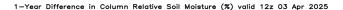
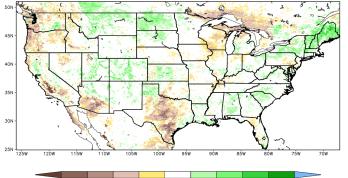
For Time Period:

Friday (4/4/25) to Thursday (4/10/25)

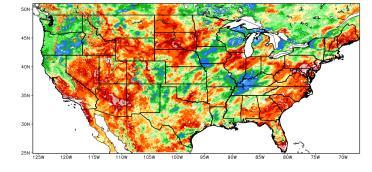
Weekly Fire Danger Assessment NCFS – All Regions

#### 1-Year Difference in Green Vegetation Fraction (%) valid 03 Apr 2025

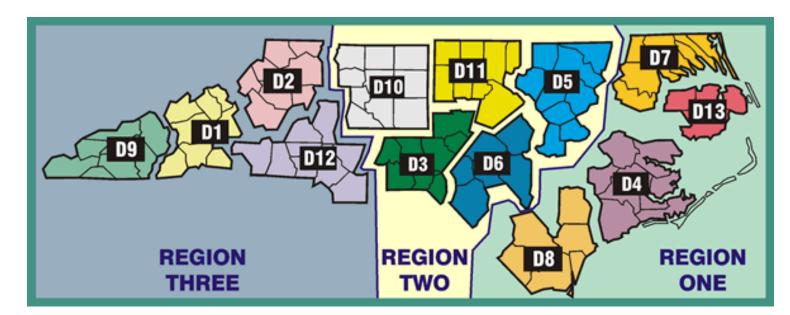




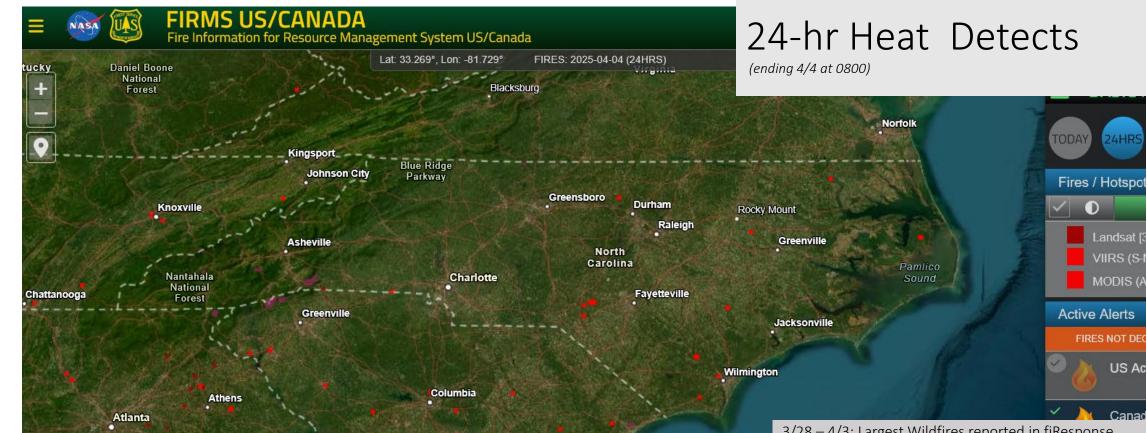


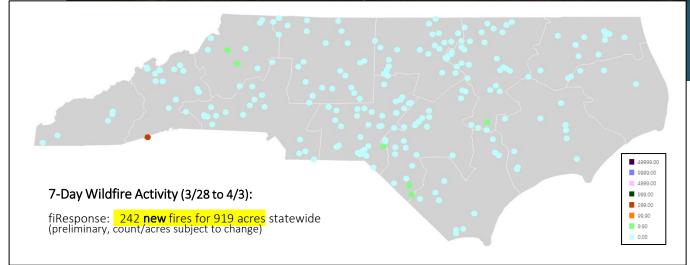


-32-28-24-20-16-12-8-4-2-0.10.1 2 4 8 12 16 20 24 28 32



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





# 3/28 – 4/3: Largest Wildfires reported in fiResponse (preliminary, count/acres subject to change)

Incident Name 💽	Discovery Date 🛛 💌	Region	District	🔹 County 🔤	Acres	-
Table Rock Complex	4/2/2025	Region 3	District 1	Transylvania County		635.0
Catawba County - 1365 Fa	i 3/28/2025	Region 3	District 12	Catawba County		52.0
Mac D Rd	3/29/2025	Region 2	District 6	Robeson County		26.0
Hill Creek Rd	3/28/2025	Region 2	District 3	Scotland County		25.0
Ford Road	3/29/2025	Region 3	District 2	Watauga County		20.2
Squirrel Ridge Two	3/29/2025	Region 2	District 5	Wayne County		20.0
Zacks Fork	3/28/2025	Region 3	District 2	Caldwell County		15.0
Wiregrass rd	3/29/2025	Region 2	District 6	Robeson County		13.0
Jess Dr	3/29/2025	Region 2	District 3	Richmond County		10.0
Maze Farm	3/28/2025	Region 2	District 6	Harnett County		8.2
Stand Creek	3/29/2025	Region 2	District 6	Harnett County		5.5
Fieldstone Dr	3/28/2025	Region 2	District 6	Cumberland County		5.0
NC 306 HWY	3/28/2025	Region 1	District 4	Beaufort County		5.0
Bear Farm Rd	4/2/2025	Region 2	District 6	Johnston County		5.0

### **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

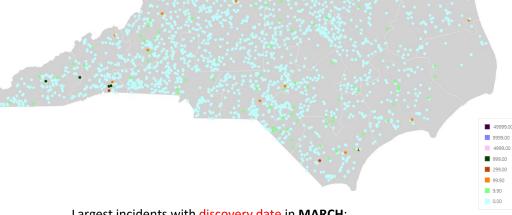
March 2025: **1,853 incidents for 17,895 acres** 7-Day Activity: 242 incidents for 919 acres

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

Ongoing fire acres are only a snapshot from the database. \*Not including specific fire containment or IMT designations, as the situation remains dynamic. Please utilize fiResponse Public Viewer for current information on fire status.

Previous 7-Day Activity reflects <u>Fire Discovery Date</u> & **Not** additional acres on older/existing project fires.

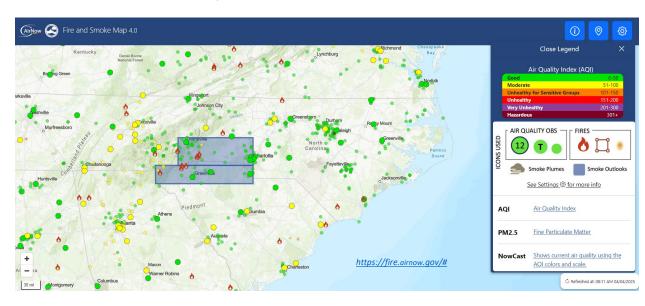
# March 2025



#### Largest incidents with <u>discovery date</u> in **MARCH**: \*from fiResponse & preliminary reporting only\*

Incident Name 🔹	Discovery Date	Region	District	▼ County ▼	Acres 🚽
Deep Woods	3/19/2025	Region 3	District 1	Polk County	3979.00
Black Cove	3/19/2025	Region 3	District 1	Polk County	3502.00
Rattlesnake Branch	3/26/2025	Region 3	District 9	Haywood County	1843.00
Alarka Road #5	3/25/2025	Region 3	District 9	Swain County	1575.00
3910	3/1/2025	Region 3	District 1	Polk County	619.00
Crusoe island Rd	3/25/2025	Region 1	District 8	Columbus County	557.00
Holly Shelter Road 2	3/24/2025	Region 1	District 8	New Hanover County	331.00
Deaton Ln	3/19/2025	Region 2	District 3	<b>Richmond County</b>	279.00
Goinstown Road	3/22/2025	Region 2	District 10	Stokes County	276.60
Carolina Club	3/20/2025	Region 1	District 7	Currituck County	250.00
Old Hwy 16 #1	3/22/2025	Region 3	District 2	Wilkes County	250.00
Hawks Bill Drive	3/1/2025	Region 1	District 8	Brunswick County	215.00
Jeterville	3/1/2025	Region 2	District 6	Harnett County	212.52
Fish Hook Fire	3/20/2025	Region 3	District 1	Polk County	199.00
Iron Circle	3/22/2025	Region 3	District 2	Burke County	147.00
Bailey Drive	3/11/2025	Region 3	District 1	Mitchell County	133.00
Freedom Farm Road	3/26/2025	Region 3	District 1	Buncombe County	130.00
Ramshorn	3/1/2025	Region 1	District 4	Carteret County	114.00
Monteith Branch	3/26/2025	Region 3	District 9	Jackson County	94.00
Redprings-Springside-03-03-25	3/2/2025	Region 2	District 6	Robeson County	92.60
River Road	3/1/2025	Region 1	District 4	Craven County	80.00
Tomahawk Ridge	3/21/2025	Region 3	District 2	Caldwell County	65.00
Old Tom Morris Rd.	3/15/2025	Region 2	District 6	Sampson County	58.00
Wood grain Dry Kiln	3/1/2025	Region 2	District 10	Surry County	55.00
Grooms Road	3/1/2025	Region 3	District 1	Buncombe County	52.00
Catawba County - 1365 Fairgro	3/28/2025	Region 3	District 12	Catawba County	52.00
Kane Rx Burn Rekindle	3/20/2025	Region 2	District 11	Person County	51.55

# Air Quality Notes



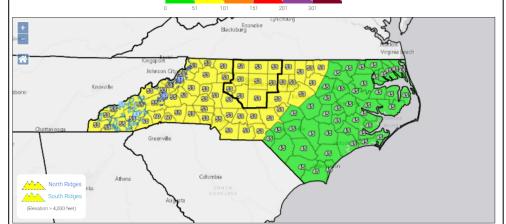
4/4 will be the last day of D.S. ARA created smoke outlooks for the western project fire areas (blue rectangle extent above).

#### 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.



0



This forecast was issued on Friday, April 4, 2025 at 2:34 pm. 📀 This forecast is currently valid

#### Today's Air Quality Conditions

Current daily average fine particulate levels are in the upper Code Green to low Code Yellow range from I-95 westward this afternoon. Triangle area residents may notice a smoky smell in the air coming from some preventative prescribed burning happening to the southwest in central NC. Those impacts should be temporary but if firing continues late into the afternoon, PM2.5 readings could be elevated into the overnight. Ozone levels are currently Code Green statewide thanks to widespread cloud cover.

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

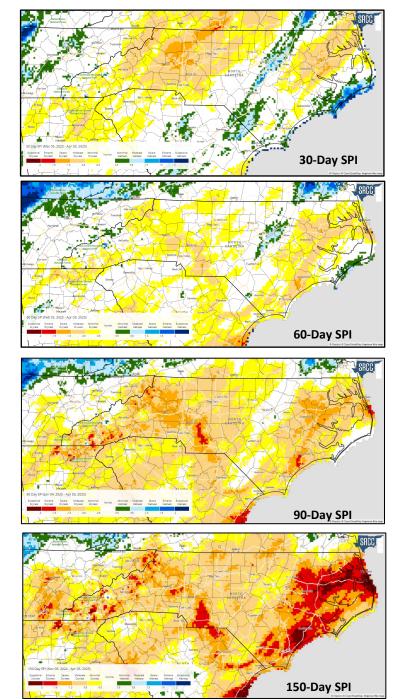
Saturday will be another unseasonably warm, muggy day thanks to continued south-southwesterly return flow around the offshore high. The airshed in the southeastern US is largely characterized by moderate PM2.5 values, likely both from general stagnation and increasing prescribed/controlled burns in the region. That particle pollution will continue to be transported into NC on gusty winds tomorrow and generated locally, resulting in Iow Code Yellow conditions again from about I-95 westward. Max 8-hour ozone levels should hold in the upper Code Green range statewide with the Gulf moisture influx and cloud cover.

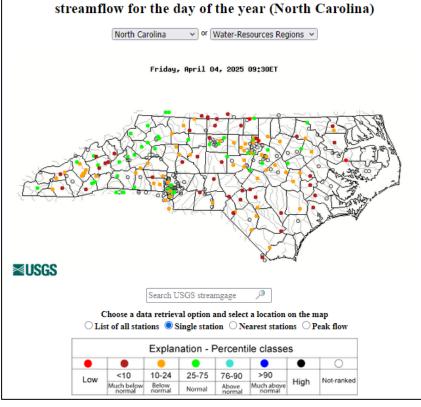
#### Outlook

The Bermuda high finally moves eastward away from the coast on Sunday as an upper trough and surface low approach from the west. NWP models have slowed the timing of the associated rain and frontal passage until later Sunday afternoon (in the Mountains) to Monday morning (Coastal Plain) with the true airmass change not occurring until Tuesday. Particle pollution will remain elevated in the Code Yellow range across most of the state on Sunday prior to the front arriving. Monday's air quality should lower back into the Code Green range statewide with the unsettled weather.

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

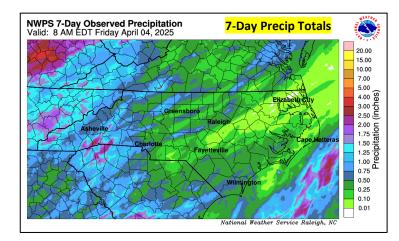
#### https://airquality.climate.ncsu.edu/discussion/?view=latest

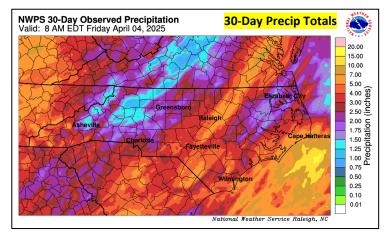


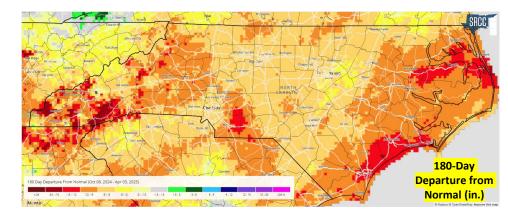


Map of real-time streamflow compared to historical

- Note the 7 & 30 day observed precip graphics (top right).
- Short-term streamflow improvements west, declines east (center top).
- 180-Day Departure from Normal Precip areas in darker orange & red represent 9-12" & 12-15" + (bottom right).
- 30-Day SPI Map shows short-term focus in NW & NE portion of state. (top left).
- 60/90/150-Day SPI picking up on longer-term pockets of dryness (left).



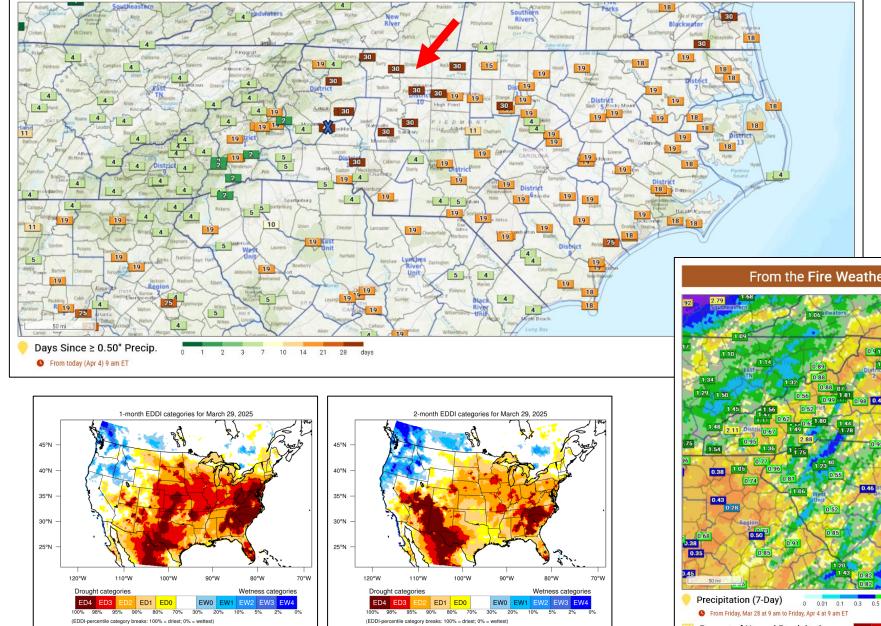




https://srcc.tamu.edu/water\_portal/

### From the Fire Weather Intelligence Portal • products.climate.ncsu.edu/firDays since ≥ 0.50" Precip Event

Generated by NOAA/ESRL/Physical Sciences Laboratory

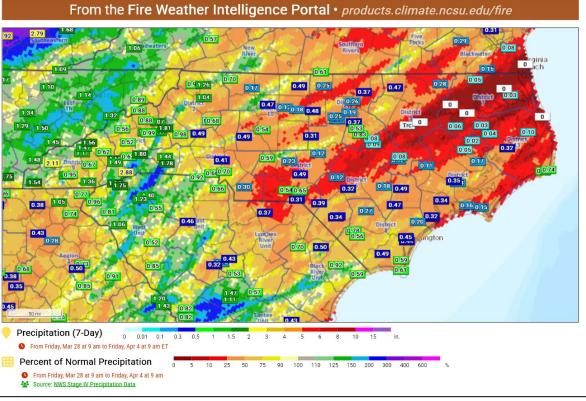


Generated by NOAA/ESRL/Physical Sciences Laboratory

Days since  $\geq$  0.50" Precip Event Western Pockets of 19-30+ days Most of East at 18+ days

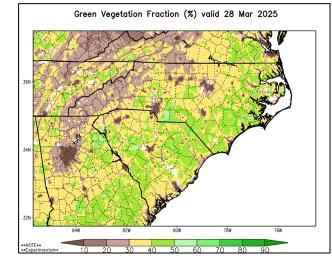
Note very high EDDI values for parts of NC, at one- and two-month timescales for period ending on 3/29.

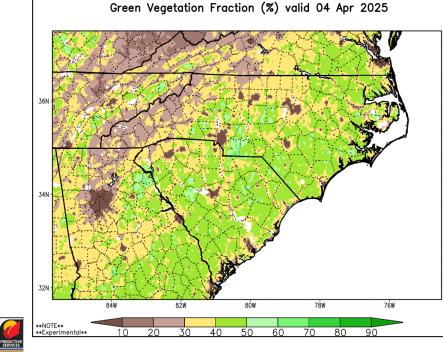
7-Day Station Totals & 7-Day PNP



### Last Week

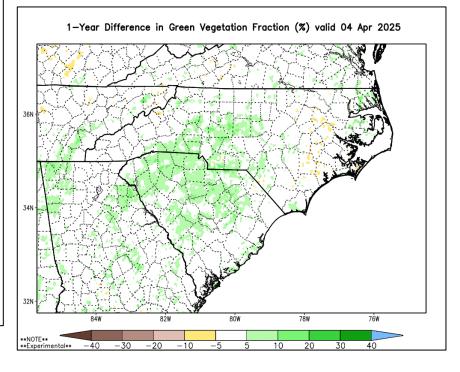
# Green Fraction & Green-Up Anomaly





Current

## <mark>1 Year Change</mark>



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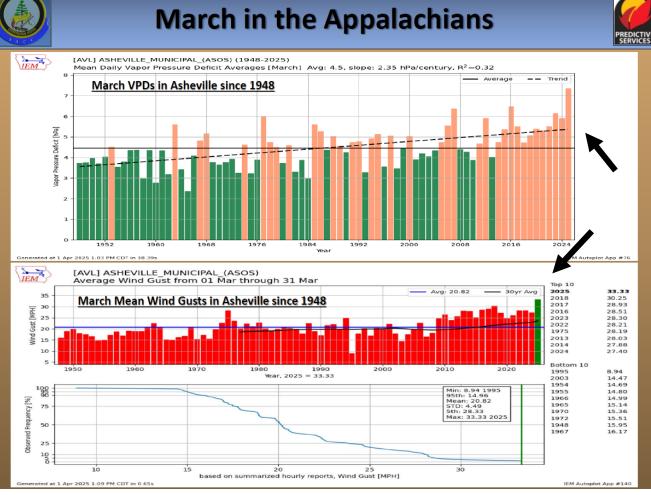
Link: https://weather.ndc.nasa.gov/sport/case\_studies/lis\_NC.html

Greenup processes accelerating with warming soils and air temps. Available soil water will quickly become limiting without adequate, repeated wetting events. Frost/Freeze event coming up (see SACC Briefing Slide left). Road shoulders and yard greening can stall due to these factors.

Forest leaf-out traditionally varies by species (early vs late), soil moisture regime, and elevation across the landscape.

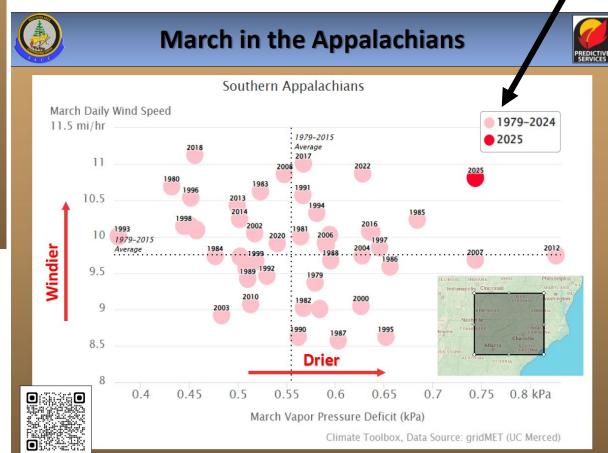
**From R2:** Higher elevations in Stokes/Surry are generally1-2 weeks behind the rest of R2 area for greenup processes. **From R3:** Similar lag in greening as R2, for elevations above 2500ft. Warmer/Lower farther along.

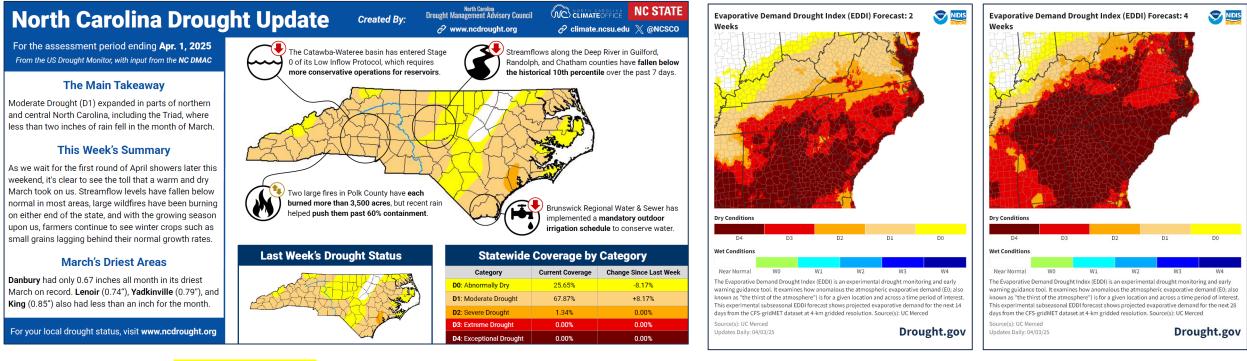
At present: no real impact relating to sun/wind interception for forests yet, main impact seen on yards/ road shoulders.



March Climatology: Note the higher Vapor Pressure Deficit Trend over the past few years and spike in wind gusts for March - 2025.

# SACC Monthly Briefing Slides on March VPDs and Mean Wind Gusts at Asheville ASOS (AVL)



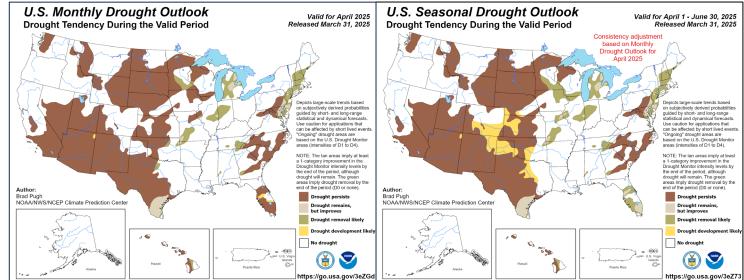


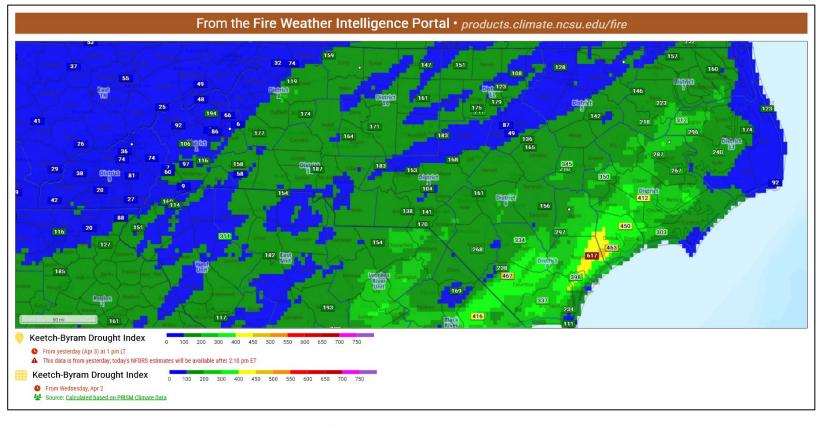
### EDDI & Drought

**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

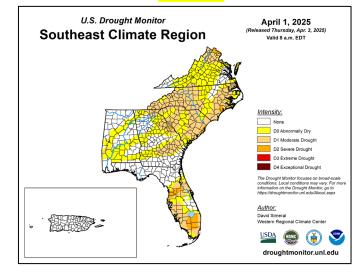
**US Monthly & Seasonal Drought Outlook -** shown at right. See detailed state/regional discussions <u>here</u>. *All of this is dependent upon any future storm tracks and likely seasonal variability we begin to experience moving to summer.* 

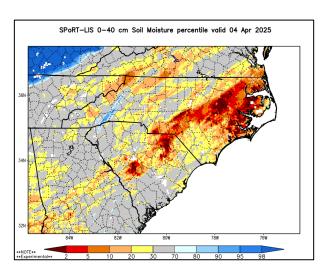




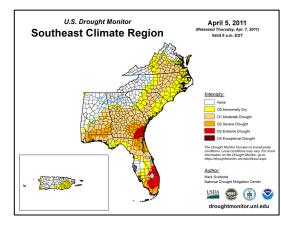
- KBDIs increasing more rapidly with warmer temps.
- Note dryness modeled 0-16 inches (bottom left).
- USDM Map comparison 2011, 2017, 2018, 2025.

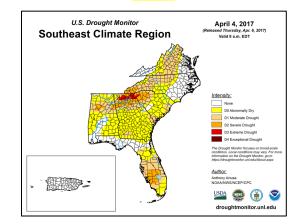
### Current





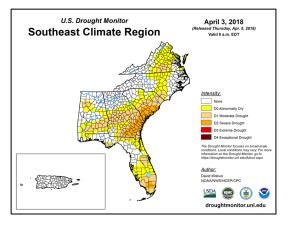
### <mark>2011</mark>



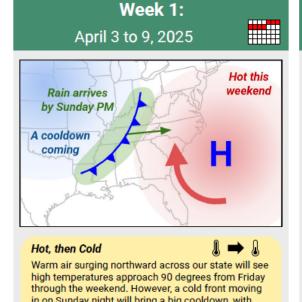


<mark>2017</mark>

### <mark>2018</mark>



# State Climate Office: Short-Range Monthly Outlook for NC



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.

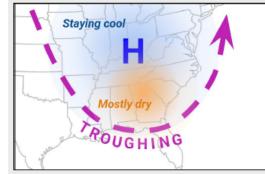
This infographic is based on forecast and outlook guidance from the National Weather Service.

For more information, visit www.weather.gov.



Week 2: April 10 to 16, 2025

Short-Range Outlook for North Carolina



#### 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.

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# Weeks 3-4: April 17 to 30, 2025 In the battleground:



#### Warmth Settles In

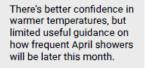
The return of offshore high-pressure - a late spring and summer staple - should spell warm and humid weather for most of late April. Our normal highs at this time of year are in the mid-70s with lows in the 50s, well past our average last spring freeze date.

### 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**





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



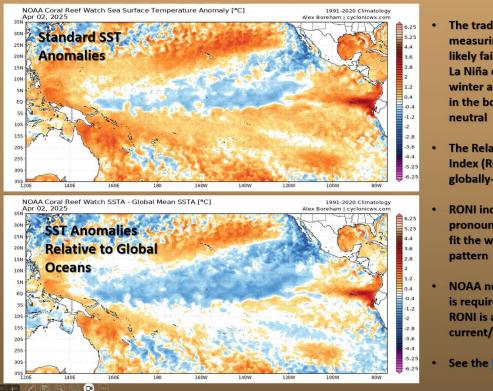
Supported by:



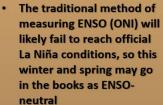
Released 4/3/25 & Location: https://climate.ncsu.edu/fire/outlooks/

# La Niña Advisory Continues





### https://www.climate.gov/news-features/blogs/enso



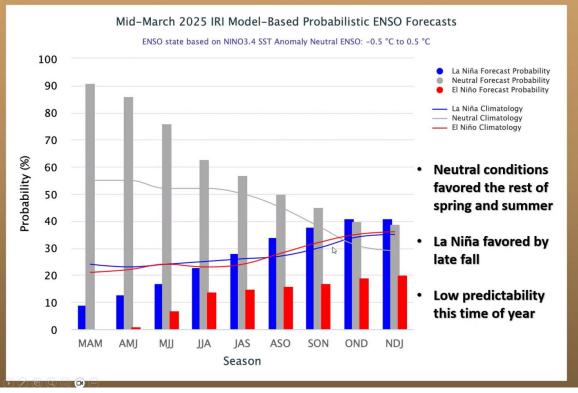
- The Relative Oceanic Niño Index (RONI) subtracts the globally-averaged SSTs
- RONI indicative of a more pronounced La Niña, which fit the winter precipitation pattern
- NOAA notes more research is required to determine if RONI is a better fit for the current/future climate
- See the NOAA ENSO Blog

# SACC Monthly Briefing Slides – ENSO Related



# **ENSO Forecast**

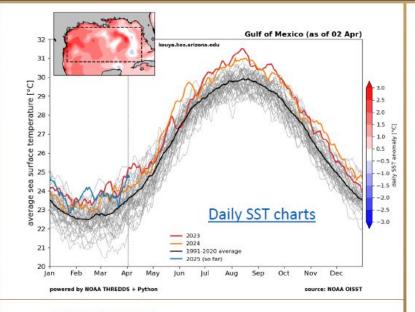


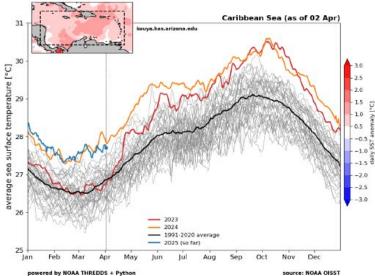




# **Preliminary Hurricane Season Outlook**







ATLANTIC SEASONAL HURRICANE ACTIVI

### Forecast for 2025 Hurricane Activity

### CSU Hurricane Seasonal Forecasting

Forecast Parameters	CSU Forecast for 2025*	Average for 1991-2020
Named Storms	17	14.4
lamed Storm Days	85	69.4
lurricanes	9	7.2
lurricane Days	35	27.0
ajor Hurricanes	4	3.2
lajor Hurricane Days	9	7.4
accumulated Cyclone Energy (ACE)+	155	123
CE West of 60 degrees longitude	93	73

\*CSU released its first seasonal forecast for 2025 on Thursday, April 3th, with updated forecasts on June II, July 9th, and Aug 6.

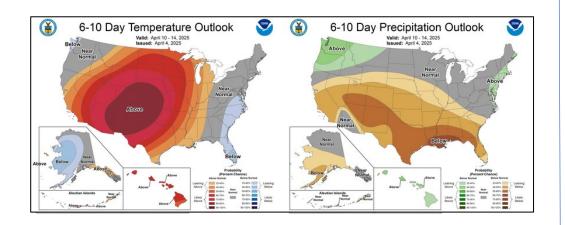
+A measure of a named storm's potential for wind and storm surge destruction defined as the sum of the square of a named storm's maximum wind speed (in 10<sup>4</sup> knots<sup>2</sup>) for each 0-hour period of its existence.

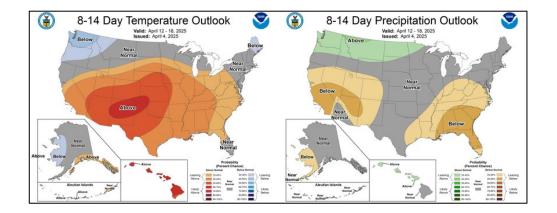
- Neutral ENSO + very warm Caribbean and Gulf favors a more active than normal hurricane season
- La Niña would increase the odds of an even busier season
- CSU implies a higher chance of major hurricane landfalls in the U.S.
- CSU analogs: 1996, 1999, 2006, 2008, 2011, 2017

# SACC Monthly Briefing Slide – Tropical Related

# Temp & Precip Outlook

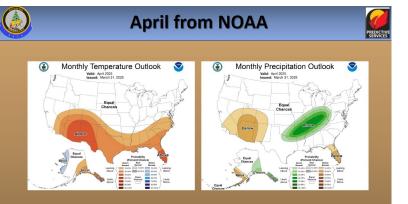
## 6-10 Day, 8-14 Day, Month, & Seasonal (May-June-July)



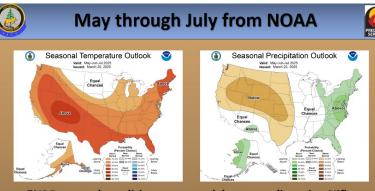


Source: <u>https://www.cpc.ncep.noaa.gov/</u>

https://www.cpc.ncep.noaa.gov/products/predictions/long\_range/fxus05.html

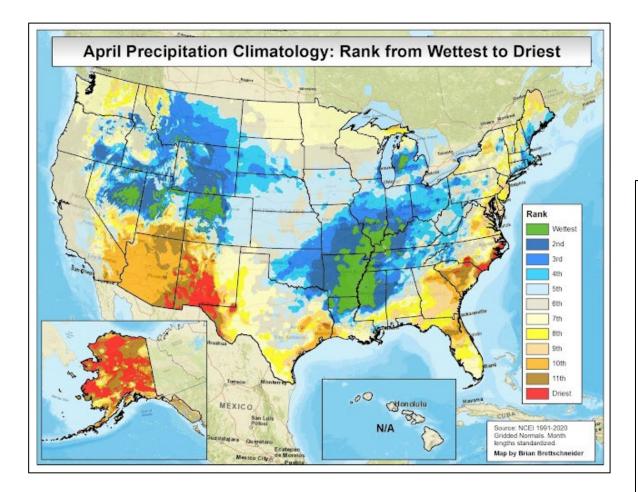


- Still fits the lagging influence of La Niña
- Analog years hard to come by
- Highest confidence in a dry and hot month over Florida
- April one of the drier months in the coastal Southeast

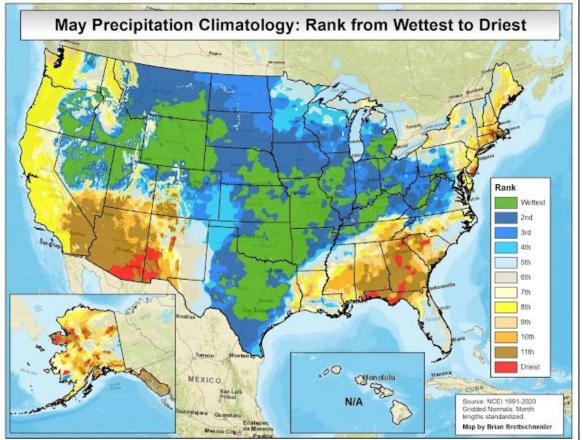


- ENSO-neutral conditions expected, but some lingering Niña influence possible
- Early start to the hurricane season possible
- Difficult to discern whether Florida's rainy season starts in June or July
- Significant drought impacts possible in the Plains

SACC Monthly Briefing Slides – Context

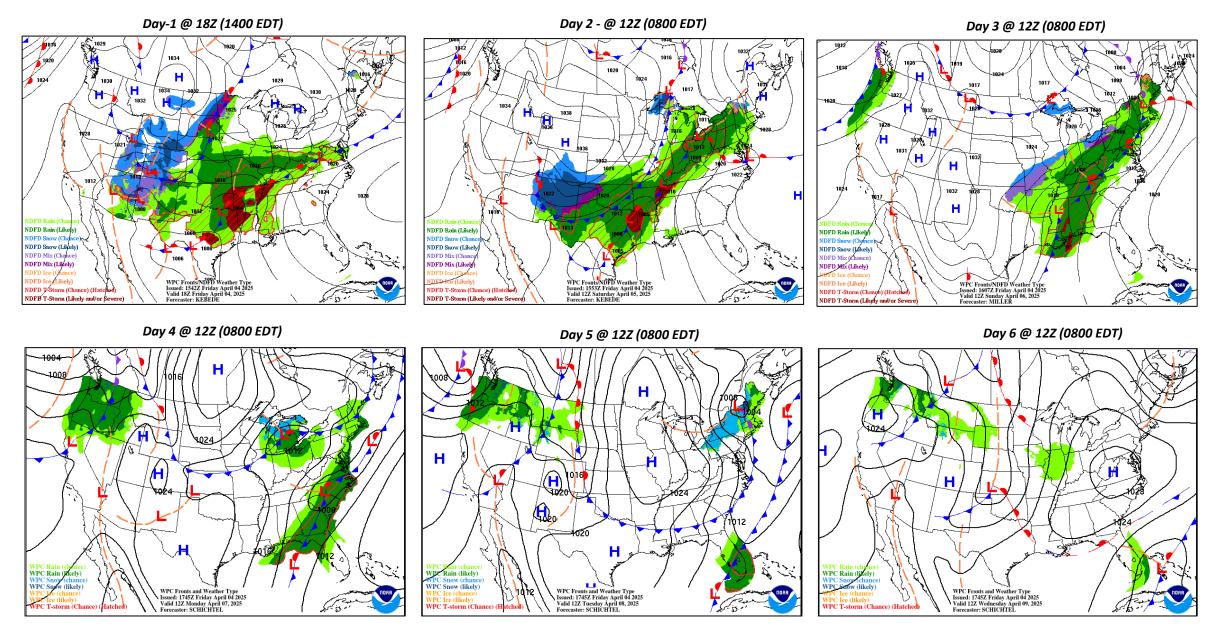


# General Precip Trends across the Country by Calendar Month (1991-2020)



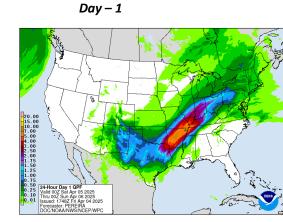
https://us-climate.blogspot.com/2021/06/wettest-months-of-year-1991-2020.html

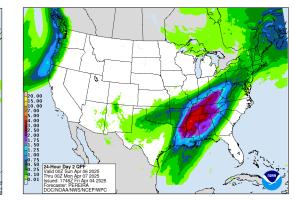
# WPC Forecasted Surface Fronts & Sea-Level Pressures



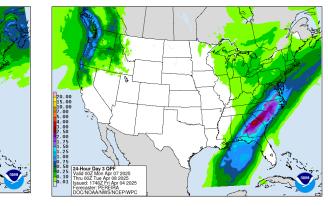
#### Location: <a href="https://www.wpc.ncep.noaa.gov/#">https://www.wpc.ncep.noaa.gov/#</a>

# Quantitative Precipitation Forecast, 7-Day



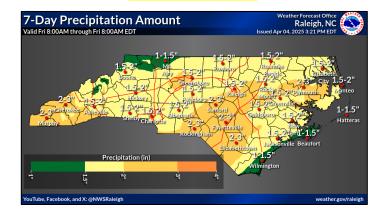


Day - 2



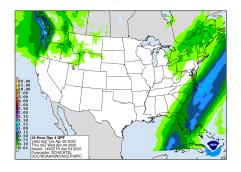
Day - 3

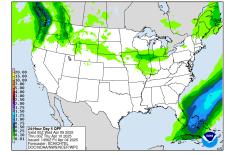
#### <mark>Zoom - Days 1 – 7 QPF</mark>



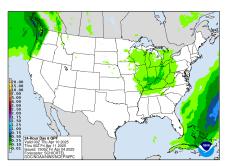
Day - 4

Day - 5

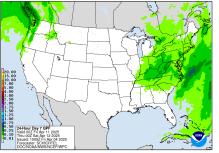




Day - 6

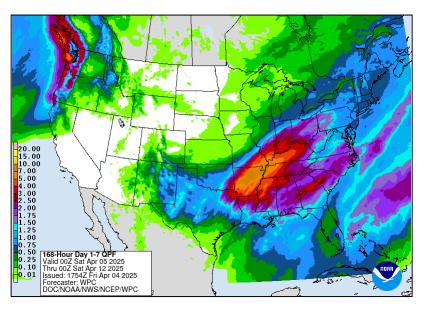






Day - 7

<mark>Days 1 – 7 QPF</mark>

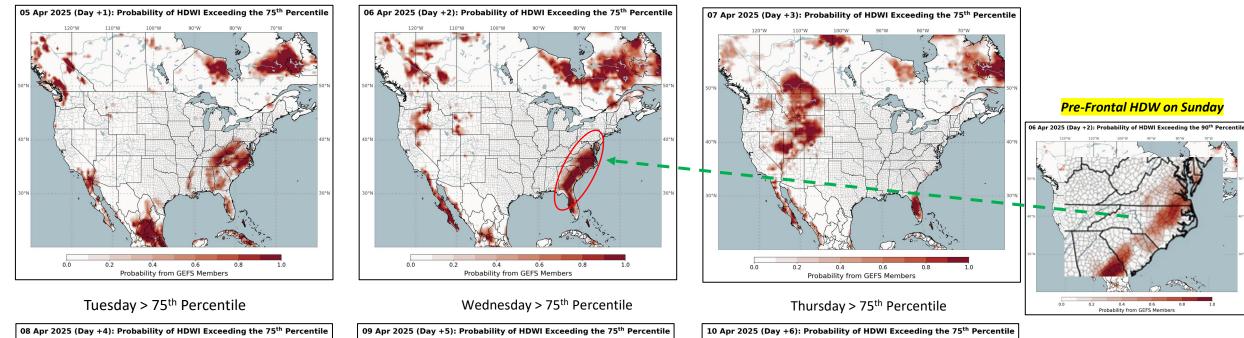


# Subject to significant change in precip amounts (decrease).

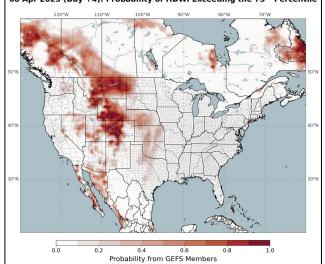
Drying trend after next rain event.

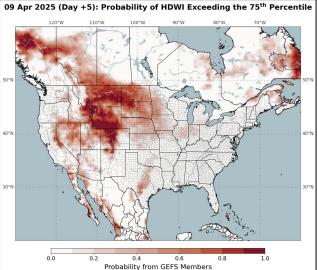
# Hot-Dry-Windy Index (HDW)

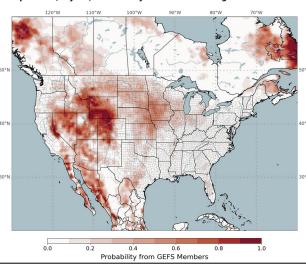
Saturday > 75<sup>th</sup> Percentile



Sunday > 75<sup>th</sup> Percentile







Monday > 75<sup>th</sup> Percentile

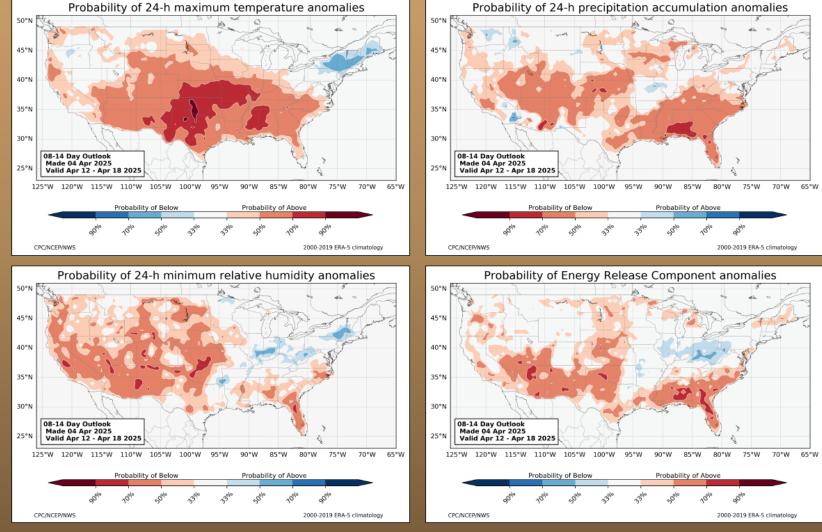
- Another visualization tool to pick up on broader weather, but with \*limitations
- Only uses Max VPD (atmospheric moisture & temp) & Max Wind Speed to generate outputs
- Coarse Resolution 0.5 Degree Grid
- <u>No</u> Account of Local Fuel Conditions and Topo



# Week Two (April 12-18) Fire Weather Week 2 Forecasts



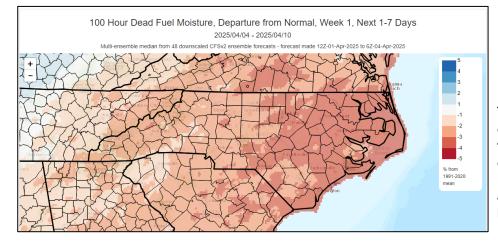
### Probability of 24-h precipitation accumulation anomalies Probability of 24-h precipitation accumulation anomalies SACC Monthly Briefing Slide – Week Two



### Modeled Departure from Normal by Week: 100-hr Fuels

Output relies on experimental forecast outputs and is subject to change

### Week-1

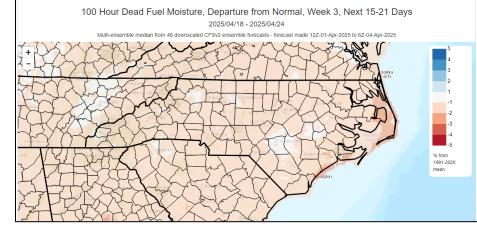


This output can provide insight into general drying trends and potential impacts to overall fire danger, especially prior to full green-up or in drought conditions. Outputs relate to interactions of warmer/colder temps, moist/dry air masses, precip amt/duration and overnight RH recovery trends.

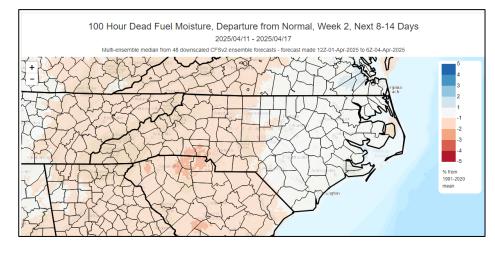
Note the <u>modeled</u> below normal conditions (lower % mc or "worse") for portions of the state in Weeks 1-4, with some areas favoring near normal later in the period.

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

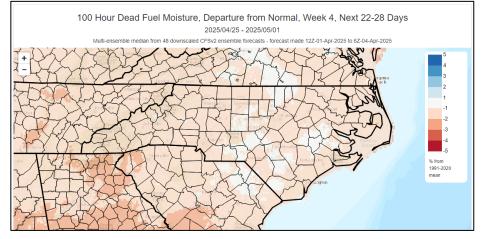
### Week-3



## Week-2



### Week-4



## NFDRS Observations from Yesterday

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

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

							Averag	es by FDR	A									
FDRA	STATION_COUNT	NFDR_DATE	BI	ERC	IC	SC	KBDI	1HR	10HR	100HR	1000HR	HRB	WOODY	ТЕМР	RH	WIND	PRECIP	DUR
Southern Highlands	3	2025-04-03	31.97 55.2%	10.80 31.3%	3.83 63.4%	18.03 67.3%	40.33	18.52 72.0%	25.24 85.4%	22.23 79.4%	20.81 63.0%	136.13	123.00	72.0°F	65.0%	SSW 5.7 mph	0.04 in.	2.3
Central Mountains	3	2025-04-03	25.93 45.5%	9.13 24.2%	2.20 38.8%	12.50 61.8%	83.00	15.86 64.3%	25.70 89.3%	22.33 82.3%	19.47 33.2%	122.73	113.67	75.3°F	62.7%	SSW 7.3 mph	0.44 in.	5.7
Northern Highlands	2	2025-04-03	15.35 25.2%	4.80 22.1%	1.10 34.2%	8.15 49.9%	80.00	21.76 76.5%	28.39 92.4%	20.93 73.3%	19.19 33.8%	120.90	123.00	68.5°F	75.5%	W 9.5 mph	0.31 in.	8.0
Blue Ridge Escarpment	3	2025-04-03	7.03 14.0%	1.63 14.0%	0.20 16.6%	4.73 19.9%	94.33	27.25 87.9%	32.12 96.9%	23.77 88.0%	19.04 35.2%	151.73	134.67	71.0°F	90.7%	SW 4.3 mph	0.46 in.	11.0
Western Piedmont	3	2025-04-03	6.67 10.0%	2.87 10.8%	0.47 12.3%	2.83 11.3%	177.67	22.78 87.5%	26.67 92.3%	20.95 80.8%	19.20 49.3%	180.80	152.67	75.7°F	79.7%	SSW 4.7 mph	0.01 in.	1.3
Sandhills	3	2025-04-03	28.83 31.5%	21.90 21.5%	3.70 28.7%	8.03 80.2%	135.33	15.29 74.0%	22.64 84.0%	19.46 55.6%	19.45 47.7%	87.63	96.00	83.3°F	57.0%	SSW 6.7 mph	0.00 in.	0.0
Eastern Piedmont	4	2025-04-03	27.00 15.6%	9.50 14.9%	2.53 25.6%	12.58 17.8%	108.75	15.46 71.5%	21.96 80.7%	19.14 55.5%	20.11 62.9%	222.88	183.00	79.3°F	65.8%	SW 10.5 mph	0.00 in.	0.0
Southern Coastal	7	2025-04-03	48.21 40.2%	22.26 32.1%	3.56 36.4%	19.64 45.5%	361.29	14.98 68.4%	20.97 76.0%	19.84 60.0%	21.79 77.3%	101.41	90.86	84.0°F	57.1%	S 5.3 mph	0.00 in.	0.0
Northern Coastal	4	2025-04-03	58.88 42.8%	25.80 37.8%	5.05 41.2%	25.30 48.4%	229.75	14.05 64.4%	21.62 80.9%	19.64 64.9%	21.56 81.5%	66.33	90.00	85.5⁰F	53.3%	SW 6.3 mph	0.00 in.	0.0
· · · · · · · · · · · · · · · · · · ·																		

# NFDRS Observations for Today

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

							Averag	ges by FDI	RA									
FDRA	STATION_COUNT	NFDR_DATE	BI	ERC	IC	SC	KBDI	1HR	10HR	100HR	1000HR	HRB	WOODY	ТЕМР	RH	WIND	PRECIP	DUR
Southern Highlands	3	2025-04-04	51.40 71.1%	20.13 63.7%	7.63 84.8%	25.23 70.4%	52.67	12.03 31.5%	20.25 63.9%	22.60 86.1%	21.08 63.0%	140.03	123.33	78.3ºF	44.3%	SW 5.7 mph	0.05 in.	1.0
Central Mountains	3	2025-04-04	50.60 68.6%	22.47 65.0%	9.10 87.1%	21.07 66.7%	98.67	11.04 24.4%	20.31 65.7%	22.72 88.6%	19.68 51.7%	132.77	119.00	82.3°F	42.3%	SSE 3.7 mph	0.01 in.	0.3
Northern Highlands	2	2025-04-04	46.10 66.4%	17.20 55.8%	6.05 78.3%	22.85 67.1%	93.00	13.34 37.9%	21.45 68.3%	22.07 82.1%	<b>19.19</b> 33.8%	129.55	127.50	74.5°F	56.0%	WSW 6.5 mph	0.01 in.	0.5
Blue Ridge Escarpment	3	2025-04-04	55.20 66.1%	20.77 52.7%	5.73 61.4%	30.07 70.0%	106.00	14.31 61.1%	20.66 70.1%	24.85 92.2%	20.45 50.8%	152.90	135.33	83.0°F	49.0%	WSW 6.3 mph	0.02 in.	0.7
Western Piedmont	3	2025-04-04	26.13 29.1%	13.13 22.3%	3.40 32.4%	8.73 43.1%	190.00	13.39 63.5%	22.31 81.2%	22.06 87.4%	19.15 49.3%	185.30	155.67	84.7°F	51.0%	SW 4.7 mph	0.01 in.	0.7
Sandhills	3	2025-04-04	29.47 31.5%	25.00 25.1%	4.73 33.6%	6.47 61.1%	150.67	13.96 69.8%	20.97 77.7%	19.75 68.3%	19.50 64.0%	106.07	107.00	86.3°F	53.7%	SW 5.0 mph	0.00 in.	0.0
Eastern Piedmont	4	2025-04-04	19.00 12.1%	8.28 13.2%	1.48 15.8%	6.70 11.2%	122.50	16.15 75.2%	22.98 83.8%	19.91 68.6%	20.11 62.9%	227.05	186.50	82.5°F	62.3%	WNW 5.5 mph	0.00 in.	0.0
Southern Coastal	7	2025-04-04	41.17 34.2%	21.11 30.3%	3.04 29.1%	15.44 36.7%	372.00	15.03 68.4%	20.13 71.6%	19.74 60.0%	21.79 77.3%	122.67	92.71	85.3°F	58.6%	SSW 3.4 mph	0.00 in.	0.0
Northern Coastal	4	2025-04-04	55.95 40.5%	22.78 32.9%	4.33 35.0%	26.30 50.0%	244.75	14.64 69.0%	21.47 77.4%	<b>19.74</b> 64.9%	21.53 81.5%	78.20	90.00	83.8°F	59.5%	W 6.5 mph	0.00 in.	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.

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

- Available on the FWIP within the "Resources for NCFS" page.
- The operation link is: <u>https://products.climate.ncsu.edu/fwip/outlook.php</u>
- 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 is not shaping up to be normal based on recent snows, freezes, rain events, extremely dry air, and warm spells relating to actual plant growth. There is variability across the 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:

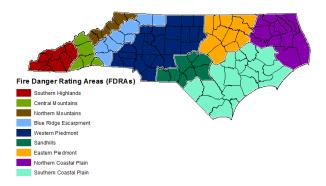
- Low to Moderate (0 to 74th percentile); shown in blue-green
- High (75th to 89th percentile); shown in yellow
- Very High to Extreme (90th+ percentile); shown in red and labeled as Critical

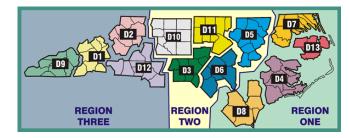
Dead fuel moisture forecast values are grouped into three categories based on historical percentiles, assessed using the FF+ All Days filter through 2021:

- 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.





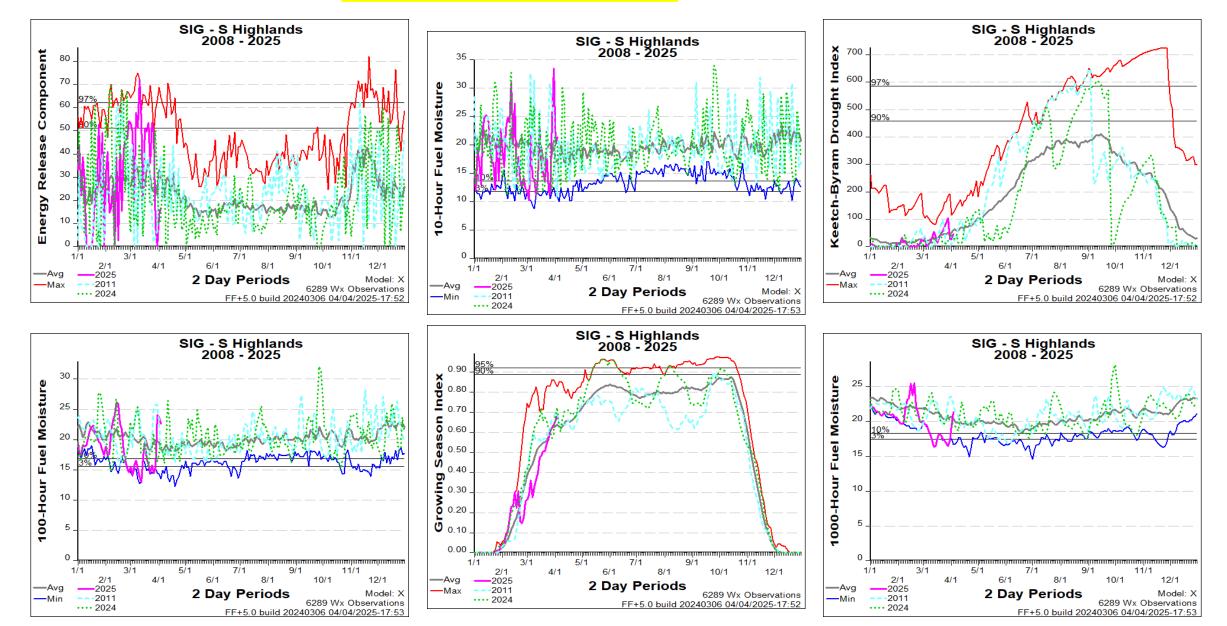
To reduce duplication & increase situational awareness, slides are organized by FDRA in this order:

\*(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)

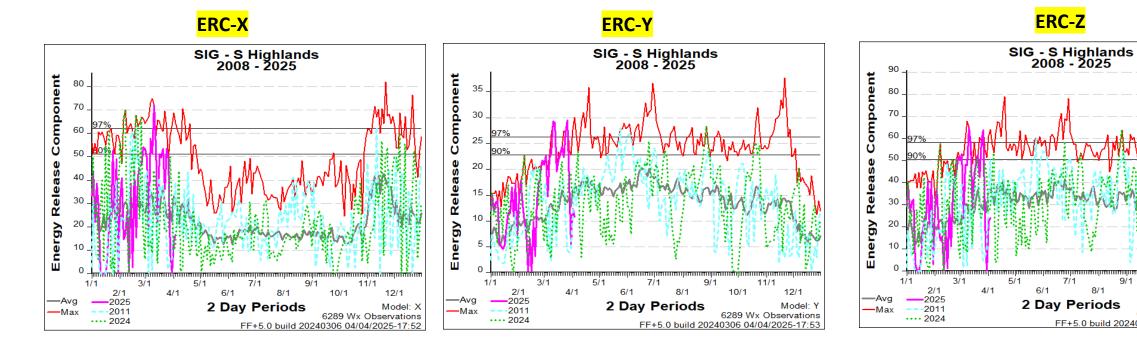


# FDRA – Southern Highlands



# FDRA – Southern Highlands





#### **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

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

ERC-Z

7/1

2 Day Periods

6/1

9/1

10/1

FF+5.0 build 20240306 04/04/2025-17:54

8/1

11/1

6289 Wx Observations

12/1

Model: Z

# FDRA – <mark>Southern Highlands</mark>



### 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 05-Apr	SUN 06-Apr	MON 07-Apr	TUE 08-Apr	WED 09-Apr	THU 10-Apr	FRI 11-Apr
Avg. Max. Temp. (°F)	79	68	58	53	59	61	
Avg. Min. Humidity (%)	46	75	51	31	33	39	
Avg. 20' Wind Speed (mph)	8	9	6	7	3	4	
Avg. Wind Direction*	S	SSW	WNW	NNW	SE	SSW	
Avg. Probability of Precip. (%)	28	92	21	4	8	19	
Days Since a Wetting Rain**	4.0	0.0	0.7				
Forecast ERC (Fuel Model X)	16.3	14.3	9.4	19.3	22.8	20.4	14.7
Forecast BI (Fuel Model X)	50.3	40.0	27.2	39.0	41.0	42.2	32.1
Forecast IC (Fuel Model X)	5.8	3.6	2.0	4.0	4.3	4.4	3.1
Forecast 100-Hr. FMC	21.5	21.5	22.4	22.9	21.5	20.1	19.1
Forecast 1000-Hr. FMC	21.2	21.4	21.9	21.7	21.7	21.6	22.0
KBDI	48.0						

#### Data Source:

- Weather forecasts come from the National Weather Service's <u>Digital Forecast Database</u>. 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 <u>NFDRS Forecast</u> product does not include precipitation amounts,
  which are used to adjust KBDI from day to day

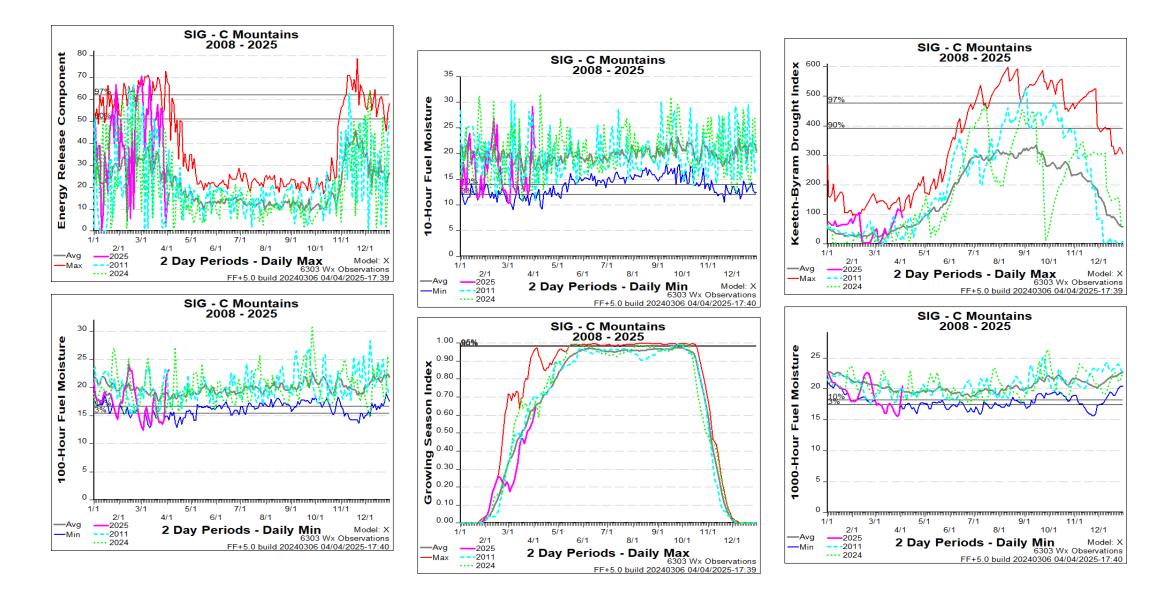
Values in the table above are averages from 3 stations in this FDRA:

- 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 dire	ction is highly dependent on burn ope	erations and/or structures threatened.
Days Since a Wetting Rain**	A wetting rain is define	ed as 0.10" or greater. This is an avera	ge 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 whe and <b>season</b>	en determining fire dang	er: sky conditions, precipitation a	mount, number of days since rain,

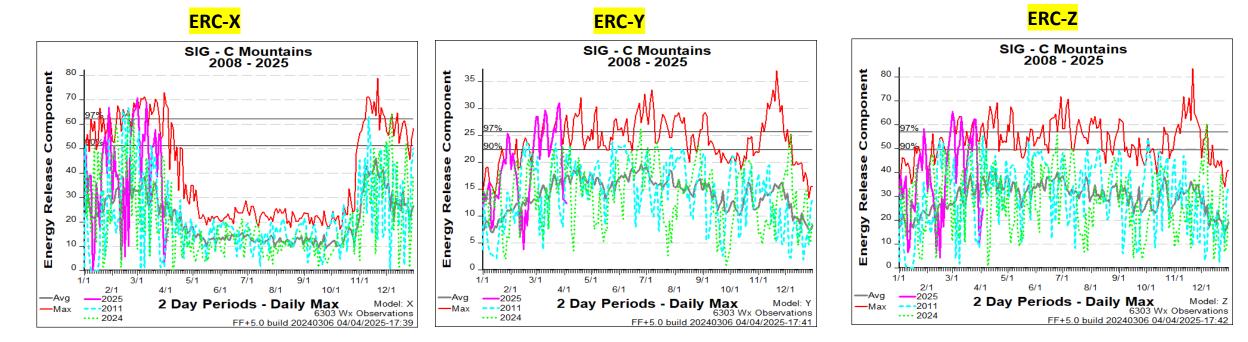
# FDRA – Central Mountains





# FDRA – Central Mountains





#### 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

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	SAT 05-Apr	SUN 06-Apr	MON 07-Apr	TUE 08-Apr	WED 09-Apr	THU 10-Apr	FRI 11-Apr
Avg. Max. Temp. (°F)	83	75	62	54	62	65	
Avg. Min. Humidity (%)	39	63	50	31	32	36	
Avg. 20' Wind Speed (mph)	7	7	5	7	3	4	
Avg. Wind Direction*	S	SSW	NW	NNW	S	SSW	
Avg. Probability of Precip. (%)	25	87	25	3	7	19	
Days Since a Wetting Rain**	2.7	0.0	0.3				
Forecast ERC (Fuel Model X)	17.7	17.7	10.5	21.5	24.6	22.3	17.7
Forecast BI (Fuel Model X)	49.6	40.0	27.5	42.5	40.8	41.8	33.0
Forecast IC (Fuel Model X)	7.0	5.4	2.3	4.9	4.7	4.8	3.9
Forecast 100-Hr. FMC	21.2	20.0	21.1	21.9	20.7	19.3	18.5
Forecast 1000-Hr. FMC	20.2	20.5	21.0	20.9	20.9	20.8	20.9
KBDI	98.7						

#### Data Source:

- Weather forecasts come from the National Weather Service's <u>Digital Forecast Database</u>. 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 <u>NFDRS Forecast</u> product does not include precipitation amounts, which are used to adjust KBDI from day to day

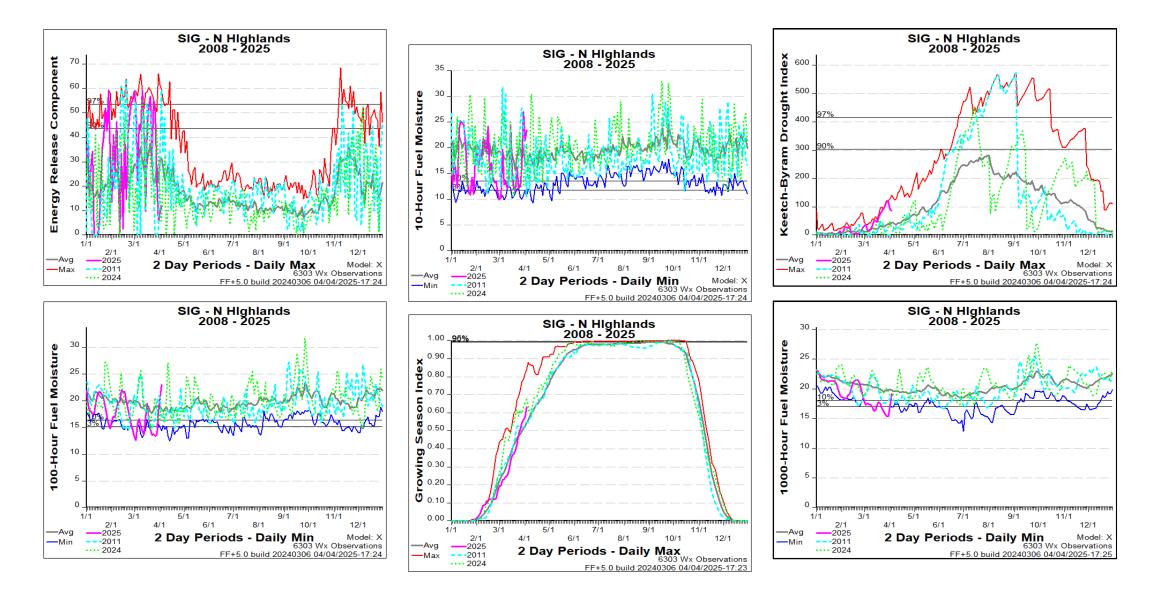
Values in the table above are averages from 3 stations in this FDRA:

- 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 dire	ction is highly dependent on burn ope	erations and/or structures threatened.
Days Since a Wetting Rain**	A wetting rain is defin	ed as 0.10" or greater. This is an avera	ge 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 whe and <b>season</b>	en determining fire dans	ger: sky conditions, precipitation ar	nount, number of days since rain,

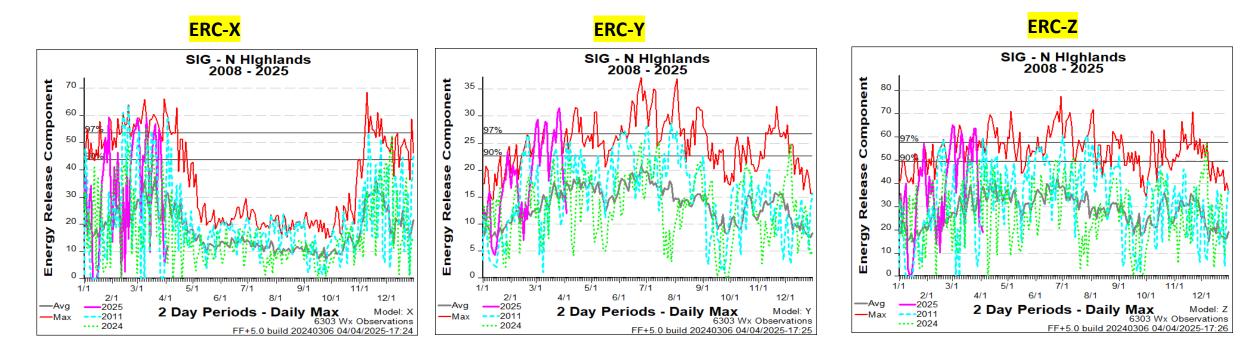
# FDRA – Northern Highlands





# FDRA – Northern Highlands





#### 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

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

DAY	SAT 05-Apr	SUN 06-Apr	MON 07-Apr	TUE 08-Apr	WED 09-Apr	THU 10-Apr	FRI 11-Apr
Avg. Max. Temp. (°F)	75	71	60	48	55	59	
Avg. Min. Humidity (%)	51	71	52	32	34	42	
Avg. 20' Wind Speed (mph)	9	10	8	11	5	5	
Avg. Wind Direction*	SSW	SSW	WNW	NW	W	SW	
Avg. Probability of Precip. (%)	17	86	31	4	7	21	
Days Since a Wetting Rain**	1.7	0.0	0.7				
Forecast ERC (Fuel Model X)	16.0	17.3	11.4	22.0	25.6	21.7	19.7
Forecast BI (Fuel Model X)	44.6	42.2	29.3	46.0	44.6	39.7	38.3
Forecast IC (Fuel Model X)	5.4	5.4	2.7	5.4	5.7	4.7	4.3
Forecast 100-Hr. FMC	21.4	20.4	21.1	22.1	20.9	19.6	18.5
Forecast 1000-Hr. FMC	19.7	20.1	20.3	20.5	20.5	20.6	20.5
KBDI	93.0						

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

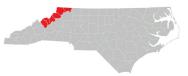
#### Data Source:

- Weather forecasts come from the National Weather Service's <u>Digital Forecast Database</u>. 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 <u>NFDRS Forecast</u> 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:

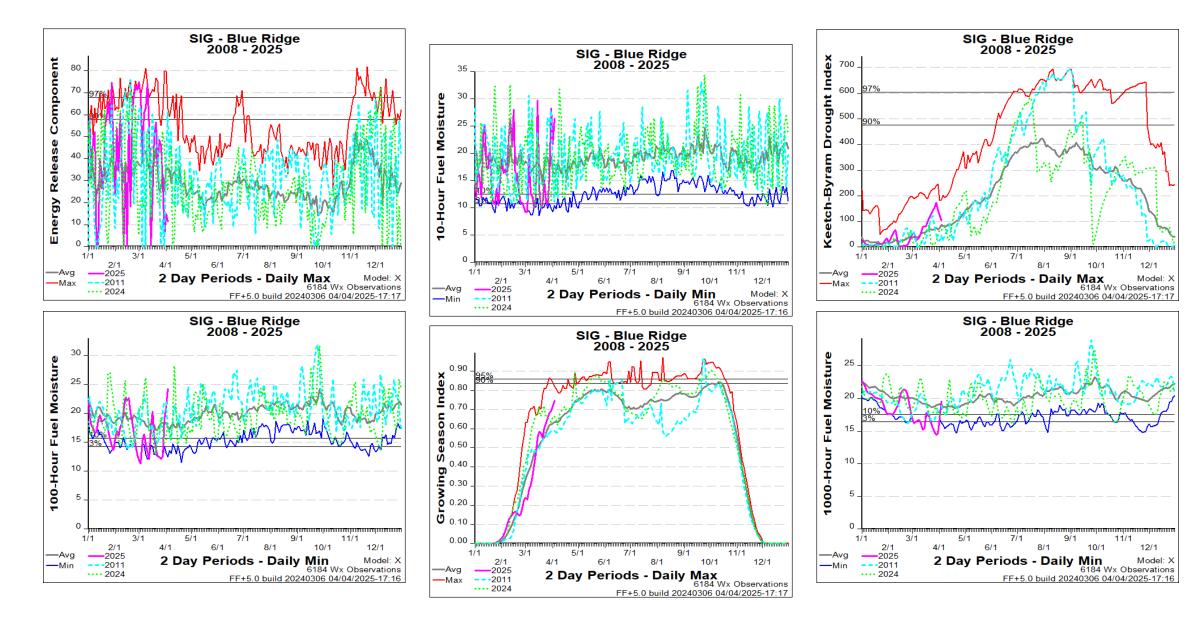
- Laurel Springs (310101)
- Upper Mountain Research Stn (310141)
- Busick (313402)

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 dire	ction is highly dependent on burn ope	erations and/or structures threatened
Days Since a Wetting Rain**	A wetting rain is define	ed as 0.10" or greater. This is an avera	age 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 wh and <b>season</b>	en determining fire dang	ger: sky conditions, precipitation a	mount, number of days since rain,



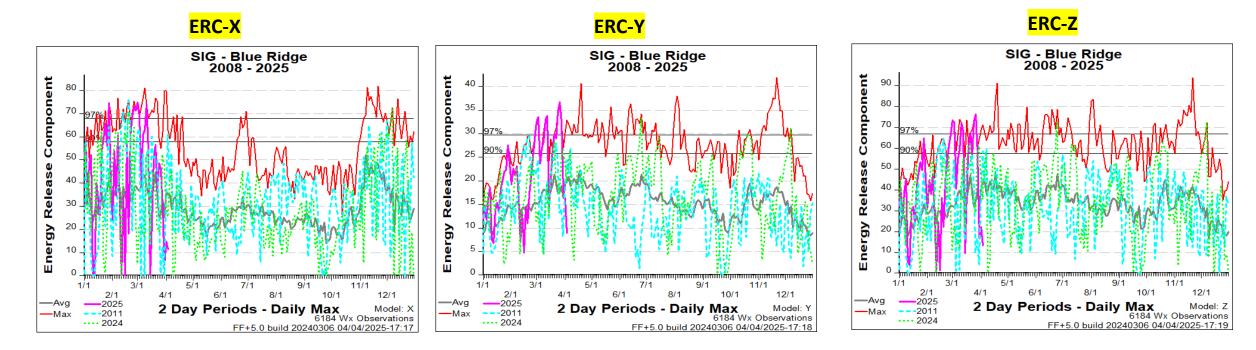
# FDRA – Blue Ridge Escarpment





# FDRA – Blue Ridge Escarpment





#### 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

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	SAT 05-Apr	SUN 06-Apr	MON 07-Apr	TUE 08-Apr	WED 09-Apr	THU 10-Apr	FRI 11-Apr
Avg. Max. Temp. (°F)	83	77	67	55	60	64	
Avg. Min. Humidity (%)	41	58	45	25	28	33	
Avg. 20' Wind Speed (mph)	8	9	6	7	4	4	
Avg. Wind Direction*	SSW	SSW	W	NNW	SSW	SW	
Avg. Probability of Precip. (%)	13	83	31	3	6	17	
Days Since a Wetting Rain**	2.0	0.0	0.3				
Forecast ERC (Fuel Model X)	23.1	28.4	23.0	33.8	34.1	29.9	26.0
Forecast BI (Fuel Model X)	68.5	76.8	50.3	57.1	49.1	51.4	53.2
Forecast IC (Fuel Model X)	7.4	9.1	4.8	7.5	6.1	6.0	6.3
Forecast 100-Hr. FMC	22.0	20.1	24.2	21.6	19.5	17.6	16.5
Forecast 1000-Hr. FMC	21.2	21.0	21.1	21.3	21.4	20.8	20.0
KBDI	106.0						

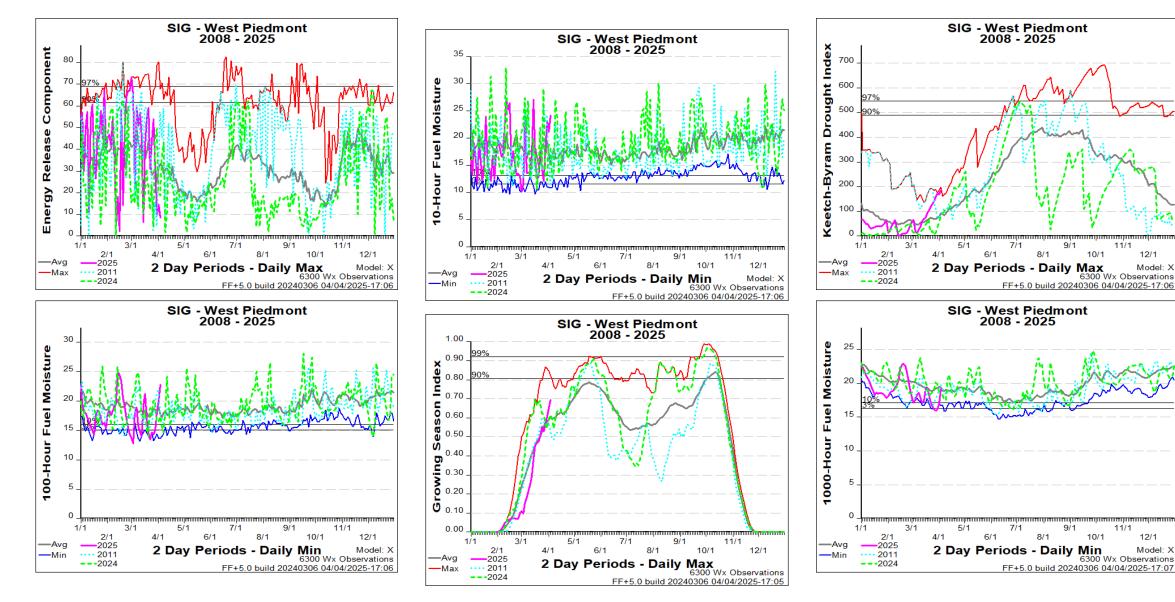
#### Data Source:

- Weather forecasts come from the National Weather Service's <u>Digital Forecast Database</u>. 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 <u>NFDRS Forecast</u> 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 dire	ction is highly dependent on burn ope	erations and/or structures threatened.
Days Since a Wetting Rain**	A wetting rain is defin	ed as 0.10" or greater. This is an avera	ge 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

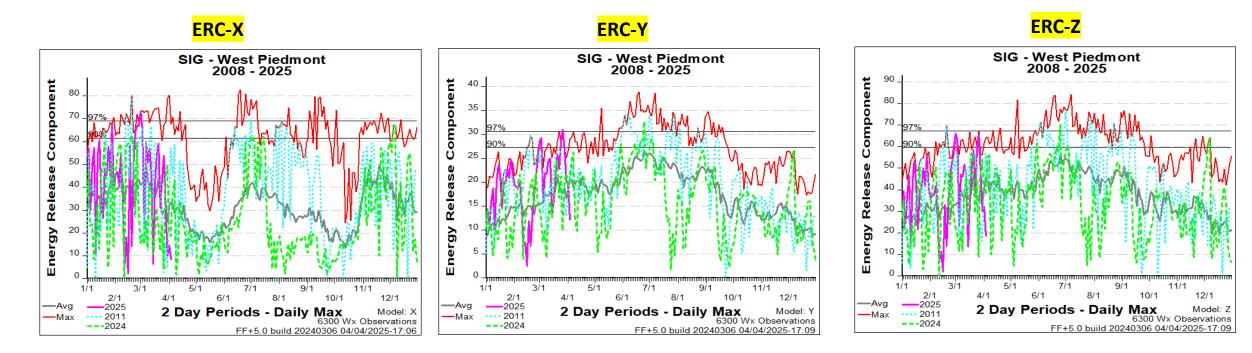
# FDRA – Western Piedmont





# FDRA – Western Piedmont





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

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	SAT 05-Apr	SUN 06-Apr	MON 07-Apr	TUE 08-Apr	WED 09-Apr	THU 10-Apr	FRI 11-Apr
Avg. Max. Temp. (°F)	88	86	68	59	62	67	
Avg. Min. Humidity <mark>(</mark> %)	42	47	63	28	30	36	
Avg. 20' Wind Speed (mph)	8	11	7	6	4	3	
Avg. Wind Direction*	SSW	SSW	WSW	WSW	ENE	S	
Avg. Probability of Precip. (%)	3	89	56	3	3	16	
Days Since a Wetting Rain**	5.0	0.0	0.0				
Forecast ERC (Fuel Model X)	14.6	18.2	7.7	20.7	23.1	19.3	15.0
Forecast BI (Fuel Model X)	34.9	46.2	17.9	33.3	26.3	27.5	27.1
Forecast IC (Fuel Model X)	4.8	7.9	1.6	4.5	3.2	3.4	3.2
Forecast 100-Hr. FMC	21.3	20.3	23.2	23.4	21.7	19.9	19.1
Forecast 1000-Hr. FMC	19.4	19.6	19.9	19.9	20.0	20.1	20.3
KBDI	190.0						



#### Data Source:

- Weather forecasts come from the National Weather Service's <u>Digital Forecast Database</u>. 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 <u>NFDRS Forecast</u> product does not include precipitation amounts,
  which are used to adjust KBDI from day to day

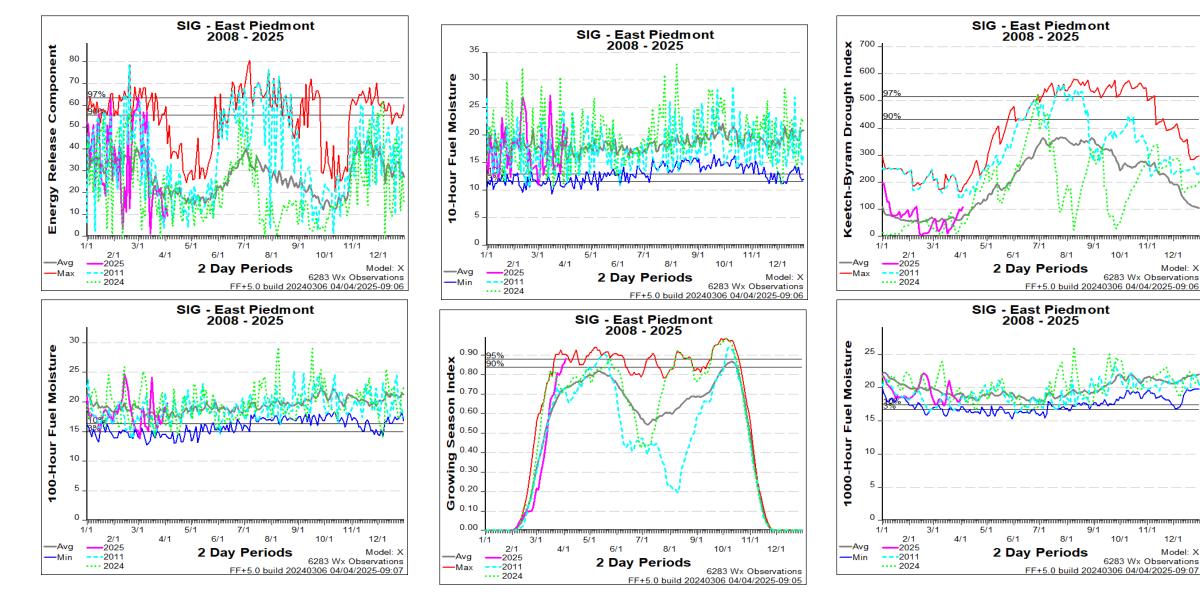
Values in the table above are averages from 3 stations in this FDRA:

- 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 dire	Criticality of wind direction is highly dependent on burn operations and/or structures threatened							
Days Since a Wetting Rain**	A wetting rain is define	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						

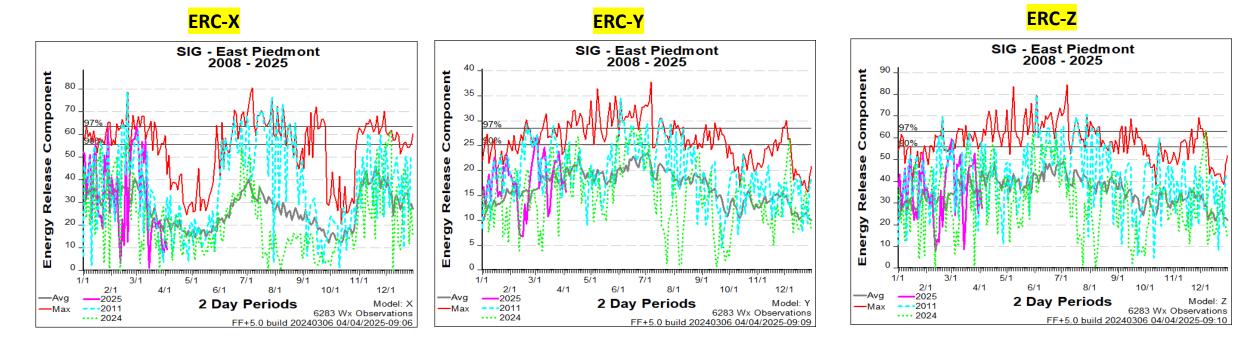
## FDRA – Eastern Piedmont





## FDRA – Eastern Piedmont





### 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

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	SAT 05-Apr	SUN 06-Apr	MON 07-Apr	TUE 08-Apr	WED 09-Apr	THU 10-Apr	FRI 11-Apr
Avg. Max. Temp. (°F)	87	87	67	59	60	66	
Avg. Min. Humidity (%)	46	45	72	30	30	39	
Avg. 20' Wind Speed (mph)	8	12	8	6	3	3	
Avg. Wind Direction*	SSW	SSW	W	NNW	ENE	S	
Avg. Probability of Precip. (%)	2	86	81	4	3	16	
Days Since a Wetting Rain**	1.0	0.0	0.0				
Forecast ERC (Fuel Model X)	12.2	13.2	8.0	13.1	17.1	15.9	12.2
Forecast BI (Fuel Model X)	26.9	33.5	18.1	24.6	20.1	20.8	21.7
Forecast IC (Fuel Model X)	4.0	5.6	1.8	3.2	2.3	2.5	2.5
Forecast 100-Hr. FMC	20.0	19.8	23.8	25.1	24.1	21.7	20.3
Forecast 1000-Hr. FMC	20.2	20.3	20.4	20.4	20.5	20.7	21.1
KBDI	122.5						

#### Data Source:

- Weather forecasts come from the National Weather Service's <u>Digital Forecast Database</u>. 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 <u>NFDRS Forecast</u> product does not include precipitation amounts,
  which are used to adjust KBDI from day to day

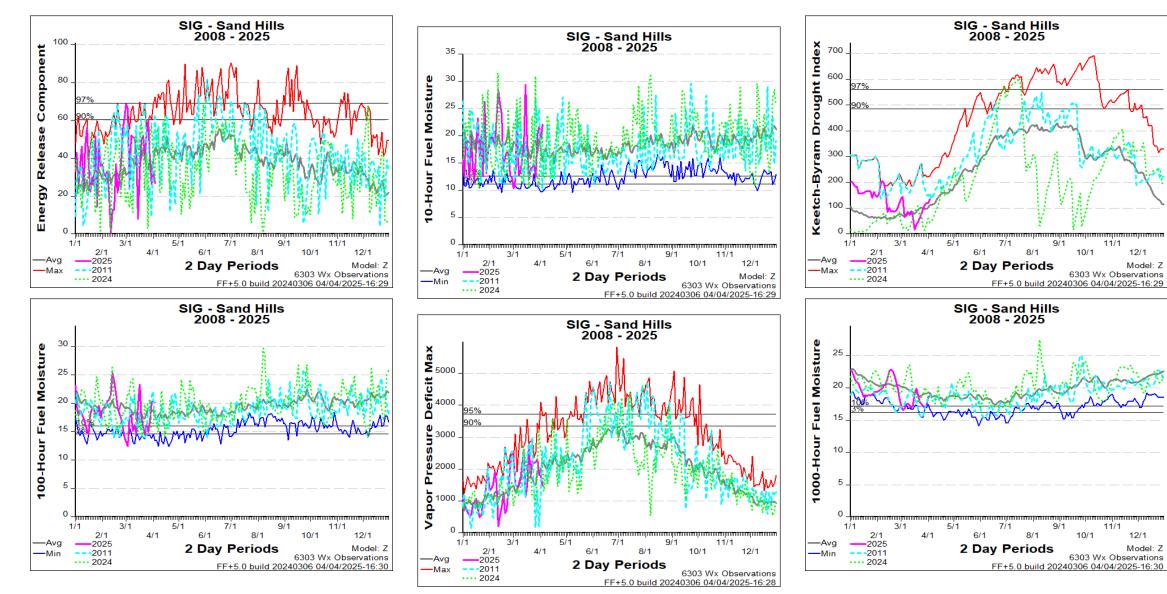
Values in the table above are averages from 4 stations in this FDRA:

- 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 dire	Criticality of wind direction is highly dependent on burn operations and/or structures threatened							
Days Since a Wetting Rain**	A wetting rain is define	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						

## FDRA – <mark>Sandhills</mark>





# 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 05-Apr	SUN 06-Apr	MON 07-Apr	TUE 08-Apr	WED 09-Apr	THU 10-Apr	FRI 11-Apr
Avg. Max. Temp. (°F)	88	87	70	61	62	68	
Avg. Min. Humidity (%)	44	42	69	29	28	36	
Avg. 20' Wind Speed (mph)	8	12	8	6	4	3	
Avg. Wind Direction*	SSW	SSW	SW	W	ENE	S	
Avg. Probability of Precip. (%)	1	81	84	4	2	16	
Days Since a Wetting Rain**	3.7	0.0	0.0				
Forecast ERC (Fuel Model Z)	31.8	32.3	19.1	26.2	36.7	37.6	32.5
Forecast BI (Fuel Model Z)	41.2	49.2	26.7	34.5	29.6	31.3	32.8
Forecast IC (Fuel Model Z)	9.8	12.1	4.5	8.3	6.8	6.7	6.6
Forecast 100-Hr. FMC	19.6	19.4	23.3	25.0	23.7	21.4	19.9
Forecast 1000-Hr. FMC	19.6	19.7	19.9	19.9	20.1	20.4	20.7
KBDI	150.7						



#### Data Source:

- Weather forecasts come from the National Weather Service's <u>Digital Forecast Database</u>. 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 10meter 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 <u>NFDRS Forecast</u> product does not include precipitation amounts, which are used to adjust KBDI from day to day

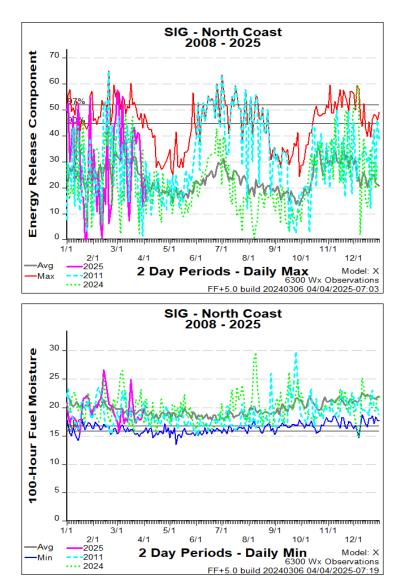
Values in the table above are averages from 3 stations in this FDRA:

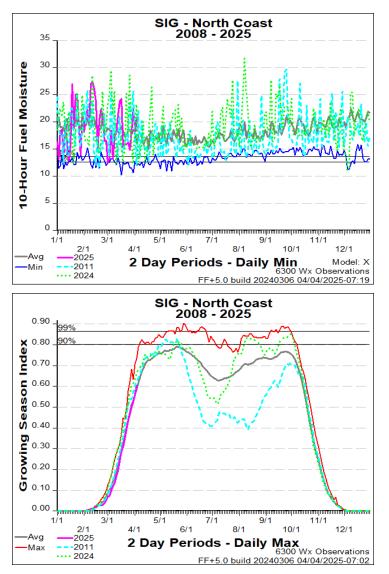
- Sandhills Research Station (317040)
- Rockingham (318202)
- Fort Liberty (318503)

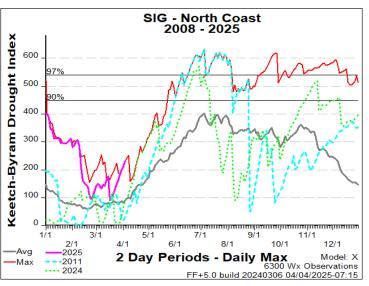
KEY	EY Low to Moderate Burning Conditions		Burning Conditions Can be Critical WATCH OUT!						
Avg. Max. Temp.	Less than 50°F	Between 50°F and 60°F	Greater than 60°F						
Avg. Min. Humidity	Greater than 40%	Between 30% and 40%	Less than 30%						
Avg. 20' Wind Speed	Less than 4 mph	Between 4 mph and 8 mph	Greater than 8 mph						
Avg. Wind Direction*	Criticality of wind	direction is highly dependent on burn ope	rations and/or structures threatened.						
Days Since a Wetting Rain**	A wetting rain is d	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 a	determining fire danger: s	ky conditions, precipitation amount,	number of days since rain, and seasor						

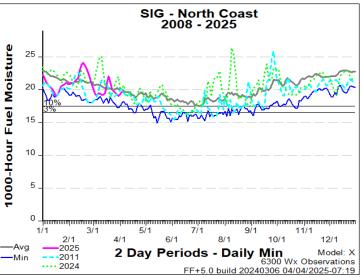






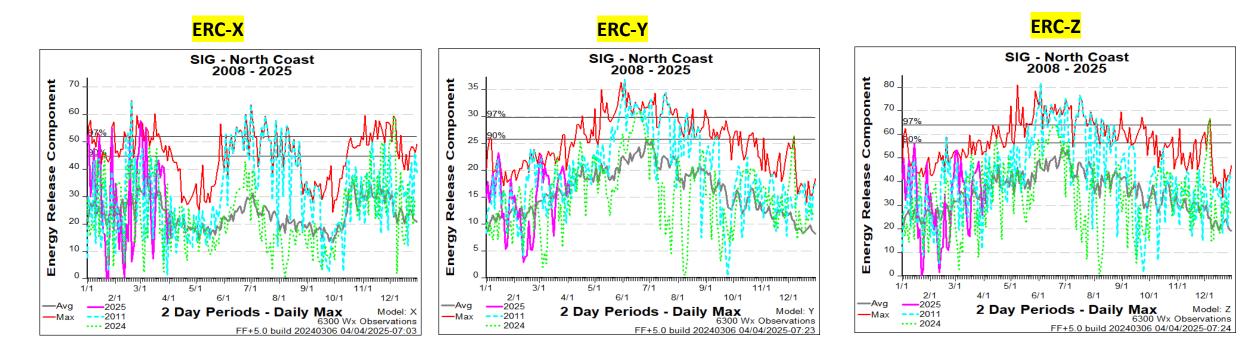






## FDRA – North Coast





### 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

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





## 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 05-Apr	SUN 06-Apr	MON 07-Apr	TUE 08-Apr	WED 09-Apr	THU 10-Apr	FRI 11-Apr
Avg. Max. Temp. (°F)	85	87	73	60	59	66	
Avg. Min. Humidity (%)	48	50	75	37	36	46	
Avg. 20' Wind Speed (mph)	8	13	9	8	6	5	
Avg. Wind Direction*	SSW	SSW	SW	WNW	NE	ESE	
Avg. Probability of Precip. (%)	1	61	89	8	3	11	
Days Since a Wetting Rain**	14.0	15.0	11.5				
Forecast ERC (Fuel Model X)	22.1	26.4	14.3	16.0	28.5	20.5	15.5
Forecast BI (Fuel Model X)	65.9	98.5	45.9	49.4	49.8	36.2	33.4
Forecast IC (Fuel Model X)	5.6	11.0	3.3	4.4	4.7	3.5	3.3
Forecast 100-Hr. FMC	19.7	19.6	23.2	24.7	24.8	22.3	20.9
Forecast 1000-Hr. FMC	21.5	21.4	21.5	21.5	21.5	21.6	21.7
KBDI	244.8						

### Data Source:

- Weather forecasts come from the National Weather Service's <u>Digital Forecast Database</u>. 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 <u>NFDRS Forecast</u> 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 whe	en determining fire dans	ger: sky conditions, precipitation ar	mount, number of days since rain,					

FDRA – South Coast



11/1

11/1

6300 Wx Observations

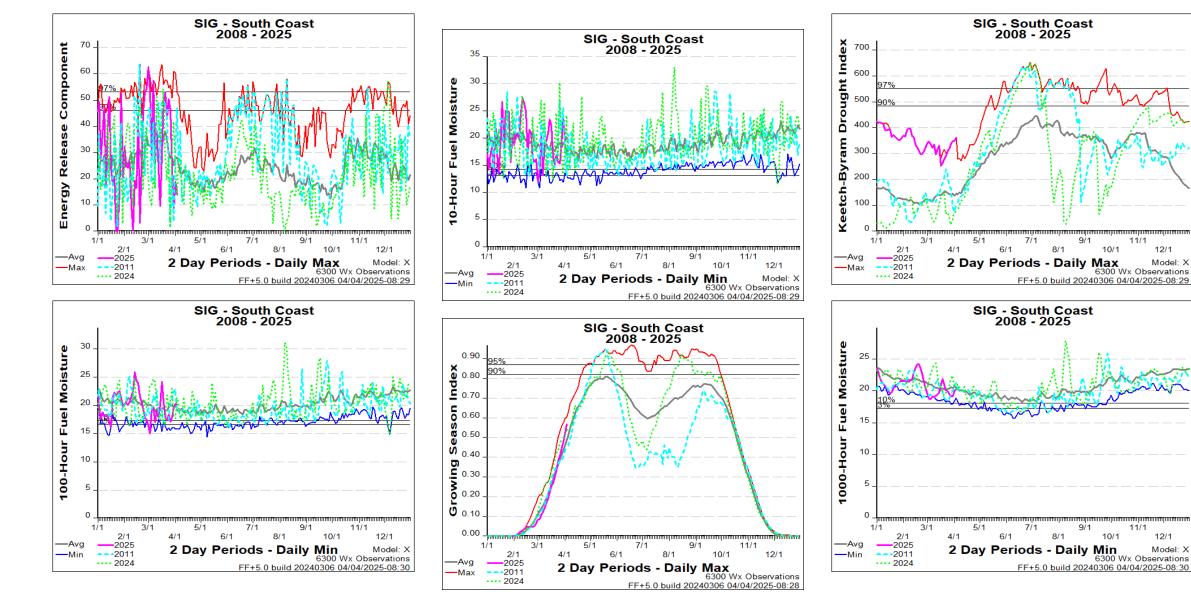
12/1

Model: X

10/1

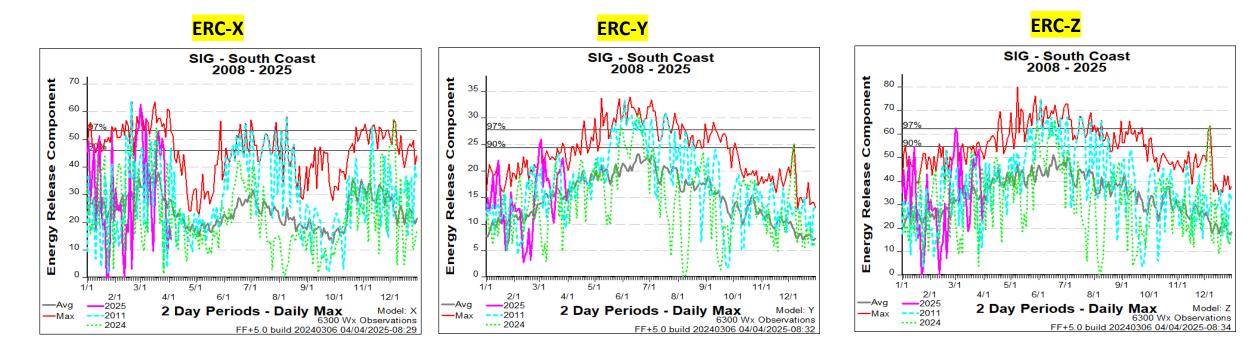
12/1

10/1



## FDRA – South Coast





### 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

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





## 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 05-Apr	SUN 06-Apr	MON 07-Apr	TUE 08-Apr	WED 09-Apr	THU 10-Apr	FRI 11-Apr
Avg. Max. Temp. (°F)	86	86	76	64	63	69	
Avg. Min. Humidity (%)	49	51	76	36	34	41	
Avg. 20' Wind Speed (mph)	7	10	7	6	4	3	
Avg. Wind Direction*	SSW	SSW	SW	WNW	NE	ESE	
Avg. Probability of Precip. (%)	1	49	89	9	1	9	
Days Since a Wetting Rain**	8.6	9.6	7.0				
Forecast ERC (Fuel Model X)	21.1	20.1	12.7	13.6	23.1	17.9	14.1
Forecast BI (Fuel Model X)	58.6	64.8	37.3	32.9	34.8	26.5	29.6
Forecast IC (Fuel Model X)	5.8	7.4	3.5	3.9	4.1	2.9	3.1
Forecast 100-Hr. FMC	19.4	19.3	22.5	24.1	23.9	21.5	20.3
Forecast 1000-Hr. FMC	21.7	21.7	21.6	21.7	21.7	21.7	21.8
KBDI	372.0						

#### Data Source:

- Weather forecasts come from the National Weather Service's <u>Digital Forecast Database</u>. 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 <u>NFDRS Forecast</u> product does not include precipitation amounts,
  which are used to adjust KBDI from day to day

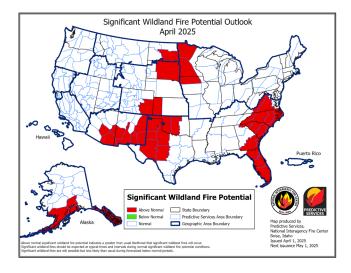
Values in the table above are averages from 7 stations in this FDRA:

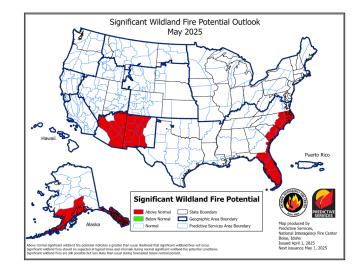
- Finch's Station (317501)
- Beaufort (317801)
- New Bern (319004)
- Turnbull Creek (319302)
- Hofmann Forest (319507)
- Whiteville (319701)
- Sunny Point (319803)

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 defin	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					
KBDI Other factors to consider who and season		Between 385 and 486 ger: sky conditions, precipitation ar						

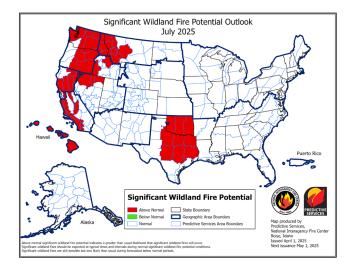
## Significant Wildland Fire Potential Outlook:

Updated 4/1/25 – Next Update on 5/1/25



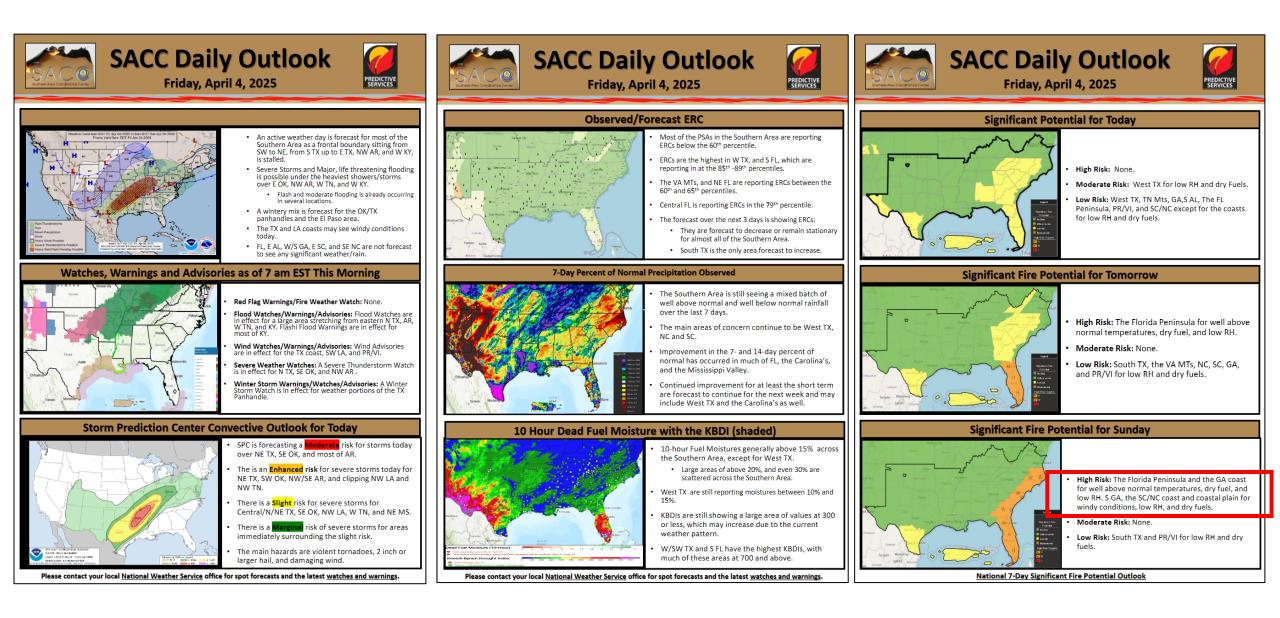






\*A significant fire is one that requires resources from outside the district (other than aviation). IA potential is based more on shorter term weather factors. Just a few days of dry weather can increase IA activity considerably as we have consistently seen this year.

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



- Models have had significant variability in expected precip amounts. The latest WPC outputs show higher overall totals & is still subject to significant change. High thunderstorm associated totals can have considerable runoff and minimal absorption on dry topsoil & duff.
- We have seen better recoveries overnight & unsettled weather west after the past few weeks of very dry air and wind (previously discussed). Exceptionally warm and breezy conditions (especially Sunday) on the way followed by flip early next week after the frontal passage. Drier air will lead to decline in 10's and 100's again. Precip related to frontal passage will impact fuel conditions moving into next week, depending on amt/duration. Drying & Warmer Conditions look to return after "cold spell".
- Note HDW values for much of Eastern NC above the 90<sup>th</sup> percentile for Sunday in the pre-frontal environment. (Slide #18) Also see SACC discussion for Sunday on previous slide.
- Greenup processes are advancing due to the warmer than normal weather, especially at lower elevations and earlier species. Overall, it is still far from positively impacting 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 seeing the most immediate impact.
- Adj Rating Model likely being too optimistic on NFDRS forecast later in the 7-day period, depending upon actual precip and duration. 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.
- New Sig. Fire Potential Outlook is posted for Apr-July. General shift to coastal PSAs in May/June related to long-term precip deficits, heat, and thunderstorm/lightning activity. KBDI values are already near max for the time period at many stations in South Coast FDRA (see FDRA slides).

## 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 4	Sat Apr 5	Sun Apr 6	Mon Apr 7	Tue Apr 8	Wed Apr 9	Thu Apr 10	Fri Apr 11	
Southern Highlands 🗢 🗴	L	М	М	L	М	М	М	М	
Central Mountains 🗢 x	L	М	М	L	М	М	М	М	
Northern Highlands 🗳 x	L	М	М	L	М	М	М	М	
Blue Ridge 🗳 x	L	L	L	L	М	М	М	М	
Western Piedmont 🗳 x	М	М	М	L	L	М	М	М	
Sandhills 🗱 z	М	М	М	L	М	М	М	М	
Eastern Piedmont 🔹 x	М	М	М	L	L	L	L	М	
Southern Coast 🗢 x	L	L	L	L	L	L	L	L	
Northern Coast 🛭 🗢 x	L	L	L	L	L	L	L	L	