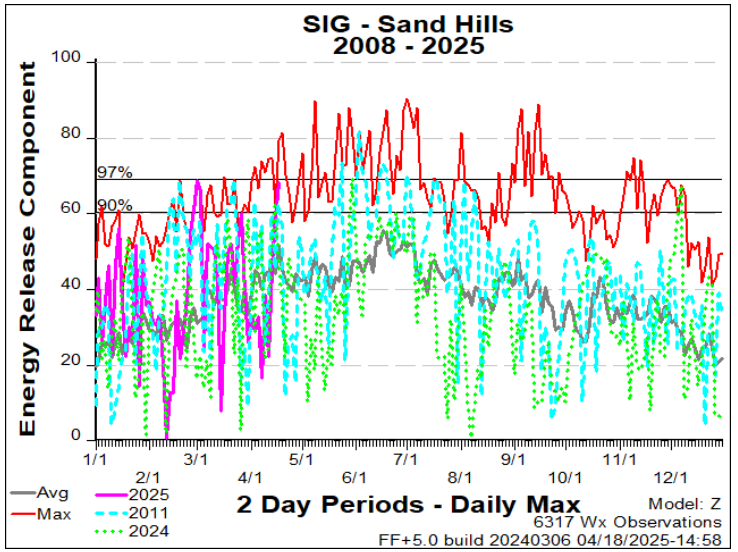
Values in the table above are averages from 4 stations in this FDRA:

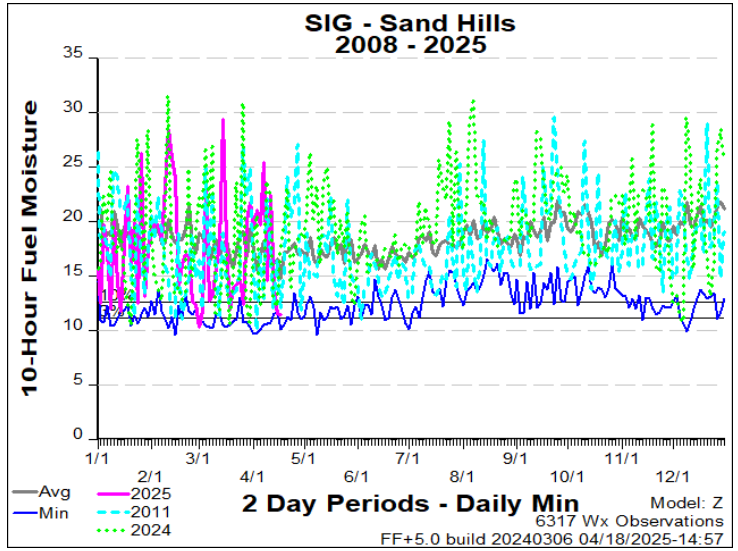
- **Oxford Tobacco Research Stn** (310841)
- **Upper Coastal Plain Res Stn** (312940)
- **Lake Wheeler Rd Field Lab** (314941)
- **Central Crops Research Station** (317441)

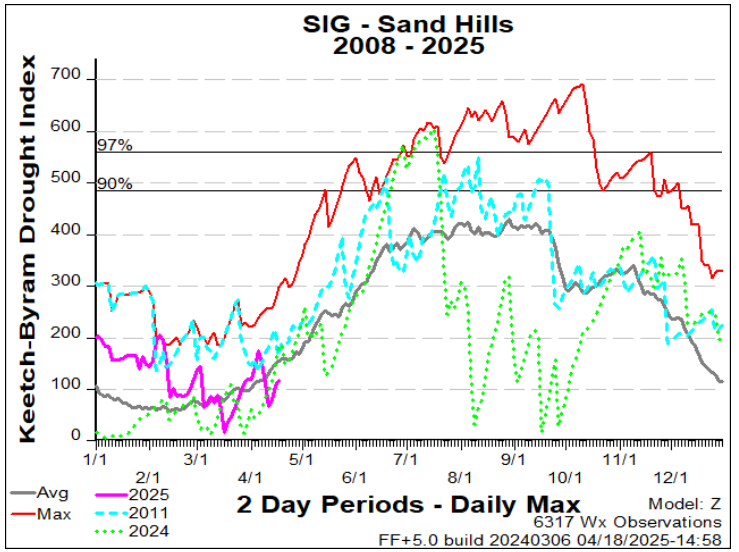
KEY	Low to Moderate Burning Conditions	Burning Conditions Can be High CAUTION	Burning Conditions Can be Critical WATCH OUT!
Avg. Max. Temp.	Less than 50°F	Between 50°F and 60°F	Greater than 60°F
Avg. Min. Humidity	Greater than 40%	Between 35% and 40%	Less than 35%
Avg. 20' Wind Speed	Less than 10 mph	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

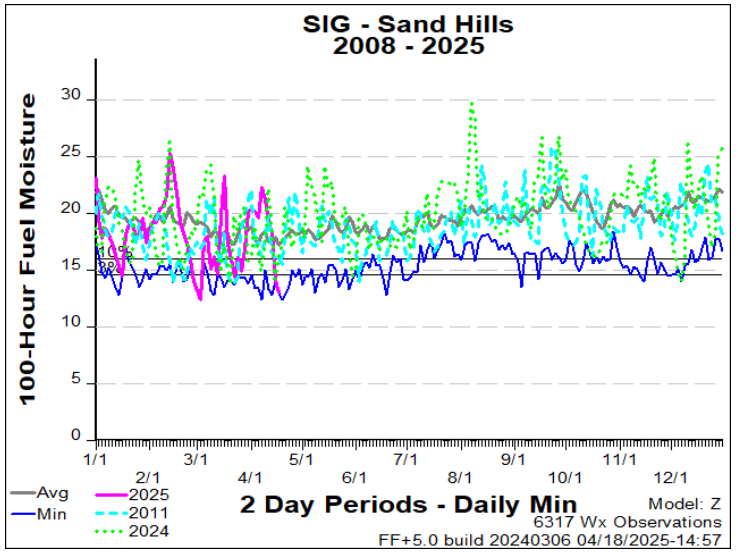
Other factors to consider when determining fire danger: **sky conditions, precipitation amount, number of days since rain,** and season

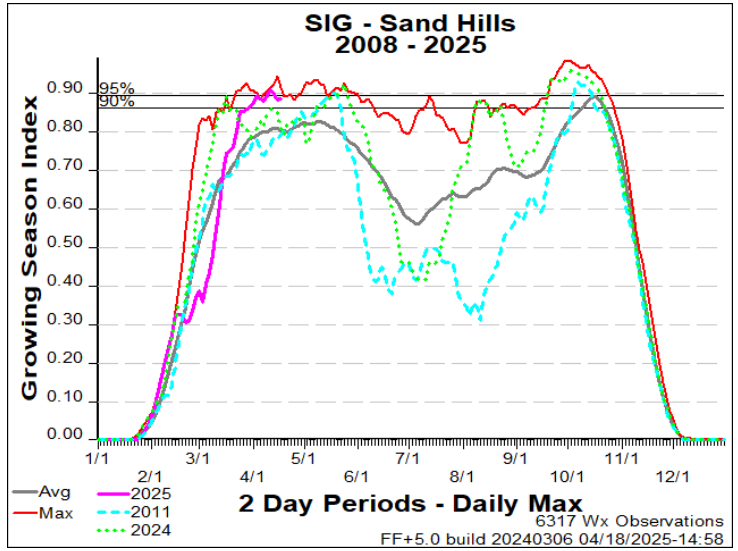
FDRA – Sandhills

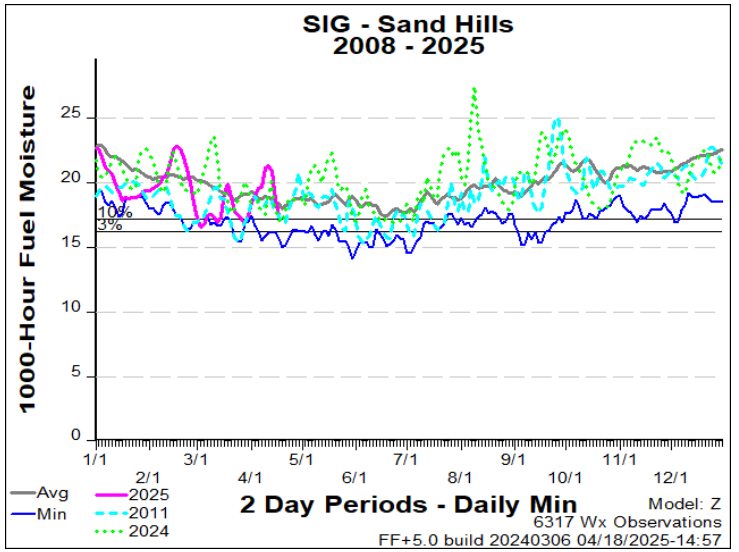












FDRA – Sandhills

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	FRI 18-Apr	SAT 19-Apr	SUN 20-Apr	MON 21-Apr	TUE 22-Apr	WED 23-Apr	THU 24-Apr
Avg. Max. Temp. (°F)	83	88	88	87	86	84	85
Avg. Min. Humidity (%)	32	38	37	32	43	43	42
Avg. 20' Wind Speed (mph)	12	10	6	5	5	3	3
Avg. Wind Direction*	SSW	SSW	SSW	SSW	SW	ESE	SSE
Avg. Probability of Precip. (%)	0	0	0	8	40	37	36
Days Since a Wetting Rain**	5.7	6.7	7.7	8.7			
Forecast ERC (Fuel Model Z)	45.4	43.1	41.1	40.8	40.8	39.6	36.8
Forecast BI (Fuel Model Z)	52.7	48.5	32.8	41.7	34.5	30.3	30.3
Forecast IC (Fuel Model Z)	14.9	14.1	8.9	11.3	9.2	7.6	6.1
Forecast 100-Hr. FMC	14.4	15.1	15.9	16.4	16.7	16.9	17.1
Forecast 1000-Hr. FMC	20.3	19.9	19.7	19.5	19.4	19.3	19.3
KBDI	117.7						

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

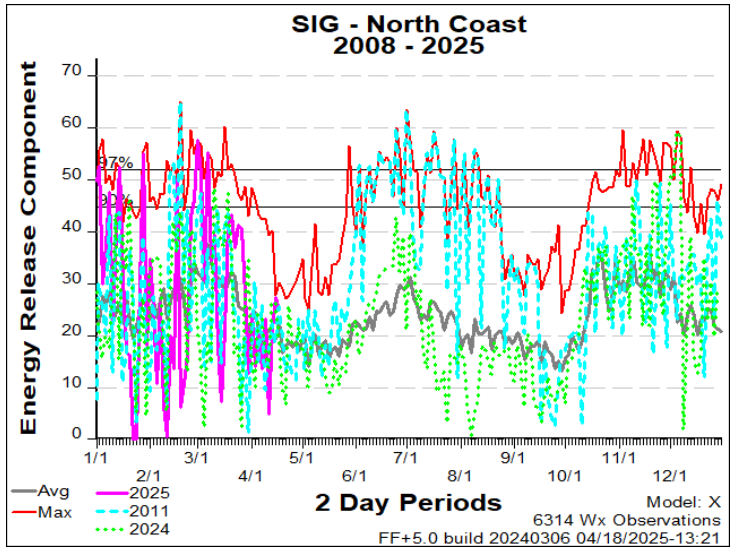
Values in the table above are averages from 3 stations in this FDRA:

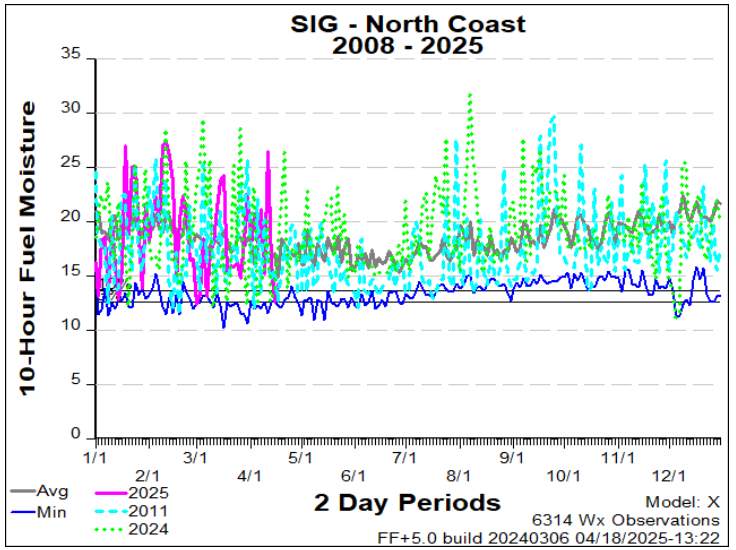
- **Sandhills Research Station** (317040)
- **Rockingham** (318202)
- **Fort Liberty** (318503)

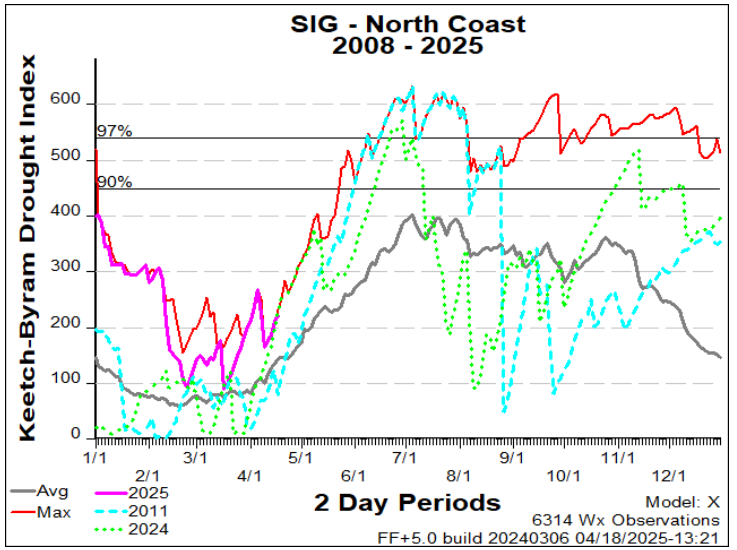
KEY	Low to Moderate Burning Conditions	Burning Conditions Can be High CAUTION	Burning Conditions Can be Critical WATCH OUT!
Avg. Max. Temp.	Less than 50°F	Between 50°F and 60°F	Greater than 60°F
Avg. Min. Humidity	Greater than 40%	Between 30% and 40%	Less than 30%
Avg. 20' Wind Speed	Less than 4 mph	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

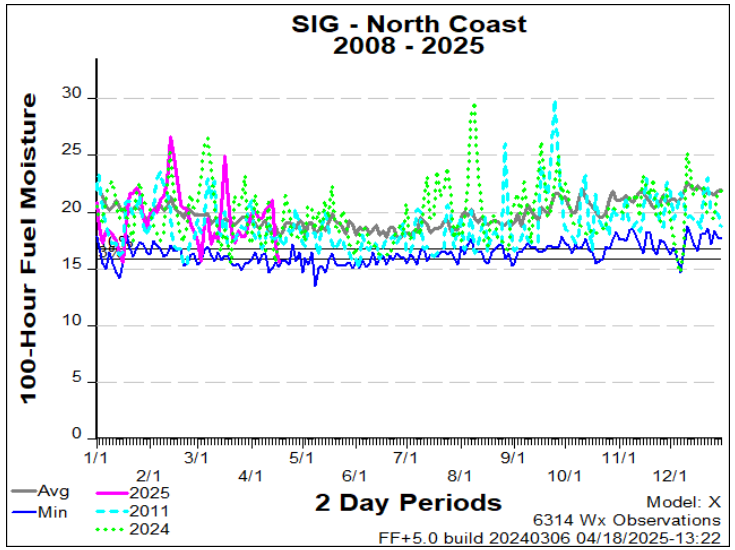
Other factors to consider when determining fire danger: **sky conditions**, **precipitation amount**, **number of days since rain**, and **season**

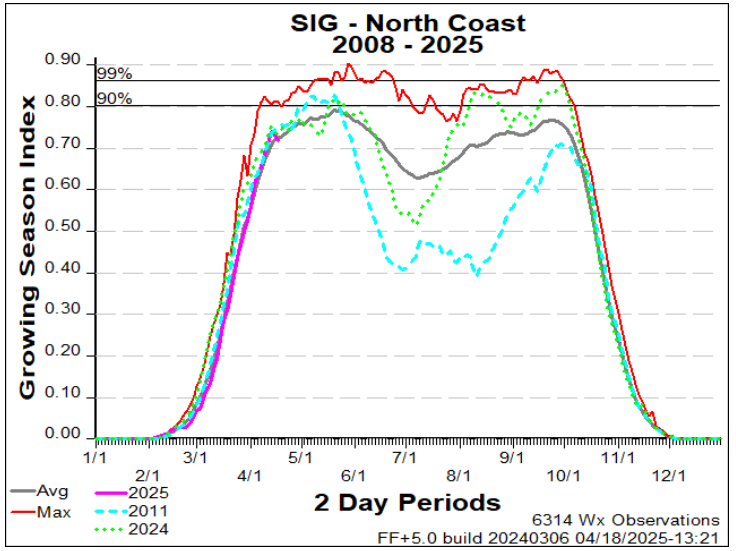
FDRA – North Coast

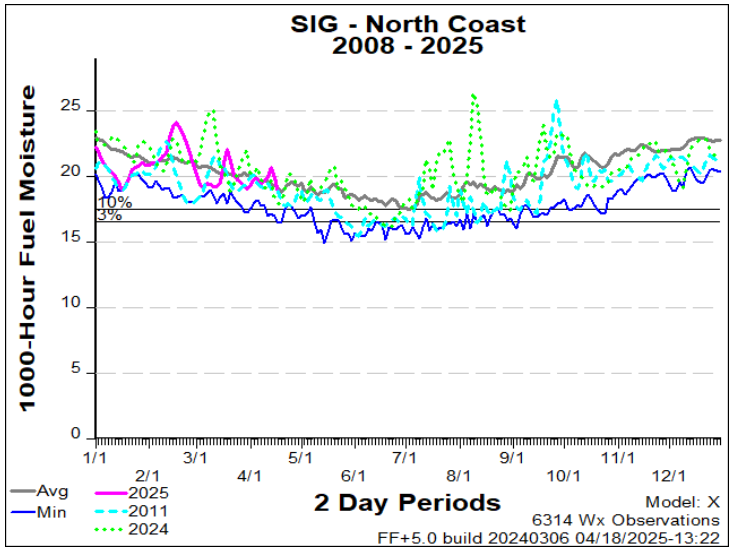






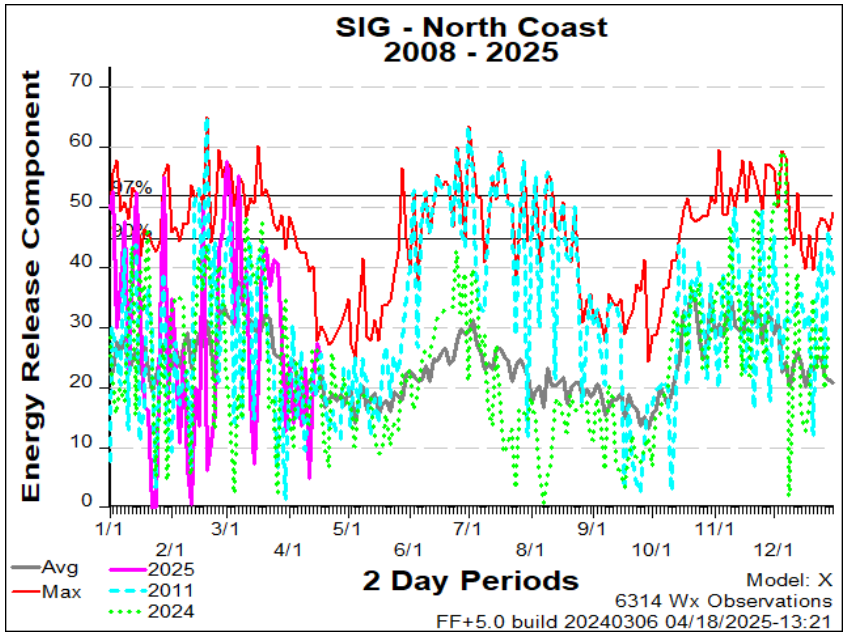




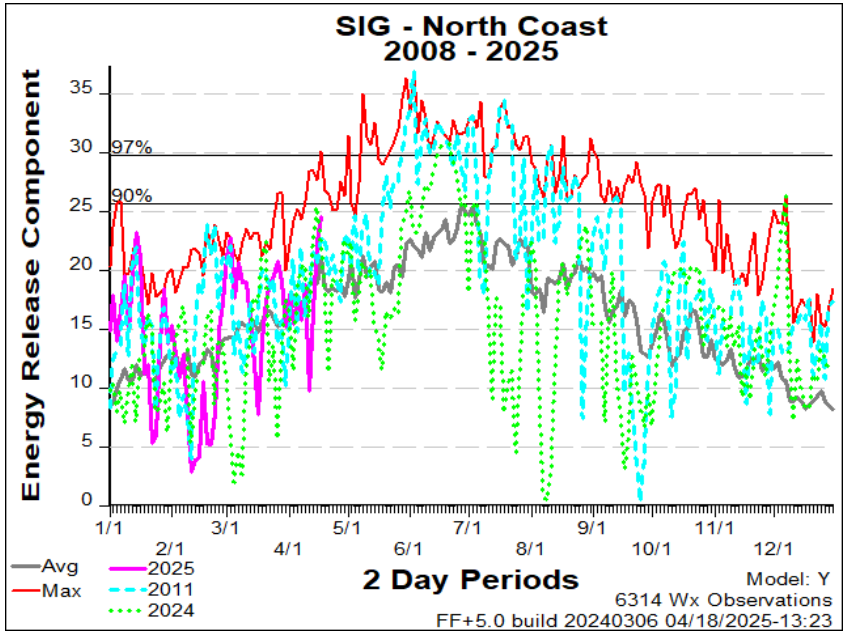


FDRA – North Coast

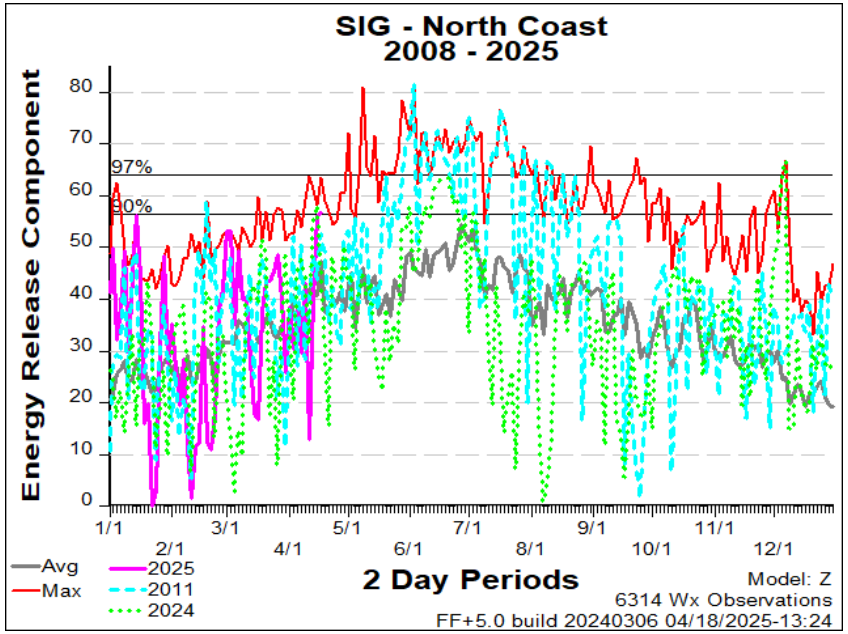
ERC-X



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	FRI 18-Apr	SAT 19-Apr	SUN 20-Apr	MON 21-Apr	TUE 22-Apr	WED 23-Apr	THU 24-Apr
Avg. Max. Temp. (°F)	80	85	83	82	84	79	82
Avg. Min. Humidity (%)	41	44	47	47	51	49	55
Avg. 20' Wind Speed (mph)	11	11	8	5	6	5	4
Avg. Wind Direction*	SSW	SSW	SSW	SSE	SW	ESE	SE
Avg. Probability of Precip. (%)	1	1	2	6	24	23	21
Days Since a Wetting Rain**	8.8	9.8	10.8	11.8			
Forecast ERC (Fuel Model X)	18.7	18.5	18.5	17.4	15.9	14.2	12.9
Forecast BI (Fuel Model X)	35.0	38.3	26.5	26.2	26.8	20.1	20.4
Forecast IC (Fuel Model X)	5.4	6.4	4.3	3.8	3.7	2.2	1.9
Forecast 100-Hr. FMC	16.6	16.5	16.6	16.6	16.8	17.1	17.3
Forecast 1000-Hr. FMC	21.2	20.9	20.7	20.4	20.2	20.1	20.0
KBDI	221.0						

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

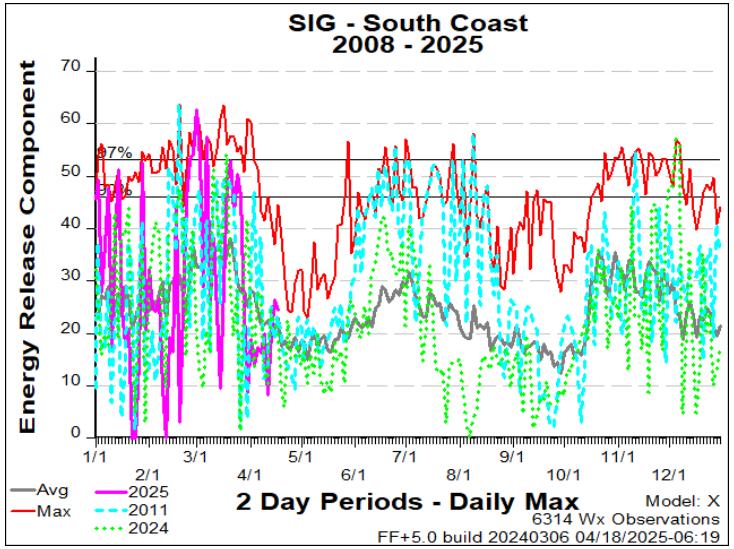
Values in the table above are averages from 4 stations in this FDRA:

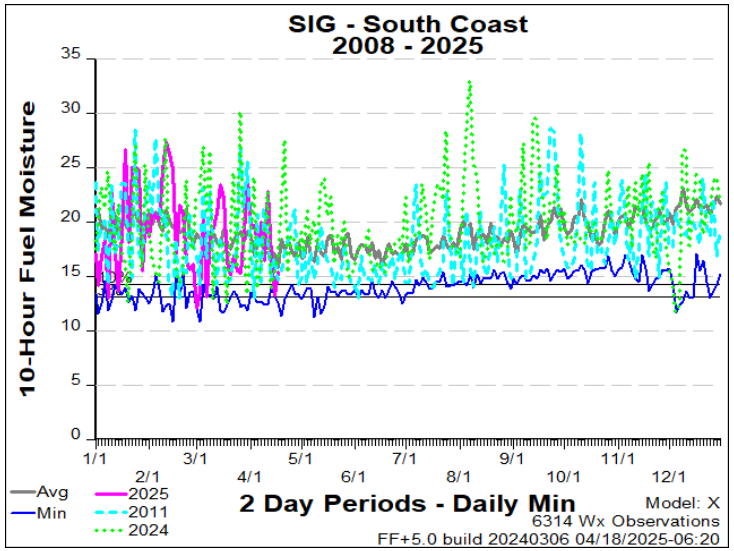
- **Elizabeth City** (311503)
- **Greens Cross** (313001)
- **Pocosin Lakes** (315201)
- **Fairfield** (317901)

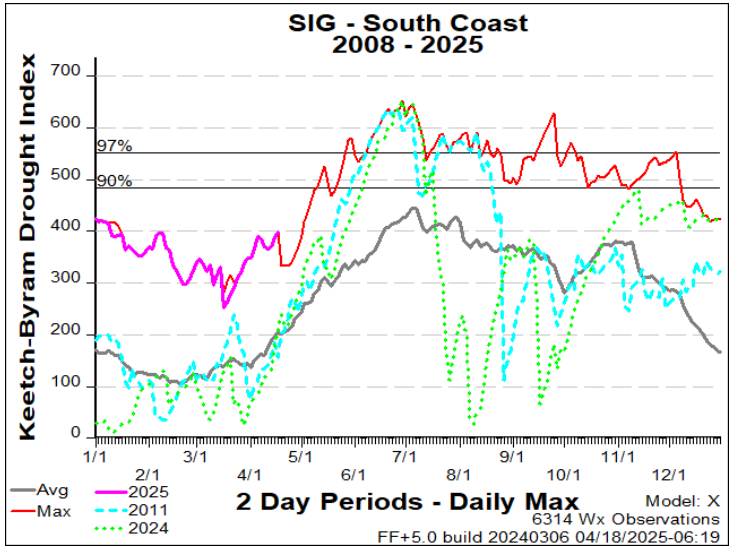
KEY	Low to Moderate Burning Conditions	Burning Conditions Can be High CAUTION	Burning Conditions Can be Critical WATCH OUT!
Avg. Max. Temp.	Less than 45°F	Between 45°F and 55°F	Greater than 55°F
Avg. Min. Humidity	Greater than 40%	Between 35% and 40%	Less than 35%
Avg. 20' Wind Speed	Less than 10 mph	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

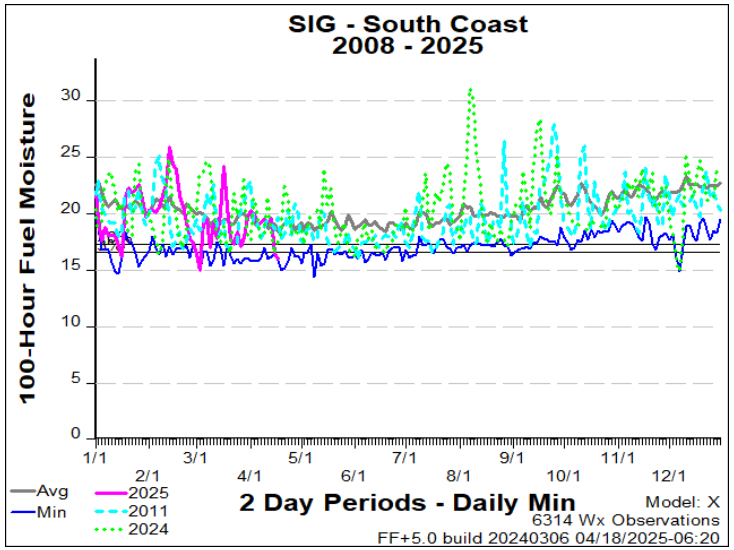
Other factors to consider when determining fire danger: **sky conditions, precipitation amount, number of days since rain,** and **season**

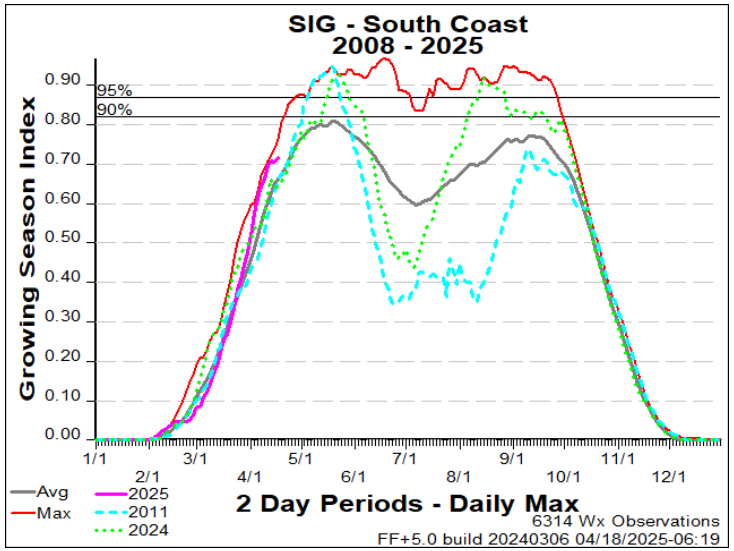
FDRA – South Coast

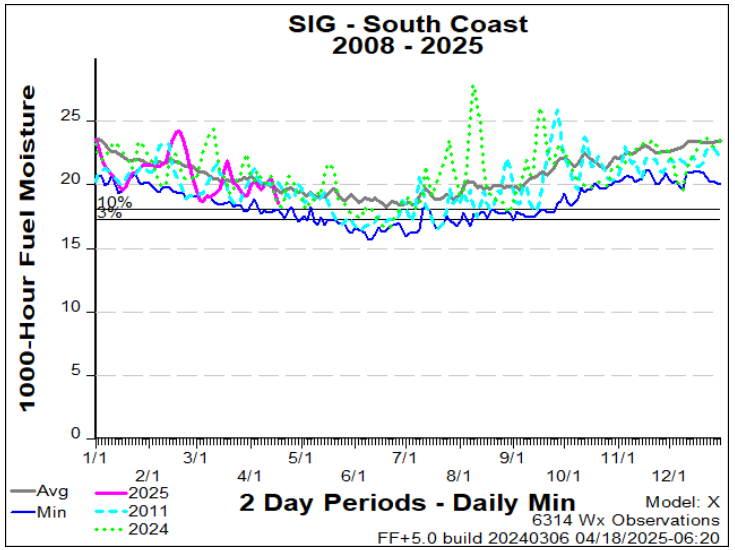






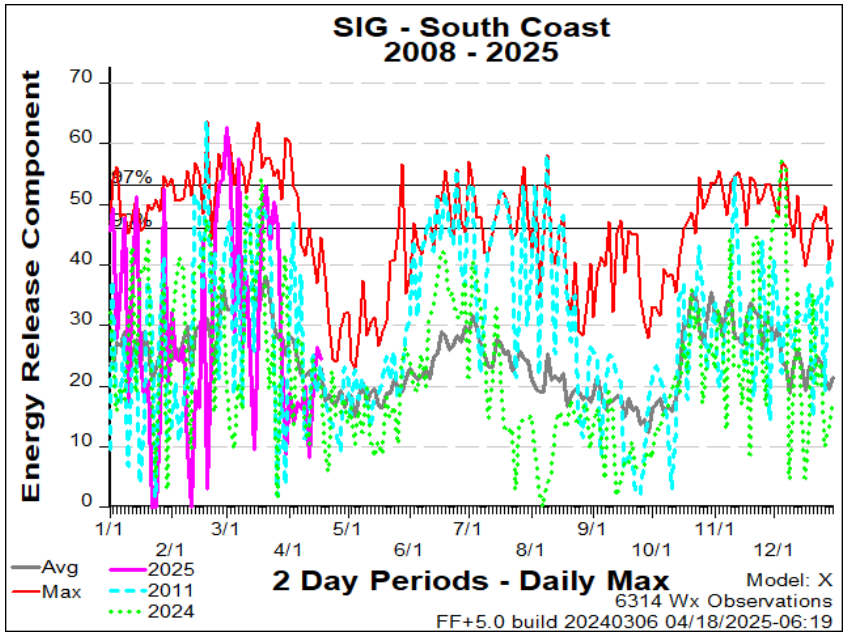




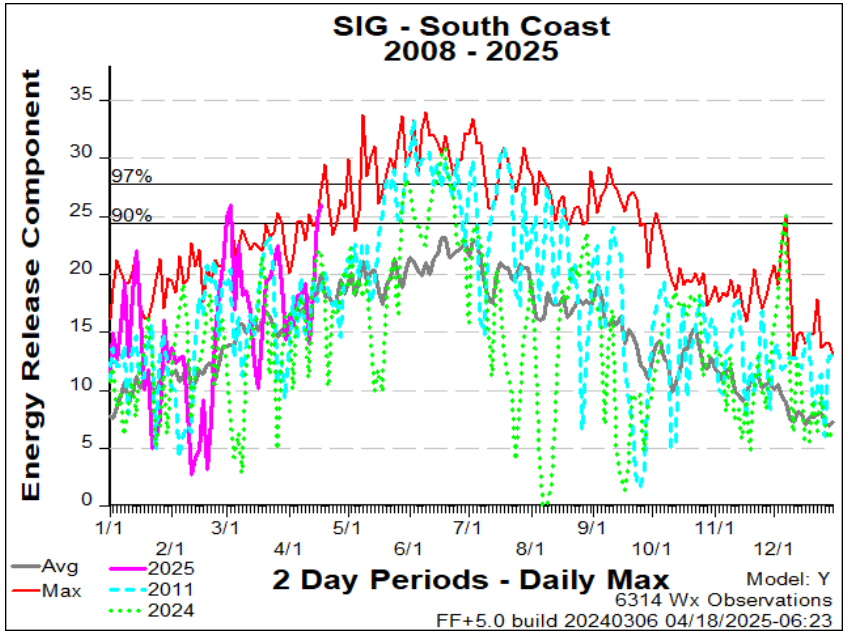


FDRA – South Coast

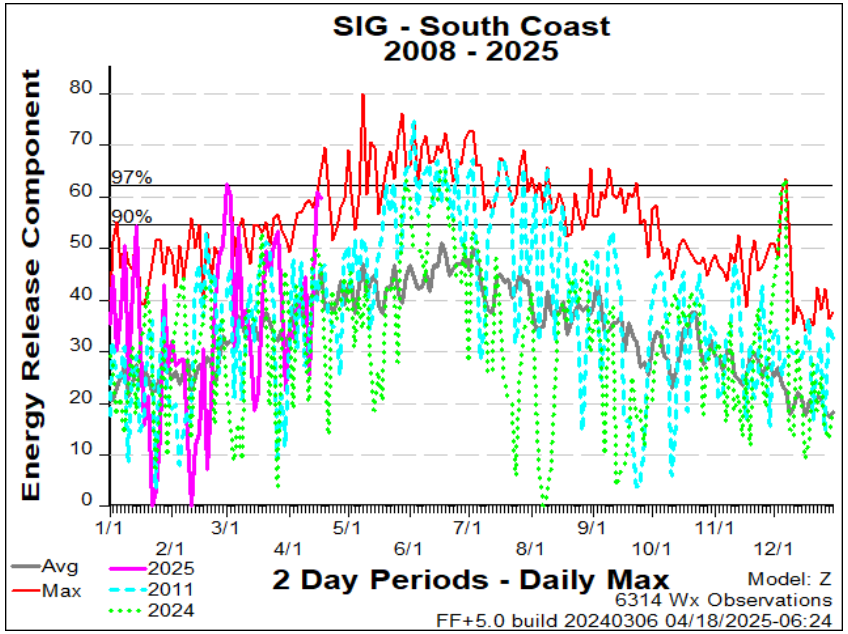
ERC-X



ERC-Y



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 – 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	FRI 11-Apr	SAT 12-Apr	SUN 13-Apr	MON 14-Apr	TUE 15-Apr	WED 16-Apr	THU 17-Apr
Avg. Max. Temp. (°F)	71	61	69	81	80	69	72
Avg. Min. Humidity (%)	54	59	40	37	40	29	31
Avg. 20' Wind Speed (mph)	6	7	5	6	9	6	4
Avg. Wind Direction*	W	NW	NW	SW	W	NW	SW
Avg. Probability of Precip. (%)	59	18	1	1	18	0	2
Days Since a Wetting Rain**	0.3	1.3	2.3	3.3			
Forecast ERC (Fuel Model X)	14.6	13.3	14.6	16.8	20.9	25.2	23.5
Forecast BI (Fuel Model X)	30.1	26.6	26.4	29.4	34.6	35.9	25.8
Forecast IC (Fuel Model X)	2.9	2.1	2.5	4.0	5.8	6.3	4.0
Forecast 100-Hr. FMC	18.8	18.6	18.6	18.3	17.6	16.5	15.7
Forecast 1000-Hr. FMC	21.4	21.3	21.3	21.2	21.1	21.0	20.9
KBDI	373.1						

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:

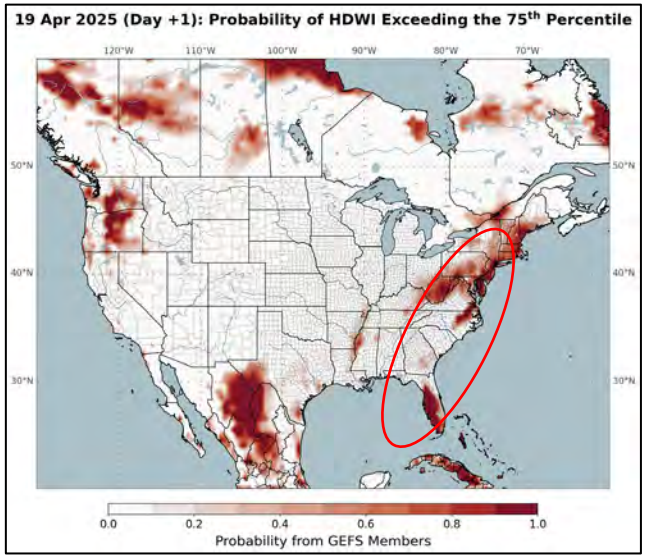
- **Finch's Station** (317501)
- **Beaufort** (317801)
- **New Bern** (319004)
- **Turnbull Creek** (319302)
- **Hofmann Forest** (319507)
- **Whiteville** (319701)
- **Sunny Point** (319803)

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

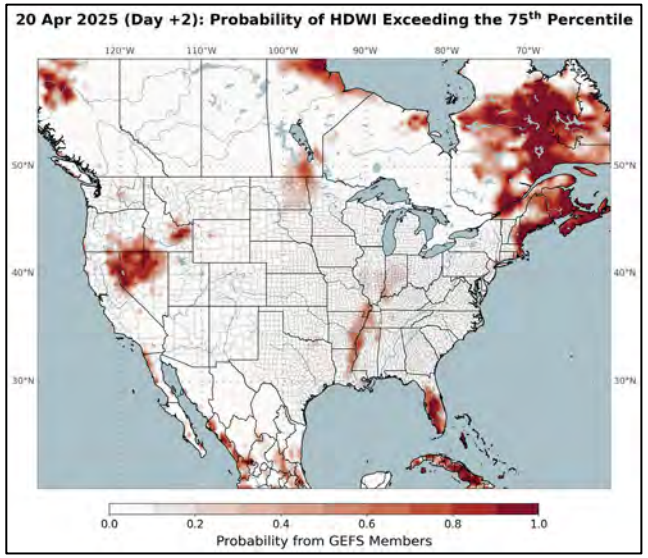
Other factors to consider when determining fire danger: **sky conditions, precipitation amount, number of days since rain, and season**

Hot-Dry-Windy Index (HDW)

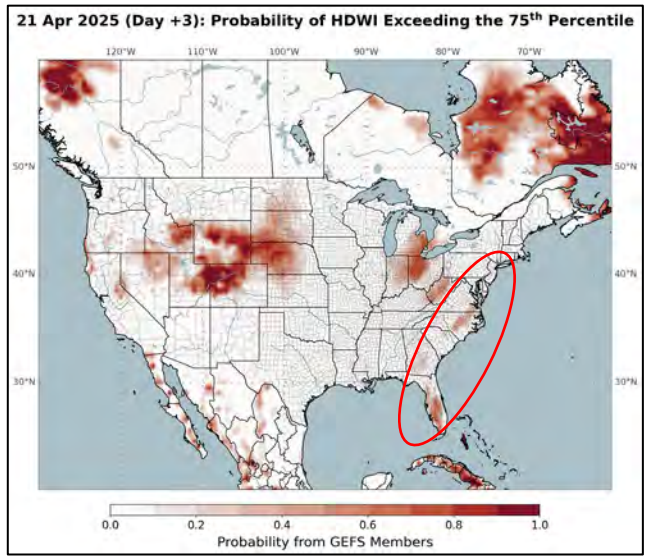
Saturday > 75th Percentile



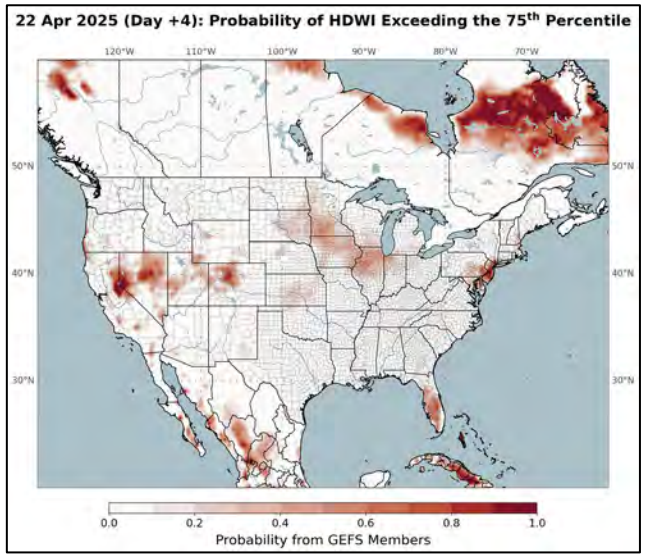
Sunday > 75th Percentile



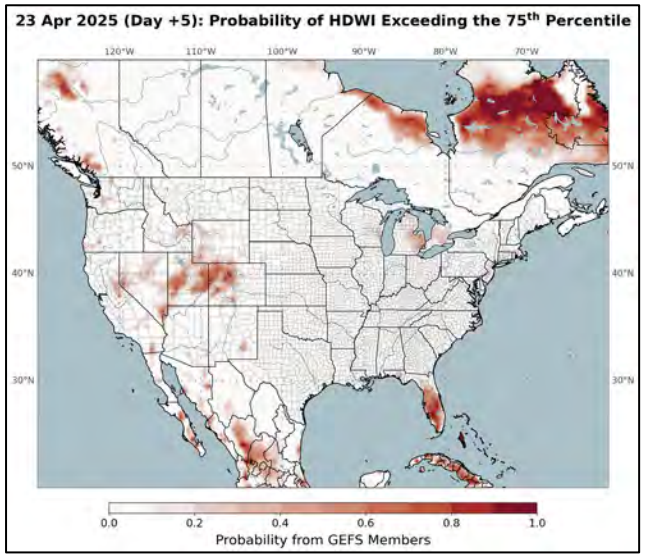
Monday > 75th Percentile



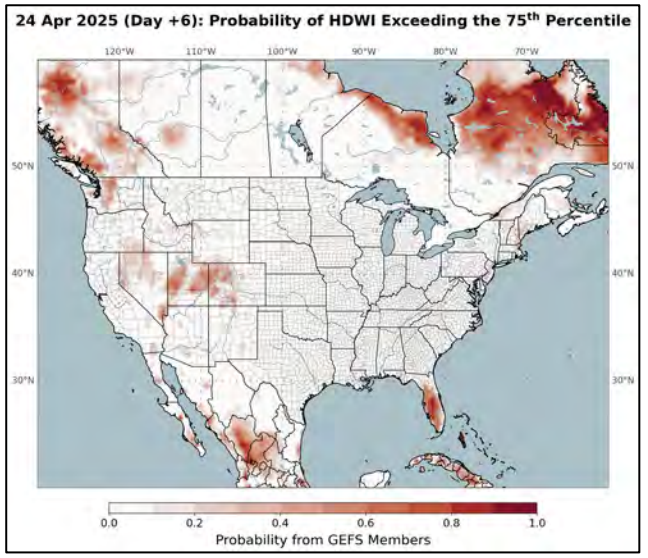
Tuesday > 75th Percentile



Wednesday > 75th Percentile



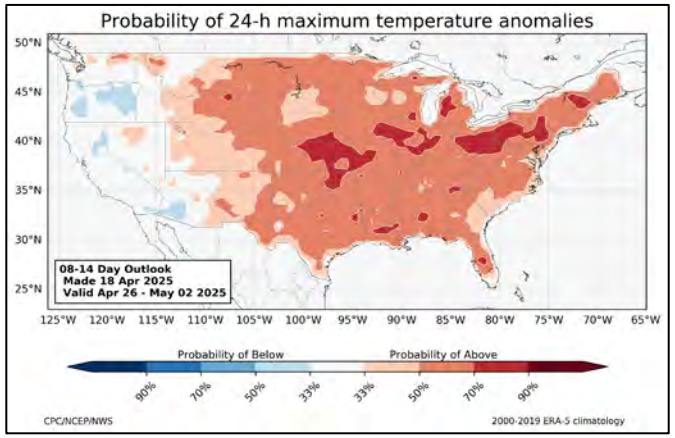
Thursday > 75th Percentile

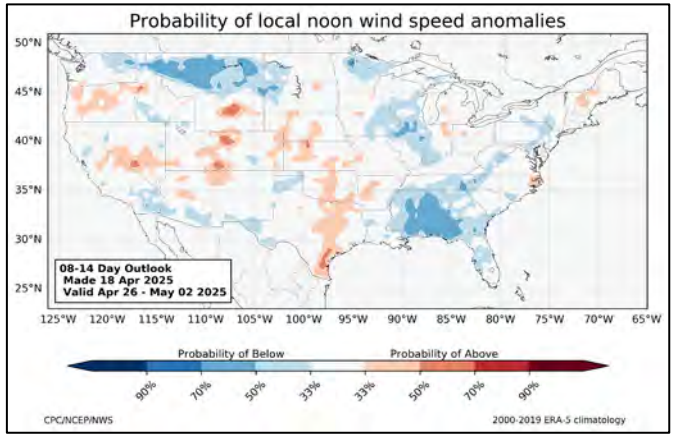


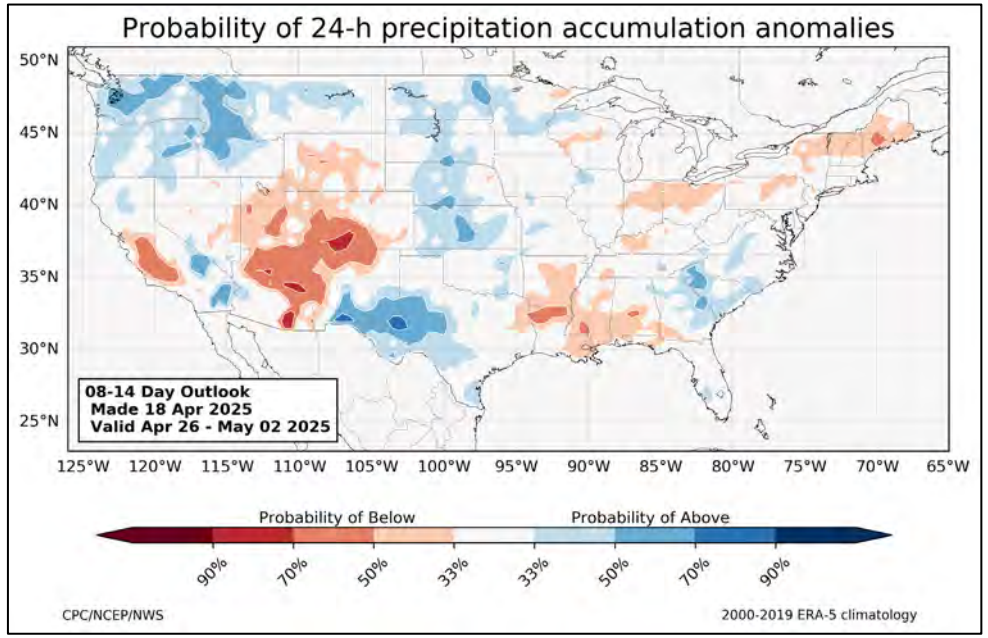
- Another visualization tool to pick up on broader weather, but with *limitations
- Only uses Max VPD (atmospheric moisture & temp) & Max Wind Speed to generate outputs
- Coarse Resolution - 0.5 Degree Grid
- No Account of Local Fuel Conditions and Topo

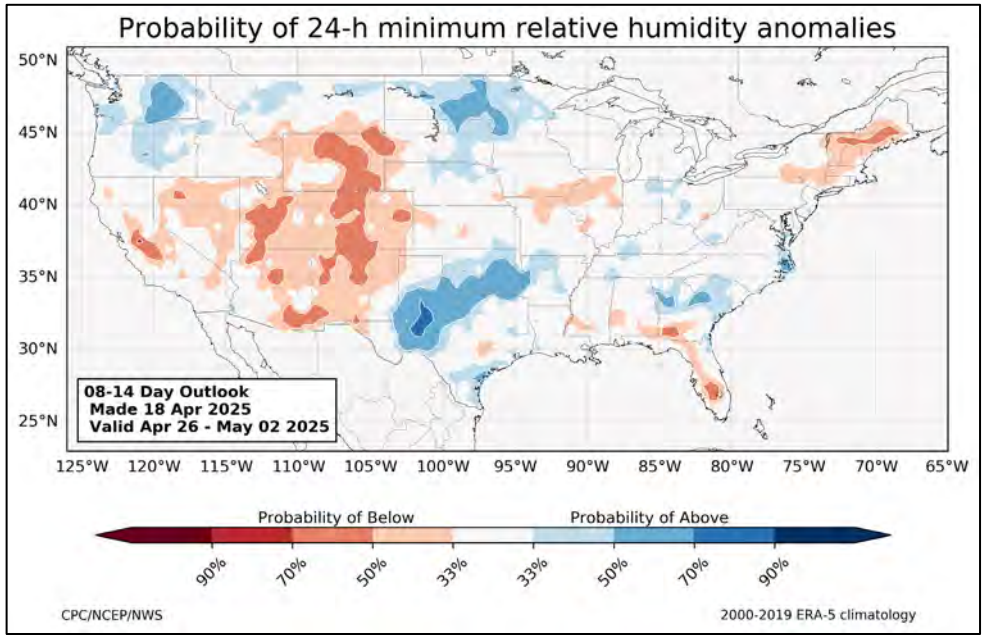
https://www.hdwindex.org/probs.html

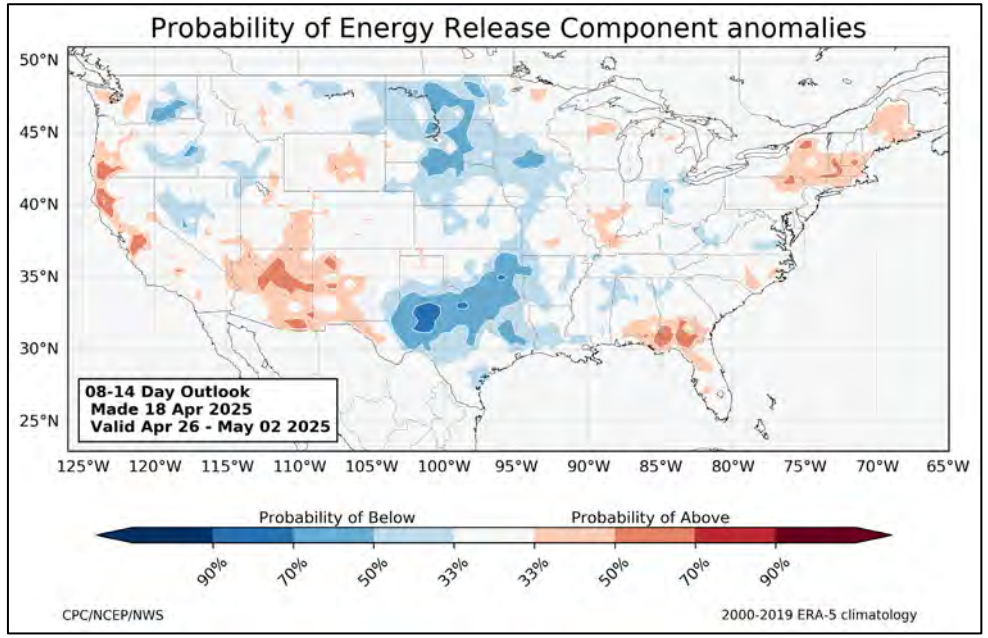
Week Two Forecast Anomalies: 4/26 - 5/2









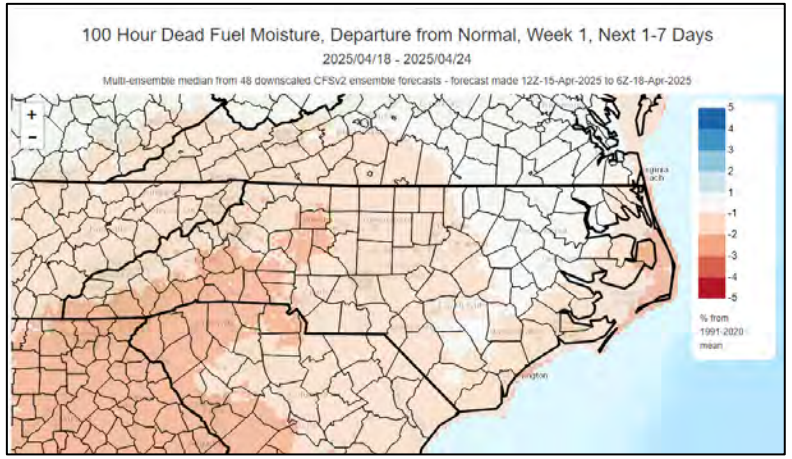


https://www.cpc.ncep.noaa.gov/products/people/mchen/fireWeather/cpc_wk2fw_index.html

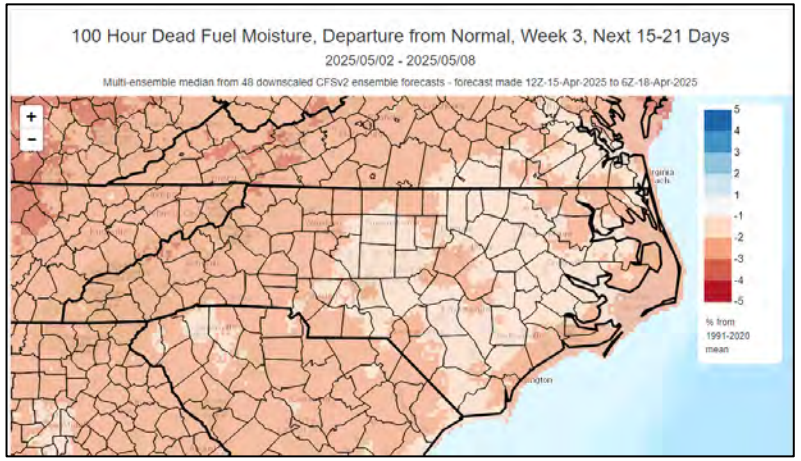
Modeled Departure from Normal by Week: 100-hr Fuels

Output relies on experimental forecast outputs and is subject to change

Week-1



Week-3

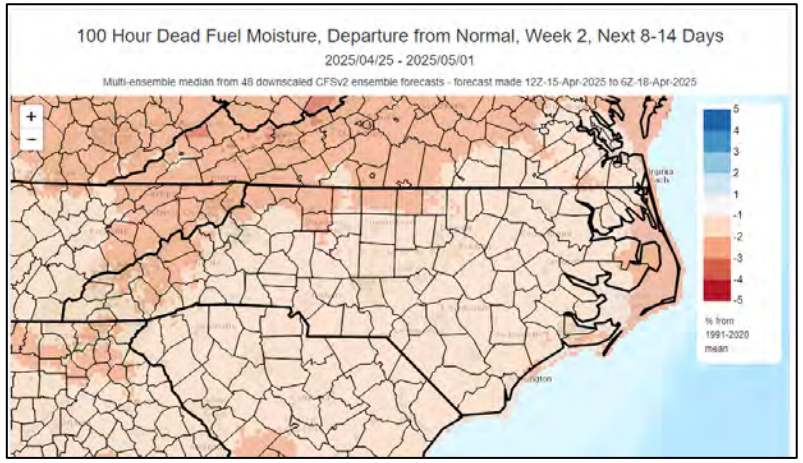


This output can provide insight into general drying trends and potential impacts to overall fire danger, especially prior to full green-up or in drought conditions. Outputs relate to interactions of warmer/colder temps, moist/dry air masses, precip amt/duration and overnight RH recovery trends.

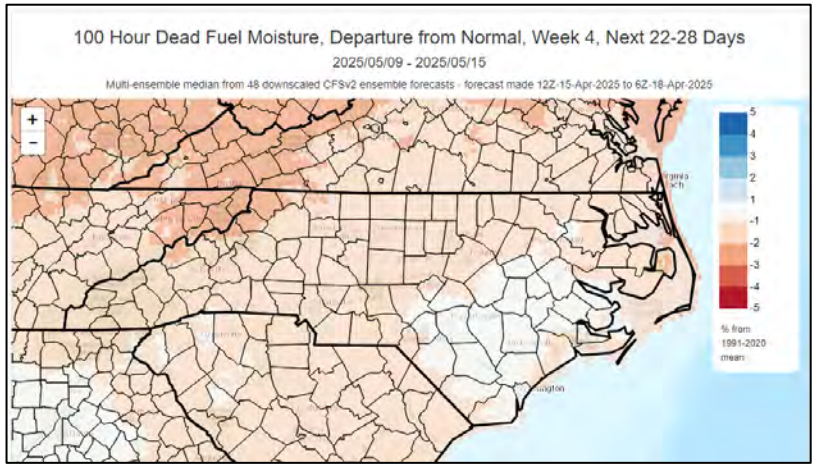
Note the <u>modeled</u> below normal conditions (lower % mc or "worse") for much of the state in Weeks 1-4.

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

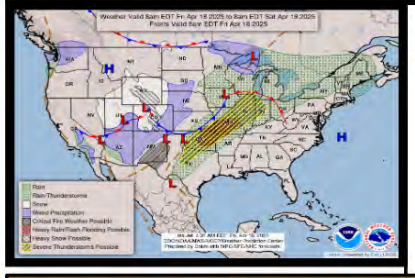


From: https://climatetoolbox.org/tool/Climate-Mapper

SACC Daily Outlook, Selected Snips from Friday - 4/18

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

SACC Daily Outlook
Friday, April 18, 2025



- Low-pressure, currently over the High Plains, is not forecast to move much over the next 24 hours.
- There is also a cold front draped over the Mid-West and the High Plains, of which the low-pressure is attached to.
- The front brings the potential for showers and storms, some of which may be strong to severe, to North TX, OK, and NW AR through at least Saturday morning, and likely longer.
- It also brings a potential for strong wind gusts to West TX.

Watches, Warnings and Advisories as of 9 am EST This Morning

- **Red Flag Warnings/Fire Weather Watch:** There are Red Flag Warnings for West TX for gusty conditions, dry fuels, and low RH.
- **Flood Watches/Warnings/Advisories:** Flood Warnings are in effect for portions of the Mississippi River as well as rivers along each side of the MS River. There are also Flood Advisories in AR, LA, NE TX, and MS.
- **Severe Weather Watches:** None.
- **High Wind Watches/Warnings/Advisories:** There are Wind Advisories in effect for West TX, S TX, and northeast AR today.

Storm Prediction Center Convective Outlook for Today

- The Storm Prediction Center is forecasting a **Might** risk of severe weather for North Texas, OK, and NW AR.
- There is a **marginal** risk of severe weather for the eastern border of the Texas/Oklahoma Panhandles, the eastern portion of West Texas, the area bordering the slight risk in Central, North Texas, and NW Arkansas for gusty wind, low RH, dry fuels.
- The highest concern is for large hail. Damaging wind and isolated tornados.

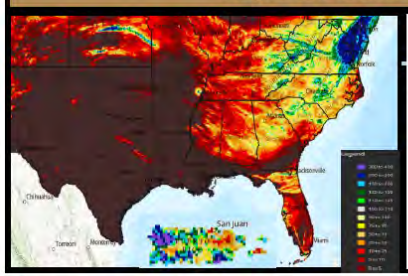
Please contact your local National Weather Service office for spot forecasts and the latest watches and warnings.

SACC Daily Outlook
Friday, April 18, 2025

Observed/Forecast ERC

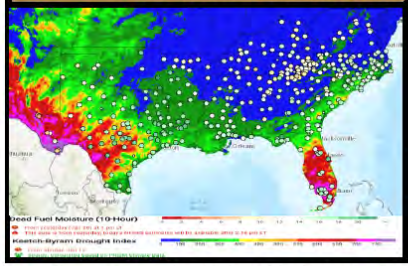
- All but 1 of the PSAs in the Southern Area are reporting ERCs above the 60th percentile.
  - South and Central Mississippi are still reorting ERCs at 59%.
- The highest ERC's are being reported in West and Central OK, West and Central TN, the GA/SC mountains and coasts, NE FL, and the FL Peninsula.
  - These areas are reporting in between the 90th and 96th percentiles.
- The forecast over the next 3 days is showing ERCs:
  - Most of the Southern Area is forecast to remain steady or decrease.
  - A small pocket in VA is forecast to begin trending downward over the next 3 days.

7-Day Percent of Normal Precipitation Observed



- The last 7 days have been exceptionally dry across the Southern Area.
- VA, NC, Central GA, and Puerto Rico are the exceptions, although those areas have locations that were mostly dry as well.

10 Hour Dead Fuel Moisture with the KBDI (shaded)

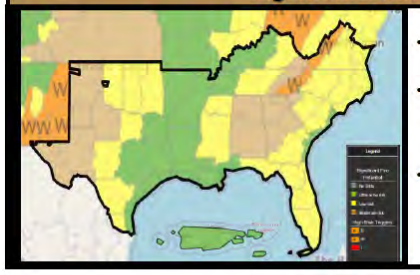


- 10-hour Fuel Moistures are reporting values ranging from the single digits up to around 20%.
  - The lowest values are being reported in several area surrounding the Appalachians, TN, and the West Texas mountains.
- KBDIs are increasing across much of the Southern Area.
- W/SW TX and Central and South FL have the highest KBDIs, with much of these areas at 600 and above.

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

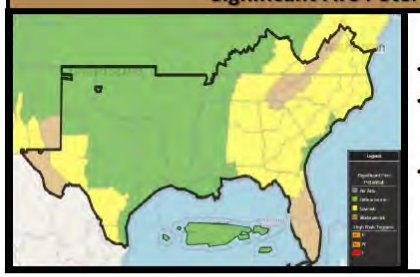
SACC Daily Outlook
Friday, April 18, 2025

Significant Potential for Today



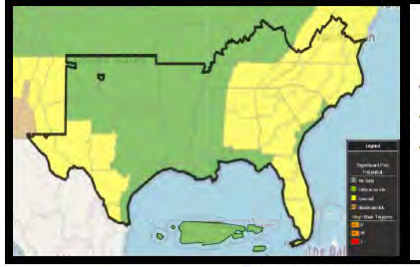
- **High Risk:** The Virginia and North Carolina mountains for gusty wind, low RH, and dry fuels.
- **Moderate Risk:** West Texas, the Texas/Oklahoma Panhandles, Alabama, the Tennessee/SW Virginia mountains, North and Central Georgia for low RH, wind, and dry Fuels.
- **Low Risk:** South/Central TX, Mississippi, Central Tennesee, Kentucky mountains, Virginia, North Carolina, South Carolina, and FL for low RH and dry fuels.

Significant Fire Potential for Tomorrow



- **High Risk:** None.
- **Moderate Risk:** West TX Mts, The GA/NC/TN/and Virgnia west mountains, and the FL Peninsula for very low RH and dry fuels.
- **Low Risk:** The Rio Grande Plain, West TX, AL, GA, SC, NC, VA, KY Mts, Central TN, and North FL, and South FL for low RH and dry fuels.

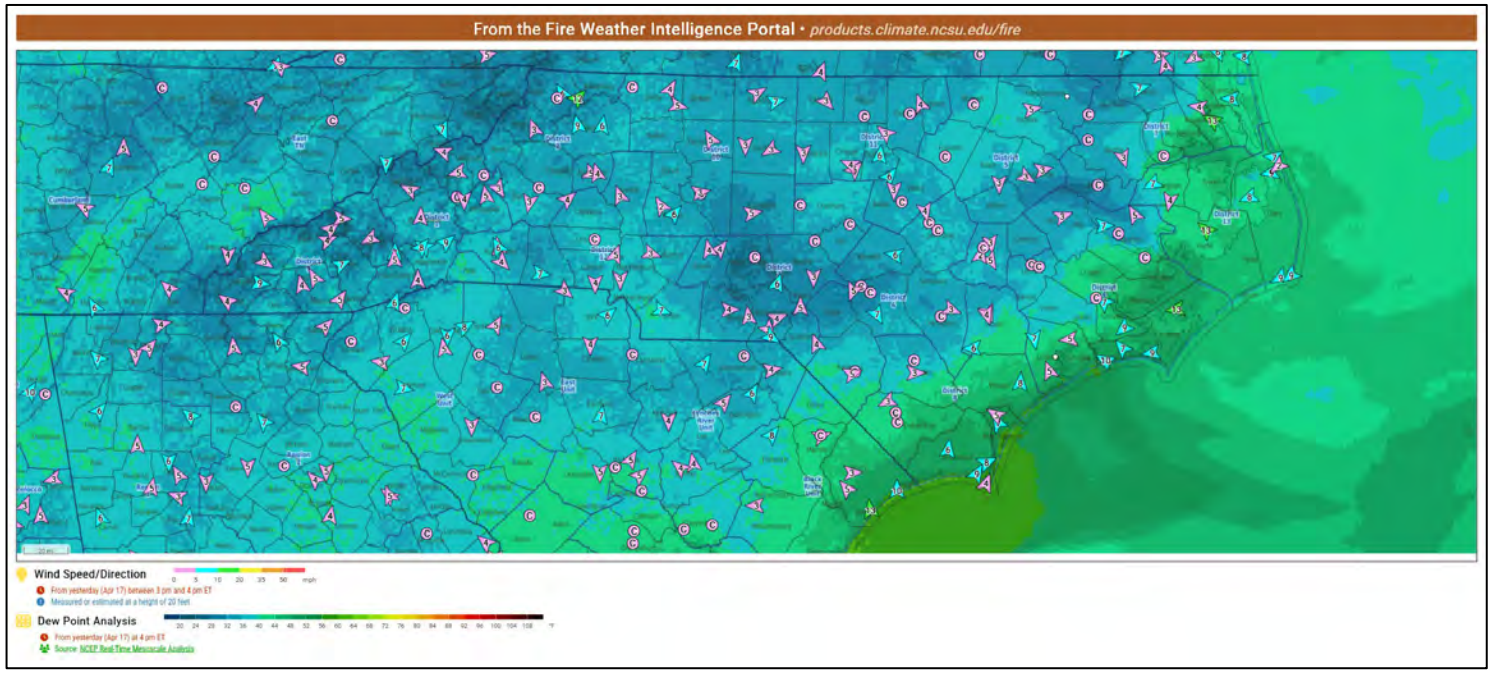
Significant Fire Potential for Sunday



- **High Risk:** None.
- **Moderate Risk:** None.
- **Low Risk:** West TX, South TX, Central TN, the TN Mts, Alabama, GA, SC, NC, VA, and FL for low RH and dry fuels.

National 7-Day Significant Fire Potential Outlook

R1 Fuels and Soils Note

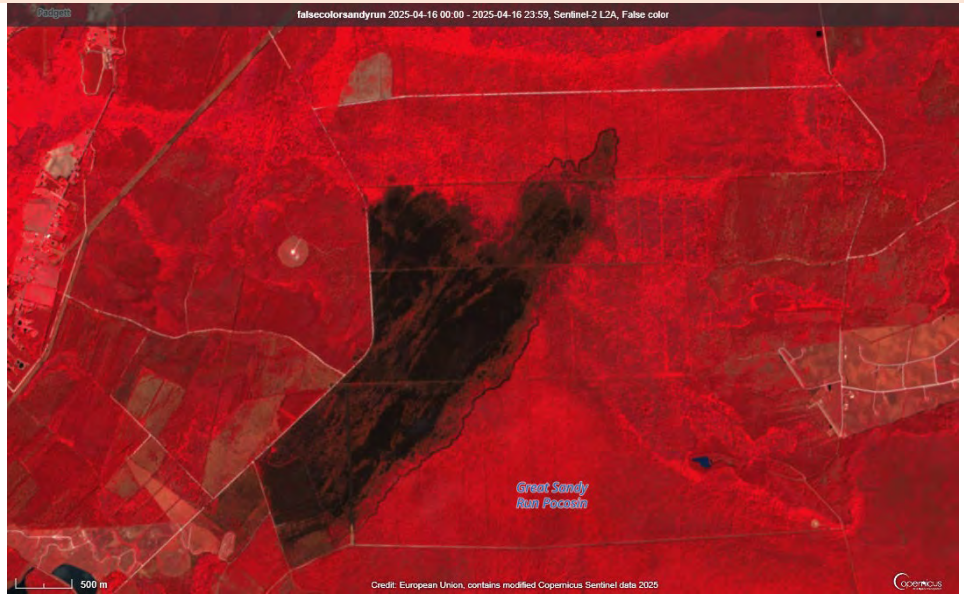


Visual example of "Sea Breeze" influence yesterday afternoon, note divergent station winds and dew point analysis around 1600 along coast (above) . Note this local wind phenomenon is most prevalent when there are larger differences between water & land temperatures (Spring). Our coast is irregular in shape so often have intermingling "Sea Breeze" influences as it progresses inland.

From NWCG PMS 437 "**Sea Breeze Fronts", A critical Fire Weather Pattern**
"Sea breeze or sea breeze fronts can bring gusty, shifting winds, and changes in humidity and stability that can drive fire behavior along coastal regions. The few hours leading up to the onset of the sea breeze are the warmest and driest and coincide with increasing wind speeds and unstable conditions. Following the passage of the sea breeze front, conditions will become cooler as well as more humid and stable. Sea breezes are more critical than land breezes because they occur during daylight hours."

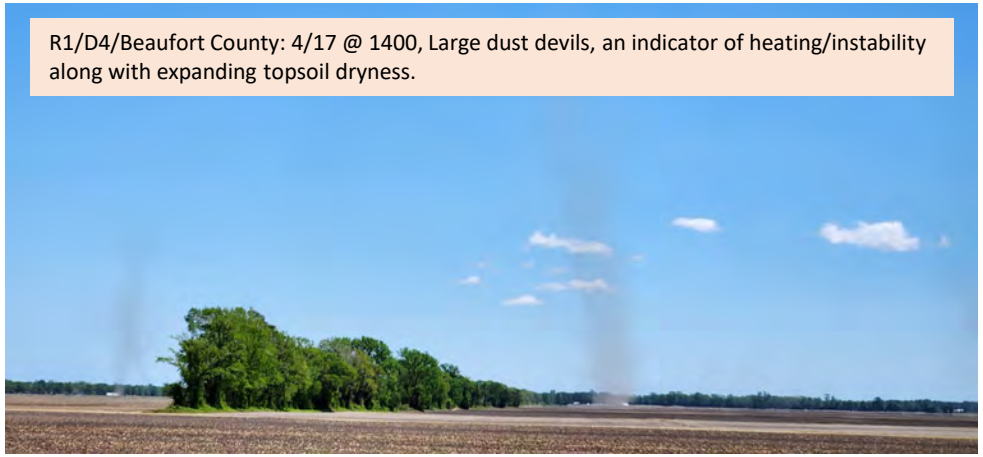
"Greenup" remains most noticeable in yards & road shoulders with leaf-out still progressing in the forest. Bay/Pocosin type understory shrub species remain very flammable due to volatile compounds in their leaf tissue + Spring distribution of moisture in their old/new growth, including stems. Alignment of fire effective weather with greening bay/pocosin fuels + drought fuel loading can cause significant containment and control challenges. KBDIs remain at near/at seasonal max for many South Coast Stations. Smoldering organics with post-fire needle cast can also lead to escapes/reburn as hot & dry conditions look to continue.

R1/D4/Onslow/Sandy Run Area (DOD Ownership) – fire discovered on Monday (4/7) afternoon lining up with extremely warm and windy conditions, prior to overnight frontal passage/precip. The image is from **Wednesday (4/16)** via Sentinel-2 Viewer – False Color Infrared Band Combo. Local news reports the fire at 1,400 acres and 100% containment as of 4/18.



https://browser.dataspace.copernicus.eu

R1/D4/Beaufort County: 4/17 @ 1400, Large dust devils, an indicator of heating/instability along with expanding topsoil dryness.



- Precip deficits at 7-day level are increasing throughout the state, see previous PNP maps.

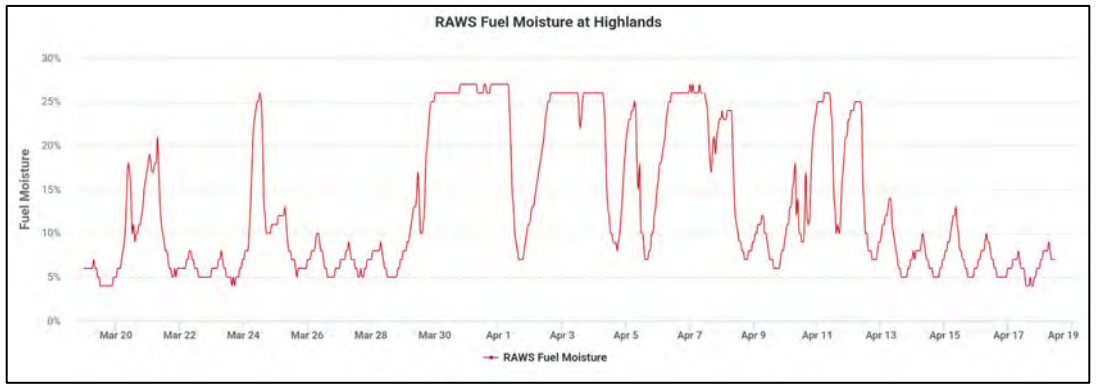
- Colder nights at higher elevations have delayed leaf out progress. However, greenup processes should advance faster with the predicted **significant warmup** coming this weekend, especially lower elevations. Overall, it is beginning to provide limited positive impact to forest conditions for wind interception, shading and associated adjustments to indices. It will draw down soil moisture rapidly in areas already experiencing drought. Yards & road shoulders continue to exhibit the most significant positive impact.

- Dead fuel moisture recoveries have been significantly lower over the past few days along with much lower daily RH minimums, especially in the mountain/foothill FDRAs. Poor recoveries have increased fuel receptivity and aligned with wind/terrain influences, slower greenup at higher elevations + TS Helene fuels this week. Several larger fires have emerged in D1, D2, D9 and D10 over the past week. It has been noted that daily burn periods have been shorter, as compared to the fire activity earlier in the month/earlier into greenup. See 10hr electronic fuel stick graph below for Highlands RAWS as example of moisture decline.

- Adj Rating – Models are picking up on dry air + associated decline in 100hr fuel moistures. Higher dew points/recoveries are expected to gradually improve later in the 7-day period but will be much warmer. especially east. Significant rainfall is not expected, however. Remember that premise of NFDRS is landscape scale FIRE DANGER relating to initiating fires, not fire specific FIRE BEHAVIOR, also once daily output at 1300 rh.

- Typical "Spring Fire Season" activity & difficulty of control trend upwards going into/through April as dormant/greening fuel conditions and weather events align, especially when lack of adequate precip and freeze events occur. Transition to Eastern "Lightning Season" in volatile bay/pocosin type fuels - depending upon drought related impacts & degree of greenup. Traditionally, lightning occurrence & associated acreage typically peak in May/June for R1 districts.

- TS Helene impacts remain as the outlier to eventual seasonal "Mountain/Foothills Greenup" – canopy closure, regrowth/death of downed/damaged timber, understory response, moisture balance with canopy removed and potential for lightning ignitions if drought conditions overlap severely damaged areas.



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

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

Forecasted Adjective Rating for FDRAs in North Carolina

FDRA	Fri Apr 18	Sat Apr 19	Sun Apr 20	Mon Apr 21	Tue Apr 22	Wed Apr 23	Thu Apr 24
Southern Highlands X	V	H	H	H	H	H	M
Central Mountains X	H	H	H	H	H	M	M
Northern Highlands X	H	H	H	H	H	H	H
Blue Ridge X	H	H	M	M	M	M	M
Western Piedmont X	M	M	M	M	M	M	M
Sandhills Z	V	H	H	H	H	H	M
Eastern Piedmont X	M	M	M	M	M	M	M
Southern Coast X	L	L	L	L	L	L	L
Northern Coast X	L	L	L	L	L	L	L

R2/D10/Surry Co/Low Gap Fire Area on 4/17:
≥ 2400' elevation with bud break in left photo
< 2400' elevation Greening in bottom right photo