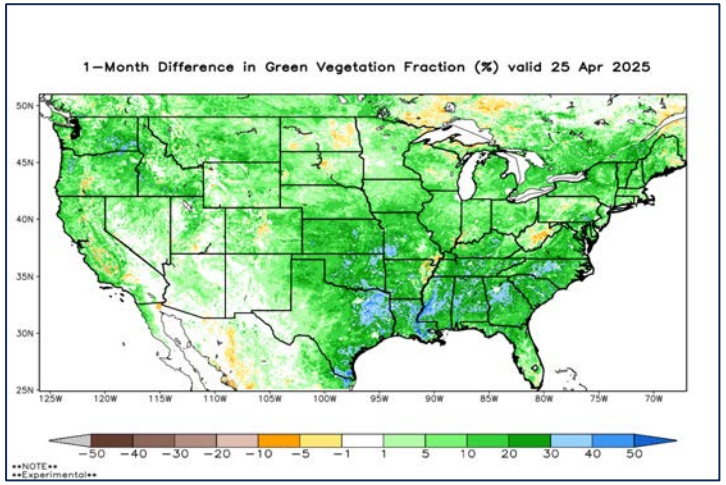
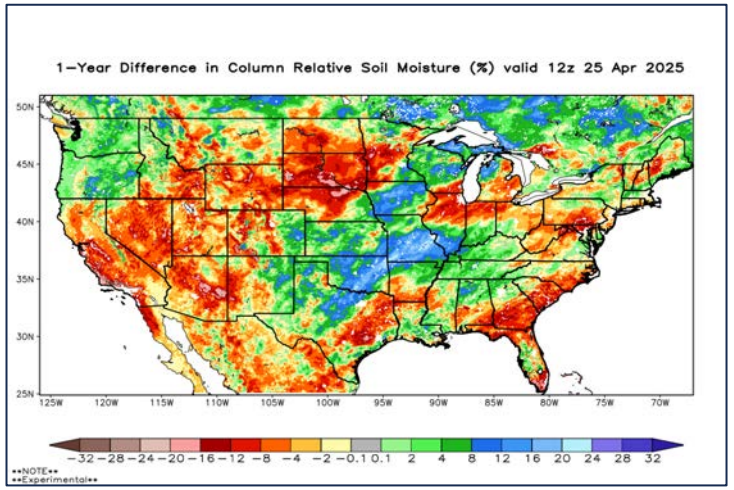
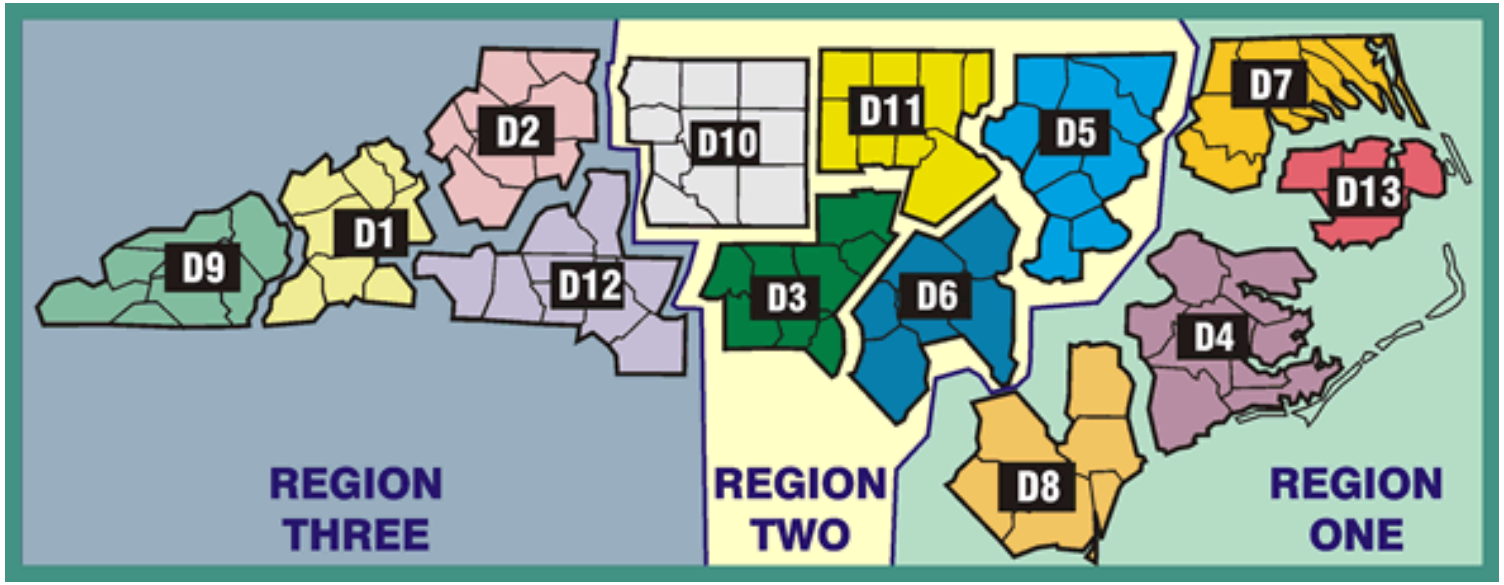
For Time Period:

Friday (4/25/25) to Thursday (5/1/25)

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

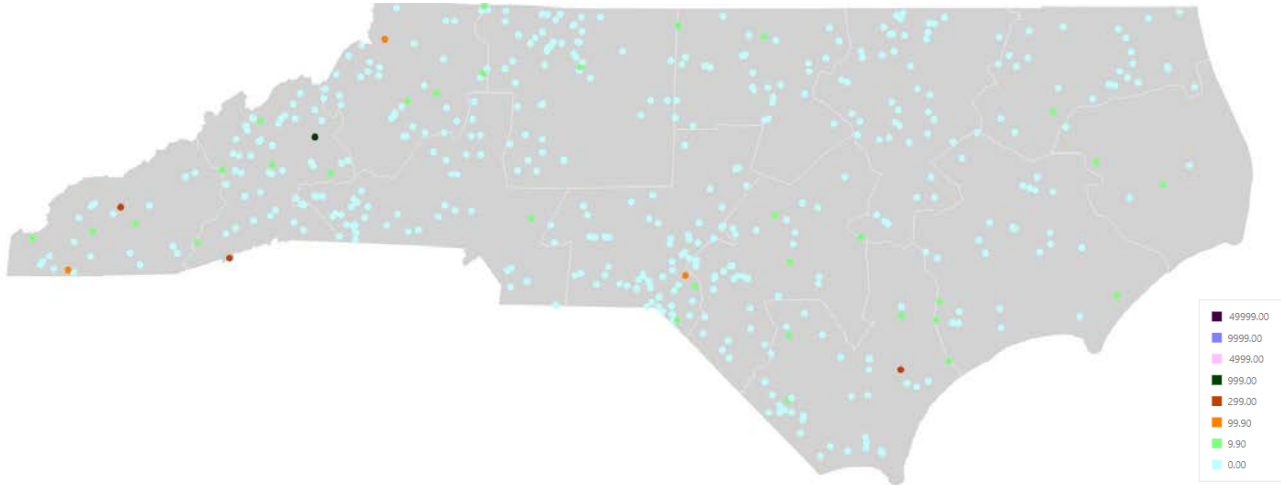
MTD: 500 incidents for 5,535 acres
7-Day Activity: 156 incidents for 1,699 acres

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

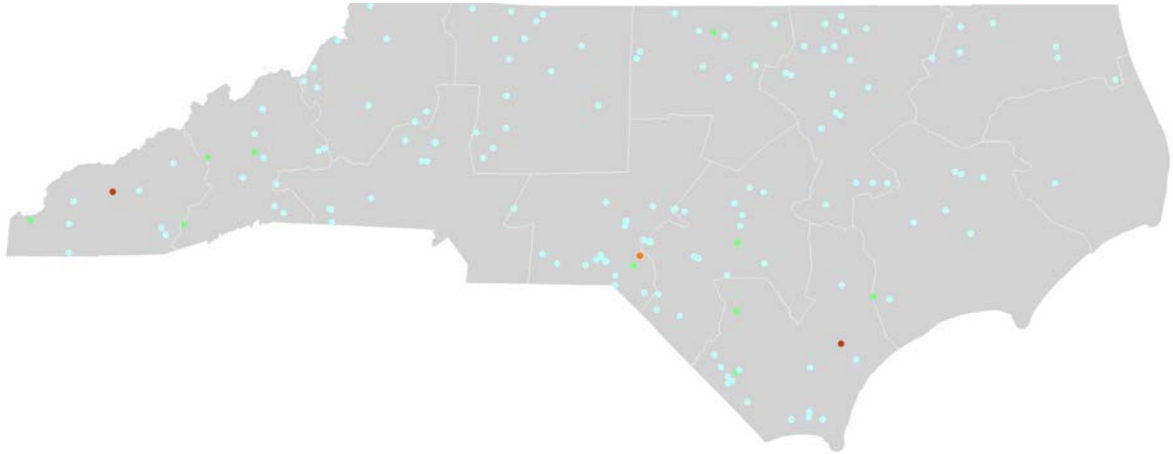
Largest incidents last **MTD** (Ending 4/24):
from fiResponse & preliminary reporting only

Incident Name	Discovery Date	Region	District	County	Acres
Bee Rock Creek	4/15/2025	Region 3	District 1	McDowell County	2085.00
Hwy 210 Fire	4/19/2025	Region 1	District 8	Pender County	661.00
Table Rock Complex	4/2/2025	Region 3	District 1	Transylvania County	635.00
Sam Davis Road	4/18/2025	Region 3	District 9	Swain County	559.00
S Carter Cove	4/15/2025	Region 3	District 9	Clay County	150.00
Gardener Farm and Slate	4/24/2025	Region 2	District 3	Scotland County	138.00
Bald Fork	4/17/2025	Region 3	District 2	Ashe County	105.00
Johnny's ocean	4/20/2025	Region 2	District 3	Scotland County	86.00
Deer Run	4/17/2025	Region 3	District 2	Caldwell County	73.00
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	62.00
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
Topton Bridge	4/17/2025	Region 3	District 9	Macon County	36.00
Rose Acre Fire	4/7/2025	Region 1	District 13	Hyde County	35.00
Andermora Rd Fire	4/19/2025	Region 1	District 4	Onslow County	33.00

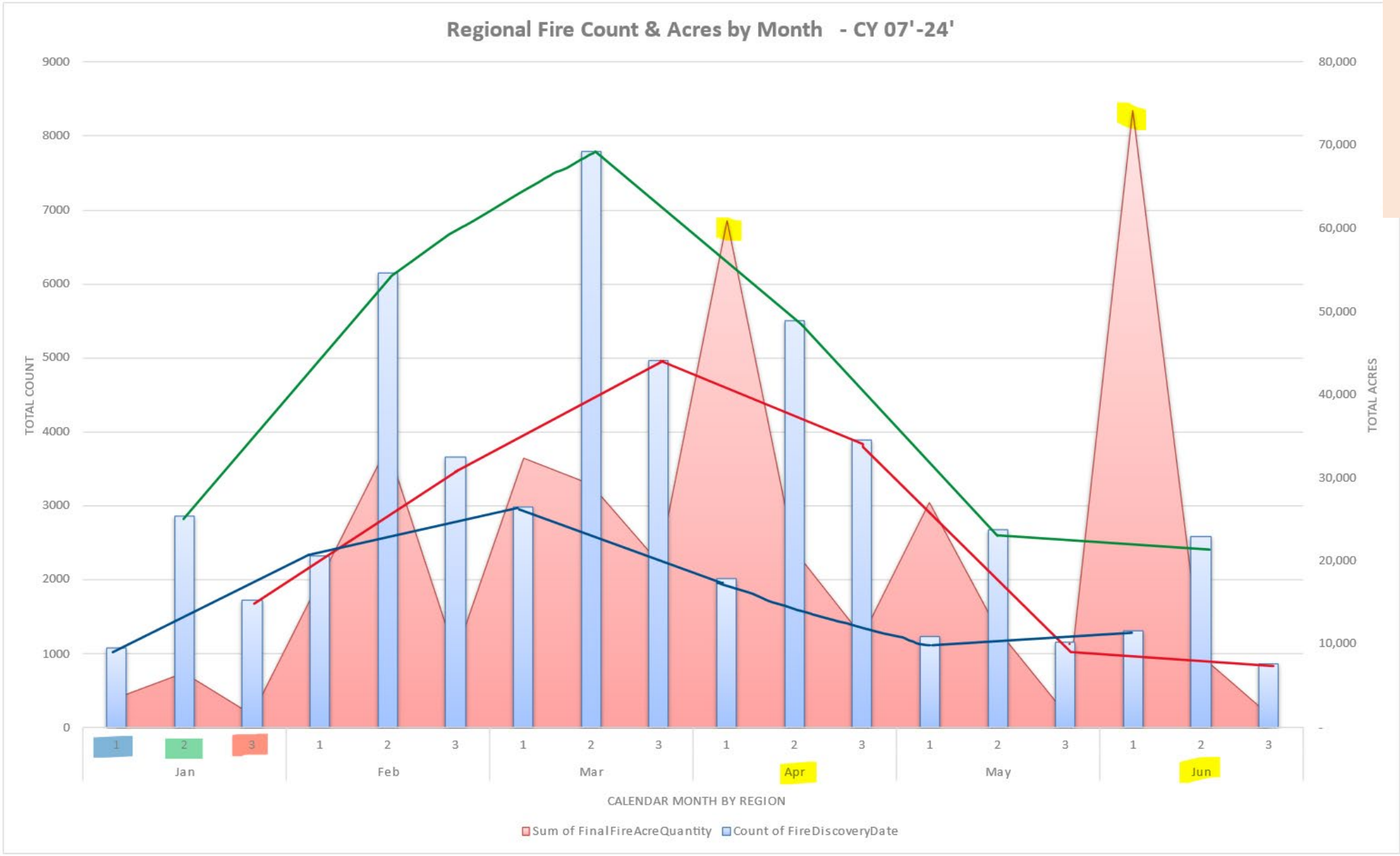
April MTD (ending 4/24)



Last 7-Days (4/18 - 4/24)

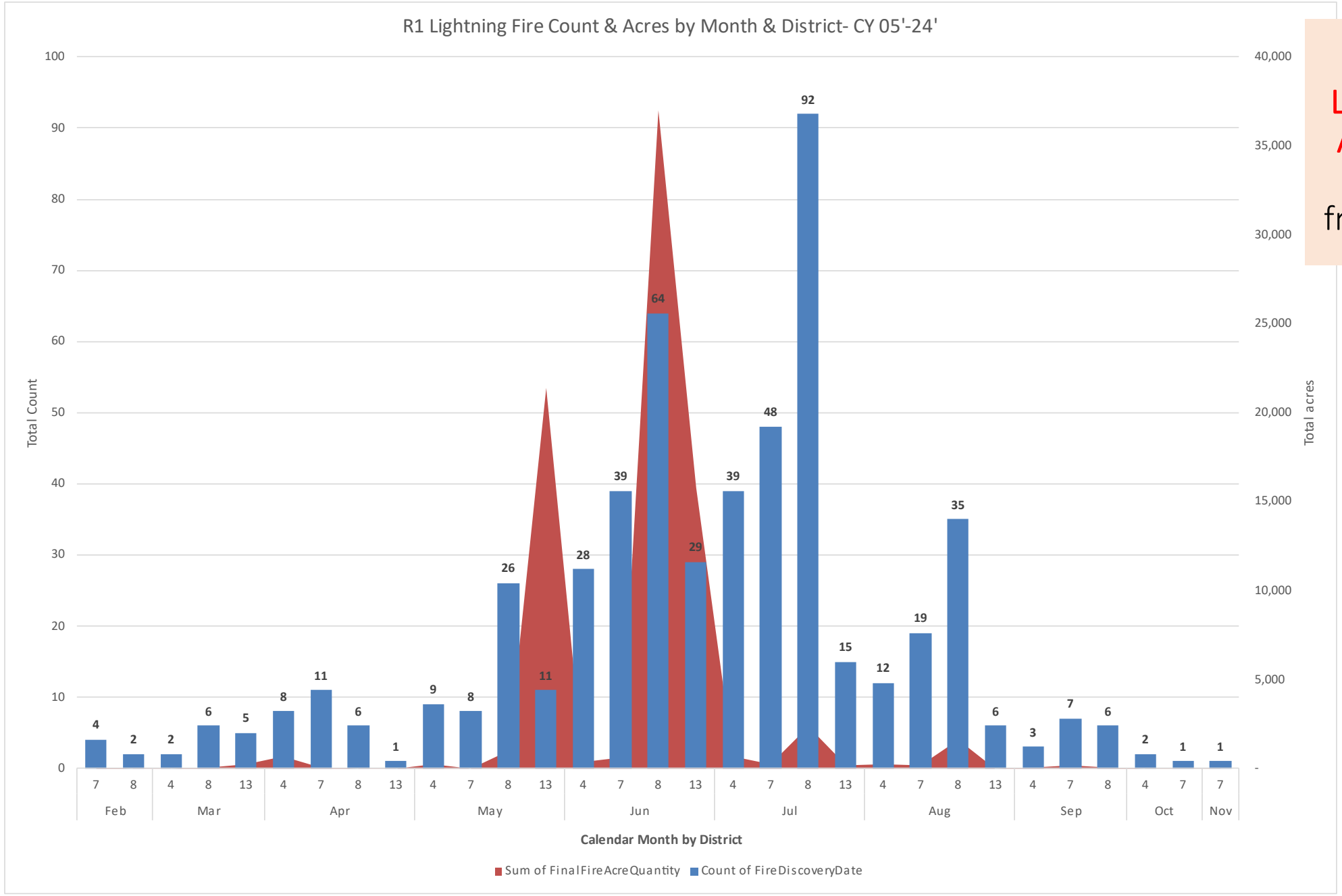


Note: DOD & other entirely federal ownership fires not shown on fiResponse



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

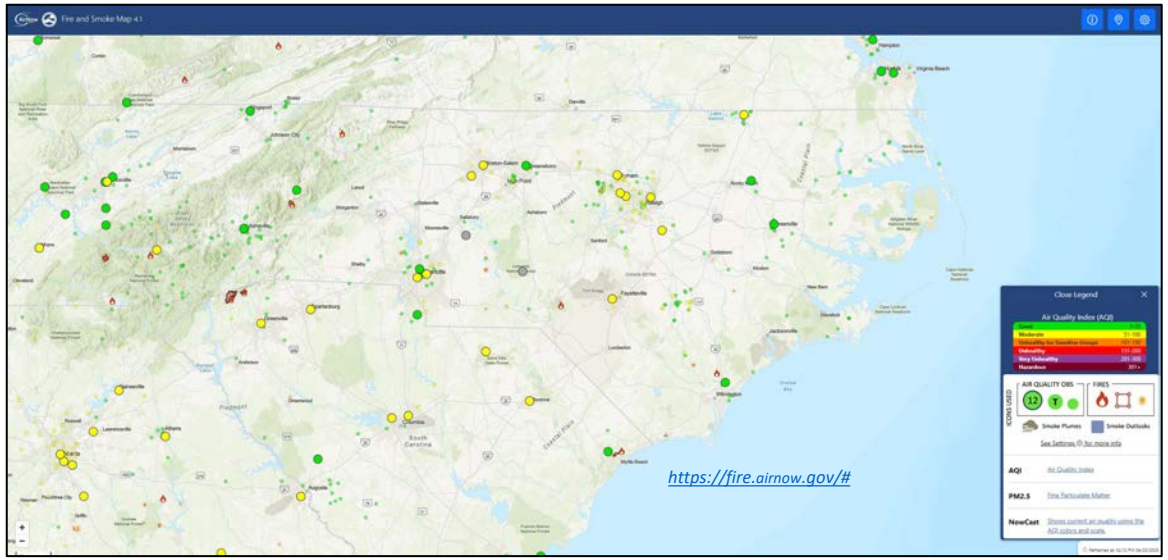
Cause: All Cause Codes, Regional Binning, NCFS Reported Fires Only



Distribution of
Lightning Fires &
Acres By Month
R1
from 2005 - 2024

Cause: Lightning
Cause Code, R1
Districts, NCFS
Reported Fires Only

Air Quality Notes

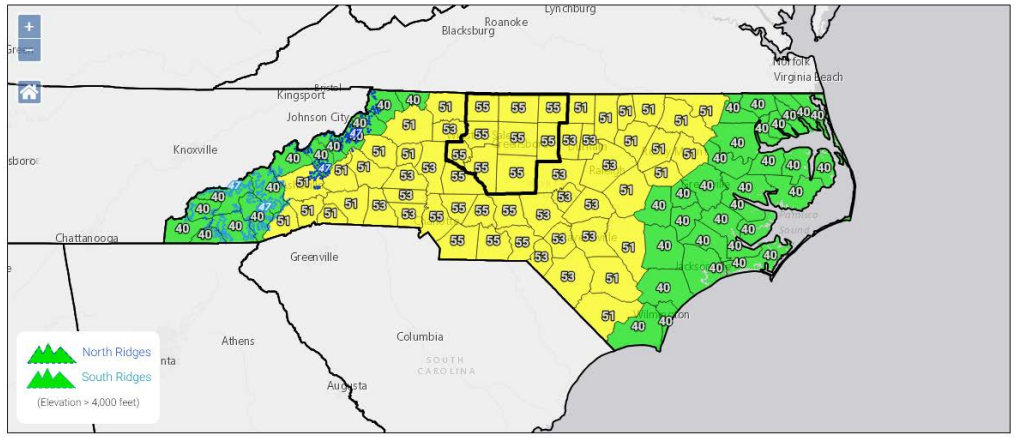


Extended Air Quality Outlook

The forecast Air Quality Index value for each pollutant represents the highest value expected within each county, so some areas and monitors may see lower values. We use the best information and techniques available to ensure the quality and accuracy of the forecasts we provide to the public. Note that ranges do *not* include the nine-county Triad region, which is covered by the Forsyth County Office of Environmental Assistance and Protection.

Forecast Day	View Maps	Max AQI Range	Category Range	Download KML
Thursday (Apr 24)	Max AQI · Ozone · PM2.5	42 to 56	Green to Yellow	download
Friday (Apr 25)	Max AQI · Ozone · PM2.5	40 to 55	Green to Yellow	download
Saturday (Apr 26)	Max AQI · Ozone · PM2.5	45 to 51	Green to Yellow	download
Sunday (Apr 27)	Max AQI · Ozone · PM2.5	40	Green	download

Maximum Air Quality Index for Apr 25, 2025



This forecast was issued on **Thursday, April 24, 2025** at **2:45 pm**. This forecast is currently valid.

Today's Air Quality Conditions

Ozone levels have risen into the Code Yellow range in the Triangle and north to the Triad, as well as in the Fayetteville metro area. Current daily average PM2.5 levels are in the Code Yellow range throughout most of the state this afternoon.

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

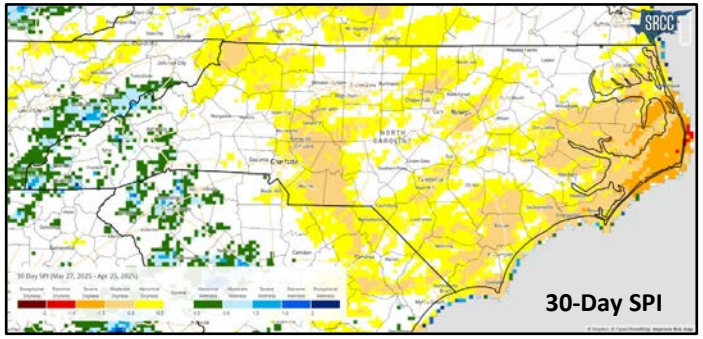
On Friday, low-level winds will veer southerly as North Carolina becomes situated between an offshore surface high and an area of low pressure lifting over the Great Lakes region. The warm, moist air mass combined with some weak shortwave disturbances passing overhead will, as in the past couple days, allow for scattered showers and storms to develop across the state. The southeastern US airshed has been characterized by moderate PM2.5 values for several days and this will not change on Friday, given the localized nature of potential storms. Max 8-hour average ozone concentrations should again hold in the Code Green range, inhibited by the moisture and the cloud cover.

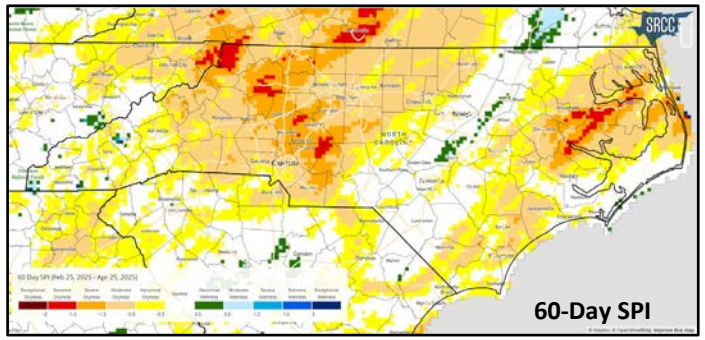
Outlook

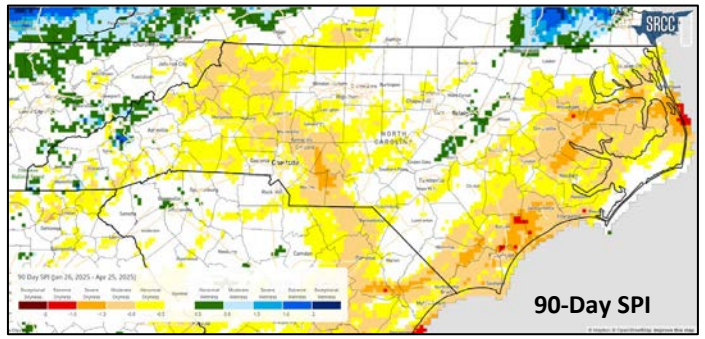
The attendant cold front of the aforementioned low will begin to cross the state from the northwest on Saturday evening. Prior to that, rainy southwest flow will persist. Moderate PM2.5 concentrations are expected in much of the Piedmont and western Coastal Plain ahead of this frontal passage. Ozone may rise a bit behind the front as skies clear, but overall should remain in the Green range. Once the front clears the state by Sunday, high pressure will build in again and the day will be sunny and dry. Both ozone and PM2.5 concentrations should drop down to the Code Green range for the day on Sunday.

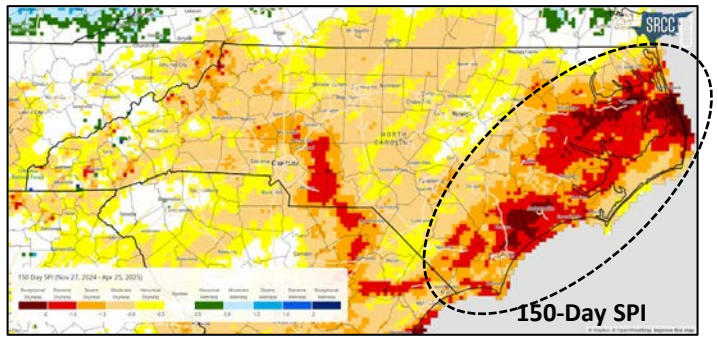
Author: *Sara Kreuser (sara.kreuser@deq.nc.gov) - NC Division of Air Quality*

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

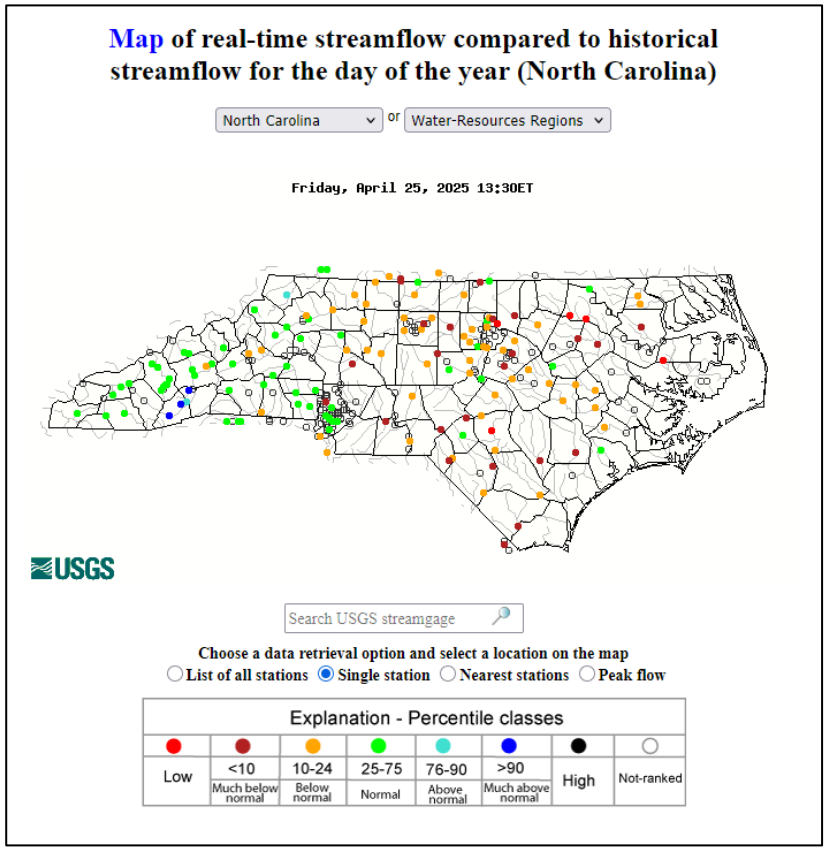




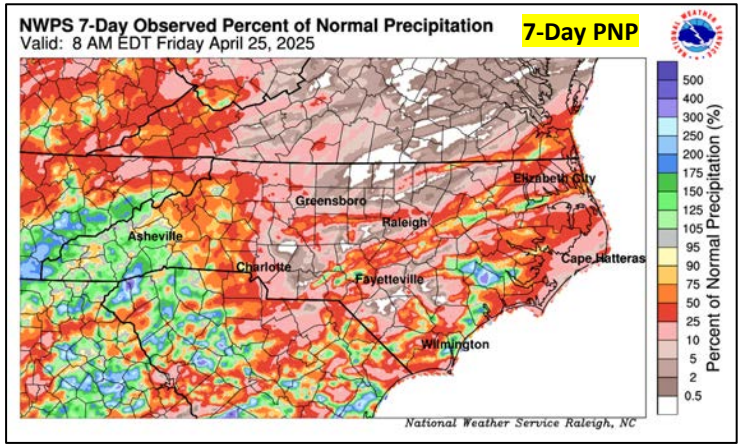


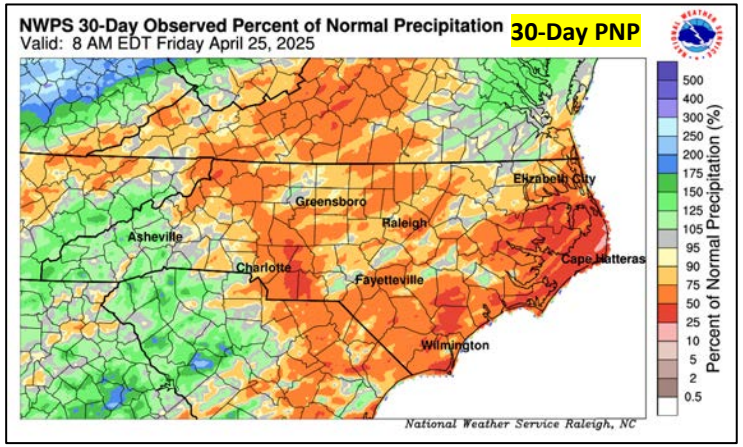


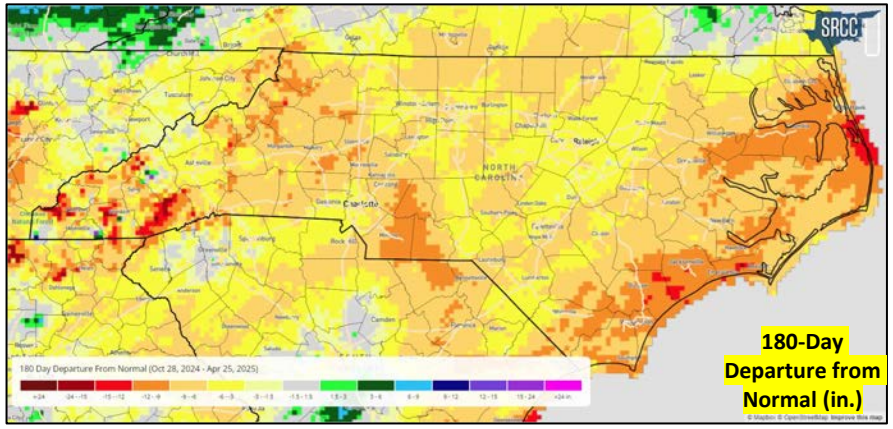
https://srcc.tamu.edu/water_portal/



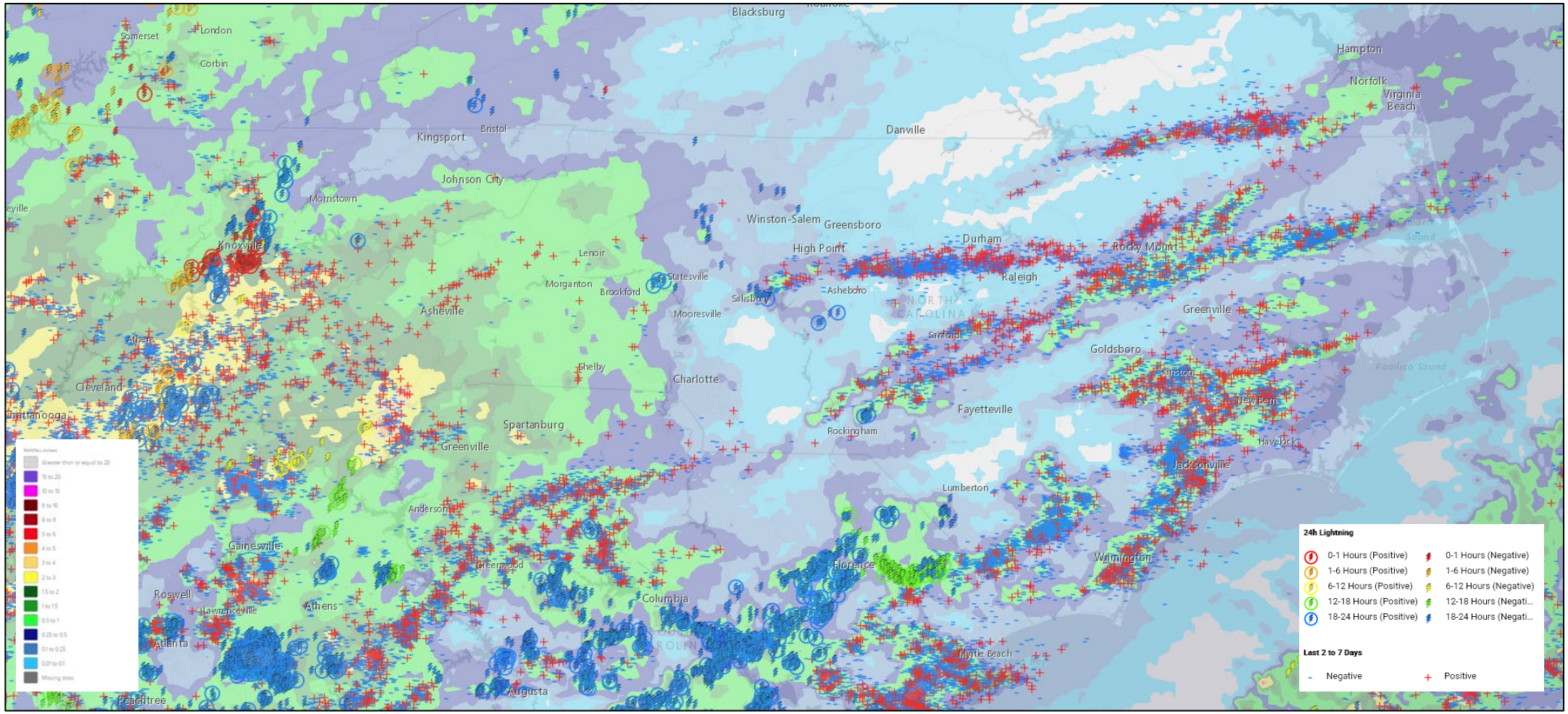
- Note the 7- & 30-day PNP graphics (top right).
- Streamflow improvements west, declines remain/intensifies east (center top).
- 30-Day SPI shows improvements for several pockets, dryness expanding east. (top left).
- 60/90/150-Day SPI picking up on longer-term pockets of dryness (left).
- 180-Day Departure from Normal Precip – areas in darker orange & red represent 9-12” & 12-15” + (bottom right).





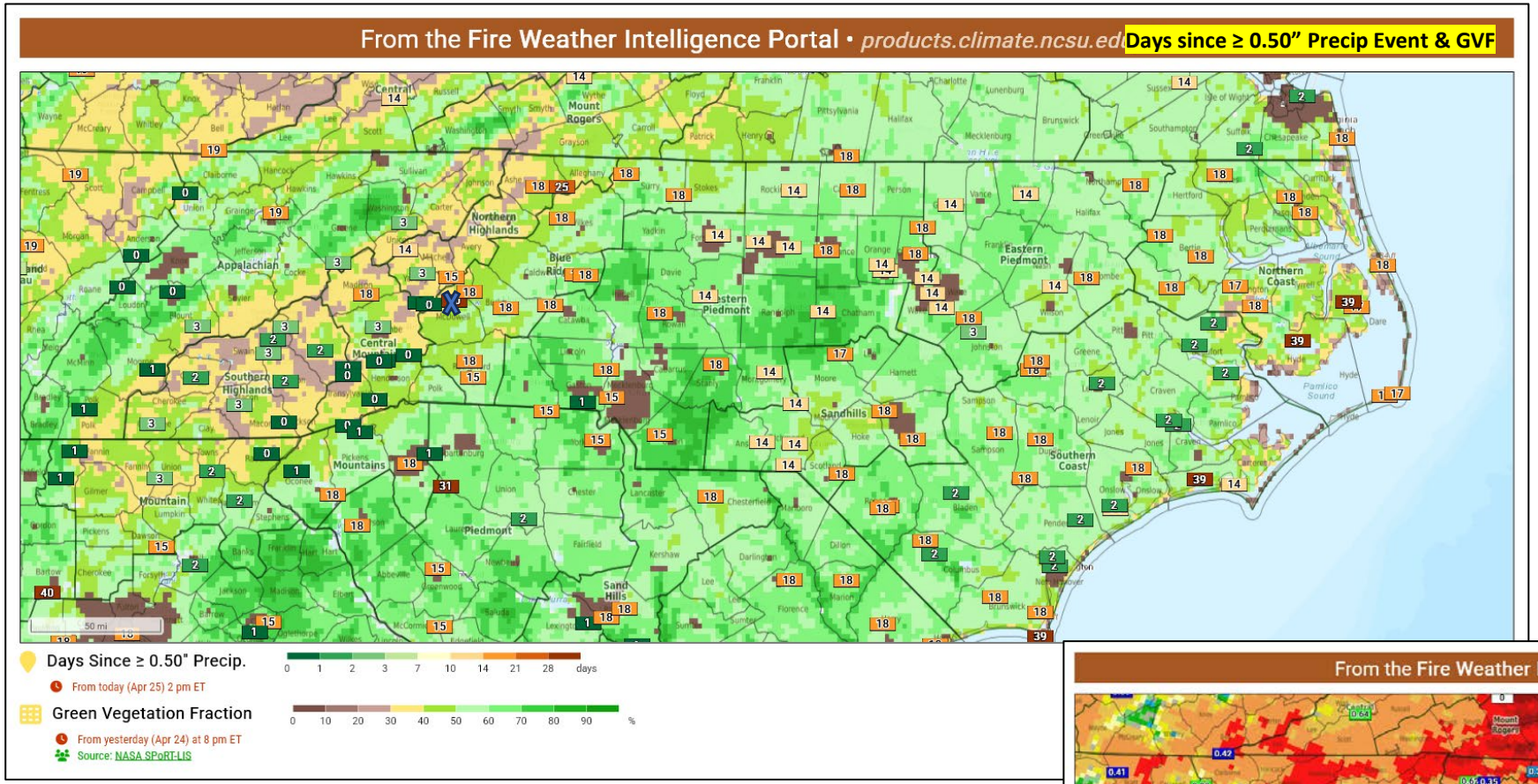


EGP Lightning: 7-Day Lightning and 7-Day NowCoast Observed Precip Estimates



Lightning Outputs Ending 4/25/25 at 1330hrs

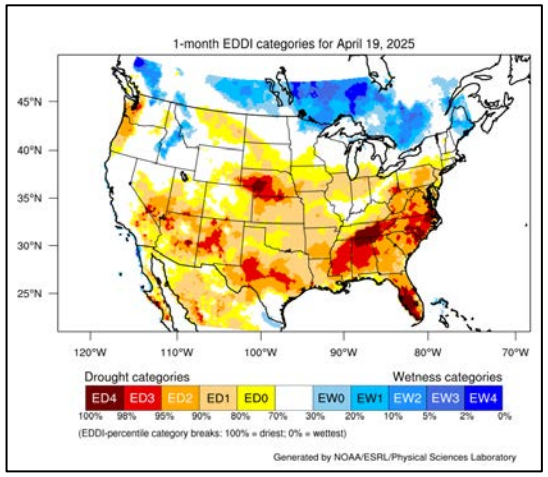
Note that 7-day precip output layer doesn't update rapidly.

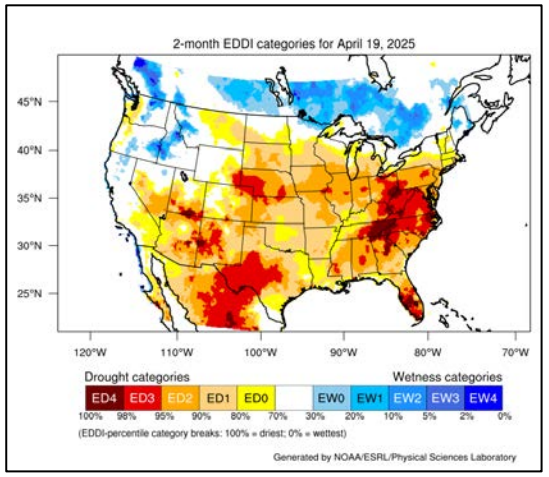


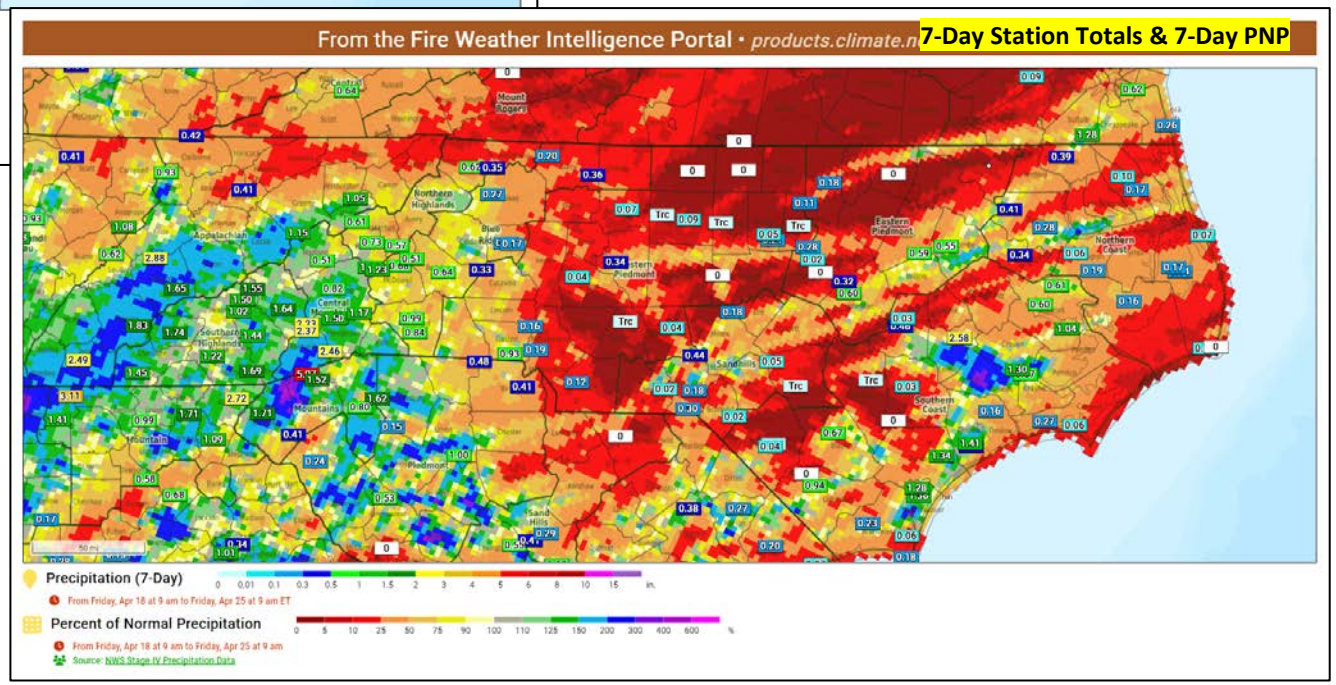
Days since ≥ 0.50" Precip Event
Some of East at 38+ days

Note very high observed EDDI values for parts of NC, at one- and two-month timescales for period ending on 4/19.

7 Day PNP vs Station Totals – note continued and increasing dryness across much of Central/Eastern NC.

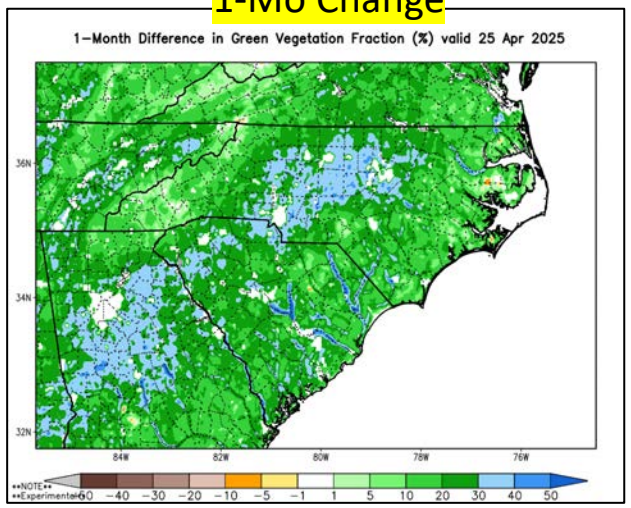




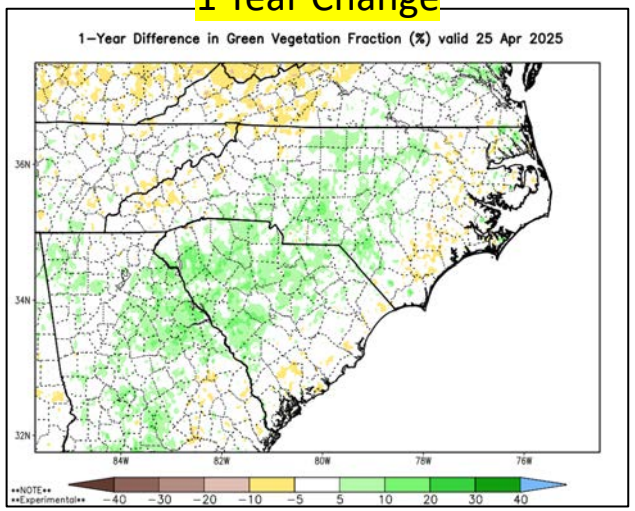


Green Fraction & Green-Up Anomaly

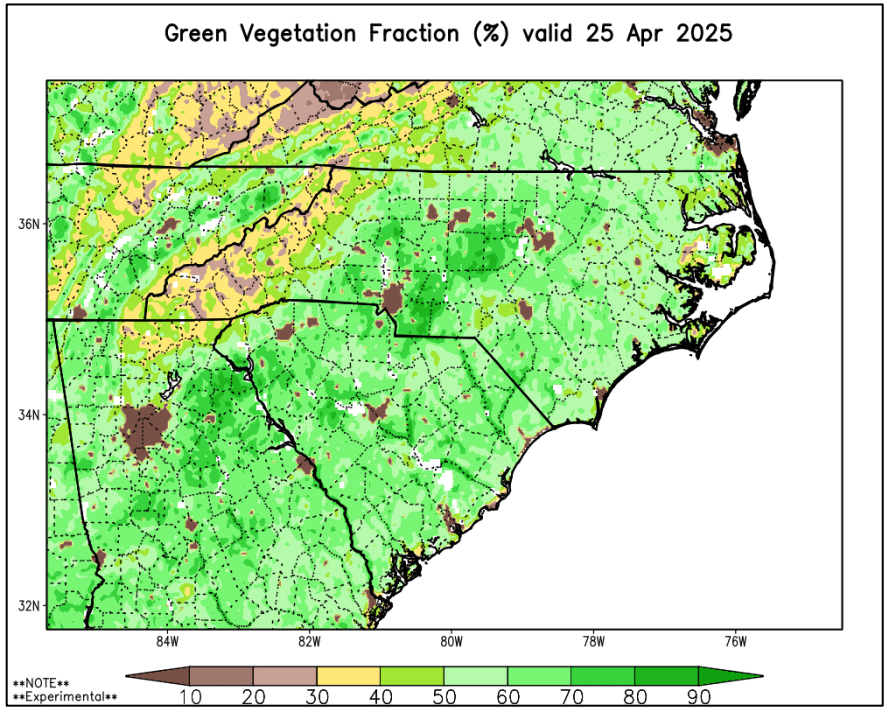
1-Mo Change



1 Year Change



Current

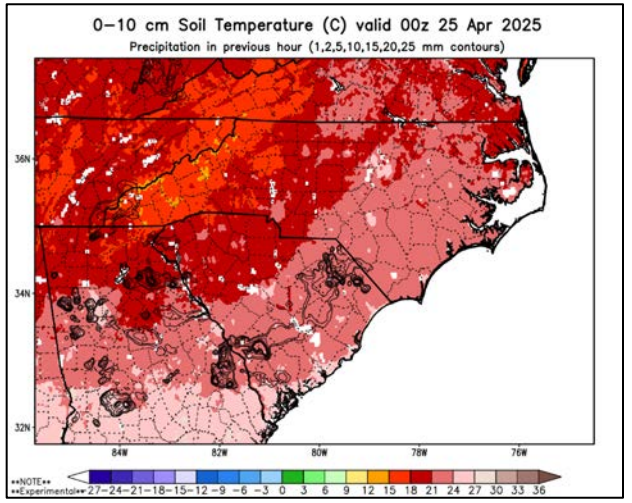


Greenup processes continue with warming soils, higher average air temps, and warmer nights. Forest leaf-out traditionally varies by species (early vs late), soil moisture regime, and elevation across the landscape. The GVF maps provide useful context on overall greenup across the landscape.

- **Generally,** elevations above 2,200 ft. still greening with leaf out moving more slowly in higher elevations impacted by prior sustained cooler conditions. Field notes nearing full leaf out below 2,200 ft. in context of normal species timing. More at lower elevations and lower latitudes.

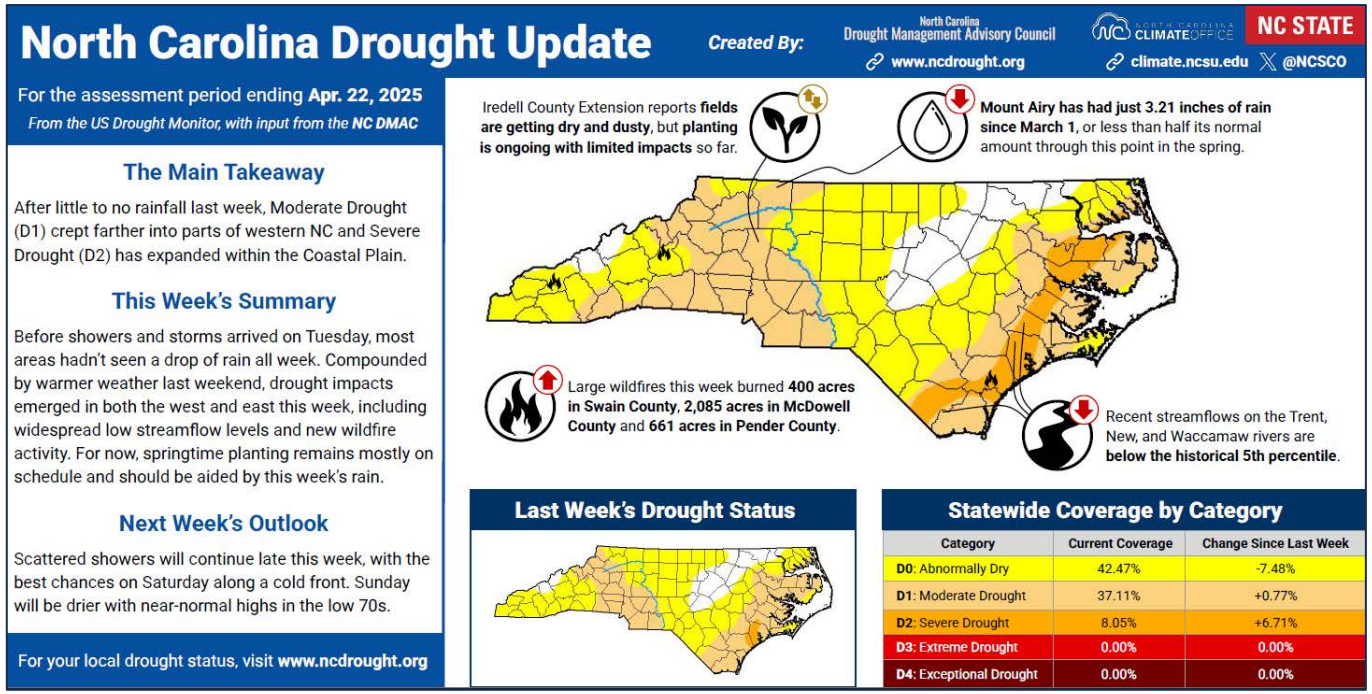
- Road shoulders, yards and understory herbs have had & continue to see the most immediate response at all elevations. Available soil water will quickly become limiting without adequate, repeated wetting events.

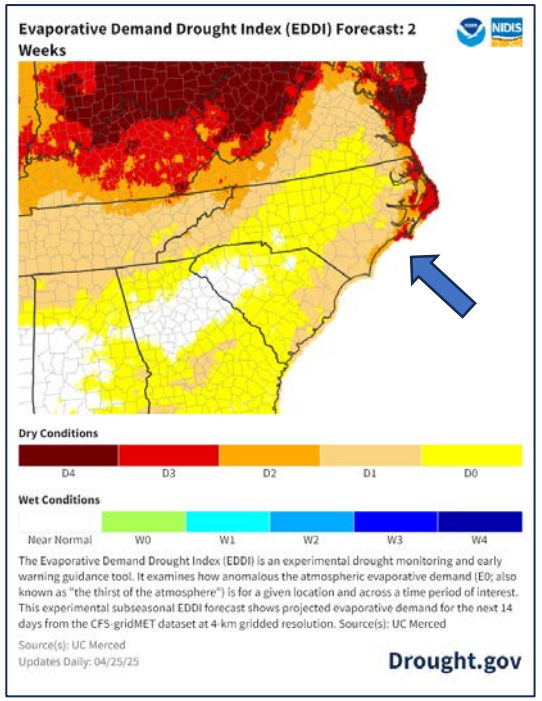
- Remember seasonal implications of drought aligning with areas of the "Southern Rough" fuel complex including **Pocosin/Bay** species with deeper organic horizons, even with overall "greenness" increasing across the landscape.

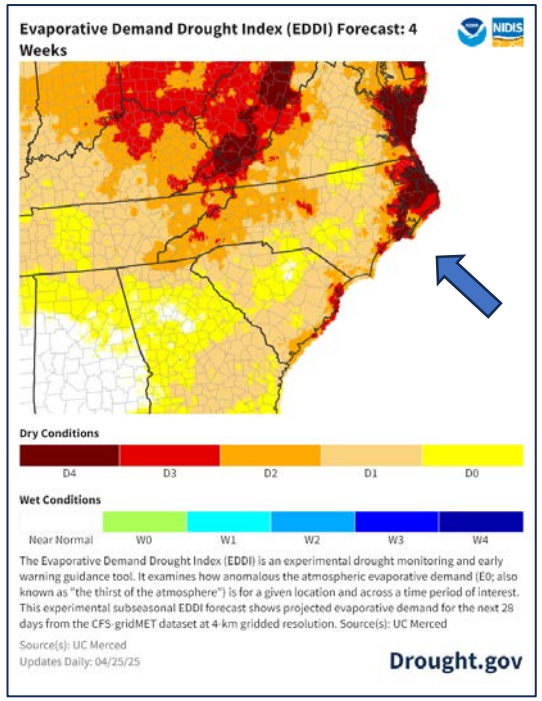


Link: https://weather.ndc.nasa.gov/sport/case_studies/lis_NC.html

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





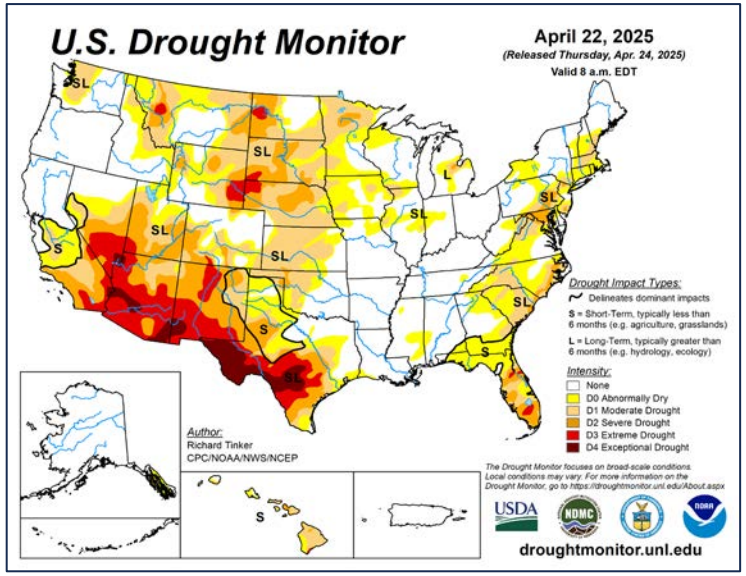


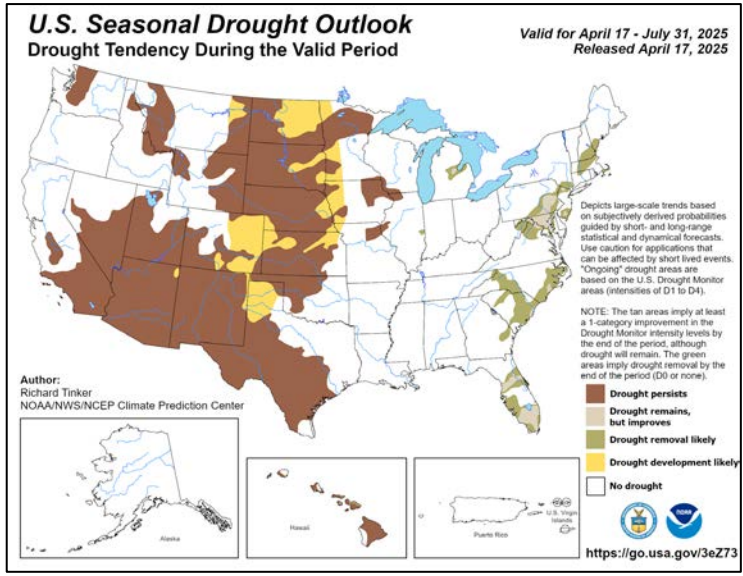
EDDI & Drought

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). Focus shifts to coastal NC.

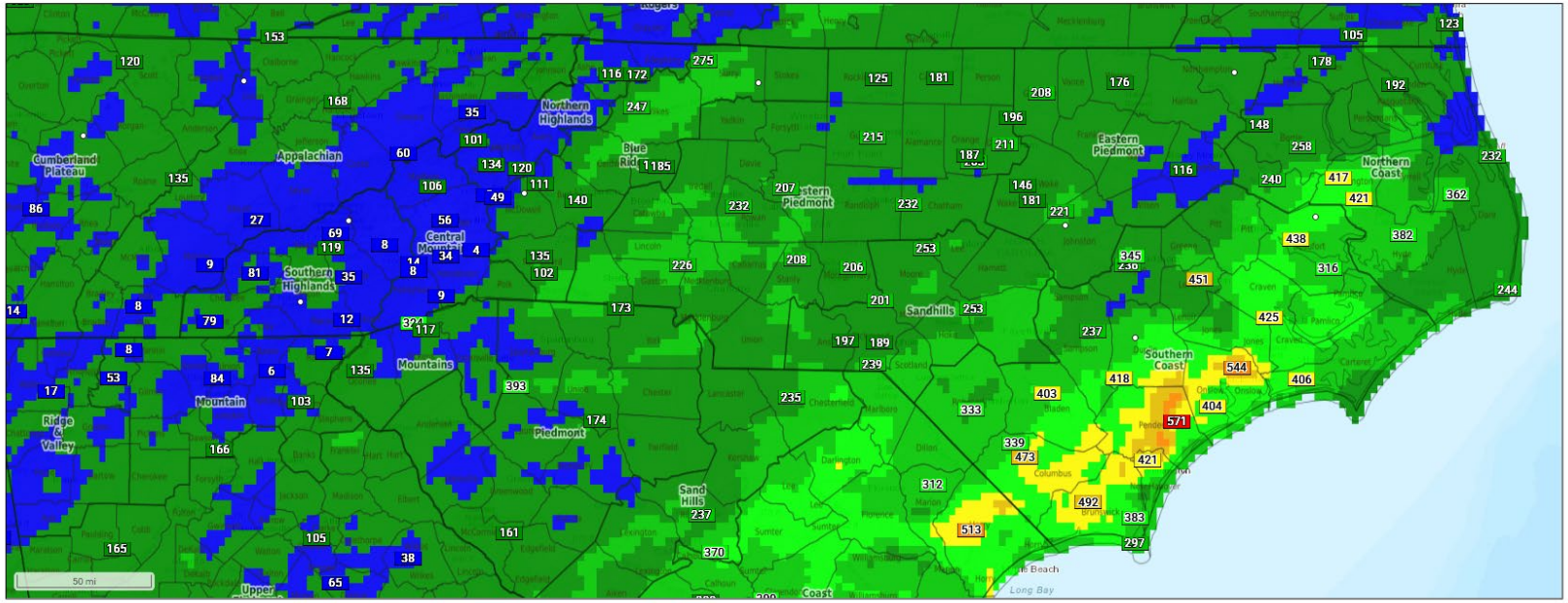
US Drought Monitor – USDM map released last week, note D1 & D2 areas.

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.*

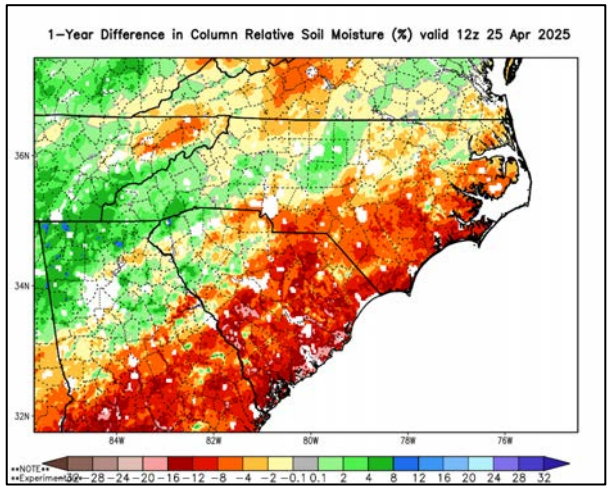




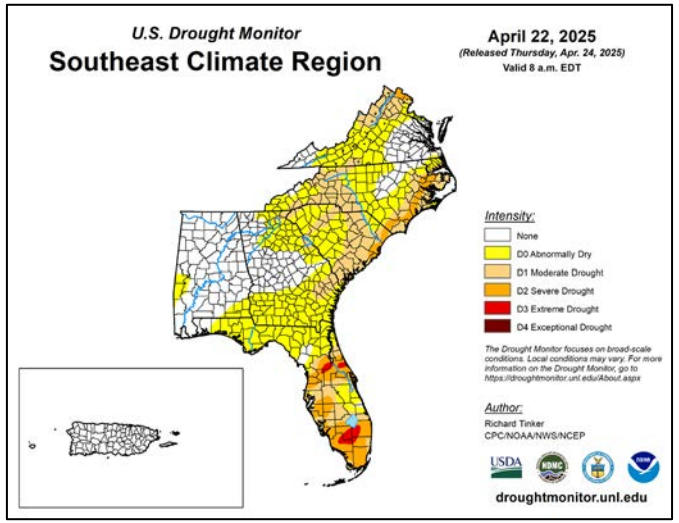
From the Fire Weather Intelligence Portal • *products.climate.ncsu.edu/fire*



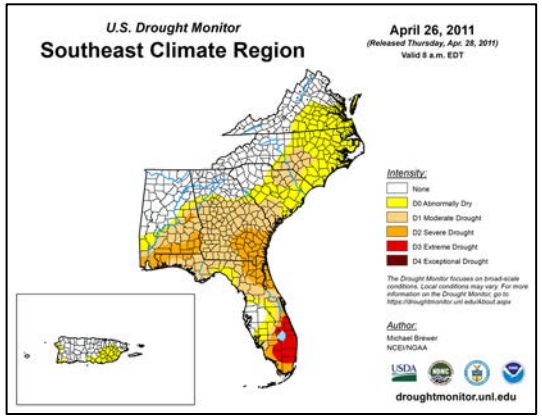
- KBDIs continue to increase more rapidly with warmer temps.
- Note modeled changes to profile compared to last year at same time (bottom left).
- USDM Map comparison – 2011, 2017, 2018, 2025.



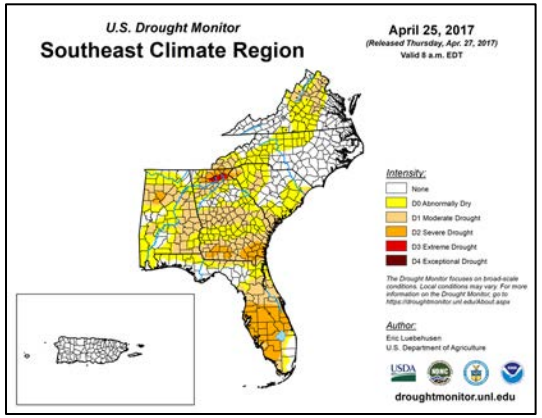
Current



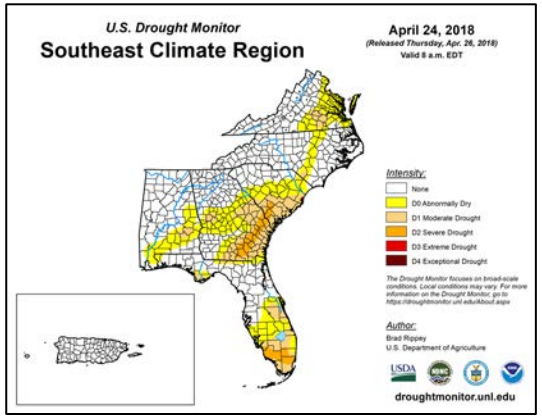
2011



2017



2018



State Climate Office: Short-Range Monthly Outlook for NC

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

Short-Range Outlook for North Carolina

Week 1: April 3 to 9, 2025

Hot, then Cold

Warm air surging northward across our state will see high temperatures approach 90 degrees from Friday through the weekend. However, a cold front moving in on Sunday night will bring a big cooldown, with temperatures near freezing on Wednesday morning.

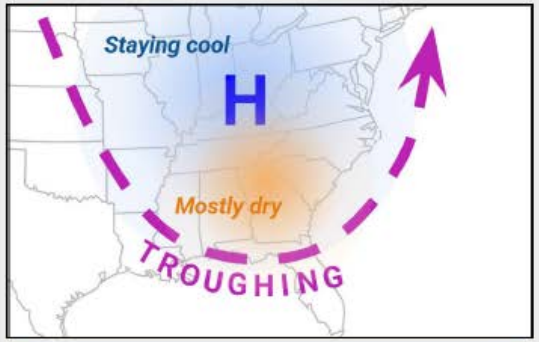
Statewide Rain on Monday

Aside from scattered showers on Thursday, it will be a dry start to the week. Our best rain chances will come with the cold frontal passage Sunday night into Monday. Totals should range from a half inch to 2 inches, with gusty winds possible on Sunday too.

Forecast Confidence

Major models are in good agreement about the timing of the cold frontal passage early Monday and average rain amounts near an inch.

Week 2: April 10 to 16, 2025



A Cooler Week

With jet stream troughing over the eastern half of the country and Canadian high pressure diving south, we'll remain in a cool pattern through the middle of the month, with temperatures possibly moderating back to near-normal levels by the end of this week.

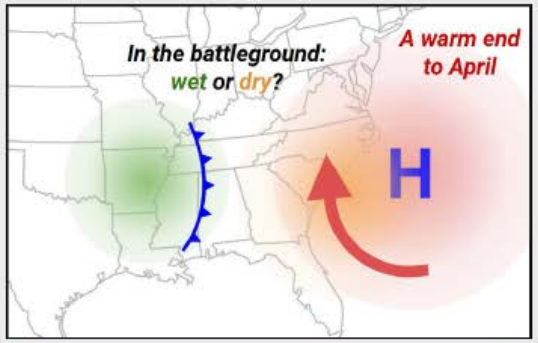
Likely Dry This Week

The week may begin with some rain next Thursday as a low pressure system passes through, but as high pressure builds in, we'll see a drier pattern in place for much of the week. Some models hint at a possible offshore low developing later in the week.

Forecast Confidence

Support is strong for overall cooler weather this week, but less clear about how long it will last and how the pattern will then evolve.

Weeks 3-4: April 17 to 30, 2025



Warmth Settles In

The return of offshore high-pressure – a late spring and summer staple – should spell warm and humid weather for most of late April. Our normal highs at this time of year are in the mid-70s with lows in the 50s, well past our average last spring freeze date.

An Uncertain Outlook

Offshore high pressure should usher in moisture to fuel pop-up showers, but it could act as a roadblock to frontal systems that might bring more widespread rain. That makes our late-month precip. outlook a toss-up between being wet, dry, or near normal.

Forecast Confidence

There's better confidence in warmer temperatures, but limited useful guidance on how frequent April showers will be later this month.

This infographic is based on forecast and outlook guidance from the National Weather Service. For more information, visit **www.weather.gov**.

Author: Corey Davis (NCSCO)
cndavis@ncsu.edu

NORTH CAROLINA CLIMATEOFFICE

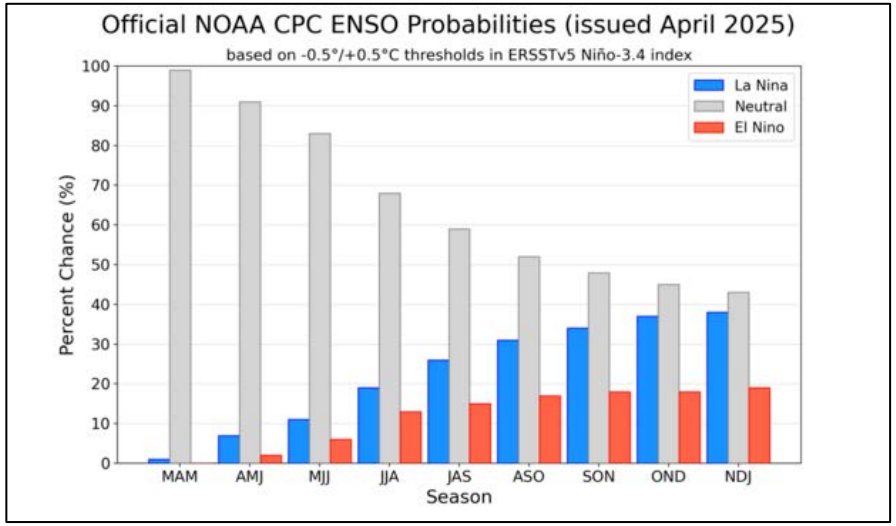
Supported by:

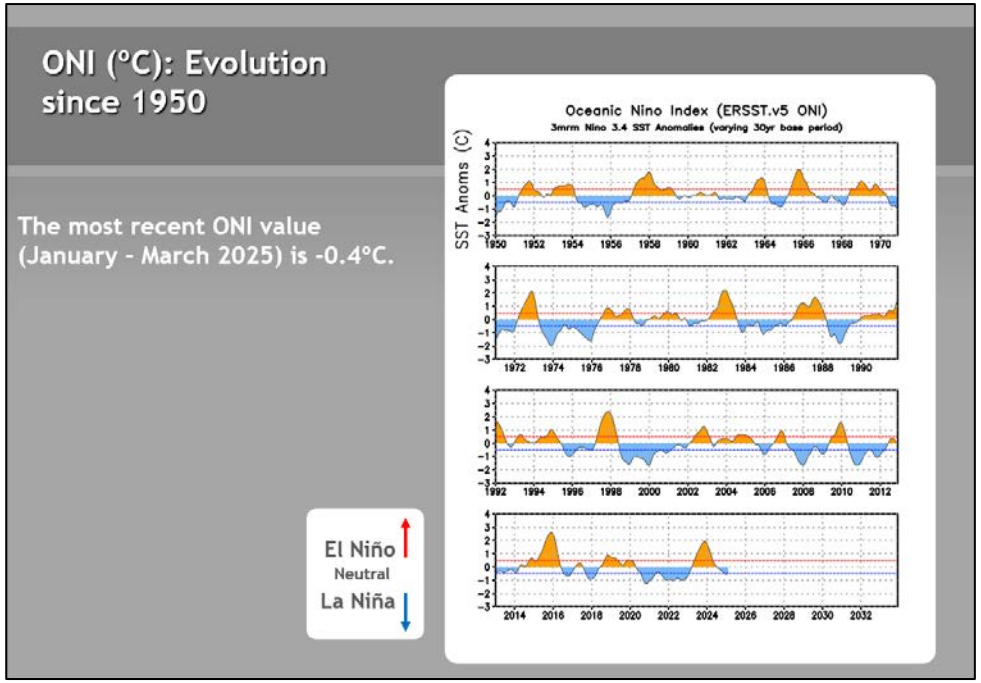
ENSO Notes from the CPC (4/10/25 Update)

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





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

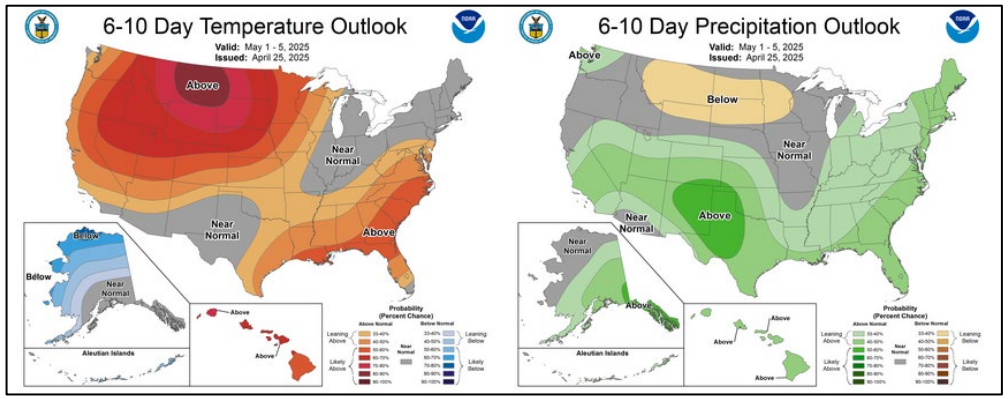
The IRI and North American multi-model ensemble indicate ENSO-neutral will continue through the summer [Fig. 6]. The forecast team also favors ENSO-neutral, with chances well over 50% through summer 2025. Because of reduced forecast accuracy in the spring, the uncertainty increases at longer time horizons, 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].

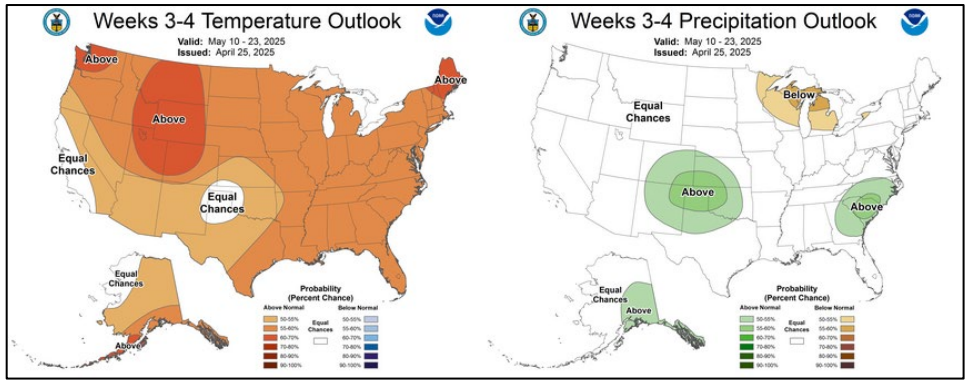
See this link for further discussion: https://www.climate.gov/news-features/blogs/enso/april-2025-enso-update-la-nina-has-ended

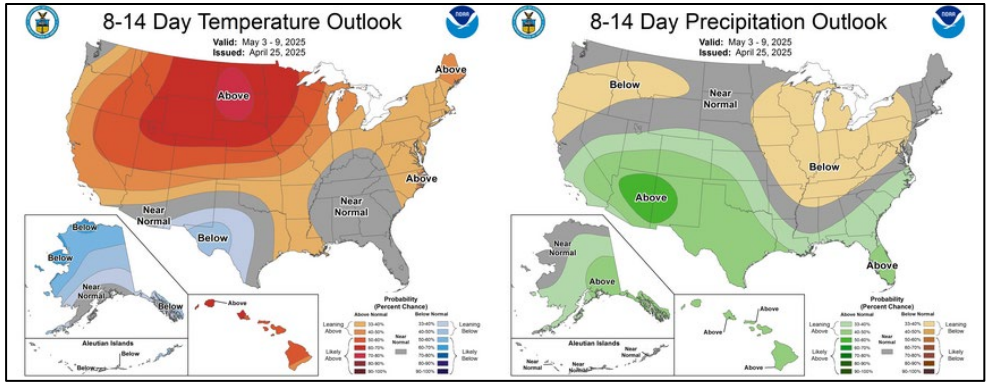
Slide Source: *https://www.cpc.ncep.noaa.gov/products/analysis_monitoring/lanina/enso_evolution-status-fcsts-web.ppt*

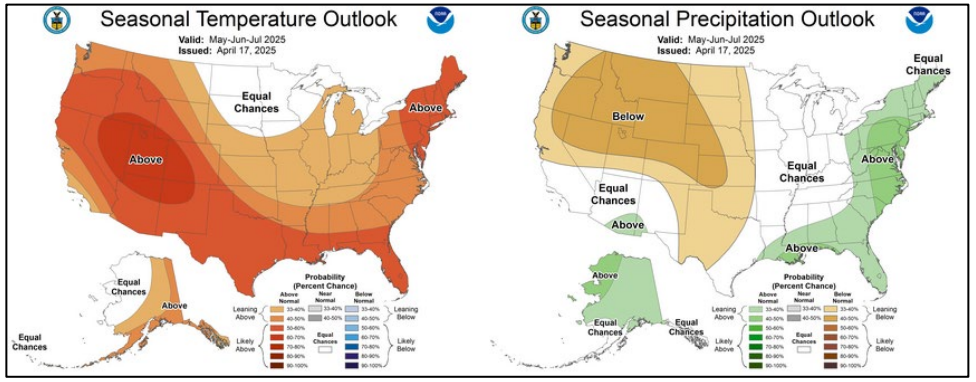
Temp & Precip Outlook

6-10 Day, 8-14 Day, Weeks 3-4, & Seasonal (May-June-July)







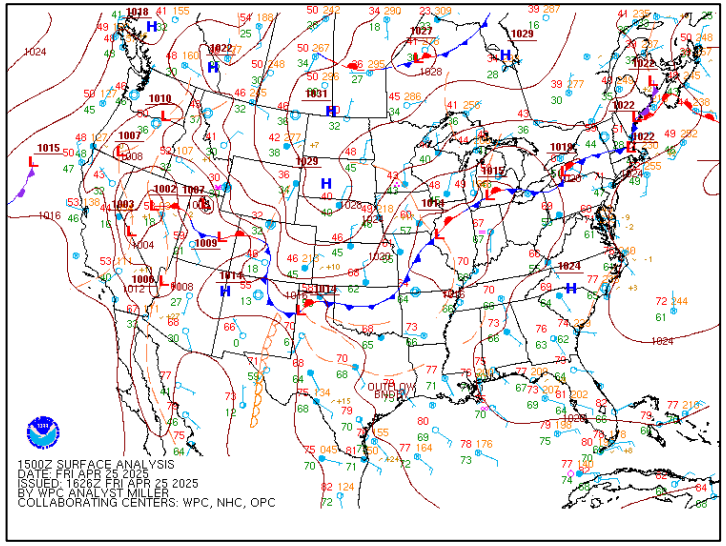


Source: https://www.cpc.ncep.noaa.gov/

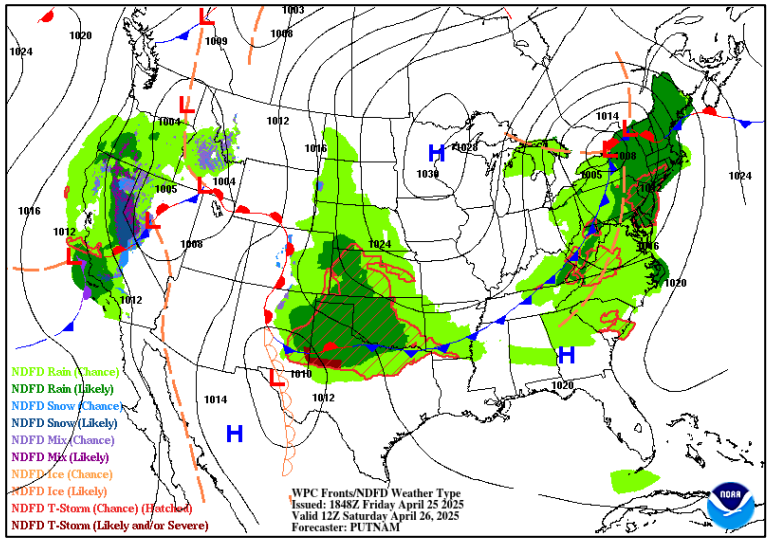
https://www.cpc.ncep.noaa.gov/products/predictions/long_range/fxus05.html

WPC Forecasted Surface Fronts & Sea-Level Pressures

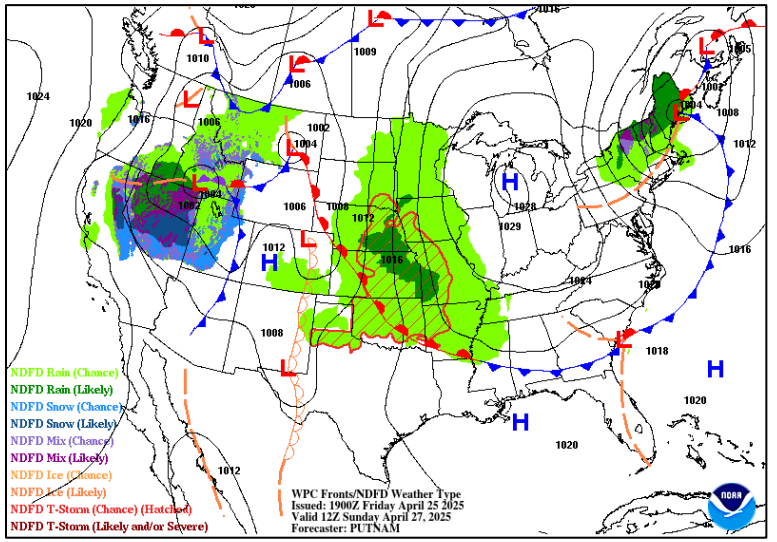
Day-1 @ 15Z Surface Analysis



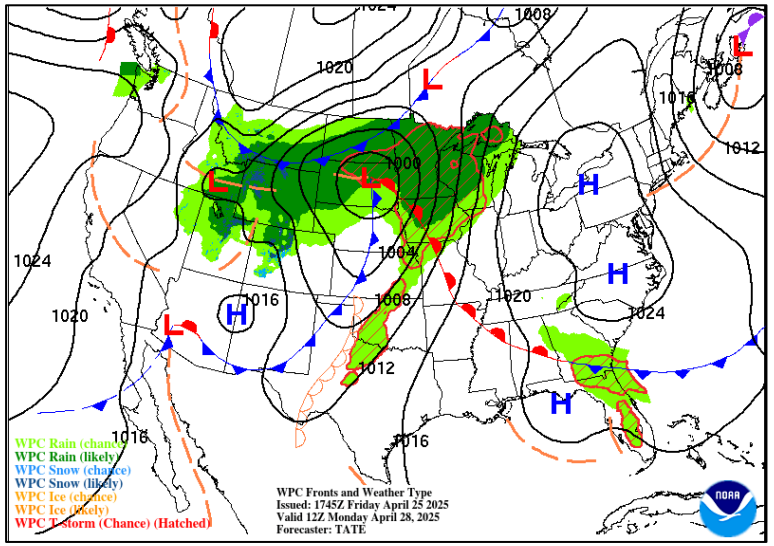
Day 2 - @ 12Z (0800 EDT)



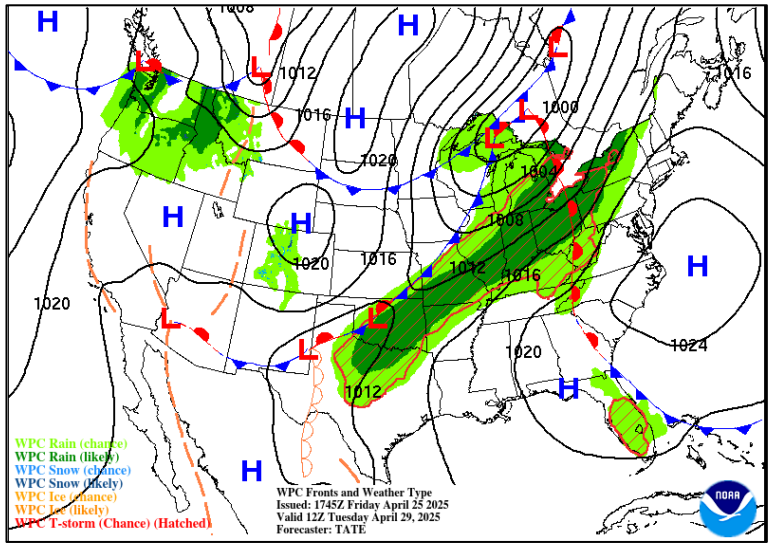
Day 3 @ 12Z (0800 EDT)



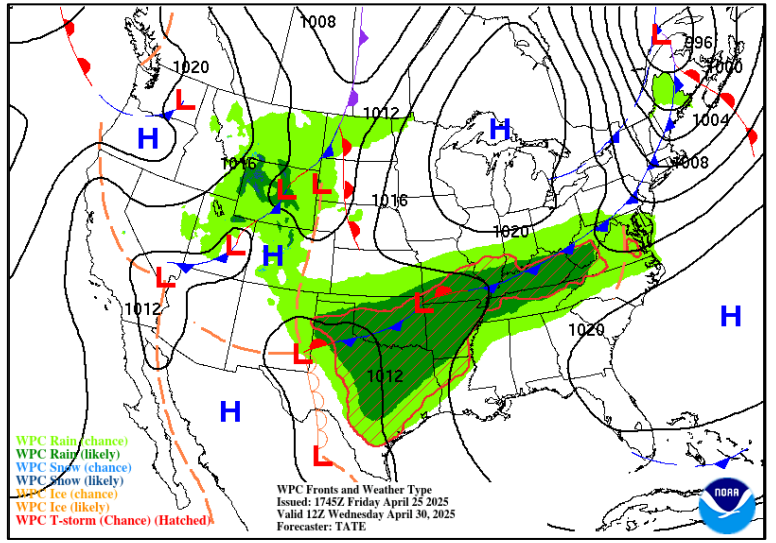
Day 4 @ 12Z (0800 EDT)



Day 5 @ 12Z (0800 EDT)



Day 6 @ 12Z (0800 EDT)

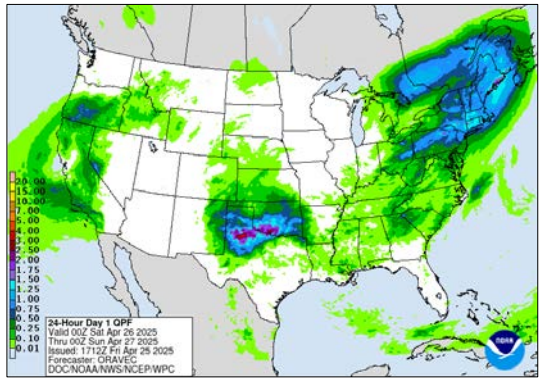


Location: https://www.wpc.ncep.noaa.gov/#

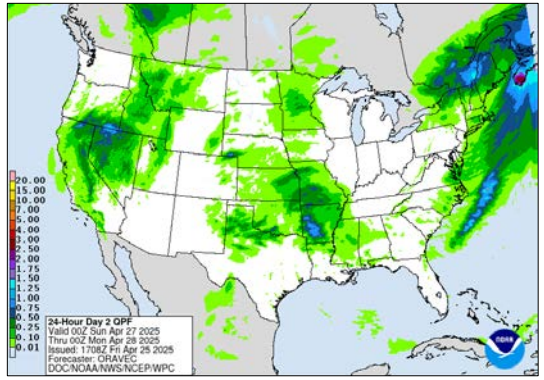
Quantitative Precipitation Forecast, 7-Day

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

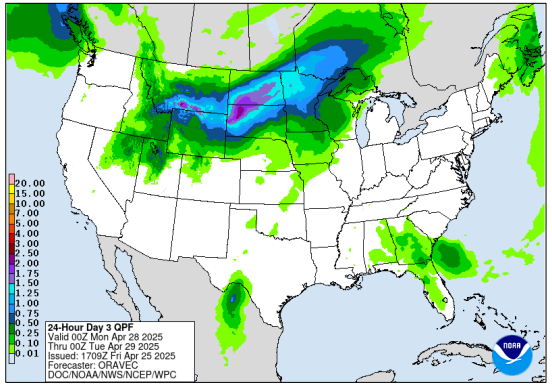
Day – 1



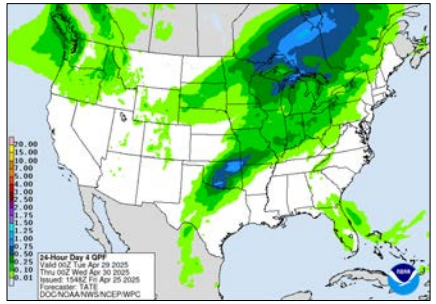
Day - 2



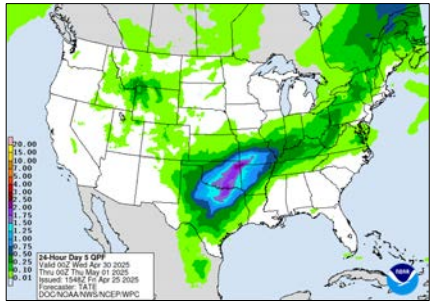
Day - 3



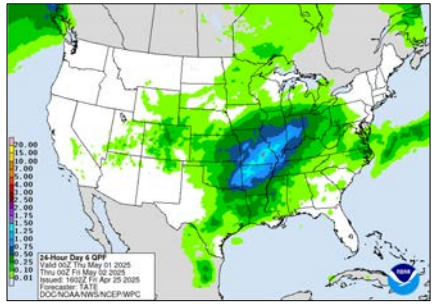
Day - 4



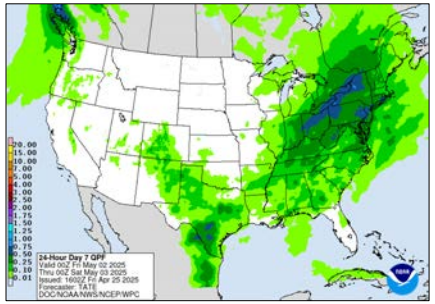
Day - 5



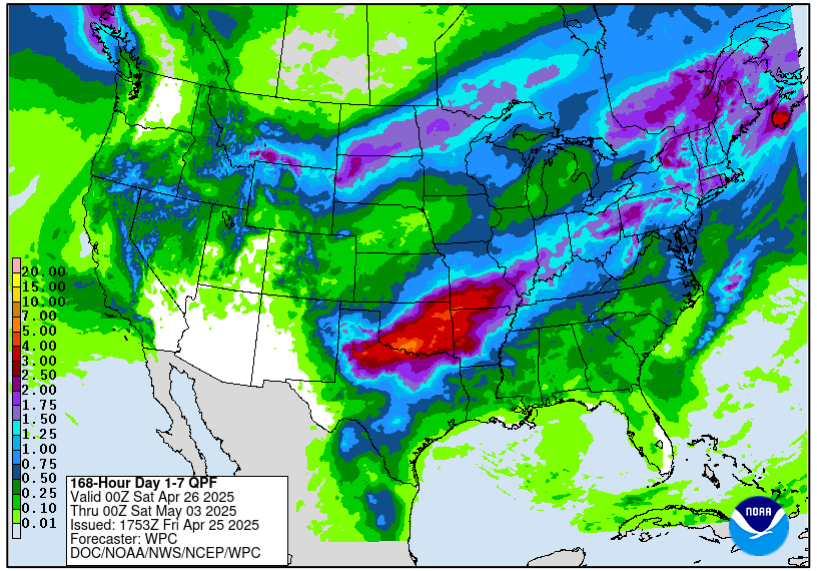
Day - 6



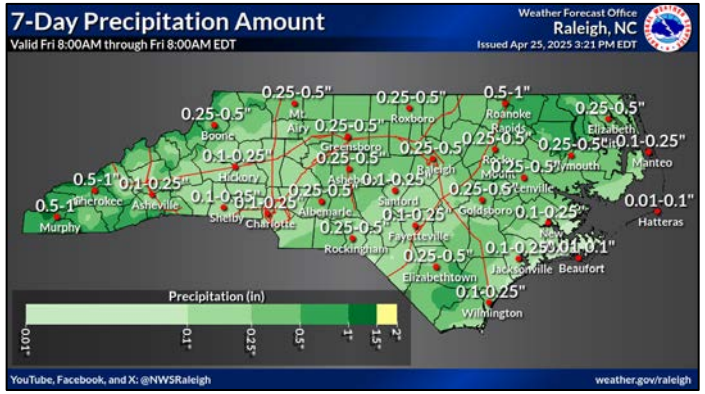
Day - 7



Days 1 – 7 QPF



Zoom - Days 1 – 7 QPF



Significant uncertainty past 7-days due to divergent models, dry trend may continue.

Warmer than normal conditions are forecast to continue.

Eastern NC lightning season concern.

NFDRS Actual Observations from Today

(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	2025-04-25	6.53 13.7%	1.90 14.3%	0.20 17.2%	3.47 13.6%	50.00	27.53 89.3%	28.03 90.9%	22.85 86.1%	21.26 63.0%	125.13	114.67	64.7°F	84.3%	SSW 4.7 mph	0.29 in.	4.3
Central Mountains	3	2025-04-25	10.23 15.2%	4.30 15.0%	0.80 26.3%	3.83 21.8%	49.33	20.02 77.1%	27.71 92.8%	23.59 92.7%	21.02 68.1%	195.47	163.00	70.3°F	68.0%	SSE 4.3 mph	0.84 in.	7.7
Northern Highlands	2	2025-04-25	8.55 19.0%	2.95 18.7%	0.45 21.8%	3.65 24.2%	110.50	22.24 76.5%	27.67 92.4%	21.15 73.3%	20.63 66.8%	196.85	168.00	66.0°F	74.5%	E 8.0 mph	0.43 in.	4.5
Blue Ridge Escarpment	3	2025-04-25	6.77 14.0%	2.27 14.0%	0.23 16.6%	3.50 16.9%	164.33	23.14 82.4%	27.81 90.5%	23.30 82.9%	19.48 35.2%	150.73	133.67	71.0°F	72.3%	WSW 5.7 mph	0.26 in.	5.3
Western Piedmont	3	2025-04-25	16.07 15.2%	7.83 15.9%	1.20 18.6%	5.00 22.2%	206.67	17.06 78.3%	23.84 86.3%	19.76 72.4%	20.35 64.0%	210.20	172.00	76.0°F	63.7%	SW 4.3 mph	0.07 in.	1.7
Sandhills	3	2025-04-25	22.23 20.2%	24.17 23.7%	3.37 24.1%	3.77 32.9%	214.33	14.98 74.0%	20.50 77.7%	20.03 68.3%	19.48 47.7%	250.00	200.00	80.3°F	54.3%	WSW 4.0 mph	0.05 in.	0.7
Eastern Piedmont	4	2025-04-25	17.98 11.6%	10.60 15.9%	1.53 20.7%	4.60 8.9%	181.50	15.37 71.5%	20.27 72.9%	17.64 39.7%	19.85 62.9%	233.98	190.50	78.5°F	60.8%	WSW 4.8 mph	0.00 in.	0.0
Southern Coastal	7	2025-04-25	18.51 13.2%	16.20 22.6%	2.06 22.3%	3.27 7.2%	430.14	13.32 56.4%	18.22 57.8%	19.20 46.5%	20.31 49.1%	249.77	198.29	81.7°F	54.6%	SSE 1.4 mph	0.00 in.	0.0
Northern Coastal	4	2025-04-25	16.53 13.6%	18.78 26.8%	2.38 23.8%	2.25 8.1%	313.25	11.70 48.6%	17.64 63.0%	18.29 38.0%	20.38 55.0%	216.65	174.50	80.3°F	49.8%	SW 3.8 mph	0.00 in.	0.0

NFDRS Forecast Observations for Tomorrow

(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	2025-04-26	26.00 38.6%	9.70 28.8%	2.13 38.7%	11.20 59.7%	50.00	15.46 58.0%	25.04 85.4%	24.97 94.0%	21.36 63.0%	130.87	119.00	73.7°F	55.0%	NW 4.3 mph	4.7	0.3
Central Mountains	3	2025-04-26	20.27 29.1%	9.50 26.5%	2.03 38.8%	6.67 48.8%	49.33	14.65 60.1%	24.13 82.8%	25.96 97.2%	21.10 68.1%	199.83	165.67	74.3°F	54.0%	NW 4.0 mph	4.3	0.0
Northern Highlands	2	2025-04-26	21.65 38.1%	8.35 28.8%	1.75 47.0%	8.90 53.6%	110.50	15.63 59.3%	25.13 86.5%	24.21 92.7%	20.65 66.8%	200.25	170.50	68.5°F	61.5%	NW 5.0 mph	4.5	0.0
Blue Ridge Escarpment	3	2025-04-26	38.90 55.8%	18.17 43.9%	3.67 46.1%	15.00 59.5%	164.33	13.86 61.1%	21.39 70.1%	25.04 92.2%	21.41 66.0%	154.83	137.00	75.7°F	50.7%	WNW 4.0 mph	2.0	0.0
Western Piedmont	3	2025-04-26	20.73 20.2%	11.40 19.1%	2.07 25.0%	5.93 28.9%	206.67	14.57 73.2%	21.60 81.2%	20.39 72.4%	20.34 64.0%	215.43	176.33	80.0°F	56.0%	WSW 5.3 mph	0.0	0.0
Sandhills	3	2025-04-26	29.47 31.5%	24.40 23.7%	4.90 33.6%	6.10 61.1%	214.33	13.88 69.8%	21.32 77.7%	19.95 68.3%	19.56 64.0%	250.00	200.00	80.7°F	56.7%	WSW 6.3 mph	0.0	0.0
Eastern Piedmont	4	2025-04-26	25.75 15.1%	12.18 16.6%	2.83 25.6%	8.73 13.6%	181.50	14.05 66.7%	19.76 72.9%	17.66 39.7%	19.80 62.9%	238.58	192.50	78.3°F	62.0%	SW 8.8 mph	0.0	0.0
Southern Coastal	7	2025-04-26	27.41 20.4%	14.06 19.6%	2.80 29.1%	8.93 23.5%	430.14	14.15 63.2%	19.70 71.6%	18.80 46.5%	20.32 49.1%	250.00	199.86	79.6°F	59.6%	SW 8.1 mph	0.0	0.0
Northern Coastal	4	2025-04-26	33.18 23.7%	14.93 22.1%	3.48 29.2%	12.43 25.2%	313.25	13.85 64.4%	18.63 68.8%	17.91 38.0%	20.37 55.0%	221.85	178.00	77.3°F	62.3%	SW 10.8 mph	0.0	0.0

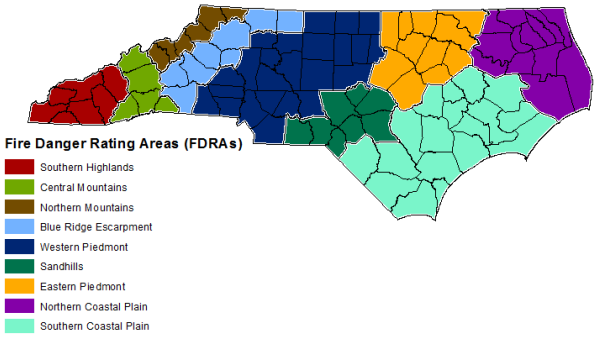
Important notes for next slide group:

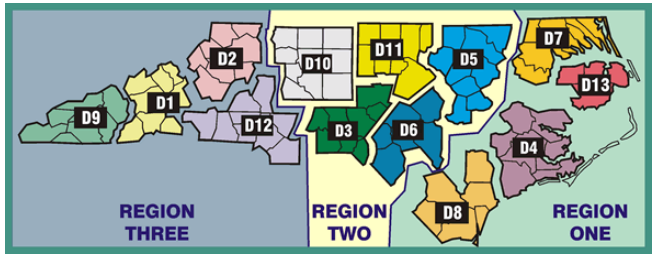
A. Current ERC, KBDI, GSI, 10-Hr, 100-Hr & 1000-Hr Graphics:

- FF+ Analysis Output will accompany next week's assessment update.

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

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	SAT 26-Apr	SUN 27-Apr	MON 28-Apr	TUE 29-Apr	WED 30-Apr	THU 01-May	FRI 02-May
Avg. Max. Temp. (°F)	74	73	72	75	79	78	
Avg. Min. Humidity (%)	52	45	47	54	48	48	
Avg. 20' Wind Speed (mph)	4	3	3	4	4	4	
Avg. Wind Direction*	WNW	WNW	SSE	SSE	SW	SSW	
Avg. Probability of Precip. (%)	21	15	22	18	45	48	
Days Since a Wetting Rain**	2.0	3.0	4.0				
Forecast ERC (Fuel Model X)	9.4	12.0	15.0	12.0	12.4	13.7	12.1
Forecast BI (Fuel Model X)	25.5	25.5	30.3	28.3	28.0	30.8	29.8
Forecast IC (Fuel Model X)	2.0	2.4	3.2	2.7	3.2	3.8	3.1
Forecast 100-Hr. FMC	25.2	24.6	22.8	21.9	21.3	21.1	20.6
Forecast 1000-Hr. FMC	21.7	21.9	22.4	22.7	22.7	22.7	22.6
KBDI	35.5						

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:

- **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

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	SAT 26-Apr	SUN 27-Apr	MON 28-Apr	TUE 29-Apr	WED 30-Apr	THU 01-May	FRI 02-May
Avg. Max. Temp. (°F)	77	76	75	81	83	82	
Avg. Min. Humidity (%)	49	35	41	47	46	42	
Avg. 20' Wind Speed (mph)	3	3	3	3	3	3	
Avg. Wind Direction*	WNW	W	SSE	SSW	WSW	SW	
Avg. Probability of Precip. (%)	29	13	17	20	46	50	
Days Since a Wetting Rain**	2.0	3.0	4.0				
Forecast ERC (Fuel Model X)	9.5	13.6	16.7	13.3	12.5	12.9	12.7
Forecast BI (Fuel Model X)	20.3	21.8	24.7	22.8	21.2	22.8	23.1
Forecast IC (Fuel Model X)	2.0	2.9	3.5	3.1	3.1	3.4	3.4
Forecast 100-Hr. FMC	26.0	24.3	22.1	21.0	20.3	20.0	19.8
Forecast 1000-Hr. FMC	21.1	21.5	21.8	22.0	22.2	22.2	22.2
KBDI	49.3						

Data Source:

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

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

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

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

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

FDRA – Northern Highlands

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	SAT 26-Apr	SUN 27-Apr	MON 28-Apr	TUE 29-Apr	WED 30-Apr	THU 01-May	FRI 02-May
Avg. Max. Temp. (°F)	72	70	70	77	79	79	
Avg. Min. Humidity (%)	57	32	45	57	49	50	
Avg. 20' Wind Speed (mph)	7	7	4	5	6	5	
Avg. Wind Direction*	WNW	WNW	SSW	SSW	W	WSW	
Avg. Probability of Precip. (%)	35	6	10	18	50	48	
Days Since a Wetting Rain**	1.0	2.0	3.0				
Forecast ERC (Fuel Model X)	8.4	16.5	18.5	13.6	12.5	13.7	13.0
Forecast BI (Fuel Model X)	21.7	26.2	28.2	25.5	25.2	25.6	26.9
Forecast IC (Fuel Model X)	1.8	3.5	3.9	3.1	3.3	3.5	3.5
Forecast 100-Hr. FMC	24.2	23.3	21.0	19.9	19.4	19.5	19.6
Forecast 1000-Hr. FMC	20.7	20.8	20.9	21.2	21.3	21.4	21.5
KBDI	110.5						

Data Source:

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

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

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

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

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

FDRA – Blue Ridge Escarpment

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	SAT 26-Apr	SUN 27-Apr	MON 28-Apr	TUE 29-Apr	WED 30-Apr	THU 01-May	FRI 02-May
Avg. Max. Temp. (°F)	78	74	74	79	83	82	
Avg. Min. Humidity (%)	47	31	37	48	43	41	
Avg. 20' Wind Speed (mph)	4	4	2	4	4	4	
Avg. Wind Direction*	W	SSW	SE	SSW	WSW	WSW	
Avg. Probability of Precip. (%)	32	6	9	14	41	44	
Days Since a Wetting Rain**	2.0	3.0	4.0				
Forecast ERC (Fuel Model X)	18.2	26.1	29.9	23.4	20.9	22.1	23.6
Forecast BI (Fuel Model X)	38.9	39.8	43.0	51.7	42.4	44.0	51.3
Forecast IC (Fuel Model X)	3.7	5.0	5.7	6.0	5.5	5.7	6.3
Forecast 100-Hr. FMC	25.0	21.5	18.6	17.4	18.2	18.6	18.9
Forecast 1000-Hr. FMC	21.4	21.7	21.6	20.5	20.0	19.8	19.6
KBDI	164.3						

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

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	SAT 26-Apr	SUN 27-Apr	MON 28-Apr	TUE 29-Apr	WED 30-Apr	THU 01-May	FRI 02-May
Avg. Max. Temp. (°F)	83	74	77	82	87	87	
Avg. Min. Humidity (%)	51	30	33	46	42	41	
Avg. 20' Wind Speed (mph)	6	5	3	5	5	4	
Avg. Wind Direction*	WSW	SSE	ESE	SSW	SW	SSW	
Avg. Probability of Precip. (%)	33	4	2	5	31	36	
Days Since a Wetting Rain**	6.3	7.3	8.3				
Forecast ERC (Fuel Model X)	11.5	17.9	20.2	15.8	14.0	14.5	17.2
Forecast BI (Fuel Model X)	21.2	24.3	21.0	25.3	22.2	21.7	27.2
Forecast IC (Fuel Model X)	2.0	3.6	3.4	3.9	3.3	3.2	4.7
Forecast 100-Hr. FMC	20.8	19.6	18.2	17.6	17.5	17.9	18.9
Forecast 1000-Hr. FMC	20.3	20.5	20.5	20.5	20.5	20.5	21.1
KBDI	226.0						

Data Source:

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

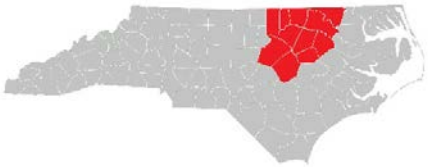
Values in the table above are averages from 3 stations in this FDRA:

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

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

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

FDRA – Eastern Piedmont



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	SAT 26-Apr	SUN 27-Apr	MON 28-Apr	TUE 29-Apr	WED 30-Apr	THU 01-May
Avg. Max. Temp. (°F)	82	74	77	83	88	88
Avg. Min. Humidity (%)	57	30	34	40	44	44
Avg. 20' Wind Speed (mph)	7	5	2	4	6	4
Avg. Wind Direction*	SW	W	ESE	SSW	SW	SSW
Avg. Probability of Precip. (%)	51	5	0	0	28	31
Days Since a Wetting Rain**	0.8	1.8	2.8			
Forecast ERC (Fuel Model X)	13.2	17.3	19.0	18.4	15.5	15.4
Forecast BI (Fuel Model X)	24.7	26.3	18.1	26.7	24.0	21.2
Forecast IC (Fuel Model X)	2.8	4.1	2.9	4.6	3.9	3.2
Forecast 100-Hr. FMC	17.3	17.1	16.6	16.1	16.0	16.5
Forecast 1000-Hr. FMC	19.8	19.7	19.7	19.5	19.3	19.2
KBDI						

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

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	SAT 26-Apr	SUN 27-Apr	MON 28-Apr	TUE 29-Apr	WED 30-Apr	THU 01-May
Avg. Max. Temp. (°F)	84	76	79	85	88	90
Avg. Min. Humidity (%)	50	29	32	41	43	41
Avg. 20' Wind Speed (mph)	6	5	3	4	6	4
Avg. Wind Direction*	SW	E	ESE	SSW	SW	SSW
Avg. Probability of Precip. (%)	43	6	0	0	21	31
Days Since a Wetting Rain**	6.0	7.0	8.0			
Forecast ERC (Fuel Model Z)	29.3	36.5	43.7	38.0	35.9	35.3
Forecast BI (Fuel Model Z)	32.4	37.6	29.9	35.6	35.2	34.0
Forecast IC (Fuel Model Z)	5.2	9.1	7.4	8.5	8.1	7.9
Forecast 100-Hr. FMC	19.9	19.7	18.6	18.0	18.0	18.4
Forecast 1000-Hr. FMC	19.6	19.6	19.6	19.7	19.7	19.7
KBDI						

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

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	SAT 26-Apr	SUN 27-Apr	MON 28-Apr	TUE 29-Apr	WED 30-Apr	THU 01-May	FRI 02-May
Avg. Max. Temp. (°F)	81	73	76	81	87	85	
Avg. Min. Humidity (%)	59	32	30	37	48	52	
Avg. 20' Wind Speed (mph)	9	7	4	5	8	6	
Avg. Wind Direction*	SW	WNW	SE	S	SW	SSW	
Avg. Probability of Precip. (%)	46	1	0	3	29	20	
Days Since a Wetting Rain**	1.8	2.8	3.8				
Forecast ERC (Fuel Model X)	14.9	18.7	20.4	18.3	17.9	15.4	14.7
Forecast BI (Fuel Model X)	33.2	30.3	21.7	27.6	30.5	20.2	31.9
Forecast IC (Fuel Model X)	3.5	4.4	3.2	4.2	4.8	2.5	3.7
Forecast 100-Hr. FMC	17.9	17.8	17.4	17.1	17.0	17.4	17.8
Forecast 1000-Hr. FMC	20.4	20.4	20.3	20.3	20.1	20.0	19.9
KBDI	313.3						

Data Source:

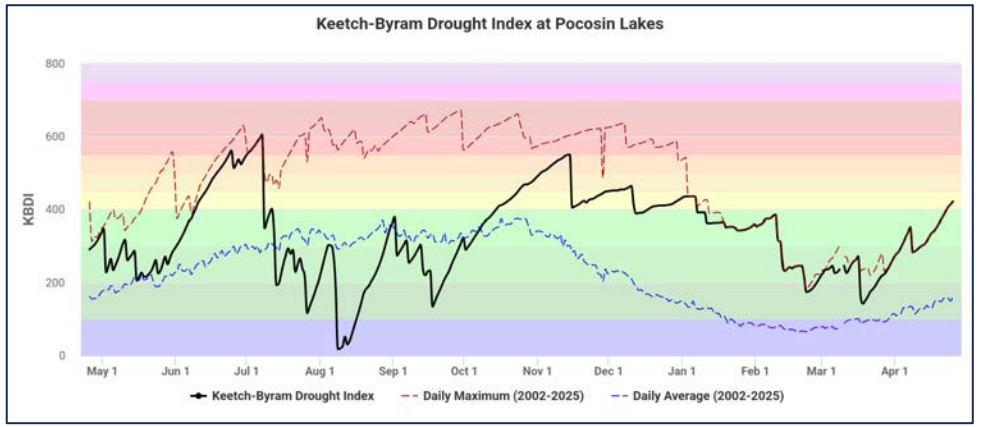
- Weather forecasts come from the National Weather Service's Digital Forecast Database. The wind speed and direction, and probability of precipitation, are calculated as averages of the 1 am, 7 am, 1 pm, and 7 pm forecasts. The 20-foot wind speed is estimated from the 10-meter forecast using the log 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 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

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	SAT 26-Apr	SUN 27-Apr	MON 28-Apr	TUE 29-Apr	WED 30-Apr	THU 01-May	FRI 02-May
Avg. Max. Temp. (°F)	82	75	79	83	88	87	
Avg. Min. Humidity (%)	59	34	33	41	48	50	
Avg. 20' Wind Speed (mph)	6	5	3	4	6	5	
Avg. Wind Direction*	SSW	S	E	S	SW	SSW	
Avg. Probability of Precip. (%)	55	2	0	1	17	20	
Days Since a Wetting Rain**	0.4	1.4	2.4				
Forecast ERC (Fuel Model X)	14.1	16.5	21.0	17.7	16.6	14.9	14.6
Forecast BI (Fuel Model X)	27.4	22.9	21.6	25.6	27.2	22.9	29.8
Forecast IC (Fuel Model X)	2.8	2.9	3.2	3.7	3.8	2.6	3.4
Forecast 100-Hr. FMC	18.8	18.6	18.1	17.6	17.4	17.8	18.2
Forecast 1000-Hr. FMC	20.3	20.3	20.2	20.2	20.1	20.0	19.9
KBDI	430.1						

Data Source:

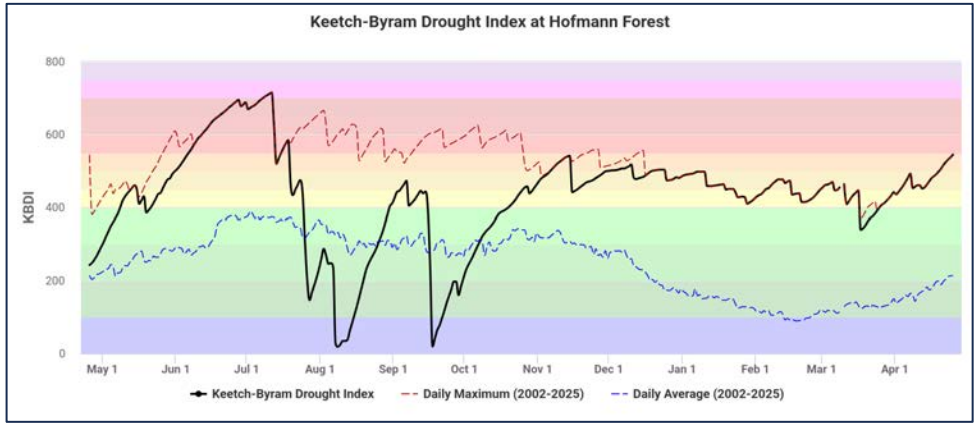
- Weather forecasts come from the National Weather Service's Digital Forecast Database. The wind speed and direction, and probability of precipitation, are calculated as averages of the 1 am, 7 am, 1 pm, and 7 pm forecasts. The 20-foot wind speed is estimated from the 10-meter forecast using the log 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)

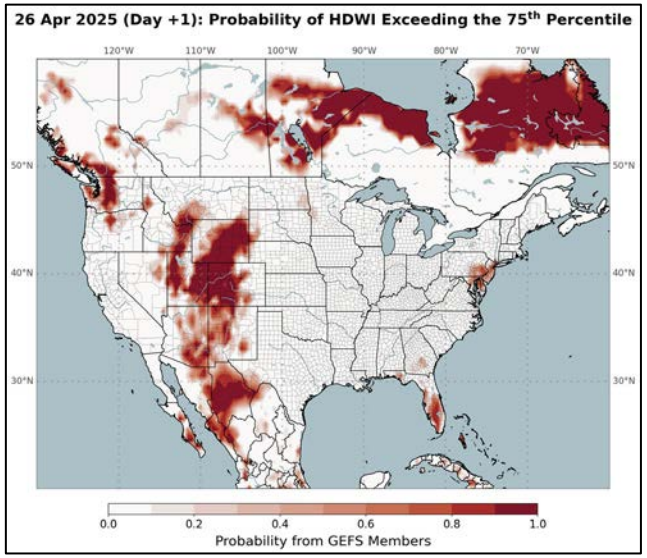
KEY	Low to Moderate Burning Conditions	Burning Conditions Can be High CAUTION	Burning Conditions Can be Critical WATCH OUT!
Avg. Max. Temp.	Less than 50°F	Between 50°F and 65°F	Greater than 65°F
Avg. Min. Humidity	Greater than 40%	Between 35% and 40%	Less than 35%
Avg. 20' Wind Speed	Less than 5 mph	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**

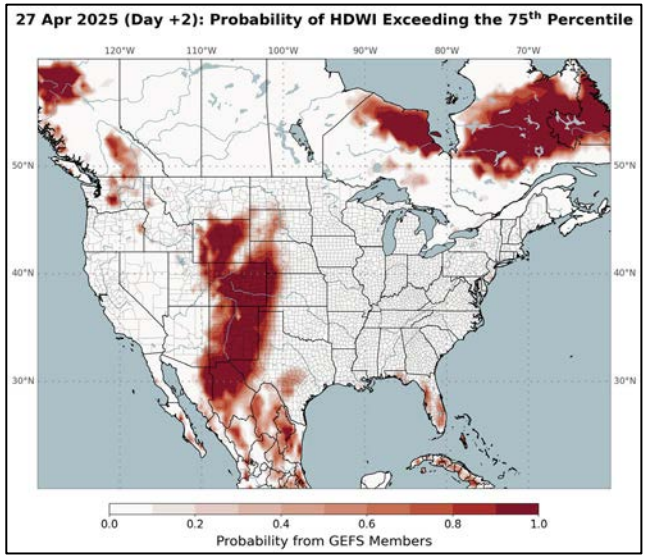


Hot-Dry-Windy Index (HDW)

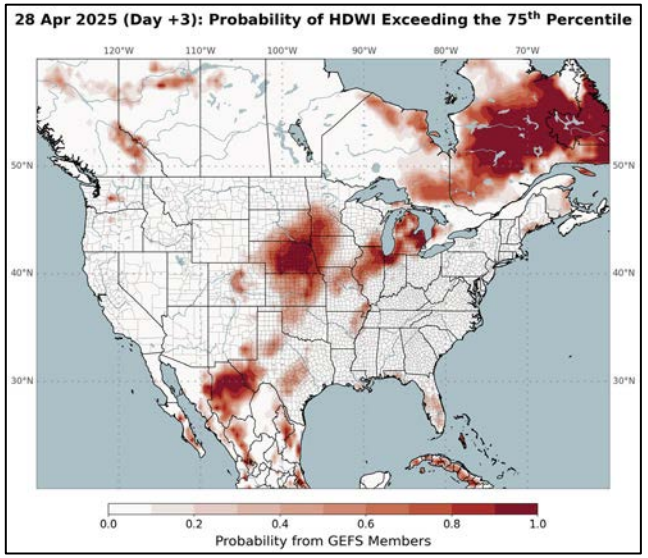
Saturday > 75th Percentile



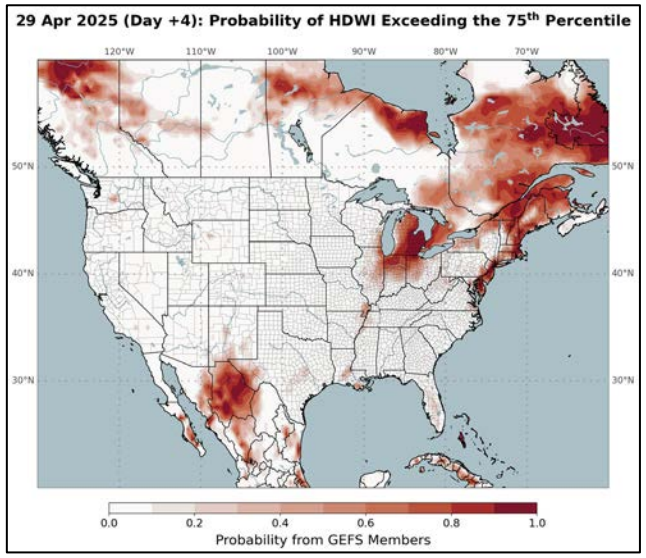
Sunday > 75th Percentile



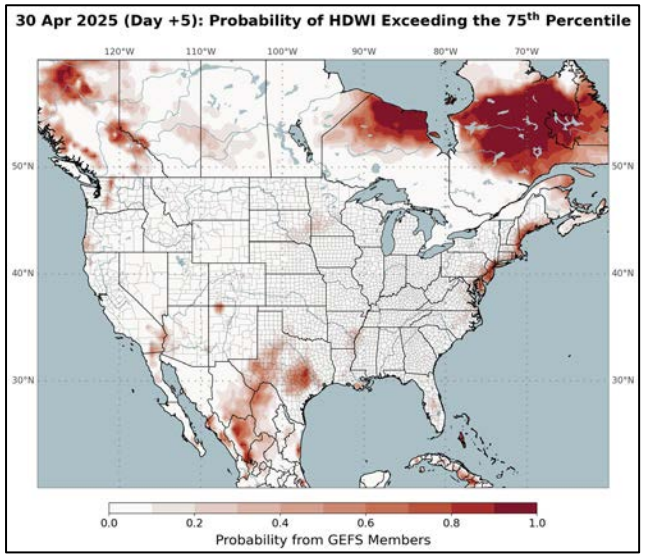
Monday > 75th Percentile



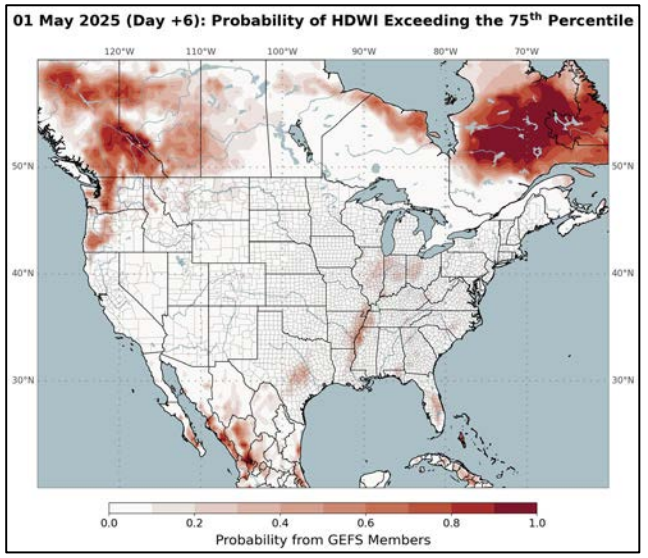
Tuesday > 75th Percentile



Wednesday > 75th Percentile



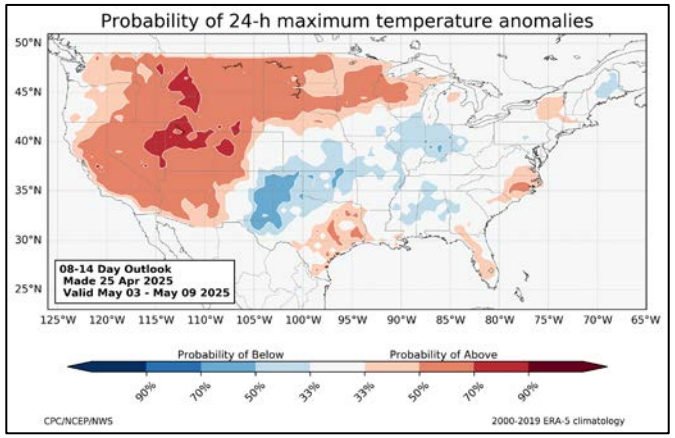
Thursday > 75th Percentile

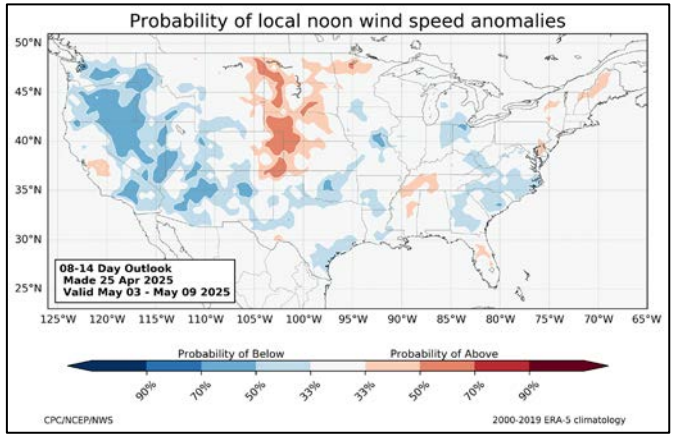


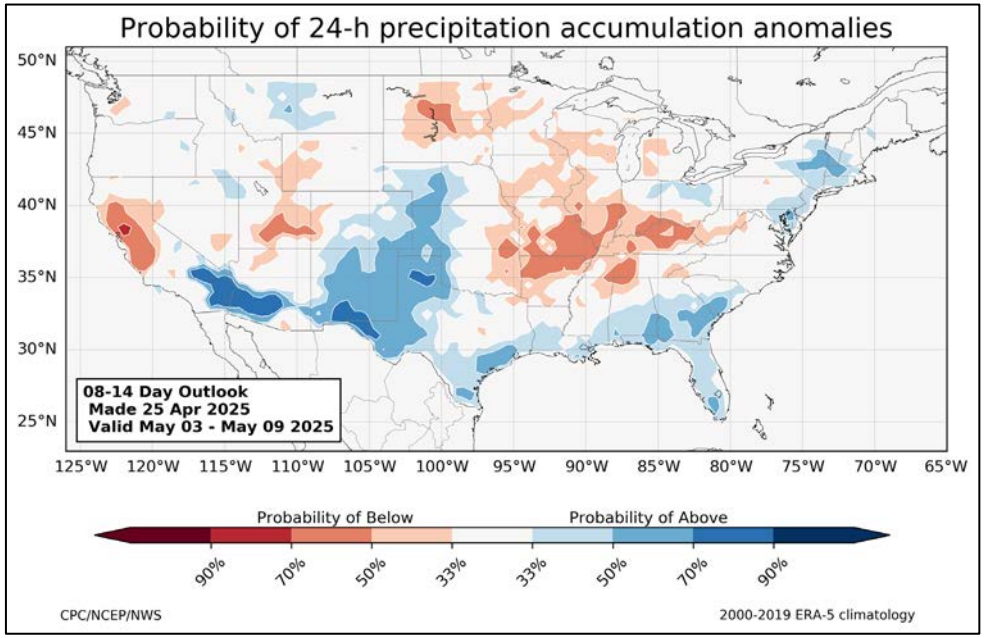
- Another visualization tool to pick up on broader weather, but with *limitations
- Only uses Max VPD (atmospheric moisture & temp) & Max Wind Speed to generate outputs
- Coarse Resolution - 0.5 Degree Grid
- No Account of Local Fuel Conditions and Topo

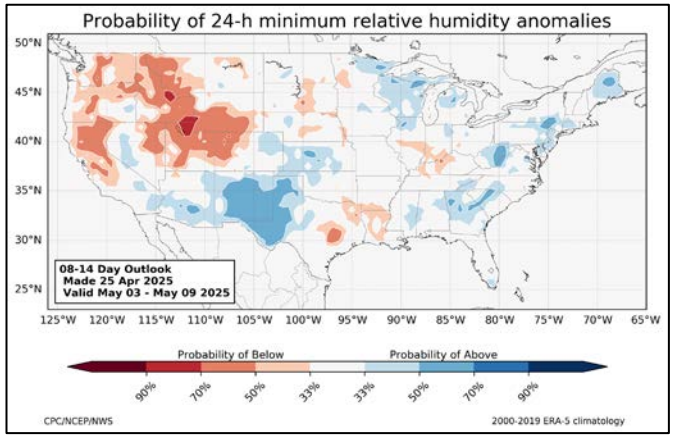
https://www.hdwindex.org/probs.html

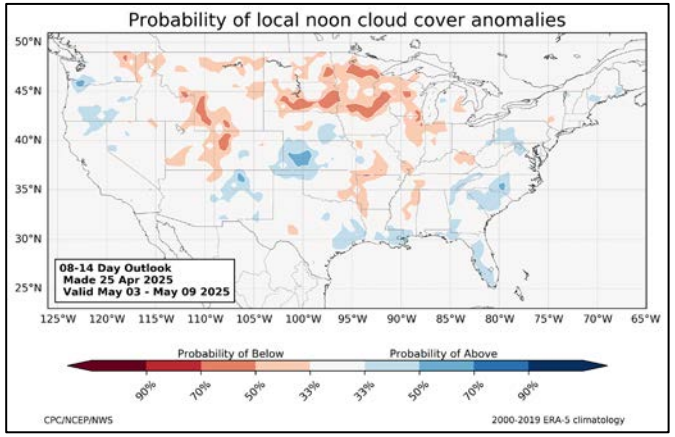
Week Two Forecast Anomalies: 5/3 - 5/9

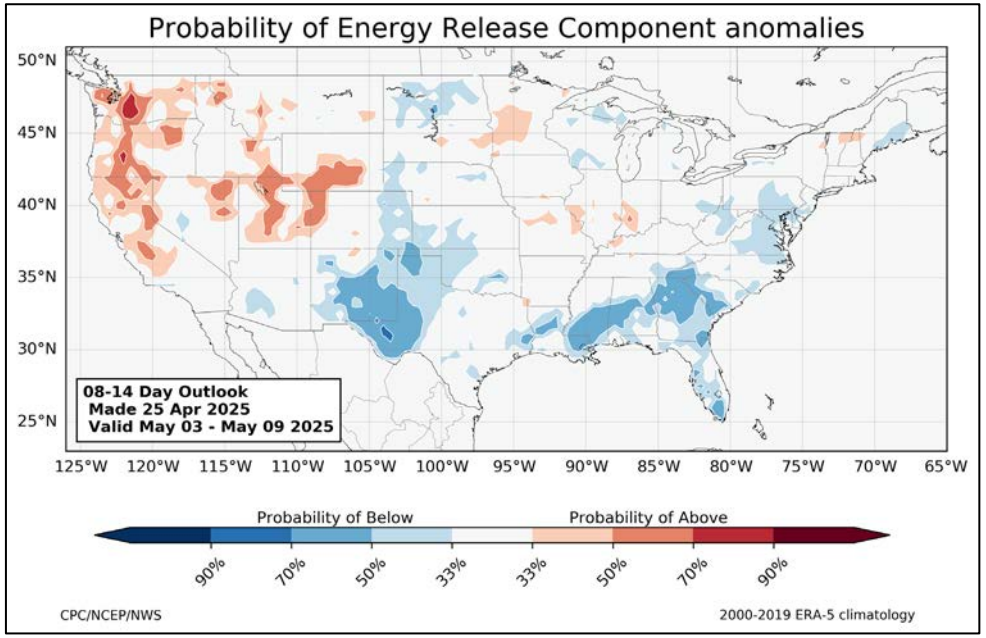










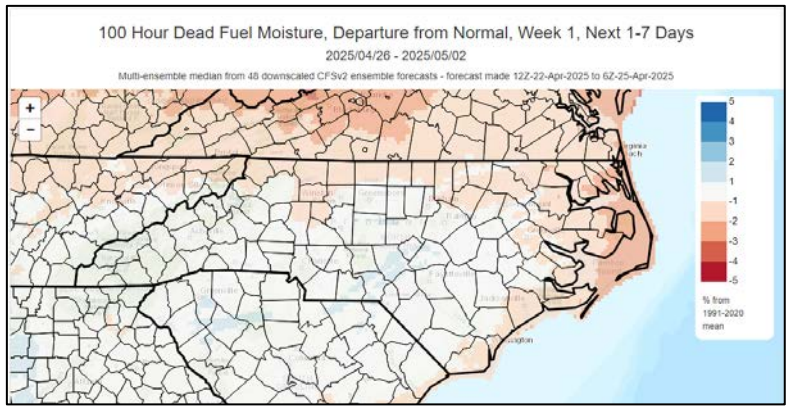


https://www.cpc.ncep.noaa.gov/products/people/mchen/fireWeather/cpc_wk2fw_index.html

Modeled Departure from Normal by Week: 100-hr Fuels

Output relies on experimental forecast outputs and is subject to change

Week-1

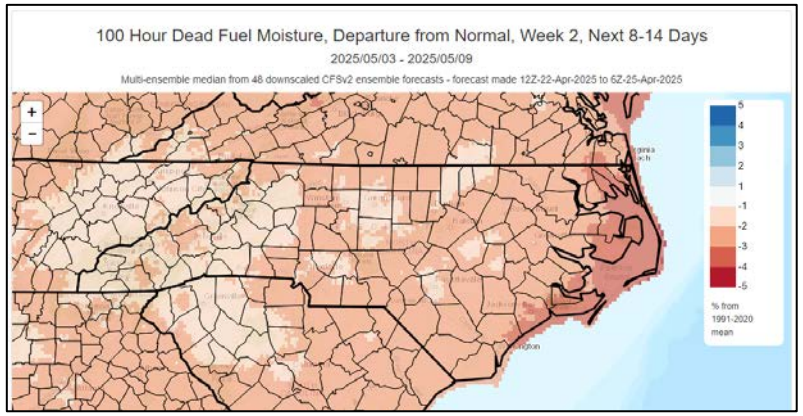


This output can provide insight into general drying trends and potential impacts to overall fire danger, especially prior to full green-up or in drought conditions. Outputs relate to interactions of warmer/colder temps, moist/dry air masses, precip amt/duration and overnight RH recovery trends.

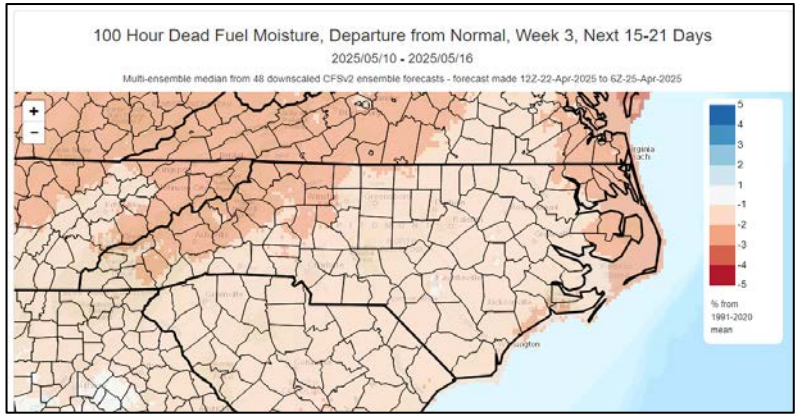
Note that <u>modeled</u> below normal conditions (lower % mc or "worse") are focused on coastal counties for much of next four weeks, especially Weeks 2-3.

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

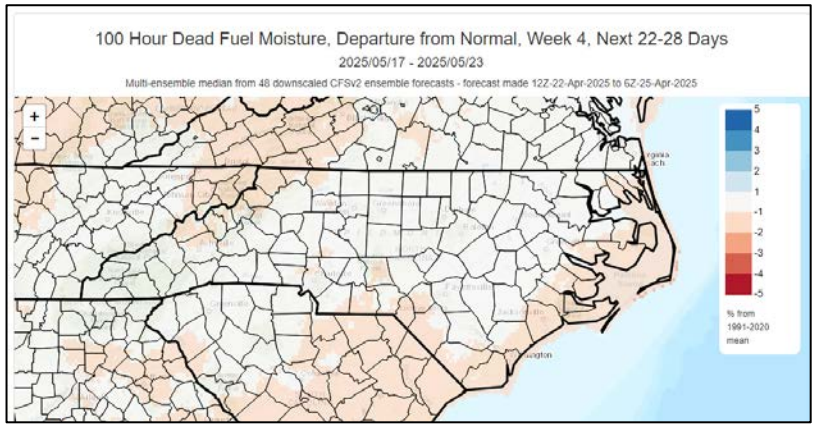
Week-2



Week-3



Week-4



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

SACC Daily Outlook, Selected Snips from Friday - 4/25

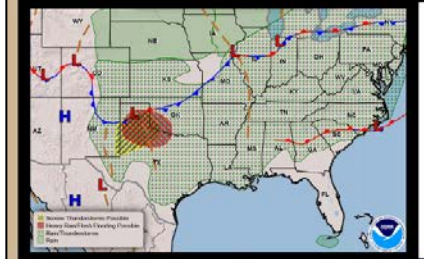
https://gacc.nifc.gov/sacc/resources/predictive/sacc-daily-outlook.pdf

SACC Daily Outlook
Friday, April 25, 2025

Watches, Warnings and Advisories

- **Fire Weather Watch** in El Paso County, TX on Sunday
- **Dense Fog Advisories** this morning in OK, AR, FL, AL, TN
- **Flood Warning/Advisories** in parts of OK, TX, LA, AR, KY, TN, MS

Today's Weather Outlook



- Yet another round of severe thunderstorms will impact the Plains today, where grapefruit-sized hail, a few tornadoes and sporadic wind damage will be possible
- Some flash flooding will be possible in northwest TX and western OK, as well, especially if thunderstorms move slowly over areas impacted by heavy rain in the past week
- Showers and thunderstorms ongoing in the Mississippi Valley this morning will spread to the northeast cross the Appalachians, eventually reaching the Mid-Atlantic coast this evening or overnight
- Thunderstorms will generally be isolated along the Gulf Coast to the Southeast Coast, with dry weather most likely over FL and adjacent states
- Elevated to locally critical fire weather will continue across southern parts of the FL peninsula

30-Day Percent of Normal Precipitation

- Rainfall amounts continue to stack up across the Plains states and Mid-Mississippi Valley, where there are growing areas of 300-400% of normal rainfall (or locally higher)
- Portions of the High Plains and small areas elsewhere in TX have been dry, while dry anomalies become more expansive from the Lower Mississippi Valley into the eastern states
- Areas with below 25% of normal rainfall the last 30 days across FL, GA and coastal SC into NC will be most at risk for wildland fire in the coming days
- If the VA mountains miss out on rain tonight into tomorrow, some critically dry fuels may return Sunday and early next week

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

SACC Daily Outlook
Friday, April 25, 2025

Significant Fire Potential Outlook Today

- **South Florida:** critically dry fuels and low water levels, multiple established large fires and a breezy, hot and dry day all point to continued high risk significant fire potential, with new human-caused IA and growth on existing incidents both possible; look for RH as low as 25-40% (highest in the east, lowest west), with E wind gusts of 25-30 mph; sea breezes will bring an onshore wind shift to the Gulf Coast
- Winds will be a bit lighter with northward extent across FL, but moderate significant fire potential will continue due to dry fuels, RH as low as 25-45% and gusty sea breeze winds
- Lightning holdovers could emerge across the coastal Carolinas into AL and GA; fuels will be more marginal but still receptive to fires, while sea breeze wind gusts around 20 mph will be common near the coasts
- Fuels are critically dry across portions of VA, but higher RH and rain chances will overspread the state from west to east; lightning ignitions can not be ruled out

Significant Fire Potential Outlook Saturday

- Spotty showers and thunderstorms will accompany a cold front moving into GA and the coastal Carolinas, but many areas will remain dry, and SW wind gusts ahead of the front will reach 20-35 mph, highest in NC
- Lighter winds are in store for the FL peninsula, though sea breezes will produce some gusts up to 25 mph throughout the state; expect slightly hotter temperatures, along with inland RH as low as 25-35%
- Isolated thunderstorms could impact the TX mountains, resulting in new ignitions, while western areas will see single-digit RH and gusty W/SW winds
- If rain fails to materialize across the VA mountains, drier air moving in and gusty NW winds could bring fire risks back to some of the higher elevations

Significant Fire Potential Outlook Sunday

- Hotter and drier conditions are forecast across the state of FL into south GA ahead of a front slowly moving south into the area; RH may be as low as 20-30% inland, while sea breezes are expected to result in gusts up to 25 mph; highs inland will reach at least the mid-90s, with some models supporting upper 90s to near 100 degrees
- Virginia into the Carolinas will see extremely dry air return after fair to poor morning recoveries; RH is forecast to be as low as 10-20%, a bit higher in NC, while NW wind gusts in northern VA will be as high as 25-35 mph; winds will decrease farther south through the day
- Expect windy, dry and hot conditions across the TX mountains; RH will be as low as 2-8%, while SW wind gusts reach 45-60 mph in western areas; isolated thunderstorms could still occur over and east of the higher terrain

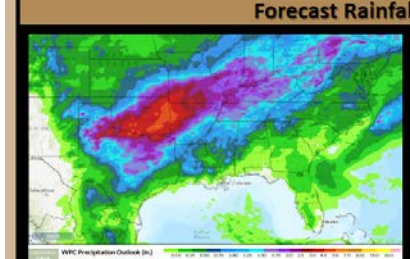
National 7-Day Significant Fire Potential Outlook

SACC Daily Outlook
Friday, April 25, 2025

Significant Fire Potential Outlook Monday

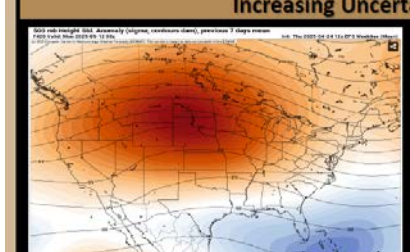
- **Florida:** a weakening front will settle into the state, resulting in increasing moisture and instability; thunderstorm coverage will likely be isolated to widely scattered (highest chances north) but sufficient to result in lightning ignitions; sea breezes and outflow boundaries could impact any ongoing or new fires
- High pressure will bring light winds to VA and the Carolinas, but only fair moisture recovery in the morning will be followed by RH as low as 10-25%, lowest in VA; sea breezes will bring gusts up to 20 mph along the coast of the Carolinas, while gusts will be light elsewhere
- Lack of wetting rain the past 2-3 weeks and some drier conditions will result in increasing fuel dryness along the Gulf Coast, but there are no major concerns west of the FL panhandle
- Drier parts of the TX and OK panhandles will see elevated to critical fire weather behind a dryline; look for SW wind gusts of 30-50 mph, with RH as low as 8-15%

Forecast Rainfall the Next Week



- A cold front moving into the Southeast today and tomorrow will bring scattered beneficial rainfall, with local 1-2" more common in the western side of the Appalachians and lower amounts farther south and east
- Rainfall early next week across south GA, AL and the FL peninsula will likely be widely scattered to isolated, but local 0.5-1.5" amounts are possible
- Periodic showers and storms will continue across the Plains, with only a day or two of dry weather in between passing systems; the heaviest totals across northern TX into OK and western AR may still exceed 5" during the week ahead
- Thunderstorms that visit the Trans Pecos, FL and the costal Southeast will be most likely to result in lightning ignitions through the period

Increasing Uncertainty in Week Two



- Model guidance is in increasingly poor agreement on the forecast details over the Southeast heading into the opening ~10 days of May
- While a high pressure ridge (red) will build across central and northern parts of the U.S., the placement of upper-level lows (blue) to its south is highly uncertain
- This may mean the difference between beneficial rain across FL into the coastal Southeast or very dry air and breezy conditions returning as rain is more concentrated off to the east; lightning ignitions risks are possible with the wetter scenario, but Red Flag days could occur behind or in the absence of any precipitation, as well
- What is of higher confidence is wet weather staying focused across TX and OK, where severe weather outbreaks and flooding will be of continued concern; dry weather will become likely in the Mississippi Valley and Appalachians, where green-up and recent precipitation should tend to result in the end of spring fire season in hardwood-dominant areas

R1 Fuels and Soils Note

"Greenup" continues its seasonal increase across the landscape, remaining most noticeable in yards, hardwood/swamp forests & road shoulders. Larger scale benefits include shading/temp reduction of dead fuels and wind interception – generally helping limit ignition and spread of smaller initial attack fires across the region. Living plant material with high live fuel moistures also act as heat sinks, instead of contributing immediately to fire intensity/difficulty of control (especially for initiating fires).

However, even with greenness increasing in coastal areas – the "Southern Rough" shrub dominated fuel complex is very sensitive to drought impacts related to increasing availability of duff, heavier down & dead, and organic soil horizons for consumption in the Spring.

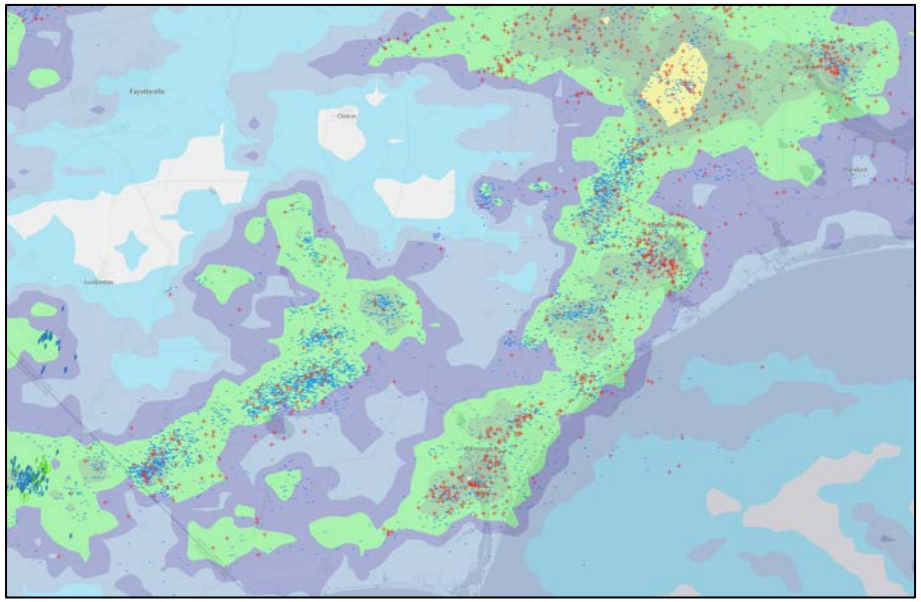
Eastern "lightning season" alignment with drought impacted fuels noted above can lead to very significant fires when weather conditions align to initiate movement from lightning struck smoldering snags or elevated/dry hummocks into the volatile shrub and then tree canopy. These fire can often become fuel-driven engines, steered by frontal passages and sea breeze influences – even with higher "minimum" relative humidities (remember the additive impact of drought to fuel availability).

Predictive Services most recent Outlook map for May/June 2025 points toward above normal activity based upon likelihood of increasing drought impacts. KBDIs remain at near/at seasonal max for many South & Central Coast Stations.

If above normal temperatures, continued lack of substantial wetting rain, and high expected evaporative demands over the next few weeks come to fruition, and align with ignition sources - it can lead to rapid increases in difficulty of control along with enhanced reburn risk/holding concerns.

The Hwy 210 Fire in R1/D8/Pender was a recent example of fuel conditions (drought and seasonal) lining up with a conducive weather event and ignition source on 4/19/25. Fire behavior on the day of initial attack was noted as extreme with wind driven runs (from posted ICS-209 narrative), with daily min RH in the mid to upper 40s noted at nearby weather stations.

7-Day Lightning and Precip Zoom from Slide #7 – Southern Coast



Overall

- Western FDRAs have generally seen good recovery of larger fuel moistures over the past several days due to continued unsettled weather/better overnight recoveries and precip in the central/sw mtns. Fire activity has trended down during this period.
- Precip deficits at 7-day level are increasing throughout other portions of the state, see previous PNP maps. Widespread significant rainfall is not expected, with it being more related to isolated/scattered thunderstorm activity (risk of lightning holdover starts in drought impacted fuels) over the next few days.
- Greenup continues to advance across the state, but slower at higher elevations. See note on Eastern FDRA concerns related to Greenup/Drought on Slide #32. Typical "Spring Fire Season" activity trends downward with good greenup of canopy and understory vegetation, so long as sustaining precip keeps occurring. However, activity & difficulty of control can easily increase in any FDRA if live vegetation and dead fuels reach critical moisture levels in alignment with conducive weather.
- 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.
- Adj Rating – Models have responded to the increase in 100-hr fuel moistures and greening conditions for FM-X (Low to Moderate Forecast Daily Ratings). **However, they are picking up on the dry air + associated decline in 100hr fuel moistures after the modeled frontal passage later this weekend, especially Eastern FDRAs.**
- 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 25	Sat Apr 26	Sun Apr 27	Mon Apr 28	Tue Apr 29	Wed Apr 30	Thu May 1	Fri May 2
Southern Highlands x	L	L	L	M	L	L	L	L
Central Mountains x	L	L	L	M	L	L	L	L
Northern Highlands x	L	L	M	M	M	M	M	M
Blue Ridge x	L	L	L	M	M	M	M	M
Western Piedmont x	M	M	M	M	M	M	M	M
Sandhills z	M	M	M	H	M	M	M	M
Eastern Piedmont x	M	M	M	M	H	M	M	M
Southern Coast x	L	L	L	M	L	L	L	L
Northern Coast x	L	L	L	M	L	L	L	L