

Weekly Fire Danger Assessment NCFS – All Regions

For Time Period:

Friday (4/26/24) to Thursday (5/2/24)

*Created by: Jamie Dunbar
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NC Forest Service*

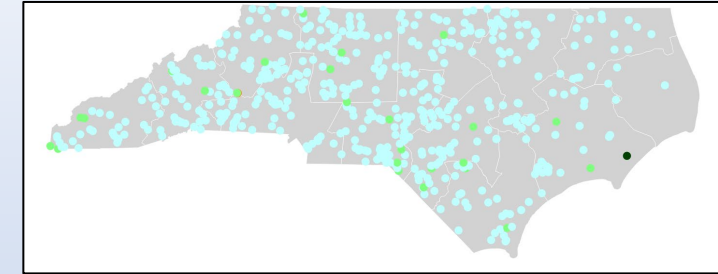
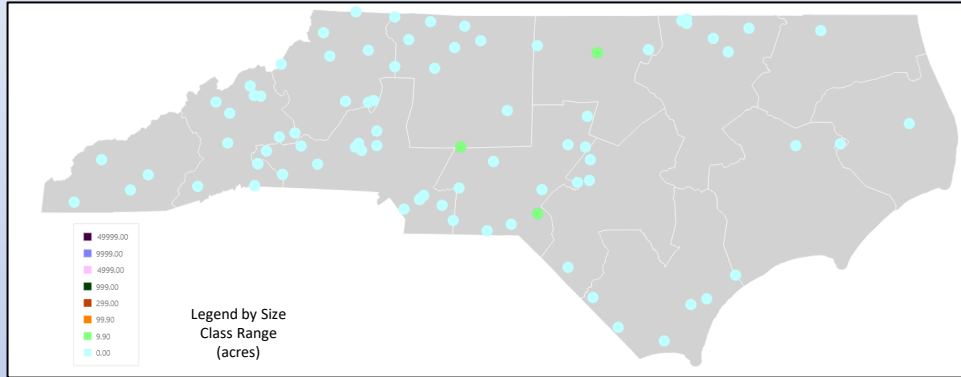
Incident Activity

April 1 - 25

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

7-Day Activity: 4/19 – 4/25, 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**
 (Statewide averages, above, are based on FARS 2013-2022 Data)

Largest incidents Last 7 Days (Ending 4/25):
 from fiResponse & preliminary reporting only

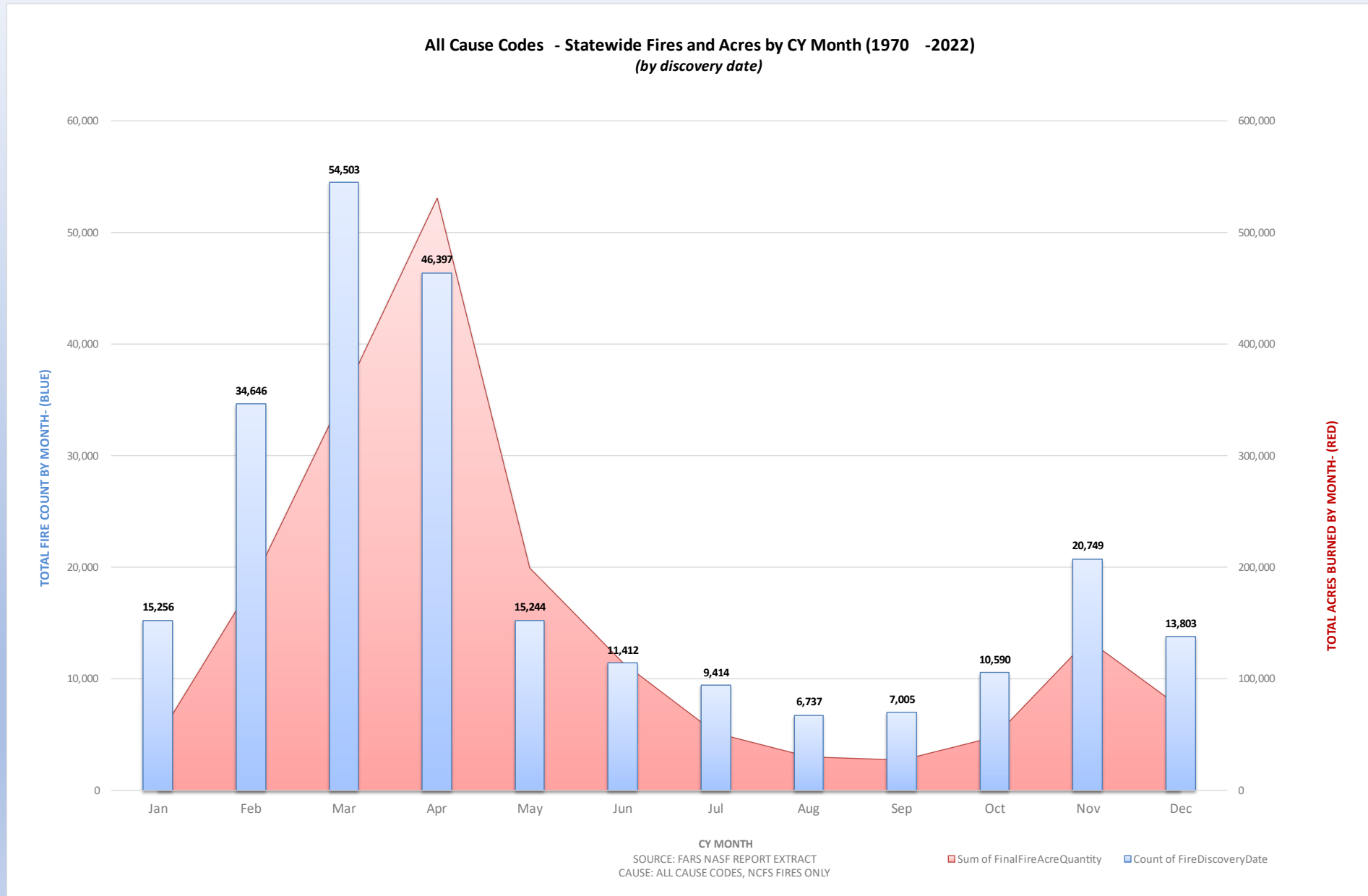
Incident Name	Discovery Date	Region	District	County	Acres
Gardener Farm	4/19/2024	Region 2	District 3	Scotland County	67.00
Onie Burton Rd	4/20/2024	Region 2	District 11	Person County	22.00
Rowan County - Stokes Ferry Rd	4/24/2024	Region 2	District 10	Rowan County	10.00
High Ridge Church Rd.	4/19/2024	Region 3	District 12	Union County	6.00
Sugar Cove Road	4/25/2024	Region 3	District 1	Buncombe County	5.50
Onslow County - Betty Taylor Wood DR	4/19/2024	Region 1	District 4	Onslow County	4.00
Dowry Creek	4/24/2024	Region 1	District 4	Beaufort County	4.00
Turkey Trot #2	4/19/2024	Region 1	District 4	Beaufort County	3.50
Busbee Reservoir	4/24/2024	Region 3	District 1	Buncombe County	3.50
Mimms	4/20/2024	Region 2	District 6	Harnett County	3.00

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:	4/19 – 4/25, 2024			
Area	Wildfire Count	Wildfire Acres	RX Count (State & Private)	RX Acres (State & Private)
R1	7	12.8	8	828
R2	32	129.1	16	1,048
R3	25	30	2	39

“209” Criteria Fires for April - as of 4/25/24

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



Cause: All Cause Codes, Statewide, NCFS Reported Fires Only

From Today's SACC [Daily Outlook](#) Discussion for the Southern Area (SA)

- Today – A few showers and isolated embedded storms may impact the Appalachians; otherwise, expect a breezy day, along with increasing winds overnight in the higher terrain. Dry and warm conditions will continue for much of the eastern Gulf Coast towards FL and the East Coast – an increase in winds will lead to an uptick in fire danger across the FL peninsula.
- Tomorrow – Weather in the Lower Mississippi Valley and coastal Southeast will be similar to today; meanwhile, the FL peninsula will see increasing Atlantic moisture, with min. RH no lower than 35-45%, while E winds will pick up, gusting upwards of 30-35 mph much of the day. The Appalachians in eastern KY and western VA will maintain some drier than normal conditions, while gusty S to SW winds continue.
- Sunday – A humid but breezy day is in store for the Lower Miss. Valley and coastal Southeast – isolated thunderstorms are possible in LA and MS, but little in the way of wetting rain is expected.
- 10-hour fuels: Any lingering dryness in the Appalachian states today into tomorrow will generally be wiped out by increasing humidity Sunday into next week.
- 100-hr fuels: The driest conditions of the next week will occur today into tomorrow for scattered portions of the Appalachians – only modest rainfall can be expected, but humid weather will be the rule most of the period.
- Rainfall Forecast Discussion: Widespread heavy rain will impact TX into central and eastern OK, AR and northern LA, where flash flooding and river flooding will be likely. Fronts may eventually bring some wet weather back to the Appalachians towards the middle and end of next week, but a strong high-pressure ridge along the East Coast will limit rainfall chances for most of the Southeast, including FL.

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).

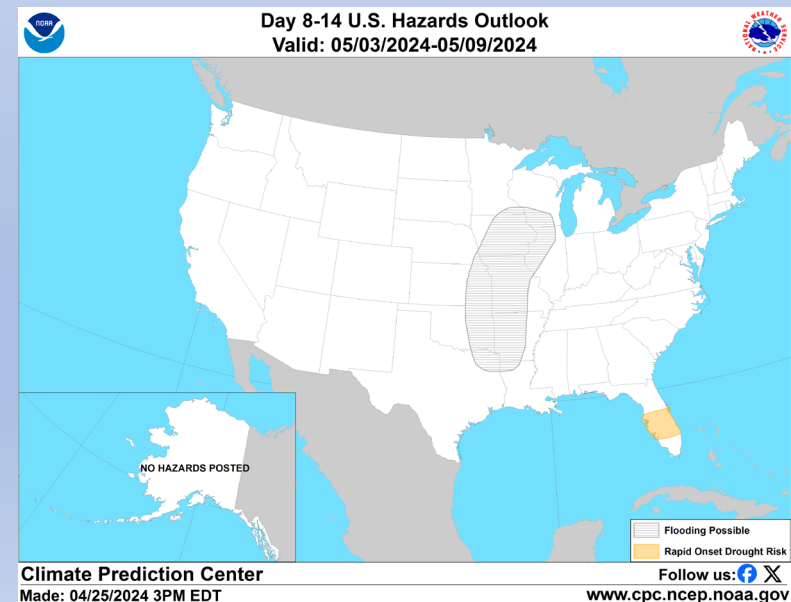
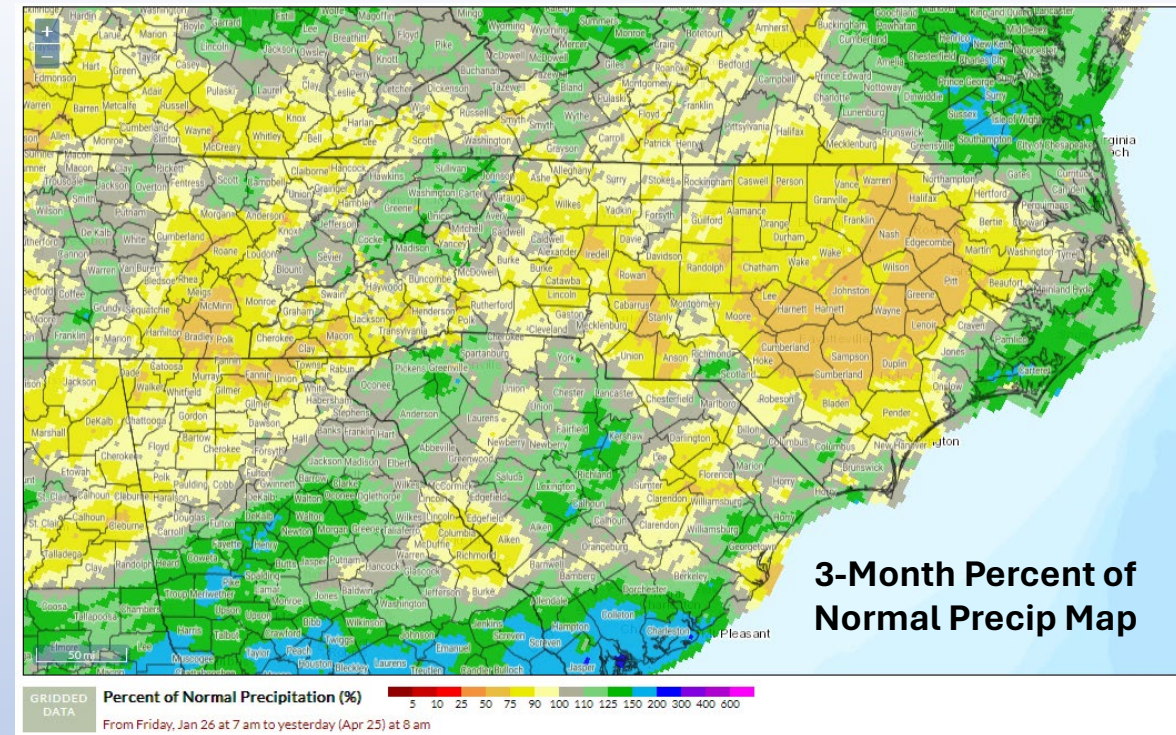
Shading and wind interception benefits are increasing as Spring progresses. Yard greening has also helped limit debris burning escapes while adequate soil moisture remains.

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 Upper Coastal Plain now approaching only ~60-65 percent of normal precipitation at the 3-month scale. The next week looks to have minimal rain chances along with very warm conditions & increasing evaporative demands.

If lack of rain continues into the growing season for these areas, **flash drought/rapid onset drought conditions could potentially develop**. See forecast discussion from the CPC [here](#).



Regional Comments for this Week – R1

D8- Rain last weekend paused fire activity and rehydrated some of our organic soils. Drying conditions yesterday and today has significantly lowered fuel moistures, however soil moisture is still elevated compared to where we were the last two weeks. Green up continues at a rapid pace, given overall soil moisture and soil temperature, but was slowed slightly by a few cool nights recently. Sap flow has resumed with daytime temps today reaching 70 in most places. *Quercus* and *Carya* are ahead of normal pace, which are usually a good judge of leaf development and hardening of *Ilex* species, however, haven't had the opportunity to focus on them personally. Genera in the pocosin fuel composite such as *Persea* and *Ilex* are fully available and will readily have fast rates of spread when high temperatures and high winds are combined. Organic soils are largely capped with moisture from recent rains, however they remain dry several inches down in some areas and can be ignited via wicks, such as stump holes and around tree bases.

D4- Rain on Sunday set in over most of the district and provided a long-term soaking. This eased IA a great deal. However, north of the Tar-Pam River and areas south around Holly Ridge received very little precipitation and thus, we have seen a moderate amount of occurrence. Expect increased drying through the weekend as temps steadily rise, rh moderates in the mid 30s to low 40s and winds come back around from the sw. Green up is about 85% or better across the district. Pocosin fuel is available but expect minimal ground fire from starts through the next week. Continued drying in these areas will increase the chance of ground fire and the need for aggressive mop up.

D13- 3 successful burns this week. Pocosin fuel species burned well. Poor overnight Rh recovery allowed early starts to burning and very active by 1500. No fire activity but with lack of rain, fire potential is increased. Concern growing about lightning starts. Most maple at 80% leafed out and leaved almost full size. Pecans at 60%.

D7- Similar to D13's notes. Received a few very light rain showers. District tracked Buildup is at 58 in D7... activity usually picks up when over 50 this time of year.

Regional Comments for this Week – R2

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 ranges from 90-100% in D5, D6, D3. Leaf out is around 90-95% for most of D10 and D11 with Surry/Stokes a week behind.
- Fires in Pine Plantations or Sand ridges are still actively burning.
- Fires in Hardwood areas have been burning at lower intensities or going out due to leaf out/green up.
- Trafficability is an issue in creek drainages and other wet areas in D6, D5 and parts of D3.



Person County 4/20/24

Very thick pine stand, lots of ladder fuels, very active fire. 22 acres burned.

Regional Comments:

- Last weekend's precipitation was more significant than forecasted, however it should **not** be considered a season ending event.
- Fire occurrence continues to decrease as green up continues.
- Temperatures were generally average this week, with no precipitation and light wind.
- Canopy green-up is 70-90% at elevations below 2,000', between 2,000-3,000' green-up is 40-60%, and between 3,000-4,000' green-up is 30-50%
- Next week's weather will likely include above average temperatures with chances of light rainfall spread throughout the week.

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

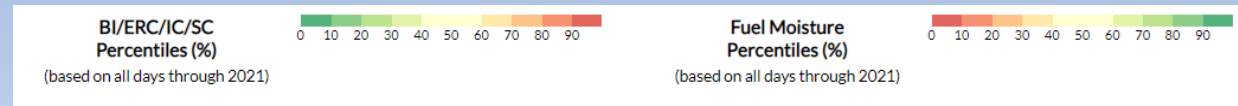
Averaged by FDRA SIG Group

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

4/25/24 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	2024-04-25	87.37 81.7%	42.83 87.9%	13.83 95.1%	36.17 75.5%	113.33	9.51 11.3%	14.62 20.8%	17.80 31.0%	23.08 87.0%	99.23	97.33	70.7°F	26.0%	W 4.0 mph	0.00 in.	0.0
Central Mountains	3	2024-04-25	25.17 42.8%	18.83 57.0%	4.27 63.0%	5.47 31.7%	97.00	10.67 24.4%	17.39 42.0%	18.15 34.3%	22.08 83.1%	201.67	162.00	71.3°F	27.7%	ESE 2.0 mph	0.00 in.	0.0
Northern Highlands	2	2024-04-25	25.40 44.9%	11.45 36.6%	2.75 58.1%	9.60 56.3%	69.00	14.60 53.8%	23.03 77.0%	22.14 82.1%	22.93 91.2%	191.30	162.50	64.5°F	41.5%	SSE 4.0 mph	0.00 in.	0.0
Blue Ridge Escarpment	3	2024-04-25	57.03 66.9%	36.80 75.8%	10.40 80.5%	17.27 61.8%	174.00	9.03 14.7%	13.42 15.8%	15.54 15.0%	18.08 20.5%	139.43	125.67	74.3°F	29.0%	SSE 3.7 mph	0.00 in.	0.0
Western Piedmont	3	2024-04-25	29.83 37.5%	21.97 44.3%	5.03 49.6%	6.73 34.2%	200.67	10.57 43.9%	17.03 58.2%	19.68 72.4%	21.26 76.6%	171.67	147.00	74.0°F	35.0%	SE 4.0 mph	0.00 in.	0.0
Sandhills	3	2024-04-25	30.17 33.6%	33.93 38.9%	9.80 60.2%	4.53 47.6%	166.33	9.65 32.4%	17.97 61.7%	18.17 40.5%	20.18 64.0%	245.10	195.33	78.7°F	28.7%	SW 4.0 mph	0.00 in.	0.0
Eastern Piedmont	4	2024-04-25	22.25 13.3%	12.93 17.7%	2.10 20.7%	6.23 10.0%	177.00	14.15 66.7%	19.38 67.7%	19.81 68.6%	19.89 62.9%	214.28	177.00	71.5°F	49.0%	ENE 6.8 mph	0.02 in.	1.0
Southern Coastal	7	2024-04-25	24.71 18.6%	17.37 24.0%	3.79 36.4%	5.99 14.7%	233.00	11.64 47.5%	18.14 57.8%	19.67 60.0%	21.65 77.3%	223.76	179.71	78.1°F	42.0%	E 5.1 mph	0.02 in.	0.9
Northern Coastal	4	2024-04-25	26.13 18.7%	18.40 25.5%	3.80 35.0%	6.08 13.6%	273.25	11.64 48.6%	17.64 63.0%	19.14 52.8%	21.06 70.2%	219.35	184.50	70.3°F	51.5%	ENE 6.3 mph	0.03 in.	1.0

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.



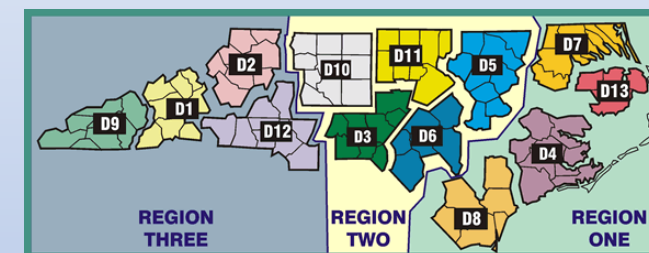
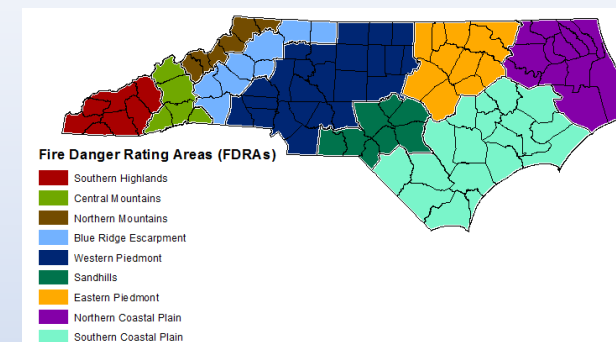
Important notes for next slide group:

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:

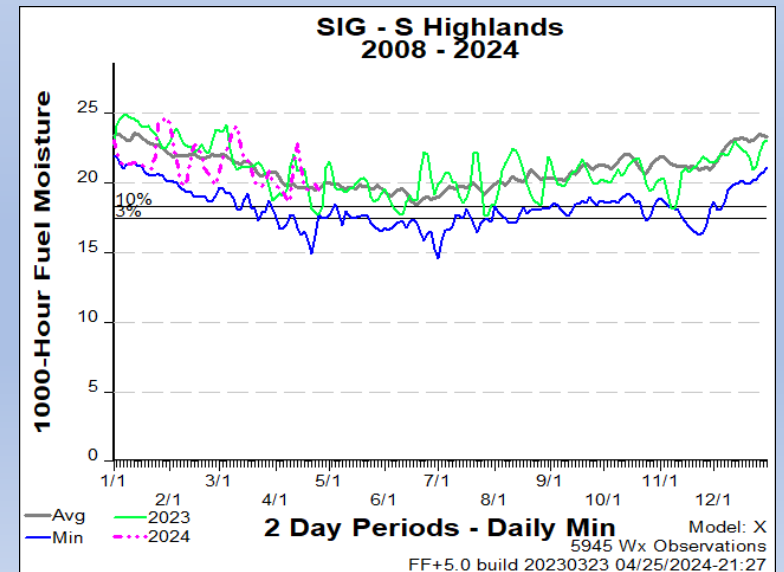
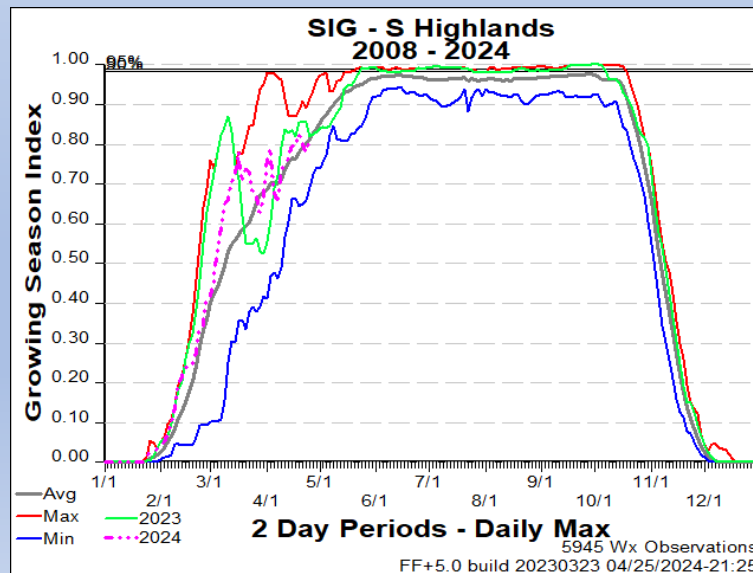
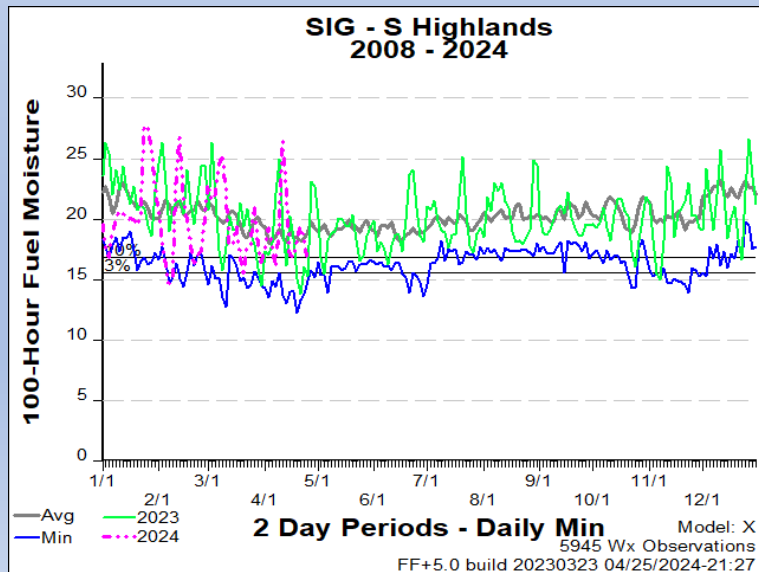
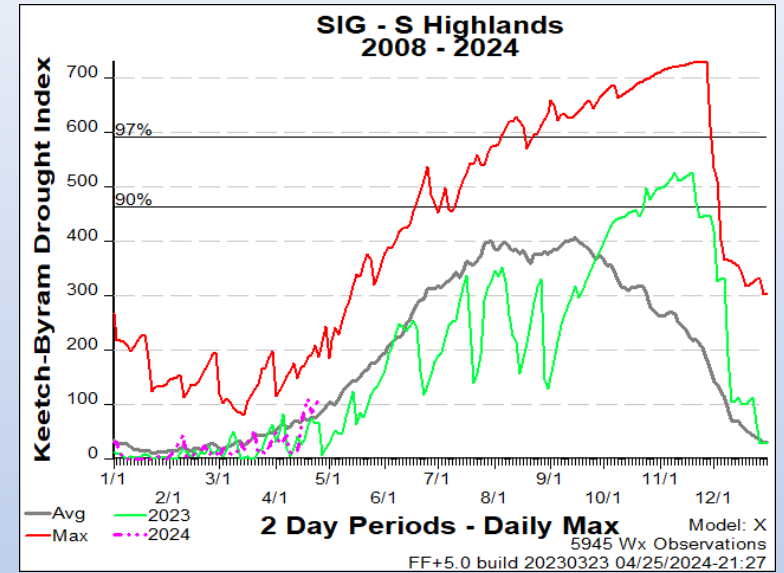
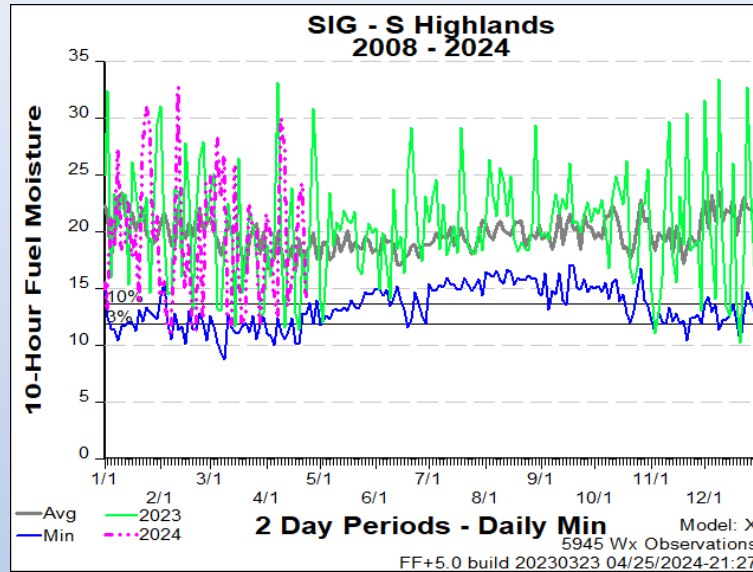
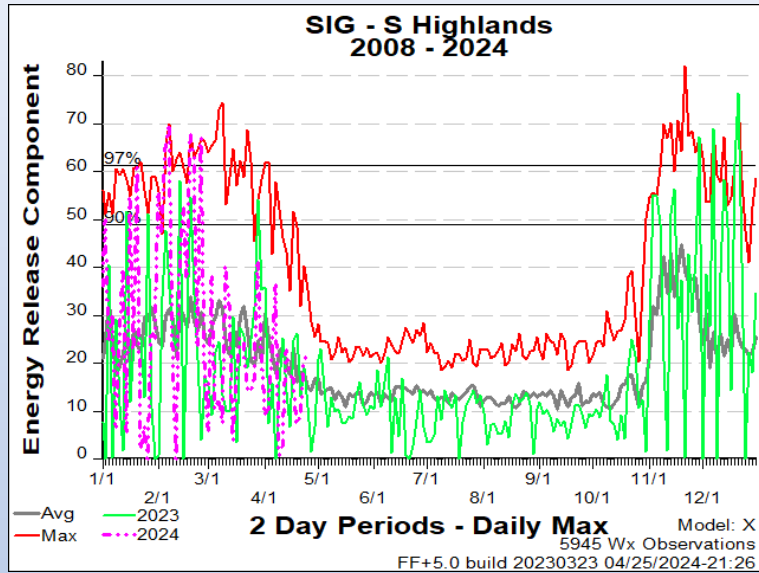
- Read the key and notes for each FDRA, included on the outlook matrix page.
- Forecasts are variable and can change significantly over a forecast cycle and across the landscape.
- This is another tool for gaining better situational awareness, and should be used for general planning purposes only.
- 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 26-Apr	SAT 27-Apr	SUN 28-Apr	MON 29-Apr	TUE 30-Apr	WED 01-May	THU 02-May
Avg. Max. Temp. (°F)	64	67	72	76	74	77	77
Avg. Min. Humidity (%)	59	52	44	39	51	45	42
Avg. 20' Wind Speed (mph)	8	10	9	7	7	6	7
Avg. Wind Direction*	SE	SE	SSE	SSE	SSW	WSW	W
Avg. Probability of Precip. (%)	26	8	2	28	48	27	28
Days Since a Wetting Rain**	6.0	7.0	8.0	9.0			
Forecast ERC (Fuel Model X)	31.2	18.6	17.7	19.3	20.9	19.4	22.9
Forecast BI (Fuel Model X)	76.3	60.0	55.0	55.9	56.7	52.3	66.9
Forecast IC (Fuel Model X)	9.0	5.7	6.0	7.1	7.4	6.2	8.3
Forecast 100-Hr. FMC	17.1	17.0	17.2	17.4	17.4	17.3	17.2
Forecast 1000-Hr. FMC	22.9	22.6	22.4	22.2	22.0	21.8	21.5
KBDI	113.3						

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

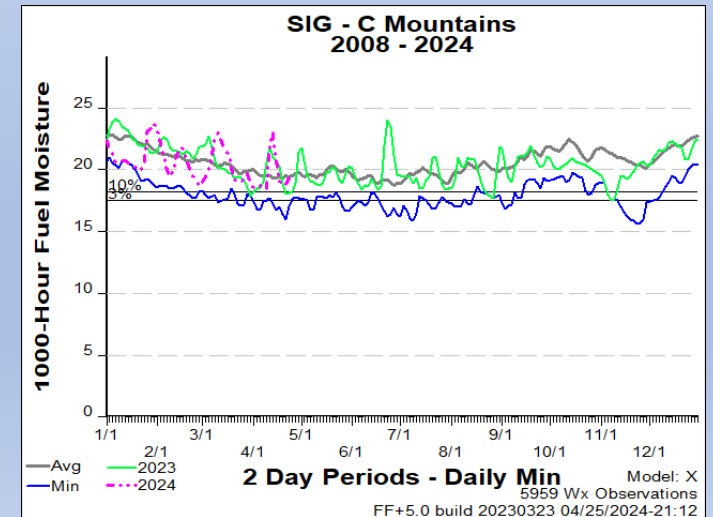
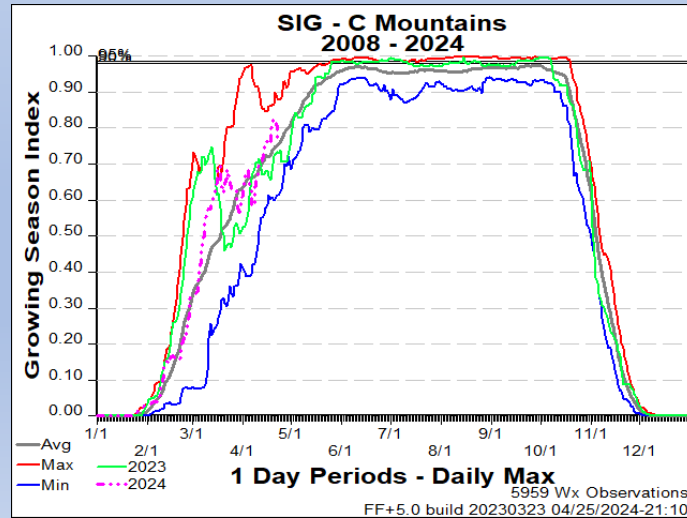
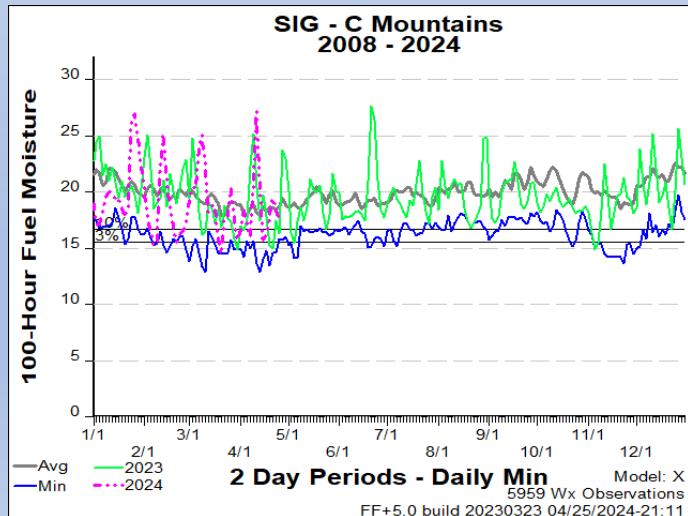
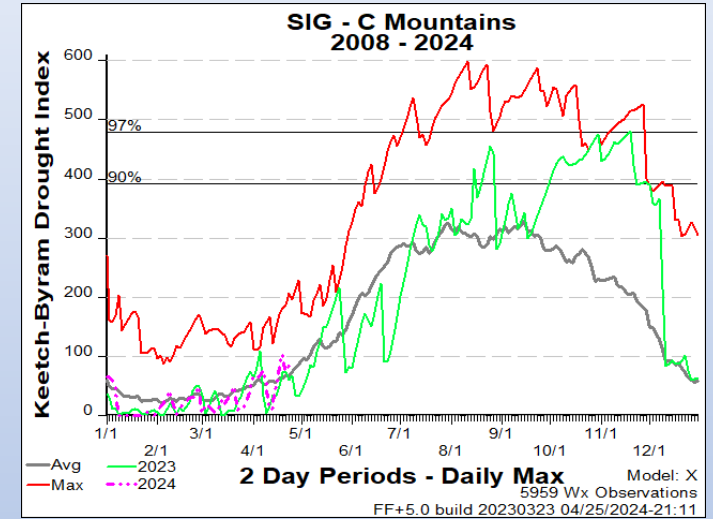
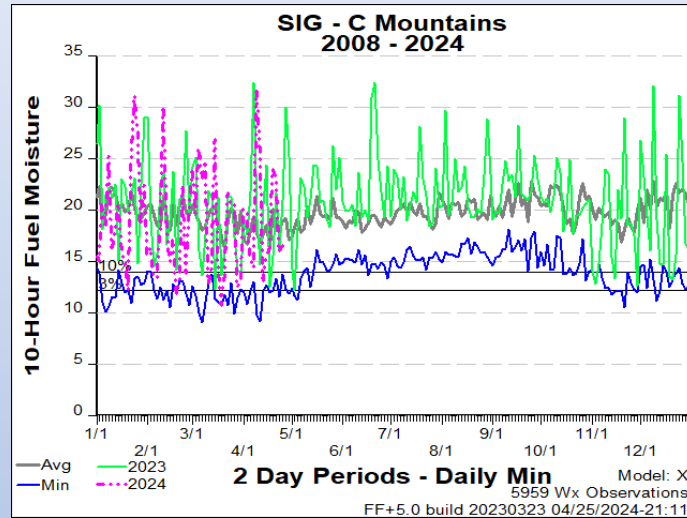
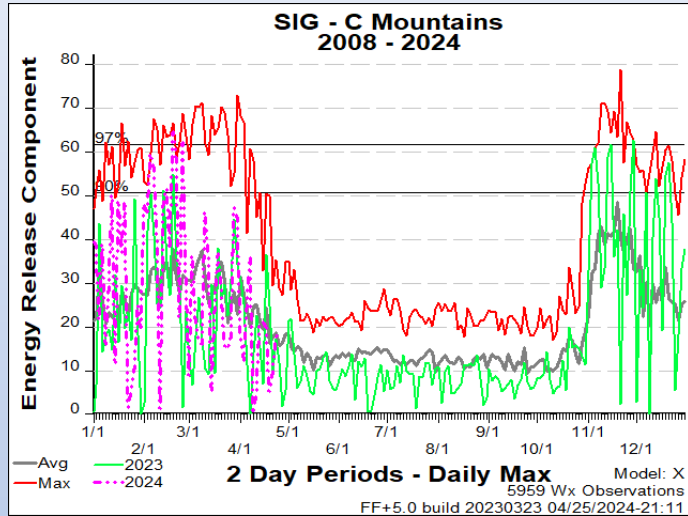
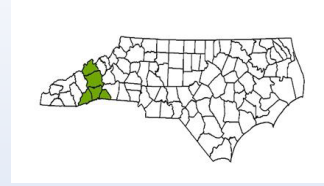
Values in the table above are averages from 3 stations in this FDRA:

- 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 26-Apr	SAT 27-Apr	SUN 28-Apr	MON 29-Apr	TUE 30-Apr	WED 01-May	THU 02-May
Avg. Max. Temp. (°F)	64	71	77	81	79	81	80
Avg. Min. Humidity (%)	63	50	42	36	48	41	39
Avg. 20' Wind Speed (mph)	7	9	9	7	7	6	7
Avg. Wind Direction*	SSE	SSE	S	S	SW	W	WNW
Avg. Probability of Precip. (%)	31	13	4	30	50	29	29
Days Since a Wetting Rain**	4.3	5.3	6.3	7.3			
Forecast ERC (Fuel Model X)	14.9	12.2	13.5	14.3	15.3	14.1	14.8
Forecast BI (Fuel Model X)	33.2	31.4	33.3	31.1	31.2	30.0	32.8
Forecast IC (Fuel Model X)	3.9	3.2	4.6	4.9	5.1	4.7	5.2
Forecast 100-Hr. FMC	18.0	18.0	18.0	17.8	17.5	17.2	17.1
Forecast 1000-Hr. FMC	22.0	21.9	21.7	21.6	21.4	21.3	21.1
KBDI	97.0						

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.
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- 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

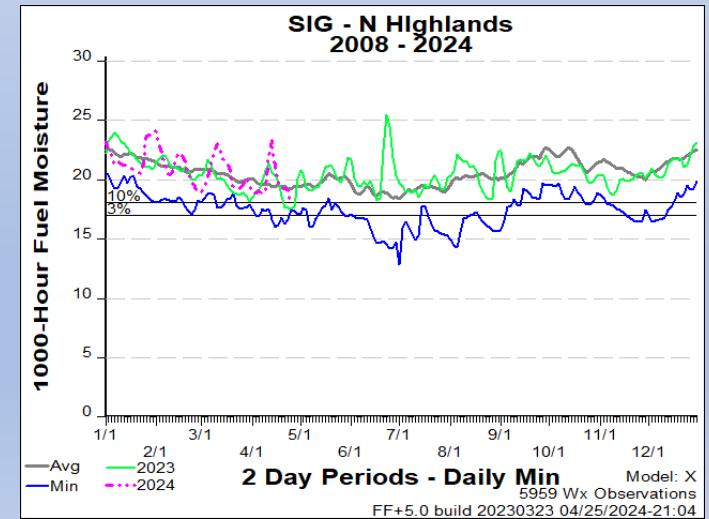
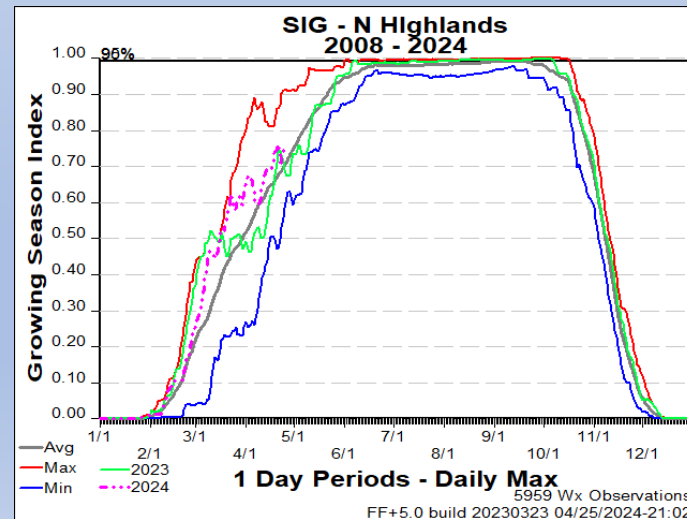
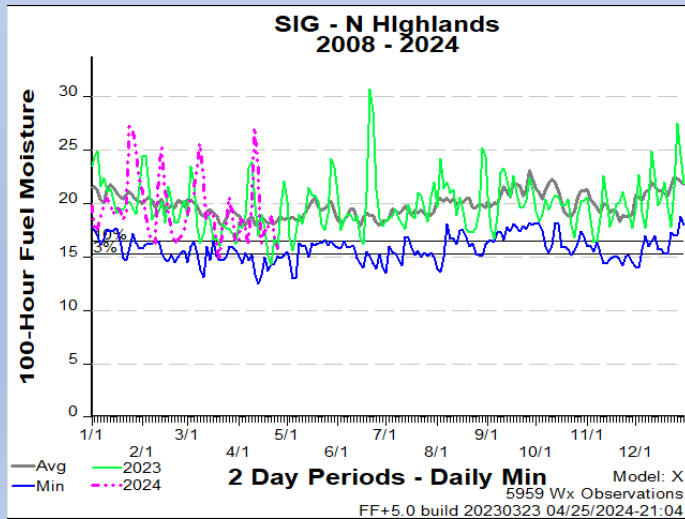
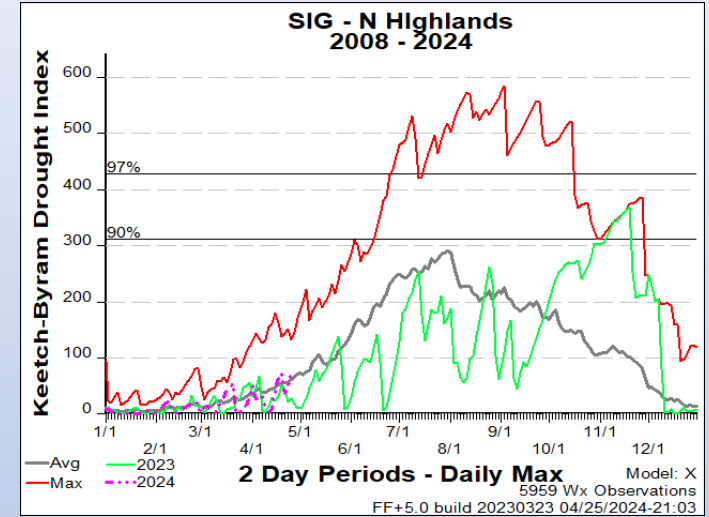
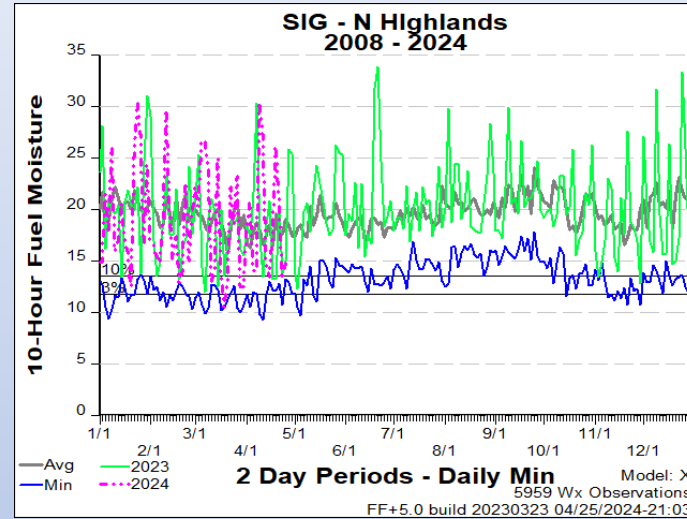
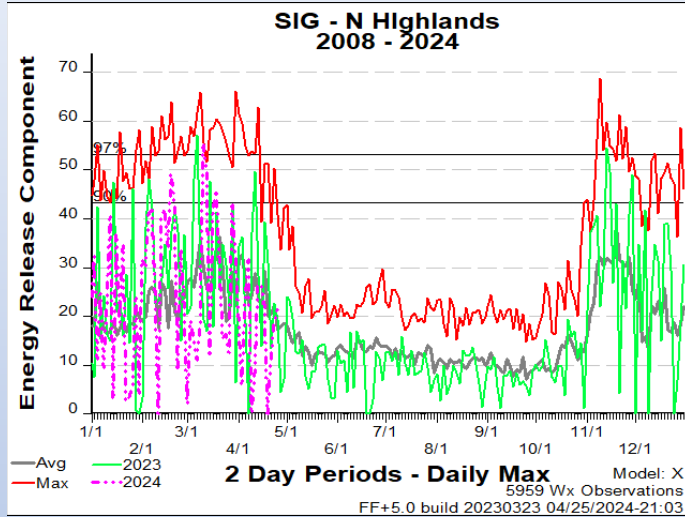
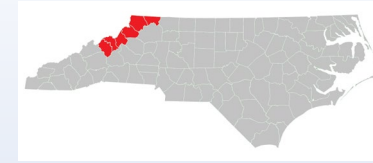
Values in the table above are averages from 3 stations in this FDRA:

- 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 26-Apr	SAT 27-Apr	SUN 28-Apr	MON 29-Apr	TUE 30-Apr	WED 01-May	THU 02-May
Avg. Max. Temp. (°F)	56	64	72	76	74	76	74
Avg. Min. Humidity (%)	71	61	50	41	52	45	46
Avg. 20' Wind Speed (mph)	8	9	7	6	7	6	8
Avg. Wind Direction*	SSE	SSE	SSW	SSW	WSW	W	WNW
Avg. Probability of Precip. (%)	29	18	8	17	55	29	32
Days Since a Wetting Rain**	0.7	0.3	1.3	2.3			
Forecast ERC (Fuel Model X)	11.1	8.3	11.7	14.2	16.6	13.3	15.5
Forecast BI (Fuel Model X)	25.4	24.4	31.6	33.1	33.2	28.9	33.5
Forecast IC (Fuel Model X)	1.7	1.4	3.2	4.5	4.6	3.9	4.6
Forecast 100-Hr. FMC	22.2	22.0	21.6	20.9	19.8	19.3	19.1
Forecast 1000-Hr. FMC	23.5	23.1	23.3	23.5	23.3	23.3	23.2
KBDI	69.0						

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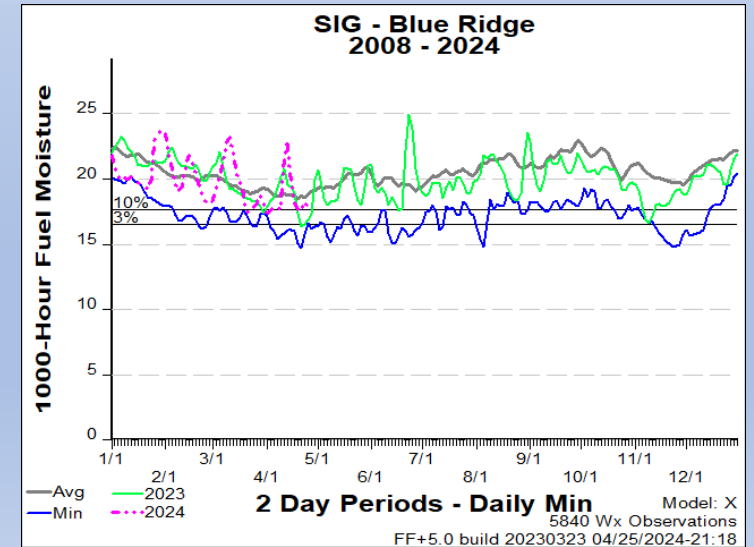
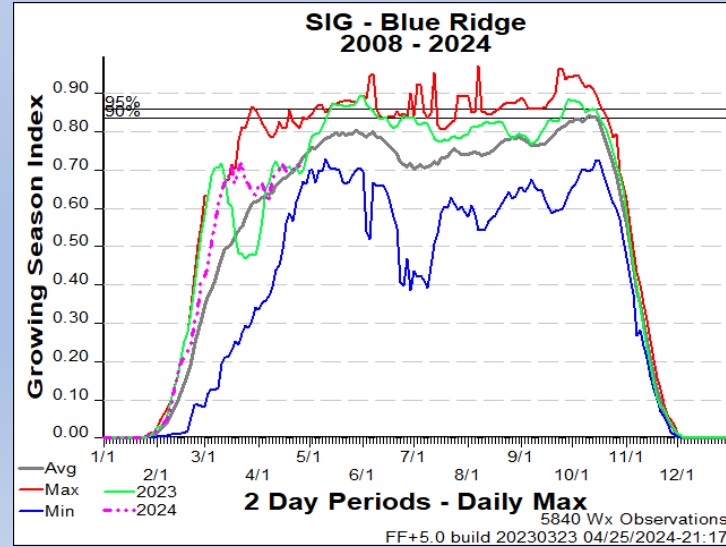
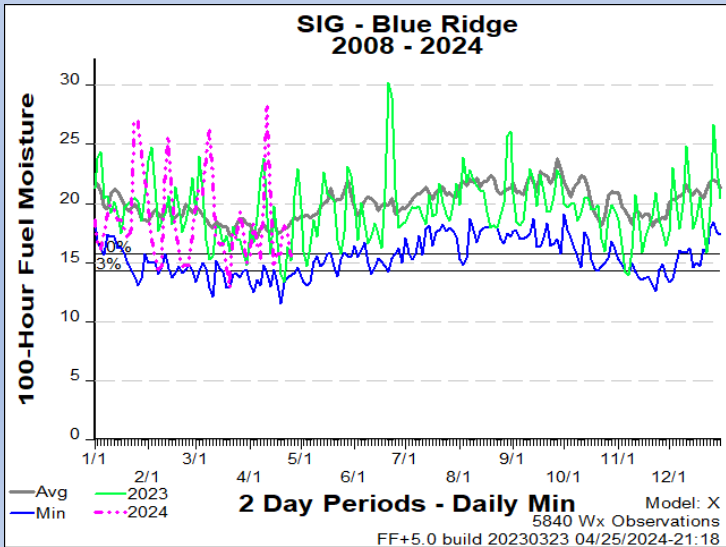
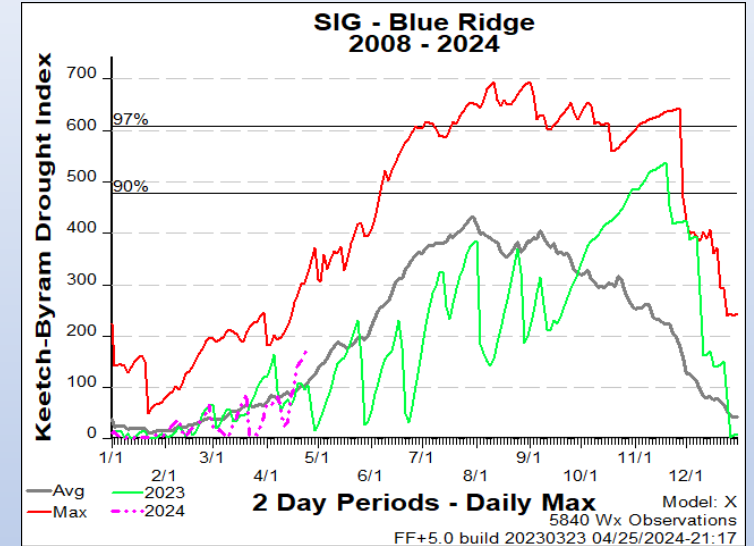
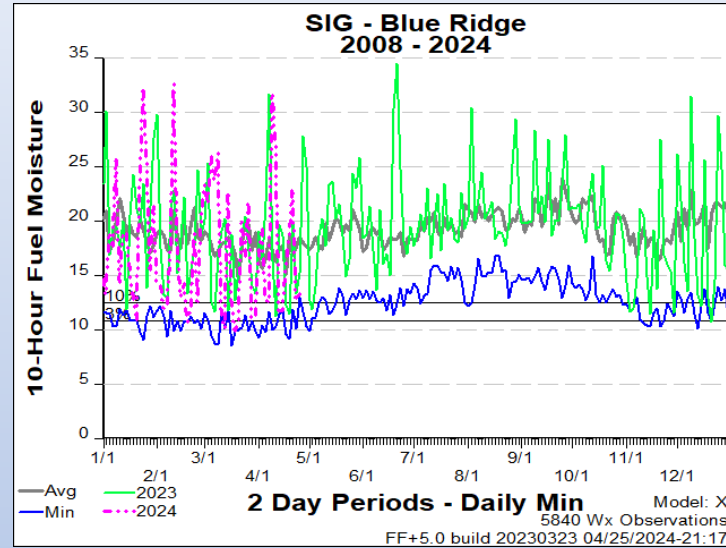
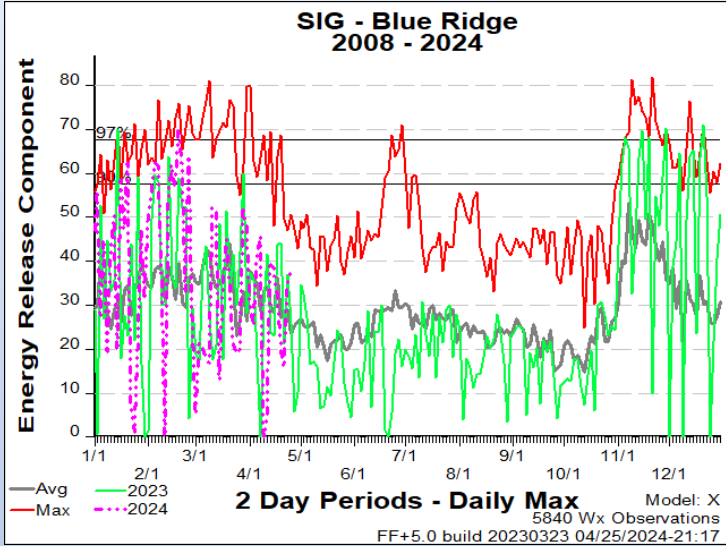
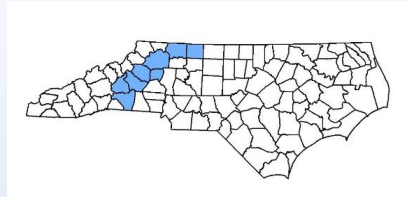
- Weather forecasts come from the National Weather Service's [Digital Forecast Database](#). The wind speed and direction, and probability of precipitation, are calculated as averages of the 1 am, 7 am, 1 pm, and 7 pm forecasts. The 20-foot wind speed is estimated from the 10-meter forecast using the 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 26-Apr	SAT 27-Apr	SUN 28-Apr	MON 29-Apr	TUE 30-Apr	WED 01-May	THU 02-May
Avg. Max. Temp. (°F)	62	70	76	80	80	82	81
Avg. Min. Humidity (%)	62	53	44	38	45	41	38
Avg. 20' Wind Speed (mph)	6	6	7	6	6	5	6
Avg. Wind Direction*	E	SE	SSW	SW	WSW	W	WNW
Avg. Probability of Precip. (%)	26	14	5	19	45	26	28
Days Since a Wetting Rain**	6.0	7.0	8.0	9.0			
Forecast ERC (Fuel Model X)	24.8	19.9	22.2	24.3	27.2	25.9	29.5
Forecast BI (Fuel Model X)	46.0	51.7	57.5	60.3	60.6	57.0	64.5
Forecast IC (Fuel Model X)	4.2	4.3	6.6	8.1	8.8	7.9	9.0
Forecast 100-Hr. FMC	15.3	16.7	17.3	17.0	16.5	16.4	16.3
Forecast 1000-Hr. FMC	17.9	17.8	17.9	18.0	17.8	17.6	17.4
KBDI	174.0						

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.

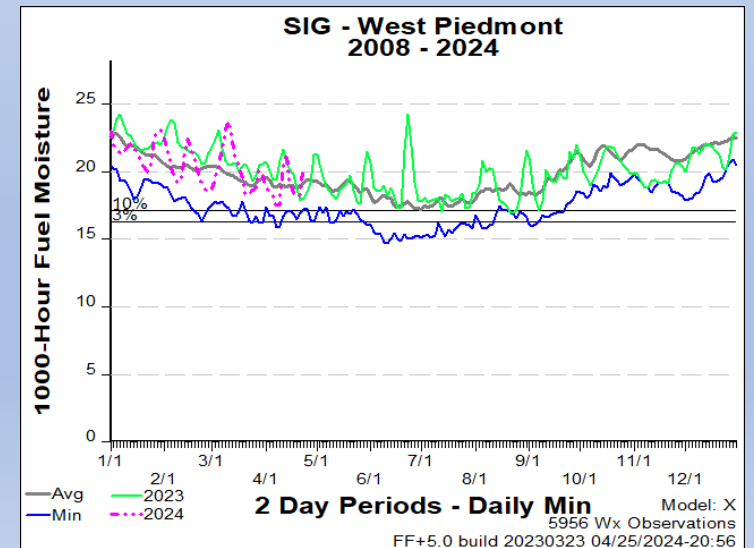
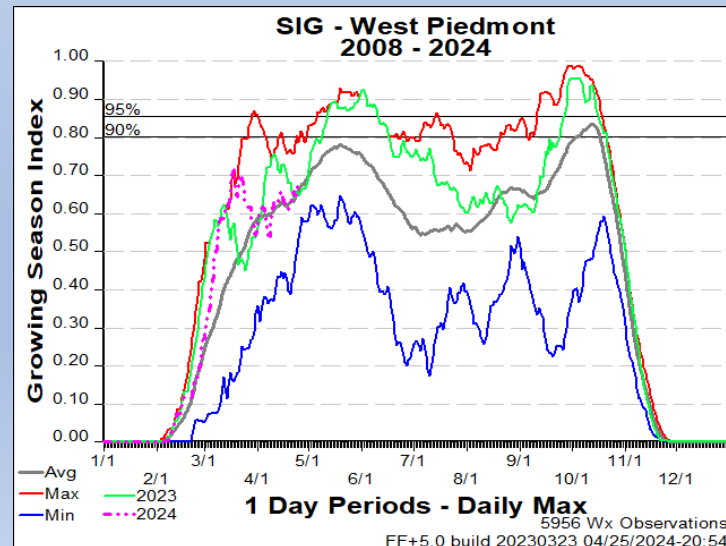
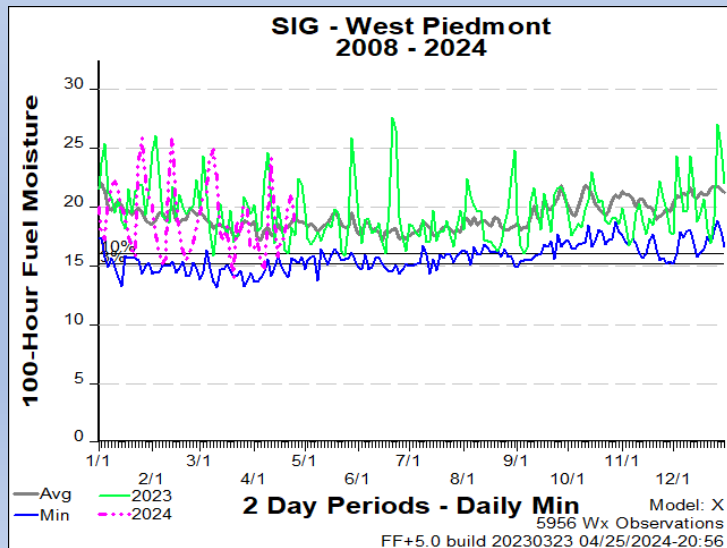
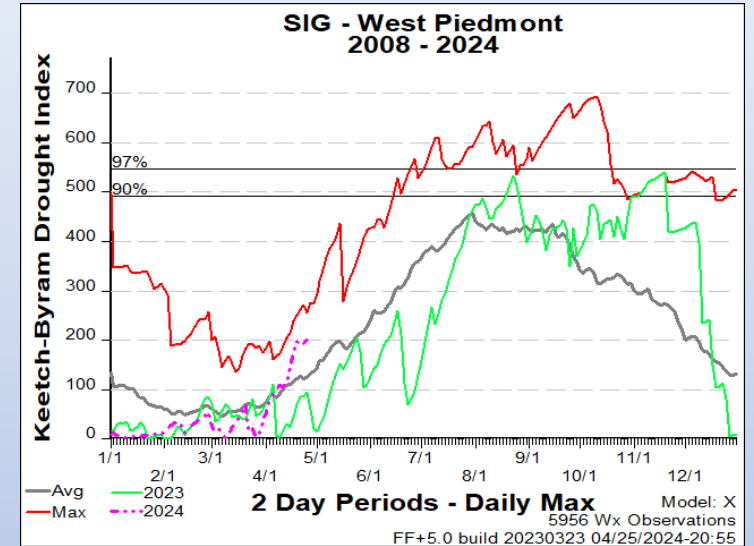
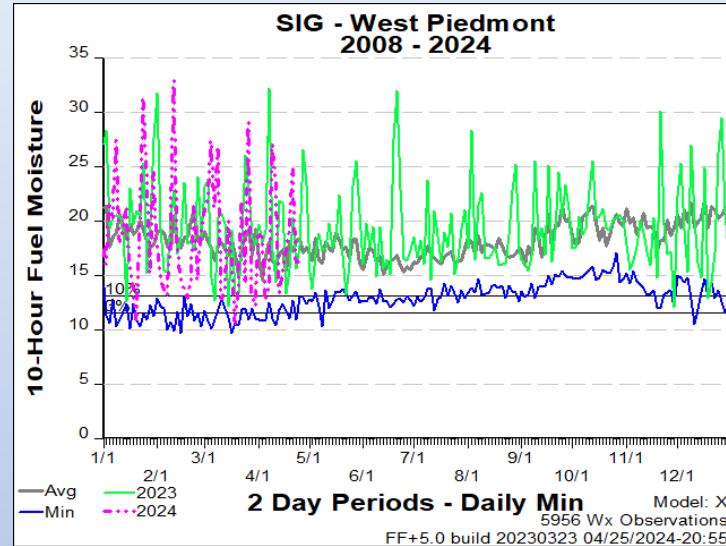
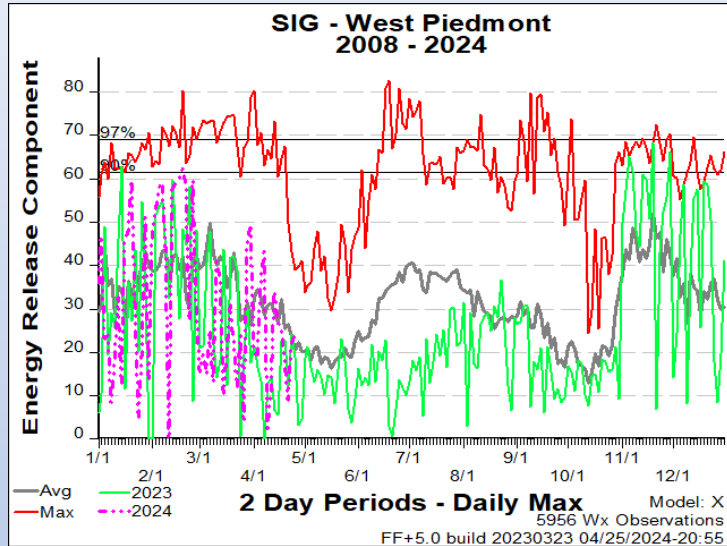
Values in the table above are averages from 3 stations in this FDRA:

- 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 26-Apr	SAT 27-Apr	SUN 28-Apr	MON 29-Apr	TUE 30-Apr	WED 01-May	THU 02-May
Avg. Max. Temp. (°F)	69	75	79	84	85	86	87
Avg. Min. Humidity (%)	54	45	43	38	37	39	35
Avg. 20' Wind Speed (mph)	6	5	4	5	6	4	4
Avg. Wind Direction*	E	SE	SSW	SW	SW	WSW	WSW
Avg. Probability of Precip. (%)	13	6	1	4	18	19	20
Days Since a Wetting Rain**	6.0	7.0	8.0	9.0			
Forecast ERC (Fuel Model X)	17.0	15.1	15.6	16.8	18.4	17.6	18.5
Forecast BI (Fuel Model X)	26.8	25.6	31.0	33.7	37.3	32.0	38.3
Forecast IC (Fuel Model X)	3.1	3.0	4.4	5.6	6.9	5.3	6.6
Forecast 100-Hr. FMC	18.8	18.4	18.2	17.9	17.5	17.2	17.1
Forecast 1000-Hr. FMC	21.3	21.3	21.3	21.2	21.0	20.8	20.6
KBDI	200.7						

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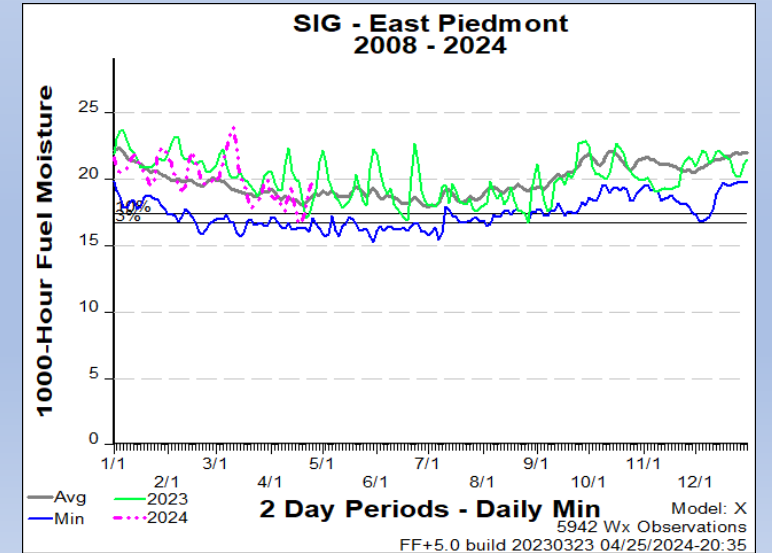
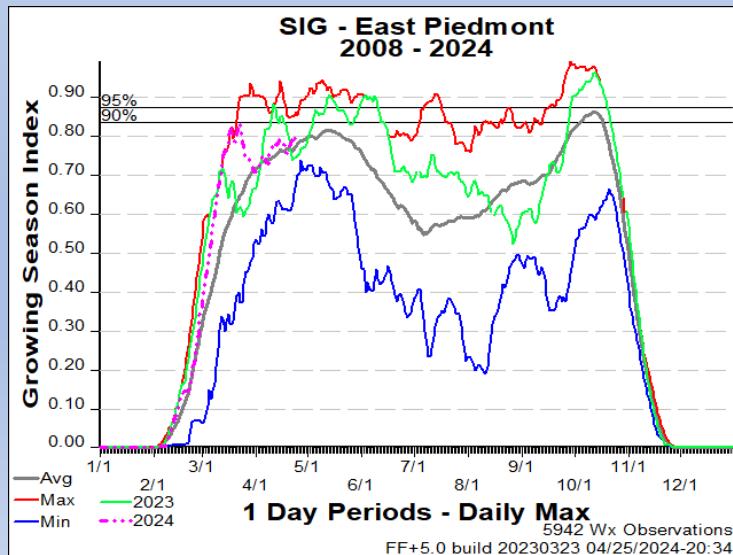
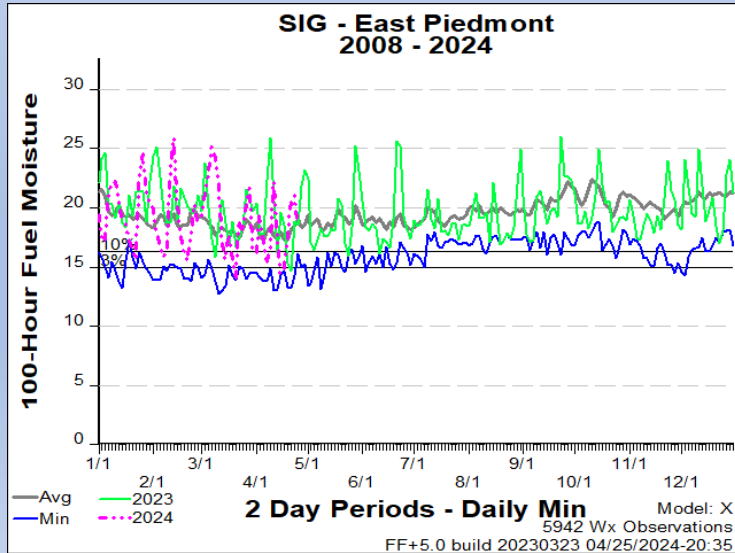
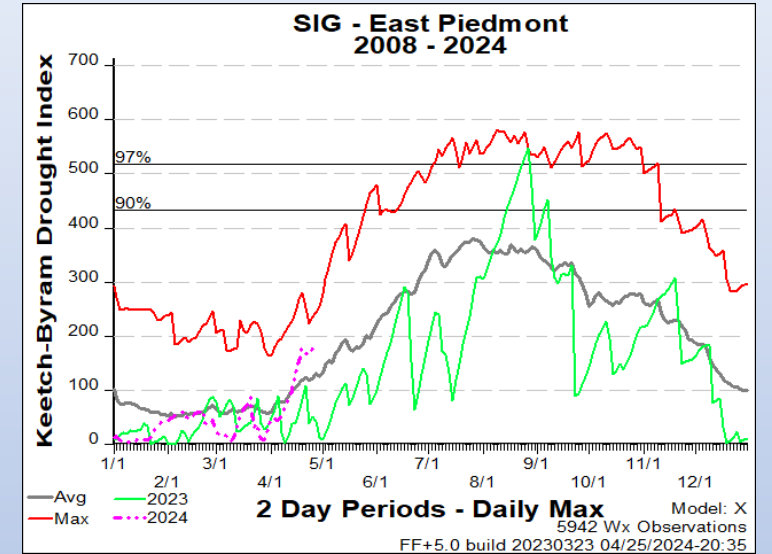
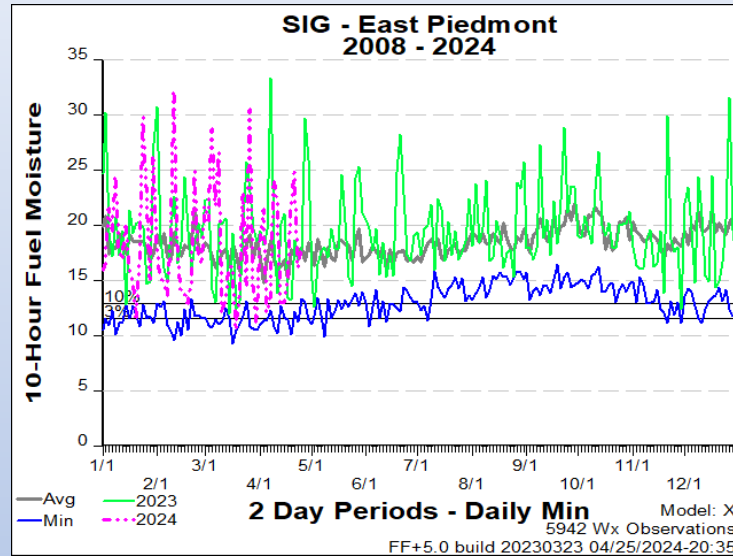
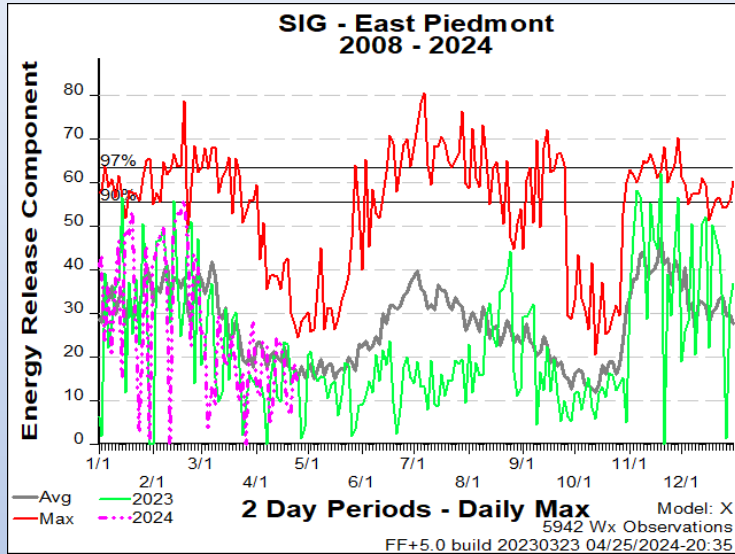
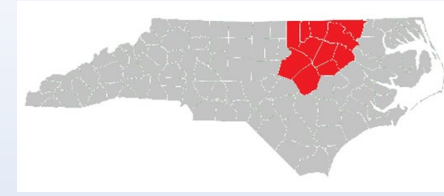
- Weather forecasts come from the National Weather Service's [Digital Forecast Database](#). The wind speed and direction, and probability of precipitation, are calculated as averages of the 1 am, 7 am, 1 pm, and 7 pm forecasts. The 20-foot wind speed is estimated from the 10-meter forecast using the 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 26-Apr	SAT 27-Apr	SUN 28-Apr	MON 29-Apr	TUE 30-Apr	WED 01-May	THU 02-May
Avg. Max. Temp. (°F)	70	73	80	85	87	87	87
Avg. Min. Humidity (%)	51	48	44	40	37	41	38
Avg. 20' Wind Speed (mph)	7	5	4	4	5	3	3
Avg. Wind Direction*	E	ESE	SSW	SW	SW	SW	SW
Avg. Probability of Precip. (%)	10	12	1	1	14	19	18
Days Since a Wetting Rain**	1.0	2.0	3.0	4.0			
Forecast ERC (Fuel Model X)	14.5	13.9	15.0	16.5	17.8	18.3	18.1
Forecast BI (Fuel Model X)	25.2	20.1	29.0	32.0	35.3	32.2	37.8
Forecast IC (Fuel Model X)	2.7	2.2	4.0	5.2	6.4	5.7	6.5
Forecast 100-Hr. FMC	19.3	19.0	18.7	18.4	18.0	17.7	17.6
Forecast 1000-Hr. FMC	20.0	20.1	20.2	20.2	20.2	20.1	20.0
KBDI	177.0						

Data Source:

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

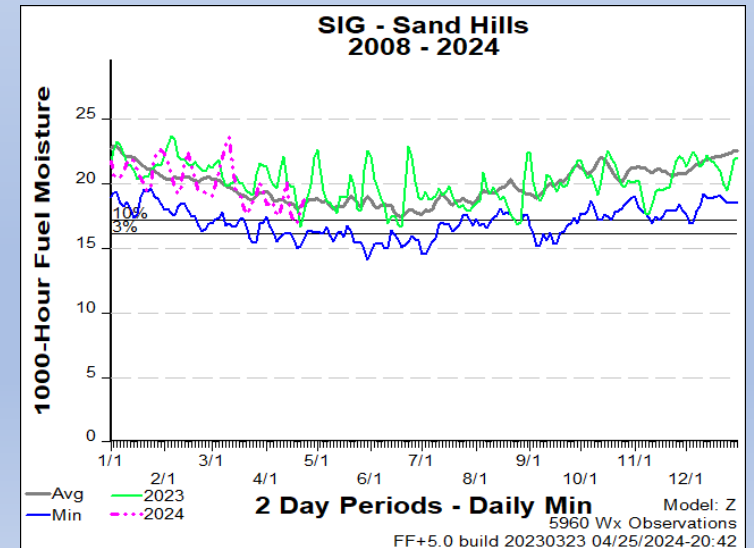
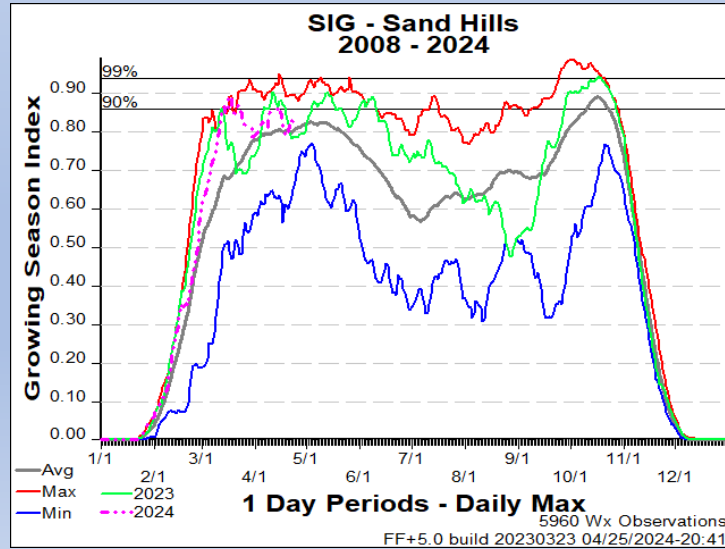
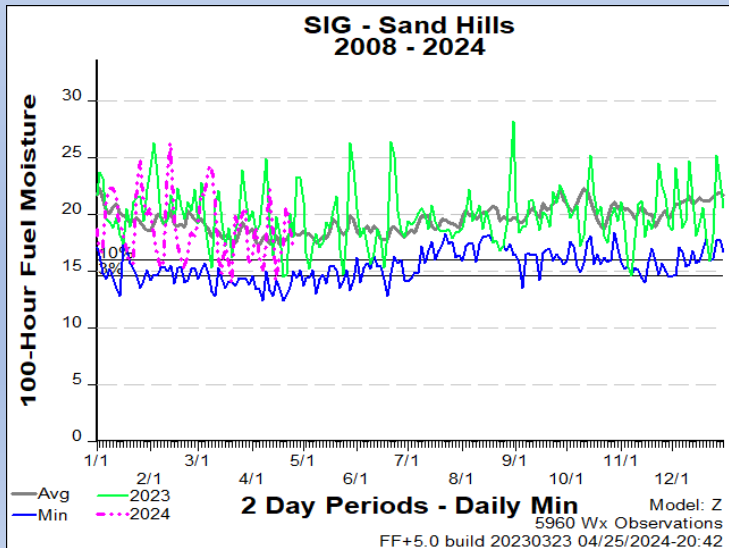
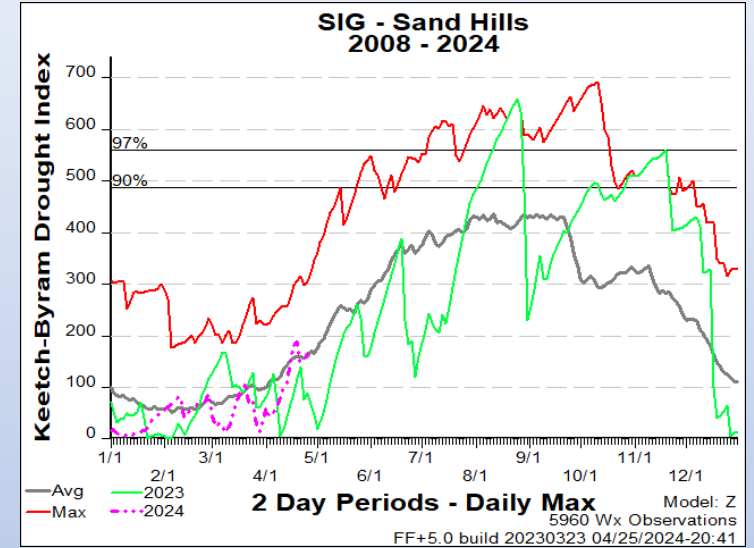
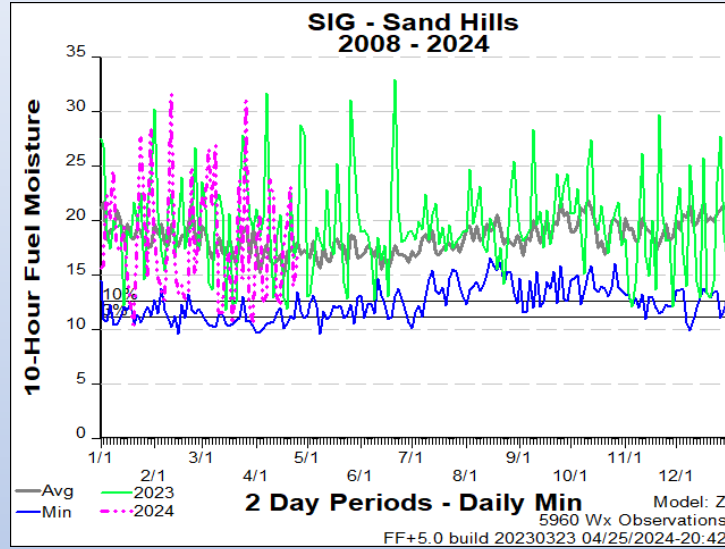
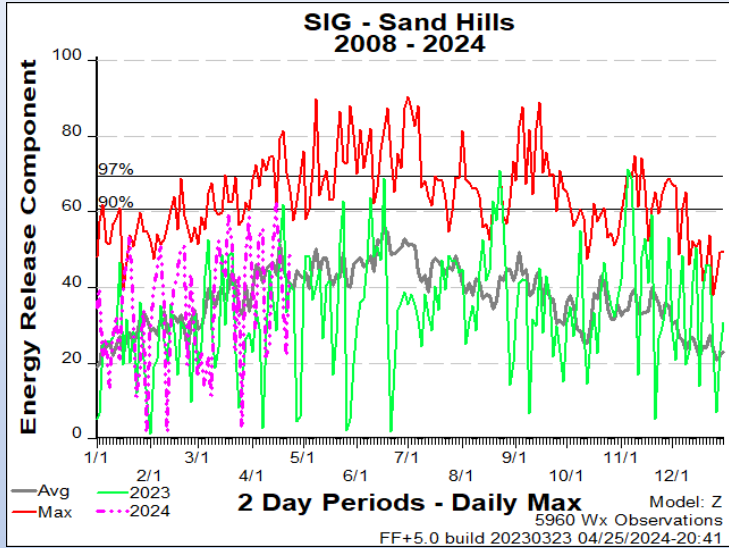
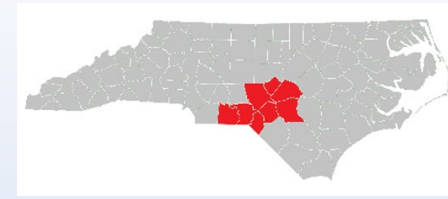
Values in the table above are averages from 4 stations in this FDRA:

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

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

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

FDRA – Sandhills



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 26-Apr	SAT 27-Apr	SUN 28-Apr	MON 29-Apr	TUE 30-Apr	WED 01-May	THU 02-May
Avg. Max. Temp. (°F)	73	78	80	85	87	88	89
Avg. Min. Humidity (%)	47	41	39	36	33	38	35
Avg. 20' Wind Speed (mph)	6	6	3	3	4	3	3
Avg. Wind Direction*	E	SE	SSW	SW	SW	SW	SW
Avg. Probability of Precip. (%)	6	2	1	0	14	20	23
Days Since a Wetting Rain**	4.3	5.3	6.3	7.3			
Forecast ERC (Fuel Model Z)	38.2	36.3	36.3	37.3	40.1	40.9	39.7
Forecast BI (Fuel Model Z)	35.2	33.9	39.2	42.7	47.6	42.6	47.9
Forecast IC (Fuel Model Z)	7.8	6.8	8.8	10.8	14.3	12.9	13.6
Forecast 100-Hr. FMC	17.9	17.8	17.9	17.9	17.8	17.6	17.5
Forecast 1000-Hr. FMC	20.2	20.1	20.1	20.1	20.0	19.9	19.8
KBDI	166.3						

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

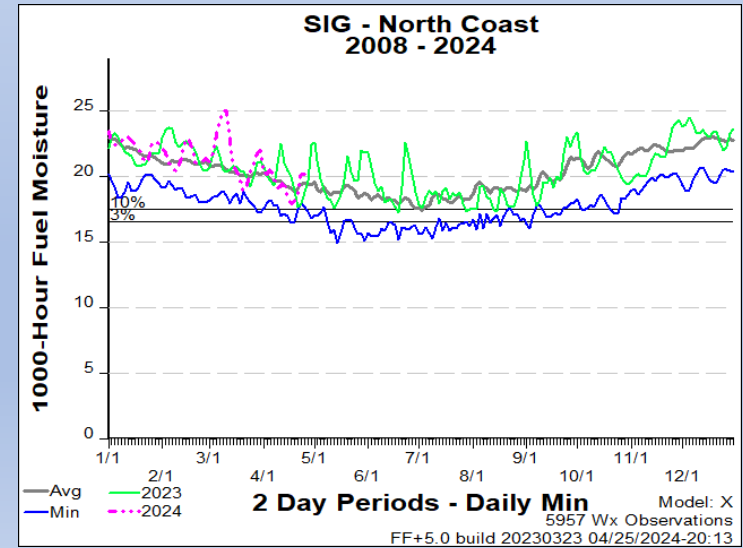
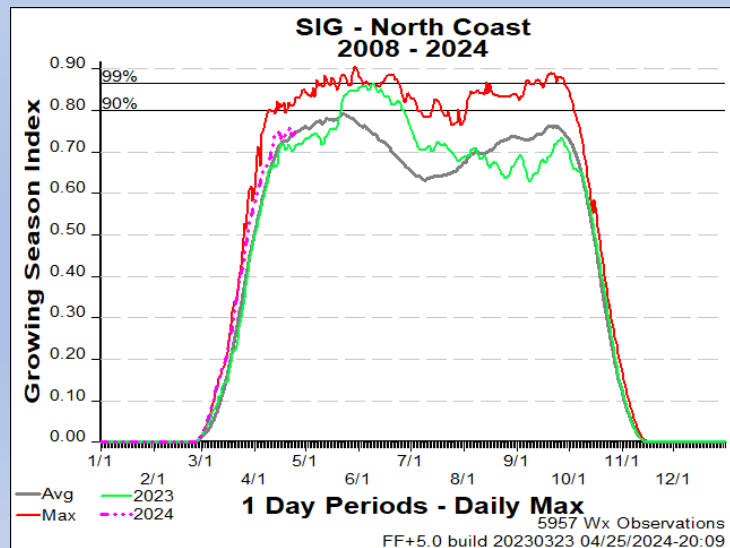
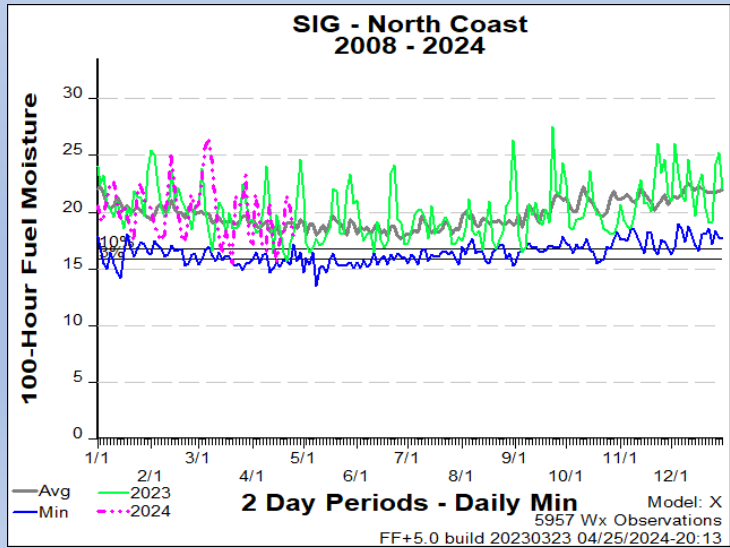
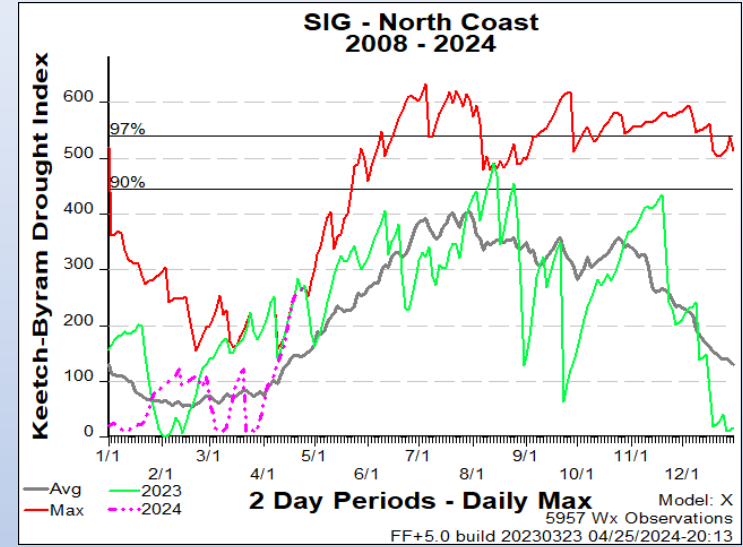
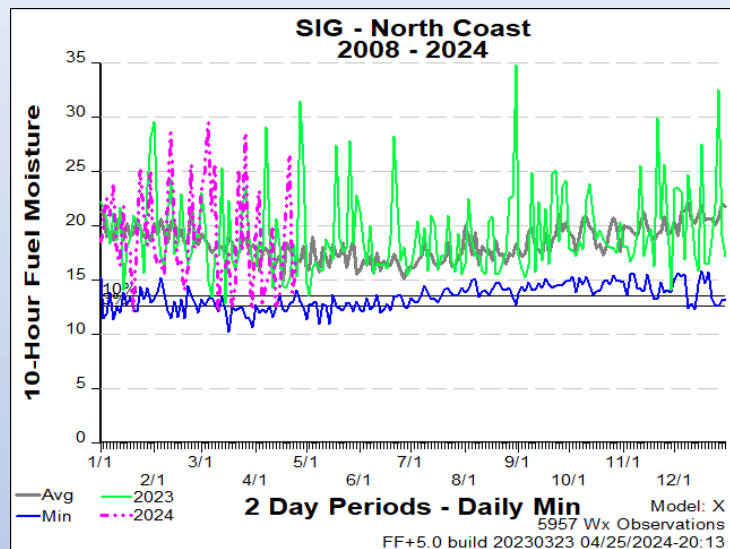
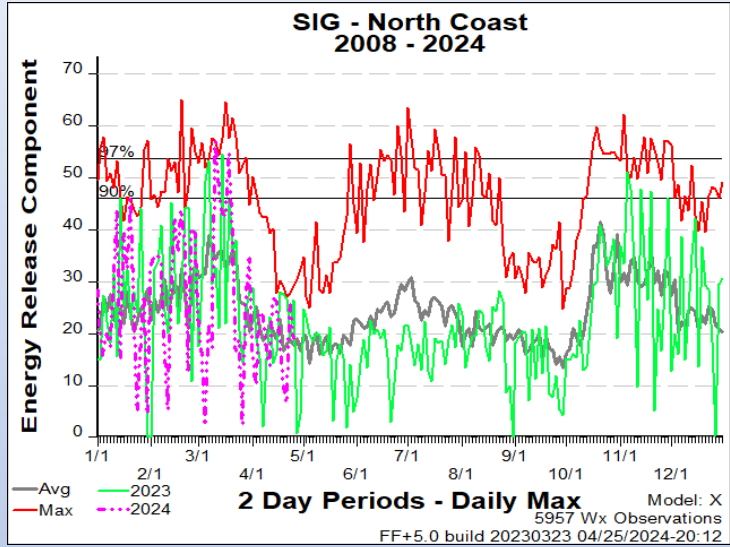
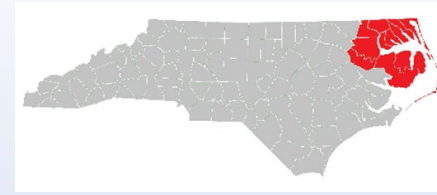
Values in the table above are averages from 3 stations in this FDRA:

- 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 26-Apr	SAT 27-Apr	SUN 28-Apr	MON 29-Apr	TUE 30-Apr	WED 01-May	THU 02-May
Avg. Max. Temp. (°F)	67	70	78	85	87	87	85
Avg. Min. Humidity (%)	57	46	46	43	43	44	45
Avg. 20' Wind Speed (mph)	8	6	6	8	8	7	8
Avg. Wind Direction*	ENE	E	SSW	SW	SW	SW	SW
Avg. Probability of Precip. (%)	1	3	0	1	8	16	15
Days Since a Wetting Rain**	6.0	7.0	8.0	9.0			
Forecast ERC (Fuel Model X)	13.8	14.2	15.6	17.2	17.1	17.4	16.2
Forecast BI (Fuel Model X)	27.5	24.3	28.0	26.8	30.4	24.4	26.2
Forecast IC (Fuel Model X)	2.4	2.3	3.4	4.1	4.8	3.7	3.4
Forecast 100-Hr. FMC	18.7	18.6	18.6	18.3	18.0	17.8	17.7
Forecast 1000-Hr. FMC	21.2	21.2	21.2	21.2	21.2	21.0	20.8
KBDI	273.3						

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.

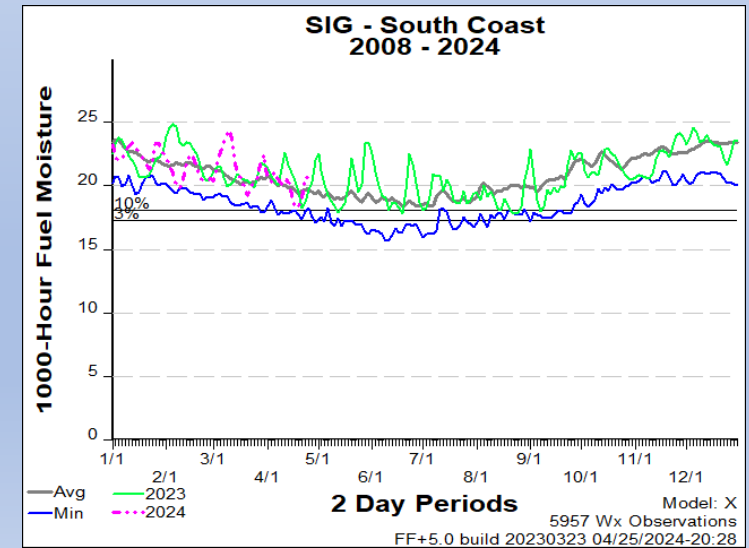
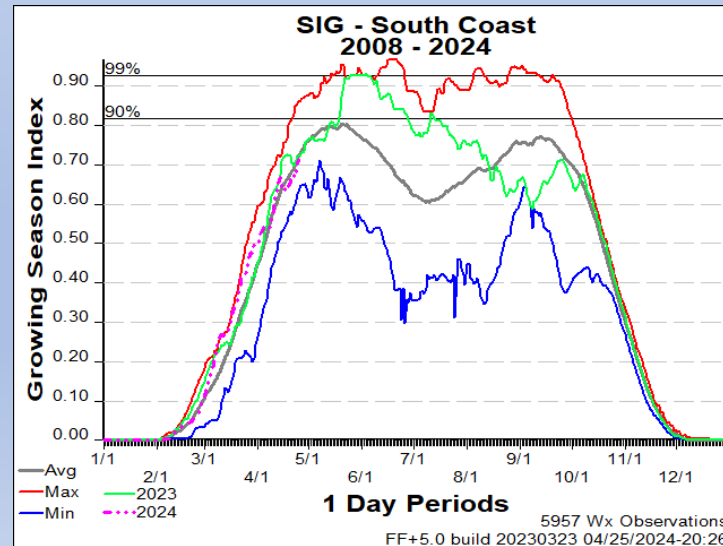
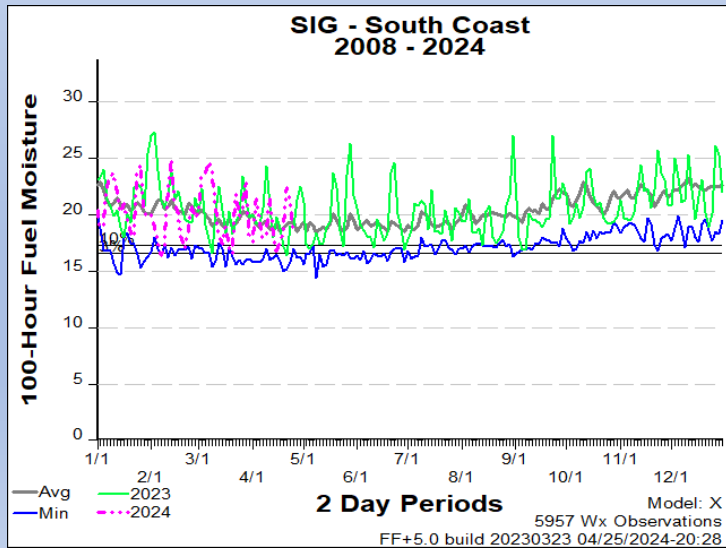
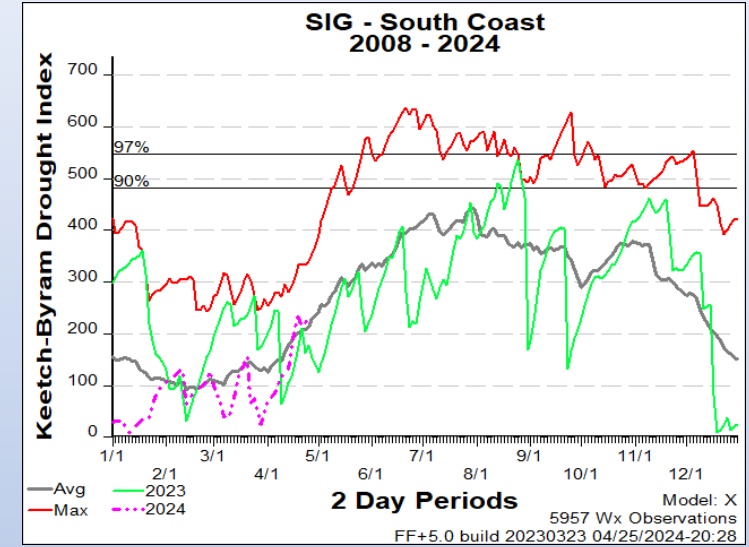
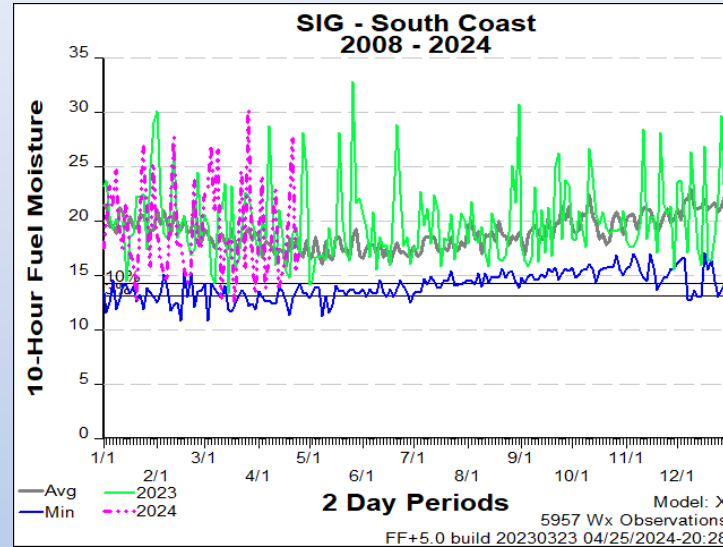
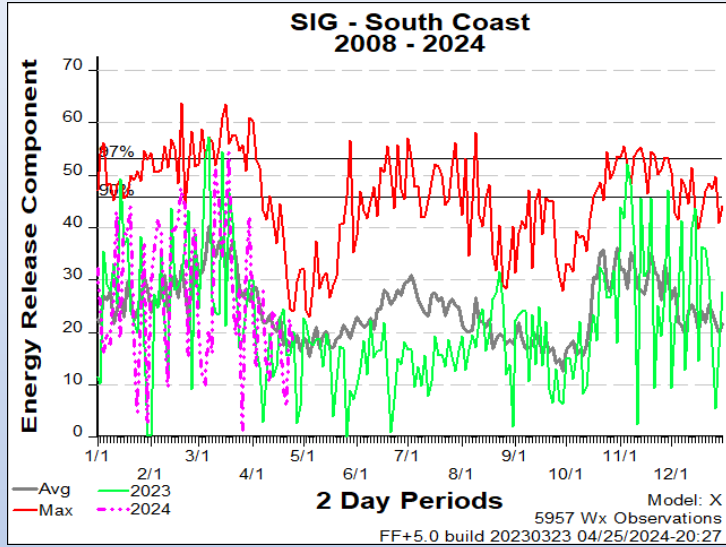
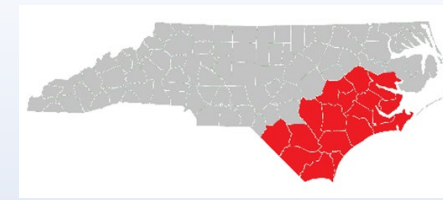
Values in the table above are averages from 4 stations in this FDRA:

- 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 26-Apr	SAT 27-Apr	SUN 28-Apr	MON 29-Apr	TUE 30-Apr	WED 01-May	THU 02-May
Avg. Max. Temp. (°F)	73	75	79	84	87	88	87
Avg. Min. Humidity (%)	51	47	43	41	40	43	44
Avg. 20' Wind Speed (mph)	7	6	4	7	7	7	7
Avg. Wind Direction*	ENE	E	S	SW	SW	SW	SW
Avg. Probability of Precip. (%)	2	1	0	0	6	15	15
Days Since a Wetting Rain**	5.3	6.3	7.3	8.3			
Forecast ERC (Fuel Model X)	15.0	13.5	14.4	15.0	15.7	16.3	15.3
Forecast BI (Fuel Model X)	25.8	23.3	22.4	24.2	27.9	26.5	27.0
Forecast IC (Fuel Model X)	3.1	2.5	2.9	3.5	4.4	4.5	4.1
Forecast 100-Hr. FMC	18.4	18.1	18.0	17.7	17.4	17.3	17.3
Forecast 1000-Hr. FMC	21.8	21.8	21.7	21.6	21.5	21.2	21.0
KBDI	233.0						

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 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

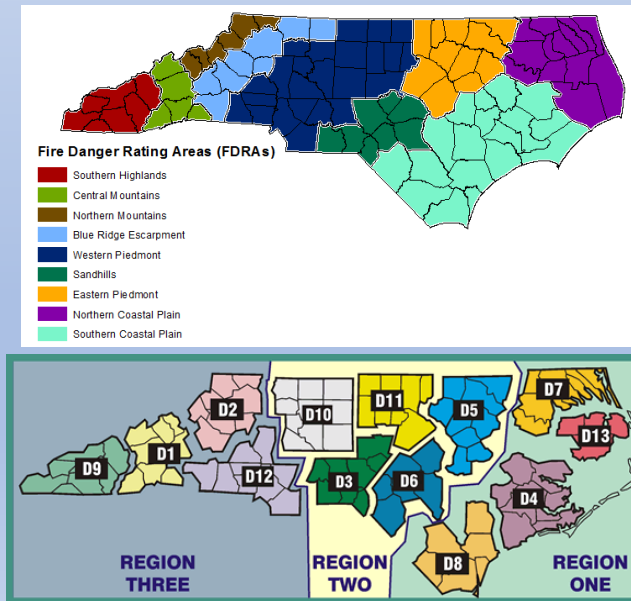
Outlook Summary Tables – Organized by Region –

Output from NFDRS
forecast generated on
4/25/24 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
26-Apr	Fri	Low/Mod	Low/Mod
27-Apr	Sat	Low/Mod	Low/Mod
28-Apr	Sun	Low/Mod	Low/Mod
29-Apr	Mon	Low/Mod	Low/Mod+
30-Apr	Tues	Low/Mod	High
1-May	Wed	Low/Mod	Low/Mod +
2-May	Thurs	Low/Mod +	Low/Mod +

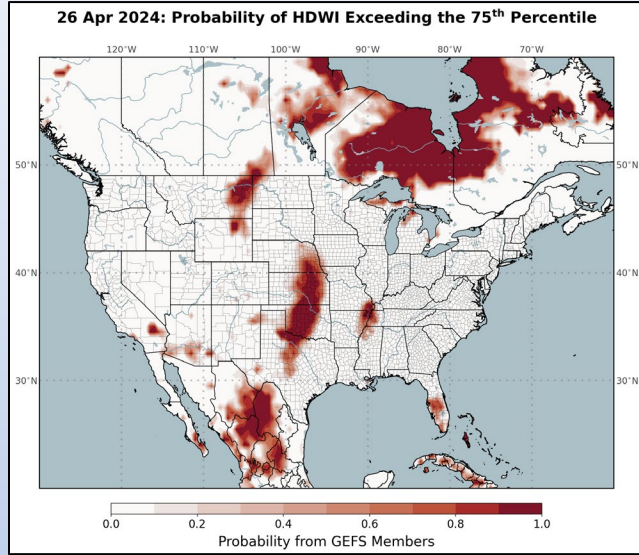
Date	Day of Week	FDRA Weekly Outlook - Matrix Summary - NCFS Region 2				
		Blue Ridge Escarp	Western Piedmont	Eastern Piedmont	Sandhills	South Coast
26-Apr	Fri	High	Low/Mod	Low/Mod	Low/Mod	Low/Mod
27-Apr	Sat	High	Low/Mod	Low/Mod	Low/Mod	Low/Mod
28-Apr	Sun	High	Low/Mod	Low/Mod	Low/Mod	Low/Mod
29-Apr	Mon	High	Low/Mod +	Low/Mod	Low/Mod +	Low/Mod+
30-Apr	Tues	High	Low/Mod +	Low/Mod	High	High
1-May	Wed	High +	Low/Mod +	Low/Mod	Low/Mod	Low/Mod +
2-May	Thurs	High +	High	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
26-Apr	Fri	High	Low/Mod	Low/Mod	High	Low/Mod
27-Apr	Sat	Low/Mod +	Low/Mod	Low/Mod	High	Low/Mod
28-Apr	Sun	Low/Mod +	Low/Mod	Low/Mod	High	Low/Mod
29-Apr	Mon	Low/Mod +	Low/Mod +	Low/Mod +	High	Low/Mod +
30-Apr	Tues	Low/Mod +	Low/Mod +	Low/Mod	High	Low/Mod +
1-May	Wed	Low/Mod +	Low/Mod +	Low/Mod	High +	Low/Mod +
2-May	Thurs	Low/Mod +	Low/Mod +	Low/Mod	High +	High

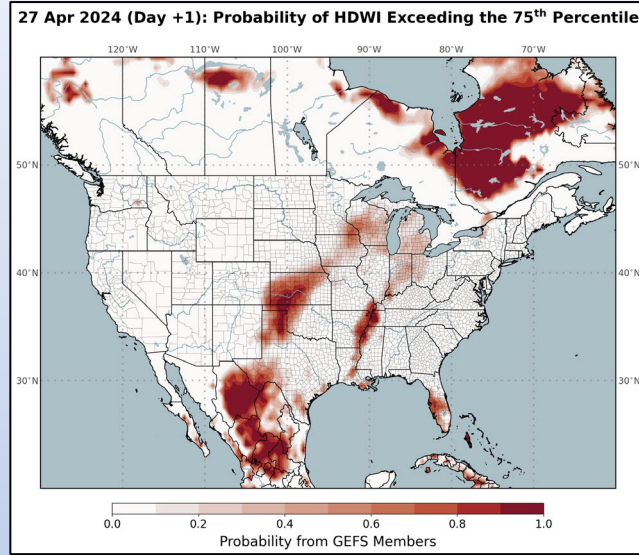
Statewide Slides

Hot-Dry-Windy Index (HDW)

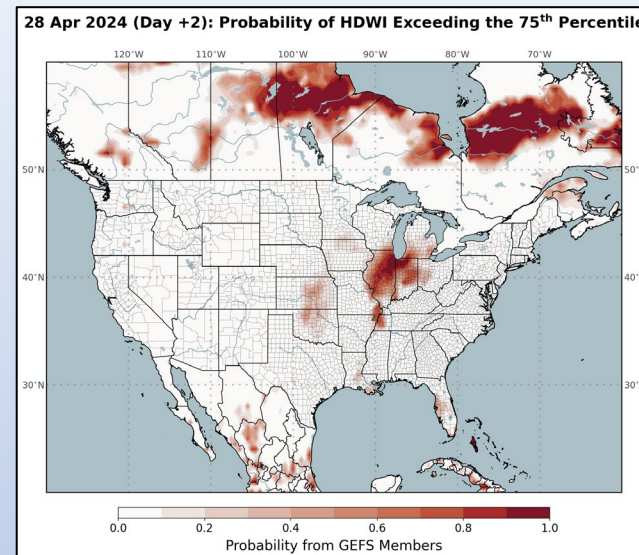
Friday > 75th Percentile



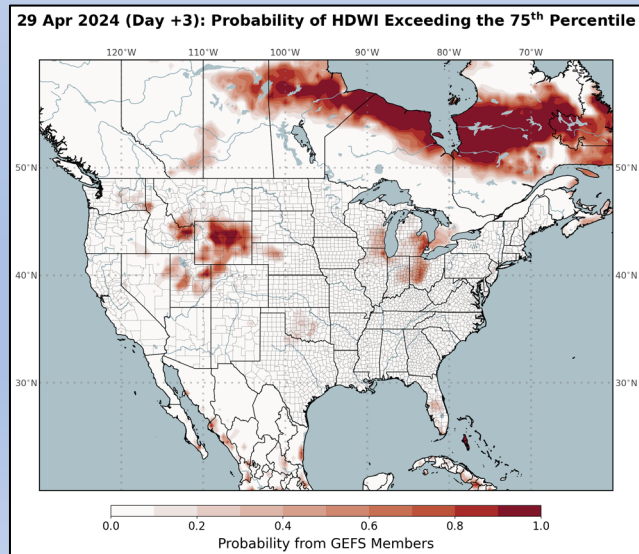
Saturday > 75th Percentile



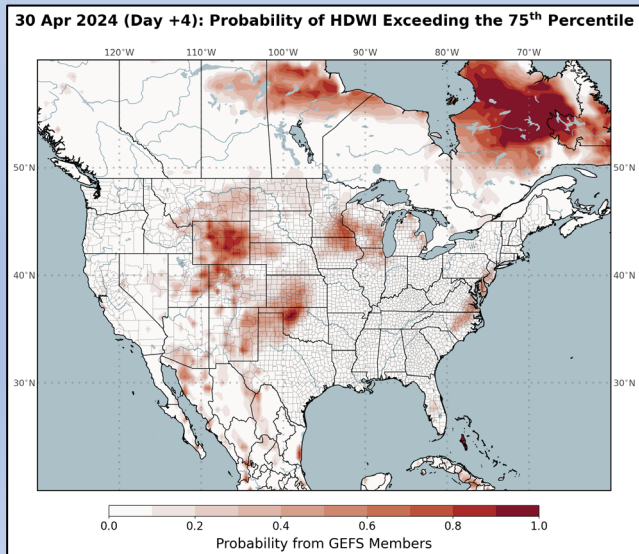
Sunday > 75th Percentile



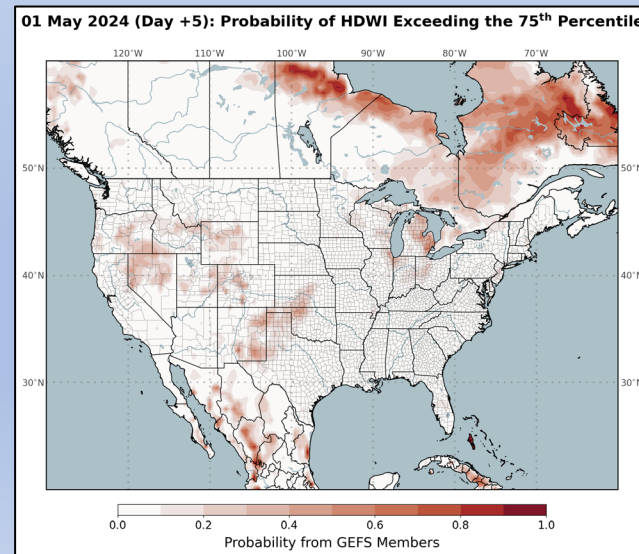
Monday > 75th Percentile



Tuesday > 75th Percentile

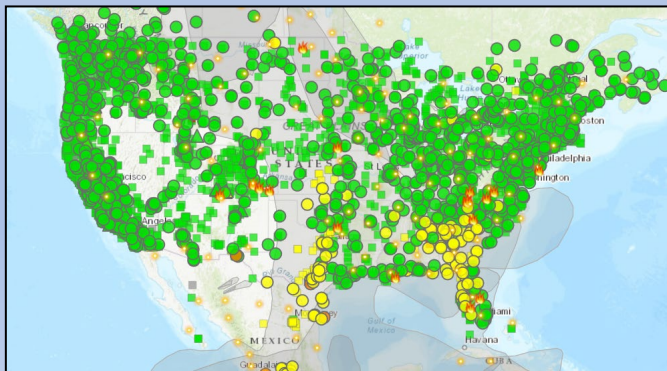
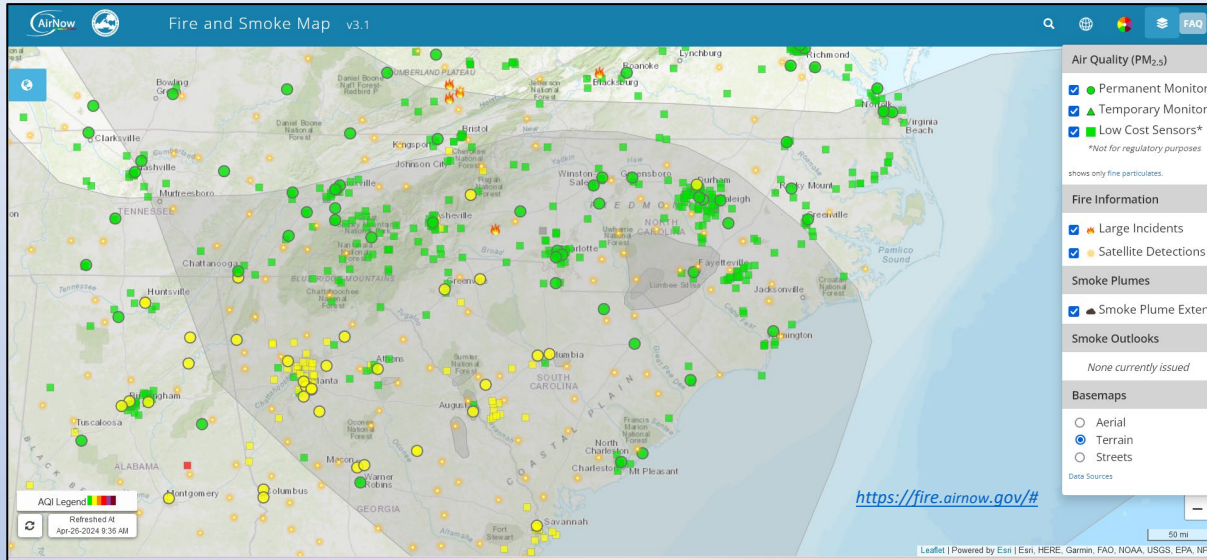


Wednesday > 75th Percentile



- 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

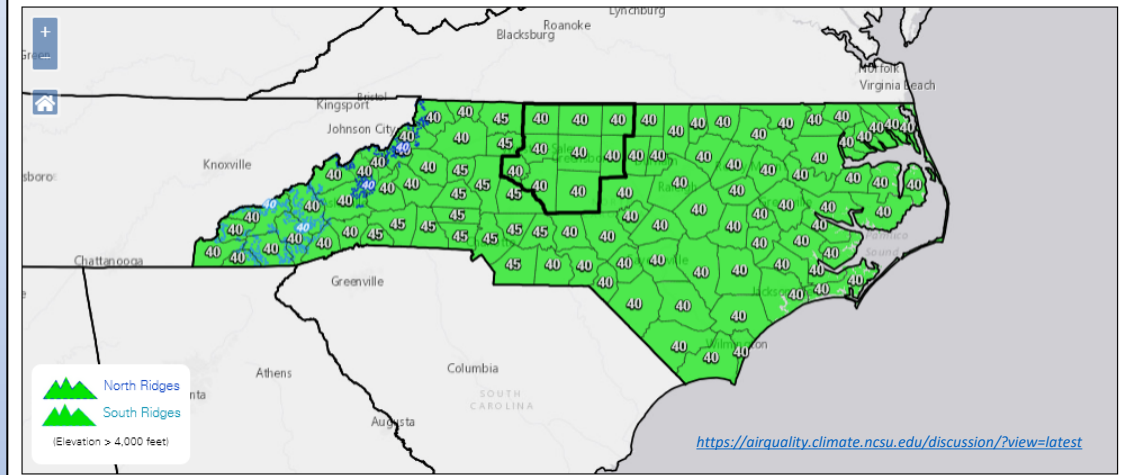
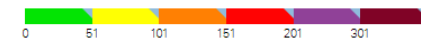


Extended Air Quality Outlook

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 (Apr 25)	45	Green	download
Friday (Apr 26)	40 to 45	Green	download
Saturday (Apr 27)	37 to 40	Green	download
Sunday (Apr 28)	47	Green	download

Maximum Air Quality Index for Apr 26, 2024



NC DAQ Forecaster Discussion (Thursday - PM)

General Forecast Discussion

High pressure to the north will continue to strengthen into North Carolina on Friday. Onshore flow around the south side of this high will continue to deliver a clean Atlantic air mass to the state, and air quality will hold in the Code Green range.

Outlook

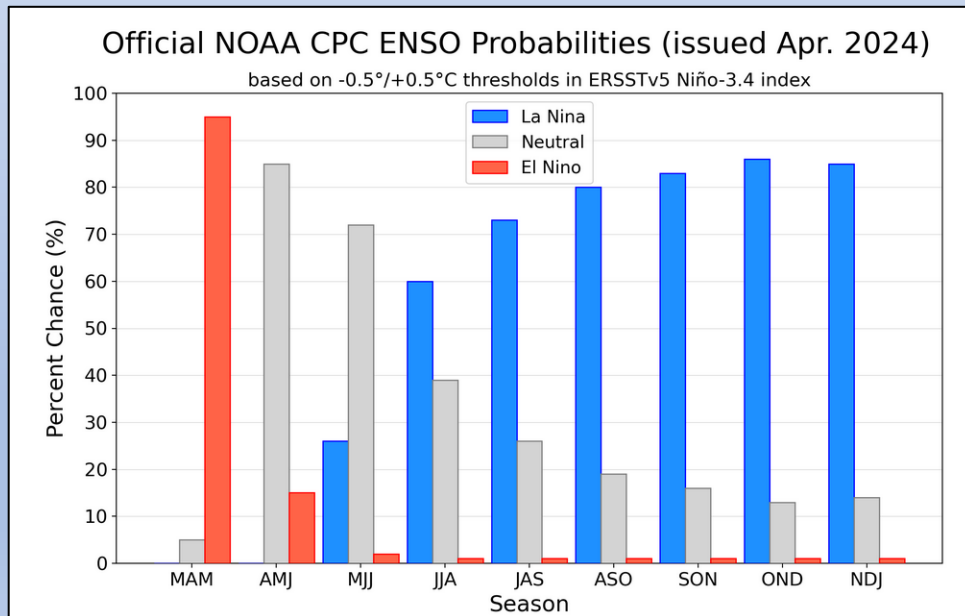
Saturday through Sunday, the surface high over New England will slowly migrate southward along the coast while the upper ridge stays firmly in place over the eastern US. Low-level winds will veer from easterly on Saturday to southwesterly on Sunday. Although a slight build in both fine particulate and ozone concentrations is expected from Saturday to Sunday, values will remain Code Green statewide.

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

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

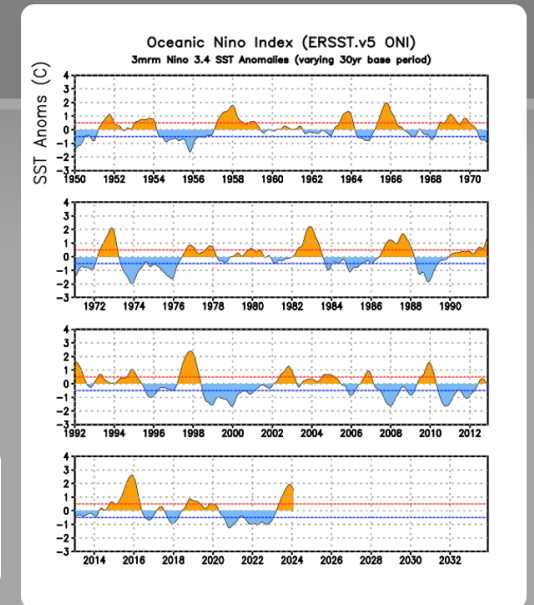
A transition from El Niño to ENSO-neutral is likely by April-June 2024 (85% chance), with the odds of La Niña developing by June-August 2024 (60% chance).

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 .

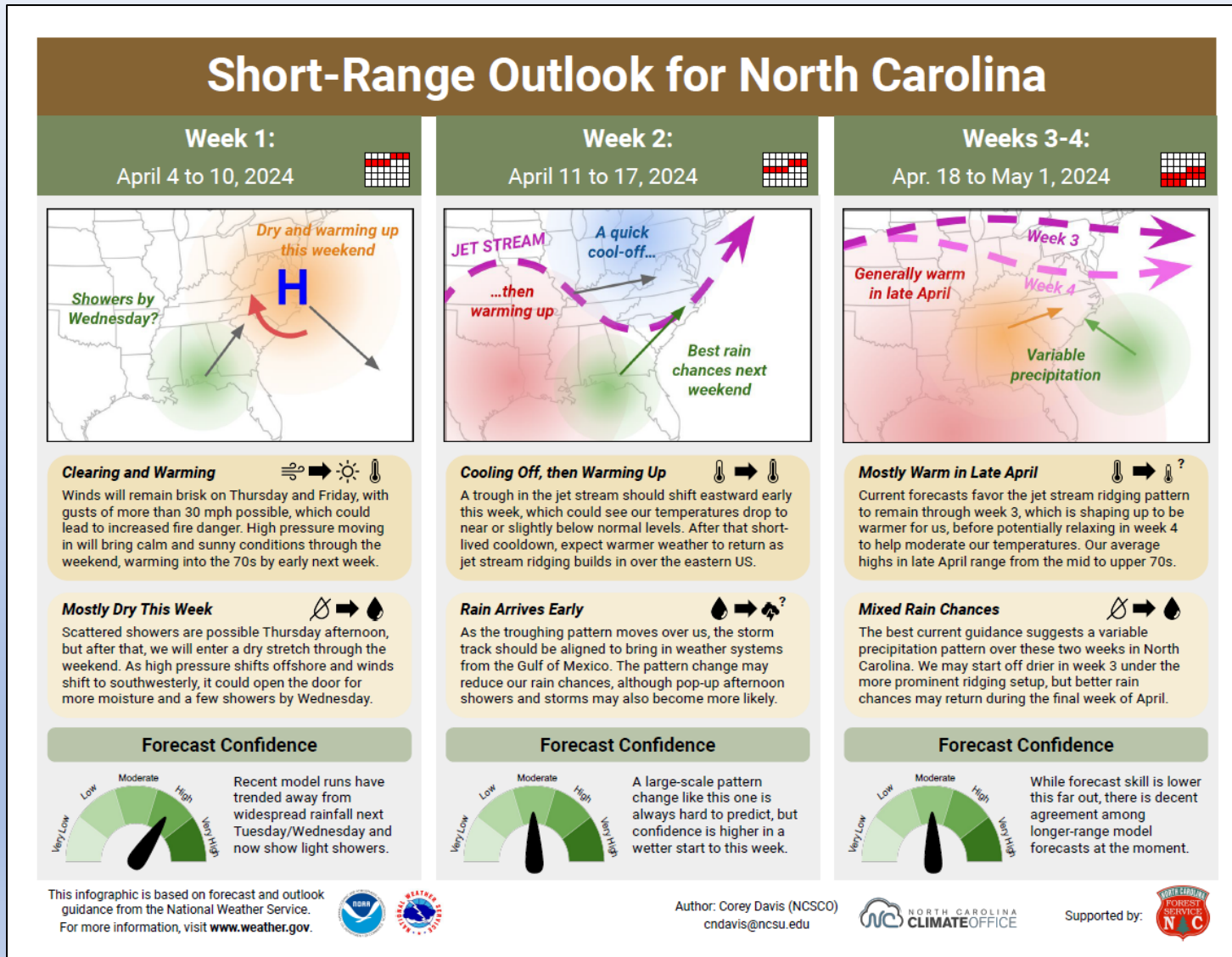


From the most recent CPC Diagnostic Discussion ([ENSO Diagnostics Discussion](#)):

[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

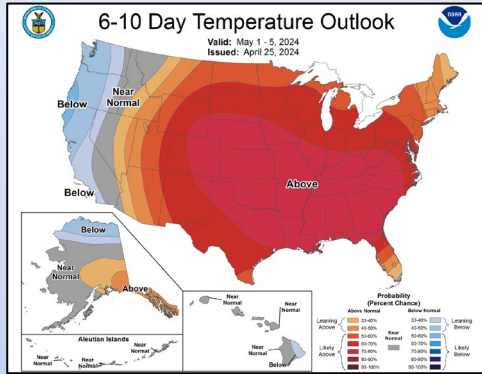
Released 4/4/24 & Location: <https://climate.ncsu.edu/fire/outlooks/>



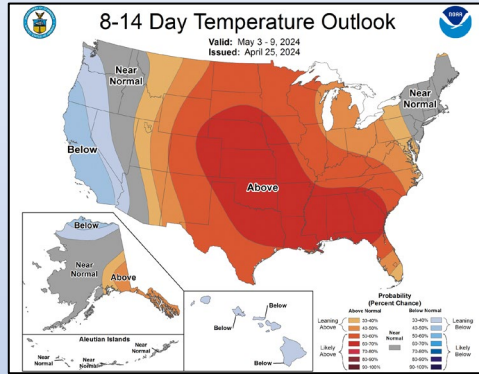
CPC Temp & Precip Outlook

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

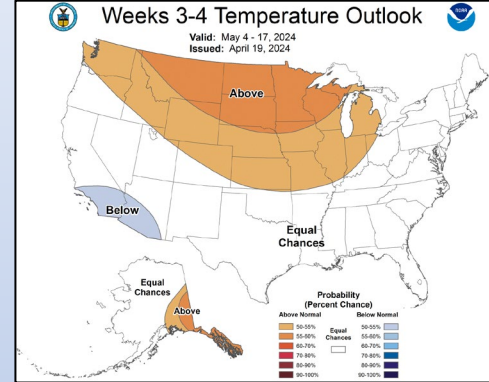
Updated 4/25/24



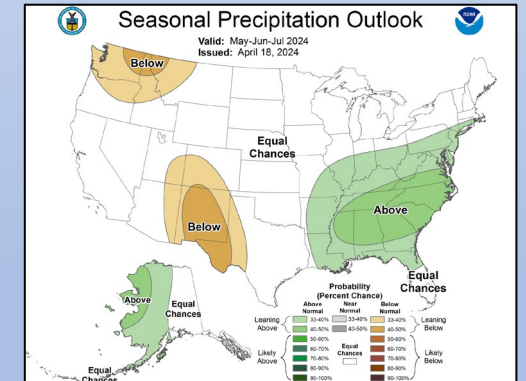
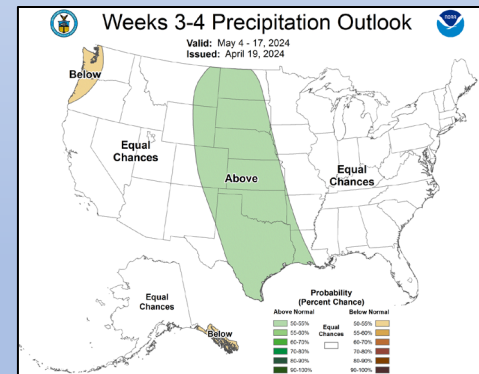
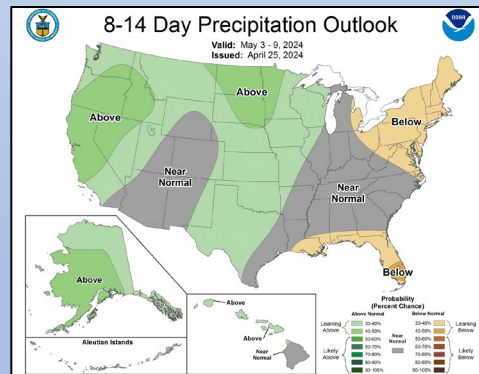
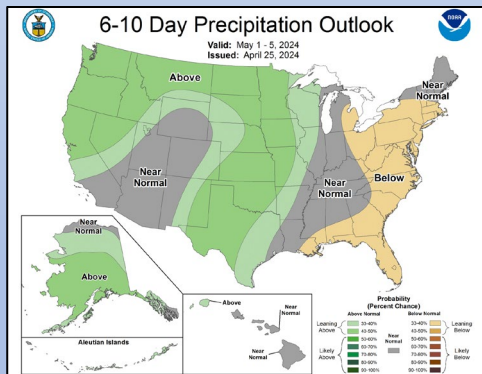
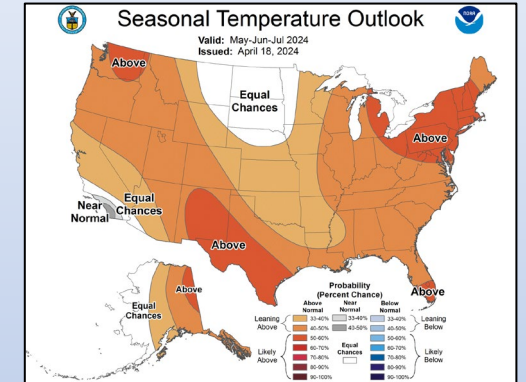
Updated 4/25/24



Updated 4/19/24



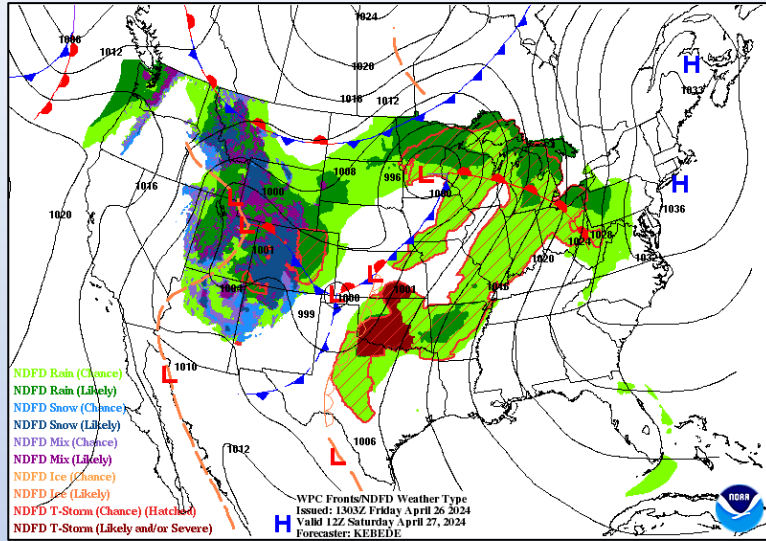
Updated 4/18/24 – [Discussion Link](#)



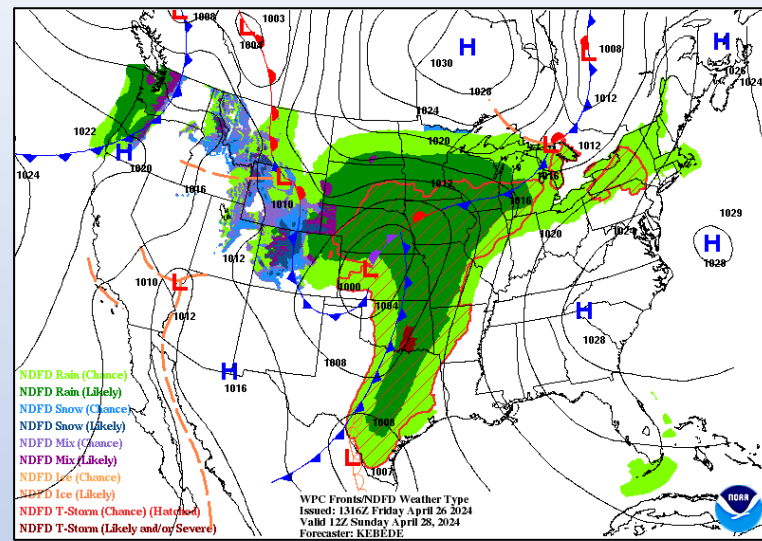
Uncertainty is noted in both the monthly and seasonal longer-range forecasts.

WPC Forecasted Surface Fronts & Sea-Level Pressures

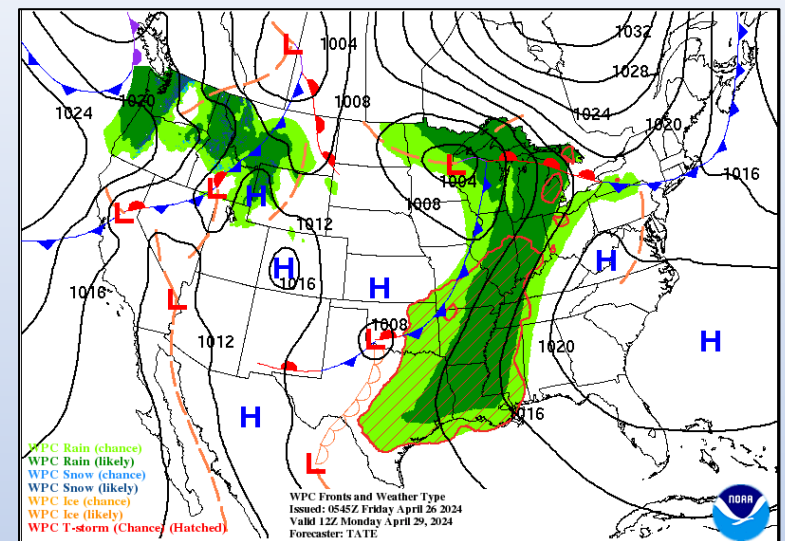
Saturday - 800 am



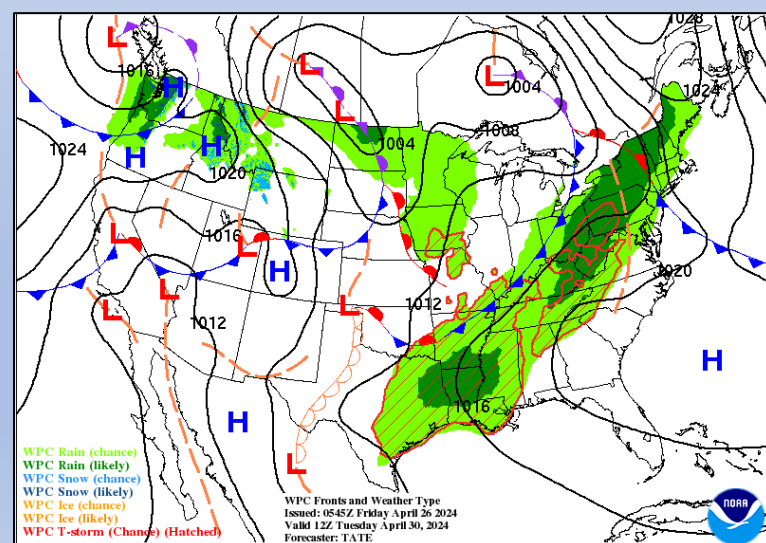
Sunday - 800 am



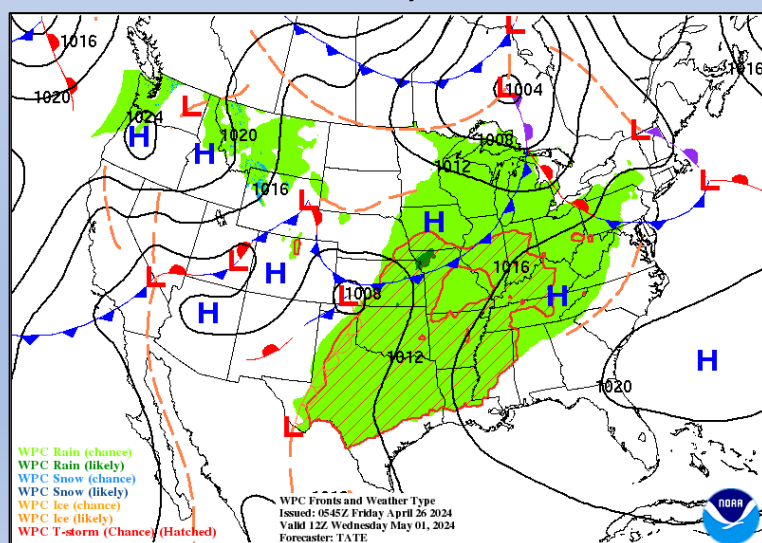
Monday - 800 am



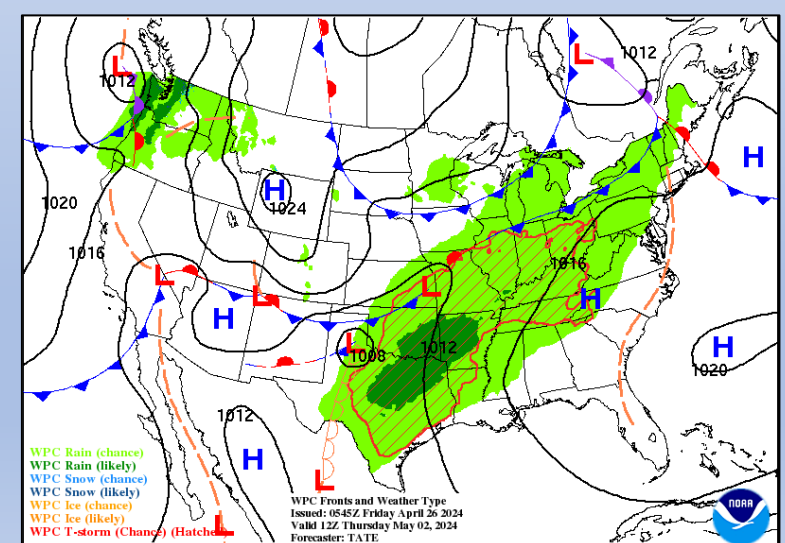
Tuesday - 800 am



Wednesday - 800 am



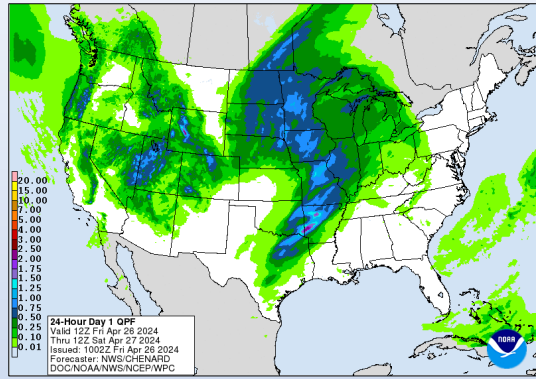
Thursday - 800 am



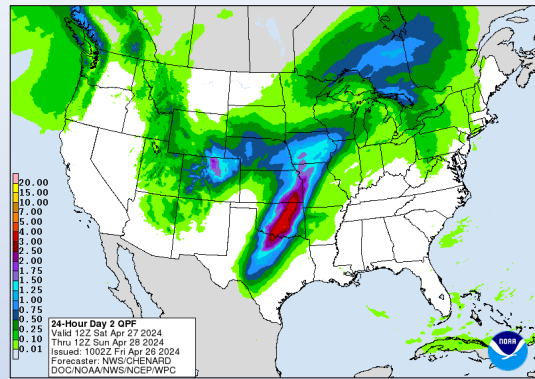
Quantitative Precipitation Forecast, 7-Day

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

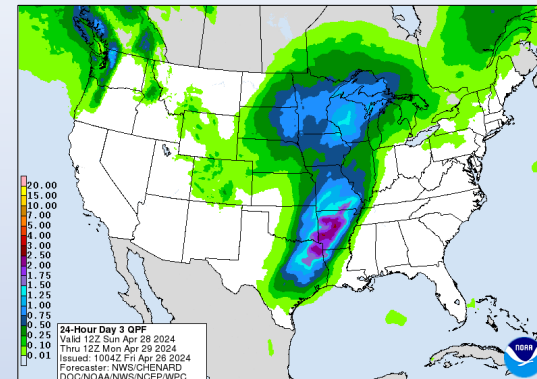
Day - 1



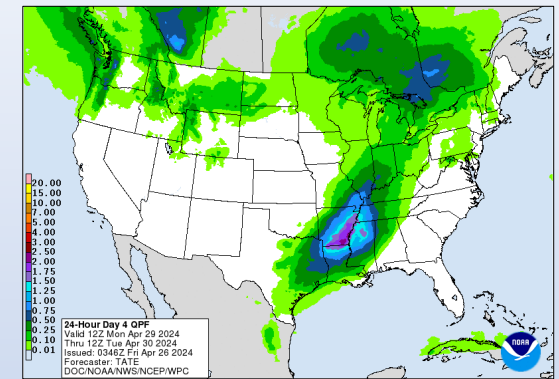
Day - 2



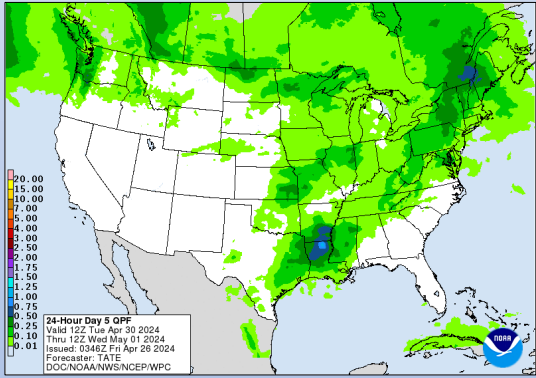
Day - 3



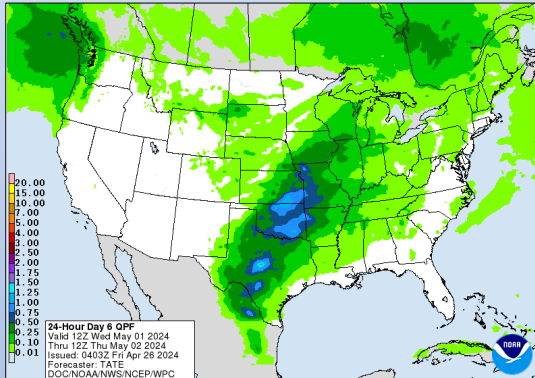
Day - 4



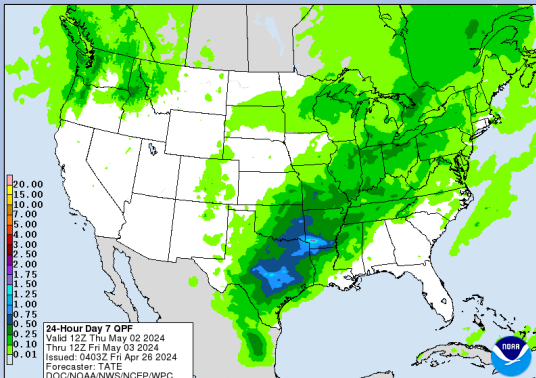
Day - 5



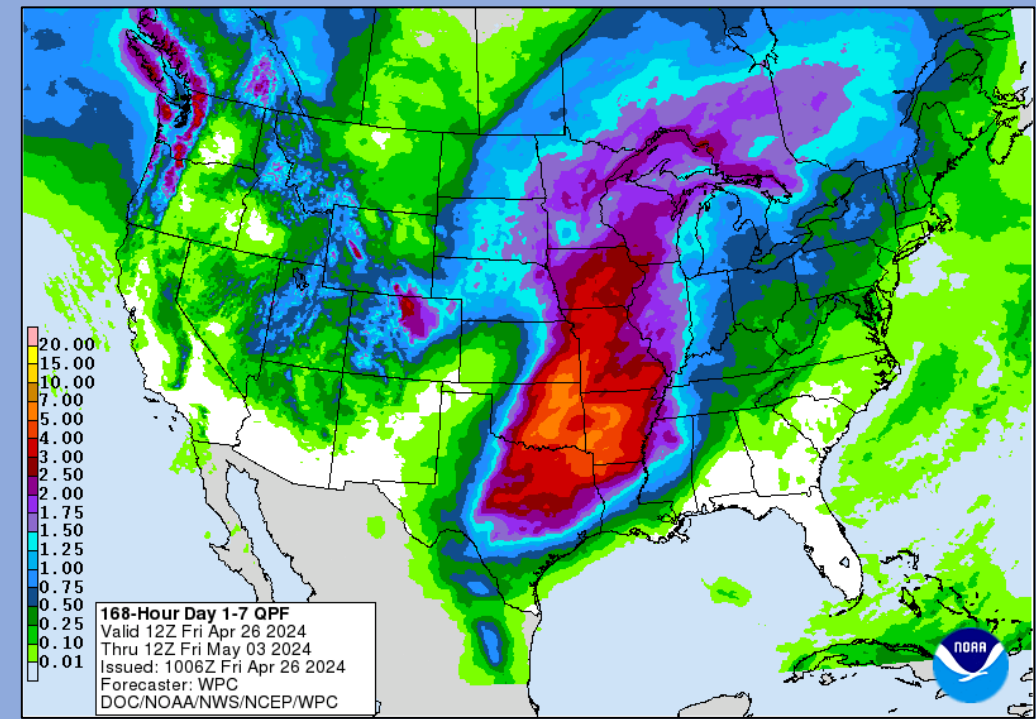
Day - 6



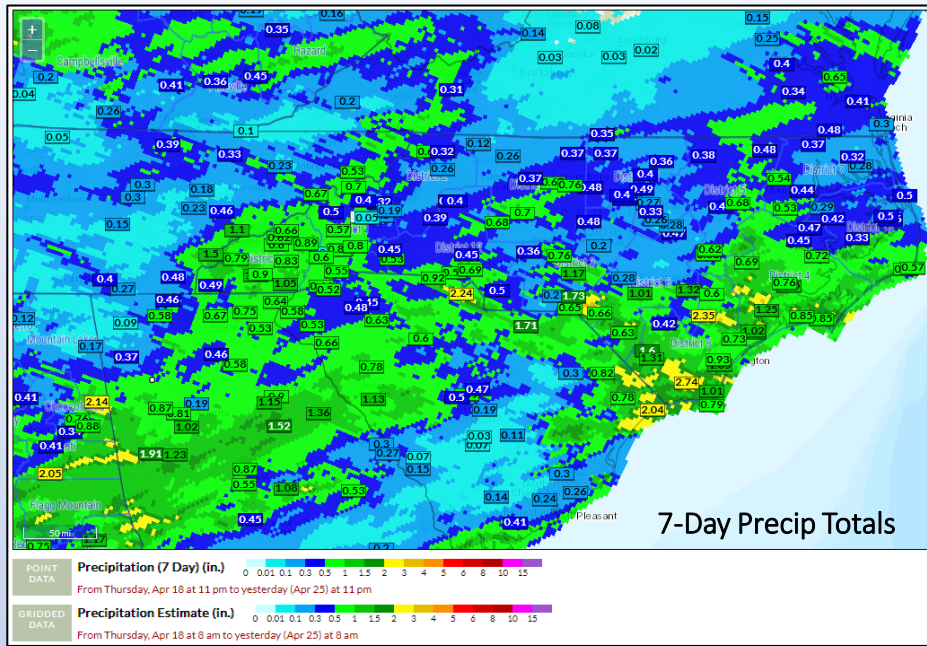
Day - 7



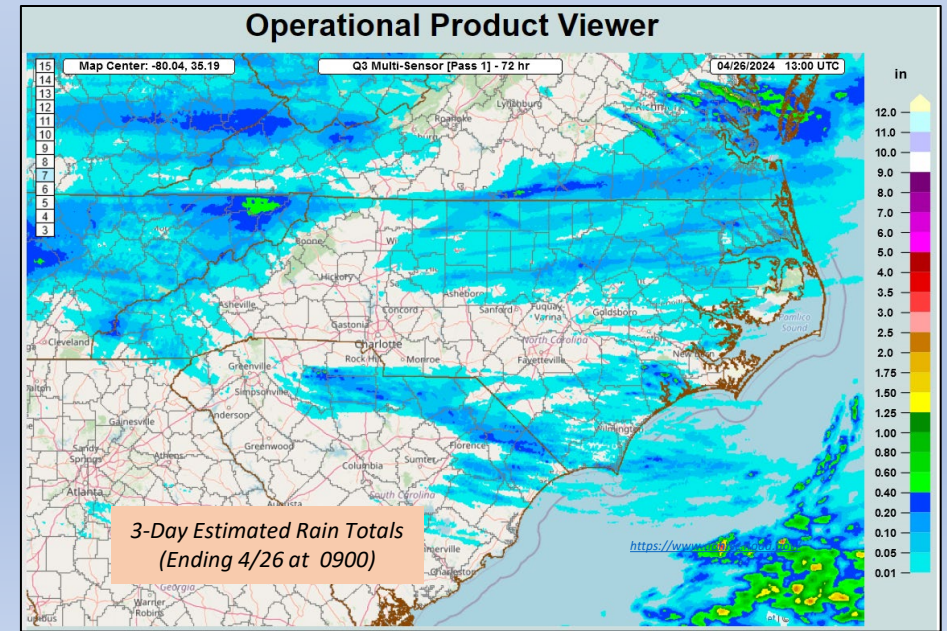
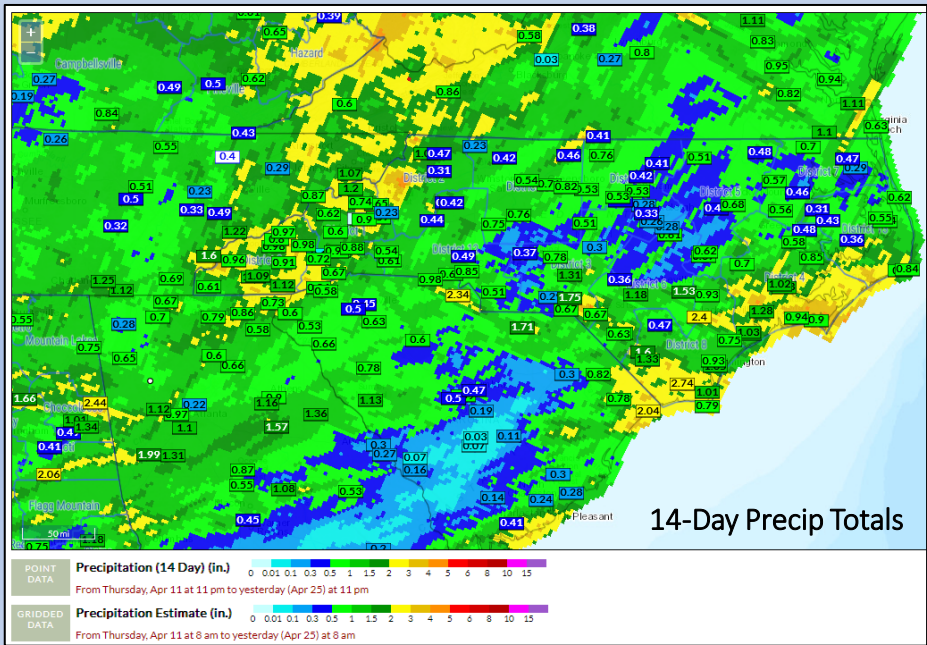
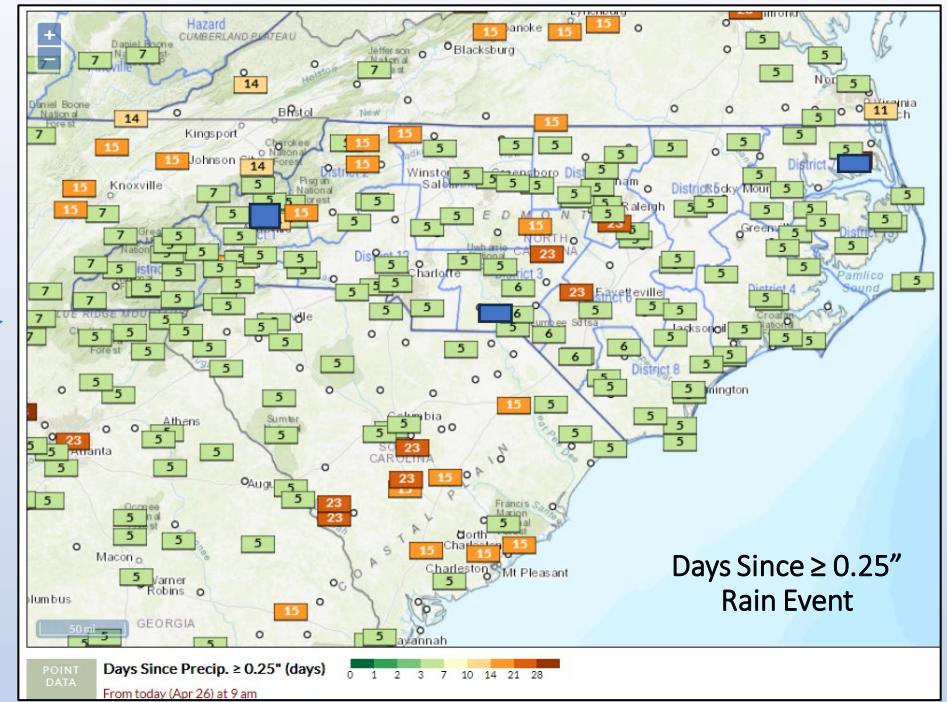
Important to note these values are subject to **significant change as weather system modeled tracks adjust farther out in time.*



Observed Precipitation

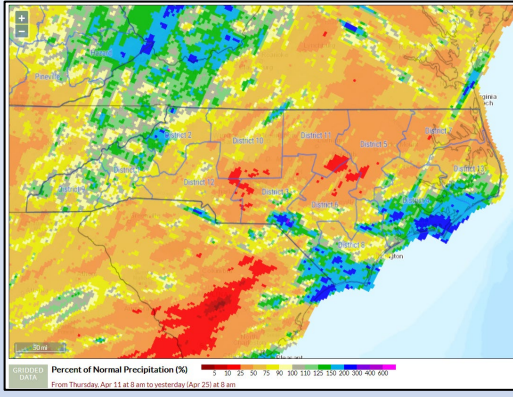


Known issues relating to reporting exist at Mt. Mitchell & Anson Peaking Plant (currently being addressed).



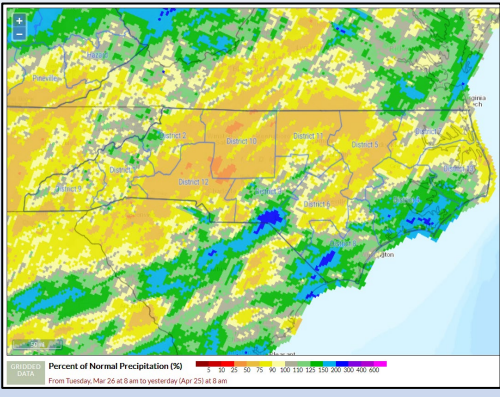
Percent of Normal Precip & SPI, FWIP (Ending Thursday @ 0800 4/25)

14-Day % of Normal



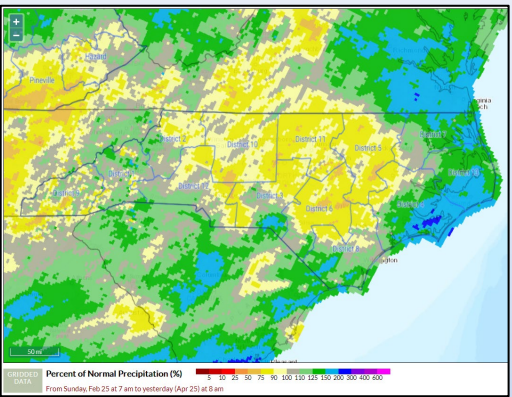
PNP: Driest areas ~20% of Normal at 14-day Scale

30-Day % of Normal



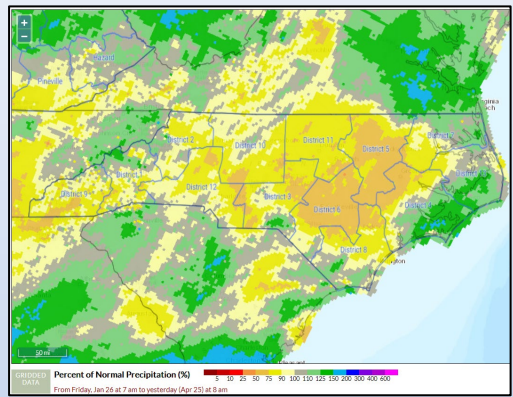
Driest areas at ~40% of normal at 1-Month scale.

60-Day % of Normal



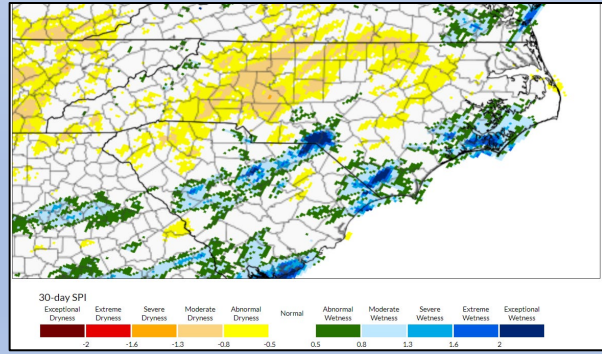
Driest areas at ~65% of normal at 2-Month scale.

90-Day % of Normal

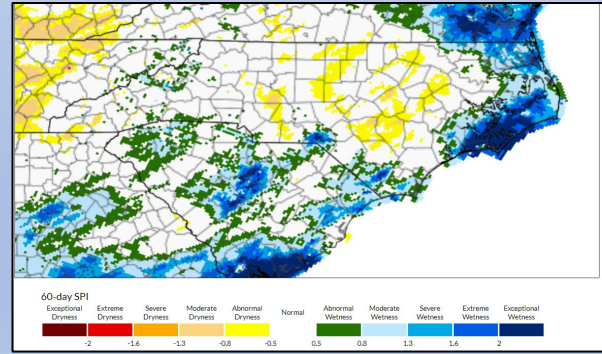


Driest areas ~60% of normal at 3-Month scale.

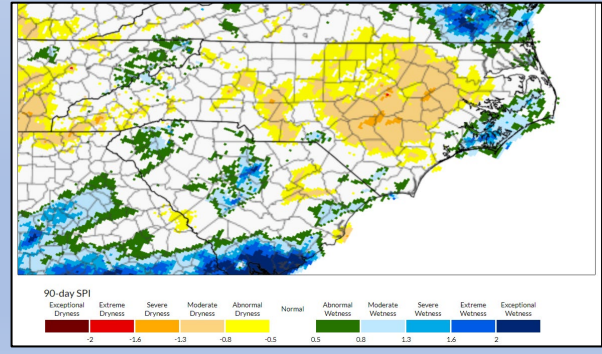
30-Day SPI



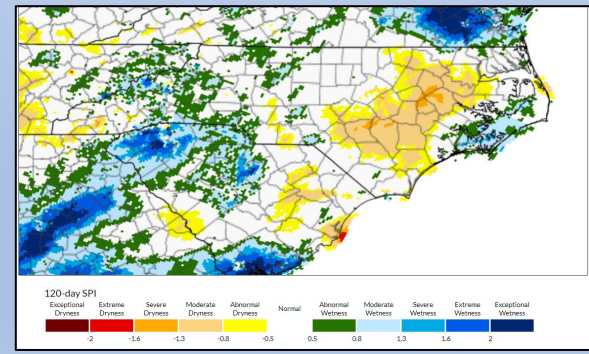
60-Day SPI



90-Day SPI

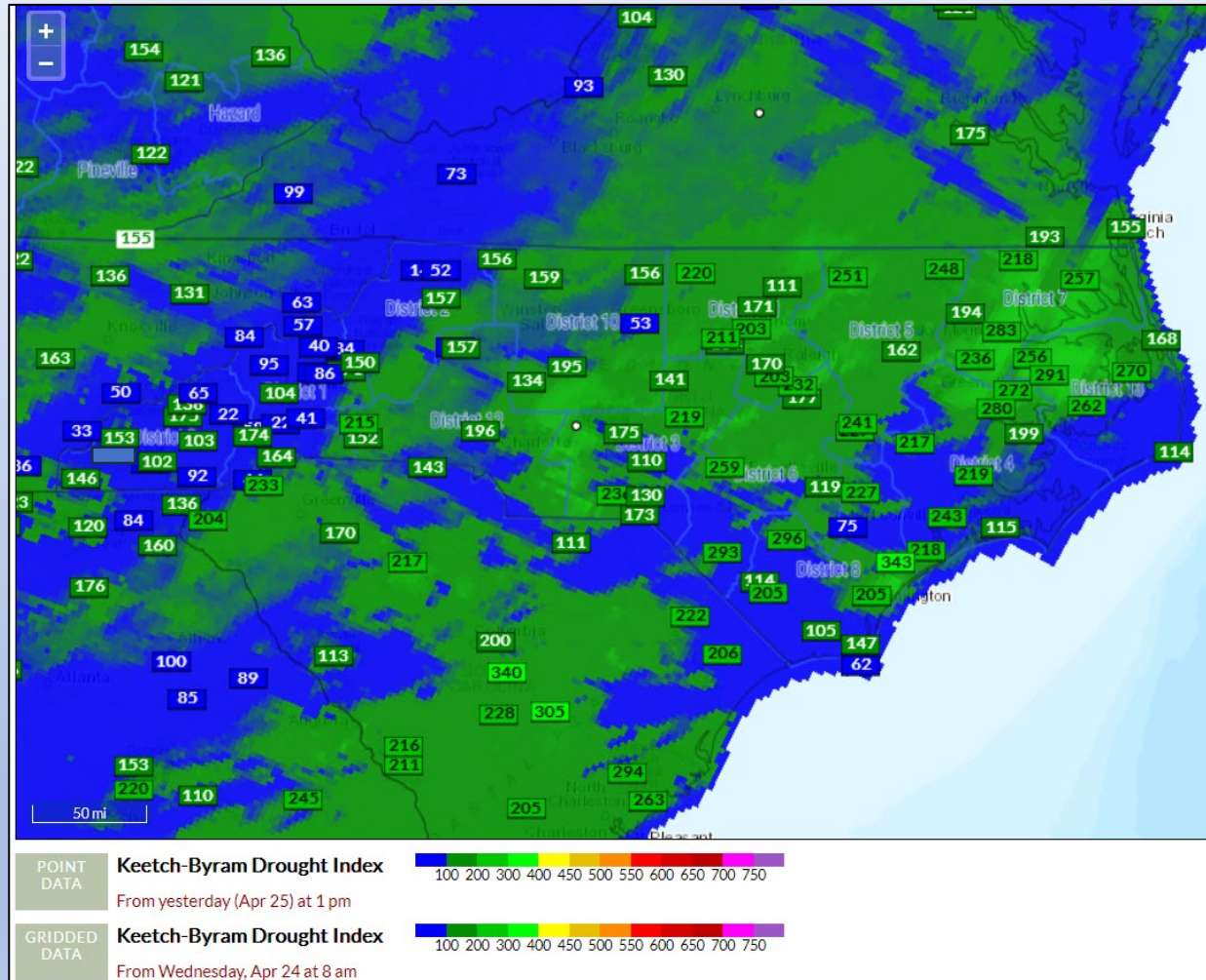


120-Day SPI

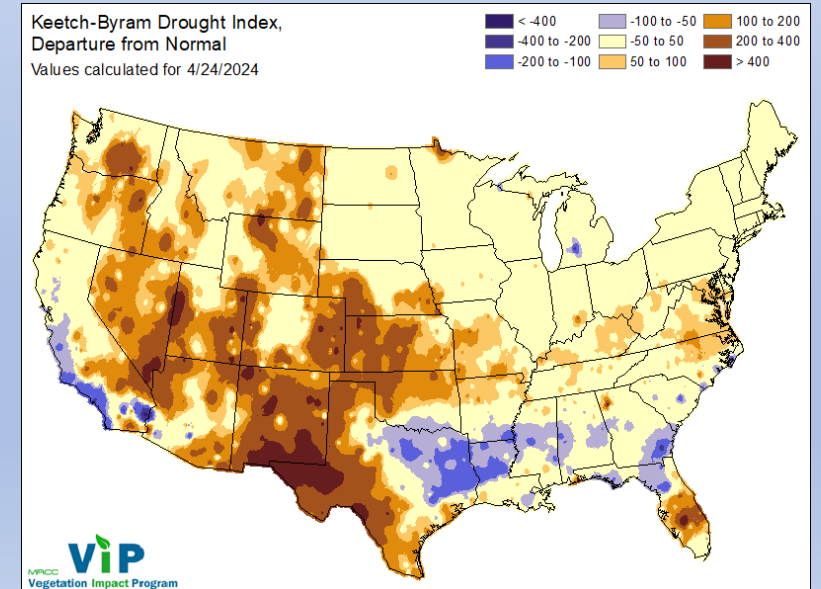
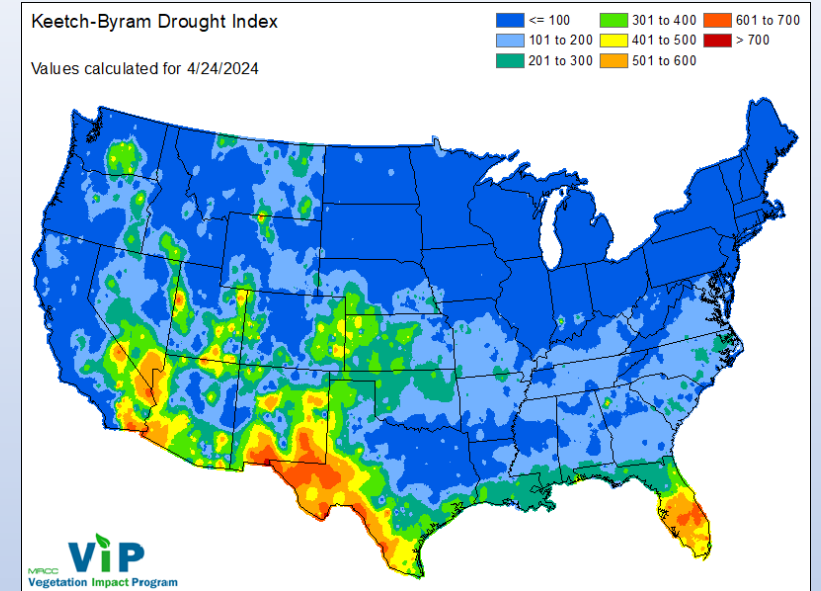


KBDI - Gridded & Station Points

FWIP (Point calculation from WIMS @ 1300 on 4/25, SCO created Grid on 4/24 @ 0800)



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



Drought Situation

North Carolina Drought Update

For the assessment period ending **Apr. 23, 2024**
 From the US Drought Monitor, with input from the NC DMAC

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

The Main Takeaway

Abnormally Dry (D0) conditions have expanded in the northern Piedmont, where recent warmth and limited rainfall have led to emerging springtime impacts.

This Week's Summary

Last weekend saw heavy rain and hail from storms in southeastern NC, but only light rain elsewhere in the state. That added another April week with below-normal rainfall, particularly across the Piedmont and northern coast. While warm weather continues to keep flowers blooming and green-up ahead of schedule, it is also drying out soils and vegetation more quickly.

Next Week's Outlook

Temperatures will steadily climb through the weekend, from the low 70s on Thursday into the mid-80s by Monday. No significant rainfall is expected this week.

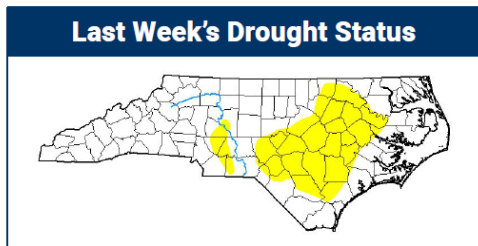
For your local drought status, visit www.ncdrought.org

For now, drier weather has been a positive for farmers, as corn and tobacco planting is ahead of the five-year average pace, per USDA/NASS.

Yanceyville has had just 1.01 inches of rain all month so far, on pace for its 4th-driest April since 1997.

Reservoirs along the Catawba River remain near their target levels as increased recreation releases are set to begin this weekend.

Deeper soils are dry in Johnston and Wilson counties, where less than half an inch of rain has fallen in the past 2 weeks.



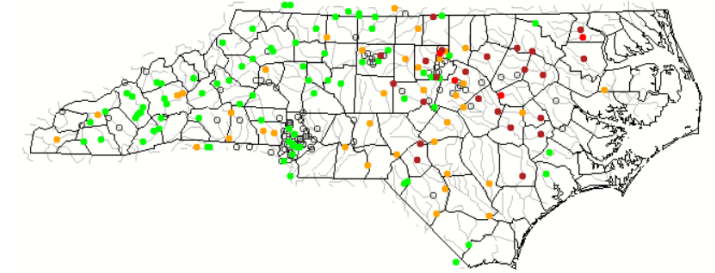
Statewide Coverage by Category

Category	Current Coverage	Change Since Last Week
D0: Abnormally Dry	40.11%	+12.27%
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

Thursday, April 25, 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	Not-ranked
Much below normal	Below normal	Normal	Above normal	Much above normal			

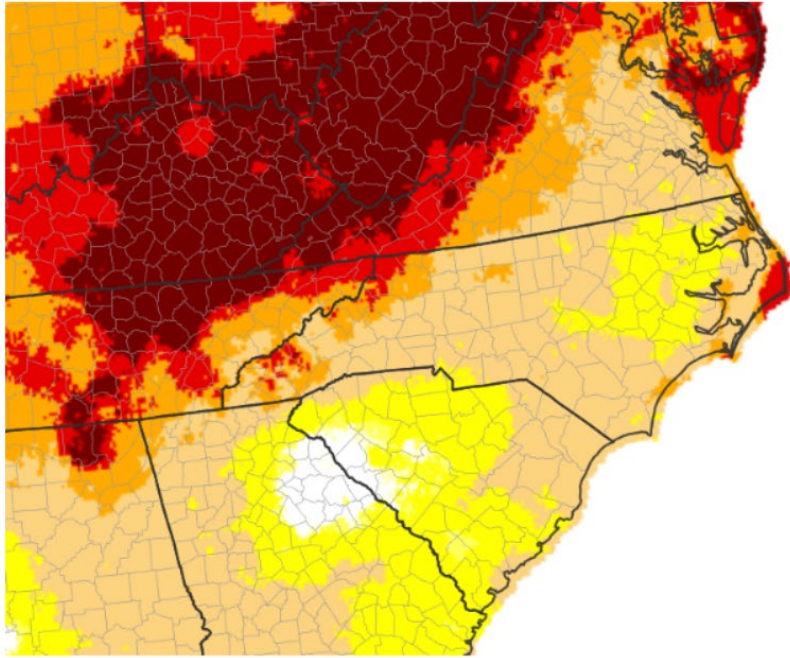
Source: <https://waterwatch.usgs.gov/index.php?m=pa07d&r=nc&w=map>

Note continued decline in streamflow values (see above).

 12% area increase in D0 Abnormally Dry conditions (see left).

See notes on Slide #5 concerning CPC drought related discussion.

Evaporative Demand Drought Index (EDDI) Forecast: 2 Weeks



Dry Conditions



Wet Conditions

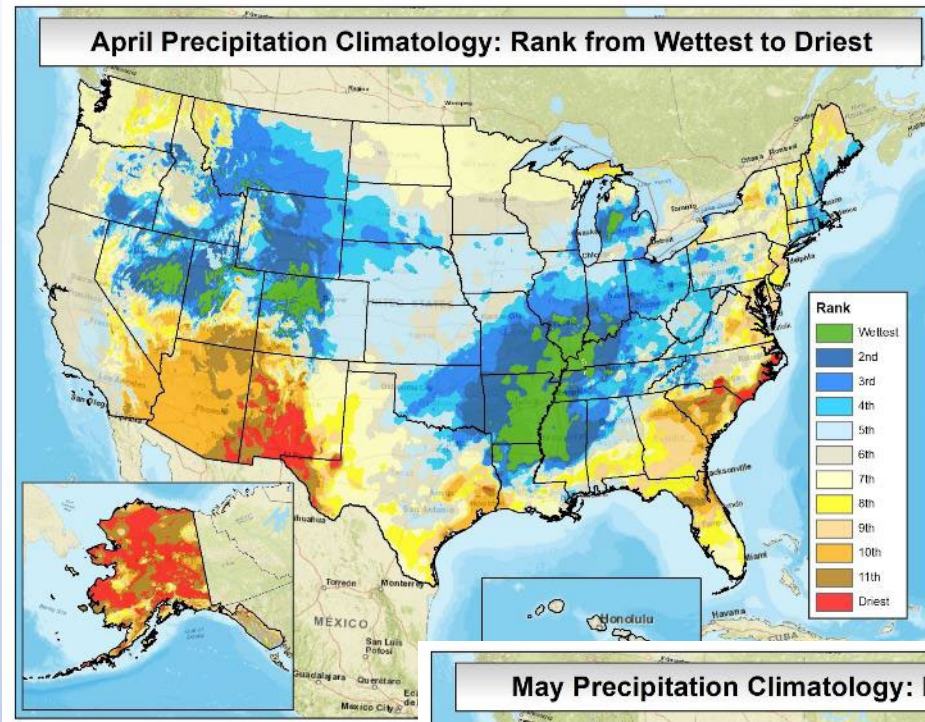


The Evaporative Demand Drought Index (EDDI) is an experimental drought monitoring and early warning guidance tool. It examines how anomalous the atmospheric evaporative demand (E0; also known as "the thirst of the atmosphere") is for a given location and across a time period of interest. This experimental subseasonal EDDI forecast shows projected evaporative demand for the next 14 days from the CFS-gridMET dataset at 4-km gridded resolution. Source(s): UC Merced

Source(s): UC Merced
Updates Daily: 04/25/24

Drought.gov

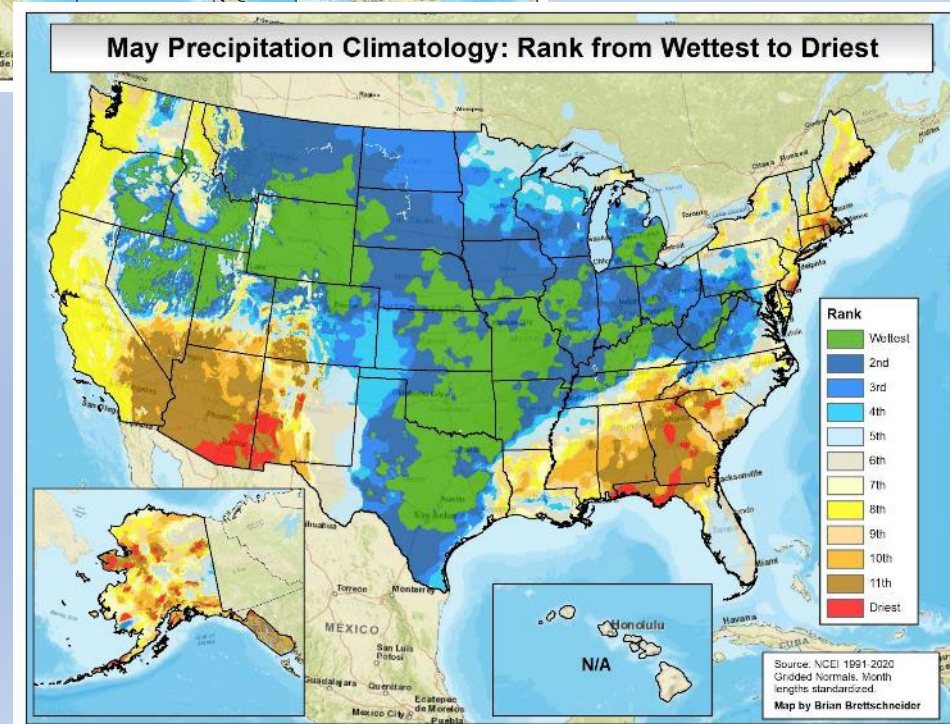
<https://www.drought.gov/data-maps-tools/evaporative-demand-drought-index-eddi-subseasonal-forecasts>



<http://us-climate.blogspot.com/search?updated-max=2021-07-07T19:16:00-07:00&max-results=10&start=5&by-date=false>

The EDDI map indicates "thirst of the atmosphere" for the next 14 days. It does not account for predicted rainfall but implies potential for significant drying in areas that don't receive good rainfall (left).

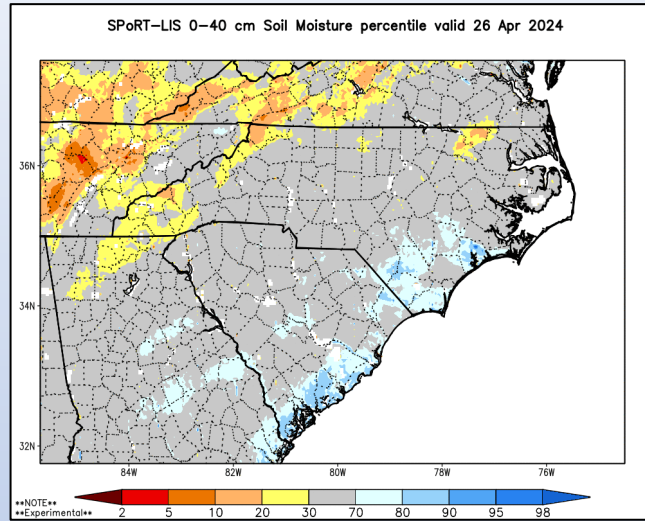
April and May Precip Climatology based on 1991-2020 averages (right & above) also provide monthly context relating to rainfall distribution.



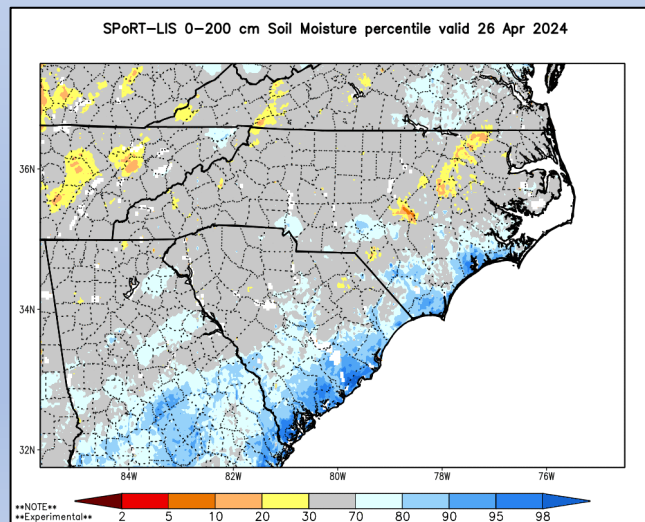
Source: NCEI 1991-2020 Gridded Normals. Month lengths standardized.
Map by Brian Brettschneider

SPoRT Modeled Relative Soil Dryness

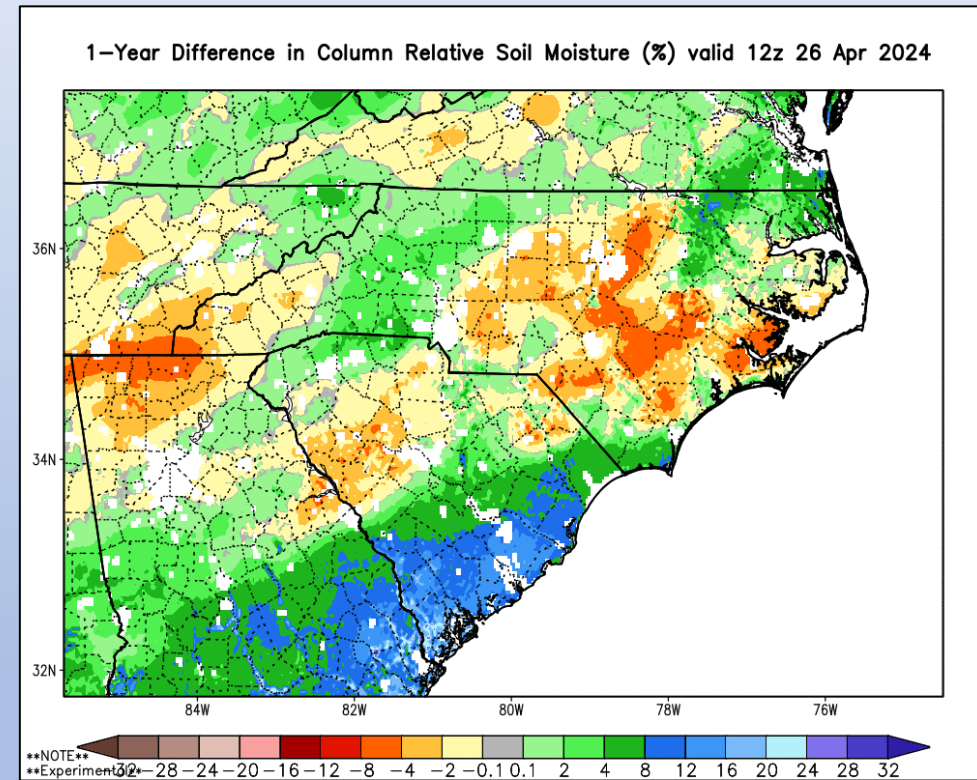
0-40 cm Depth



0-200 cm Depth

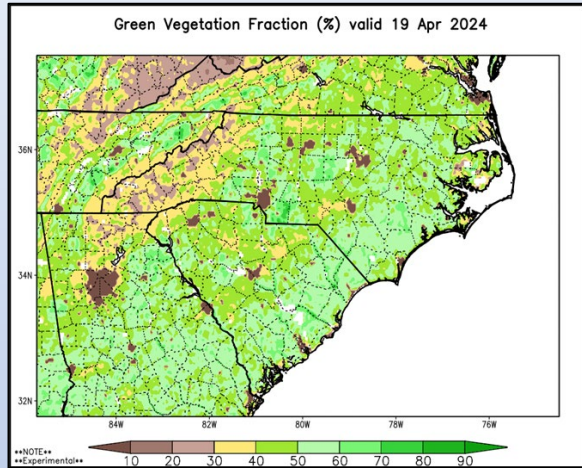


- See areas of modeled improvement/degradation near the surface and for the entire soil profile (left). Note the modeled differences between today & last year at this same time.
- As green-up and evaporative demand increases, expect more rapid changes if rainfall continues to be scattered in nature.

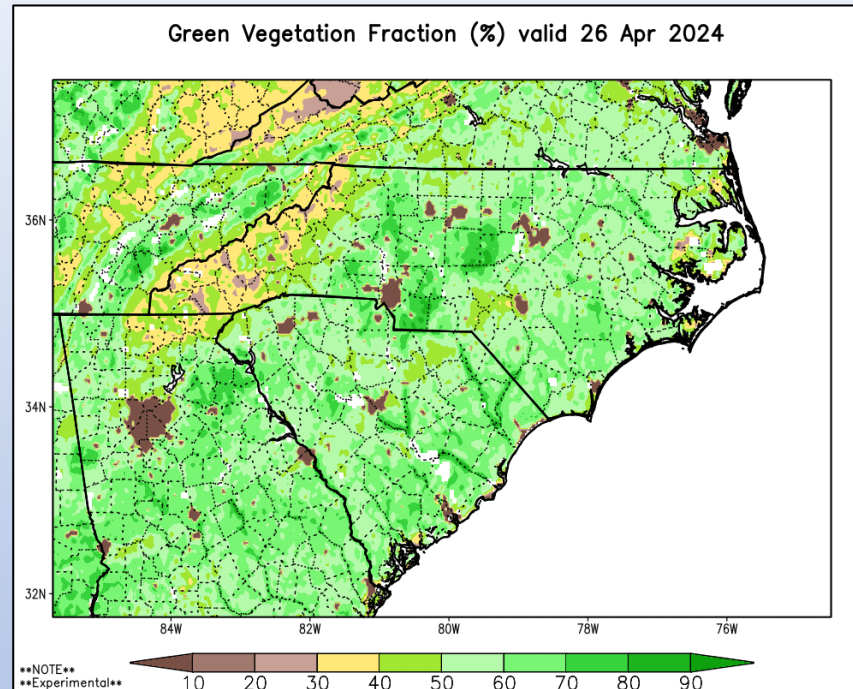


Green Fraction & Green-Up Anomaly

Last Week

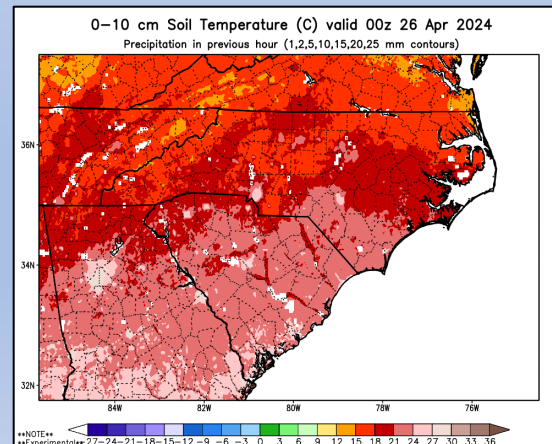


Current

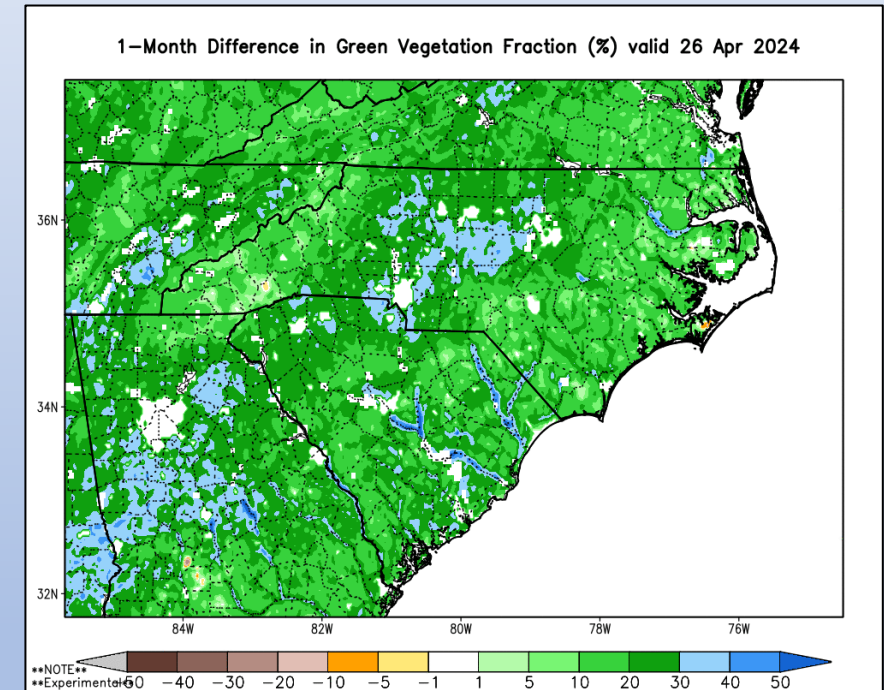


Lower elevation sites remain about 6-12 days ahead of "normal" related to green-up processes, due to generally abnormally warm conditions. *Not Pocosin or Bay Environments*

Higher elevation areas were slowed due to repeated colder conditions. However, soils continue to warm in those areas (see right).

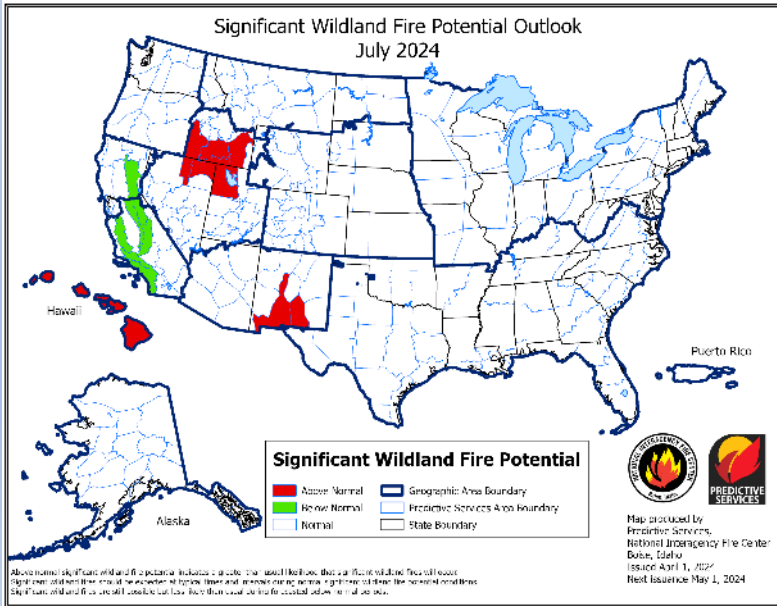
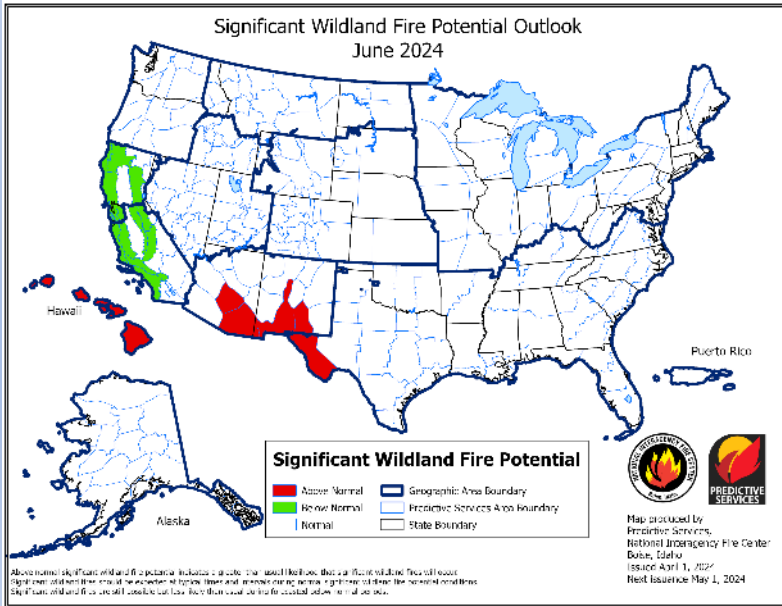
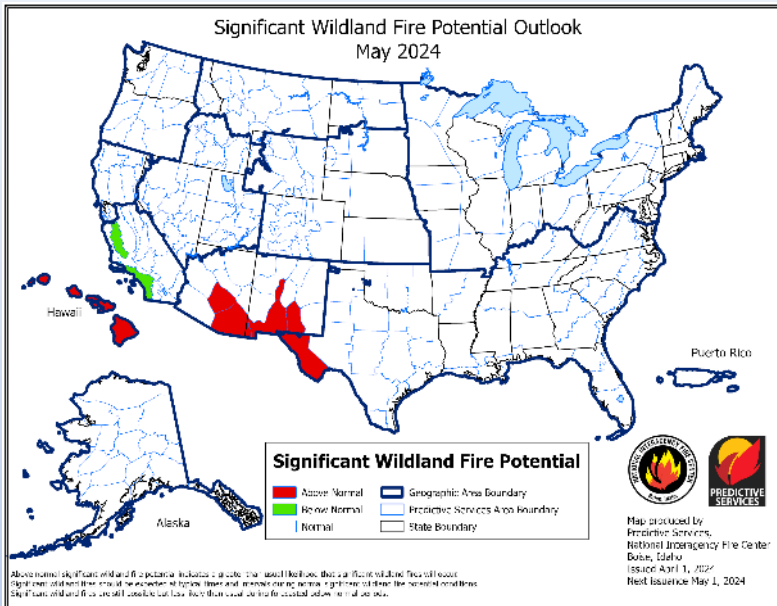
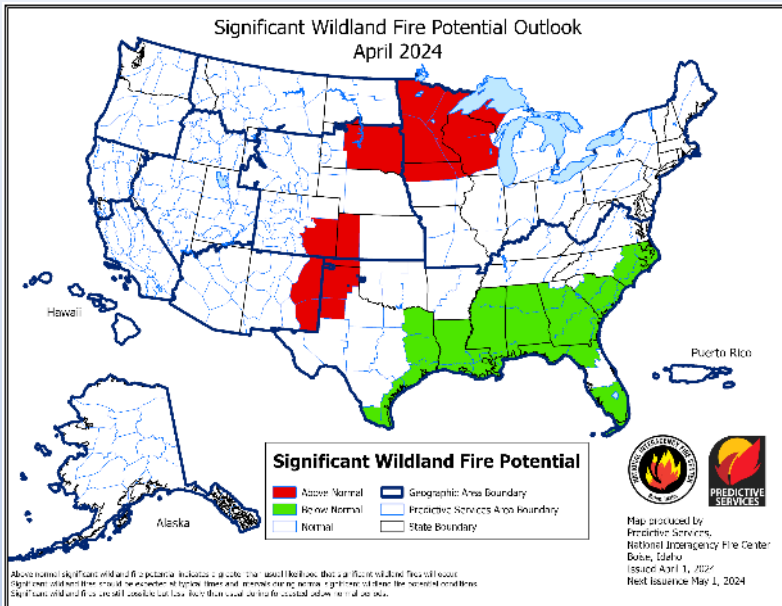


1-Month Change



Significant Wildland Fire Potential Outlook:

Updated 4/1/24 – Next Update on 5/1/24



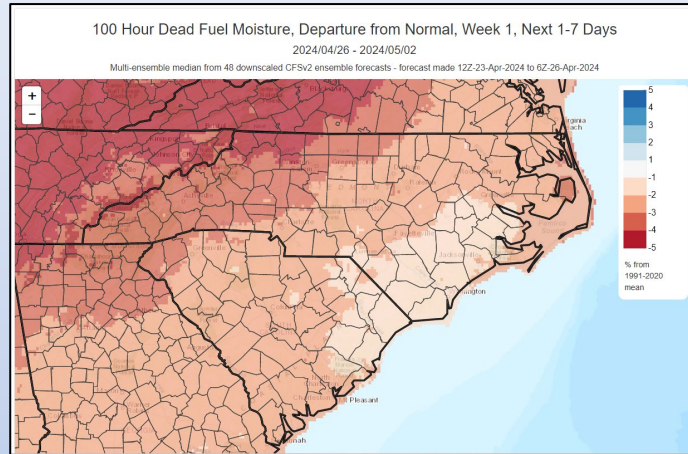
A significant fire is one that requires resources from outside the district (other than aviation). IA potential is based more on shorter term weather factors. Just a few days of dry weather can increase IA activity considerably as we have seen this year.

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

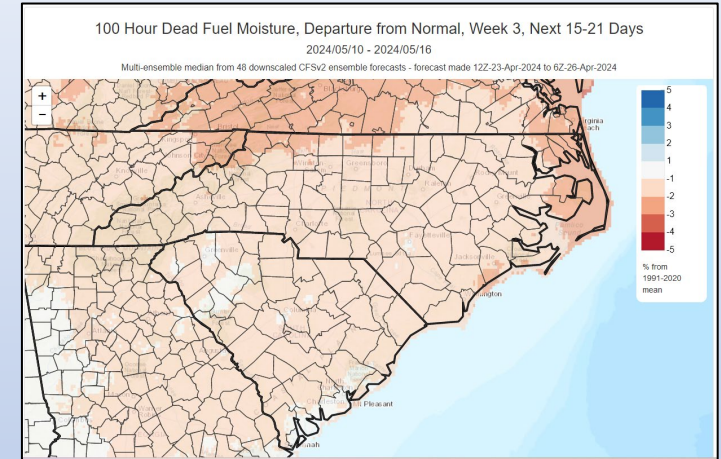
Modeled Departure from Normal by Week: 100-hr Fuels

Output relies on experimental forecast outputs and is subject to change

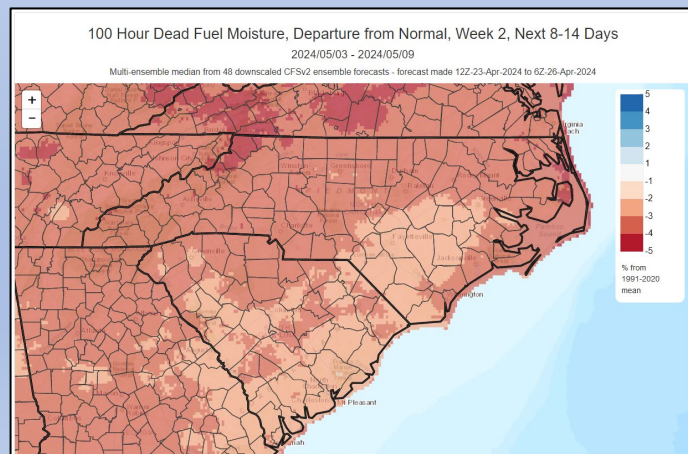
Week-1



Week-3



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 for Weeks 1-2 for much of the state. Weeks 3-4 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-4

