

Weekly Fire Danger Assessment NCFS – All Regions

For Time Period:

Friday (5/3/24) to Thursday (5/9/24)

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

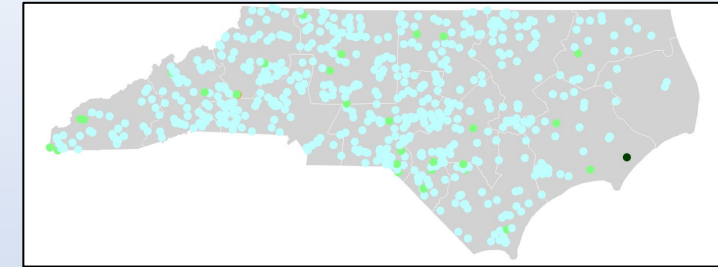
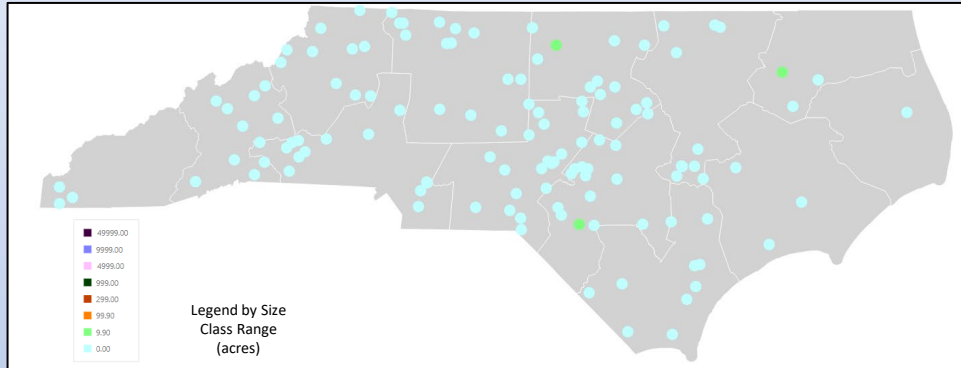
Incident Activity

April 1 - 30

fiResponse Incident Location Map (for general context, preliminary data)

7-Day Activity: 4/25 – 5/1, 2024

Report: Business Intelligence Module, Response Trends Map



January: 10-yr avg is 305 fires for 511 acres
 February: 10-yr avg is 553 fires for 1,427 acres
 March: 10-yr avg is 914 fires for 4,214 acres
 April: 10-yr avg is 655 fires for 3,219 acres
 *May: 10-yr avg is 303 fires for 1,118 acres
 (Statewide averages, above, are based on FARS 2013-2022 Data)

Largest incidents Last 7 Days (Ending 5/1):
 from fiResponse & preliminary reporting only

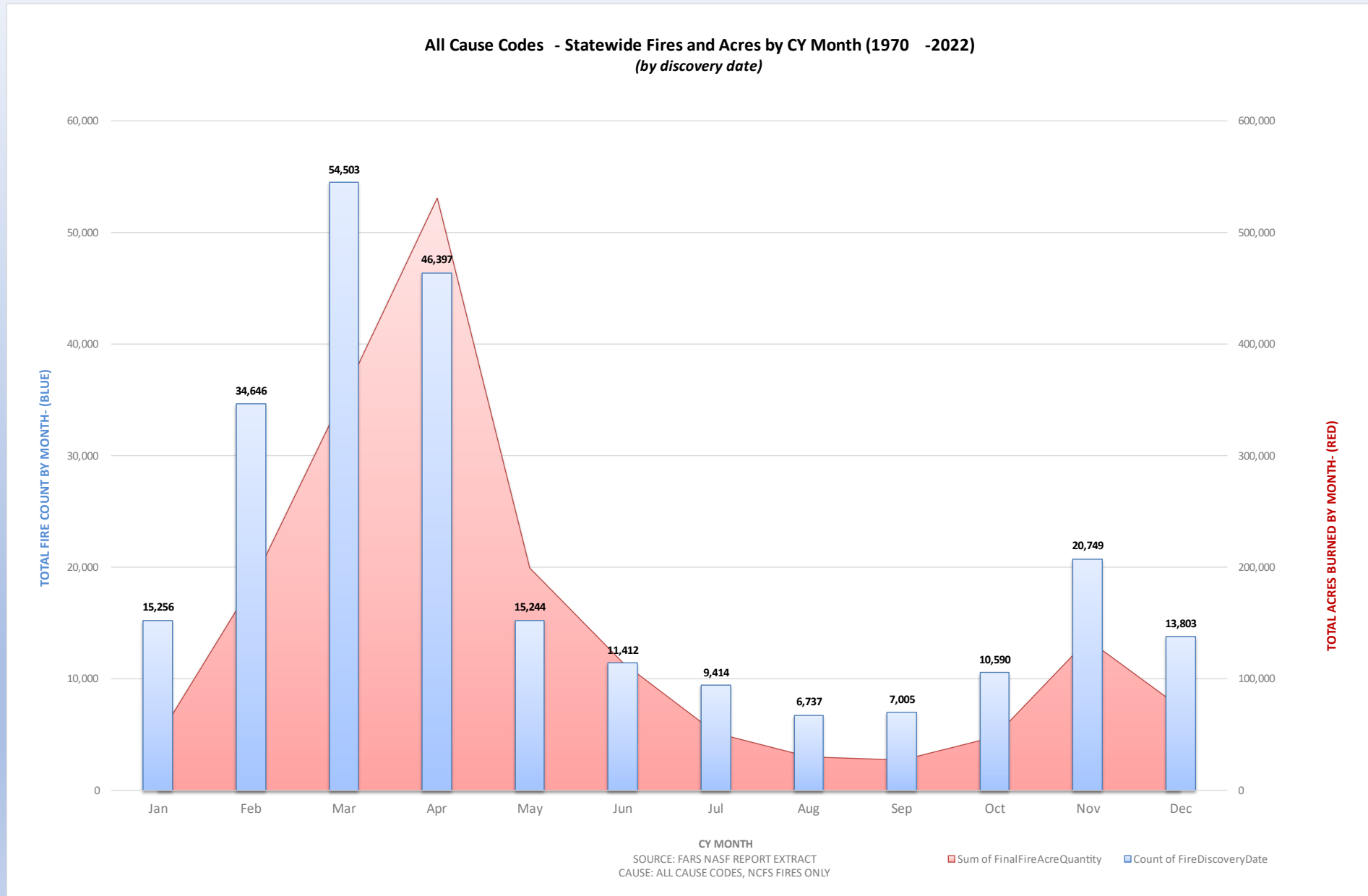
Incident Name	Discovery Date	Region	District	County	Acres
Governors Road	4/29/2024	Region 1	District 7	Bertie County	55.00
Rex Church Rd	4/26/2024	Region 2	District 6	Robeson County	20.00
Harrow	4/27/2024	Region 2	District 11	Caswell County	10.00
Caddy Road Rekindle	4/30/2024	Region 2	District 11	Wake County	10.00
Bethlehem Rd	4/28/2024	Region 2	District 11	Wake County	8.00
Maggie Way Rd	4/27/2024	Region 2	District 6	Johnston County	7.00
Sugar Creek	4/25/2024	Region 3	District 1	Buncombe County	5.50
Front Street #2	4/29/2024	Region 1	District 8	Pender County	5.00
Caddy Railroad	4/29/2024	Region 2	District 11	Wake County	5.00
Old Bunch Rd	4/30/2024	Region 2	District 11	Wake County	5.00

NCFS – By Region				
7-Day Fire Activity (Does Not Include Federal Ownerships)				
Data Source:	Signal 14 Regional Activity Summary Report (Signal 14 is a daily snapshot in time)			
Date Range:	4/25 – 5/1, 2024			
Area	Wildfire Count	Wildfire Acres	RX Count (State & Private)	RX Acres (State & Private)
R1	19	78.4	6	1,352
R2	66	88.6	31	2,752
R3	27	15	1	24

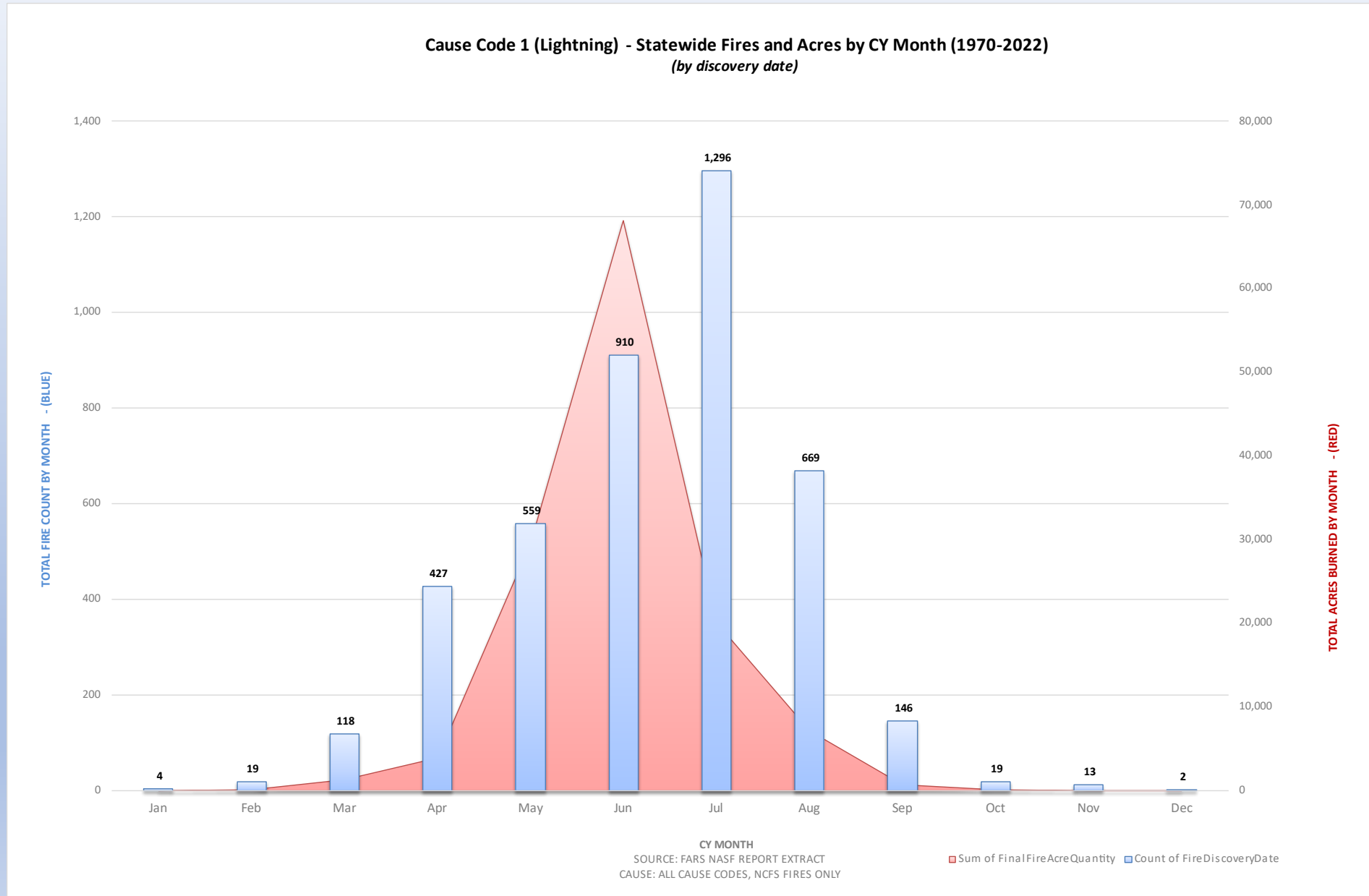
“209” Criteria Fires for April/May - as of 5/1/24

Incident Number	Incident Name	Start Date	Location	Size	Containment / Completion Date
NC-NCS-240017	Highway 12	4/8/2024	R1/D4/Carteret	3,318 Acres	100% Contained on 04/11/2024
NC-NCS-240019	Henry Fork	4/15/2024	R3/D2/Burke	211 Acres	100% Contained on 4/18/2024
NC-NCS-240020	Knight Street	4/15/2024	R2/D3/Richmond	0.75 Acres	Due to Structure Loss - 04/15/2024
NC-NCS-240021	Dam Cove Rd	4/18/2024	R3/D12/Catawba	0.4 Acres	Due to Structure Loss - 04/18/2024

Distribution of **All Fires & Acres by Month** from 1970 - 2022



Distribution of **Lightning Fires & Acres by Month** from 1970 - 2022

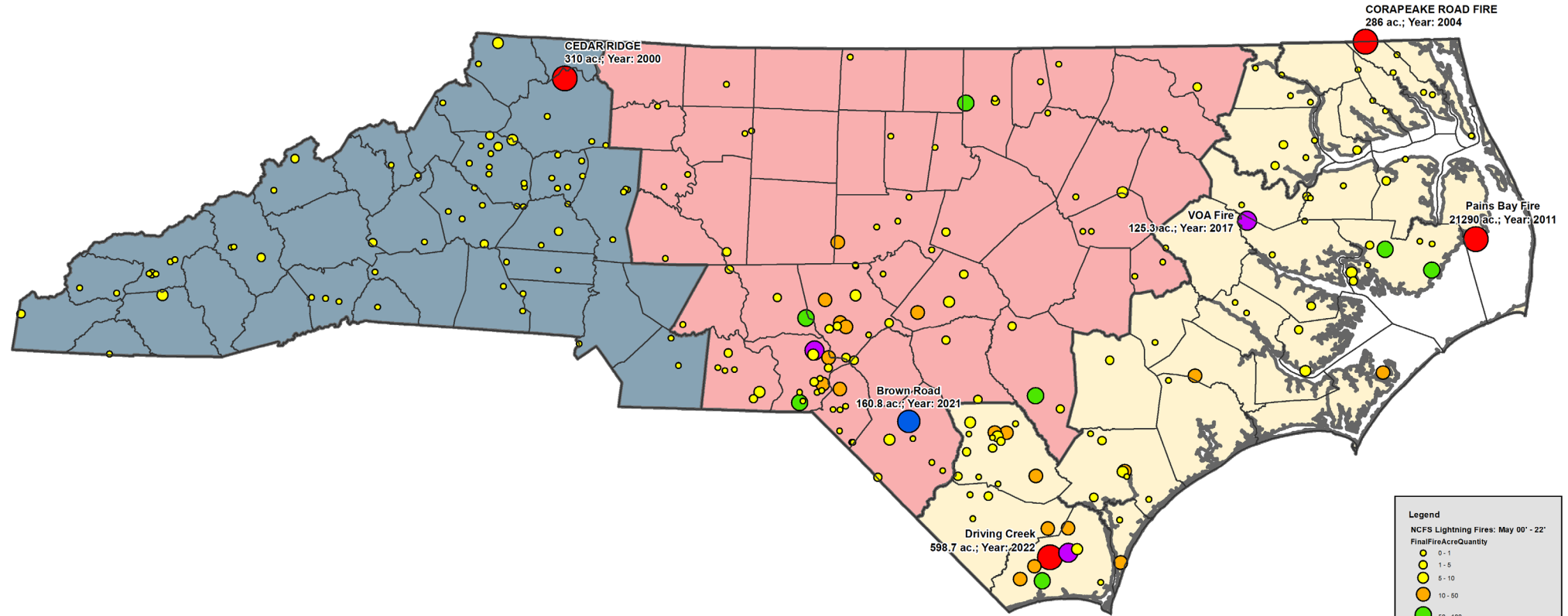




NC Forest Service Lightning Fire Locations: May CY 2000-2022



Fires over 100 acres are labeled, State recorded acres only



Legend

NCFS Lightning Fires: May 00' - 22'

Final Fire Acre Quantity

- 0 - 1
- 1 - 5
- 5 - 10
- 10 - 50
- 50 - 100
- 100 - 150
- 150 - 200
- 200+

Region

- Coastal Region (1)
- Piedmont Region (2)
- Mountain Region (3)
- NC Counties

Date Drawn: 5/2/24
Source: FARS Database
Preliminary Data from
NWCG Report Query
Created by: Dunbar

Preliminary Data

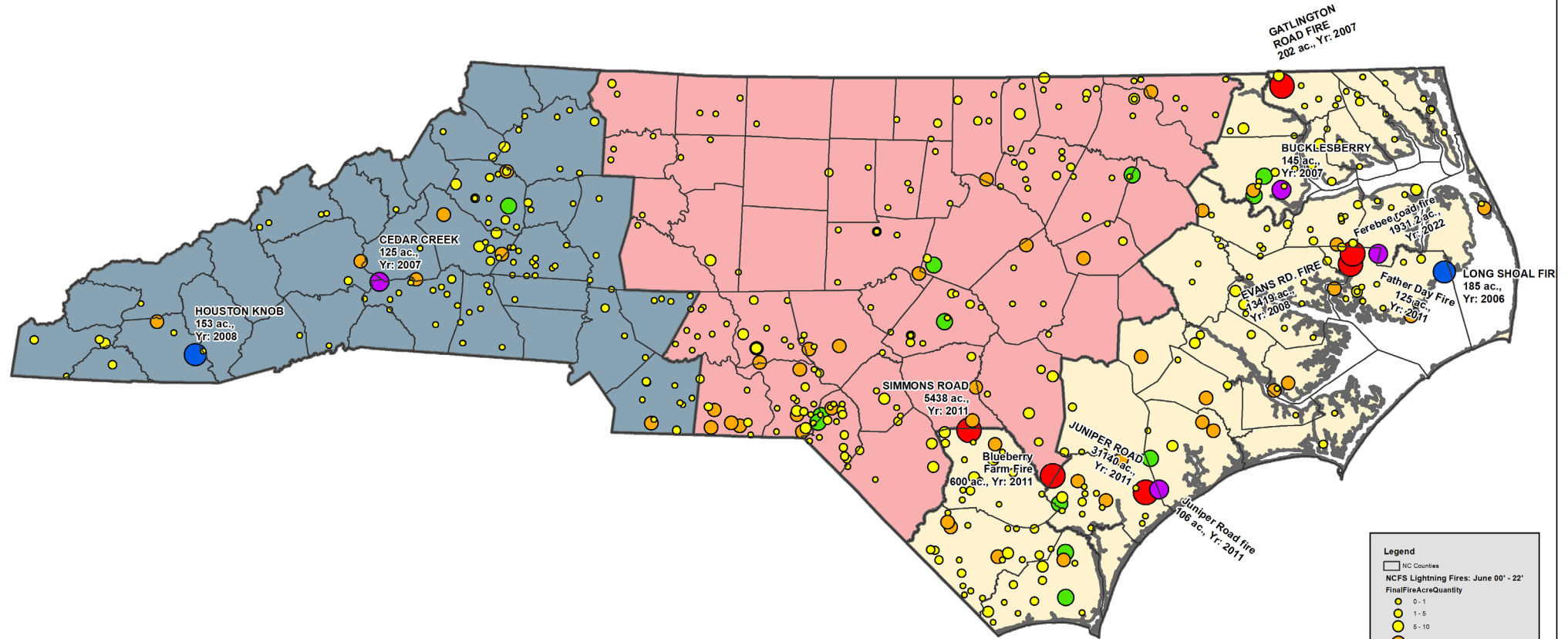




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Preliminary Data



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Region

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Southern Area Daily Outlook Page:

SACC Daily Outlook

Thursday, May 2, 2024

Watches, Warnings and Advisories

- No Red Flag Warnings or Fire Weather Watches in the Southern Area
- Dense Fog Advisories along the middle and eastern Gulf Coast and East Coast
- Flood Watches in OK, TX and LA
- Wind Advisory in OK

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Today's Weather Outlook

- Multiple clusters of showers and thunderstorms will continue across OK and the eastern two thirds of TX today, extending into portions of AR and LA
- Flash flooding will be likely across southeast TX and possible elsewhere in adjacent states, while severe storms will be concentrated in western North TX and southwest OK
- Any showers and storms east of the Mississippi River will be isolated to widely scattered
- High pressure will promote a dry and very warm day across the Appalachians, with some record high temperatures expected in KY and VA
- A disturbance north of the Caribbean will promote unsettled weather across the islands the next few days

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Estimated Rainfall the Past Three Days

- Flash flooding is ongoing across parts of TX and OK this morning, where as much as 8-12" of rain has occurred the past few days
- Scattered areas from the Plains into the Mississippi Valley and Appalachians have observed anywhere from 1-4" of rain, though many areas have so far missed out, including the High Plains
- Isolated thunderstorms in the Trans Pecos yesterday could result in emerging holdover fires the next few days as dry and hot weather continued
- Likewise, thunderstorms across the Carolinas yesterday and FL the past few days may bring an increased risk for holdovers the next couple of days - wetting rain was widely scattered but locally heavy

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

SACC Daily Outlook

Thursday, May 2, 2024

Significant Fire Potential Outlook Today

- The Trans Pecos in TX observed isolated thunderstorms capable of producing emerging holdovers the next few days; very warm conditions are in store today, and RH will be as low as 3-8%; while W winds will gust from 20-30 mph this afternoon
- The Appalachians will see RH as low as 20-25% this afternoon, locally in the high teens, while near-record to record warm high temperatures can be expected; winds will be light
- Coastal NC observed spotty thunderstorms yesterday; while it is foggy this morning, holdovers could emerge this afternoon as RH drops into the 20s and 30s; sea breezes will affect the immediate coast
- Risks in the rest of the Southeast will be tied to recent dryness, along with RH as low as 30-40%; locally lower in AL; lightning holdovers could emerge and isolated thunderstorms are possible again, mainly near the Gulf Coast; otherwise, expect light winds until sea breezes produce gusts to near 25 mph

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Significant Fire Potential Outlook Friday

- Similar weather is forecast across TX tomorrow, though showers and thunderstorms will increase across the West TX PSA, which will bring increasing humidity and fuel moisture where rain occurs; otherwise, single-digit RH and above normal temps will continue for the TX mountains, where breezy weather is expected
- No major changes are expected for the Southeast and FL; the driest fuels will be found over central parts of the peninsula, where RH near 30% is expected prior to sea breezes moving inland; holdovers may emerge and new ignitions are possible due to thunderstorms in LA, MS and AL
- Scattered thunderstorms capable of producing lightning ignitions and erratic winds will return to the Appalachians, while a dry and warm day is in store for eastern NC

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Significant Fire Potential Outlook Saturday

- Expect isolated thunderstorms across northern FL, while central and southern FL will generally be dry with low RH inland prior to sea breezes bringing gusty winds and higher RH
- The fire environment in the Appalachians will have improved due to heavy rainfall and continued high RH
- Isolated dry thunderstorms are possible over the TX mountains; otherwise, look for hot and dry conditions, with min. RH from 5-15%

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SACC Daily Outlook

Thursday, May 2, 2024

100-Hour Fuels Week One

- On average, 100-hour fuels for the week one period will be drier than normal from the Appalachians and Mid-Mississippi Valley to FL, though increasing moisture is likely for northern areas as rain chances increase this weekend into next week; any improvement this weekend in FL will be short-lived
- Conditions will be variable in West TX into the High Plains, but drier than normal 100FM is likely on average, with accelerated drying expected next week as heat builds and rain chances diminish
- Abundant rainfall and high RH will maintain above normal 100FM from central and eastern OK into western AR, central and east TX and most of LA north of the immediate coast

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100-Hour Fuels Week Two

- Drying will increase during the week two period over the region, though conditions will likely have improved for most of the Appalachian states as compared to week one
- A heat wave from TX to FL and parts of the Southeast next week will lead to a drying trend that will bring 100FM well below normal for parts of the region, especially in West and South TX, in addition to the FL peninsula - conditions may be drier than indicated over the central FL peninsula depending on the duration of very hot and dry weather later next week
- Near-normal 100FM can be expected for areas that are wet this week, though a drying trend is likely for most of the area

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Drought Monitor Update

- Moderate drought developed this week in east-central FL, while abnormal dryness expanded farther south in the peninsula
- Abnormal dryness increased in coverage from NC into parts of VA, SC, GA, AL, TN and KY, while a modest increase in moderate drought is depicted over southeast TN
- Improving conditions were the rule in far northern and eastern OK, while severe drought increased in northwest OK
- A few areas in western and central TX saw slight improvement, with no change elsewhere in the state
- Improvement occurred across northwest PR, where some abnormal dryness remains

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North Carolina State University Fire Weather Intelligence Portal

SACC Daily Outlook

Thursday, May 2, 2024

Forecast Rainfall the Next Week

- Weekly rainfall totals will be highest across western parts of the region, with a sharp cut off likely near the Trans Pecos and in South TX - rainfall amounts will be minimal in the northwest TX and western OK panhandles, as well
- Flash flooding and river flooding will continue at times elsewhere in TX, OK, AR and LA
- Much-needed rainfall appears likely to overpread the Appalachians and portions of the Piedmont, though coastal areas are likely to stay drier
- The FL peninsula will see spotty storms in western areas today, with generally dry weather likely except across the north for the rest of the period

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Record Heat Next Week

- Confidence continues to increase in a heat wave next week for the southern tier of the region as a heat dome expands from Mexico and the Gulf of Mexico towards the region
- High temperatures in the moderate risk area will easily reach well into the 90s for several days, with readings possibly surpassing 110 degrees along parts of the Rio Grande
- Model guidance is in support of at least a few days of highs in the mid and upper 90s over the FL peninsula, with increasing support noted for possible monthly records; near 100 degrees in the drier areas - this will continue to drive flash drought development and expansion, with extreme evaporative demand expected
- Dangerous heat indices will become likely for the Gulf Coast, mainly across southern TX into LA, MS, AL and the FL panhandle as southerly winds bring high humidity
- A front may settle southwards towards the Gulf Coast next weekend, but at this time, hot and dry weather looks to continue into mid-month across central and southern FL

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May Significant Fire Potential Outlook

- Above normal significant fire potential was introduced over central FL for May, which will likely include northern parts of the South FL PSA - this is due to the ongoing flash droughts and expectations for a hotter and drier than normal month; additionally, a wet winter and early spring has likely led to above normal fuel loading, especially in west central FL
- Above normal significant fire potential was maintained across the TX mountains, due to the combination of long-term severe to extreme drought, local areas of near to above normal grass loading in the mountains and the increased likelihood of lightning ignitions
- Firehazes in the Southern Area, conditions will have to be maintained for most of the coastal plain, especially if hot and dry weather continues after next week; otherwise, the highest elevation of the Appalachians have not reached full fuel-out yet and could continue to see fire activity; the duff layer may still be abnormally dry due to the recent warm and dry conditions - risks should diminish quickly in the mountains in the next 1-2 weeks, however
- The western TX panhandle into northwest OK should also continue to see off-and-on risks for wildfires during periods of hot, dry and windy weather, but the climatology for high wind events drops off in May as compared to Feb-April; westerly weather is anticipated to be the month

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Seasonal Green-up, Rainfall Deficits & Potential Fire Behavior:

*Important note on seasonal green-up, canopy cover & recent rainfall deficits VS potential fire behavior (throughout the state).

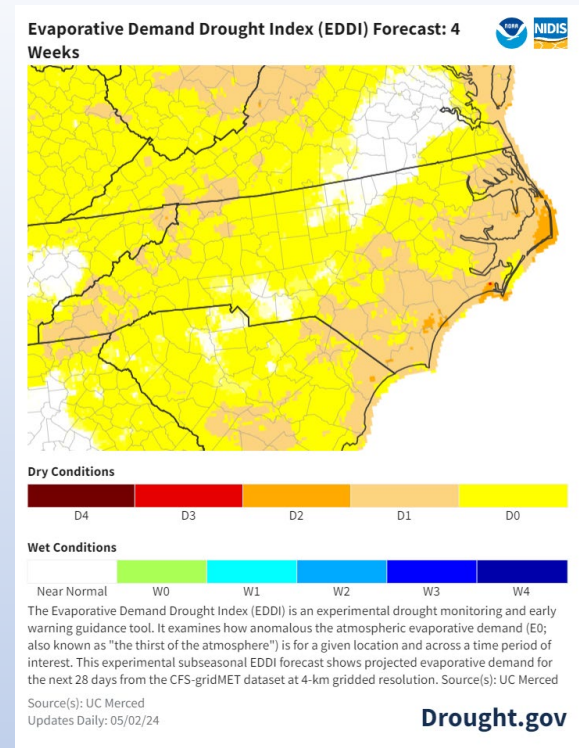
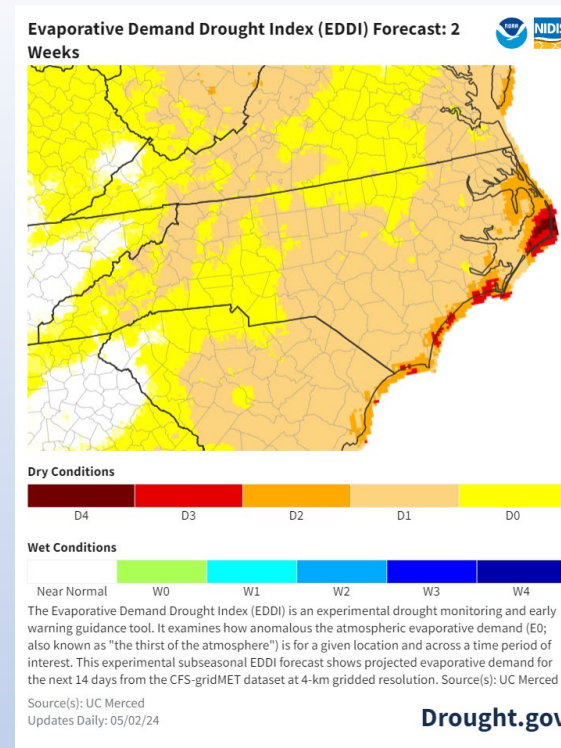
Shading and wind interception benefits are increasing as Spring progresses. Yard greening has also helped limit debris burning escapes while adequate soil moisture remains.

However, be sure **not** to underestimate potential fire behavior.

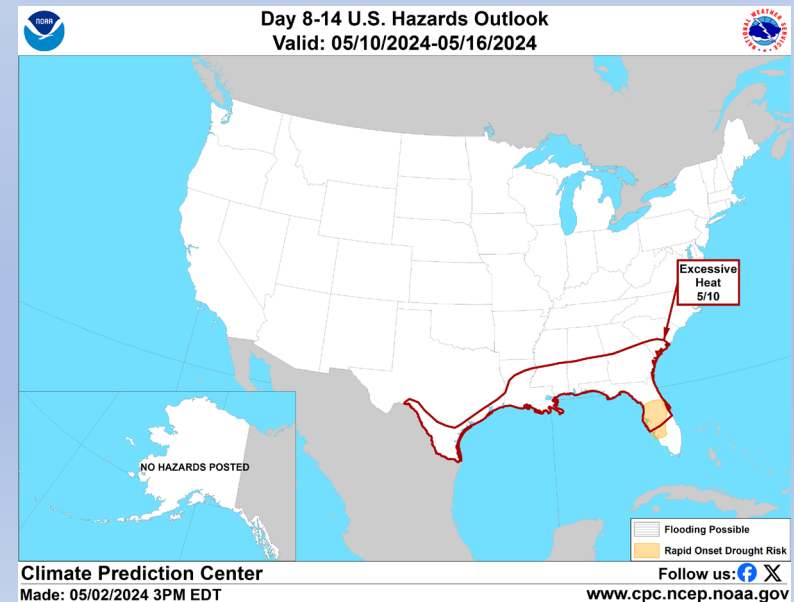
This is especially important in areas that continue to miss soaking rain events & also have heavy concentrations of dead fuels, deep duff or organic soils. Alignment with extended periods of warmth, very dry air masses & wind can also accelerate drying in both live and dead fuels.

Continued trends in precipitation are showing many areas in the Piedmont & Upper Coastal Plain now approaching only ~60 percent of normal precipitation at the 3-month scale. The next week looks to have scattered rain chances along with very warm conditions & increasing evaporative demands. (See EDDI Maps top right)

If lack of rain continues into the growing season for these areas, **flash drought/rapid onset drought condition criteria may be met in some areas.** See hazards discussion from the CPC [here](#).



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



Regional Comments for this Week – R1

D8- Largest concern for D8 is the coastal counties of Brunswick and Pender as well as areas of Bladen around and in the pocosins. The waxy species haven't hardened off yet and have been available. Back Island RAWs in Holly Shelter is reporting KBDI of 403. Lightning in Pender County today associated with storms and very little rainfall is a concern for the next couple days. Leaf out is between 90% and 95%. Cloudy and spotty rain has prevented occurrences this week, but rains haven't been wetting enough to make a difference.

D7- Estimating green-up is around 85%. Progress has seemed to pause due to lack of moisture. Waiting on the usual late species which are mostly waxy/pocosin species to harden off. Fire activity was very light till the last few days. Most notable was a 55-acre fire in Bertie which started in flashy fuels and ran into the woods. The fire intensity was reduced when it hit the forest fuels. Mop up is a concern with large fuels beginning to dry out. Lightning coupled with organic soils are a concern with KBDI at 341 and BU hitting 75 today (5/1). Both are climbing faster with higher temps. Hopeful that some of these frontal passages coming over the next week will bring much needed moisture. If not, I expect some of the FDR numbers to hit some of their thresholds next week.

D13- Similar to D7 comments for North Coast. We had an acre fire on DBR yesterday. Skunked around due to dryness. 100HR are below the 20th percentile (lower percentile is worse for dead fuels) which is when we start having lightning starts.

D4- Areas north of the Tar-Pam are mirroring what D7 and D13 are seeing. We have missed the precipitation along the northern and western portion of the district and KBDI at Beaufort is at 343. The effects of the rain we received last week have vanished, as the KBDI at New Bern and Hoffman are approaching 300. Ditches are dry in the Hoffman, Big P, J&W, and Dover pocosins. To the south of Hwy 17, fire behavior has been active. NCFS, NCWRC, and USFS performed a joint Rx burn on the Pettiford Creek tract Sunday. Burned hot and quick. Pocosins are ripe. Green fuels are available to burn. Leaf out is around 90%. Concerned about lightning strikes with the forecast of afternoon thunderstorms through the next week. **(see photo bottom right)**



D4/Pettiford Creek Tract on 4/28/24

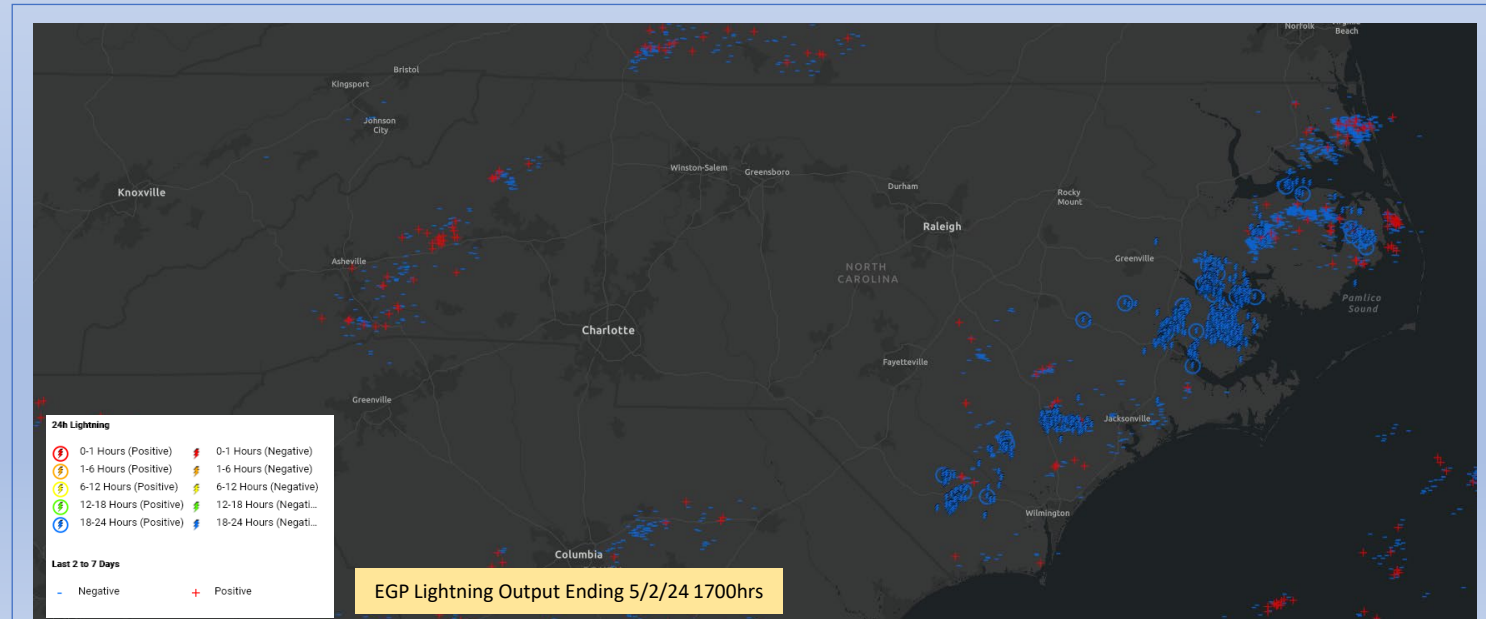
Regional Comments:

- 100 & 1000-hour fuels have been at or higher than seasonal average values this week.
- Green-up is continuing across the region with understory rapidly greening up.
- Leaf out at 95-100% in all of R2, with Surry/Stokes a week behind.

General Notes:

Drying trends shown at multiple time scales will have to be carefully monitored moving further into Spring 24'.

Live fuel availability, especially yards & shallow-rooted grasses along road shoulders are more readily impacted in periods of high evaporative demand (high temps, dry air, gusty winds) found moving into Summer.



Regional Comments for this Week – R3

Regional Comments:

- N/A

Daily WIMS Observations and NFDRS Estimates

Averaged by FDRA SIG Group

This is available on the FWIP at: <https://products.climate.ncsu.edu/fwip/nfdrs.php?data=ob&state=NC>

- The averaged values are derived from the SIG Station Outputs for a particular FDRA
(SIG station names shown in bold on the live link above)
- You can toggle the percentiles on/off, displaying below the actual calculated values
percentiles are based on SIG station averages from analysis of "All Days" for entire calendar year range through 2021
- Herb & Woody Fuel Moisture Estimates derived from SIG Station Averages – based on Station GSI Settings within WIMS, not live fuel moisture sampling. Actual green-up is variable across the landscape.

Daily WIMS Forecast Observations and NFDRS Estimates are also available

Averaged by FDRA SIG Group

This is available on the FWIP at: <https://products.climate.ncsu.edu/fwip/nfdrs.php?data=fc>

5/2/24 Observations

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	2024-05-02	77.30 78.5%	35.23 82.7%	13.43 93.9%	34.33 74.7%	154.00	9.61 11.3%	14.75 20.8%	18.99 46.0%	22.62 87.0%	128.53	117.00	78.3°F	33.7%	S 6.0 mph	0.00 in.	0.0
Central Mountains	3	2024-05-02	23.60 39.8%	16.33 46.2%	4.13 63.0%	5.43 31.7%	144.33	11.21 24.4%	18.00 51.4%	19.30 49.8%	22.01 83.1%	243.47	195.67	82.0°F	33.0%	E 3.7 mph	0.00 in.	0.0
Northern Highlands	2	2024-05-02	35.25 60.6%	17.85 58.7%	6.25 78.3%	12.10 59.4%	123.50	11.10 18.5%	17.48 41.6%	18.48 35.9%	23.34 91.2%	206.90	174.50	76.5°F	38.0%	SW 5.0 mph	0.00 in.	0.0
Blue Ridge Escarpment	3	2024-05-02	52.17 64.8%	36.97 75.8%	10.03 80.5%	14.30 58.0%	216.67	8.96 14.7%	13.68 22.6%	17.06 23.5%	18.47 20.5%	156.33	136.33	86.0°F	34.7%	S 2.7 mph	0.00 in.	0.0
Western Piedmont	3	2024-05-02	24.20 24.8%	22.10 44.3%	4.97 49.6%	4.23 15.6%	262.67	9.75 29.8%	16.45 50.3%	17.19 33.5%	20.89 76.6%	212.53	173.33	88.3°F	31.7%	WSW 3.3 mph	0.00 in.	0.0
Sandhills	3	2024-05-02	27.00 27.8%	34.63 40.6%	8.50 54.9%	3.70 32.9%	243.00	9.96 32.4%	18.11 61.7%	18.44 40.5%	20.02 64.0%	237.07	190.00	89.7°F	29.3%	SSE 3.7 mph	0.03 in.	0.3
Eastern Piedmont	4	2024-05-02	25.95 15.1%	19.78 24.1%	4.88 36.2%	5.65 10.0%	244.75	10.59 39.1%	17.66 61.5%	18.42 39.7%	20.04 62.9%	211.93	173.25	85.8°F	33.3%	SE 3.5 mph	0.00 in.	0.0
Southern Coastal	7	2024-05-02	18.06 12.5%	15.51 22.6%	2.34 22.3%	3.33 7.2%	299.86	13.01 56.4%	18.35 57.8%	18.25 30.4%	21.30 64.1%	244.90	198.14	87.1°F	46.9%	SSE 3.0 mph	0.19 in.	1.1
Northern Coastal	4	2024-05-02	18.53 14.6%	16.68 24.2%	2.58 29.2%	3.18 9.2%	309.25	12.46 48.6%	19.03 68.8%	18.15 38.0%	20.60 70.2%	220.40	189.25	85.3°F	48.3%	ESE 4.3 mph	0.41 in.	2.5

Fuel Model X is composed of 1-hr, 10-hr and live fuels (when dormant act as dead fuels) – hence responsiveness to rapid drying. All FDRAs within NC (except Sandhills) utilize FM-X at the present time.



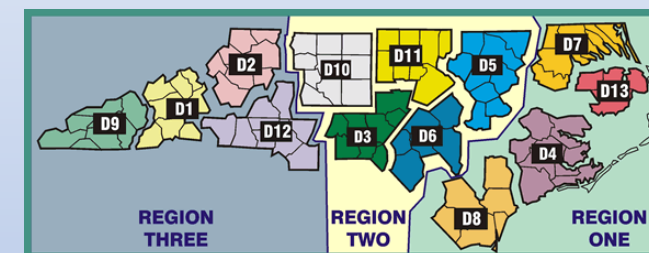
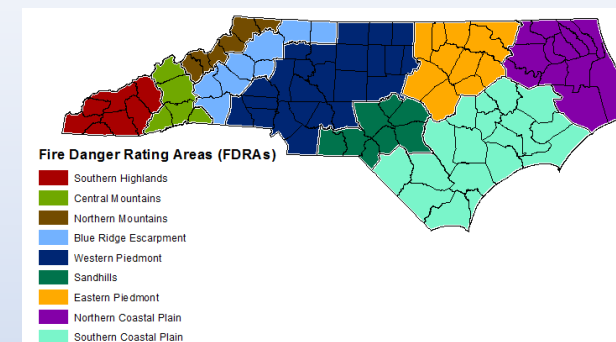
Important notes for next slide group:

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

- These are extracts from FF+ using weekly observation data downloaded from WIMS.

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.



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:

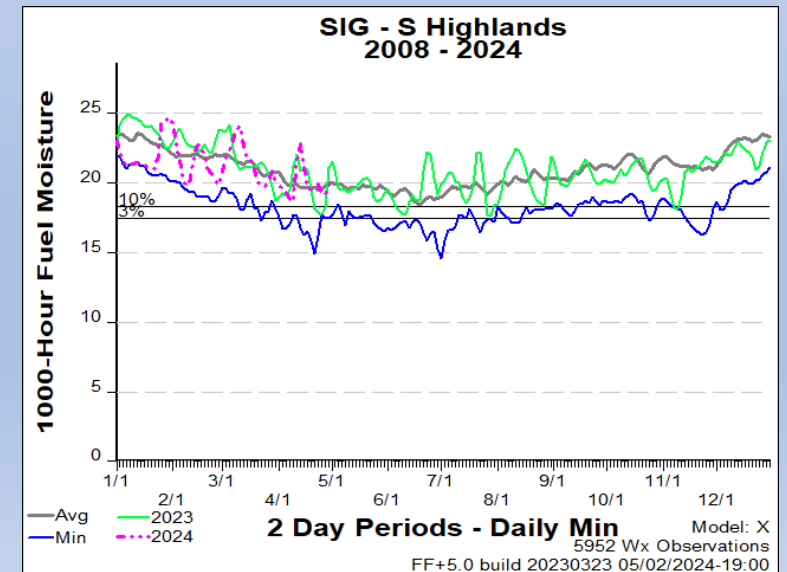
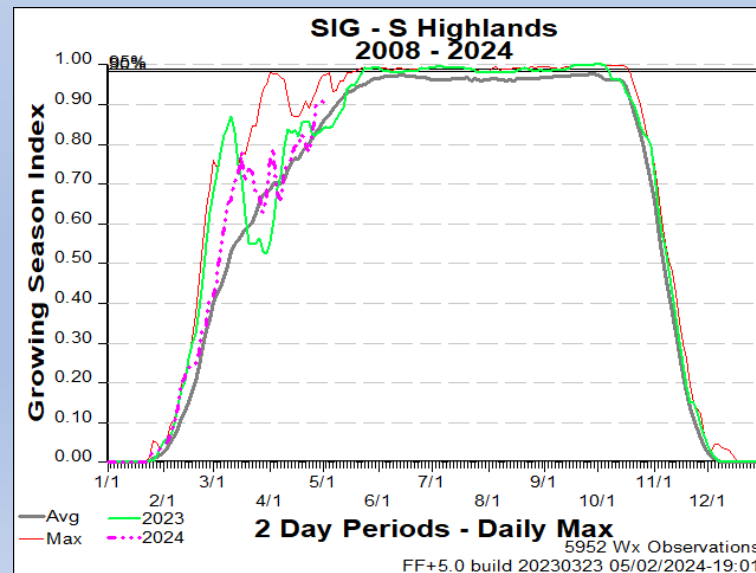
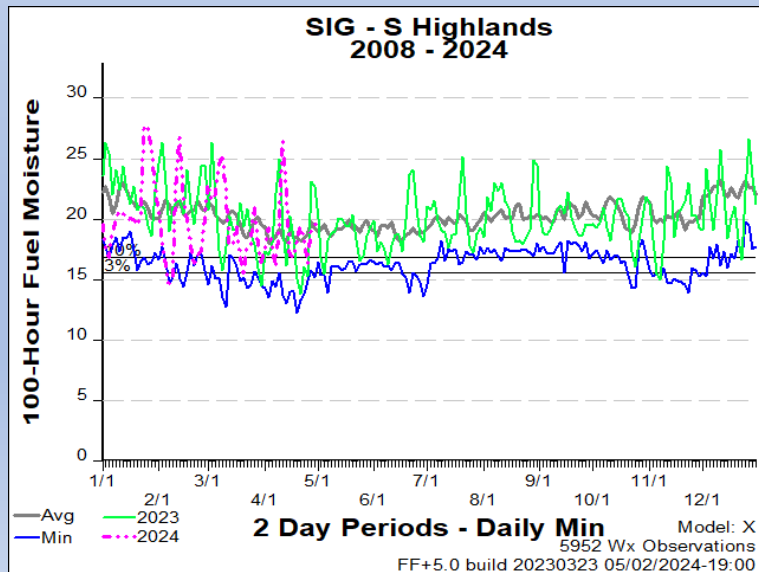
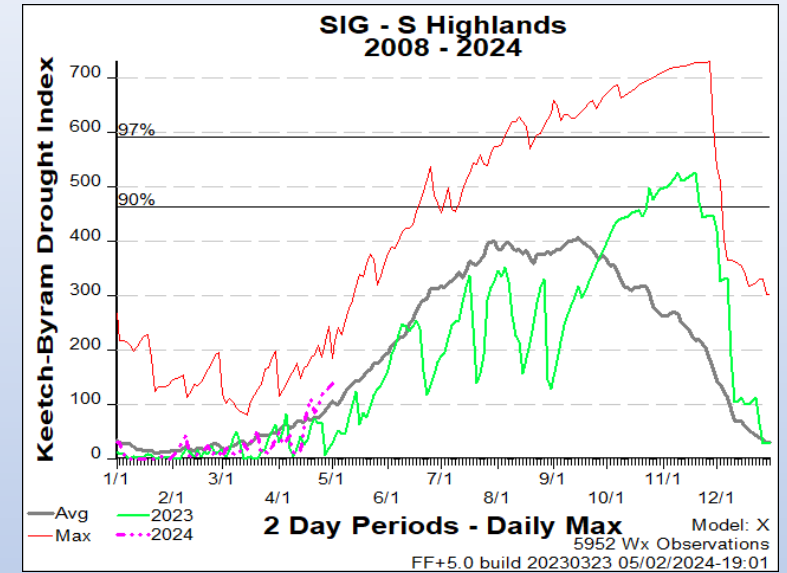
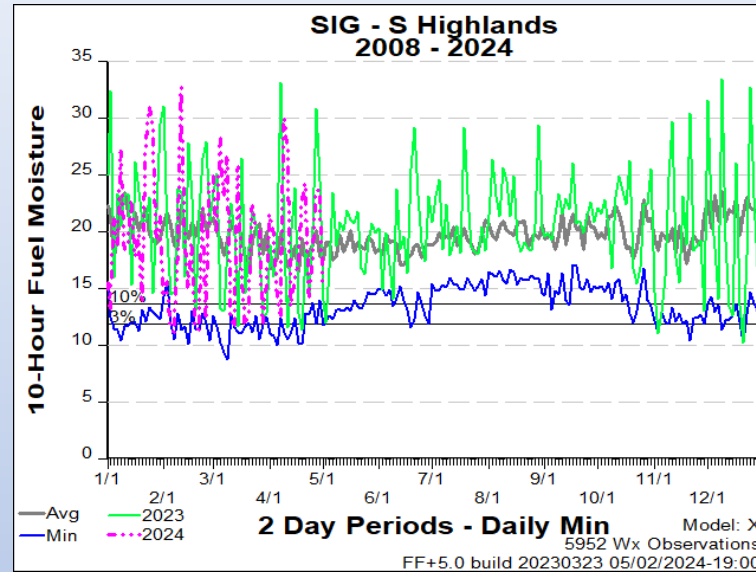
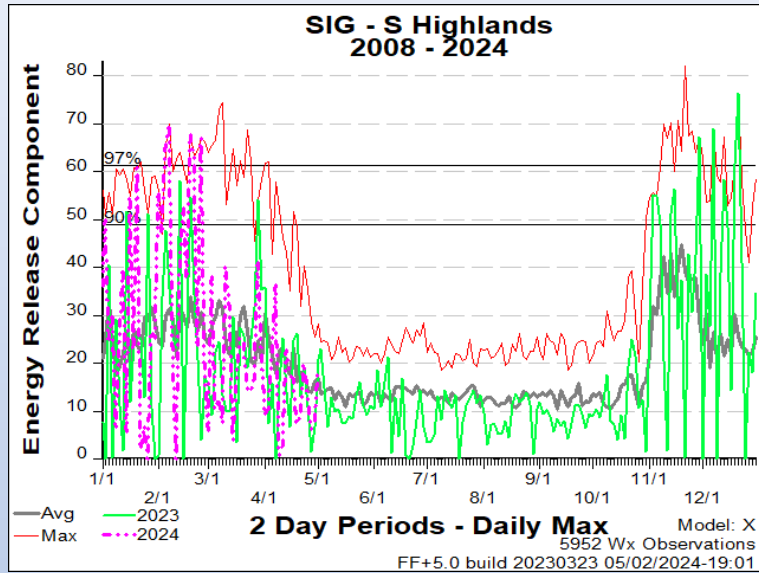
- Read the key and notes for each FDRA, included on the outlook matrix page.
- Forecasts are variable and can change significantly over a forecast cycle and across the landscape.
- This is another tool for gaining better situational awareness, and should be used for general planning purposes only.
- 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 9-26 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	FRI 03-May	SAT 04-May	SUN 05-May	MON 06-May	TUE 07-May	WED 08-May	THU 09-May
Avg. Max. Temp. (°F)	73	71	77	75	79	81	
Avg. Min. Humidity (%)	63	67	52	56	47	46	
Avg. 20' Wind Speed (mph)	5	5	6	7	8	10	
Avg. Wind Direction*	SSE	S	SSW	SSW	SW	SW	
Avg. Probability of Precip. (%)	66	92	55	61	25	16	
Days Since a Wetting Rain**	0.0	0.0	1.0				
Forecast ERC (Fuel Model X)	26.3	13.1	12.3	13.4	14.4	17.8	17.4
Forecast BI (Fuel Model X)	64.0	38.5	36.5	38.4	45.0	52.7	52.7
Forecast IC (Fuel Model X)	7.9	2.7	3.1	3.6	5.2	6.9	6.8
Forecast 100-Hr. FMC	17.7	20.4	23.0	25.1	25.8	22.6	20.5
Forecast 1000-Hr. FMC	22.6	22.5	22.4	22.4	22.6	22.6	22.5
KBDI	154.0						

Data Source:

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

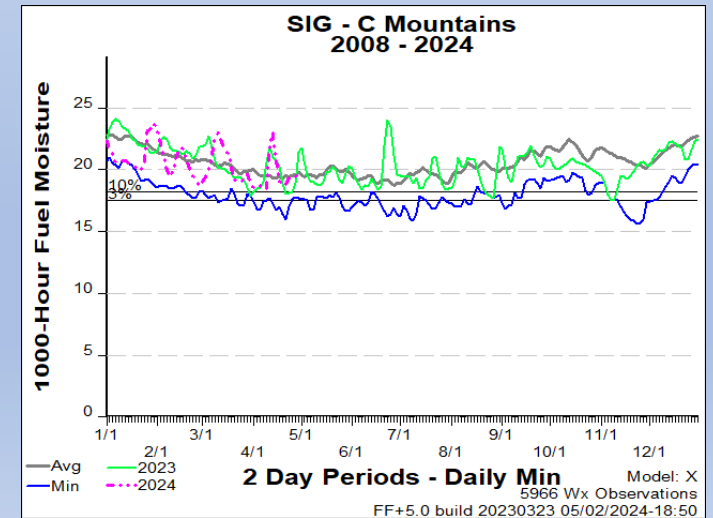
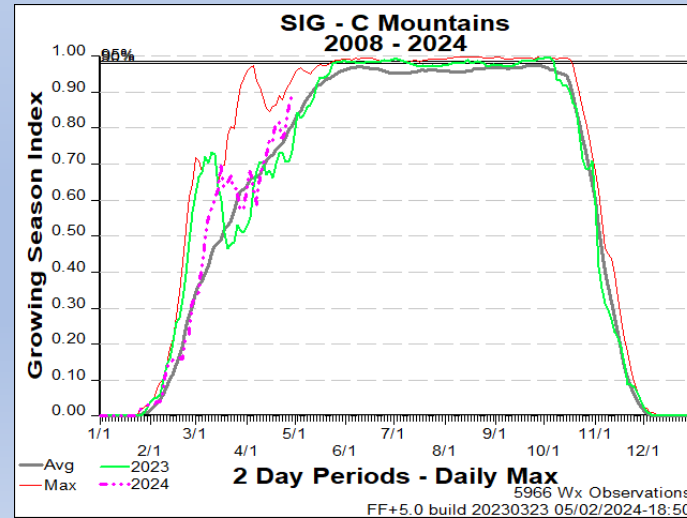
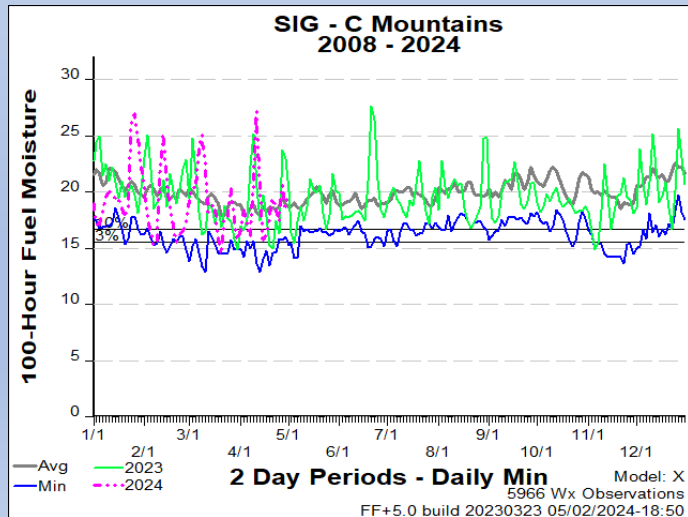
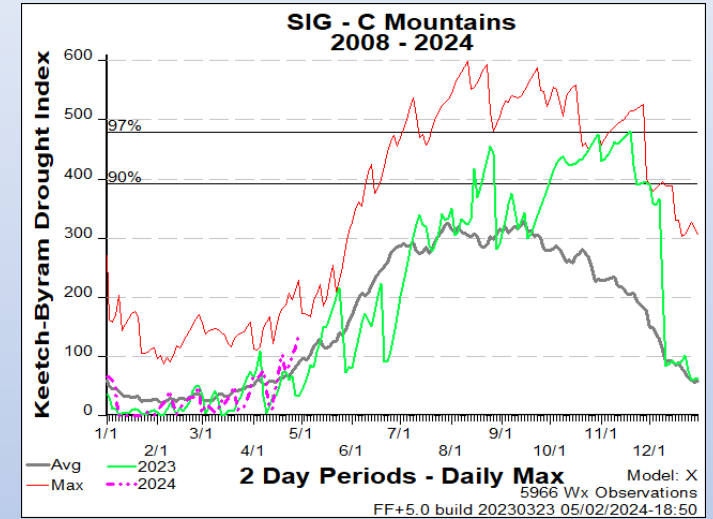
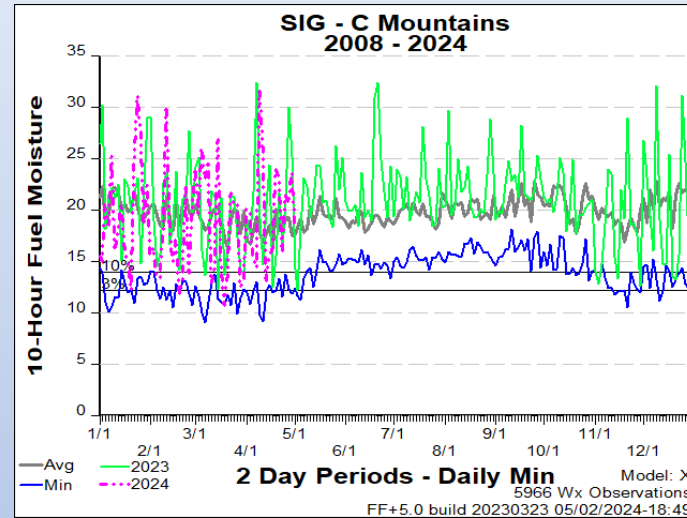
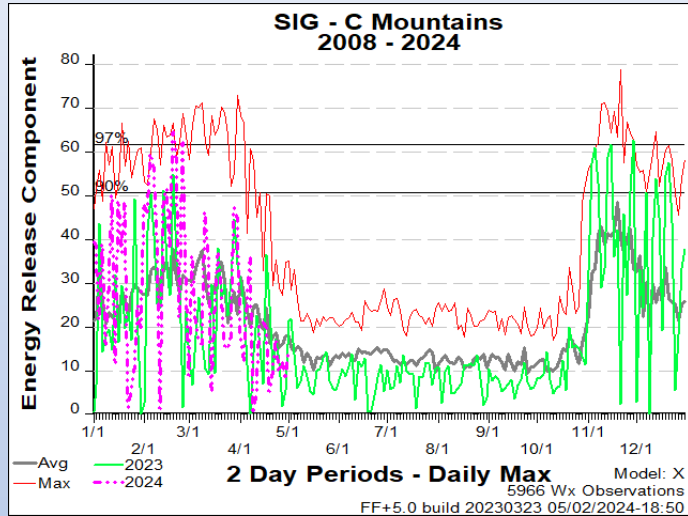
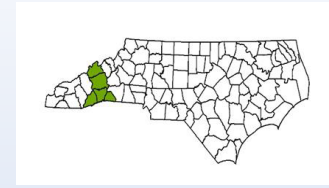
Values in the table above are averages from 3 stations in this FDRA:

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

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

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

FDRA – Central Mountains



Weekly Outlook

Central Mountains FDRA - General Fire Danger Forecast

For planning purposes only; forecast is subject to change

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

DAY	FRI 03-May	SAT 04-May	SUN 05-May	MON 06-May	TUE 07-May	WED 08-May	THU 09-May
Avg. Max. Temp. (°F)	78	75	80	79	84	86	
Avg. Min. Humidity (%)	58	64	52	53	45	41	
Avg. 20' Wind Speed (mph)	5	5	7	7	8	10	
Avg. Wind Direction*	S	SSE	S	SW	SW	WSW	
Avg. Probability of Precip. (%)	64	94	61	61	30	18	
Days Since a Wetting Rain**	0.0	0.0	1.0				
Forecast ERC (Fuel Model X)	16.2	9.7	9.6	10.7	12.1	14.8	15.2
Forecast BI (Fuel Model X)	29.8	22.8	24.9	24.0	29.9	34.0	37.0
Forecast IC (Fuel Model X)	4.8	2.1	2.8	2.8	4.3	5.6	6.3
Forecast 100-Hr. FMC	17.9	20.7	23.5	26.0	26.4	22.4	19.8
Forecast 1000-Hr. FMC	22.0	22.0	22.1	22.1	22.6	22.7	22.8
KBDI	144.3						

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

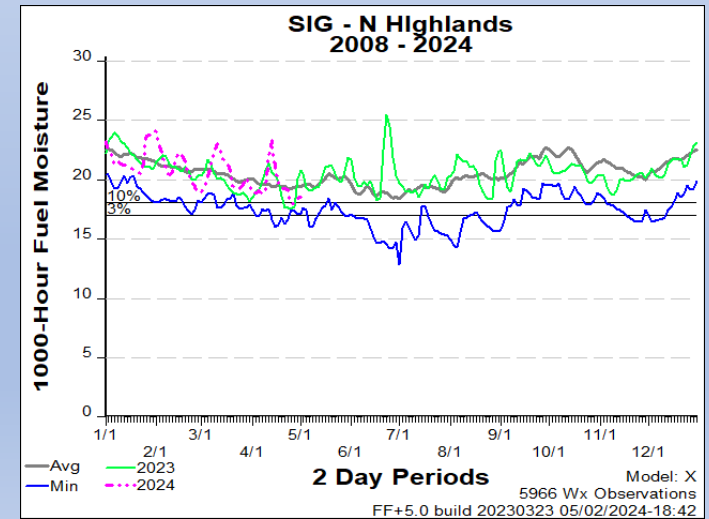
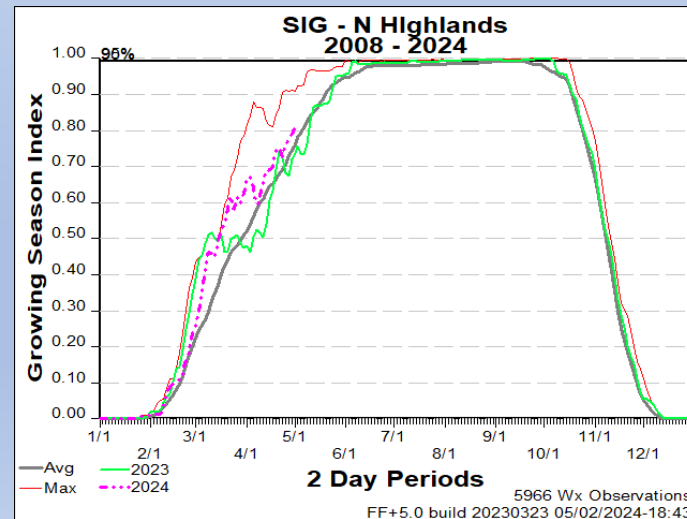
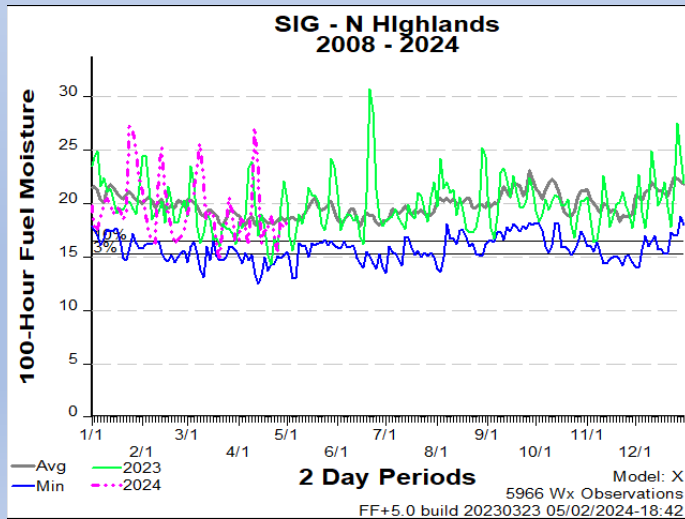
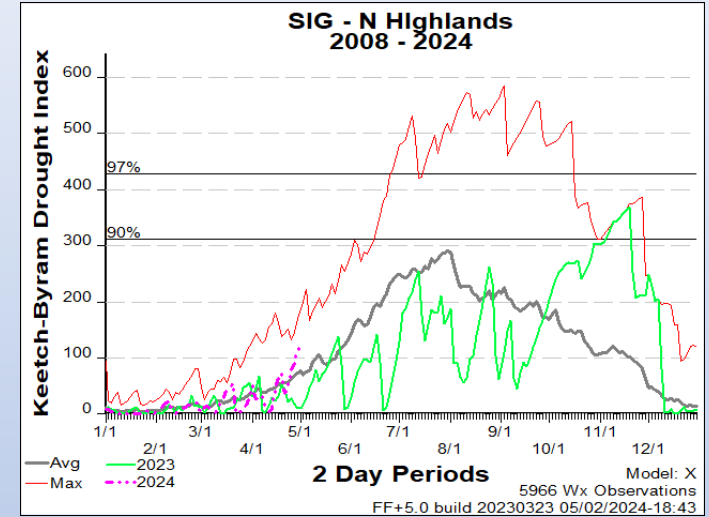
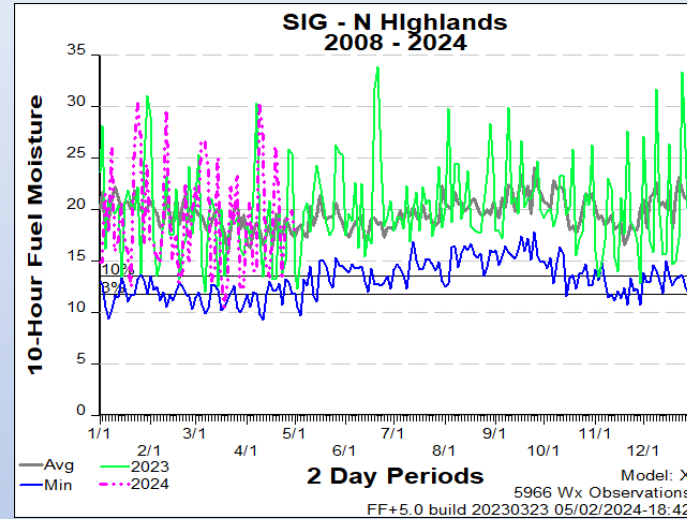
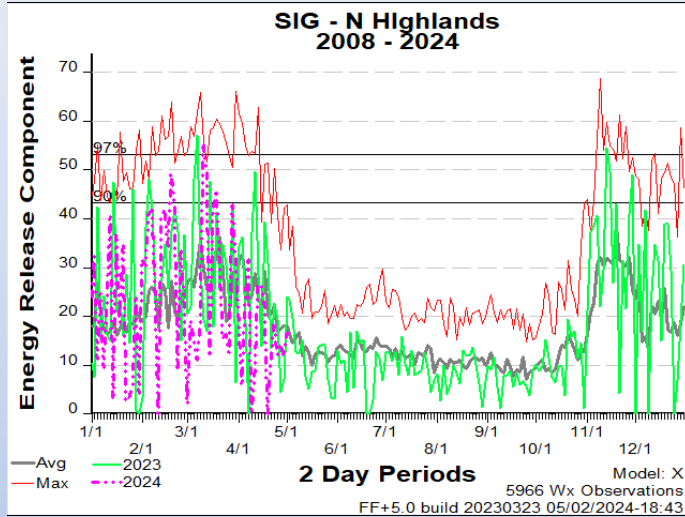
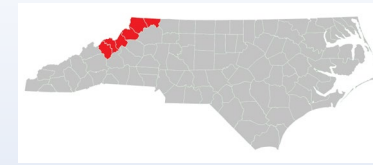
Values in the table above are averages from 3 stations in this FDRA:

- 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	FRI 03-May	SAT 04-May	SUN 05-May	MON 06-May	TUE 07-May	WED 08-May	THU 09-May
Avg. Max. Temp. (°F)	76	68	73	74	78	83	
Avg. Min. Humidity (%)	50	77	62	61	54	45	
Avg. 20' Wind Speed (mph)	7	6	7	7	9	11	
Avg. Wind Direction*	SSW	S	SSW	SW	WSW	WSW	
Avg. Probability of Precip. (%)	61	83	75	71	42	24	
Days Since a Wetting Rain**	0.7	0.0	1.0				
Forecast ERC (Fuel Model X)	19.8	12.1	9.7	11.5	12.6	14.4	15.2
Forecast BI (Fuel Model X)	37.5	27.4	26.1	25.3	29.0	30.9	35.0
Forecast IC (Fuel Model X)	6.2	2.7	2.5	2.6	3.8	4.8	5.7
Forecast 100-Hr. FMC	17.4	18.1	21.4	23.1	22.7	20.3	18.8
Forecast 1000-Hr. FMC	23.1	22.7	22.8	22.8	22.7	22.7	22.6
KBDI	123.5						

Data Source:

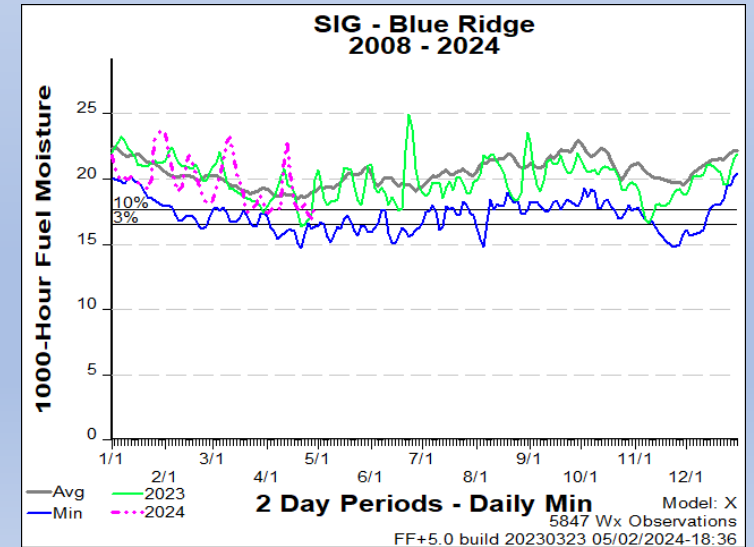
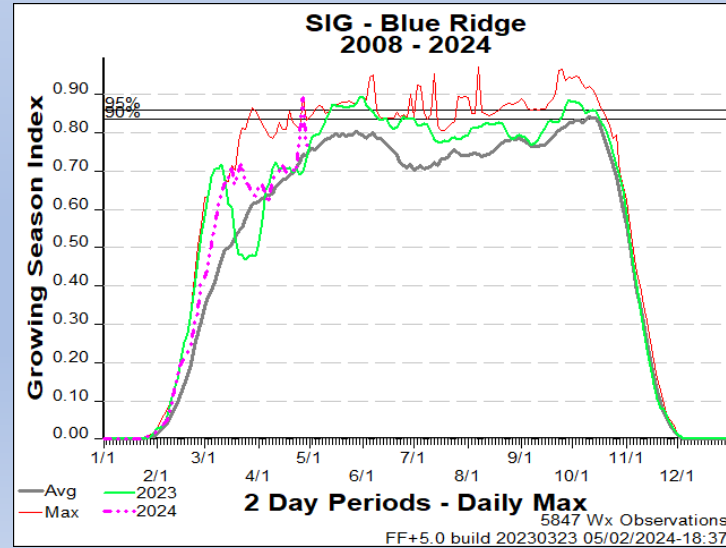
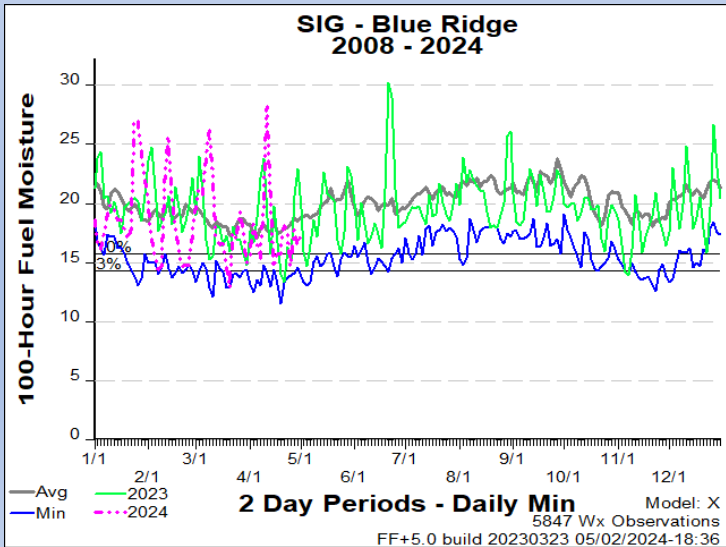
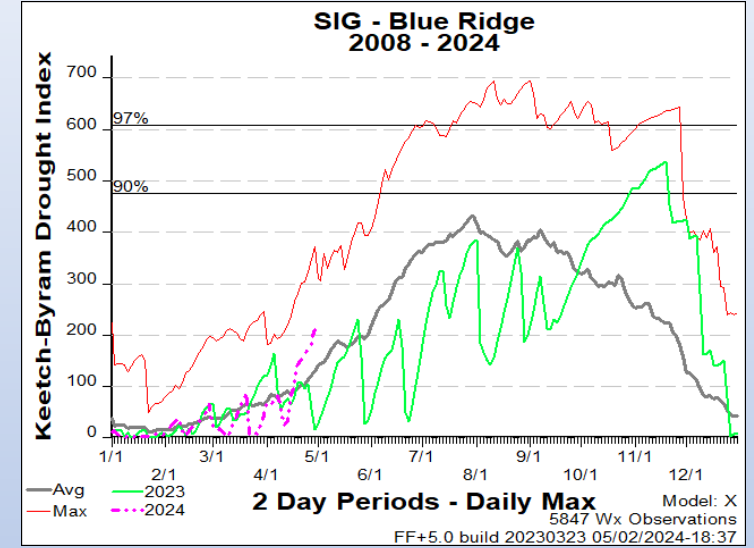
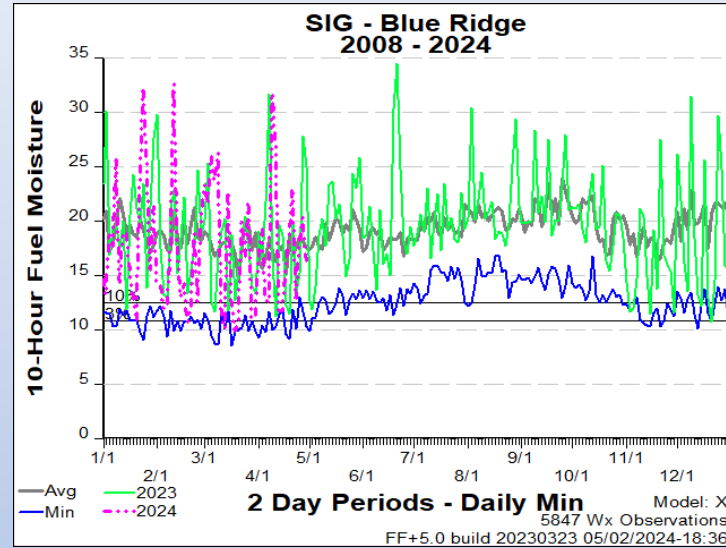
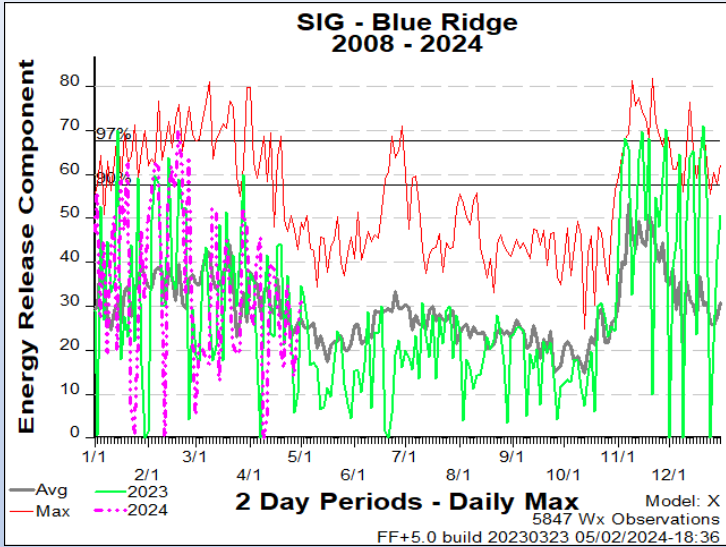
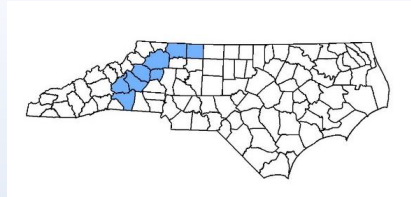
- Weather forecasts come from the National Weather Service's [Digital Forecast Database](#). The wind speed and direction, and probability of precipitation, are calculated as averages of the 1 am, 7 am, 1 pm, and 7 pm forecasts. The 20-foot wind speed is estimated from the 10-meter forecast using the 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	FRI 03-May	SAT 04-May	SUN 05-May	MON 06-May	TUE 07-May	WED 08-May	THU 09-May
Avg. Max. Temp. (°F)	81	72	78	79	83	87	
Avg. Min. Humidity (%)	47	67	57	55	47	40	
Avg. 20' Wind Speed (mph)	5	5	6	7	8	10	
Avg. Wind Direction*	SW	SSW	S	SW	WSW	WSW	
Avg. Probability of Precip. (%)	59	86	66	61	29	16	
Days Since a Wetting Rain**	4.0	0.0	0.7				
Forecast ERC (Fuel Model X)	32.3	20.9	16.0	16.2	19.4	22.6	24.5
Forecast BI (Fuel Model X)	60.6	53.3	46.1	41.3	51.4	57.5	63.9
Forecast IC (Fuel Model X)	8.6	4.3	3.8	3.7	6.3	8.0	9.7
Forecast 100-Hr. FMC	15.5	21.0	26.0	26.3	24.7	20.5	18.5
Forecast 1000-Hr. FMC	17.6	17.7	18.6	20.7	21.5	21.0	19.9
KBDI	216.7						

Data Source:

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

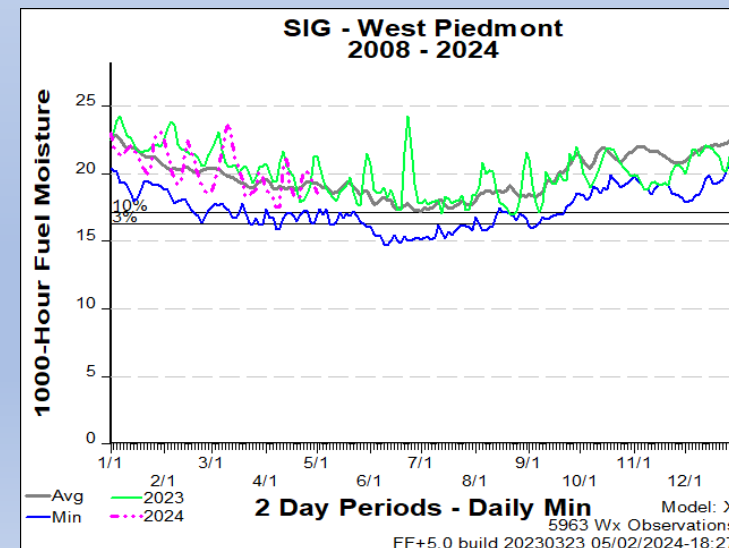
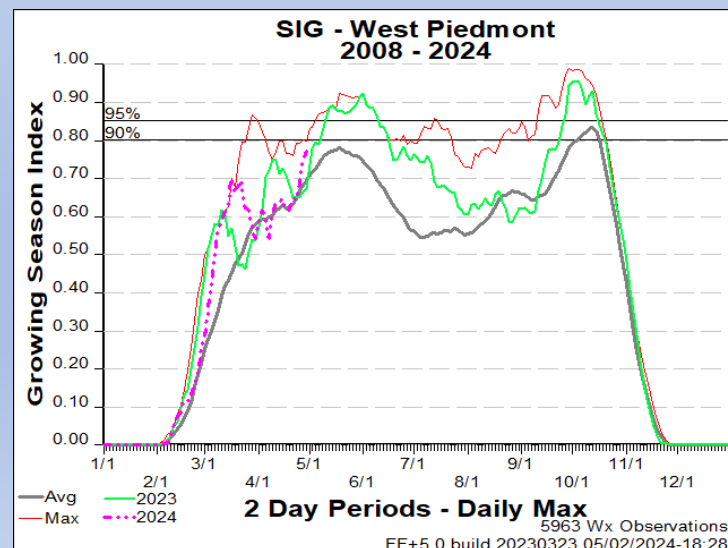
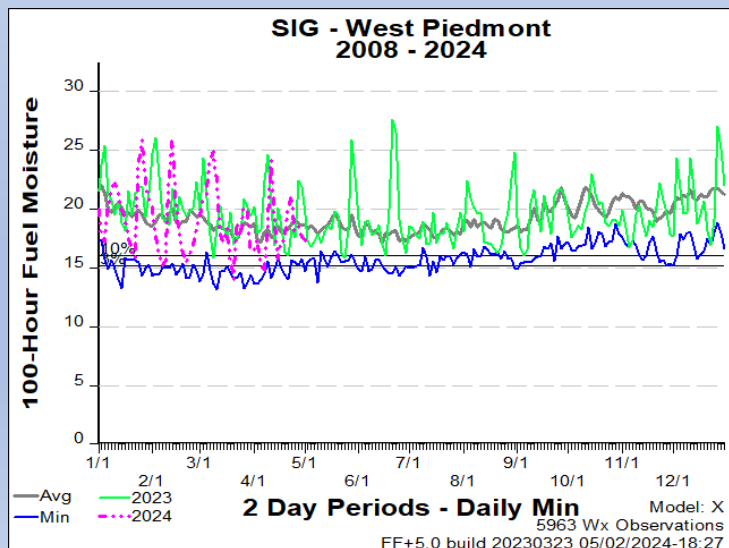
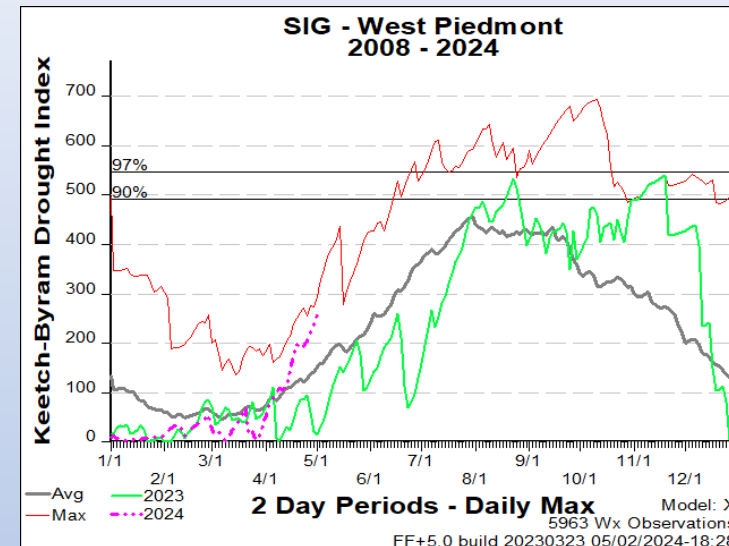
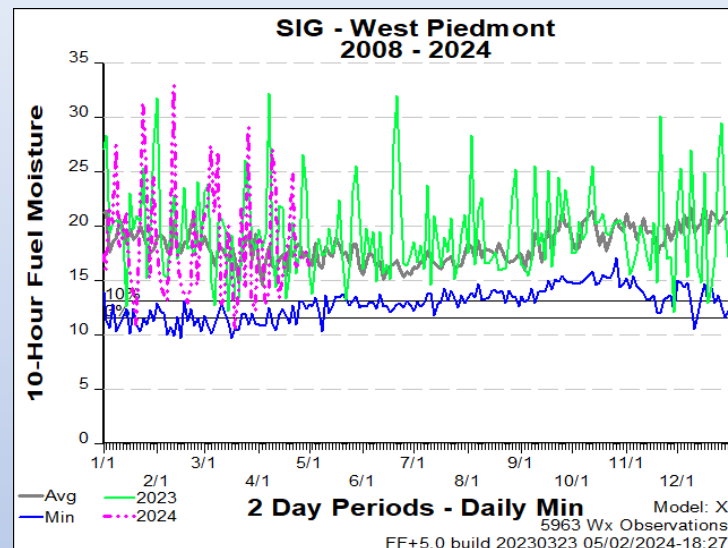
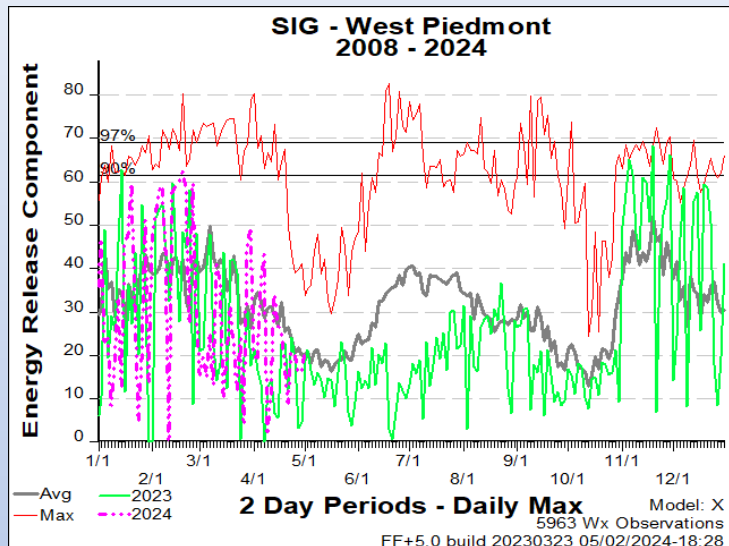
Values in the table above are averages from 3 stations in this FDRA:

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

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

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

FDRA – Western Piedmont



Weekly Outlook

Western Piedmont FDRA - General Fire Danger Forecast

For planning purposes only; forecast is subject to change

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

DAY	FRI 03-May	SAT 04-May	SUN 05-May	MON 06-May	TUE 07-May	WED 08-May	THU 09-May
Avg. Max. Temp. (°F)	86	78	80	82	86	90	
Avg. Min. Humidity (%)	42	61	59	60	50	44	
Avg. 20' Wind Speed (mph)	4	5	10	8	9	12	
Avg. Wind Direction*	SSW	S	S	SSW	SW	SW	
Avg. Probability of Precip. (%)	32	76	65	46	21	10	
Days Since a Wetting Rain**	12.0	0.0	0.3				
Forecast ERC (Fuel Model X)	19.1	16.8	11.4	12.7	14.2	16.6	18.3
Forecast BI (Fuel Model X)	27.2	32.0	28.6	27.0	31.4	36.5	39.8
Forecast IC (Fuel Model X)	4.4	3.9	2.5	2.6	3.6	6.0	7.6
Forecast 100-Hr. FMC	16.4	16.4	19.3	21.1	19.5	18.1	17.4
Forecast 1000-Hr. FMC	20.6	20.4	20.5	20.4	20.6	20.6	20.5
KBDI	262.7						

Data Source:

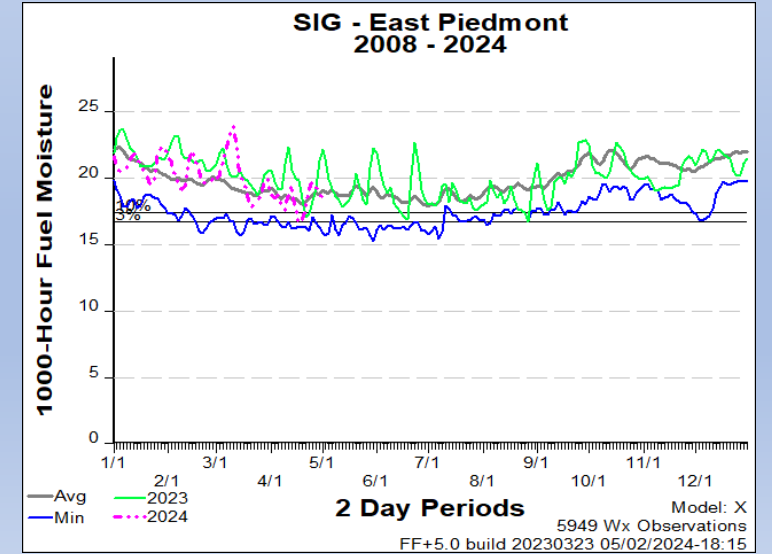
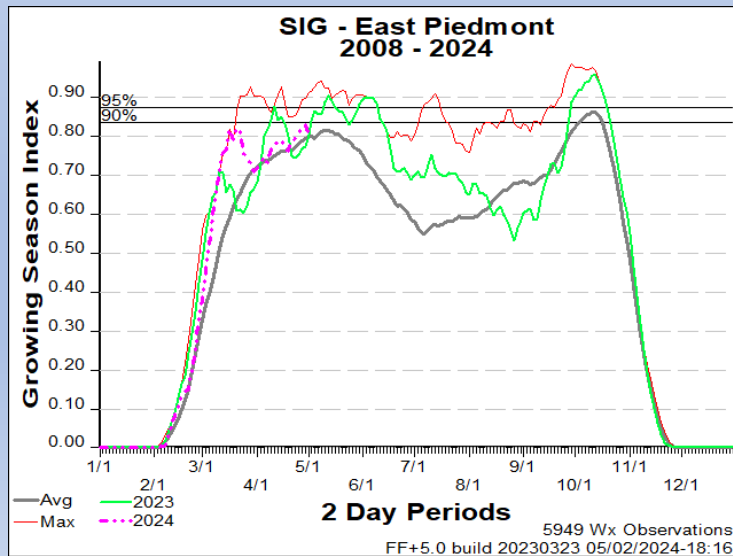
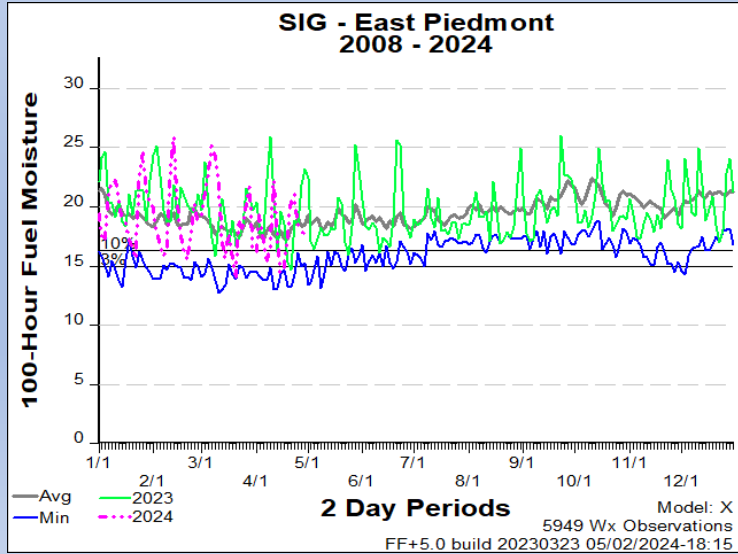
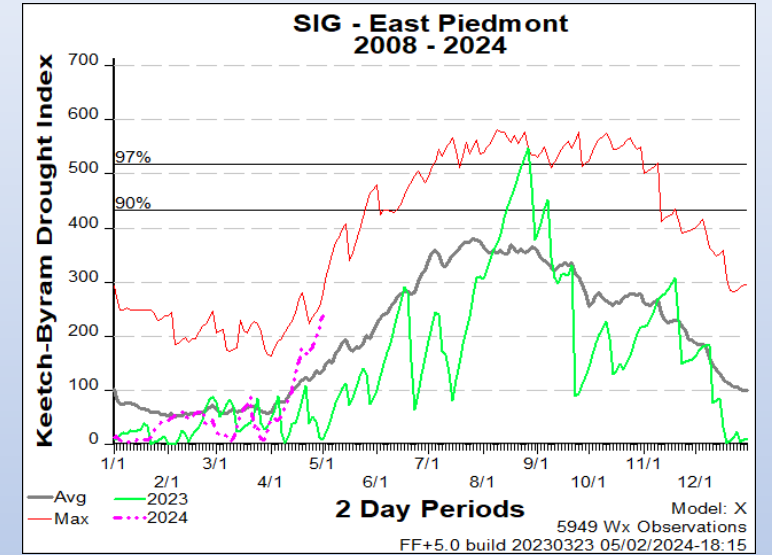
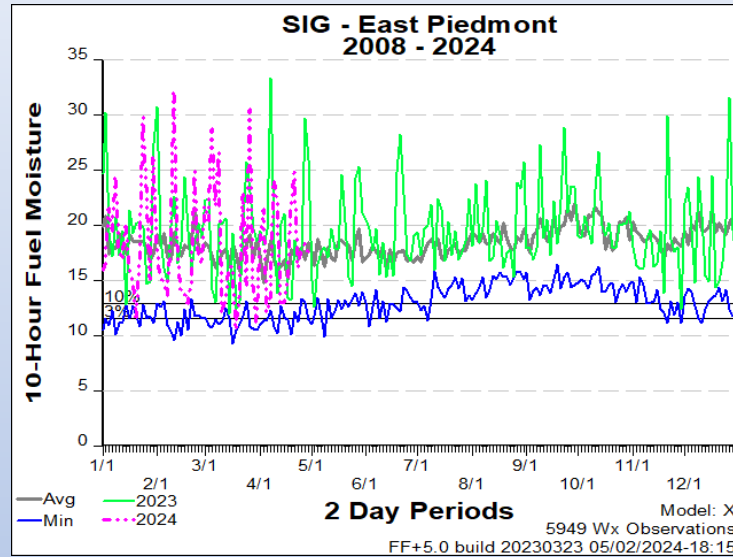
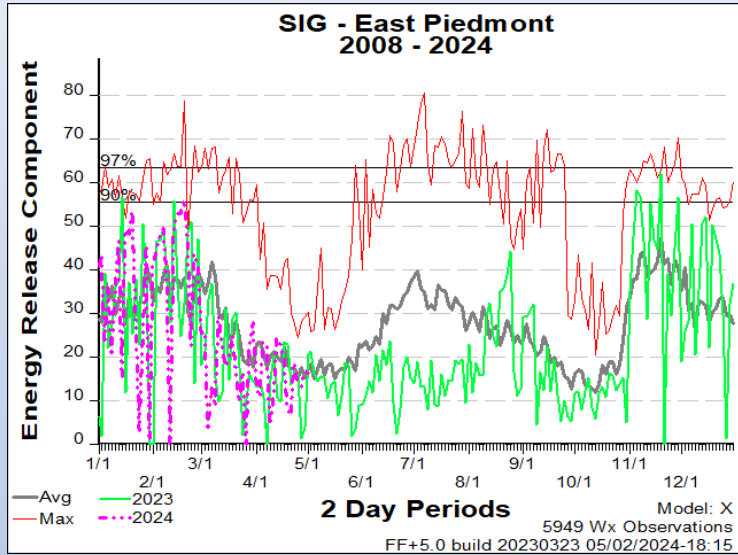
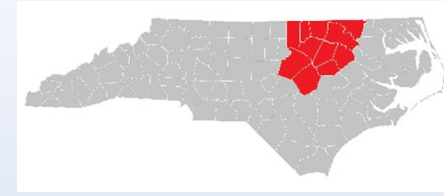
- Weather forecasts come from the National Weather Service's [Digital Forecast Database](#). The wind speed and direction, and probability of precipitation, are calculated as averages of the 1 am, 7 am, 1 pm, and 7 pm forecasts. The 20-foot wind speed is estimated from the 10-meter forecast using the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

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

- 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	FRI 03-May	SAT 04-May	SUN 05-May	MON 06-May	TUE 07-May	WED 08-May	THU 09-May
Avg. Max. Temp. (°F)	90	82	80	83	85	91	
Avg. Min. Humidity (%)	37	56	62	62	54	46	
Avg. 20' Wind Speed (mph)	4	6	11	9	9	12	
Avg. Wind Direction*	SSW	SSE	S	SSW	SW	SW	
Avg. Probability of Precip. (%)	16	57	59	40	25	11	
Days Since a Wetting Rain**	1.0	0.5	1.5				
Forecast ERC (Fuel Model X)	19.3	17.9	14.5	14.0	14.3	17.0	19.5
Forecast BI (Fuel Model X)	25.0	32.6	35.8	31.0	31.6	37.4	44.0
Forecast IC (Fuel Model X)	4.3	4.5	3.6	3.1	3.6	6.0	8.4
Forecast 100-Hr. FMC	17.7	17.2	17.4	17.6	17.7	17.6	17.5
Forecast 1000-Hr. FMC	20.0	20.0	19.9	19.8	19.8	19.7	19.5
KBDI	244.8						

Data Source:

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

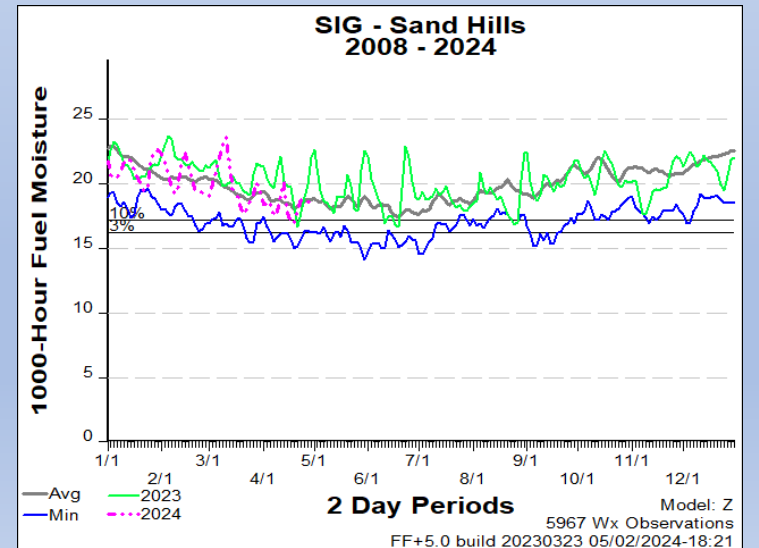
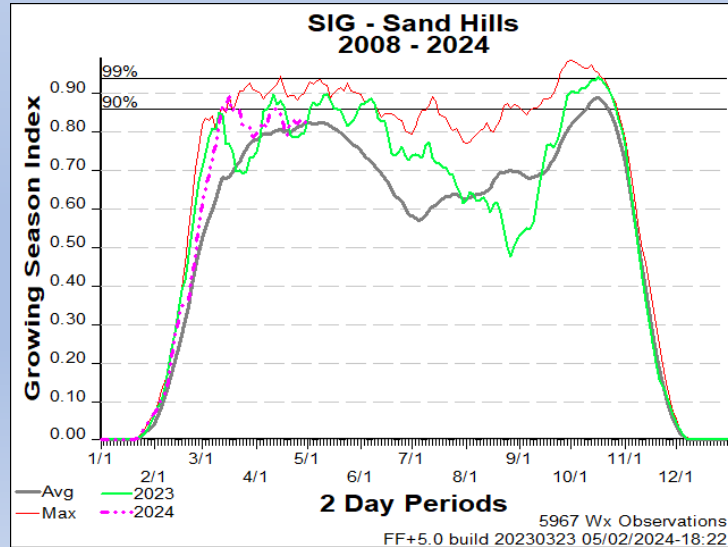
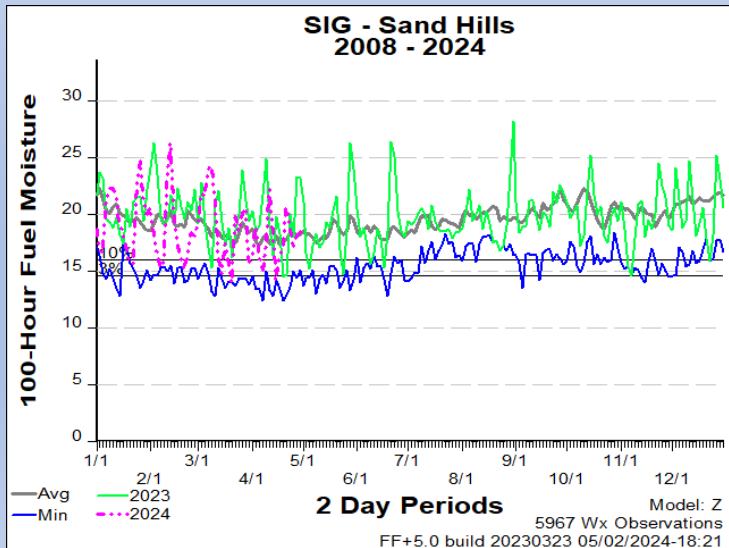
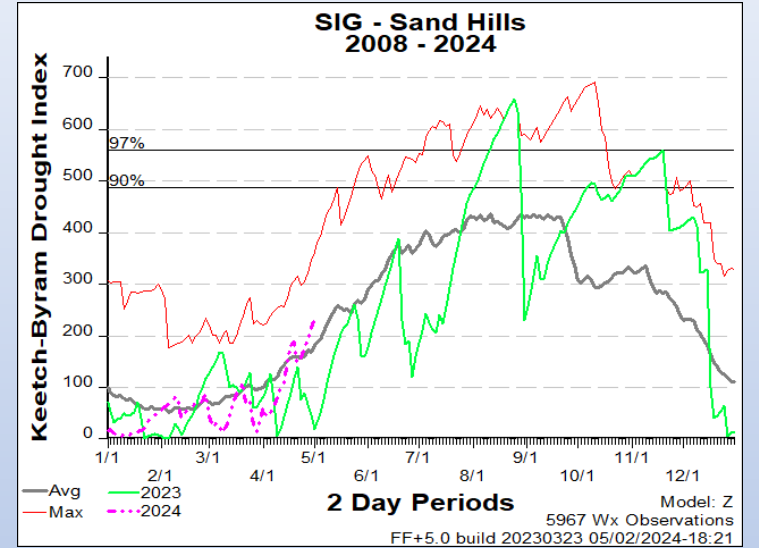
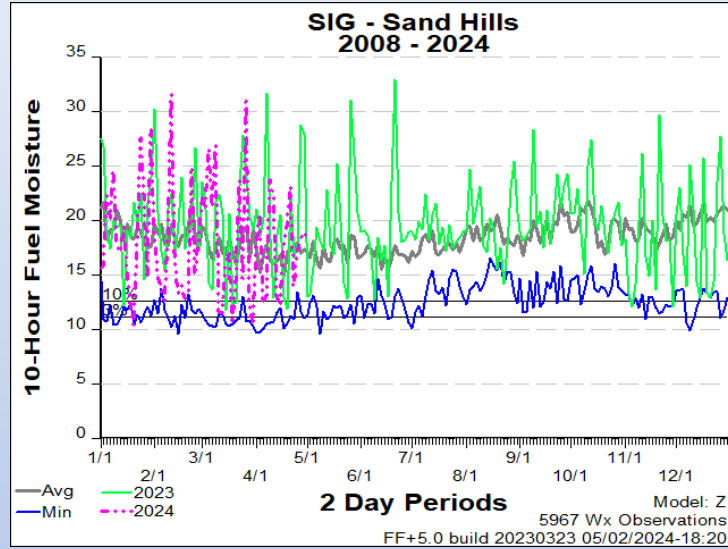
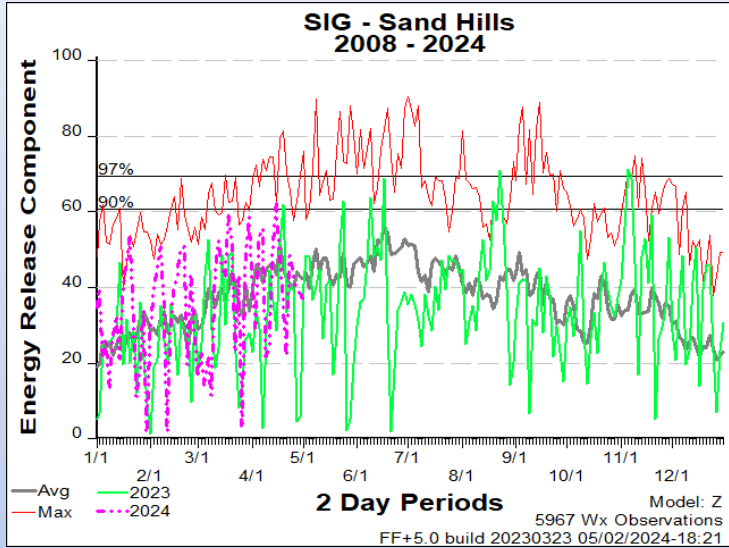
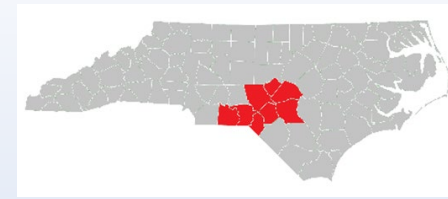
Values in the table above are averages from 4 stations in this FDRA:

- 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	FRI 03-May	SAT 04-May	SUN 05-May	MON 06-May	TUE 07-May	WED 08-May	THU 09-May
Avg. Max. Temp. (°F)	87	83	82	85	87	92	
Avg. Min. Humidity (%)	39	52	54	54	47	41	
Avg. 20' Wind Speed (mph)	4	6	10	9	9	12	
Avg. Wind Direction*	SSW	S	S	SSW	SW	SW	
Avg. Probability of Precip. (%)	13	70	65	44	22	8	
Days Since a Wetting Rain**	8.3	0.0	1.0				
Forecast ERC (Fuel Model Z)	40.5	39.3	29.9	32.0	34.4	39.5	43.9
Forecast BI (Fuel Model Z)	33.4	42.5	41.6	39.0	44.8	53.1	62.2
Forecast IC (Fuel Model Z)	8.8	9.5	7.1	6.5	8.7	15.9	21.4
Forecast 100-Hr. FMC	17.9	17.8	20.1	20.2	19.5	18.8	18.2
Forecast 1000-Hr. FMC	20.0	19.9	19.9	19.9	19.9	19.8	19.7
KBDI	243.0						

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

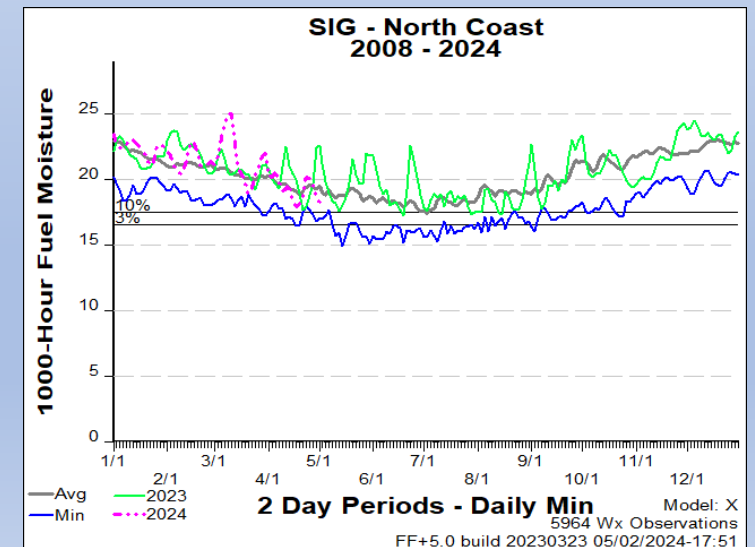
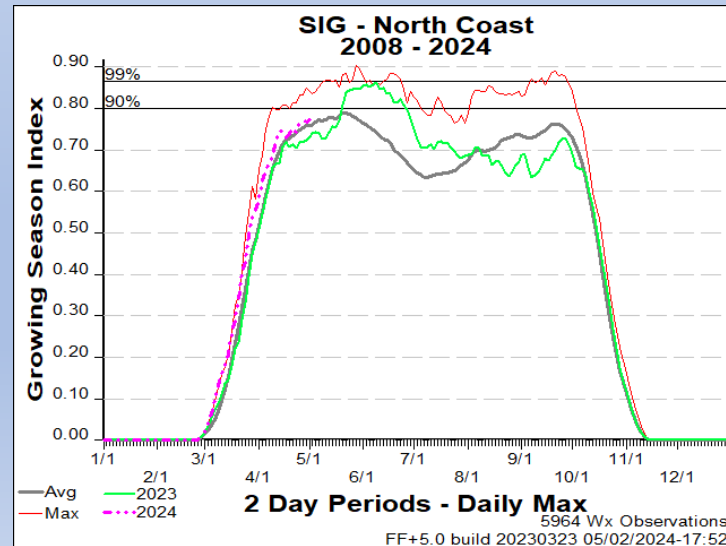
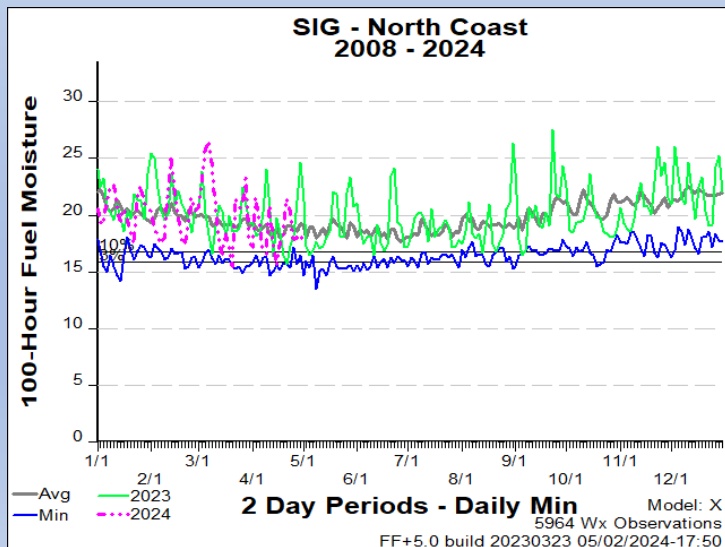
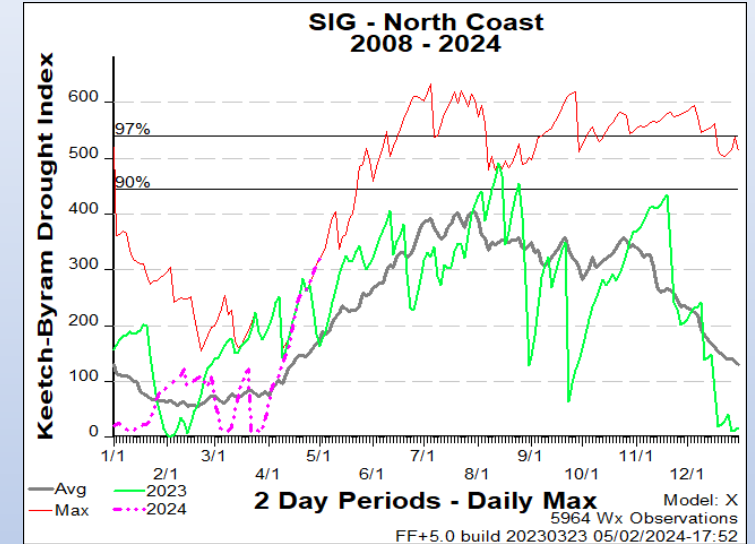
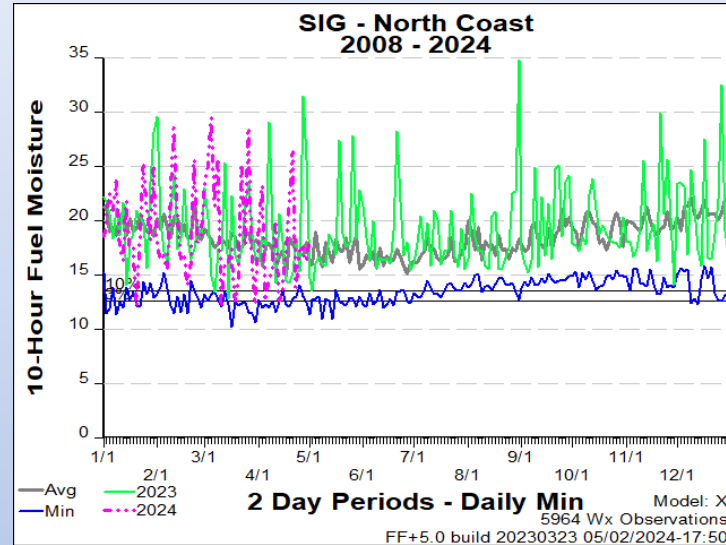
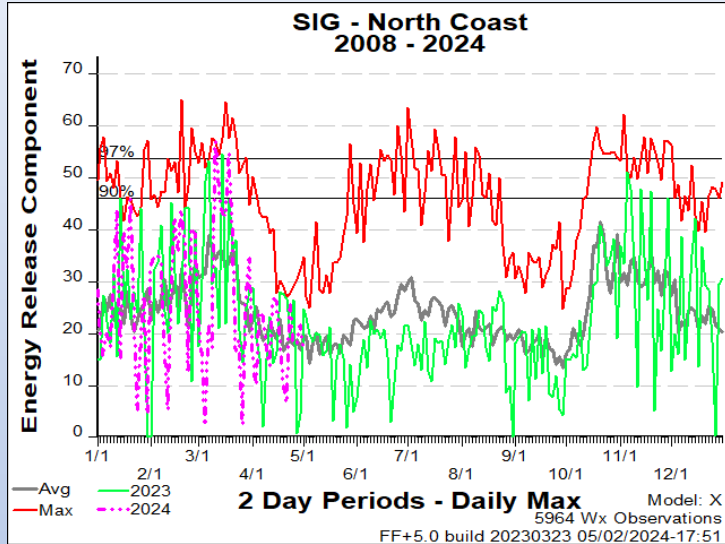
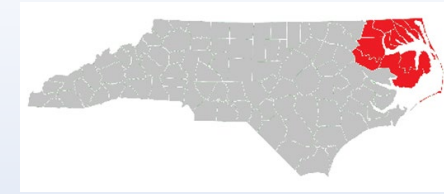
Values in the table above are averages from 3 stations in this FDRA:

- 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	FRI 03-May	SAT 04-May	SUN 05-May	MON 06-May	TUE 07-May	WED 08-May	THU 09-May
Avg. Max. Temp. (°F)	86	80	80	82	84	89	
Avg. Min. Humidity (%)	48	60	59	62	58	51	
Avg. 20' Wind Speed (mph)	5	5	8	8	8	9	
Avg. Wind Direction*	S	SE	SSE	SSW	SW	SW	
Avg. Probability of Precip. (%)	4	21	36	40	30	11	
Days Since a Wetting Rain**	9.5	10.5	11.5				
Forecast ERC (Fuel Model X)	17.4	16.2	14.8	13.9	13.9	15.6	16.9
Forecast BI (Fuel Model X)	21.7	27.2	29.6	25.2	25.1	29.6	31.2
Forecast IC (Fuel Model X)	2.9	3.0	3.1	2.6	2.7	4.1	5.0
Forecast 100-Hr. FMC	18.2	18.0	18.3	18.6	18.8	18.6	18.4
Forecast 1000-Hr. FMC	20.5	20.3	20.2	20.2	20.2	20.1	20.0
KBDI	309.3						

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.

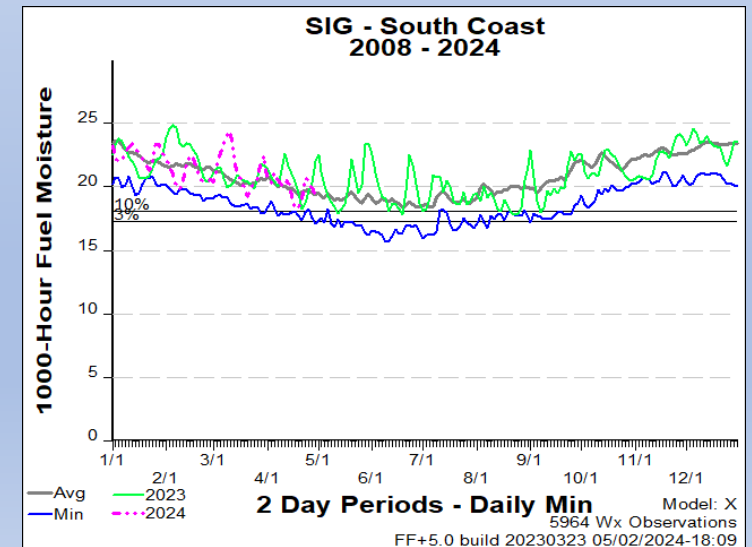
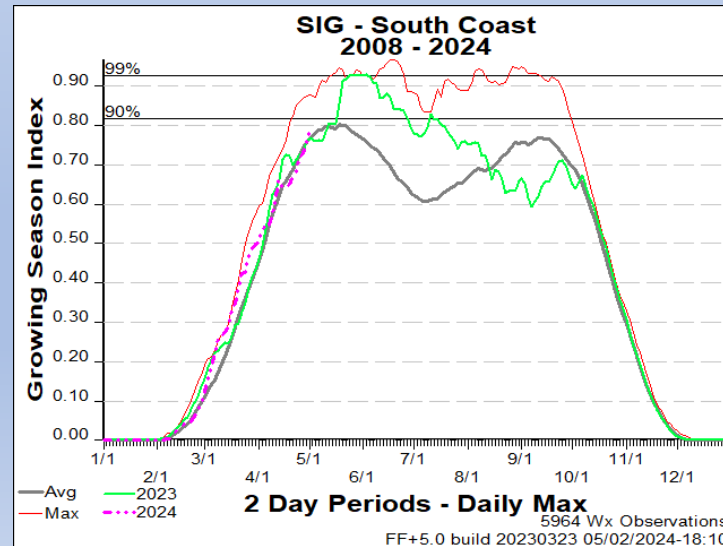
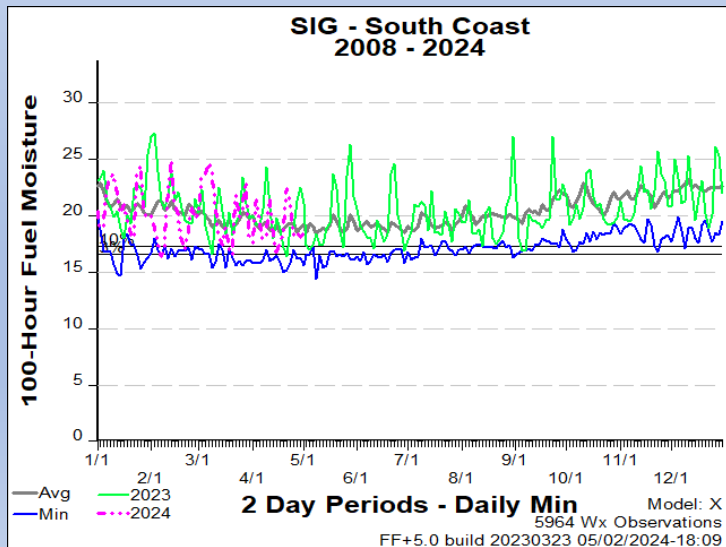
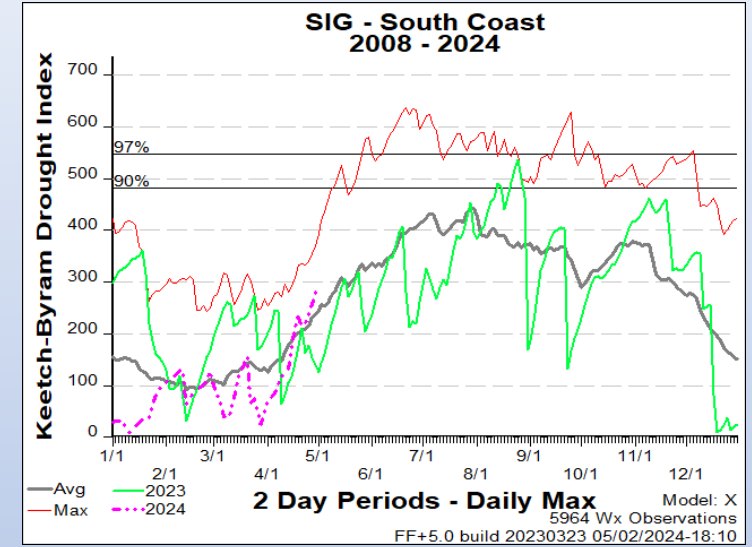
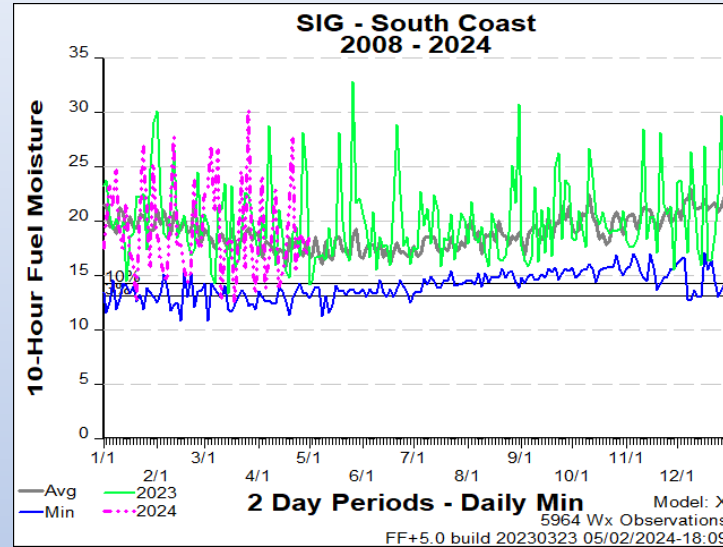
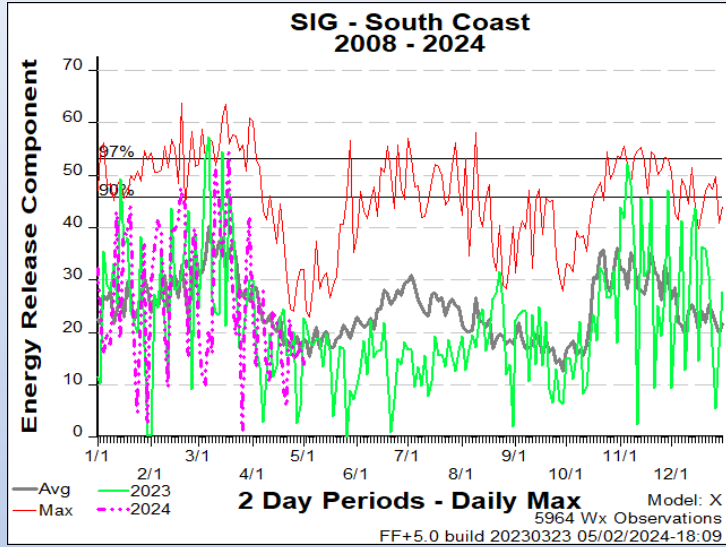
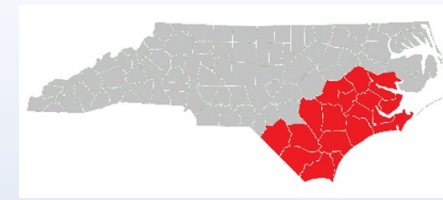
Values in the table above are averages from 4 stations in this FDRA:

- 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	FRI 03-May	SAT 04-May	SUN 05-May	MON 06-May	TUE 07-May	WED 08-May	THU 09-May
Avg. Max. Temp. (°F)	87	83	82	83	86	91	
Avg. Min. Humidity (%)	43	53	57	58	55	47	
Avg. 20' Wind Speed (mph)	3	4	7	8	8	9	
Avg. Wind Direction*	S	SSE	SSE	SSW	SW	SW	
Avg. Probability of Precip. (%)	3	28	39	33	27	10	
Days Since a Wetting Rain**	6.1	7.1	8.1				
Forecast ERC (Fuel Model X)	15.5	15.1	13.5	13.1	13.4	15.4	16.4
Forecast BI (Fuel Model X)	19.3	23.7	27.6	25.6	27.2	30.5	34.6
Forecast IC (Fuel Model X)	2.5	2.9	2.9	2.6	2.9	4.4	5.8
Forecast 100-Hr. FMC	17.8	17.6	17.8	18.0	18.1	17.9	17.8
Forecast 1000-Hr. FMC	21.1	20.9	20.7	20.6	20.4	20.3	20.1
KBDI	299.9						

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

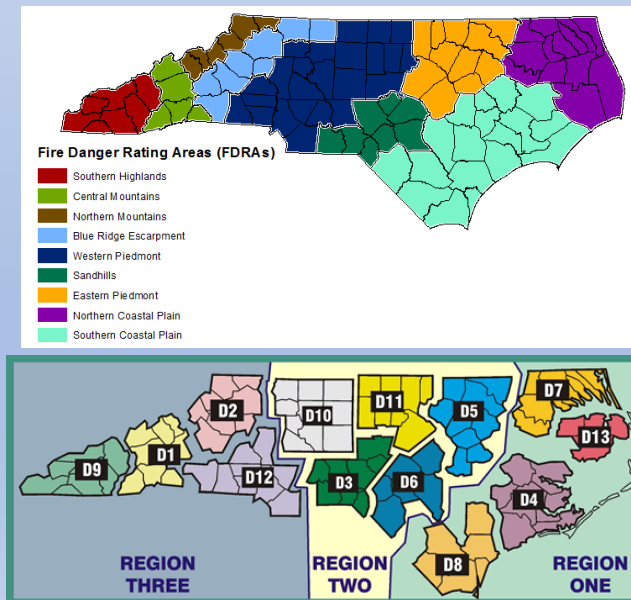
Outlook Summary Tables – Organized by Region –

Output from NFDRS
forecast generated on
5/2/24 using 1300 Obs.

Summary Table by FDRA using count of colored blocks in a day's forecast.

Key: 4+ Red Blocks on a Day = "Critical" Day Potential; Red Color
4+ Yellow or Combo of Yellow/Red = "High" Day Potential; Yellow Color
6+ Blue-Green Blocks = "Low to Mod" Potential Day; Blue-green Color

These summary tables provide a generalization applied across the FDRA, based upon daily weather and NFDRS forecasts projected through seven days. Forecasts and resulting outputs will change significantly over time & also depend upon actual precip amount/duration. Local factors should also be considered.



Date	Day of Week	FDRA Weekly Outlook - Matrix Summary - NCFS Region 1	
		North Coast	South Coast
3-May	Fri	Low/Mod +	Low/Mod +
4-May	Sat	Low/Mod	Low/Mod
5-May	Sun	Low/Mod	Low/Mod
6-May	Mon	Low/Mod	Low/Mod
7-May	Tues	Low/Mod	Low/Mod +
8-May	Wed	Low/Mod +	Low/Mod +
9-May	Thurs	Low/Mod +	Low/Mod +

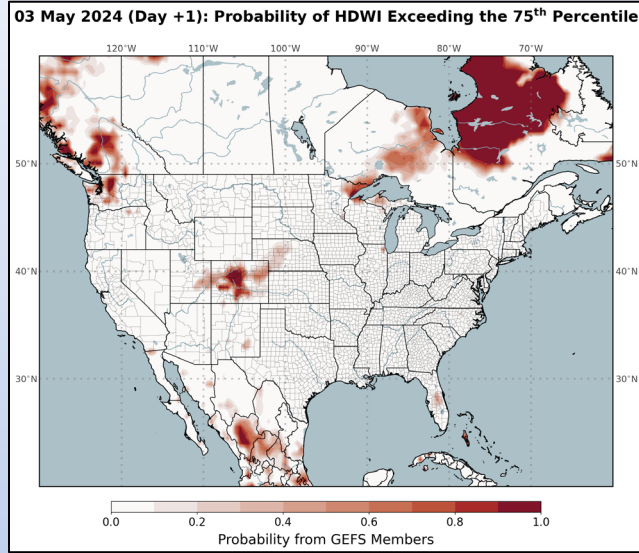
Date	Day of Week	FDRA Weekly Outlook - Matrix Summary - NCFS Region 2				
		Blue Ridge Escarp	Western Piedmont	Eastern Piedmont	Sandhills	South Coast
3-May	Fri	High +	Low/Mod +	Low/Mod	Low/Mod +	Low/Mod +
4-May	Sat	Low/Mod +	Low/Mod +	Low/Mod	Low/Mod	Low/Mod
5-May	Sun	Low/Mod	Low/Mod	Low/Mod +	Low/Mod	Low/Mod
6-May	Mon	Low/Mod	Low/Mod	Low/Mod	Low/Mod	Low/Mod
7-May	Tues	Low/Mod	Low/Mod	Low/Mod	Low/Mod	Low/Mod +
8-May	Wed	Low/Mod	Low/Mod	Low/Mod	High	Low/Mod +
9-May	Thurs	Low/Mod	Low/Mod	Low/Mod +	High	Low/Mod +

Date	Day of Week	FDRA Weekly Outlook - Matrix Summary - NCFS Region 3				
		Southern Highlands	Central Mountains	Northern Highlands	Blue Ridge Escarp	Western Piedmont
3-May	Fri	Low/Mod +	Low/Mod	High	High +	Low/Mod +
4-May	Sat	Low/Mod	Low/Mod	Low/Mod	Low/Mod +	Low/Mod +
5-May	Sun	Low/Mod	Low/Mod	Low/Mod	Low/Mod	Low/Mod
6-May	Mon	Low/Mod	Low/Mod	Low/Mod	Low/Mod	Low/Mod
7-May	Tues	Low/Mod	Low/Mod	Low/Mod	Low/Mod	Low/Mod
8-May	Wed	Low/Mod	Low/Mod	Low/Mod	Low/Mod	Low/Mod
9-May	Thurs	Low/Mod	Low/Mod	Low/Mod	Low/Mod	Low/Mod

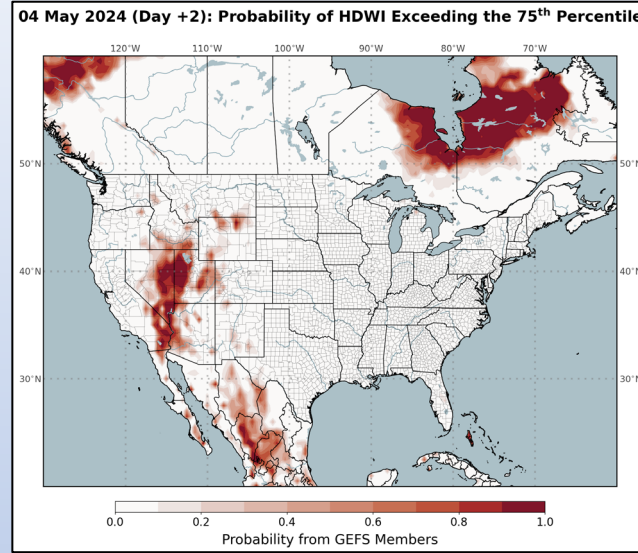
Statewide Slides

Hot-Dry-Windy Index (HDW)

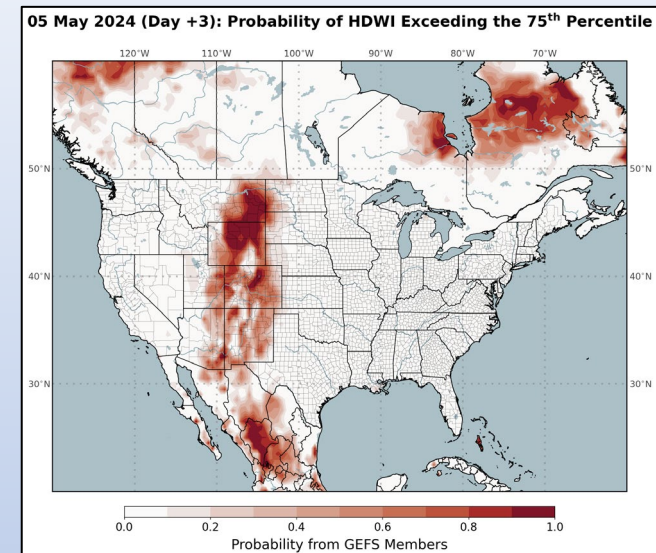
Friday > 75th Percentile



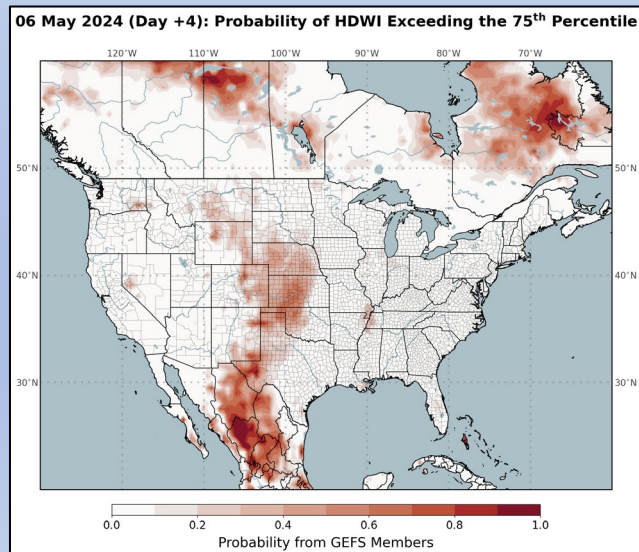
Saturday > 75th Percentile



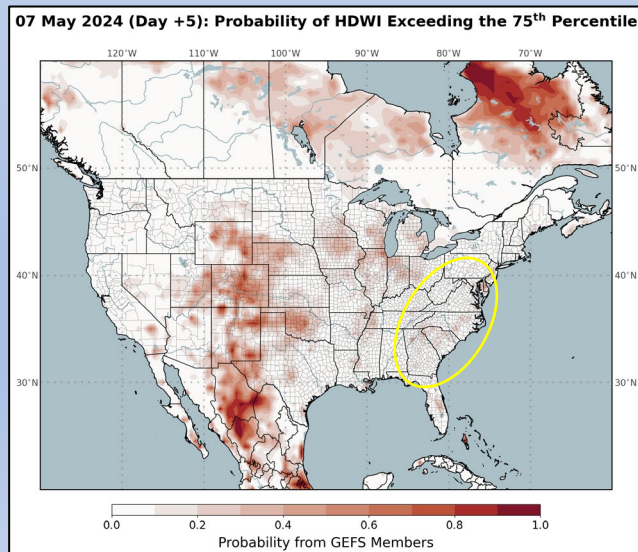
Sunday > 75th Percentile



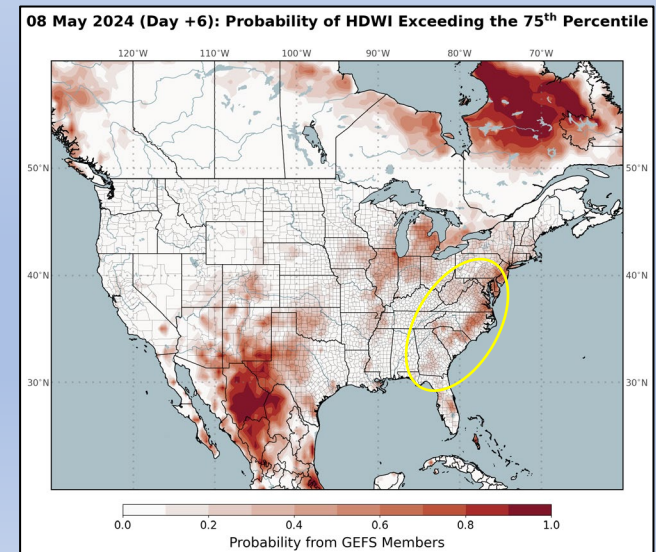
Monday > 75th Percentile



Tuesday > 75th Percentile

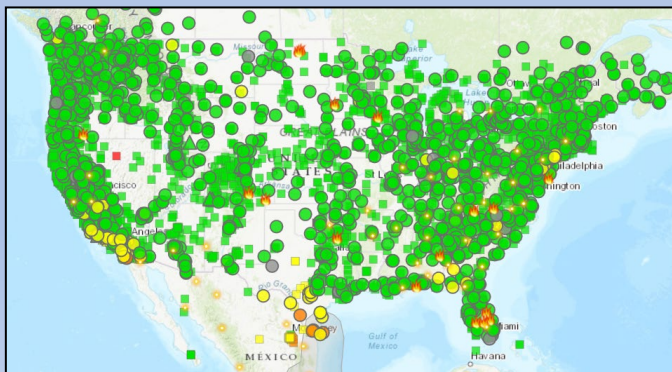
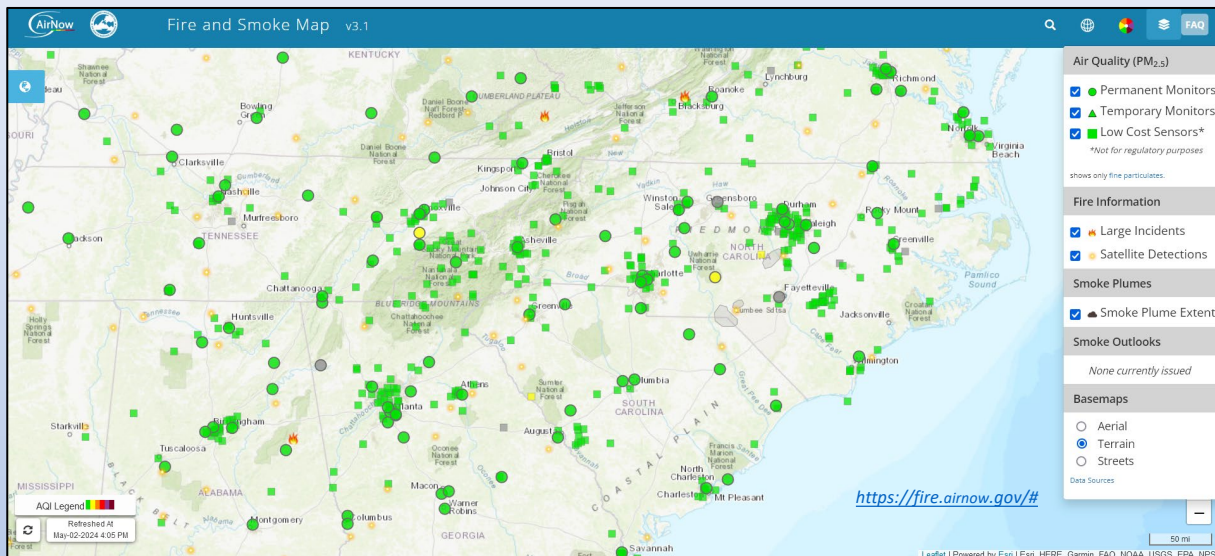


Wednesday > 75th Percentile



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

Air Quality Notes

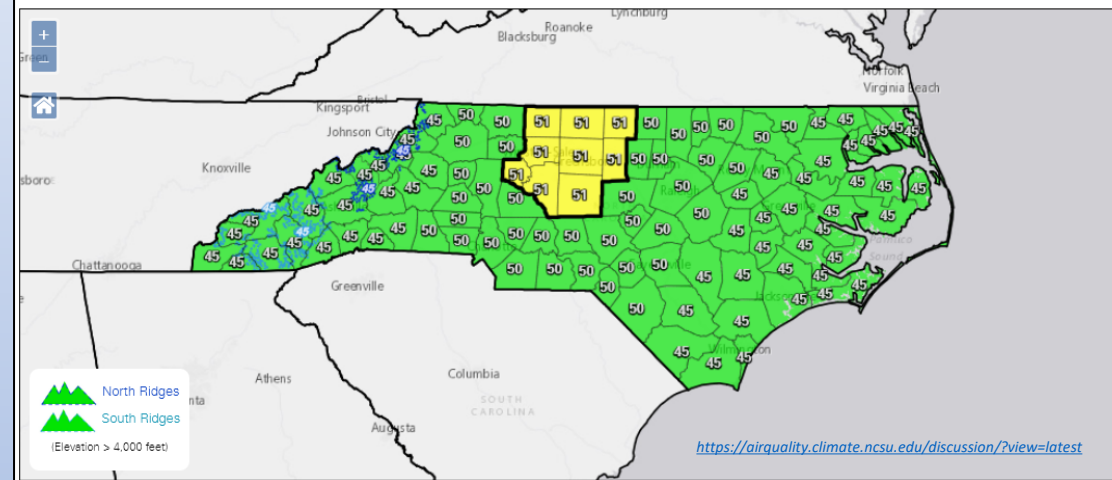


Extended Air Quality Outlook

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	AQI Range	Category Range	Download KML
Thursday (May 2)	45 to 67	Green to Yellow	download
Friday (May 3)	45 to 50	Green	download
Saturday (May 4)	35	Green	download
Sunday (May 5)	30	Green	download

Maximum Air Quality Index for May 3, 2024



NC DAQ Forecaster Discussion (Thursday - PM)

General Forecast Discussion

Friday, as the H5 ridge axis slowly shifts eastward, mid levels winds will veer to southwesterly and begin to transport some moisture back into the region. Showers and a few storms may be possible late Friday afternoon, and it appears clouds combined with increasing onshore flow courtesy of high pressure building eastward from New England into the western Atlantic should hold air quality levels in the Code Green range.

Outlook

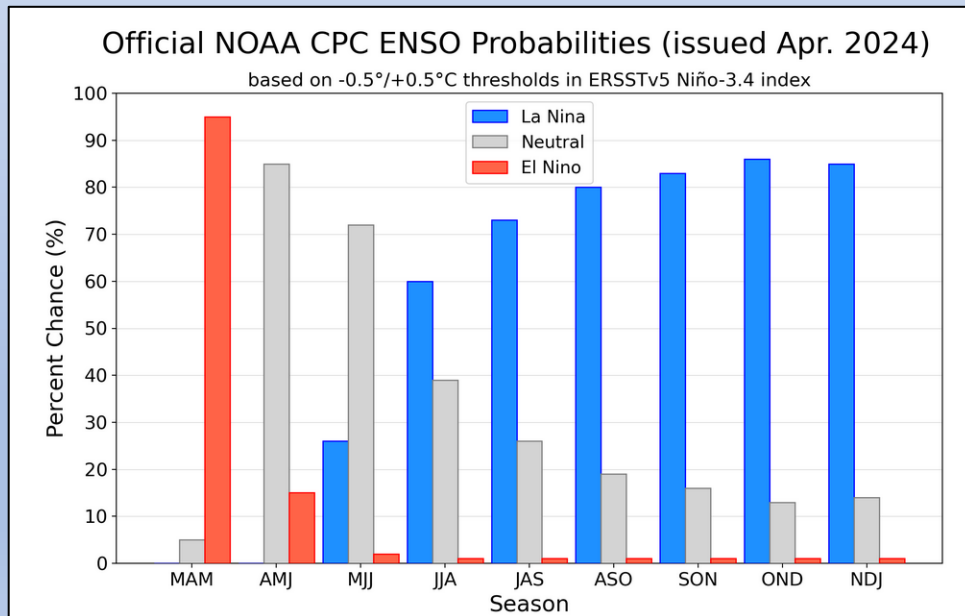
By Saturday on into Sunday, a weak shortwave disturbance centered around H7 will approach, and with the increasingly moist air mass should be enough to produce additional clouds and scattered showers. This, along with continued strengthening onshore flow will result in dew points and humidity levels rising and should result in air quality levels lowering as the maritime-sourced air mass advects into the region from the Atlantic.

ENSO Notes from the CPC (4/11/24 Update)

ENSO Alert System Status: **El Niño Advisory / La Niña Watch**

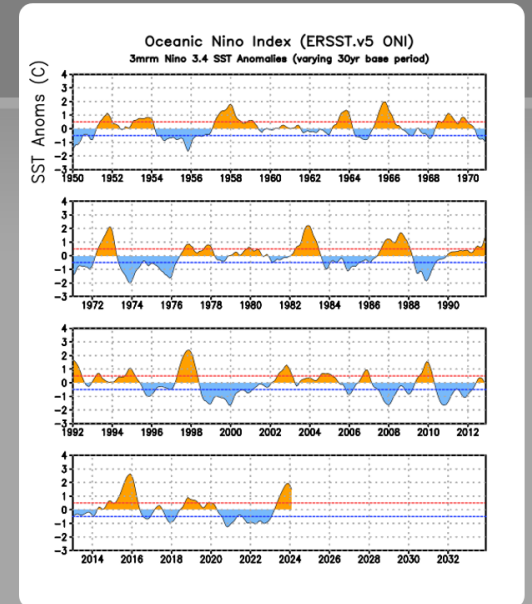
A transition from El Niño to ENSO-neutral is likely by April-June 2024 (85% chance), with the odds of La Niña developing by June-August 2024 (60% chance).

ENSO, or El Niño Southern Oscillation, is a fluctuation in the sea surface temperature (SST) in the equatorial Pacific Ocean. Research has shown that even slight changes in the SST, particularly in area 3.4, can influence weather in North America. Generally, when SSTs are lower than normal, known as La Niña, NC has drier than normal conditions and can have more fire occurrence. However, La Niña also can lead to more tropical activity. El Niño, on the other hand, usually means wetter weather for NC, but less opportunity for tropical landfalls due to increased wind shear. In order to declare a La Niña, the departure from average SST must be at least -0.5°C (line shown in green) for 3 consecutive months. For El Niño, the departure must be at least 0.5°C above average for 3 consecutive months.



ONI ($^{\circ}\text{C}$): Evolution since 1950

The most recent ONI value (January - March 2024) is 1.5°C .

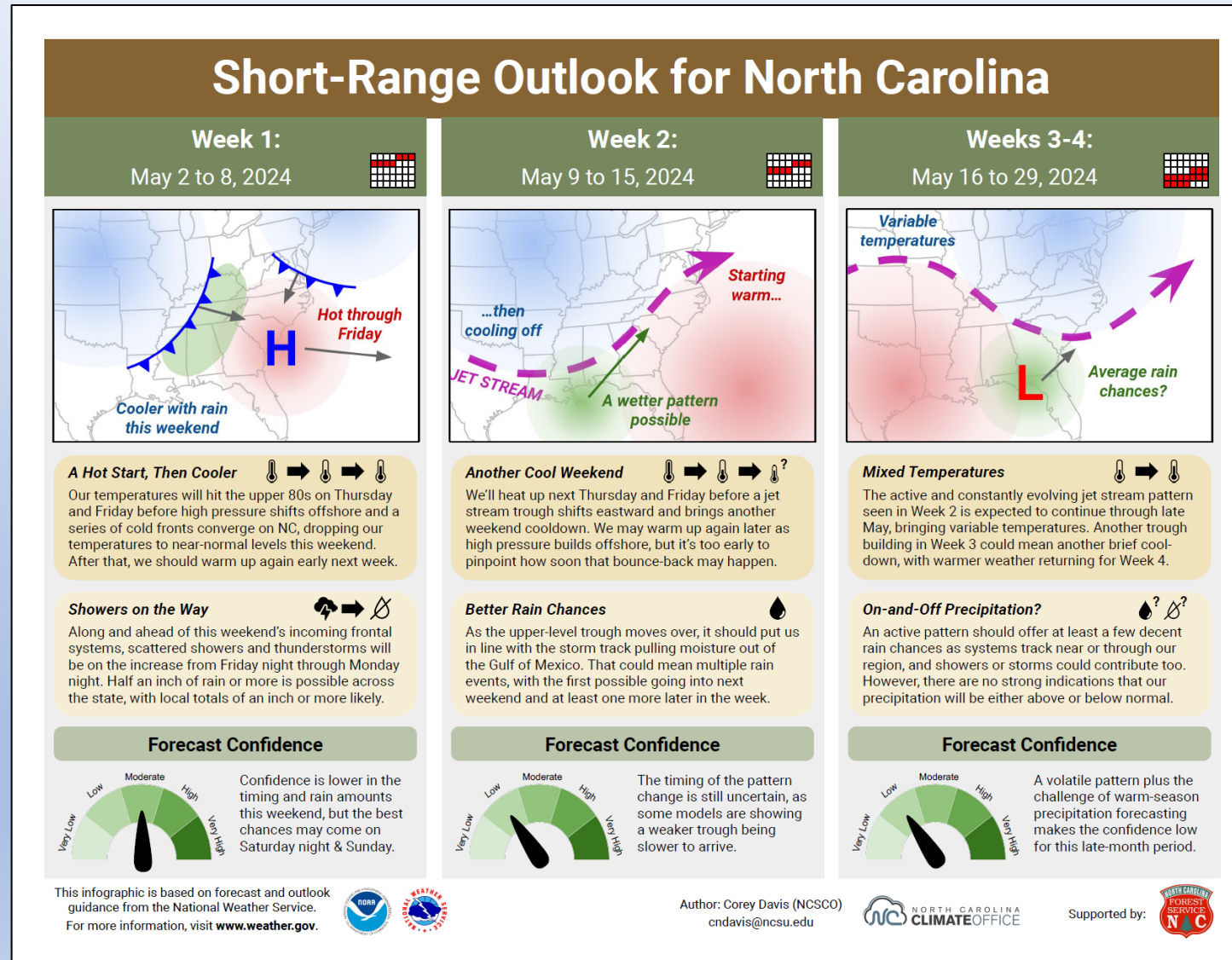


From the most recent CPC Diagnostic Discussion ([ENSO Diagnostics Discussion](#)):

[The most recent IRI plume indicates a transition to ENSO-neutral during spring 2024, with La Niña potentially developing during late summer 2024 [Fig. 6]. The forecast team continues to favor the dynamical model guidance, which is slightly more accurate than statistical models during this time of year. La Niña tends to follow strong El Niño events, which also provides added confidence in the model guidance favoring La Niña. In summary, a transition from El Niño to ENSO-neutral is likely by April-June 2024 (85% chance), with the odds of La Niña developing by June-August 2024 (60% chance; [Fig. 7]).

State Climate Office: Short-Range Monthly Outlook for NC

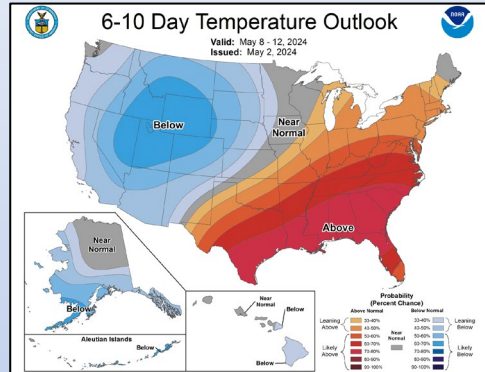
Released 5/2/24 & Location: <https://climate.ncsu.edu/fire/outlooks/>



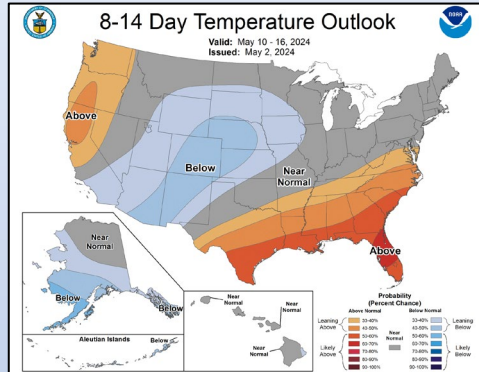
CPC Temp & Precip Outlook

6-10 Day, 8-14 Day, Week 3-4, Seasonal

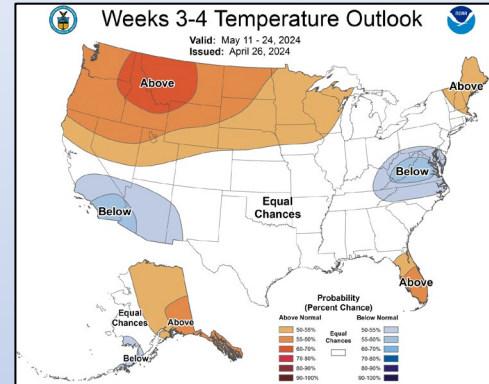
Updated 5/2/24



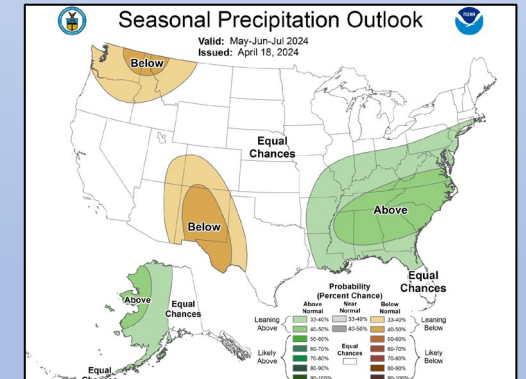
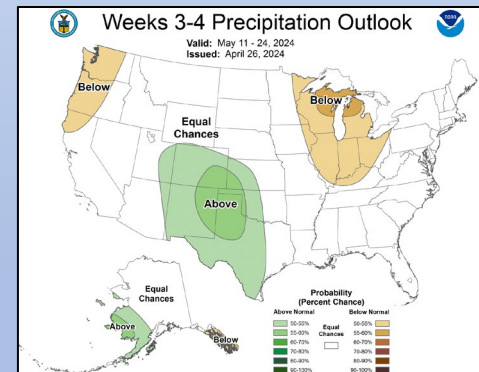
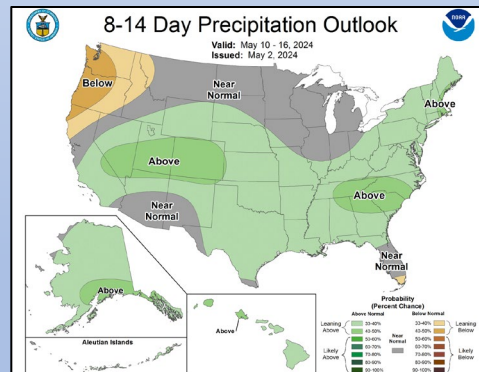
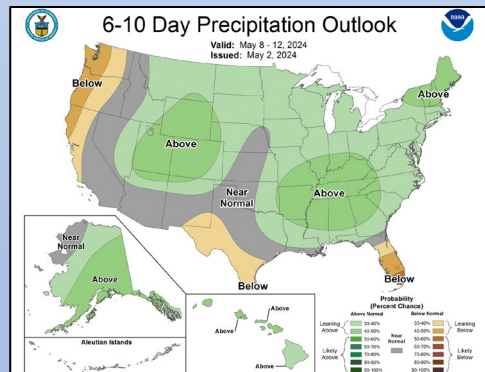
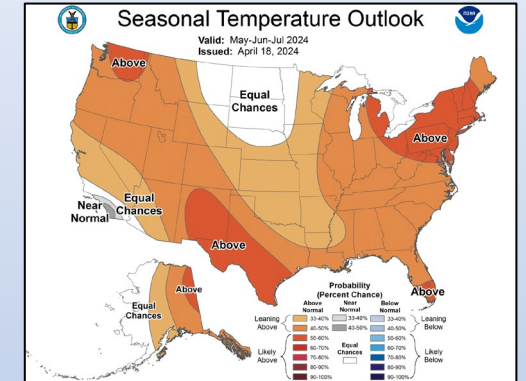
Updated 5/2/24



Updated 4/26/24



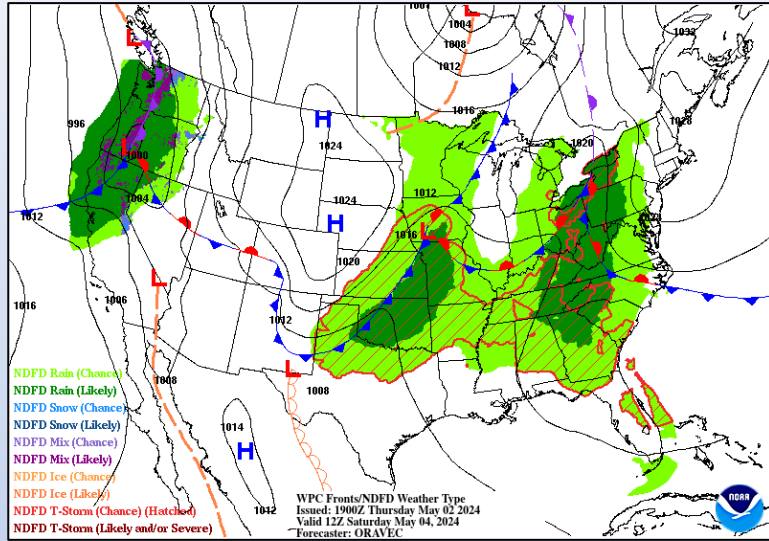
Updated 4/18/24 – [Discussion Link](#)



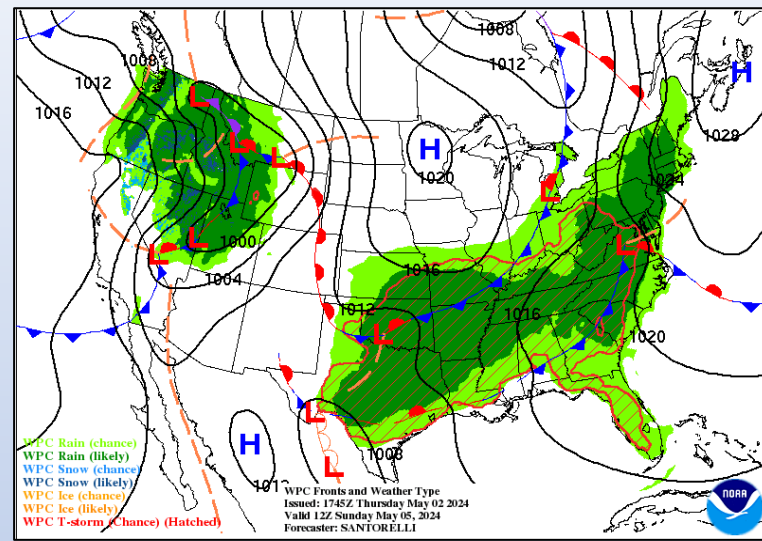
Uncertainty is noted in both the monthly and seasonal longer-range forecasts.

WPC Forecasted Surface Fronts & Sea-Level Pressures

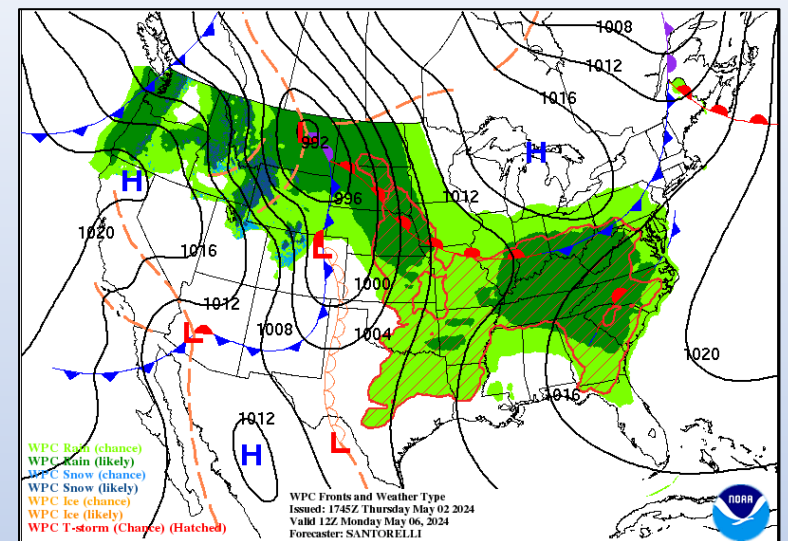
Saturday - 800 am



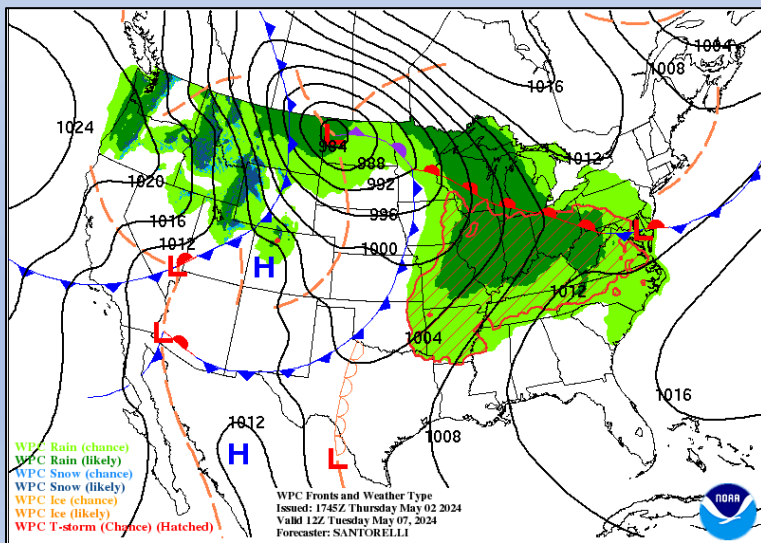
Sunday - 800 am



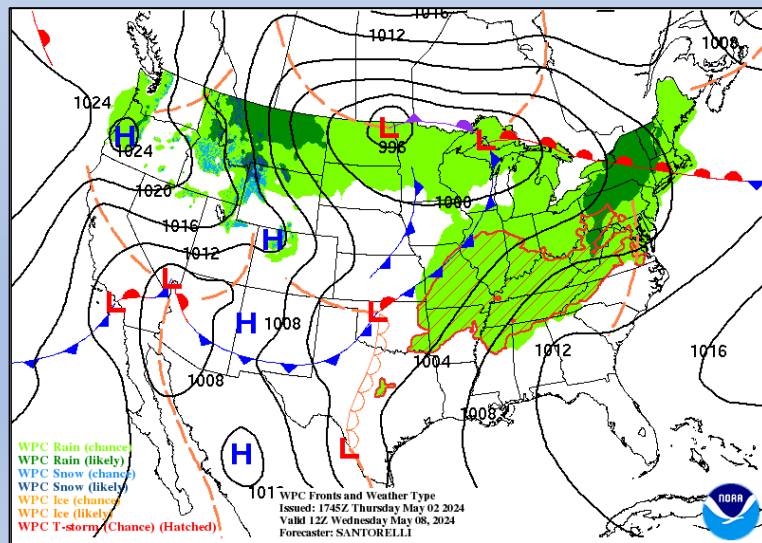
Monday - 800 am



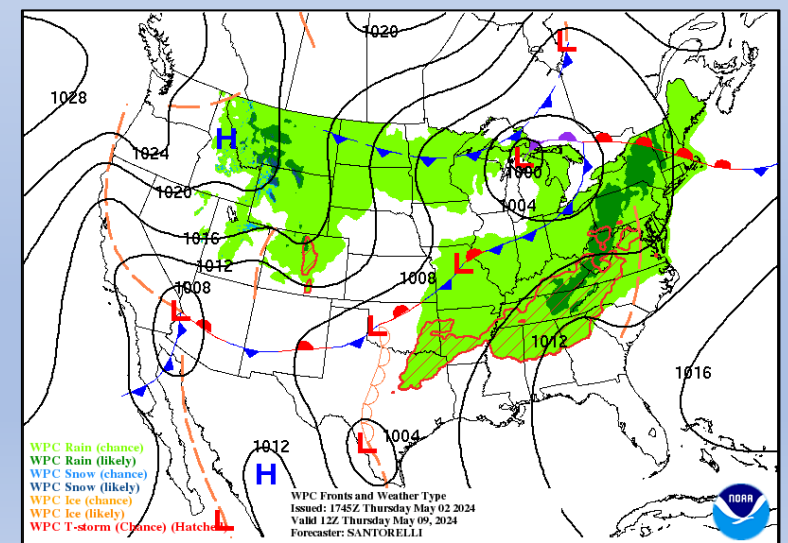
Tuesday - 800 am



Wednesday - 800 am



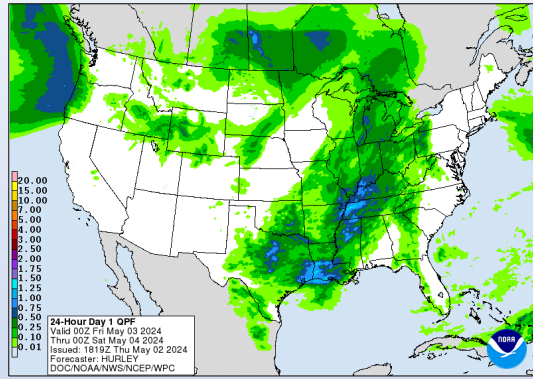
Thursday - 800 am



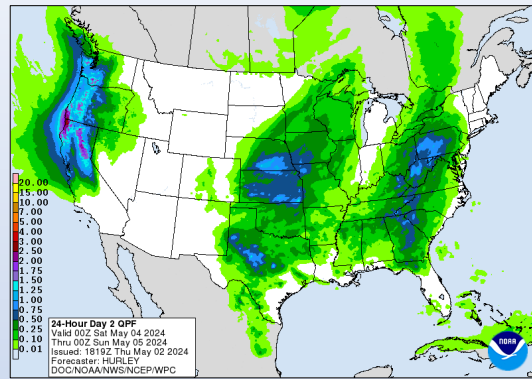
Quantitative Precipitation Forecast, 7-Day

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

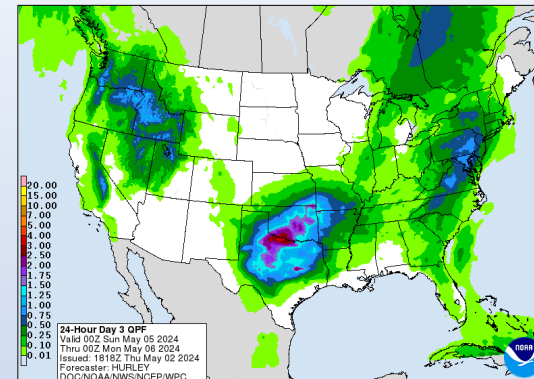
Day - 1



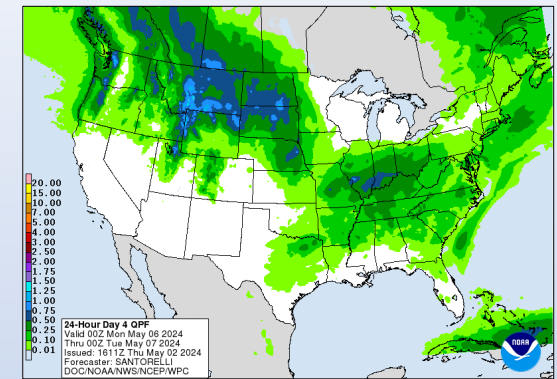
Day - 2



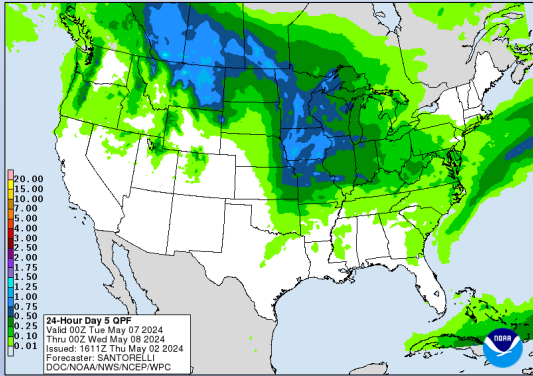
Day - 3



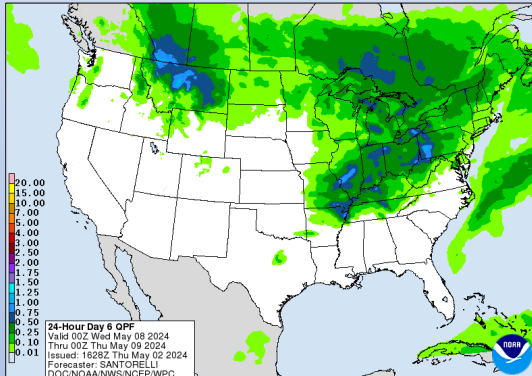
Day - 4



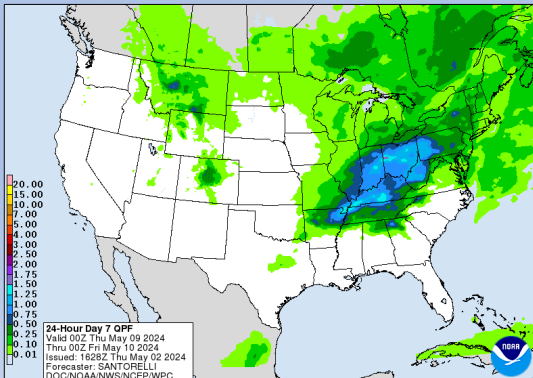
Day - 5



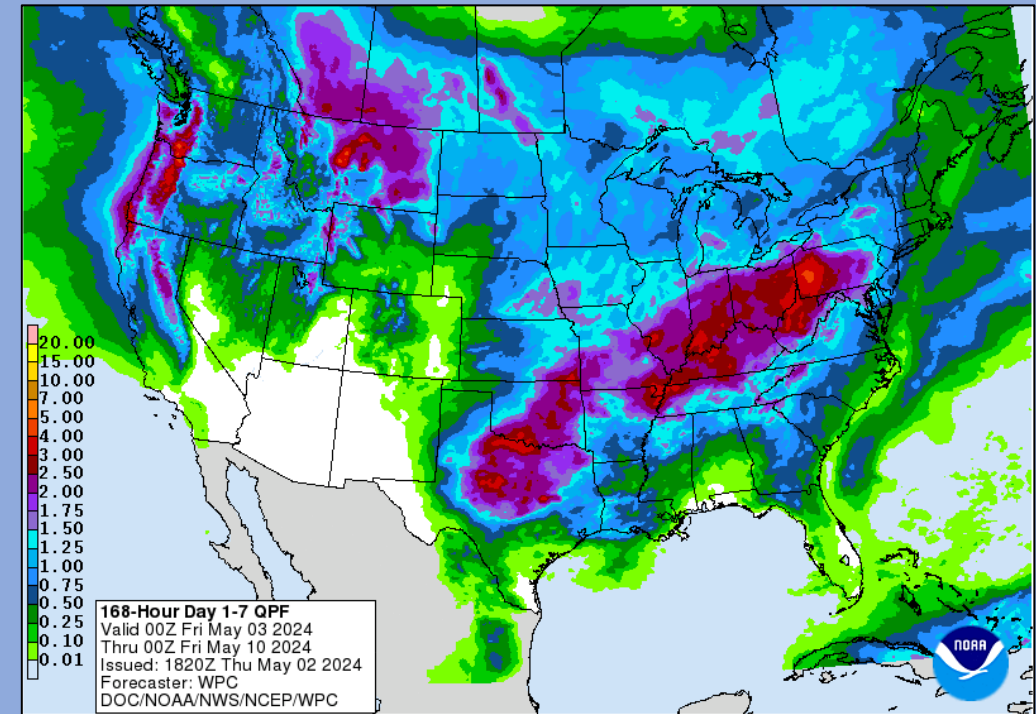
Day - 6



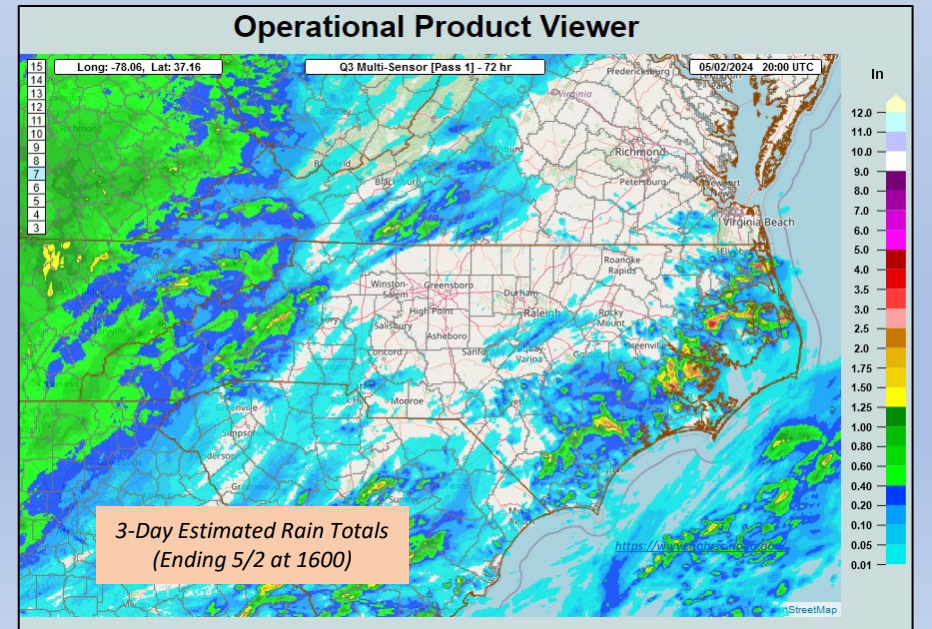
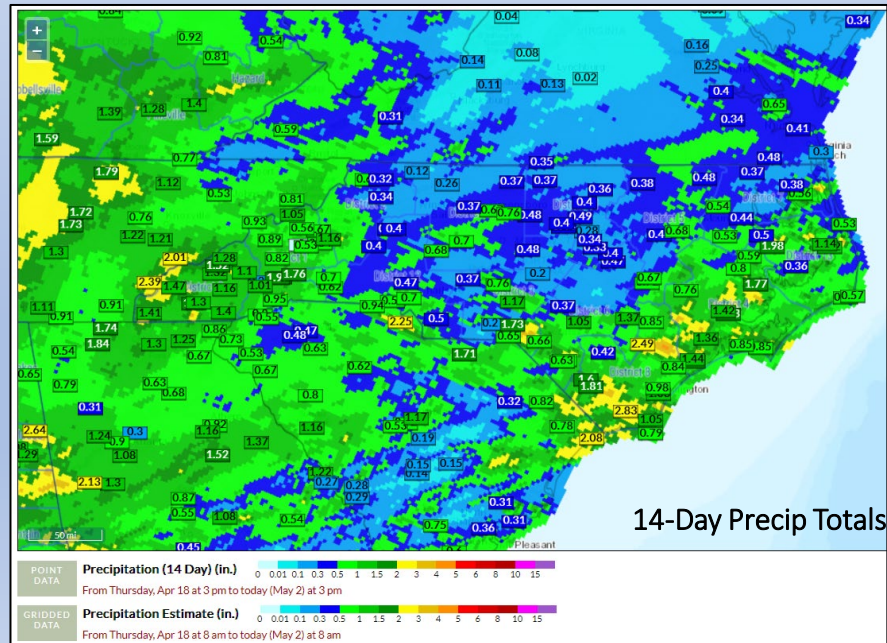
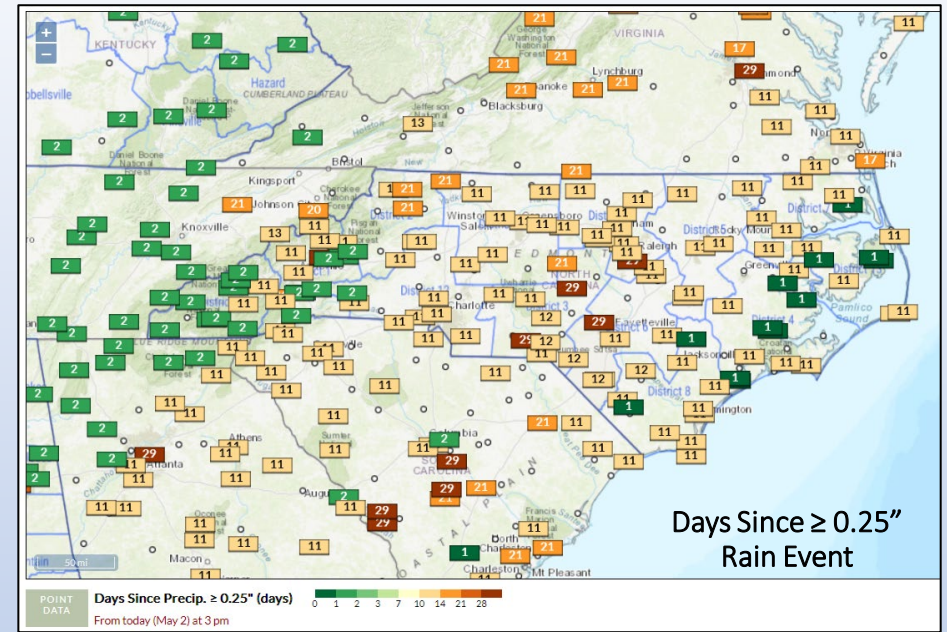
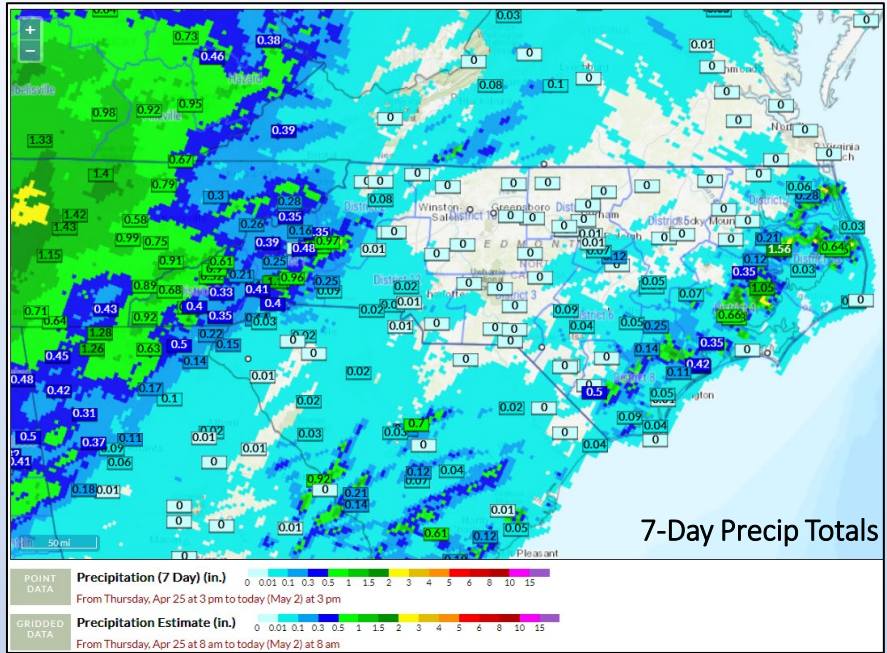
Day - 7



Important to note these values are subject to **significant change as weather system modeled tracks adjust farther out in time.*



Observed Precipitation



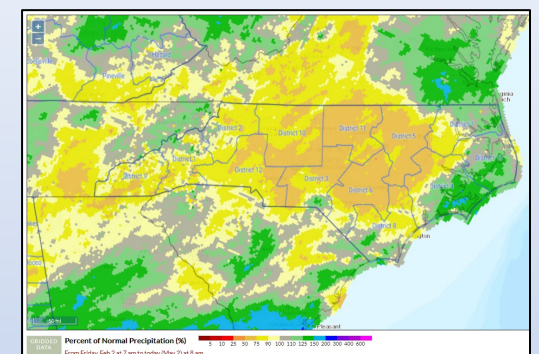
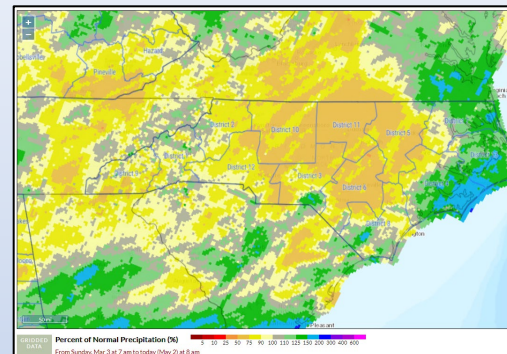
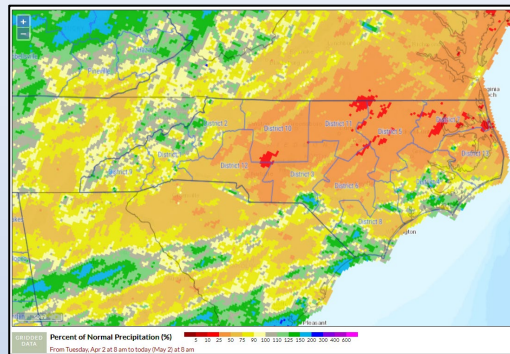
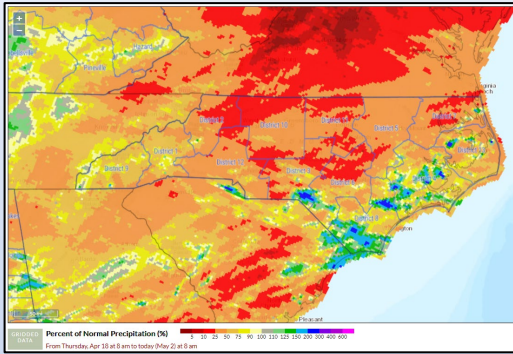
Percent of Normal Precip & SPI, FWIP (Ending Thursday @ 0800 5/2)

14-Day % of Normal

30-Day % of Normal

60-Day % of Normal

90-Day % of Normal



PNP: Driest areas ~15% of Normal at 14-day Scale

Driest areas at ~20% of normal at 1-Month scale.

Driest areas at ~63% of normal at 2-Month scale.

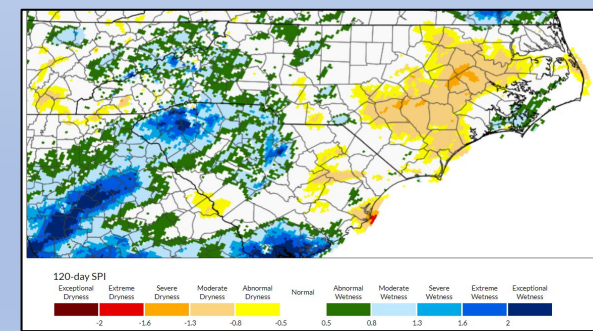
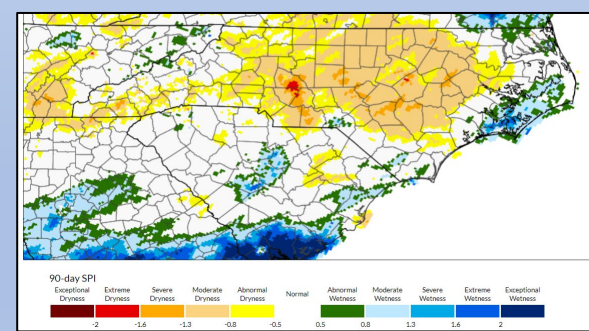
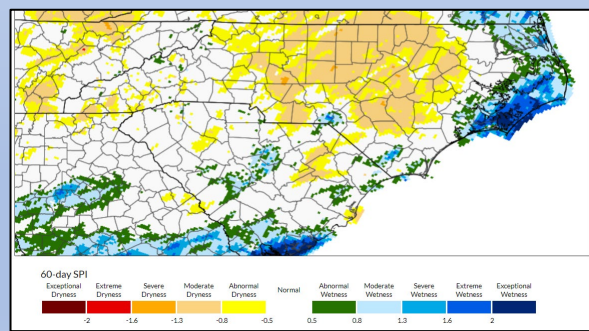
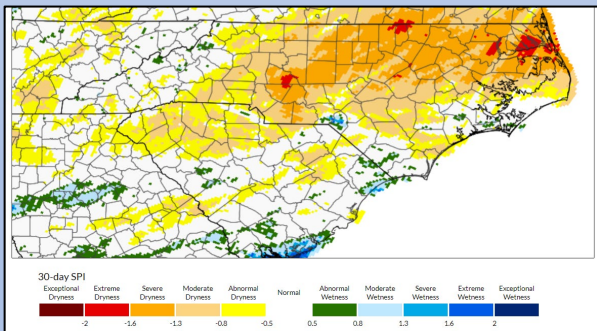
Driest areas ~60% of normal at 3-Month scale.

30-Day SPI

60-Day SPI

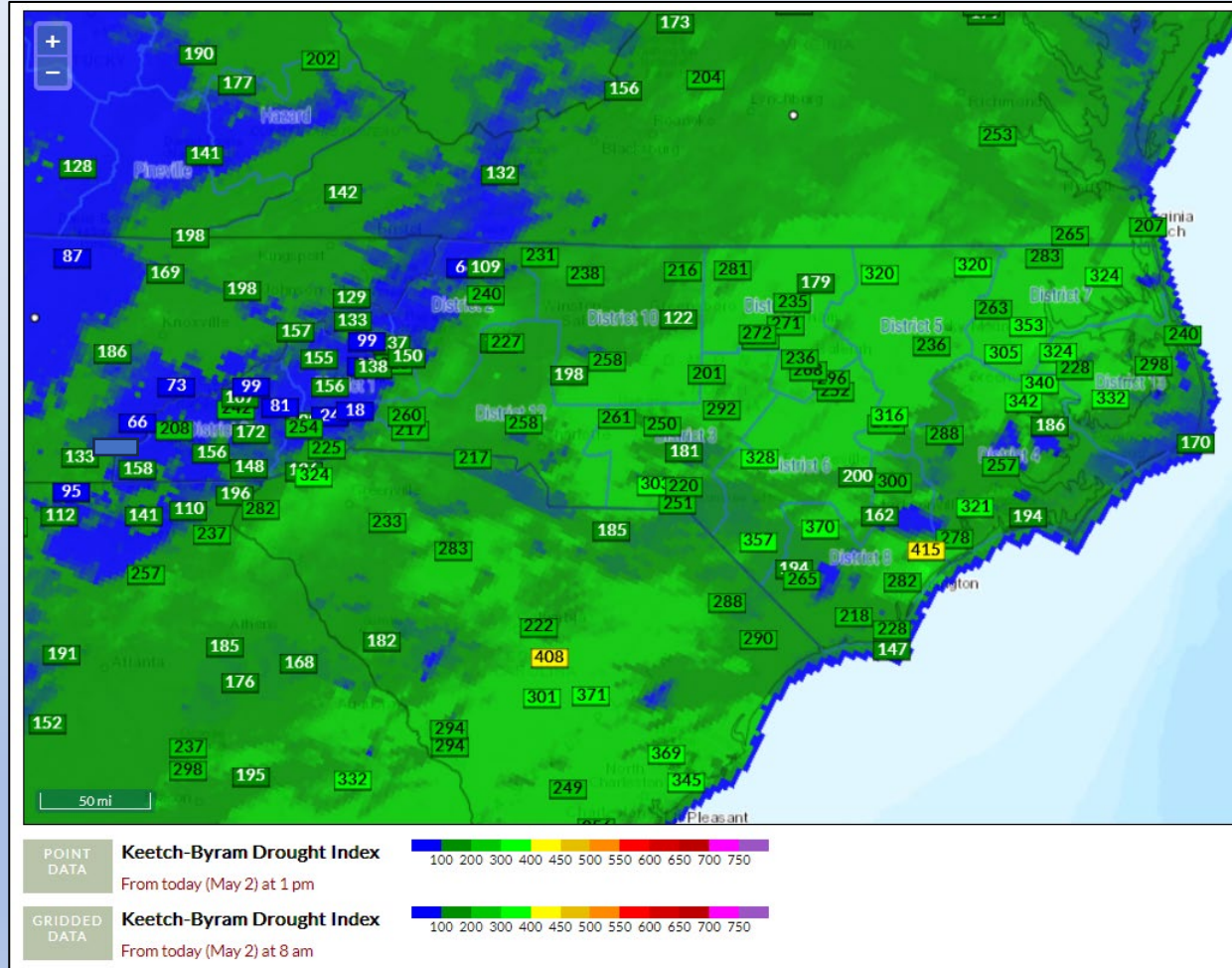
90-Day SPI

120-Day SPI

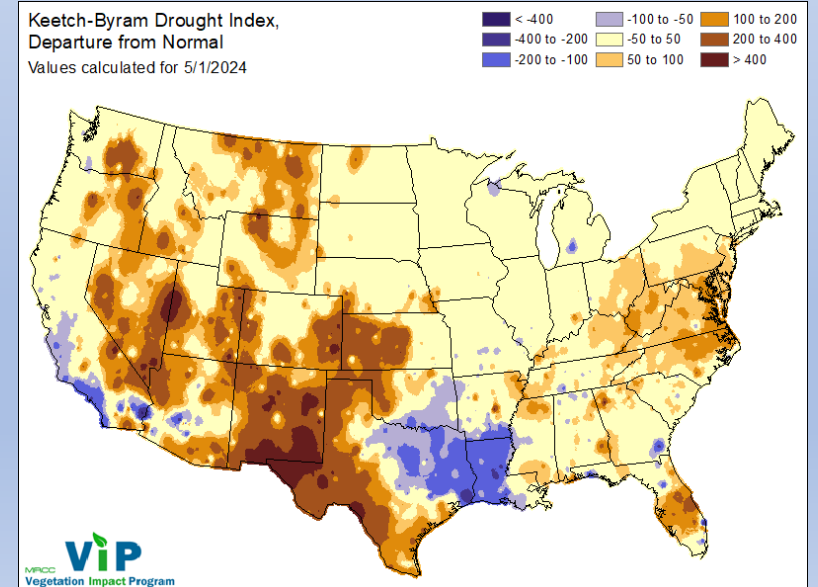
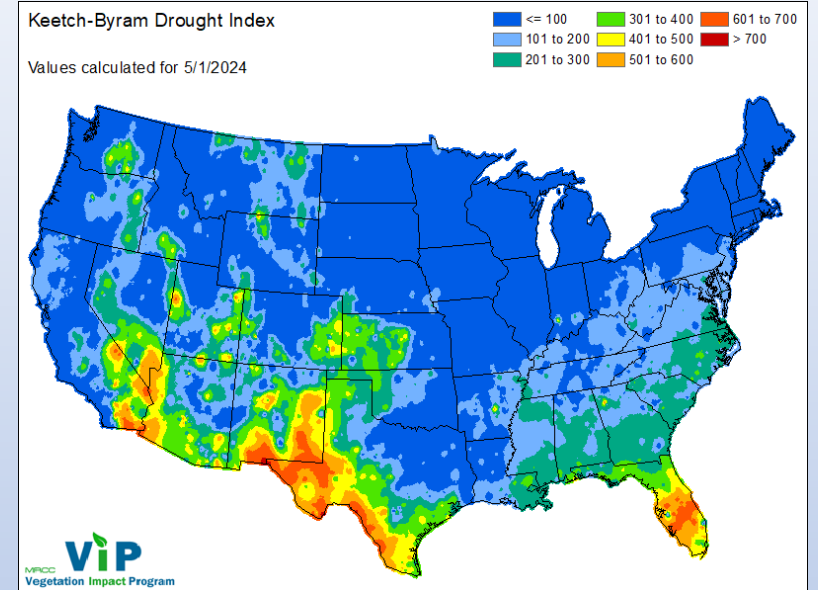


KBDI - Gridded & Station Points

FWIP (Point calculation from WIMS @ 1300 on 5/2, SCO created Grid on 5/2 @ 0800)



Product below is created by the Midwestern Regional Climate Center. See [FAQ](#).



Drought Situation

North Carolina Drought Update

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

For the assessment period ending **Apr. 30, 2024**
 From the US Drought Monitor, with input from the NC DMAC

The Main Takeaway

Abnormally Dry (D0) conditions further expanded in the Mountains, Triad, Sandhills, and northeast, reflecting the limited rainfall and rapid drying in recent weeks.

This Week's Summary

April was a decidedly dry month across the state, and while our excess moisture from March helped avoid a sooner slide into dryness, the past few weeks have seen more impacts emerging, particularly with warmer temperatures and springtime planting now underway.

Reservoir Report

Demands facing reservoirs at this time of year include higher evaporation rates, targets rising to summer levels, boosted downstream releases for recreation and fish spawning, and as in April, lower inflows. In spite of that, major lakes in NC are holding near their targets.

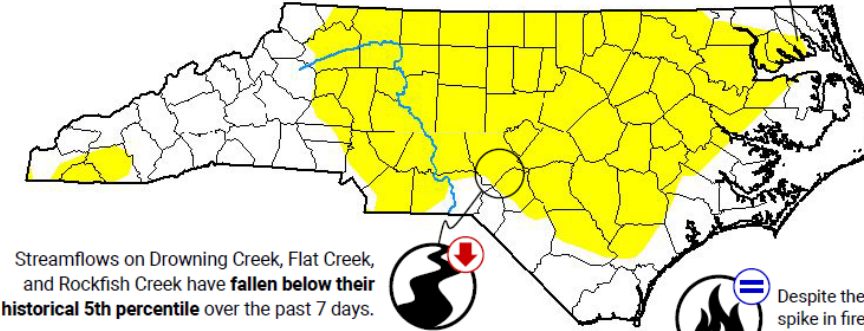
For your local drought status, visit www.ncdrought.org



Planting has slowed in some areas as farmers await more rain, particularly for small grains and newly planted crops.



Elizabeth City had its 3rd-driest April on record, with only 0.55 inches of precipitation all month.

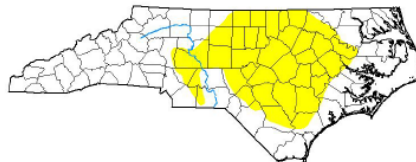


Streamflows on Drowning Creek, Flat Creek, and Rockfish Creek have **fallen below their historical 5th percentile** over the past 7 days.



Despite the dryness, we haven't seen a spike in fire activity because **vegetation has fully greened up** in many areas.

Last Week's Drought Status



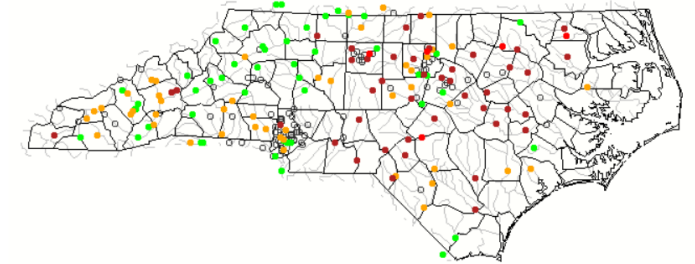
Statewide Coverage by Category

Category	Current Coverage	Change Since Last Week
D0: Abnormally Dry	60.90%	+20.79%
D1: Moderate Drought	0.00%	0.00%
D2: Severe Drought	0.00%	0.00%
D3: Extreme Drought	0.00%	0.00%
D4: Exceptional Drought	0.00%	0.00%

Map of 7-day average streamflow compared to historical streamflow for the day of the year (North Carolina)

North Carolina or Water-Resources Regions All Days

Hednesday, May 01, 2024



Search USGS streamgage

Choose a data retrieval option and select a location on the map
 List of all stations Single station Nearest stations

Explanation - Percentile classes						
Low	<10	10-24	25-75	76-90	>90	High
	Much below normal	Below normal	Normal	Above normal	Much above normal	Not-ranked

Source: <https://waterwatch.usgs.gov/index.php?m=pa07d&r=nc&w=map>

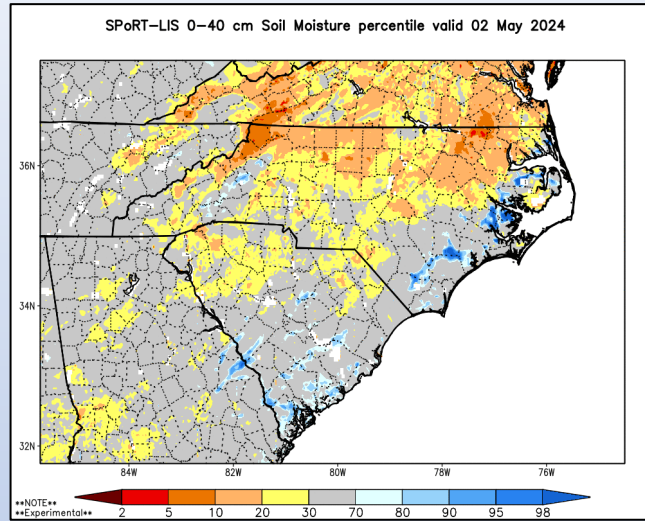
Note continued decline in streamflow values (see above).

 20% area increase in D0 Abnormally Dry conditions (see left).

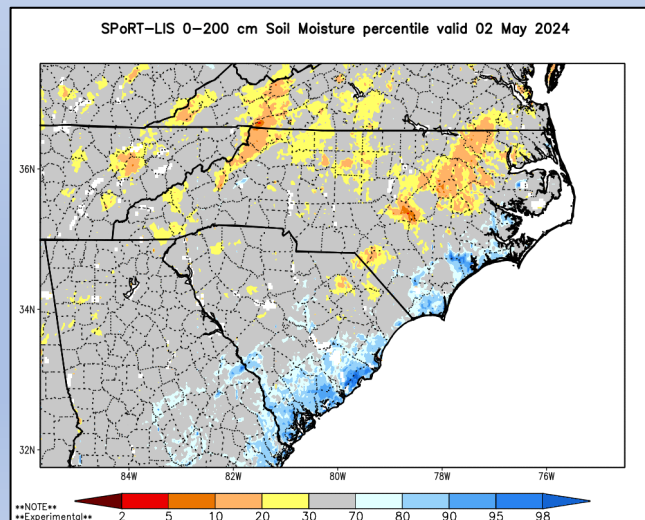
See notes on Slide #8 concerning CPC drought related discussion.

SPoRT Modeled Relative Soil Dryness

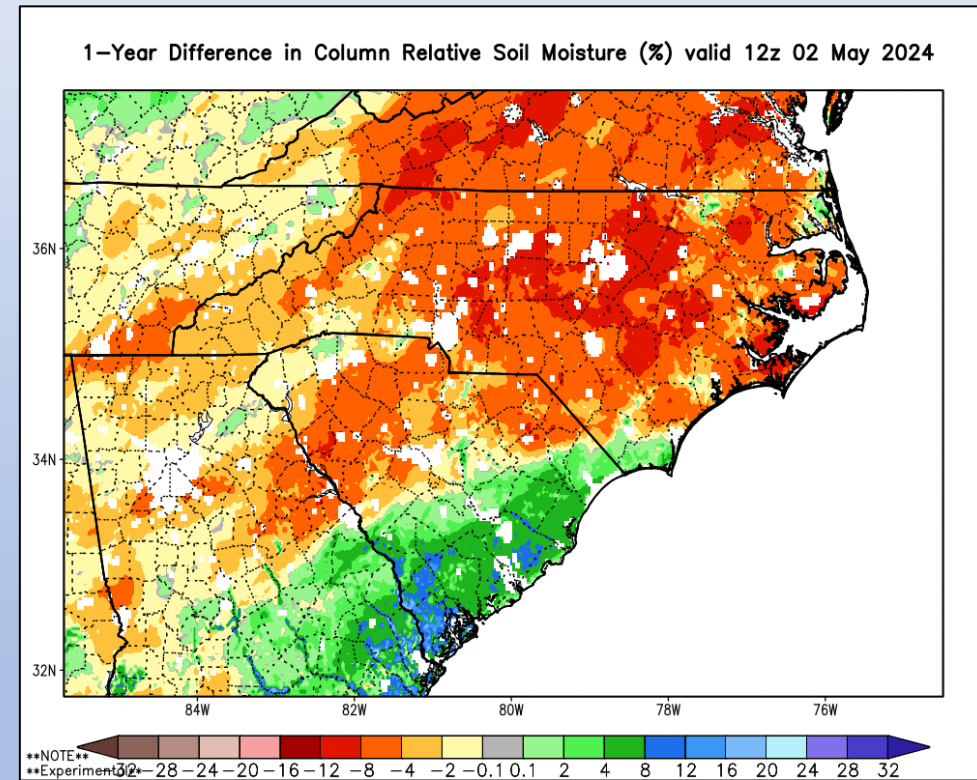
0-40 cm Depth



0-200 cm Depth

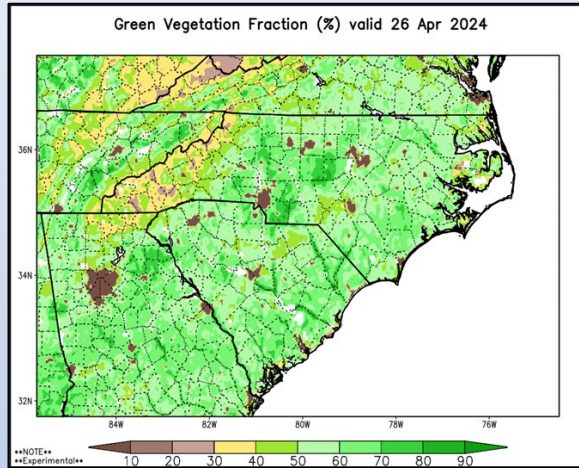


- See areas of modeled improvement/degradation near the surface and for the entire soil profile (left). Note the modeled differences between today & last year at this same time.
- As green-up and evaporative demand increases, expect more rapid changes if rainfall continues to be scattered in nature.

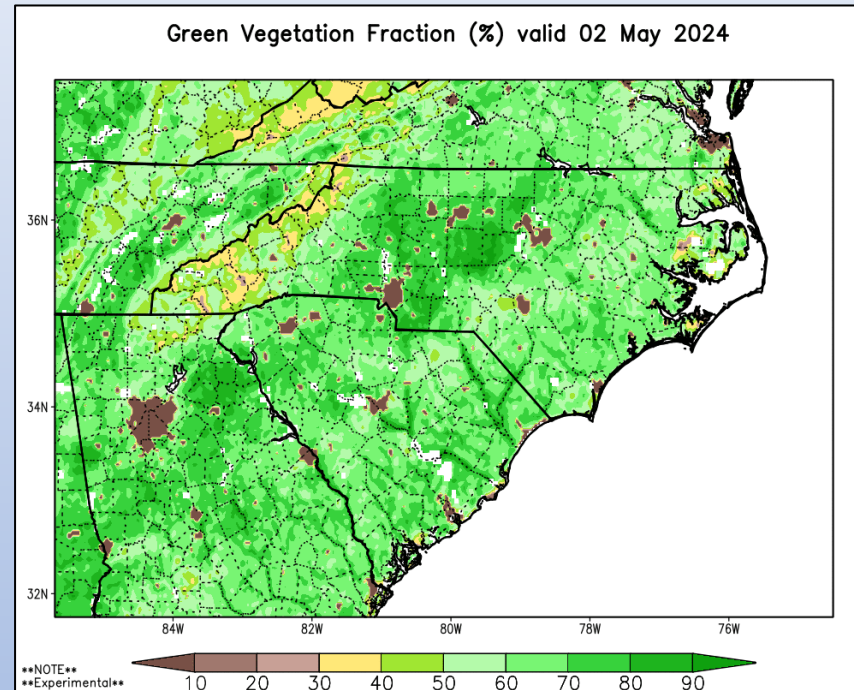


Green Fraction & Green-Up Anomaly

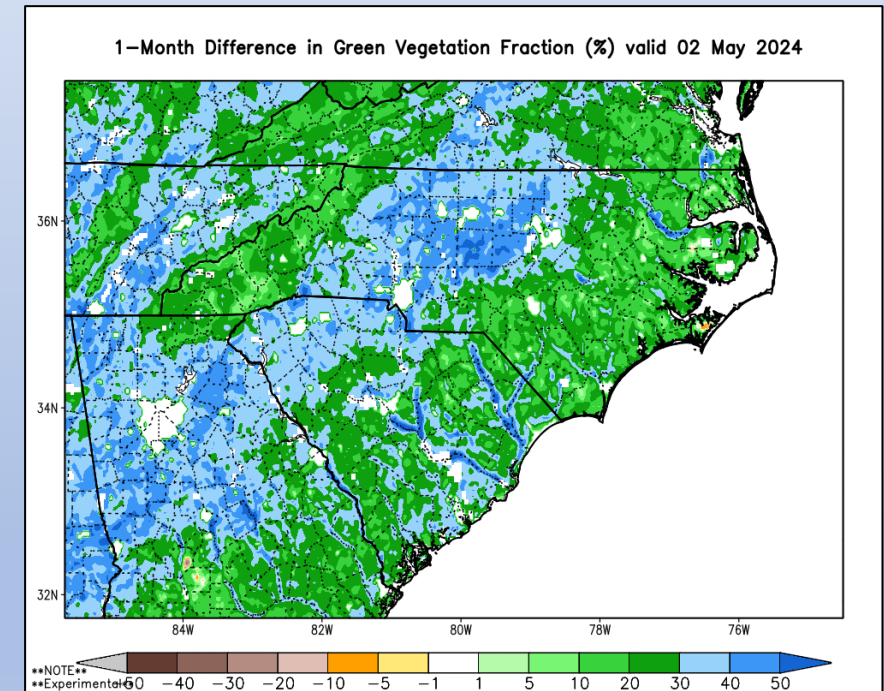
Last Week



Current



1-Month Change



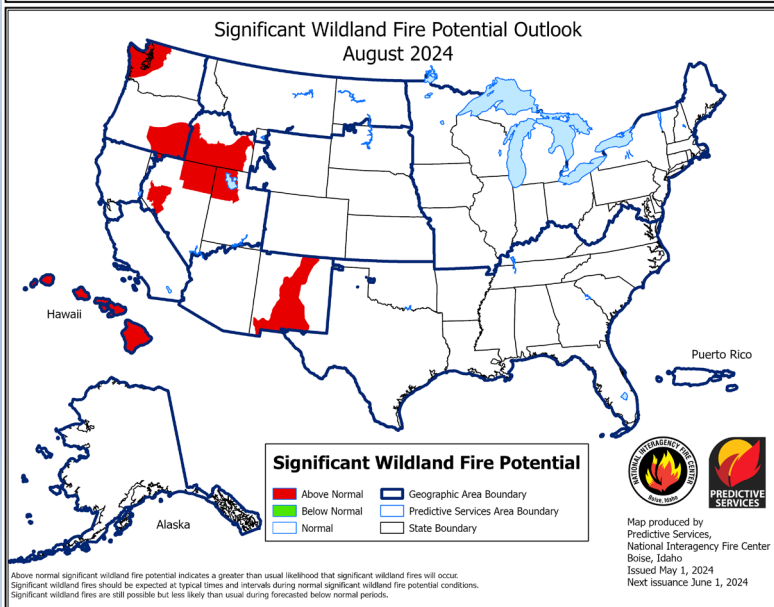
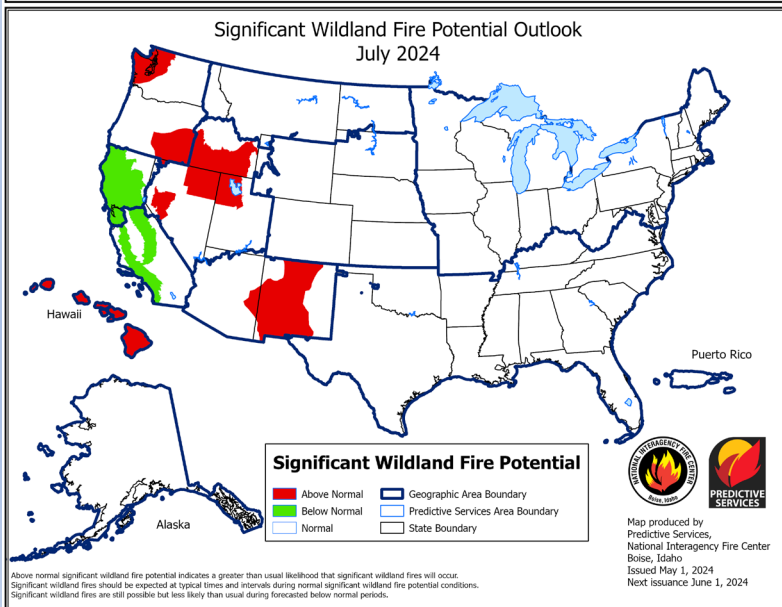
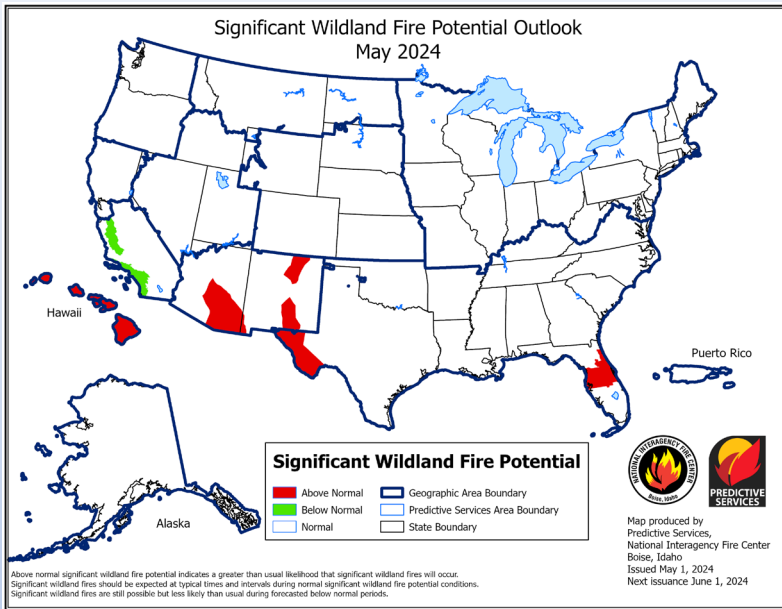
Lower elevation sites have remained at about 6-12 days ahead of "normal" related to green-up processes, due to generally abnormally warm conditions this spring.

Pocosin and Bay Fuels Remain Available

Higher elevation areas were slowed due to repeated colder conditions.

Significant Wildland Fire Potential Outlook:

Updated 5/1/24 – Next Update on 6/1/24



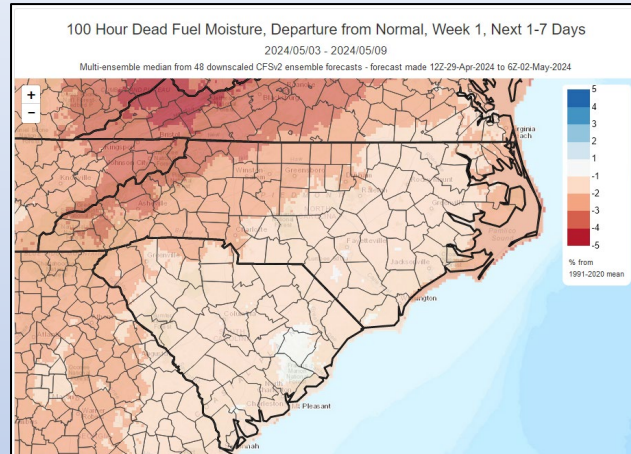
A significant fire is one that requires resources from outside the district (other than aviation). IA potential is based more on shorter term weather factors. Just a few days of dry weather can increase IA activity considerably as we have seen this year.

***Forecast uncertainty could easily lead to an expansion of "Above Normal" Fire Potential if abnormally dry conditions expand/worsen going through May.**

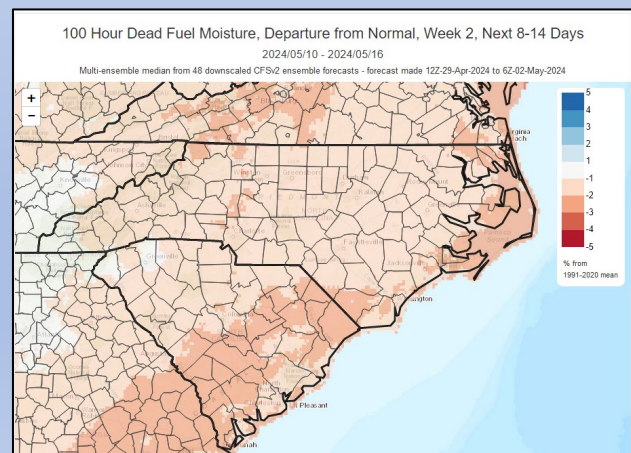
Modeled Departure from Normal by Week: 100-hr Fuels

Output relies on experimental forecast outputs and is subject to change

Week-1



Week-2



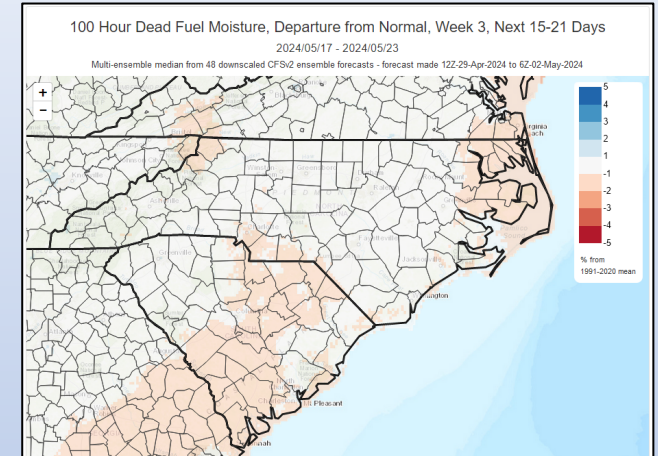
This output can provide insight into general drying trends and potential impacts to overall fire danger, especially prior to full green-up or in drought conditions.

Note much drier than normal conditions continue through Week-1 for most of the state. Weeks 2-4 show potential for fuel moistures return closer to normal.

Relates to interactions of warmer/colder temps, moist/dry air masses, precip amt/duration and overnight RH recovery trends.

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

Week-3



Week-4

