

Weekly Fire Danger Assessment NCFS – All Regions

For Time Period:

Friday (4/12/24) to Thursday (4/18/24)

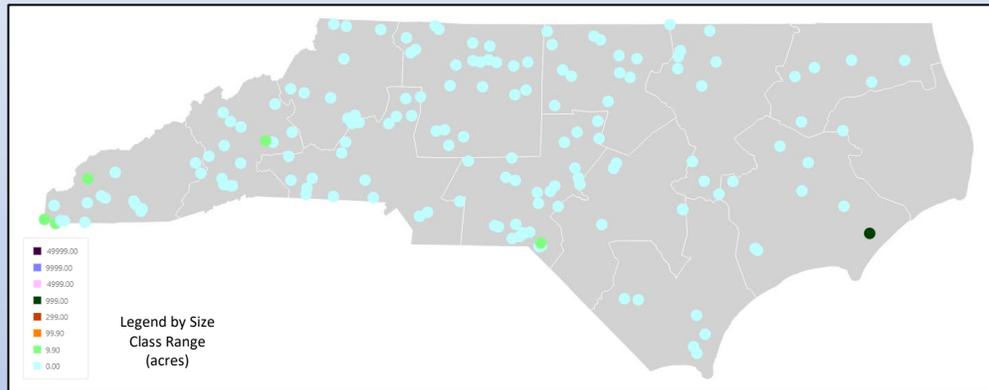
*Created by: Jamie Dunbar
Fire Environment Staff Forester
NC Forest Service*

Incident Activity

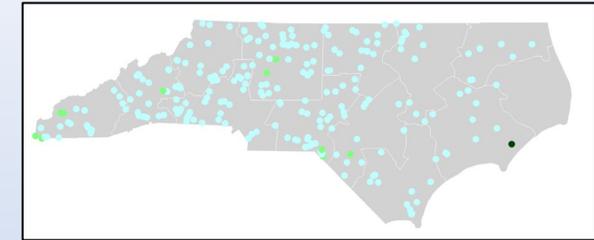
fiResponse Incident Location Map (for general context, preliminary data)

7-Day Activity: 4/5 – 4/11, 2024

Report: Business Intelligence Module, Response Trends Map



April 1 - 11



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 4/11):
 from fiResponse & preliminary reporting only

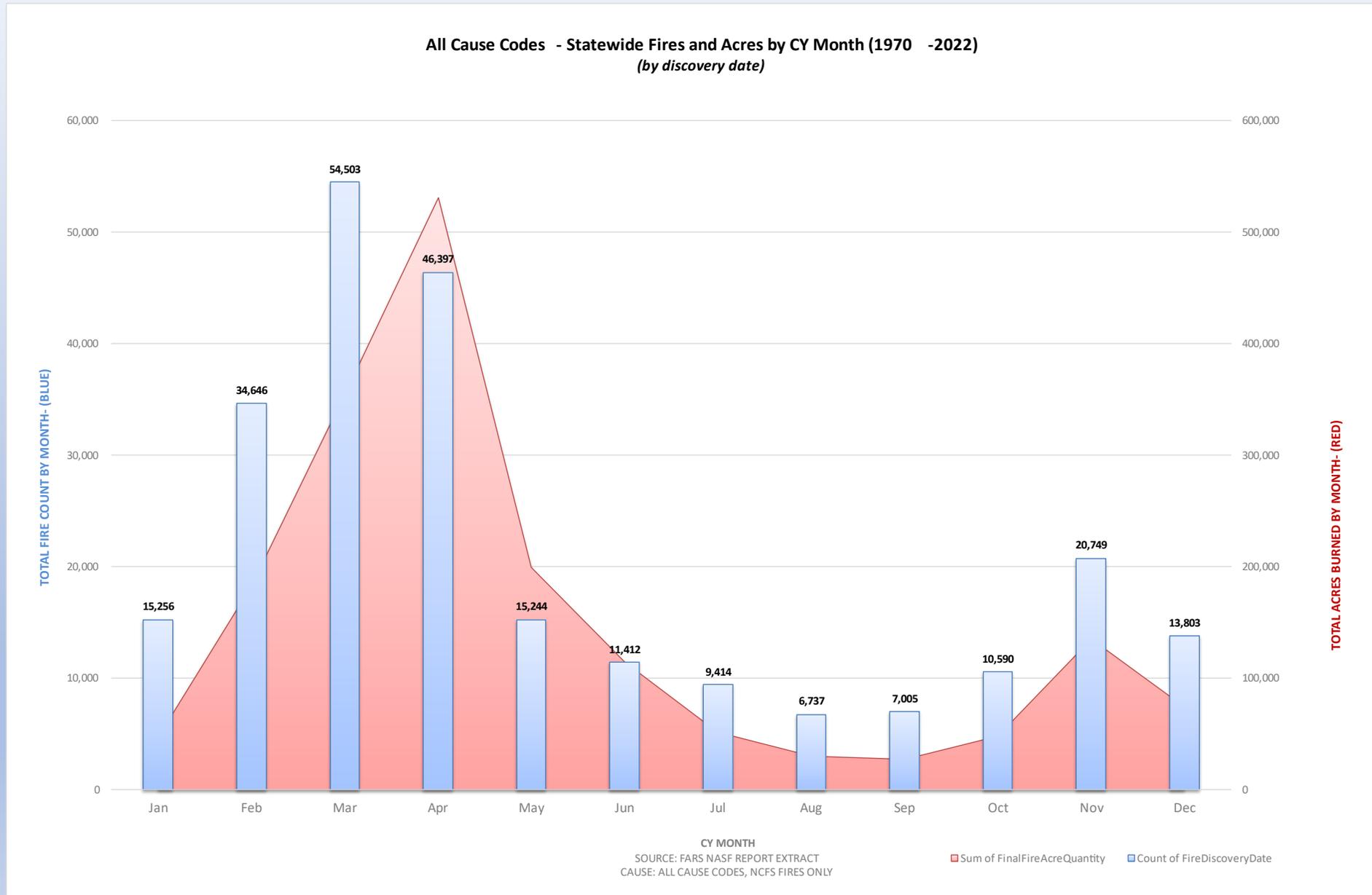
Incident Name	Discovery Date	Region	District	County	Acres
Hwy 12	4/8/2024	Region 1	District 4	Carteret County	3318.00
Georgia Line	4/8/2024	Region 3	District 9	Cherokee County	30.00
Marston road	4/5/2024	Region 2	District 3	Scotland County	20.00
State Line	4/7/2024	Region 3	District 9	Cherokee County	20.00
McDowell County - 553 State Road 1400	4/7/2024	Region 3	District 1	McDowell County	13.00
Wachacha	4/7/2024	Region 3	District 9	Graham County	10.00
Gaston County - 159 Joe Cloninger Road	4/5/2024	Region 3	District 12	Gaston County	5.00
West Gum Log	4/7/2024	Region 3	District 9	Clay County	5.00
RR Bed	4/8/2024	Region 1	District 13	Washington County	5.00
Butner Beef	4/8/2024	Region 2	District 11	Granville County	4.00

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:	4/5 – 4/11, 2024			
Area	Wildfire Count	Wildfire Acres	RX Count (State & Private)	RX Acres (State & Private)
R1	21	3,215.5	8	1,916
R2	69	49	34	1,771
R3	50	97.9	3	685

“209” Criteria Fires for April as of 4/11/24

- Highway 12 Fire – R1/D4/Carteret; 3,318 acres & 100% contained on 4/11/24

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



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

- Today – Low pressure moving into Canada will continue to impact eastern areas today, with windy conditions likely across the Appalachians. Widely scattered showers and embedded storms will pop up with daytime heating over the Appalachians, as well.
- Tomorrow – Dry and windy downslope flow will affect areas east of the Appalachians, where wetting rain largely skipped over the past few days; RH will drop to 20-30%, while W/NW winds will gust as high as 30-40 mph, locally higher near the Blue Ridge; wind gusts near 50 mph are possible in western NC and much of western VA, but fuels are not expected to be as receptive as areas farther east.
- Sunday – Look for warmer, dry and breezy conditions throughout the Appalachian states, with increasingly dry leaf litter expected; highs in the 70s and 80s will be common, with RH as low as 20-35%; SW winds are forecast to gust from 20-35 mph, locally higher.
- 10-hour fuels: A continued drying trend is likely through at least the middle of next week in most of the Plains, current forecasts show the lowest 10FM of the year so far in much of western TX and OK. Below normal 10FM will also develop across the FL peninsula this weekend into early next week, but moisture looks to increase thereafter. Most other areas will see a temporary decrease in 10-hour fuel moisture before the Gulf opens back up next week.
- 100-hr fuels: Areas along the East Coast into FL that have not observed wetting rain in 2-3 weeks will see below normal 100FM develop for at least a few days, with the greatest concerns likely in portions of NC and FL – much above normal temperatures will also factor into the drying prior to Gulf/Atlantic moisture returning next week.

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- General Pattern: A high pressure ridge aloft building into the Plains the next few days will expand across the rest of the region next week. This will translate to multiple days of highs in the 80s for lower elevations, with 70s in the Appalachians and some 90s for the coastal plain and Plains; a few record temperatures are possible, but they'll be more likely just north of the Southern Area. Late next week or weekend, a trough initially in the West will bring a significant drop in temperatures, which could set the stage for a hard freeze early the following week, especially across the northern tier into the Appalachian states.
 - Showers and storms will return to the Plains on Monday and spread into the Mississippi Valley by Tuesday; this front likely will **not** impact the Gulf Coast and East Coast, where the next chance of rain may not occur until late next week or beyond.

Regional Comments for this Week – R1

- D4:

Highway 12 Fire – **High Pocosin** fuels. Fire behavior was intense with significant crown runs from 3 heads and spotting of ½ mile, resulting in complete consumption of 1000-hr fuels. Soil was too wet for direct attack but was beneficial in that there is zero potential for ground fire (images to the right).

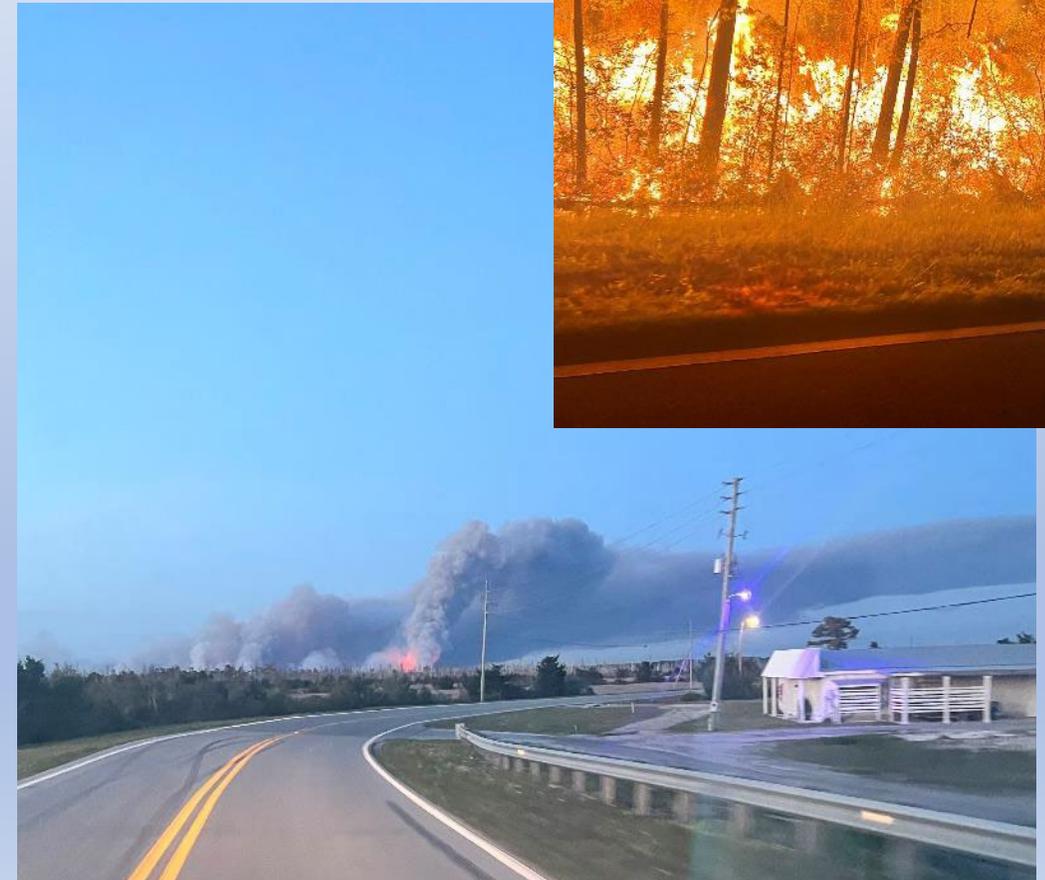
Green-up is steadily occurring through the rest of the district (non-pocosin/bay context). Limited rain from overnight, high temps, low Rh, and winds 15 mph+ on the backside of the front will dry out fuels very quickly.

- D7:

Green-up progressing well. Activity has been minimal. Considering we are in historic peak of typical fire season; we are in good shape at present. Will be monitoring rainfall deficits as the growing season begins.

- General Comments:

Rainfall was minimal again in portions of the eastern piedmont and northern/central coastal plain – some areas now at day 15 since a 0.25+ inch rainfall event. General model trends/signals suggest it may be at least another week or two before better chances come back.



Regional Comments for this Week – R2

- Higher RH values, intermittent rain showers have kept fire danger low to moderate this week.
- 100-hr and 1000-hr fuels are at or above seasonal average values.
- Green up is continuing across the region with understory rapidly greening up.
- Leaf out ranges from 75-85% in D5, D6, D3
- Leaf out is around 70-80 % for most of D10 and D11 with Surry/Stokes a week behind.
- Fire Danger could increase over the weekend with RH values forecasted in the 25-35% for most of R2.



4/12 Image of hardwood green-up at NCSU Belltower Area <https://www.youtube.com/watch?v=D9nujG0PUTQ>

Regional Comments for this Week – R3

Regional Comments:

- Fire activity remained low this week with no significant fires.
- The most fires occurred on Sunday (4/7) following two drying days.
- The highlight of this week consisted of a generally wet pattern through most of the work week.
- Over the last 72 hours, most locations in R3 received over an inch of rainfall.
- Eastern D12 generally missed the majority of the rain, receiving between 0.2”-0.5”.
- Green-up at elevations below 2,000’ is approximately 30-50%, between 2,000’-3,000’ green up is around 20%
- Dry, warm, and breezy conditions throughout the weekend should quickly dry small fuel classes and will likely result in an uptick of IA towards the end of the weekend.
- Breezy southern winds and above normal temperatures are expected Sunday and into the beginning of the workweek.



Photo was taken at approximately 2,500’ near the McDowell/Buncombe County line. The foreground shows green-up on southern exposure looking across a drainage to a northern exposure.

Daily WIMS Observations and NFDERS 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 NFDERS 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>

4/11/24 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	2024-04-11	0.00 10.1%	0.00 11.0%	0.00 17.2%	0.00 9.6%	6.67	35.00 100.0%	33.60 99.3%	24.79 94.0%	23.52 93.9%	112.27	106.33	60.7°F	96.3%	SW 6.3 mph	0.51 in.	5.0
Central Mountains	3	2024-04-11	0.00 8.7%	0.00 9.2%	0.00 15.5%	0.00 8.4%	19.00	35.00 100.0%	33.55 99.4%	24.09 92.7%	21.97 83.1%	153.63	134.33	65.3°F	89.0%	E 3.3 mph	0.18 in.	3.7
Northern Highlands	2	2024-04-11	0.00 12.2%	0.00 12.6%	0.00 21.8%	0.00 11.7%	5.50	35.00 100.0%	33.44 98.4%	23.99 92.7%	22.29 80.1%	129.20	127.50	60.0°F	98.5%	SE 9.5 mph	1.44 in.	10.5
Blue Ridge Escarpment	3	2024-04-11	0.00 10.1%	0.00 10.7%	0.00 16.6%	0.00 9.8%	32.00	33.50 96.2%	34.52 100.0%	28.23 98.2%	20.76 66.0%	130.80	121.67	63.0°F	100.0%	SW 7.0 mph	0.33 in.	5.0
Western Piedmont	3	2024-04-11	1.43 7.4%	0.13 7.6%	0.03 12.3%	2.53 11.3%	112.33	24.53 89.4%	29.88 96.2%	21.57 87.4%	21.16 76.6%	149.80	131.67	70.0°F	84.3%	SSE 7.0 mph	0.04 in.	2.3
Sandhills	3	2024-04-11	16.90 15.5%	8.30 10.9%	0.70 15.7%	7.80 80.2%	94.67	20.42 84.8%	28.11 93.4%	19.49 55.6%	20.95 77.5%	250.00	200.00	73.0°F	74.7%	S 11.0 mph	0.08 in.	2.3
Eastern Piedmont	4	2024-04-11	14.95 10.3%	2.83 9.2%	0.60 15.8%	13.08 17.8%	81.25	20.25 84.8%	27.76 94.5%	19.75 68.6%	21.04 78.3%	202.15	169.50	70.8°F	81.0%	SSW 14.5 mph	0.00 in.	0.0
Southern Coastal	7	2024-04-11	2.79 4.7%	0.61 5.5%	0.07 9.3%	1.93 5.5%	126.00	29.77 96.3%	27.64 94.1%	18.91 46.5%	22.65 88.7%	184.26	125.86	70.1°F	88.0%	S 8.4 mph	0.27 in.	3.7
Northern Coastal	4	2024-04-11	22.68 17.0%	6.95 14.4%	1.33 18.1%	12.48 25.2%	147.00	17.22 75.9%	23.90 85.8%	18.53 52.8%	21.92 81.5%	230.50	170.25	70.8°F	79.8%	SE 11.3 mph	0.01 in.	0.5

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.



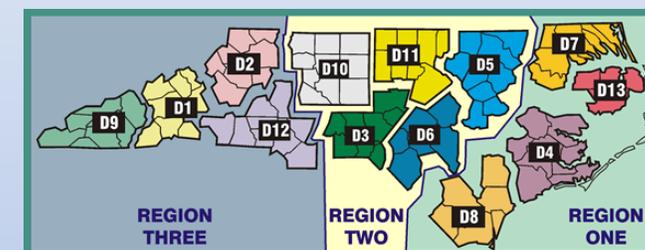
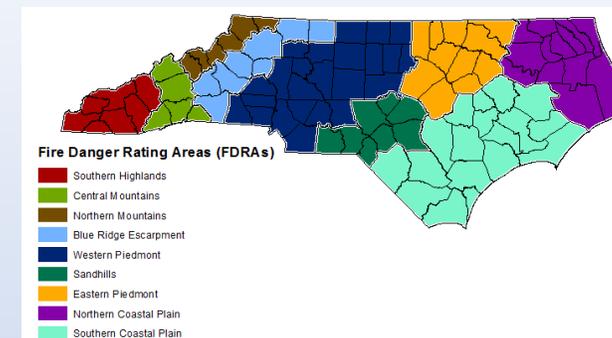
Important notes for next slide group:

A. Current ERC, KBDI, 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:

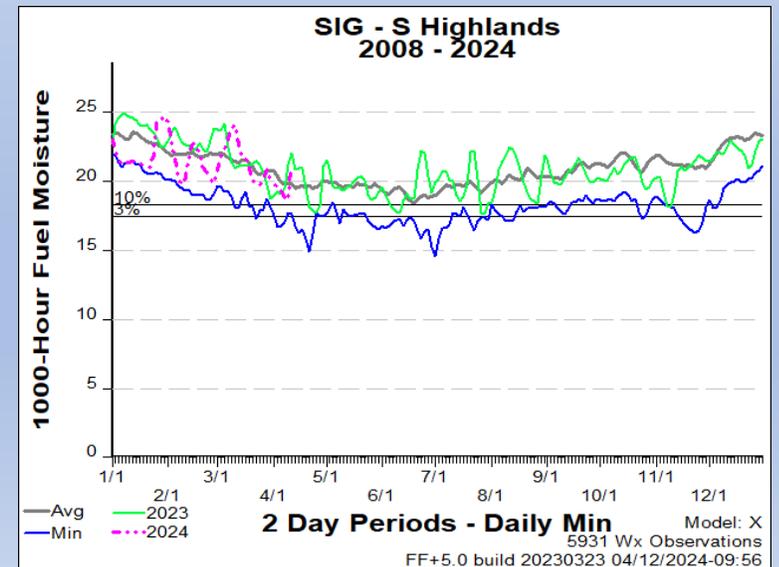
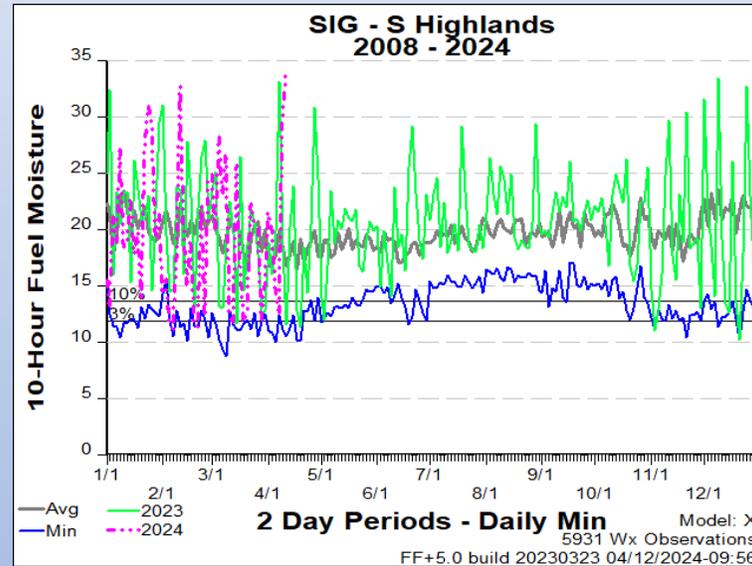
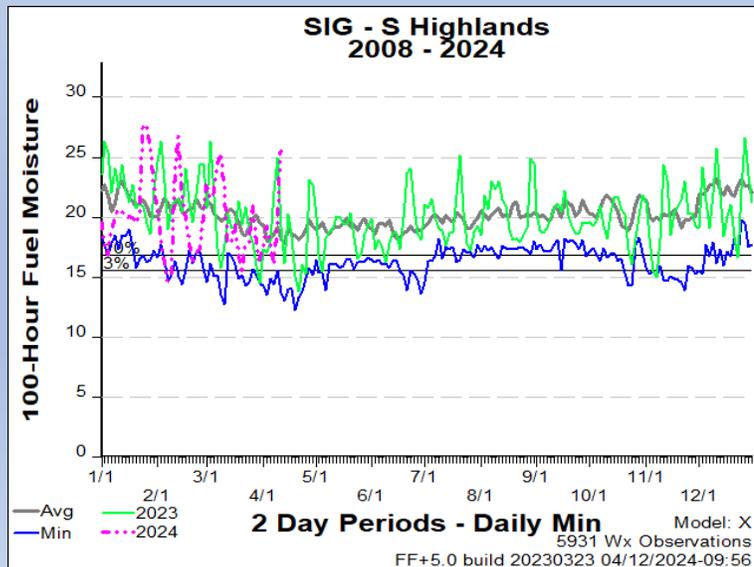
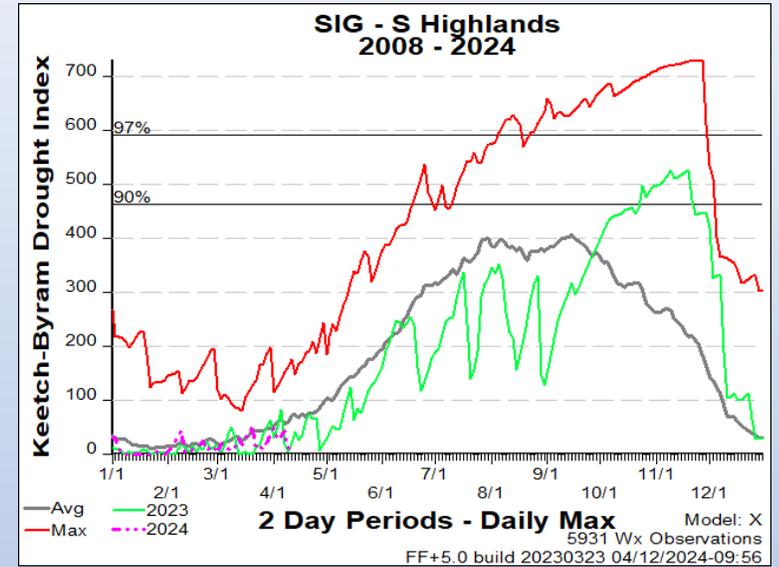
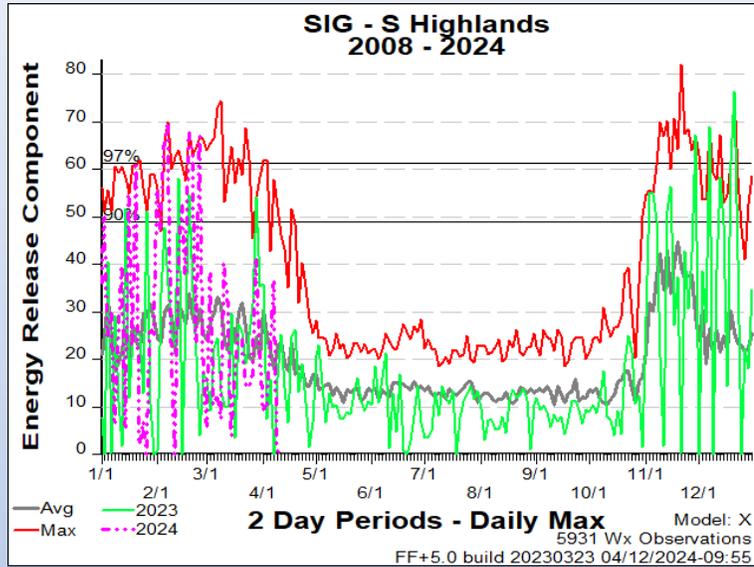
- Read the key and notes for each FDRA, included on the outlook matrix page.
- Forecasts are variable and can change significantly over a forecast cycle and across the landscape.
- This is another tool for gaining better situational awareness, and should be used for general planning purposes only.
- 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 12-Apr	SAT 13-Apr	SUN 14-Apr	MON 15-Apr	TUE 16-Apr	WED 17-Apr	THU 18-Apr
Avg. Max. Temp. (°F)	55	65	75	79	77	74	78
Avg. Min. Humidity (%)	42	31	33	40	35	46	42
Avg. 20' Wind Speed (mph)	16	11	10	9	8	10	8
Avg. Wind Direction*	WNW	NW	WSW	WSW	S	SSW	SW
Avg. Probability of Precip. (%)	30	0	0	0	7	19	15
Days Since a Wetting Rain**	1.3	2.3	3.3				
Forecast ERC (Fuel Model X)	10.0	24.1	23.3	20.2	21.2	25.4	14.0
Forecast BI (Fuel Model X)	49.4	71.9	77.4	54.8	65.7	77.1	44.2
Forecast IC (Fuel Model X)	4.3	8.4	10.4	7.6	9.3	10.3	5.4
Forecast 100-Hr. FMC	28.3	27.1	23.5	21.7	20.6	19.8	19.5
Forecast 1000-Hr. FMC	23.4	23.5	23.7	23.9	23.9	24.0	24.0
KBDI	6.7						

Data Source:

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

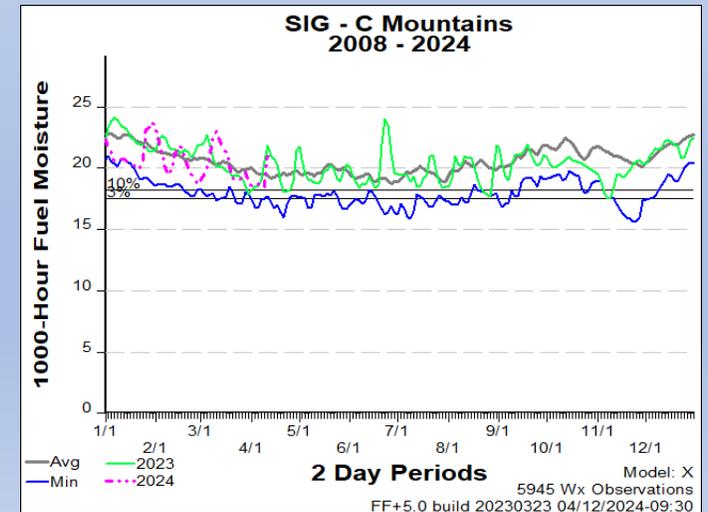
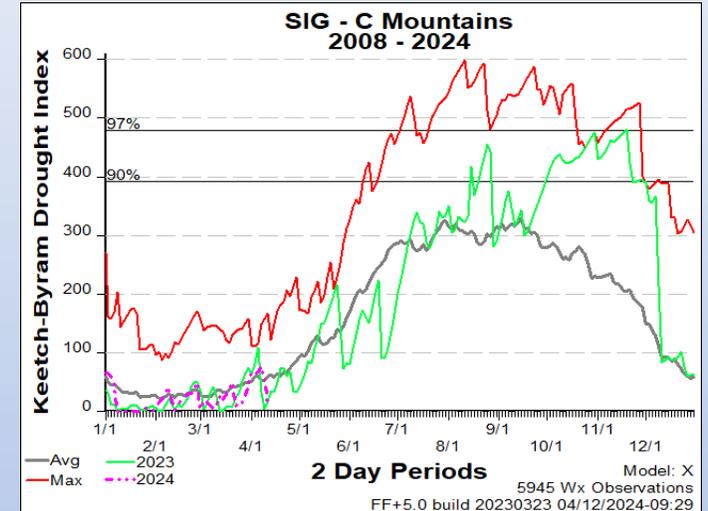
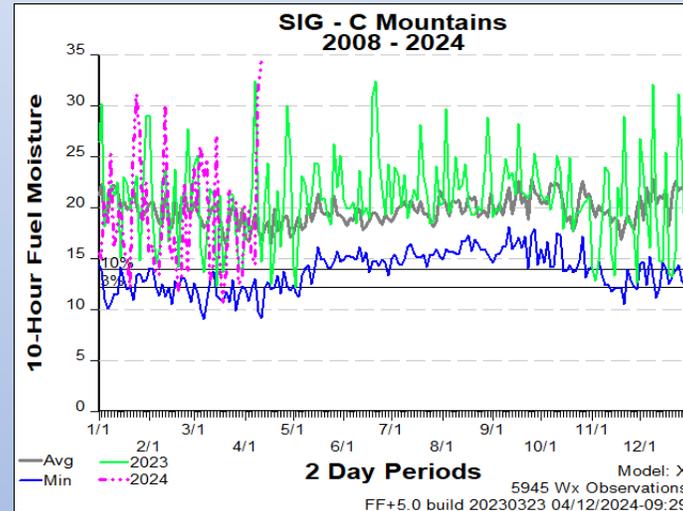
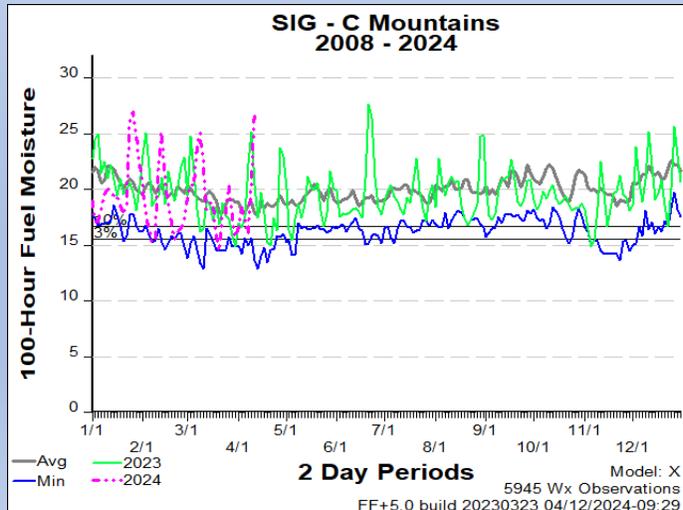
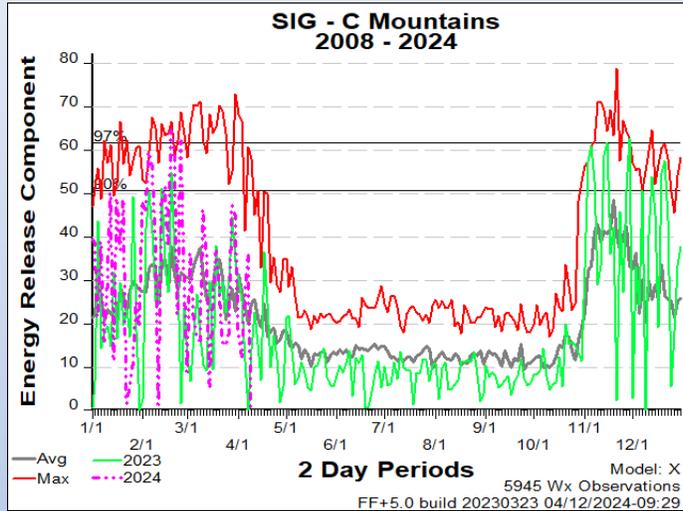
Values in the table above are averages from 3 stations in this FDRA:

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

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

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

FDRA – Central Mountains



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 12-Apr	SAT 13-Apr	SUN 14-Apr	MON 15-Apr	TUE 16-Apr	WED 17-Apr	THU 18-Apr
Avg. Max. Temp. (°F)	58	66	79	82	81	79	81
Avg. Min. Humidity (%)	39	26	28	36	33	37	37
Avg. 20' Wind Speed (mph)	20	15	11	10	8	11	9
Avg. Wind Direction*	WNW	NW	W	W	SSW	SSW	SW
Avg. Probability of Precip. (%)	42	0	0	1	9	17	13
Days Since a Wetting Rain**	1.0	2.0	3.0				
Forecast ERC (Fuel Model X)	10.9	21.9	18.9	16.4	15.2	18.1	13.6
Forecast BI (Fuel Model X)	48.9	68.0	50.4	36.3	39.1	47.9	36.6
Forecast IC (Fuel Model X)	4.5	9.0	8.2	6.2	6.5	8.2	5.7
Forecast 100-Hr. FMC	26.4	24.9	21.8	20.3	19.7	19.1	18.9
Forecast 1000-Hr. FMC	22.0	22.3	22.5	22.6	22.8	22.8	22.8
KBDI	19.0						

Data Source:

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

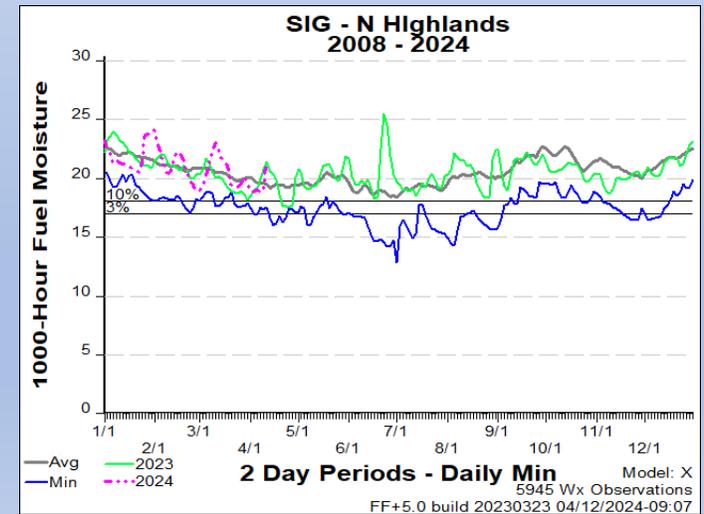
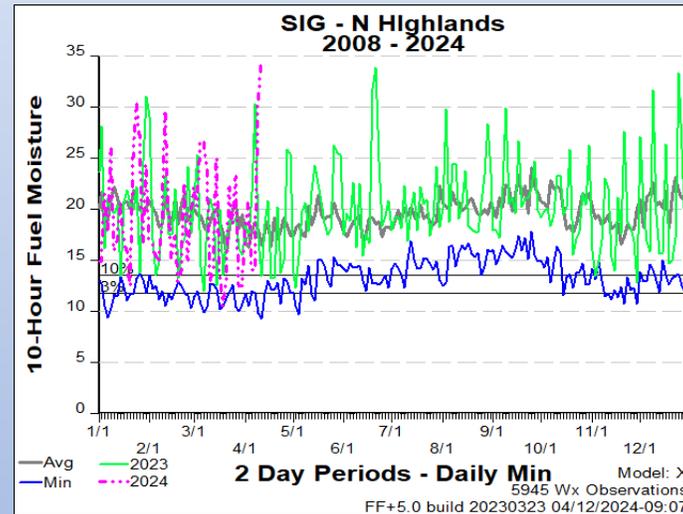
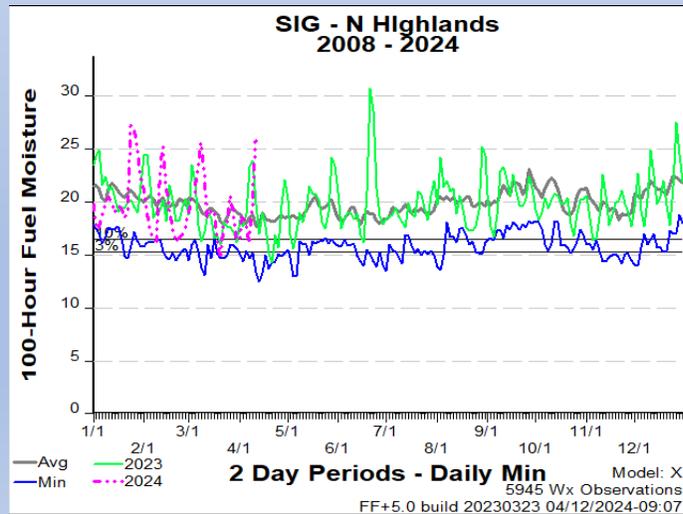
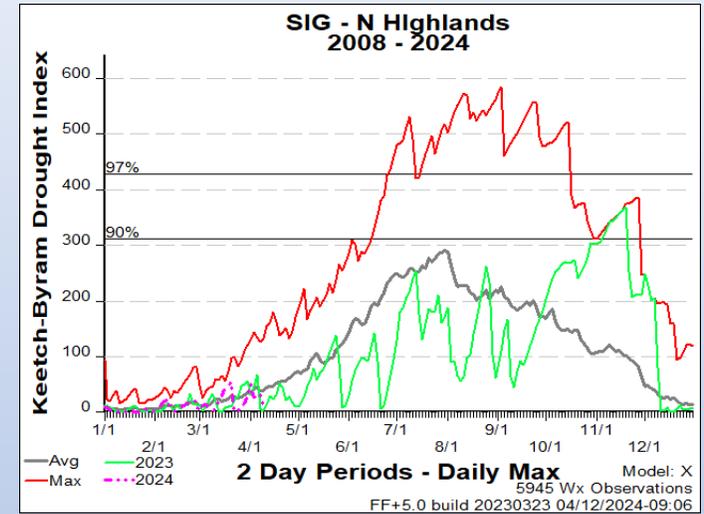
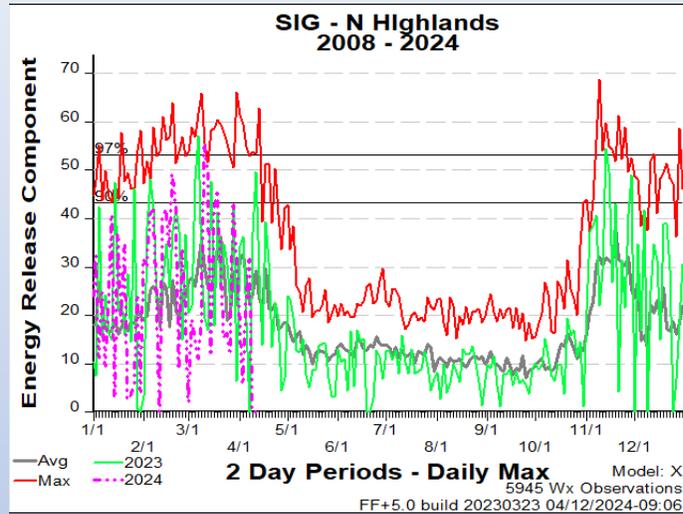
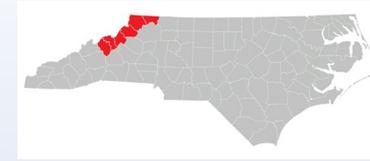
Values in the table above are averages from 3 stations in this FDRA:

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

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

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

FDRA – Northern Highlands



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 12-Apr	SAT 13-Apr	SUN 14-Apr	MON 15-Apr	TUE 16-Apr	WED 17-Apr	THU 18-Apr
Avg. Max. Temp. (°F)	51	58	71	75	73	71	76
Avg. Min. Humidity (%)	48	29	31	39	44	45	38
Avg. 20' Wind Speed (mph)	29	23	16	14	8	12	9
Avg. Wind Direction*	WNW	NW	W	W	WSW	SW	WSW
Avg. Probability of Precip. (%)	58	1	6	6	6	20	15
Days Since a Wetting Rain**	0.7	1.7	2.7				
Forecast ERC (Fuel Model X)	7.7	18.5	22.3	20.9	18.7	18.6	18.6
Forecast BI (Fuel Model X)	40.4	55.6	52.6	44.8	42.5	47.4	42.6
Forecast IC (Fuel Model X)	2.9	6.5	8.4	7.1	6.0	6.4	6.3
Forecast 100-Hr. FMC	28.2	27.6	23.8	20.8	19.3	18.5	18.1
Forecast 1000-Hr. FMC	22.2	22.4	22.6	22.8	22.9	23.1	23.1
KBDI	5.5						

Data Source:

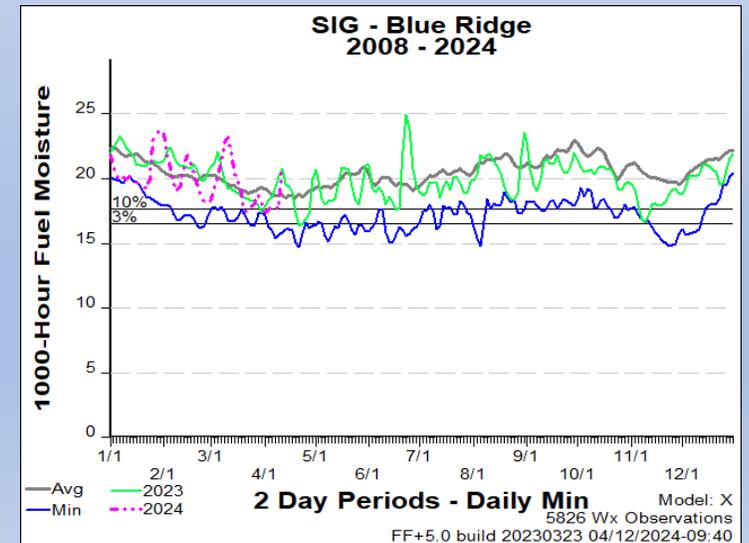
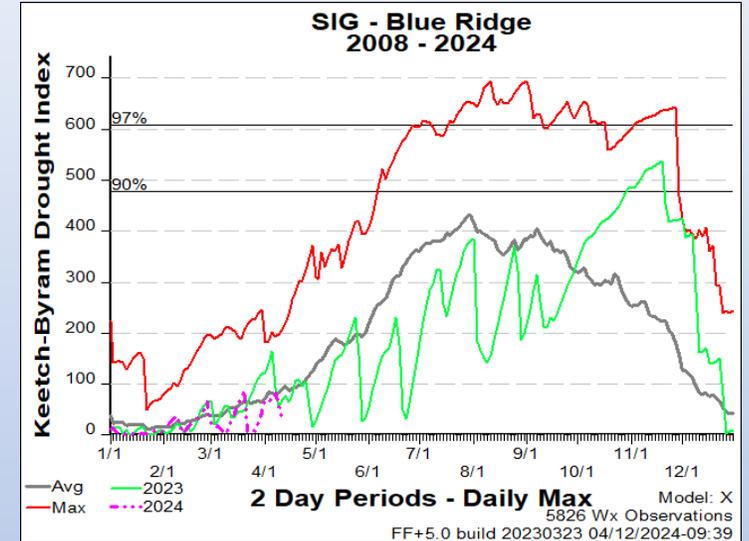
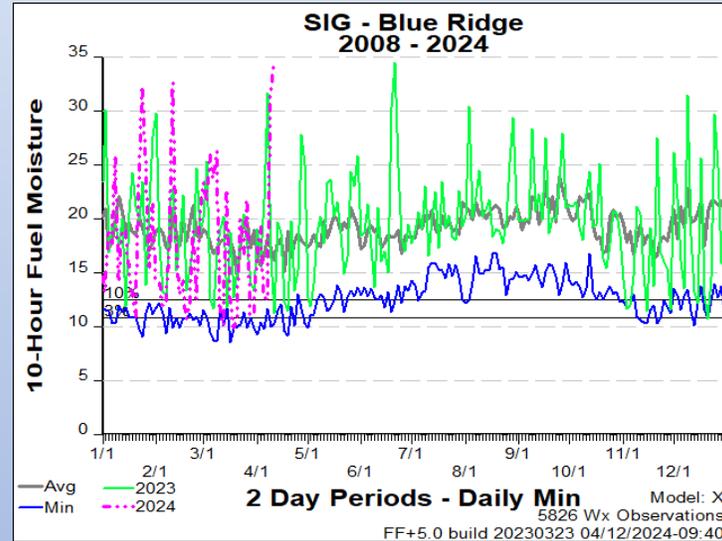
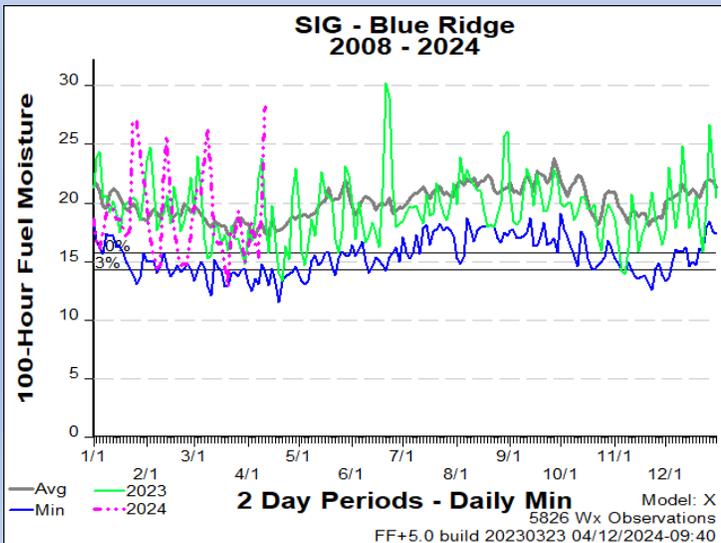
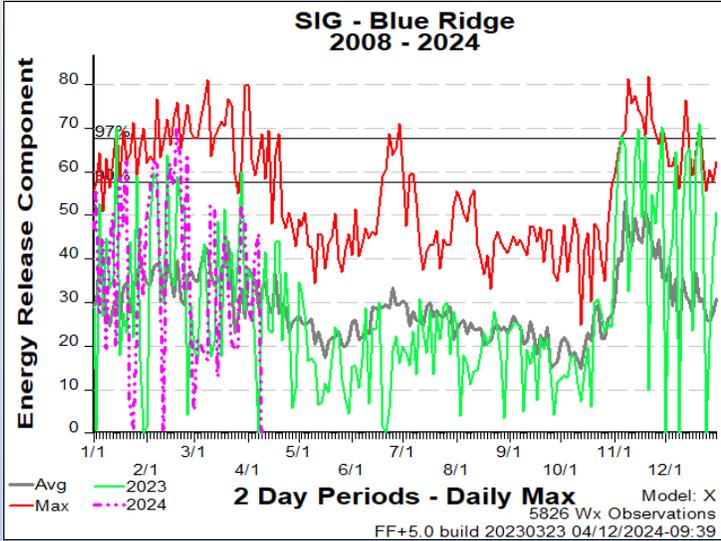
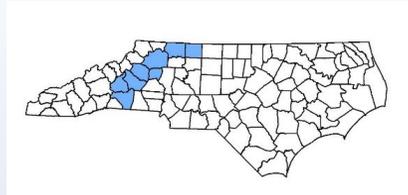
- Weather forecasts come from the National Weather Service's [Digital Forecast Database](#). The wind speed and direction, and probability of precipitation, are calculated as averages of the 1 am, 7 am, 1 pm, and 7 pm forecasts. The 20-foot wind speed is estimated from the 10-meter forecast using the 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 12-Apr	SAT 13-Apr	SUN 14-Apr	MON 15-Apr	TUE 16-Apr	WED 17-Apr	THU 18-Apr
Avg. Max. Temp. (°F)	59	66	79	81	79	77	82
Avg. Min. Humidity (%)	40	27	30	37	41	42	37
Avg. 20' Wind Speed (mph)	22	15	11	10	7	10	9
Avg. Wind Direction*	WNW	WNW	WSW	WSW	SW	SSW	WSW
Avg. Probability of Precip. (%)	32	1	2	4	5	16	11
Days Since a Wetting Rain**	2.0	3.0	4.0				
Forecast ERC (Fuel Model X)	12.1	29.2	27.9	26.3	23.1	24.6	24.3
Forecast BI (Fuel Model X)	55.6	72.3	68.2	56.3	55.3	66.2	61.4
Forecast IC (Fuel Model X)	4.6	10.0	11.0	9.4	8.0	8.8	8.6
Forecast 100-Hr. FMC	28.7	24.6	20.3	18.0	17.5	17.8	18.1
Forecast 1000-Hr. FMC	23.3	23.5	23.6	22.2	21.2	20.5	20.1
KBDI	32.0						

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.

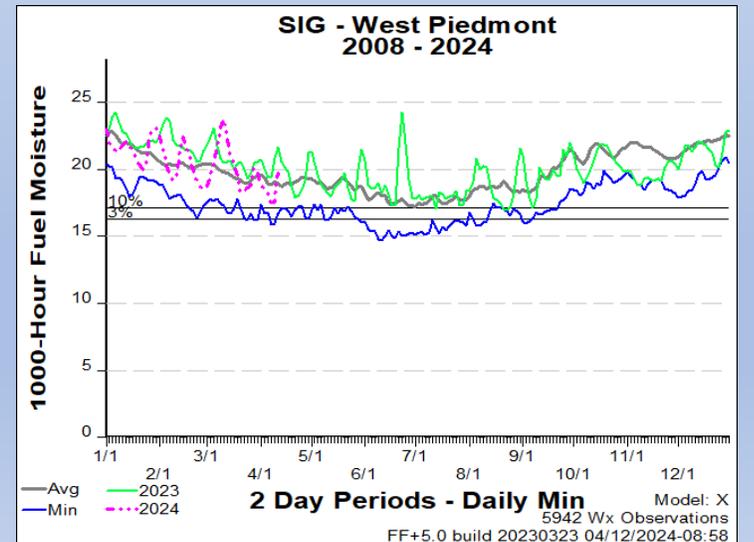
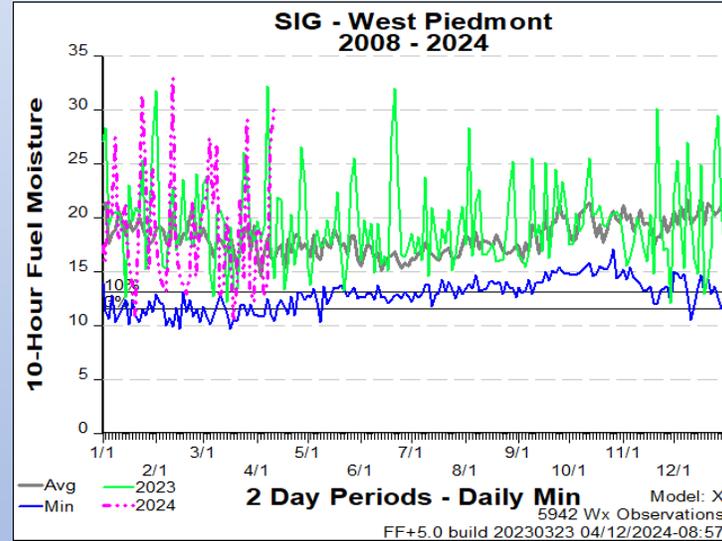
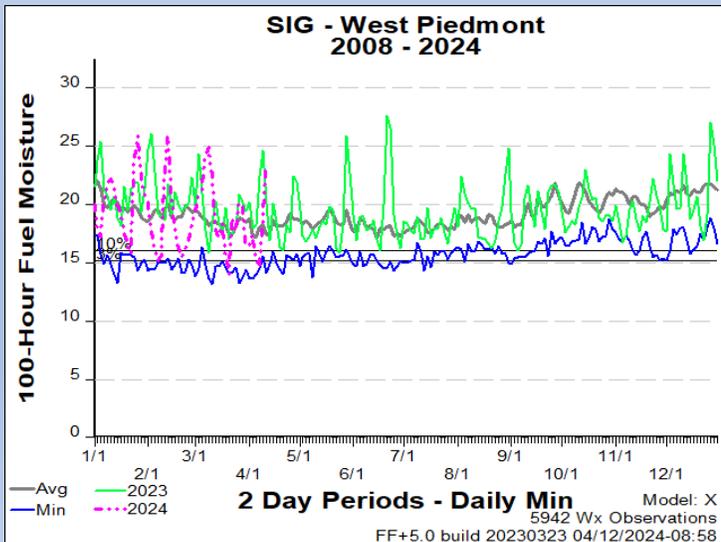
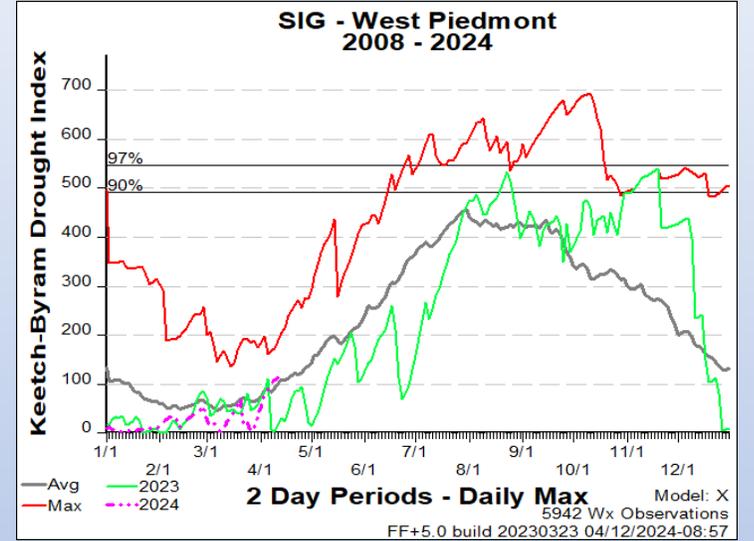
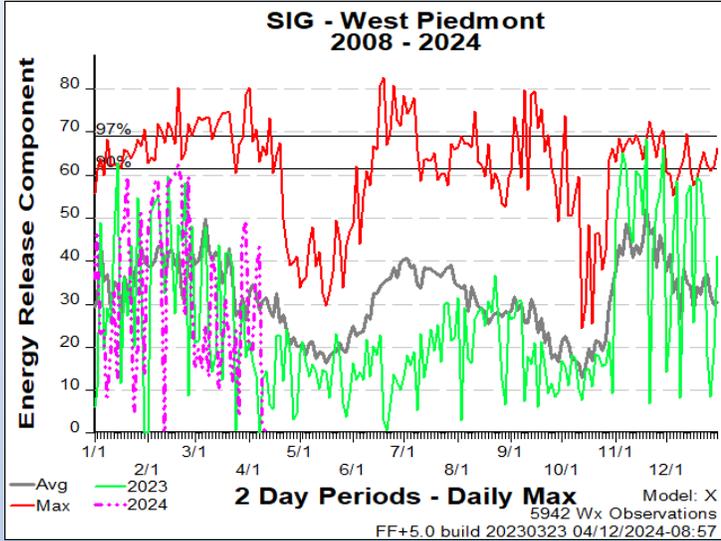
Values in the table above are averages from 3 stations in this FDRA:

- 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 12-Apr	SAT 13-Apr	SUN 14-Apr	MON 15-Apr	TUE 16-Apr	WED 17-Apr	THU 18-Apr
Avg. Max. Temp. (°F)	68	72	82	86	86	82	88
Avg. Min. Humidity (%)	32	25	33	35	39	40	35
Avg. 20' Wind Speed (mph)	14	10	8	8	7	12	10
Avg. Wind Direction*	W	W	SW	WSW	SSW	SSW	SW
Avg. Probability of Precip. (%)	20	0	2	3	2	10	8
Days Since a Wetting Rain**	2.7	3.7	4.7				
Forecast ERC (Fuel Model X)	13.5	20.9	21.1	18.5	15.7	18.7	17.0
Forecast BI (Fuel Model X)	44.3	47.4	46.8	35.8	36.3	49.4	43.3
Forecast IC (Fuel Model X)	6.1	7.4	8.2	6.4	6.2	8.6	7.4
Forecast 100-Hr. FMC	23.6	22.5	19.8	18.6	18.1	18.4	18.5
Forecast 1000-Hr. FMC	21.2	21.3	21.4	21.5	21.6	21.5	21.4
KBDI	112.3						

Data Source:

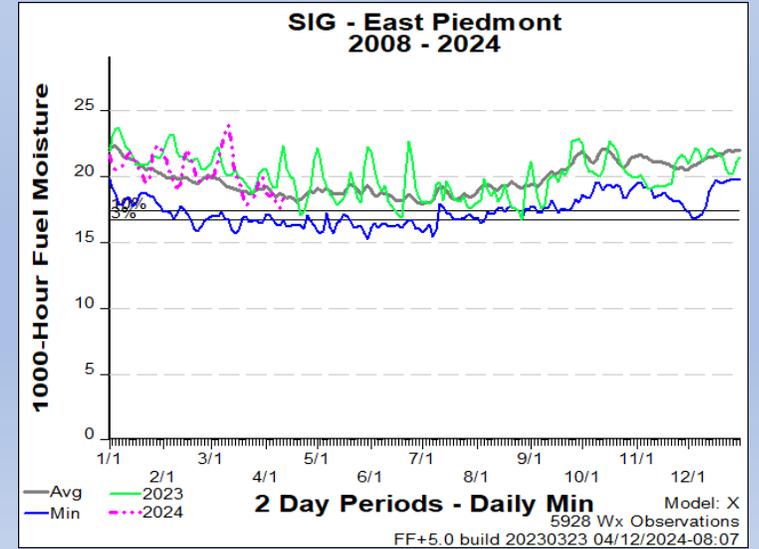
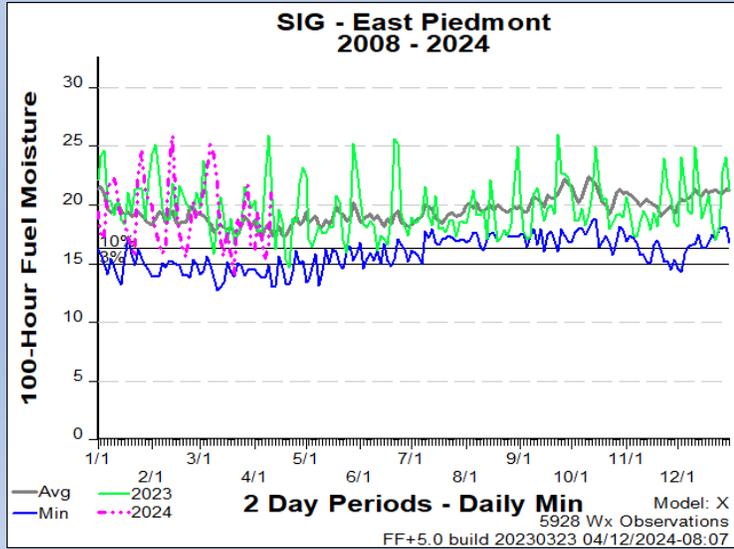
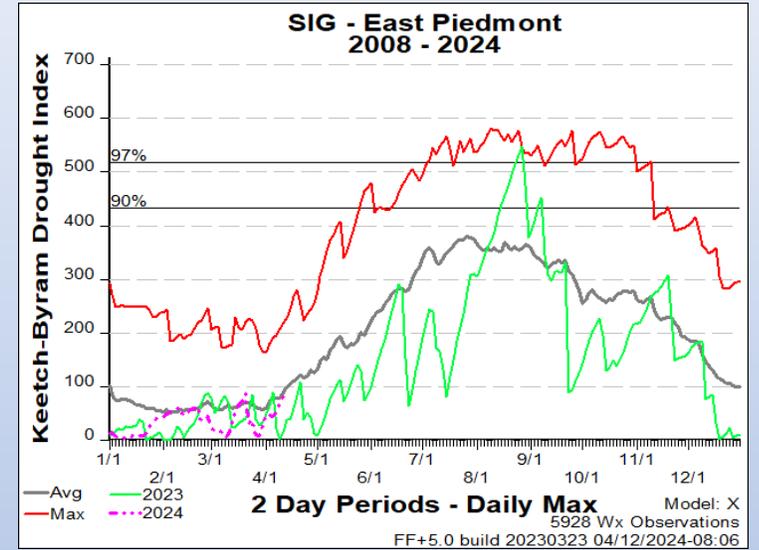
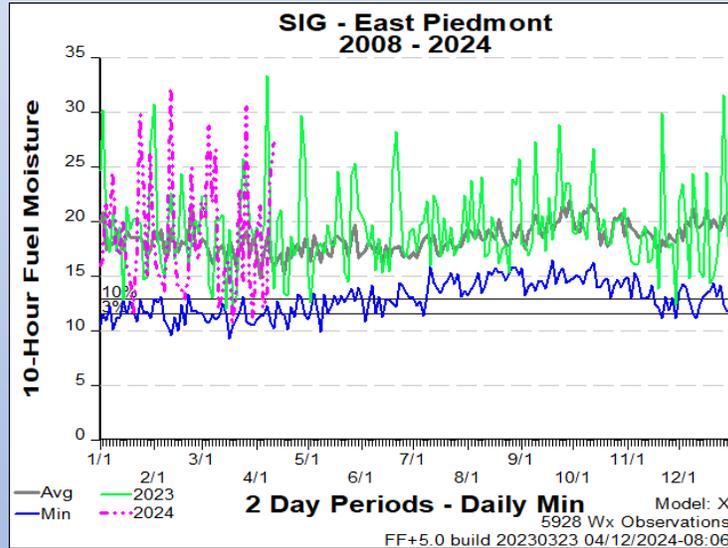
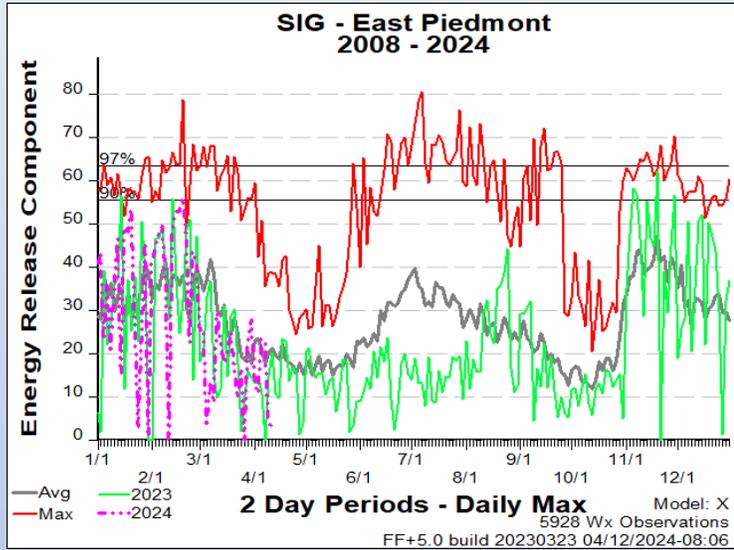
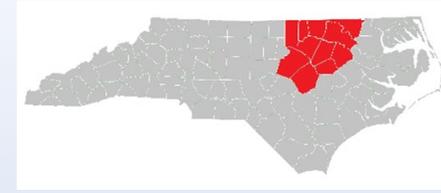
- Weather forecasts come from the National Weather Service's [Digital Forecast Database](#). The wind speed and direction, and probability of precipitation, are calculated as averages of the 1 am, 7 am, 1 pm, and 7 pm forecasts. The 20-foot wind speed is estimated from the 10-meter forecast using the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

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

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

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

FDRA – Eastern Piedmont



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 12-Apr	SAT 13-Apr	SUN 14-Apr	MON 15-Apr	TUE 16-Apr	WED 17-Apr	THU 18-Apr
Avg. Max. Temp. (°F)	71	71	80	85	86	83	89
Avg. Min. Humidity (%)	29	28	34	38	41	44	37
Avg. 20' Wind Speed (mph)	14	11	9	9	7	11	10
Avg. Wind Direction*	W	W	WSW	WSW	SSW	SSW	SW
Avg. Probability of Precip. (%)	20	0	5	4	5	11	10
Days Since a Wetting Rain**	1.0	2.0	3.0				
Forecast ERC (Fuel Model X)	10.0	17.7	18.5	16.3	12.6	13.8	13.6
Forecast BI (Fuel Model X)	33.9	43.3	40.5	29.3	28.5	35.3	30.5
Forecast IC (Fuel Model X)	4.6	6.8	7.0	5.2	4.8	6.0	5.3
Forecast 100-Hr. FMC	23.7	23.0	20.3	19.1	18.6	19.0	19.3
Forecast 1000-Hr. FMC	21.1	21.1	21.0	21.0	21.1	21.0	20.9
KBDI	81.3						

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.

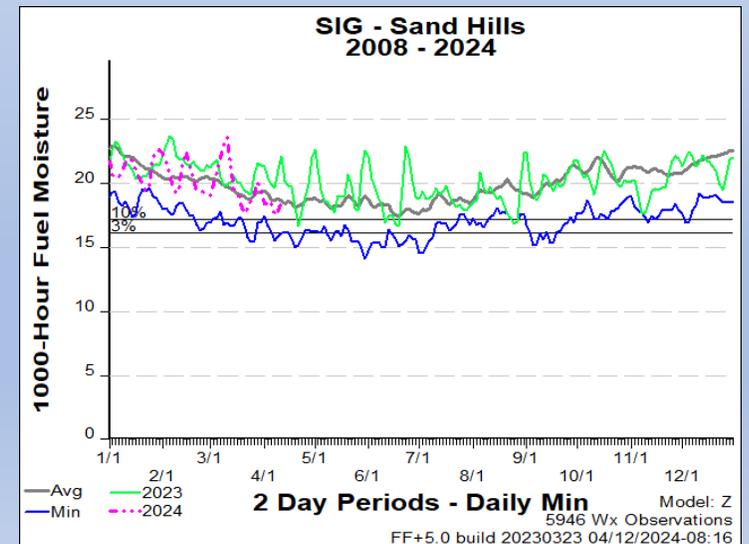
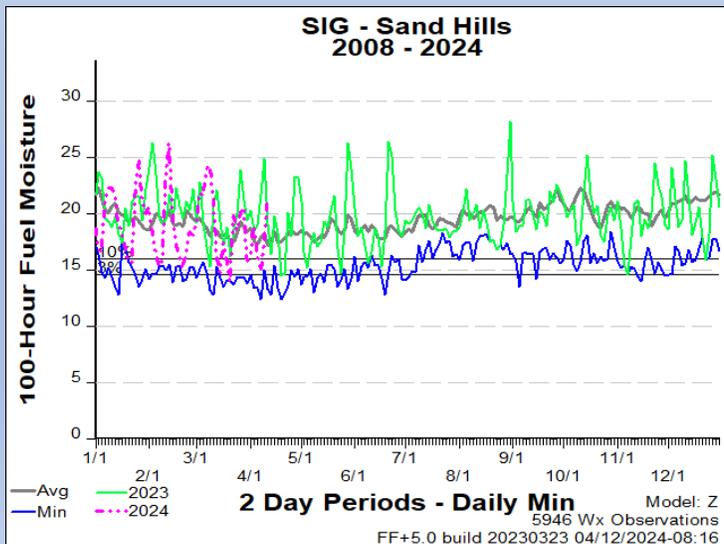
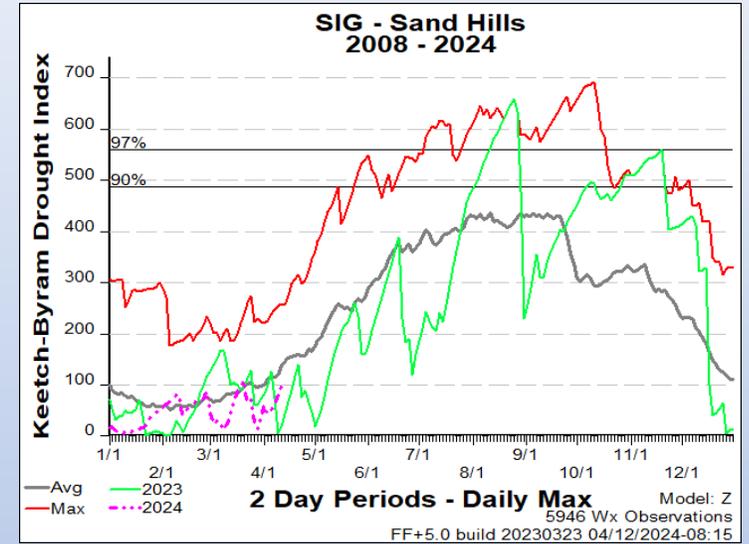
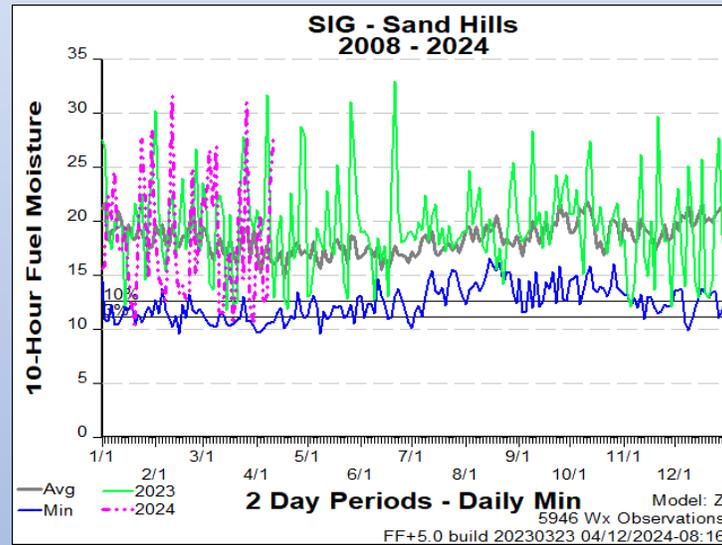
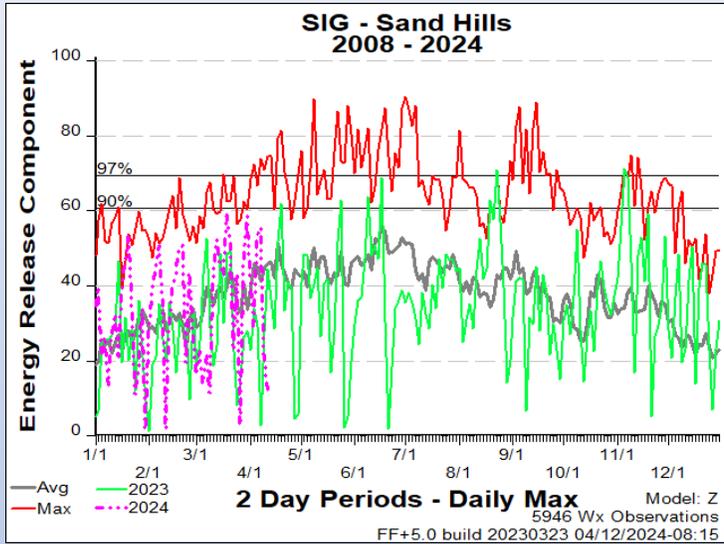
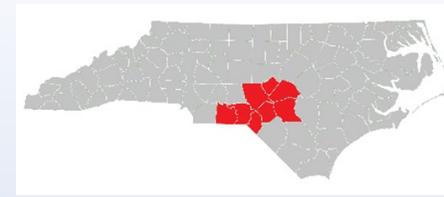
Values in the table above are averages from 4 stations in this FDRA:

- 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 12-Apr	SAT 13-Apr	SUN 14-Apr	MON 15-Apr	TUE 16-Apr	WED 17-Apr	THU 18-Apr
Avg. Max. Temp. (°F)	72	72	82	87	88	84	89
Avg. Min. Humidity (%)	27	25	32	33	35	38	34
Avg. 20' Wind Speed (mph)	13	10	8	9	7	11	10
Avg. Wind Direction*	W	W	WSW	WSW	SSW	SSW	SW
Avg. Probability of Precip. (%)	32	0	2	3	1	6	8
Days Since a Wetting Rain**	1.7	2.7	3.7				
Forecast ERC (Fuel Model Z)	22.6	35.6	38.1	38.4	35.4	33.5	31.4
Forecast BI (Fuel Model Z)	41.7	50.0	50.7	42.6	45.7	47.4	41.2
Forecast IC (Fuel Model Z)	10.5	14.6	15.2	13.9	14.5	14.1	12.5
Forecast 100-Hr. FMC	22.4	21.7	19.3	18.2	17.7	17.9	18.3
Forecast 1000-Hr. FMC	20.9	21.0	21.2	21.3	21.4	21.4	21.2
KBDI	94.7						

Data Source:

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

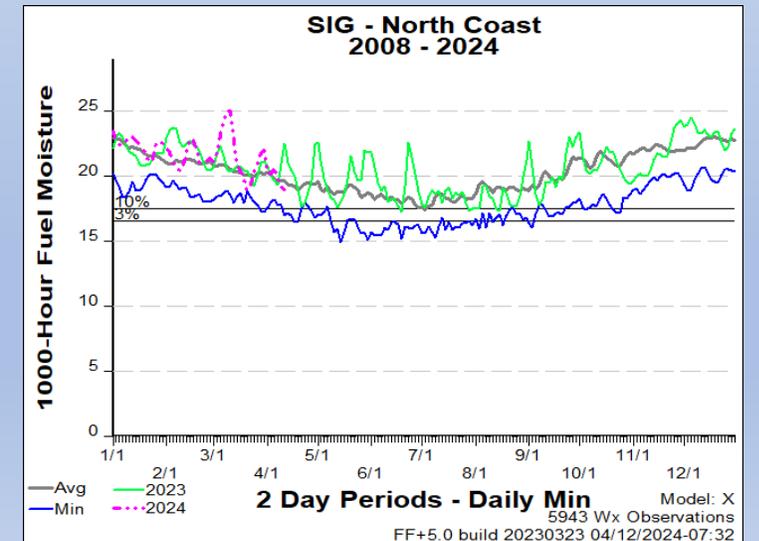
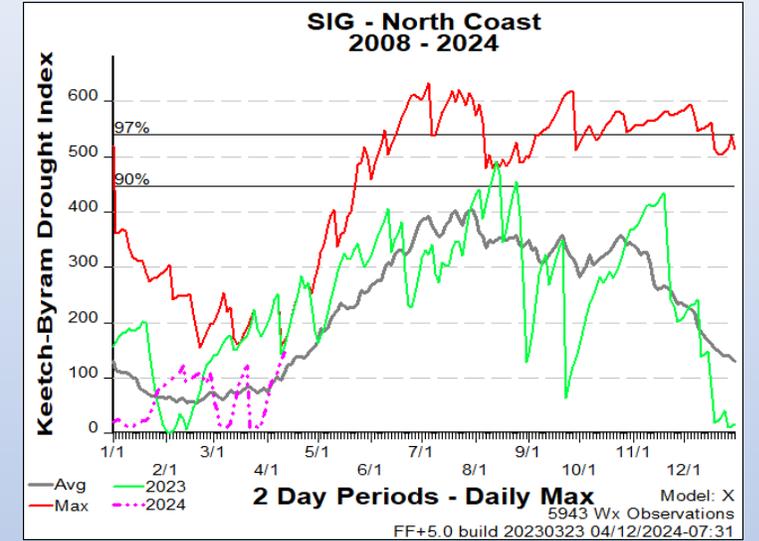
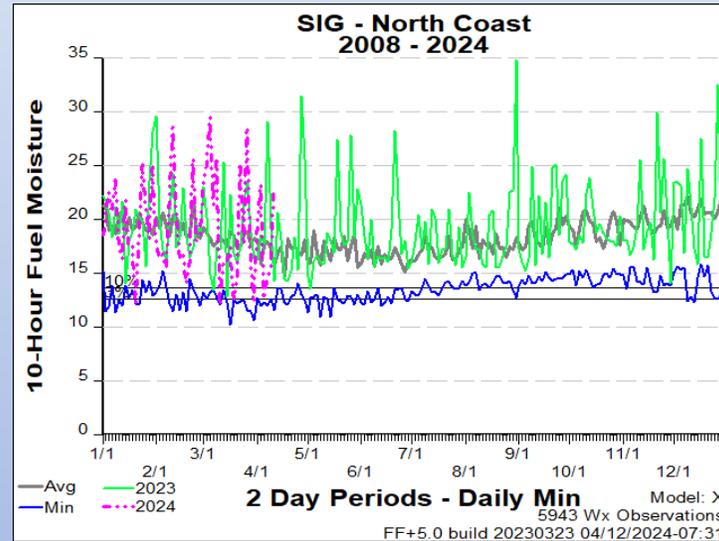
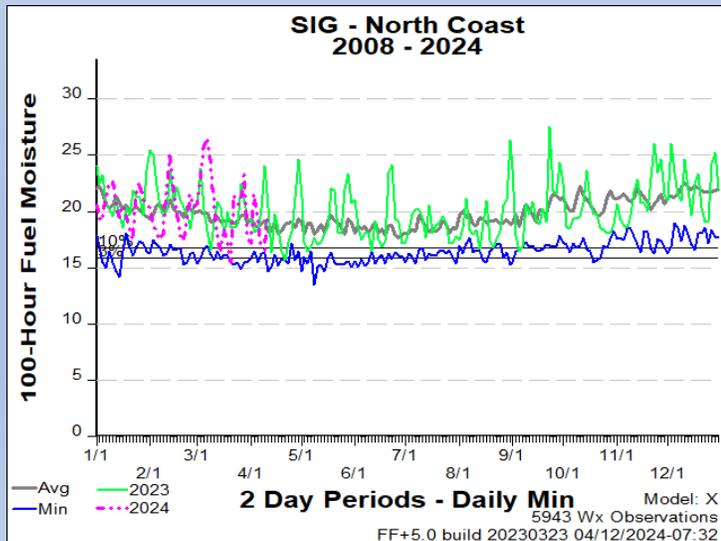
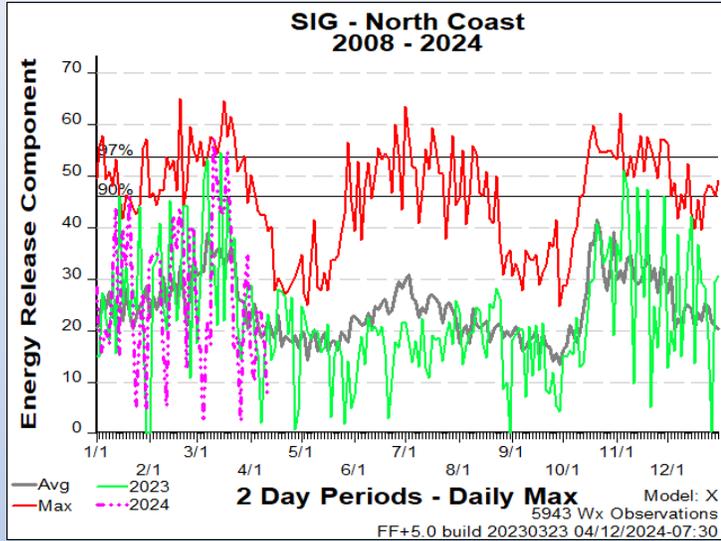
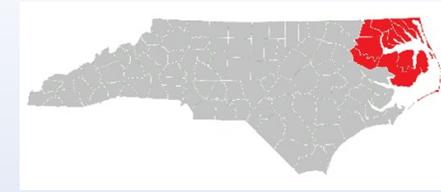
Values in the table above are averages from 3 stations in this FDRA:

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

KEY	Low to Moderate Burning Conditions	Burning Conditions Can be High CAUTION	Burning Conditions Can be Critical WATCH OUT!
Avg. Max. Temp.	Less than 50°F	Between 50°F and 60°F	Greater than 60°F
Avg. Min. Humidity	Greater than 40%	Between 30% and 40%	Less than 30%
Avg. 20' Wind Speed	Less than 4 mph	Between 4 mph and 8 mph	Greater than 8 mph
Avg. Wind Direction*	Criticality of wind direction is highly dependent on burn operations and/or structures threatened.		
Days Since a Wetting Rain**	A wetting rain is defined as 0.10" or greater. This is an average of the FDRA stations noted above.		
Energy Release Comp.	Less than 52.4	Between 52.4 and 62	Greater than 62
Burning Index	Less than 45.6	Between 45.6 and 53.3	Greater than 53.3
Ignition Component	Less than 13.6	Between 13.6 and 18.8	Greater than 18.8
100-Hour Fuel Moisture	Greater than 17.4%	Between 16% and 17.4%	Less than 16%
1000-Hour Fuel Moisture	Greater than 18.2%	Between 17.2% and 18.2%	Less than 17.2%
KBDI	Less than 397	Between 397 and 500	Greater than 500

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

FDRA – North Coast



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 12-Apr	SAT 13-Apr	SUN 14-Apr	MON 15-Apr	TUE 16-Apr	WED 17-Apr	THU 18-Apr
Avg. Max. Temp. (°F)	73	72	77	84	83	83	84
Avg. Min. Humidity (%)	35	31	38	44	49	51	51
Avg. 20' Wind Speed (mph)	11	12	8	8	7	10	8
Avg. Wind Direction*	WSW	W	WSW	SW	SSW	SSW	SW
Avg. Probability of Precip. (%)	25	0	6	3	4	6	8
Days Since a Wetting Rain**	2.0	3.0	4.0				
Forecast ERC (Fuel Model X)	10.2	17.8	17.3	17.0	12.8	10.1	9.9
Forecast BI (Fuel Model X)	34.3	42.7	32.0	27.6	23.7	24.1	20.3
Forecast IC (Fuel Model X)	4.7	6.9	5.1	4.9	3.6	3.0	2.5
Forecast 100-Hr. FMC	24.3	22.9	20.3	18.8	18.3	19.6	20.1
Forecast 1000-Hr. FMC	22.3	22.2	22.1	22.2	22.1	22.8	22.6
KBDI	149.0						

Data Source:

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

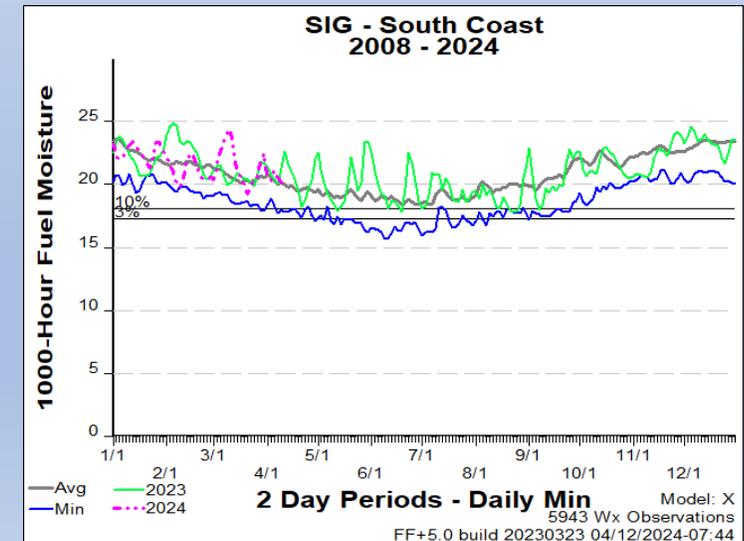
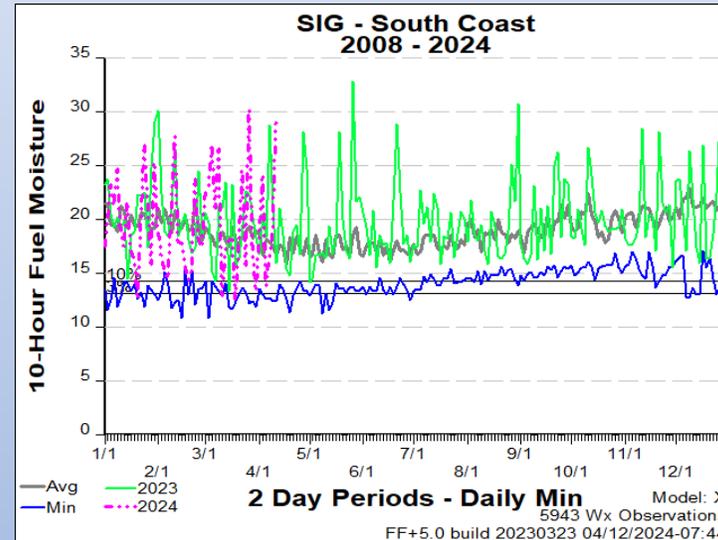
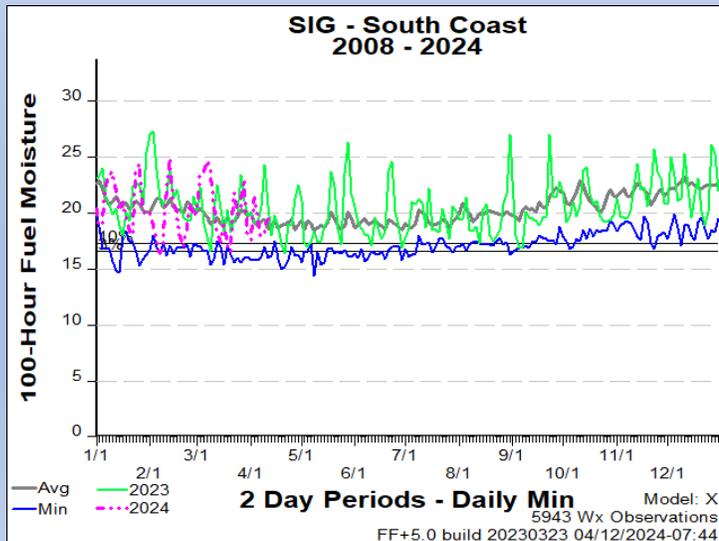
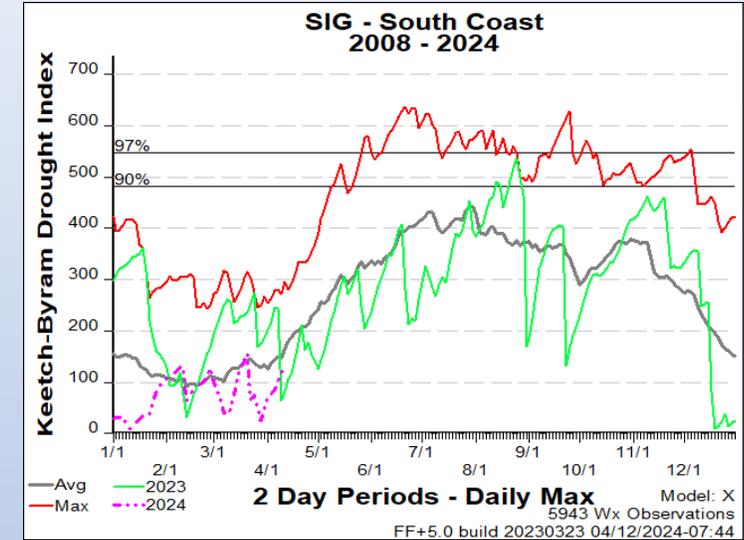
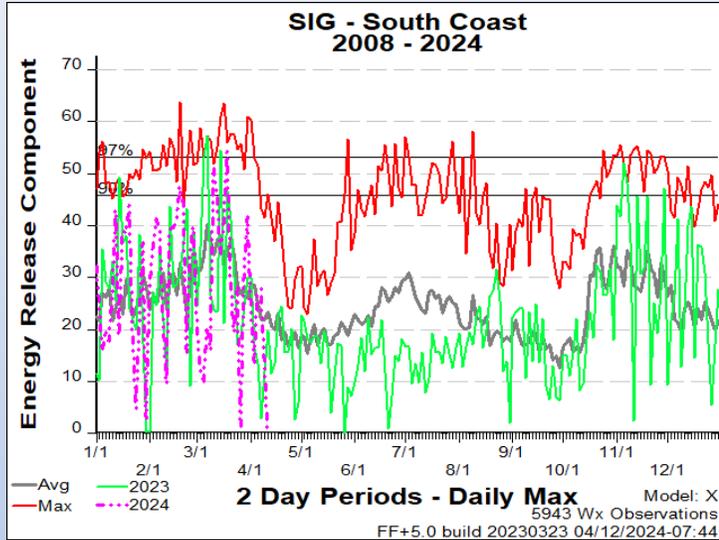
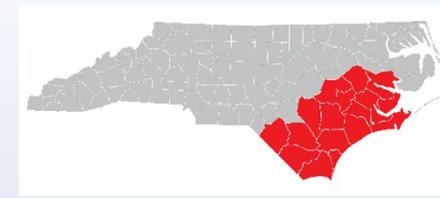
Values in the table above are averages from 4 stations in this FDRA:

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

KEY	Low to Moderate Burning Conditions	Burning Conditions Can be High CAUTION	Burning Conditions Can be Critical WATCH OUT!
Avg. Max. Temp.	Less than 45°F	Between 45°F and 55°F	Greater than 55°F
Avg. Min. Humidity	Greater than 40%	Between 35% and 40%	Less than 35%
Avg. 20' Wind Speed	Less than 10 mph	Between 10 mph and 15 mph	Greater than 15 mph
Avg. Wind Direction*	Criticality of wind direction is highly dependent on burn operations and/or structures threatened.		
Days Since a Wetting Rain**	A wetting rain is defined as 0.10" or greater. This is an average of the FDRA stations noted above.		
Energy Release Comp.	Less than 39.3	Between 39.3 and 48	Greater than 48
Burning Index	Less than 78	Between 78 and 96.8	Greater than 96.8
Ignition Component	Less than 9.3	Between 9.3 and 12.8	Greater than 12.8
100-Hour Fuel Moisture	Greater than 17.7%	Between 16.8% and 17.7%	Less than 16.8%
1000-Hour Fuel Moisture	Greater than 18.5%	Between 17.5% and 18.5%	Less than 17.5%
KBDI	Less than 365	Between 365 and 463	Greater than 463

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

FDRA – South Coast



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 12-Apr	SAT 13-Apr	SUN 14-Apr	MON 15-Apr	TUE 16-Apr	WED 17-Apr	THU 18-Apr
Avg. Max. Temp. (°F)	74	73	80	86	86	84	87
Avg. Min. Humidity (%)	31	28	32	39	42	47	43
Avg. 20' Wind Speed (mph)	13	11	7	8	7	9	8
Avg. Wind Direction*	W	W	WSW	SW	SSW	SSW	SW
Avg. Probability of Precip. (%)	22	0	3	2	2	4	6
Days Since a Wetting Rain**	3.1	4.1	5.1				
Forecast ERC (Fuel Model X)	11.3	19.0	17.8	15.9	12.3	11.4	10.4
Forecast BI (Fuel Model X)	38.8	45.5	32.8	27.1	25.1	27.3	23.4
Forecast IC (Fuel Model X)	5.6	7.4	5.4	5.0	4.2	4.2	3.4
Forecast 100-Hr. FMC	27.1	24.5	21.1	19.5	18.7	19.1	19.5
Forecast 1000-Hr. FMC	22.6	22.9	22.9	23.0	23.2	23.0	22.8
KBDI	126.0						

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

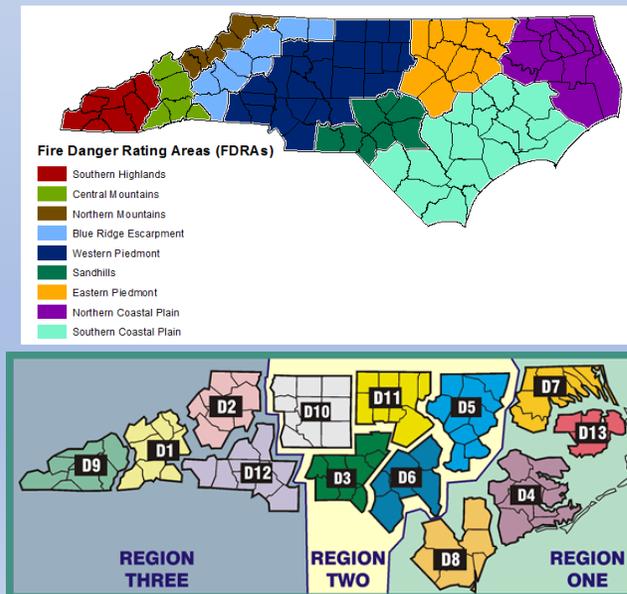
Outlook Summary Tables – Organized by Region –

Output from NFRS
forecast generated on
4/11/24 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 NFRS 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
12-Apr	Fri	Low/Mod	Low/Mod
13-Apr	Sat	Low/Mod +	Low/Mod
14-Apr	Sun	Low/Mod	Low/Mod +
15-Apr	Mon	Low/Mod	Low/Mod +
16-Apr	Tues	Low/Mod	Low/Mod
17-Apr	Wed	Low/Mod	Low/Mod
18-Apr	Thurs	Low/Mod	Low/Mod

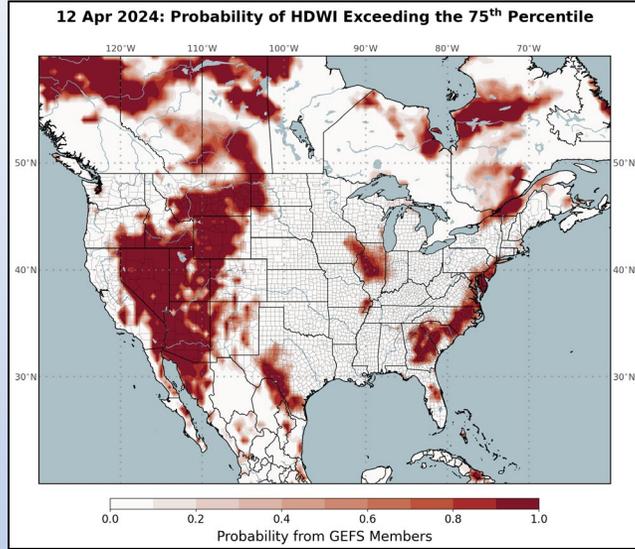
Date	Day of Week	FDRA Weekly Outlook - Matrix Summary - NCFS Region 2				
		Blue Ridge Escarp	Western Piedmont	Eastern Piedmont	Sandhills	South Coast
12-Apr	Fri	Low/Mod	Low/Mod	Low/Mod	Low/Mod	Low/Mod
13-Apr	Sat	Low/Mod	Low/Mod +	Low/Mod	High -	Low/Mod
14-Apr	Sun	Low/Mod	Low/Mod +	Low/Mod	High	Low/Mod +
15-Apr	Mon	Low/Mod +	Low/Mod	Low/Mod	High	Low/Mod +
16-Apr	Tues	Low/Mod +	Low/Mod	Low/Mod +	High	Low/Mod
17-Apr	Wed	Low/Mod +	Low/Mod	Low/Mod	High	Low/Mod
18-Apr	Thurs	Low/Mod +	Low/Mod +	Low/Mod +	Low/Mod	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
12-Apr	Fri	Low/Mod	Low/Mod	Low/Mod	Low/Mod	Low/Mod
13-Apr	Sat	Low/Mod	High -	High -	Low/Mod	Low/Mod +
14-Apr	Sun	High -	High -	High -	Low/Mod	Low/Mod +
15-Apr	Mon	Low/Mod	Low/Mod	Low/Mod	Low/Mod +	Low/Mod
16-Apr	Tues	High -	High -	Low/Mod	Low/Mod +	Low/Mod
17-Apr	Wed	Low/Mod	Low/Mod	Low/Mod	Low/Mod +	Low/Mod
18-Apr	Thurs	Low/Mod	Low/Mod +	Low/Mod +	Low/Mod +	Low/Mod +

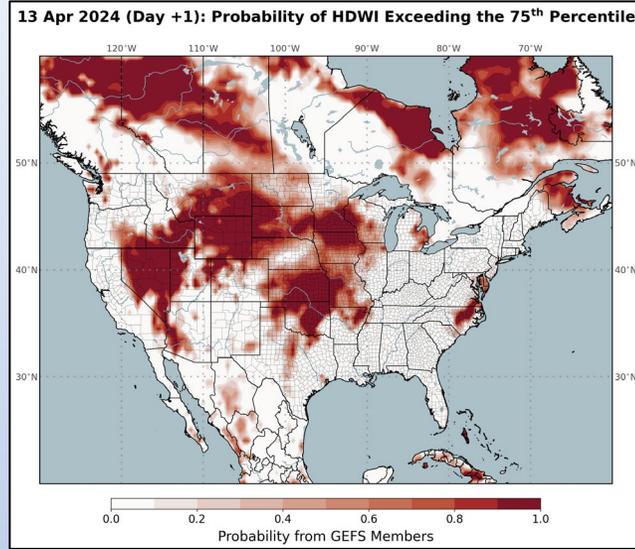
Statewide Slides

Hot-Dry-Windy Index (HDW)

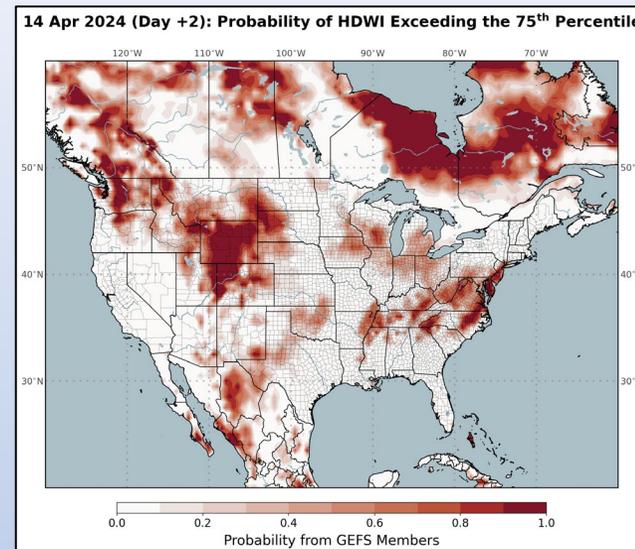
Friday > 75th Percentile



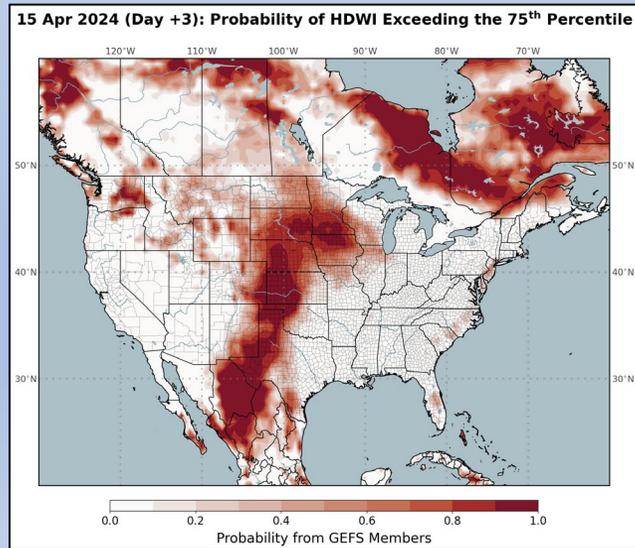
Saturday > 75th Percentile



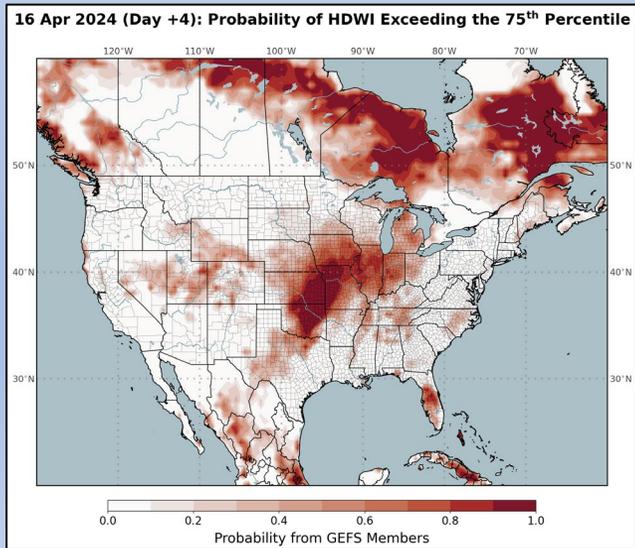
Sunday > 75th Percentile



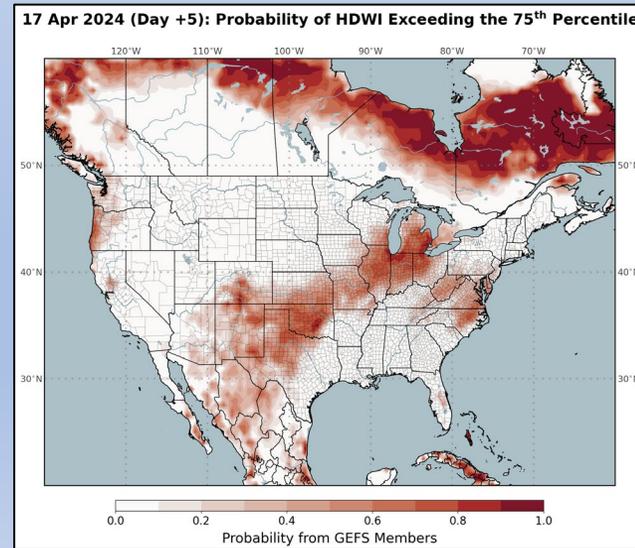
Monday > 75th Percentile



Tuesday > 75th Percentile

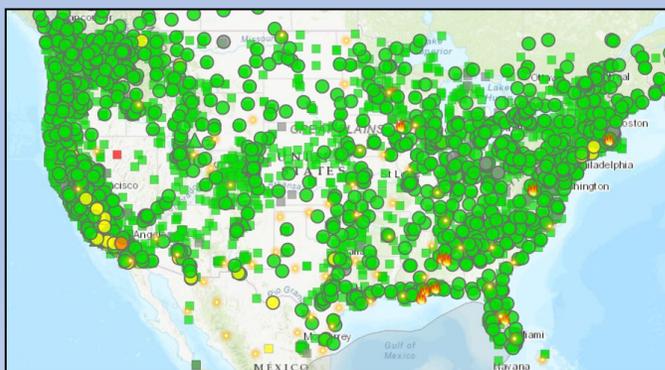
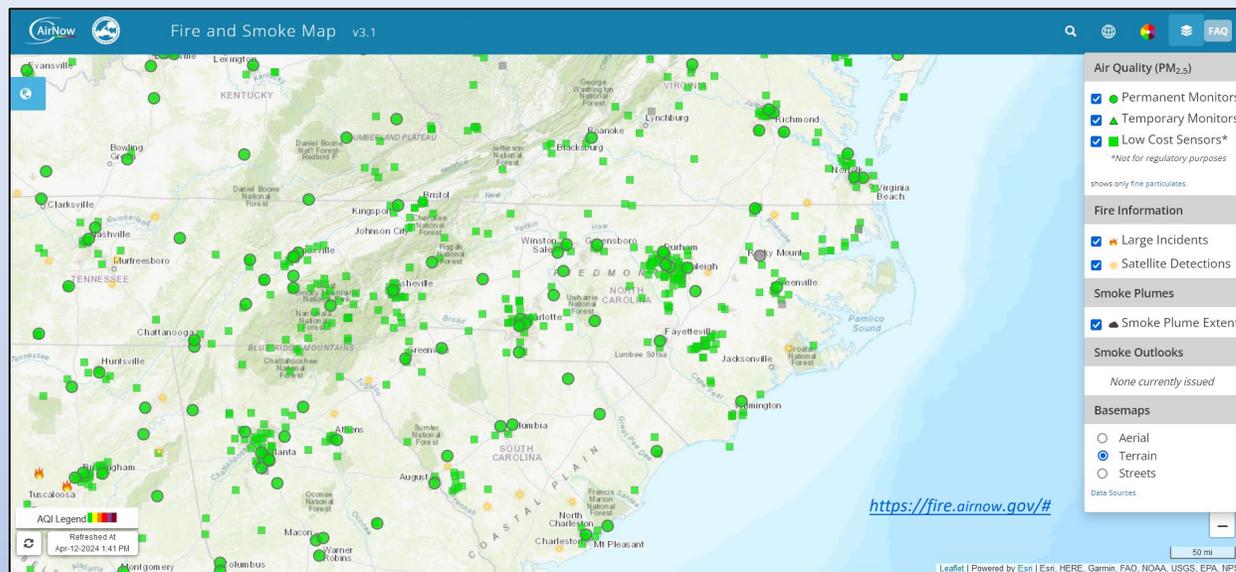


Wednesday > 75th Percentile



- 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

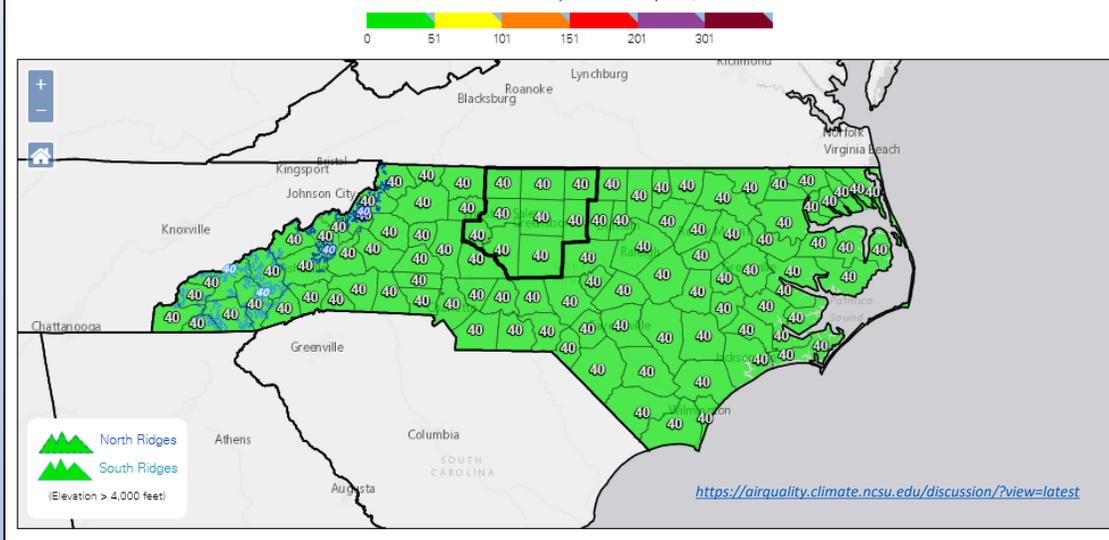


Extended Air Quality Outlook

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 (Apr 11)	35	Green	download
Friday (Apr 12)	40	Green	download
Saturday (Apr 13)	45	Green	download
Sunday (Apr 14)	45 to 50	Green	download

Maximum Air Quality Index for Apr 12, 2024



NDAQ Forecaster Discussion (Thursday - PM)

General Forecast Discussion

A cold front will sweep through from west to east on Friday and bring in a dry, clean air mass. Ozone and fine particulate levels will hold well within the Code Green range.

Outlook

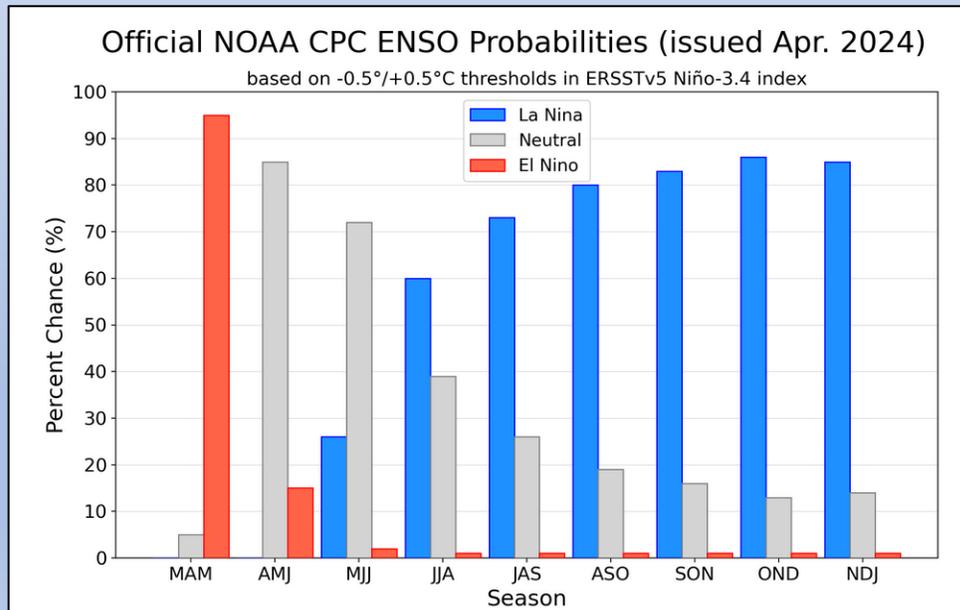
Saturday, high pressure will build in over the southeast but widespread 10-15+kt westerly winds should help to disperse any pollution. Expect ozone and fine particulates in the low-mid Code Green range. On Sunday, a weak disturbance will traverse eastward over the Great Lakes/New England regions while the surface high moves offshore, but the pressure gradient will be somewhat weak between these features. The air mass will begin to stagnate, but for now will go with mid-upper Code Green ozone and fine particulate concentrations. Any fire activity in the upwind air mass to our southwest will be monitored and the forecast adjusted, as necessary.

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

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

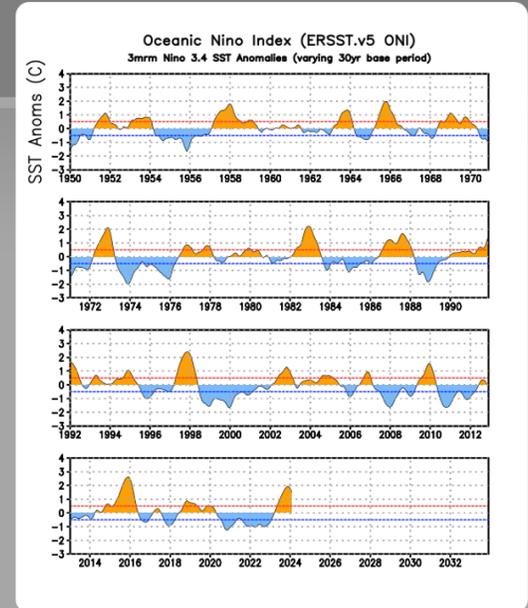
A transition from El Niño to ENSO-neutral is likely by April-June 2024 (85% chance), with the odds of La Niña developing by June-August 2024 (60% chance).

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 (°C): Evolution since 1950

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

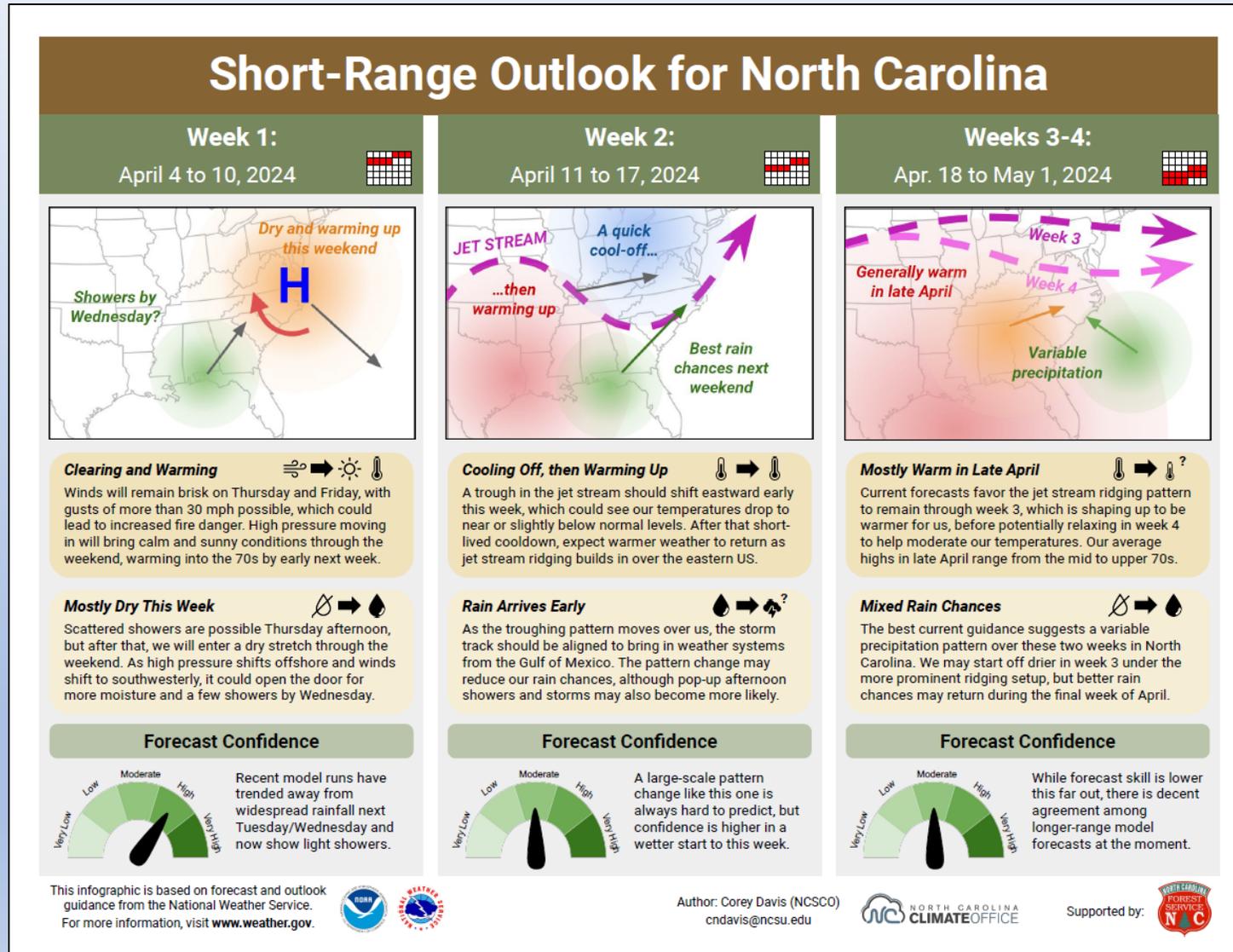


From the most recent CPC Diagnostic Discussion ([ENSO Diagnostics Discussion](#)):

[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]).

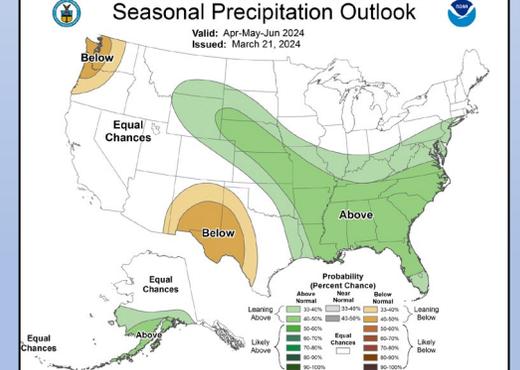
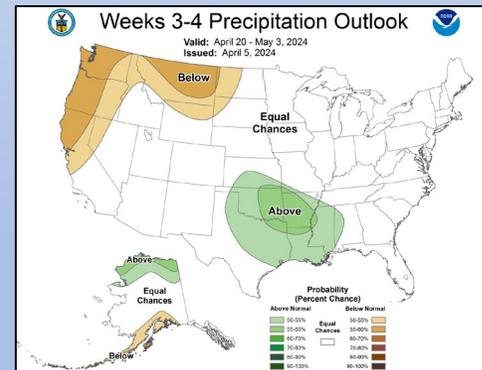
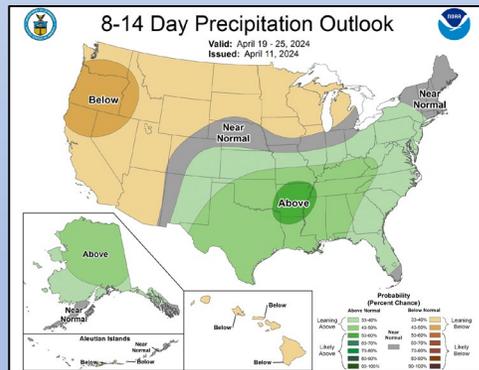
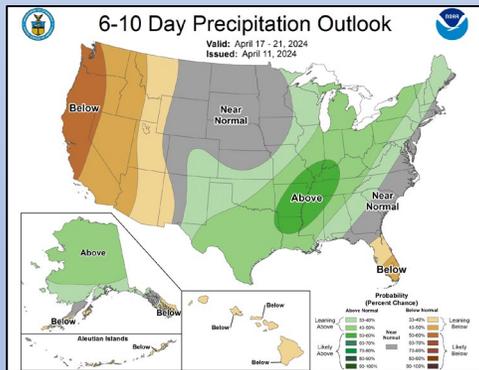
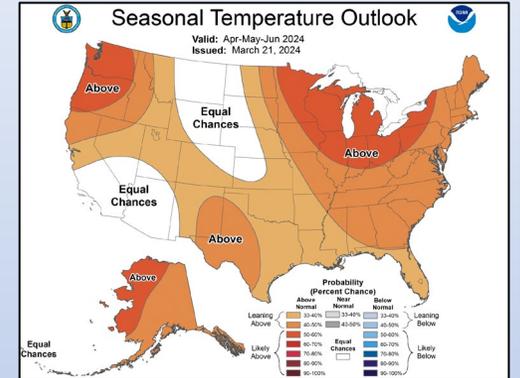
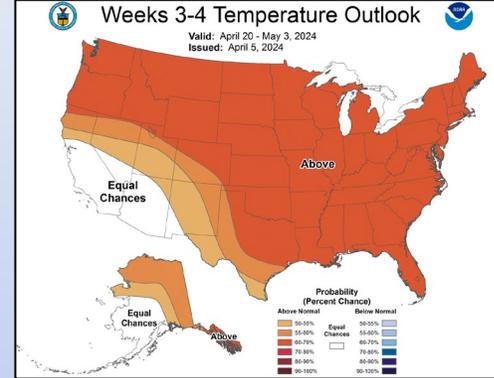
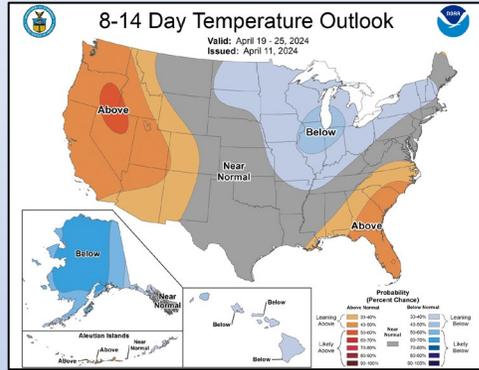
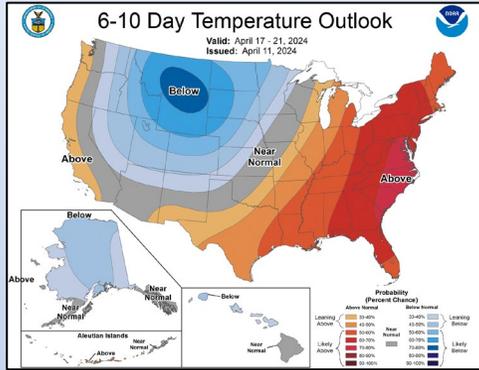
State Climate Office: Short-Range Monthly Outlook for NC

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



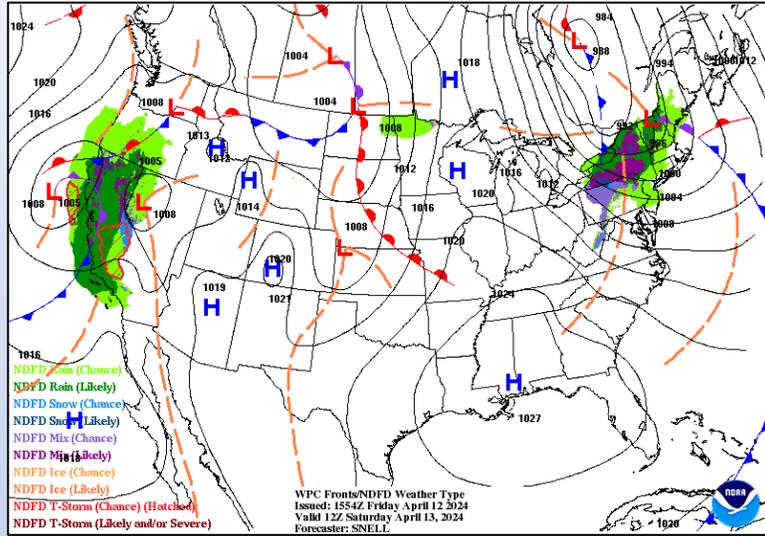
CPC Temp & Precip Outlook

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

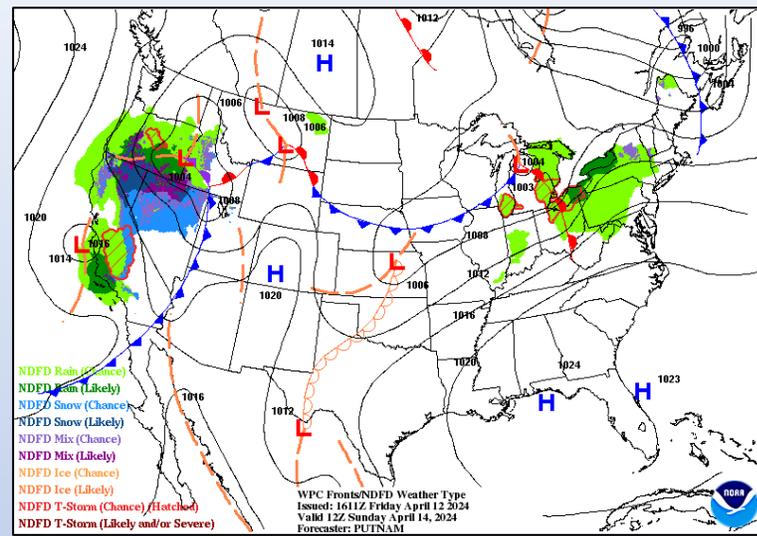


WPC Forecasted Surface Fronts & Sea-Level Pressures

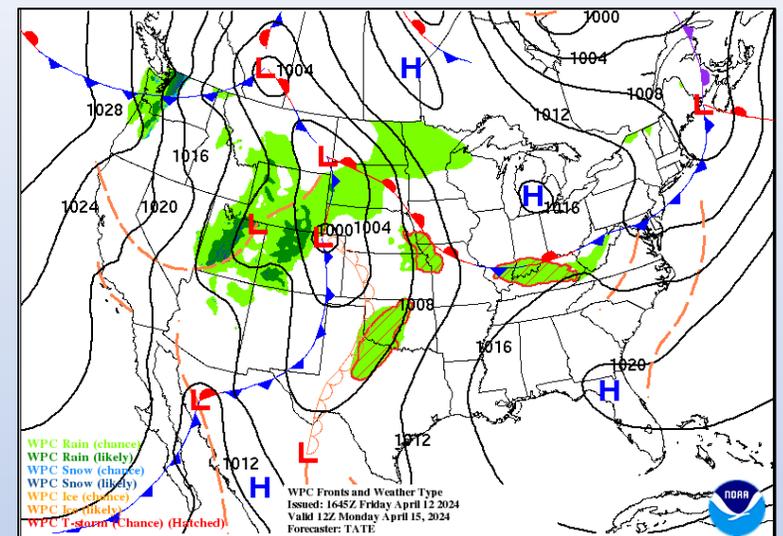
Saturday - 800 am



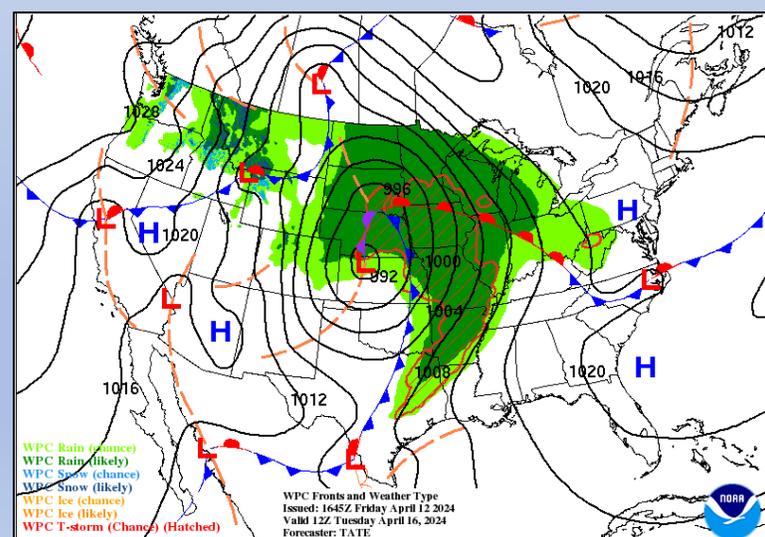
Sunday - 800 am



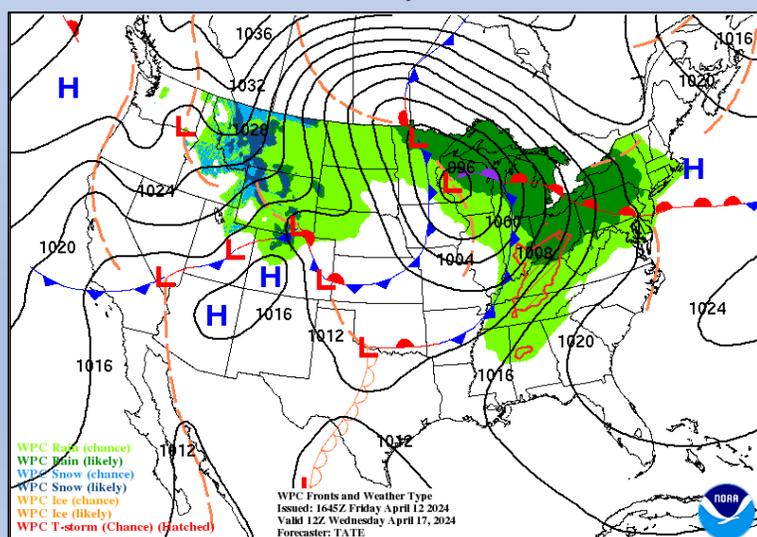
Monday - 800 am



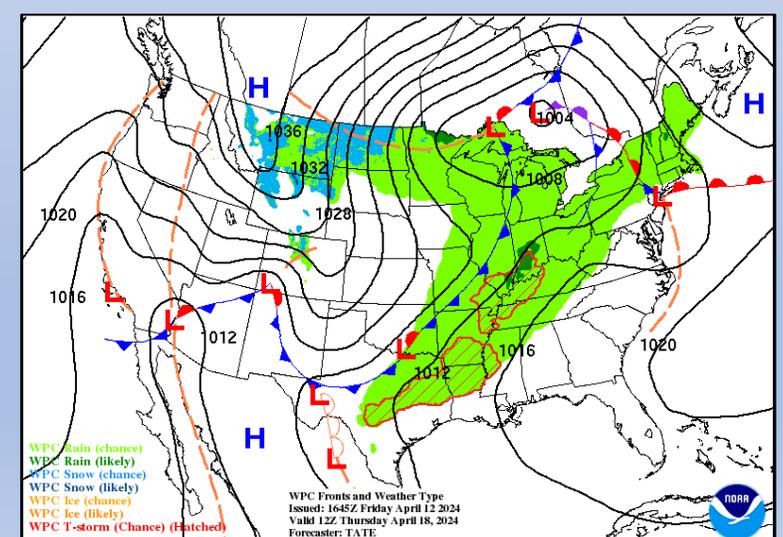
Tuesday - 800 am



Wednesday - 800 am



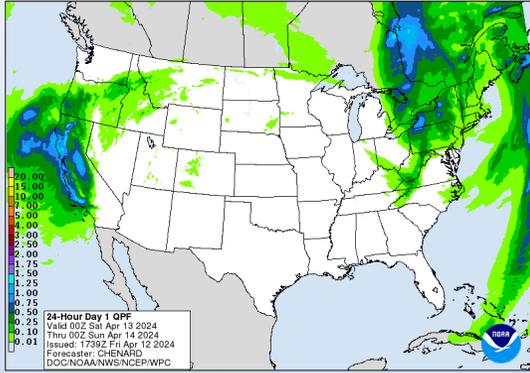
Thursday - 800 am



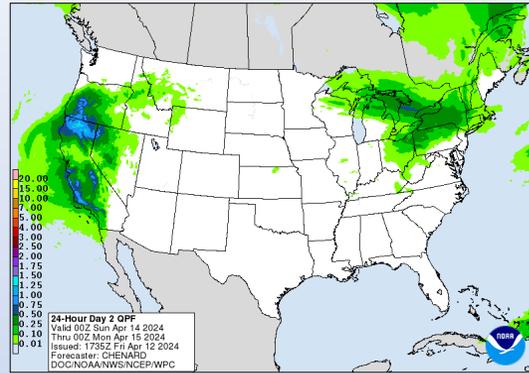
Quantitative Precipitation Forecast, 7-Day

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

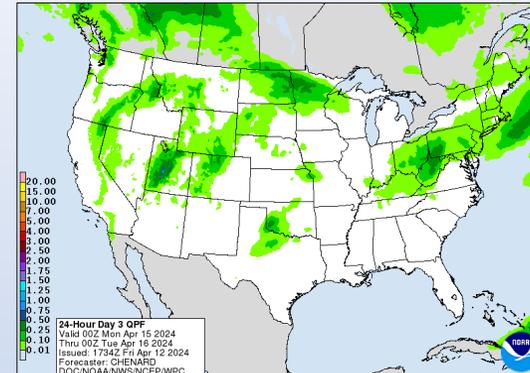
Day - 1



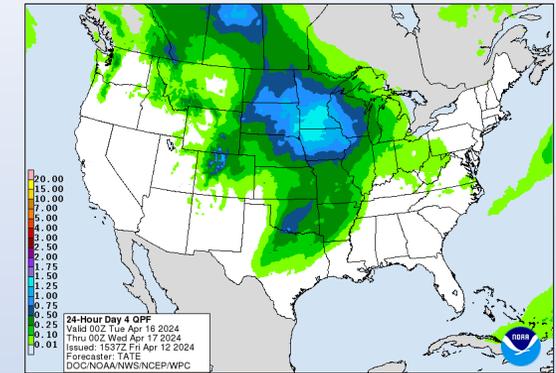
Day - 2



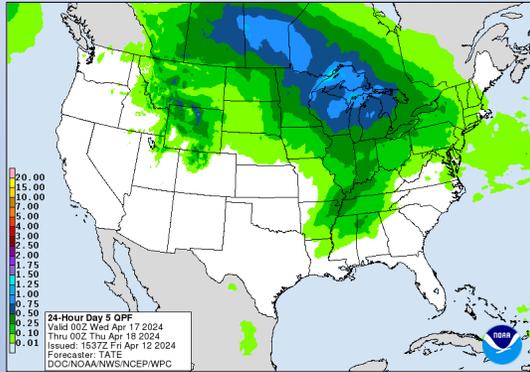
Day - 3



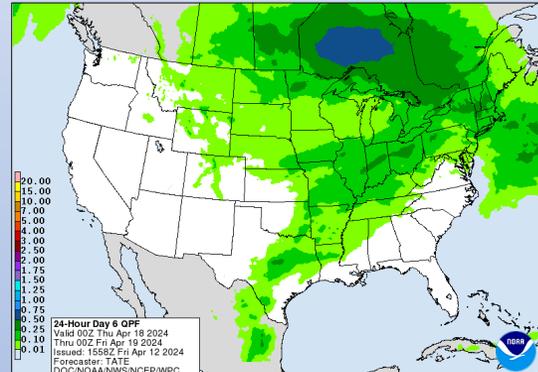
Day - 4



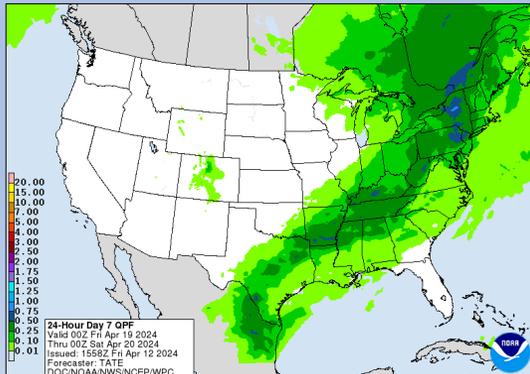
Day - 5



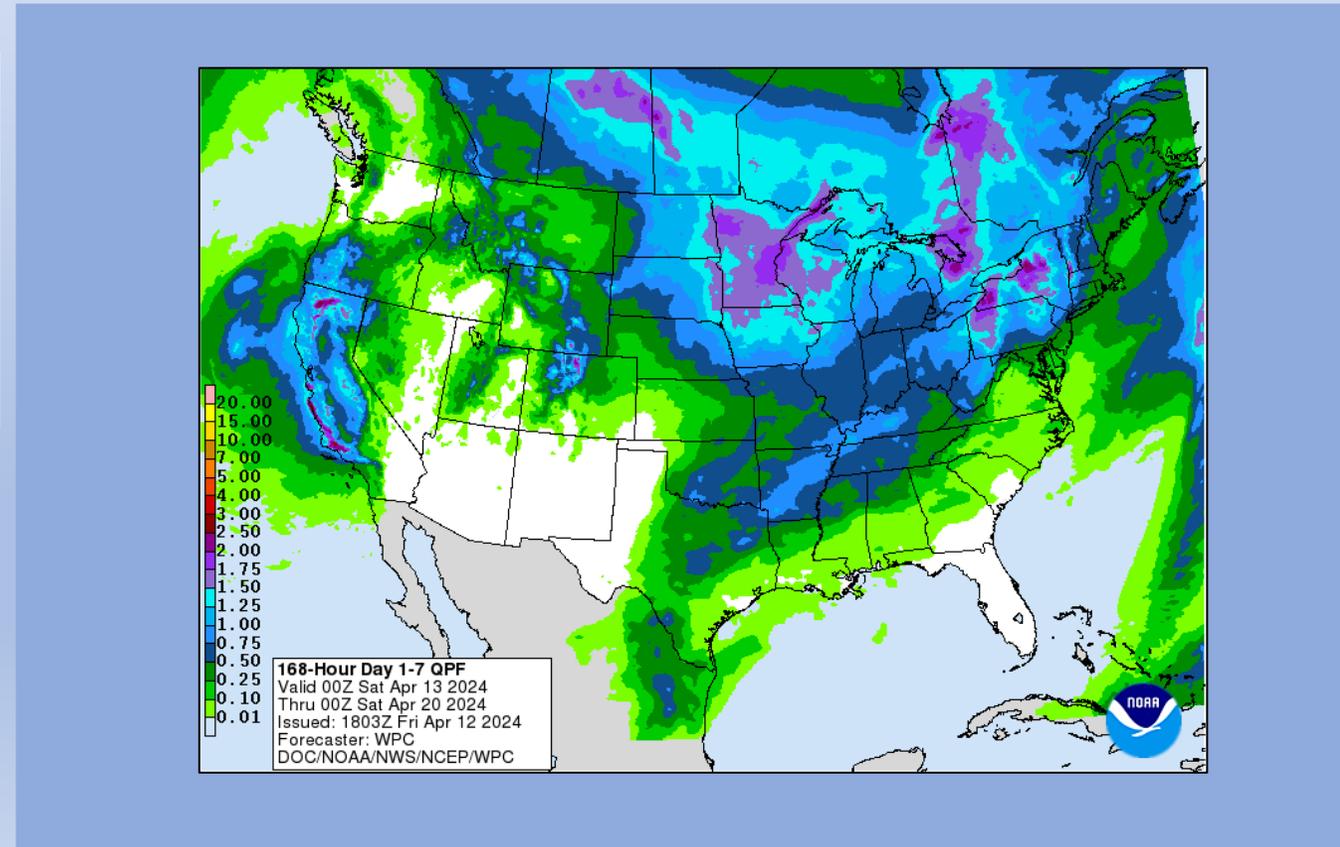
Day - 6



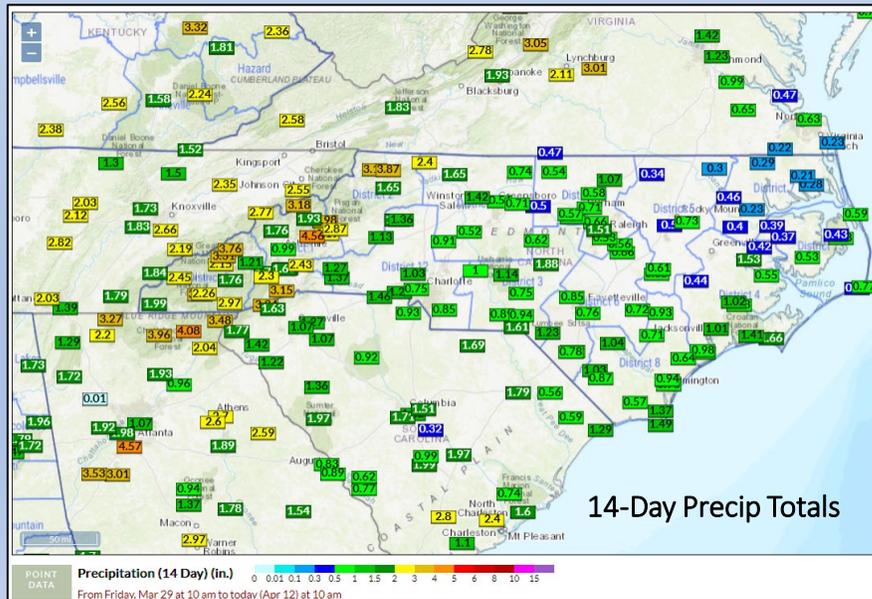
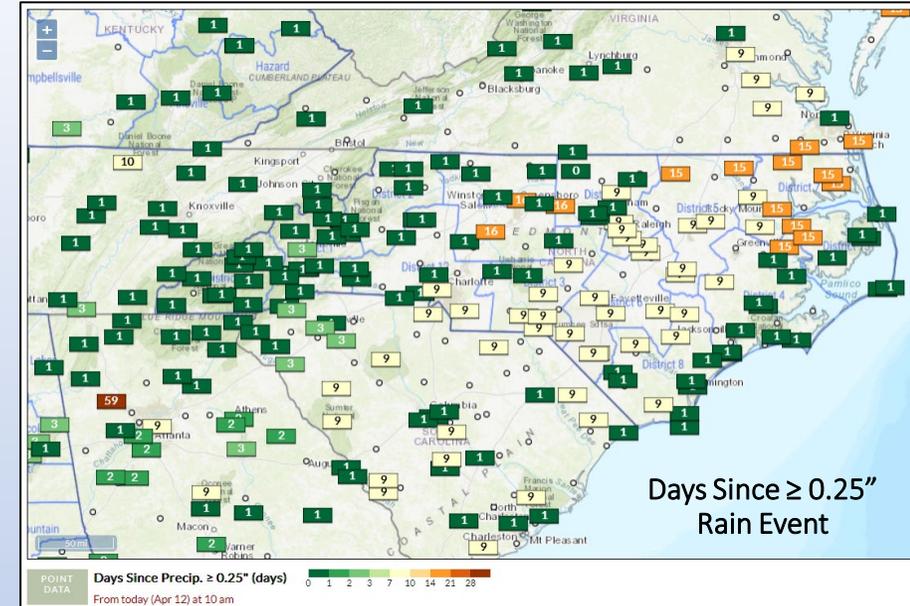
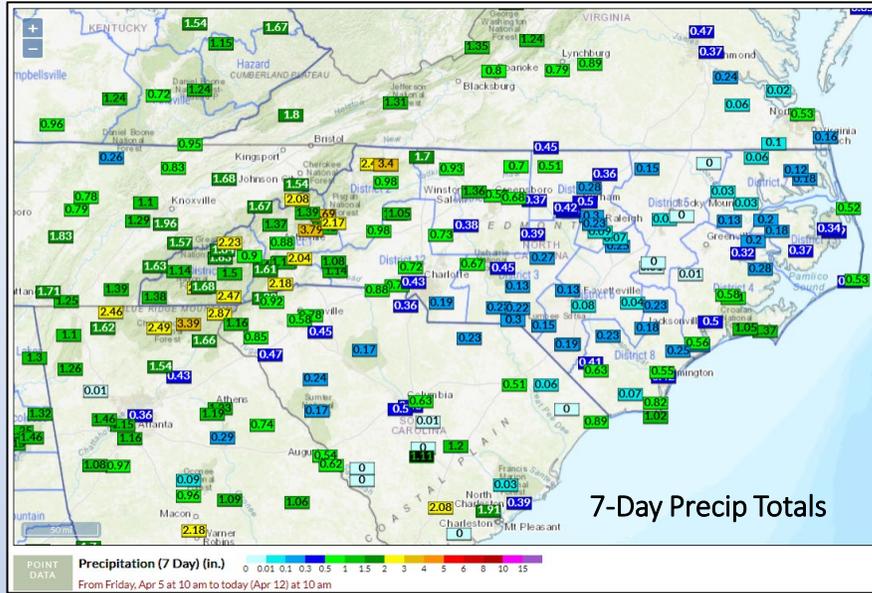
Day - 7



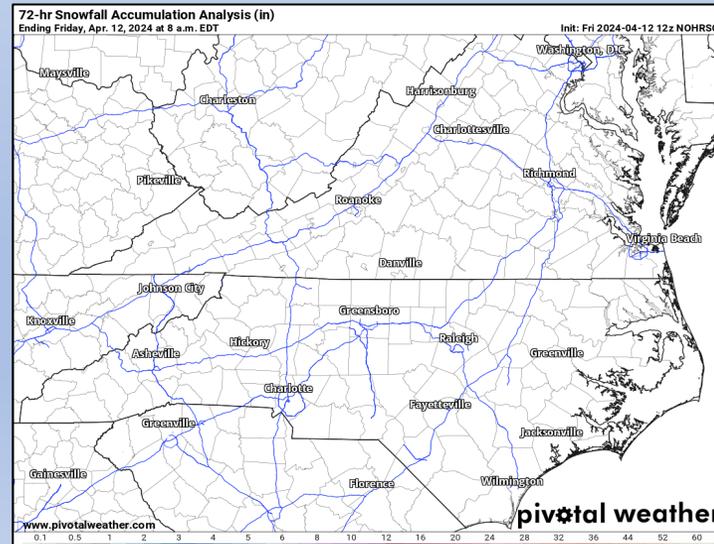
Important to note these values are subject to **significant change as weather system modeled tracks adjust farther out in time.*



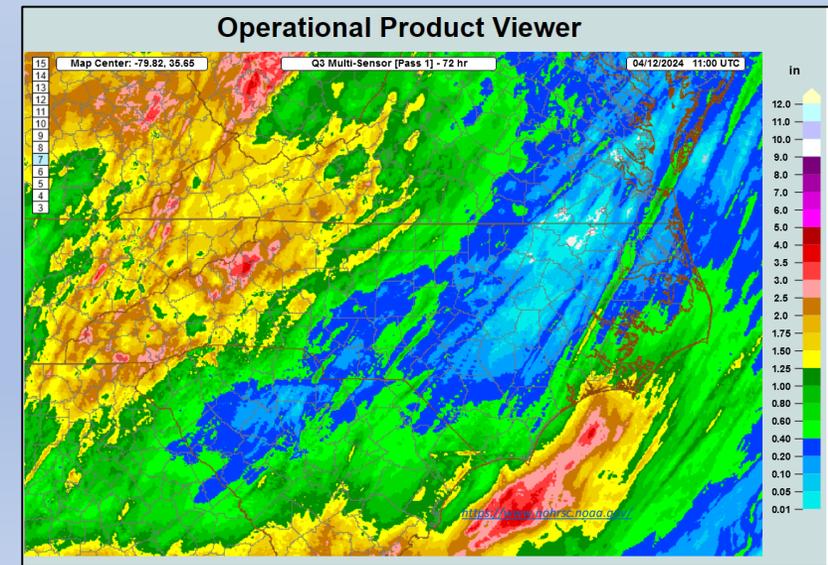
Observed Precipitation



3-Day Estimated Snow Totals

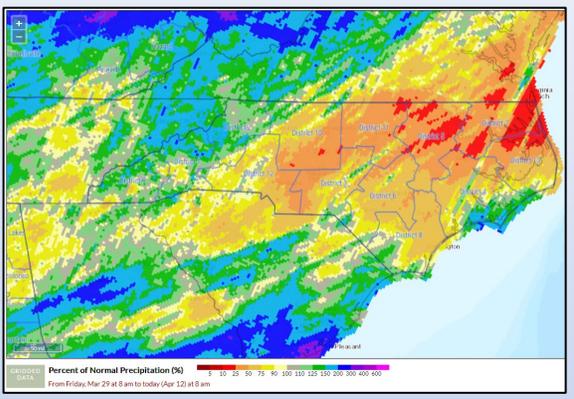


3-Day Estimated Rain Totals (Ending 4/12 at 0700)



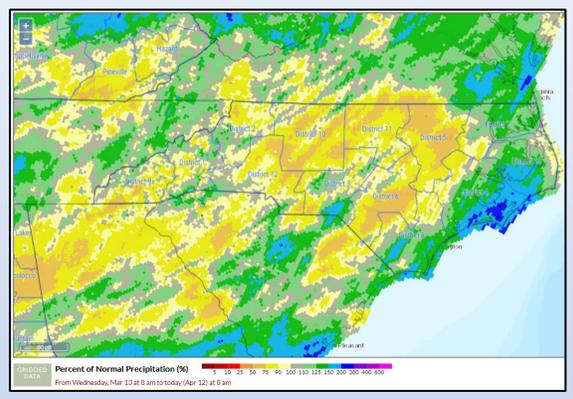
Percent of Normal Precip & SPI, FWIP (Ending Friday @ 0800 4/12)

14-Day % of Normal



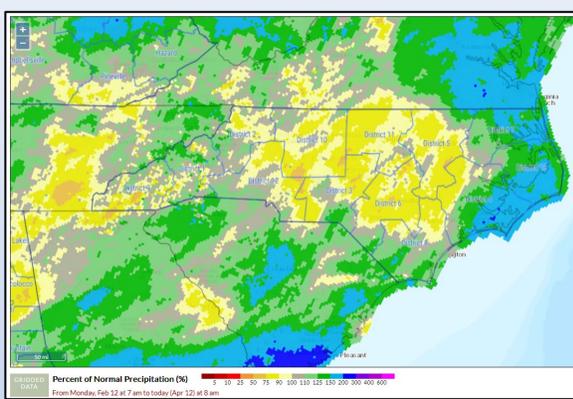
PNP: ~15% of Normal in portions of D-7 at 14-day Scale

30-Day % of Normal



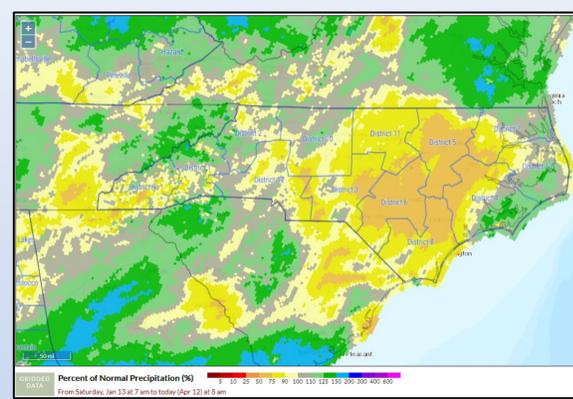
Driest areas at ~50% of normal at 1-Month scale.

60-Day % of Normal



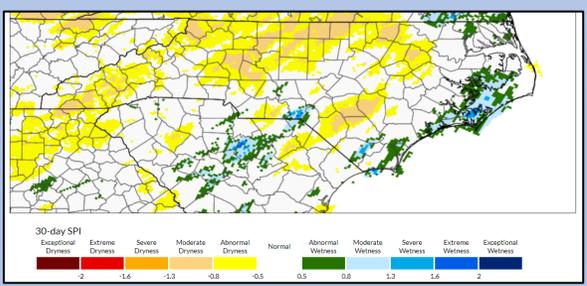
Driest areas at ~65% of normal at 2-Month scale.

90-Day % of Normal

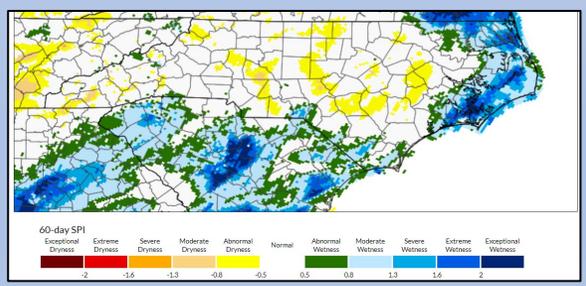


Driest areas ~60% of normal at 3-Month scale.

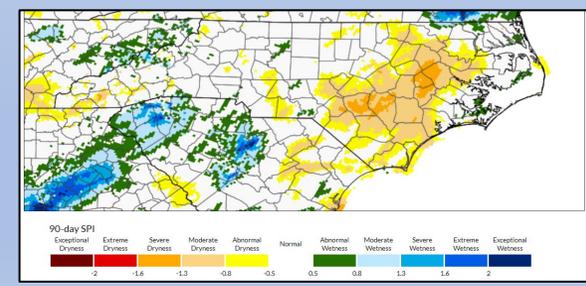
30-Day SPI



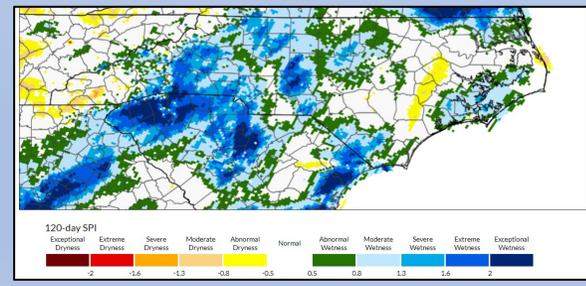
60-Day SPI



90-Day SPI

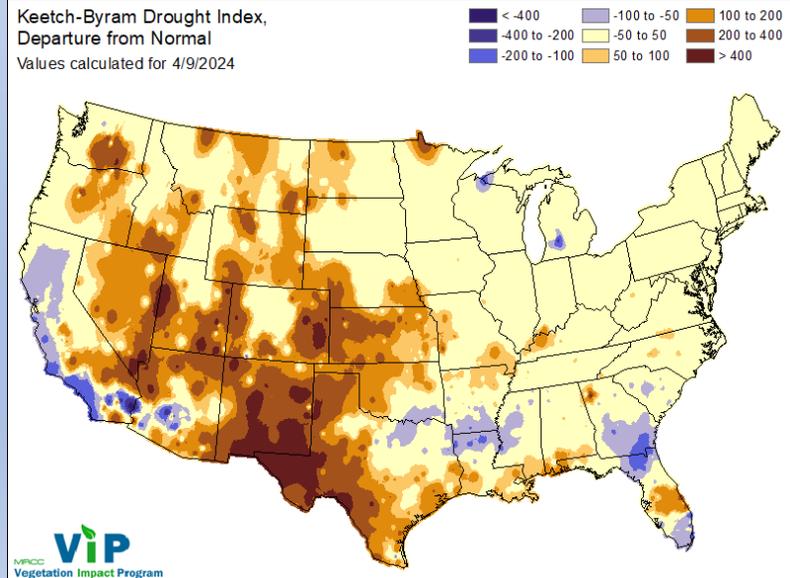
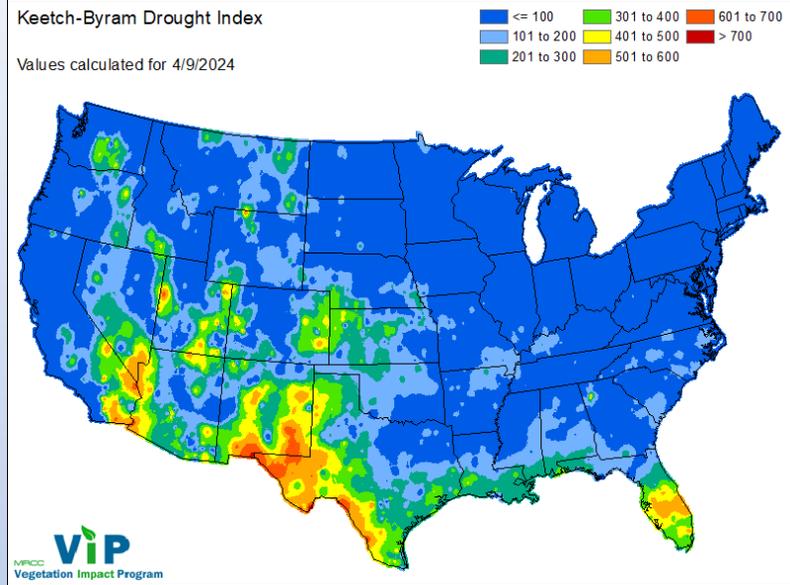
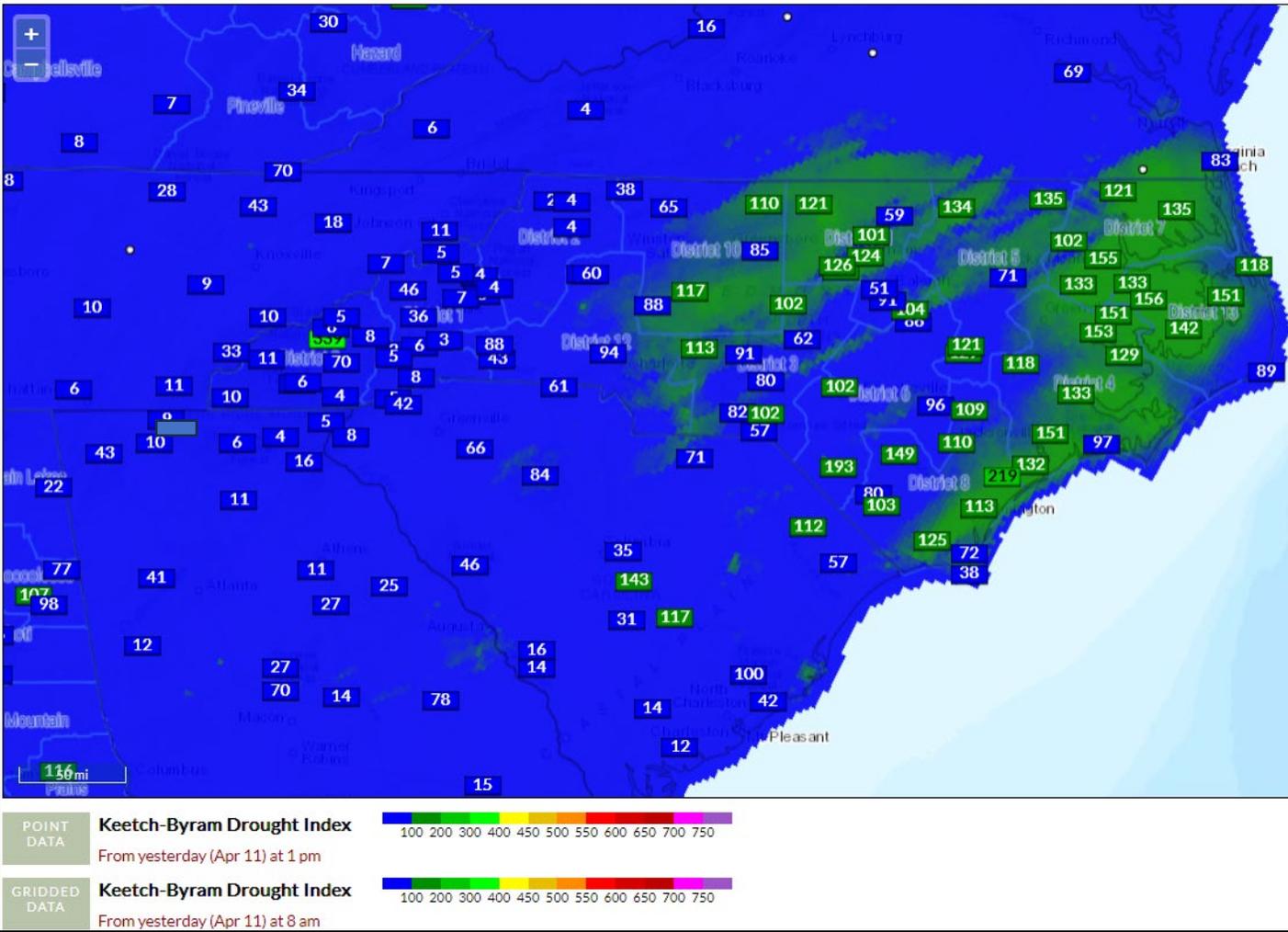


120-Day SPI

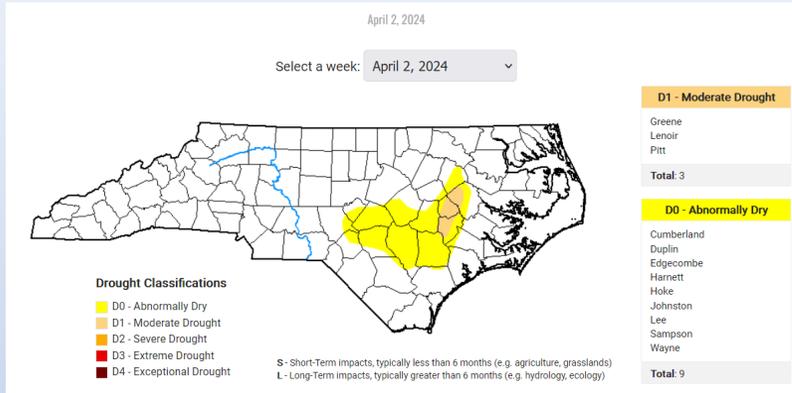


KBDI - Gridded & Station Points

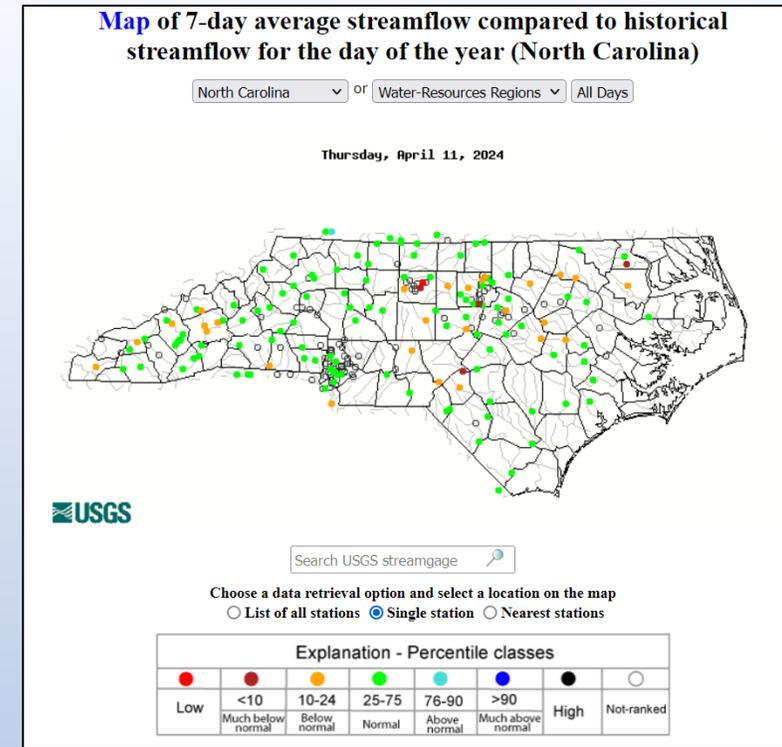
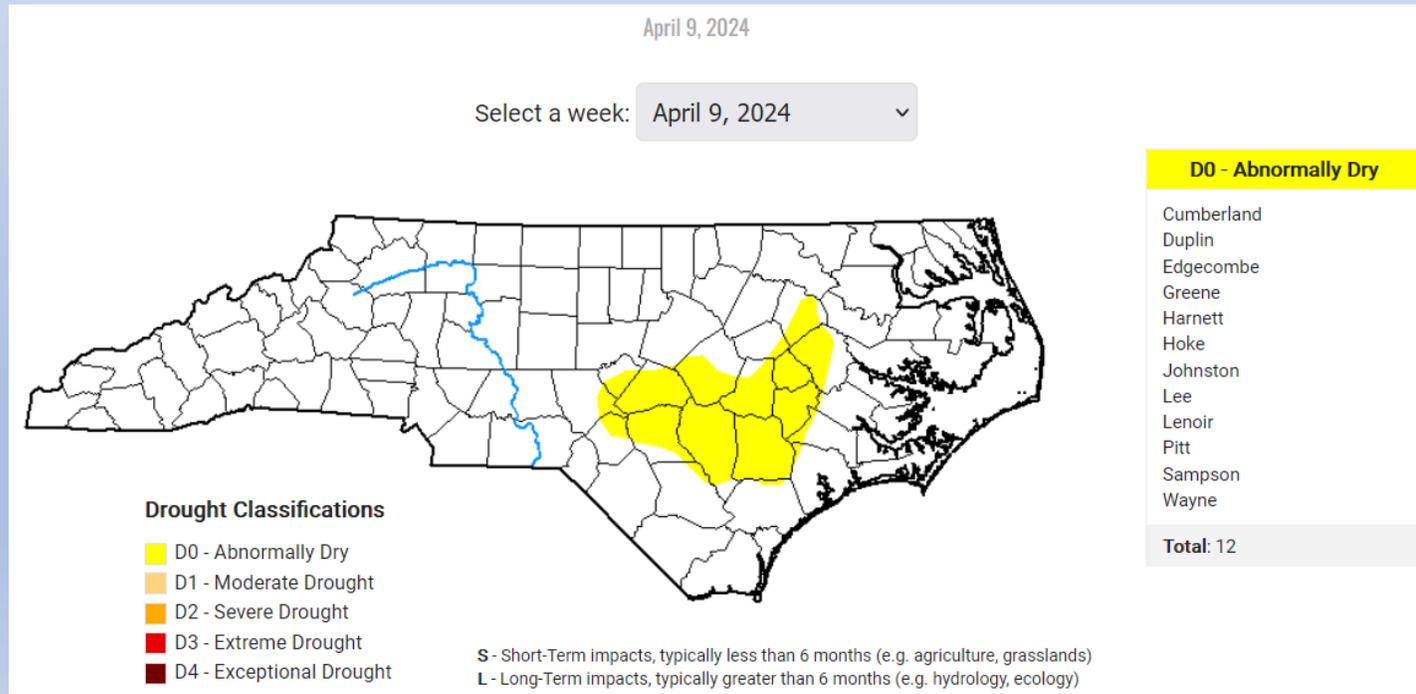
FWIP (Point calculation from WIMS @ 1300 on 4/11/24, SCO created Grid ending 0800 4/11/24)



Drought Situation



Current Week:



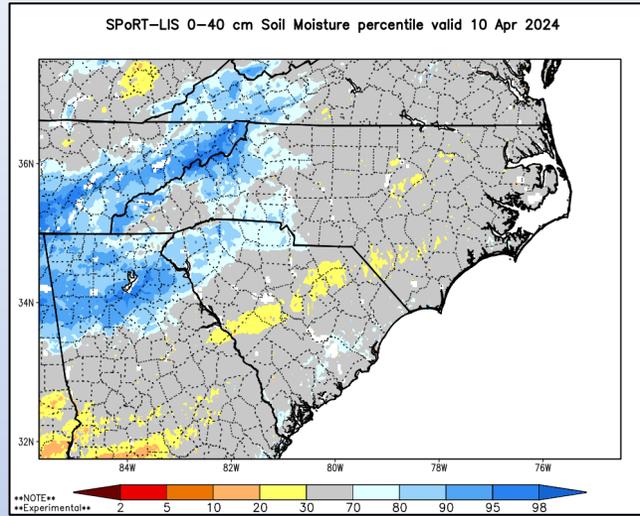
Source: <https://waterwatch.usgs.gov/index.php?m=pa07d&r=nc&w=map>

Rainfall from yesterday is not reflected in the averages (above).

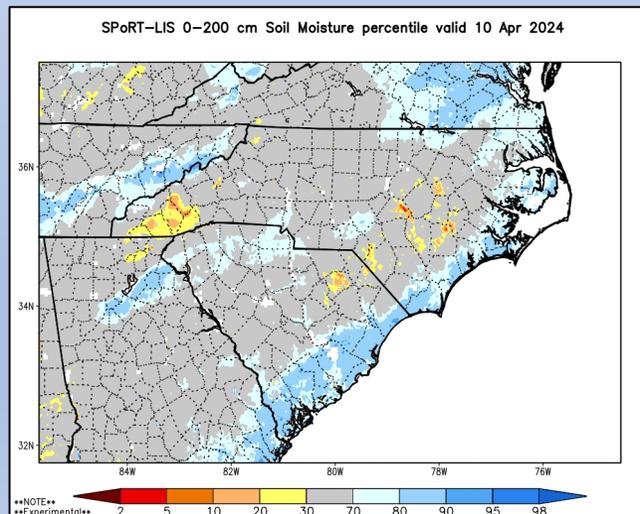
Removal of D1 Moderate Drought this week & continued D0 Abnormally Dry conditions. (left)

SPoRT Modeled Relative Soil Dryness

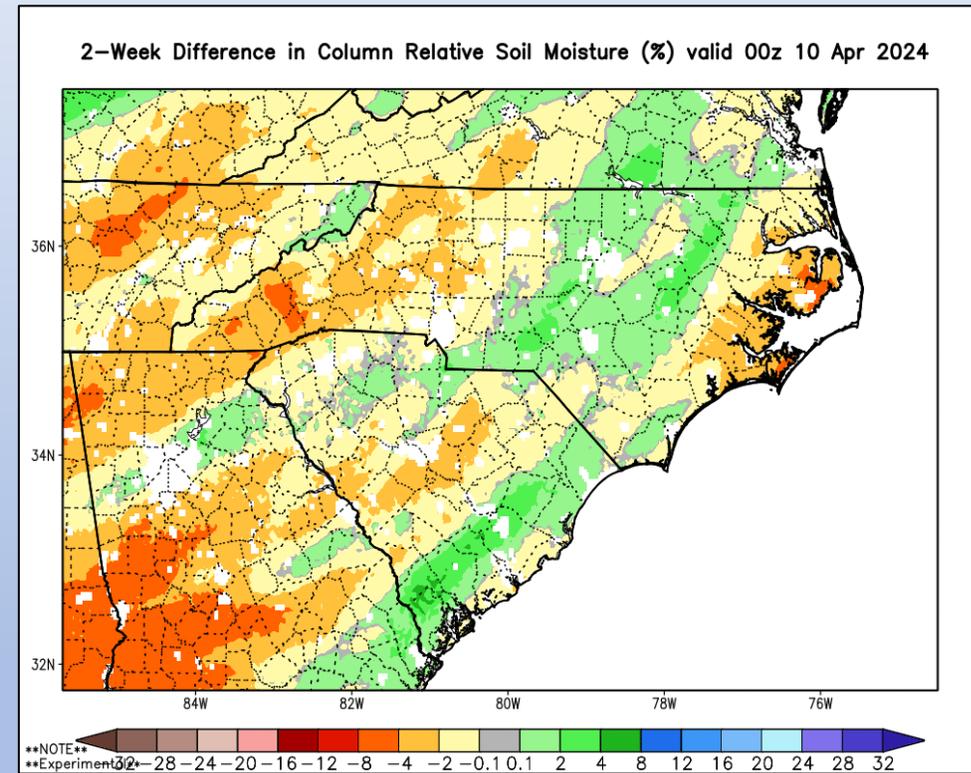
0-40 cm Depth



0-200 cm Depth

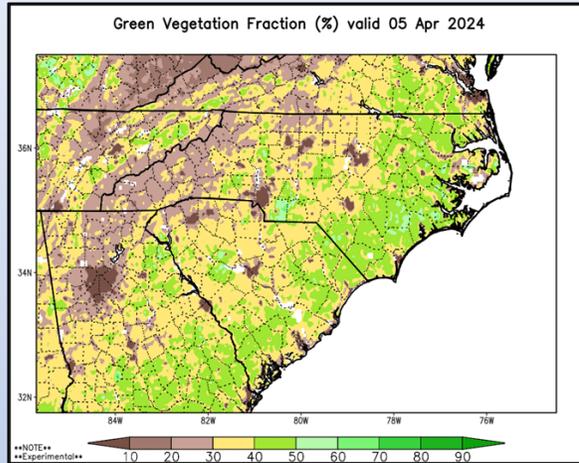


- Note data availability ends on 4/10 and does not include the most recent rain impacts.
- See areas of modeled improvement/degradation over the past couple of weeks. As green-up and evaporative demand increases, expect more rapid changes if rainfall continues to be scattered in nature.

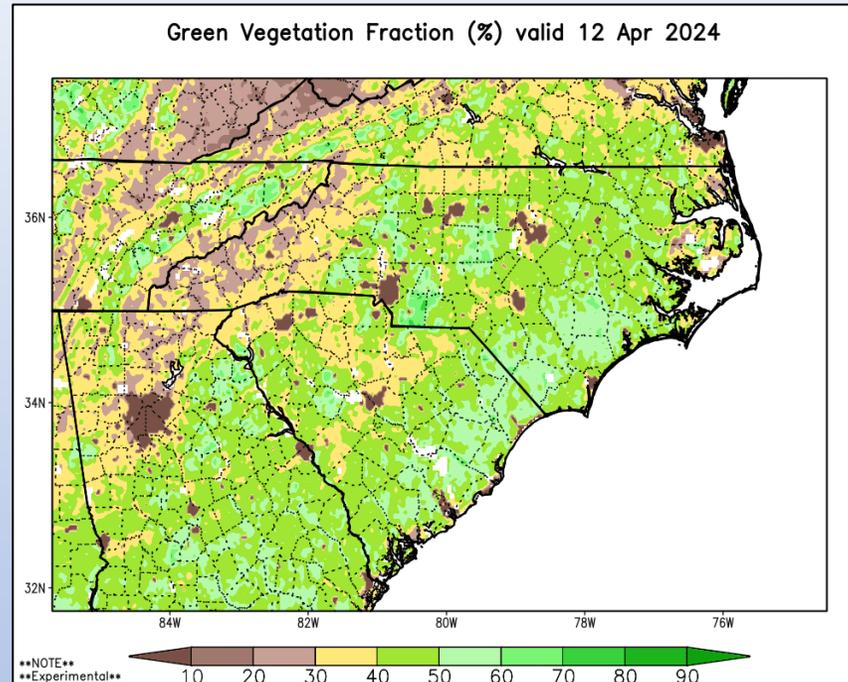


Green Fraction & Green-Up Anomaly

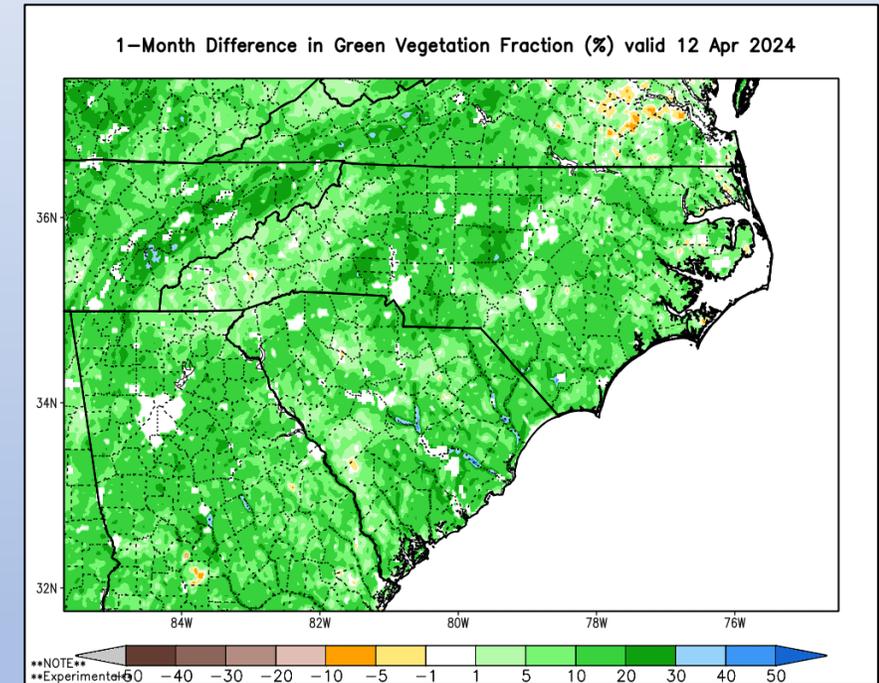
Last Week



Current

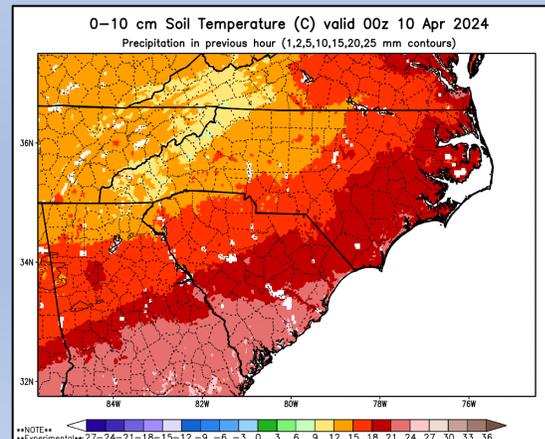


1-Month Change



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

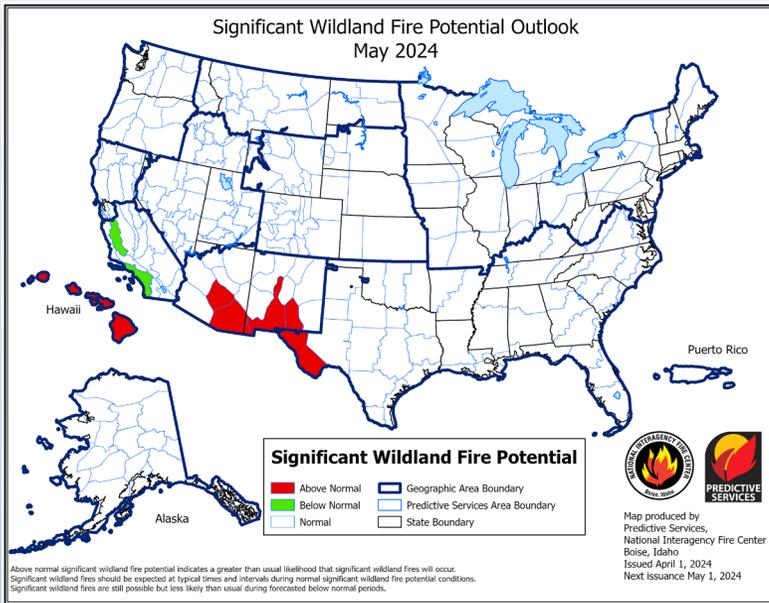
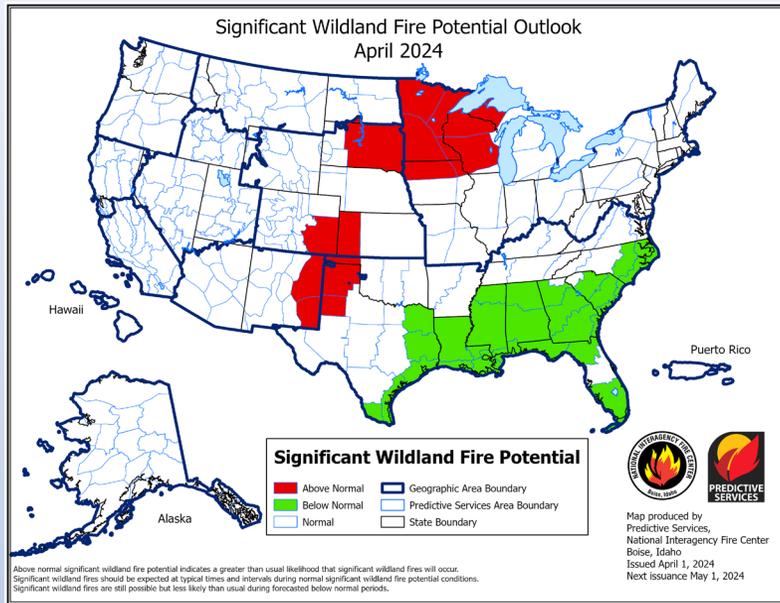
Several days ahead of very warm days and nights along dry conditions will lead to enhanced growth and higher evaporative demand this upcoming week.



Some of the brown locations on the change map are likely agricultural areas that have been disked/cultivated or treated with herbicide in preparation for spring planting. Some coastal areas that had earlier seasonal flushes of growth are also showing less change now, hence slight decrease.

Significant Wildland Fire Potential Outlook:

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



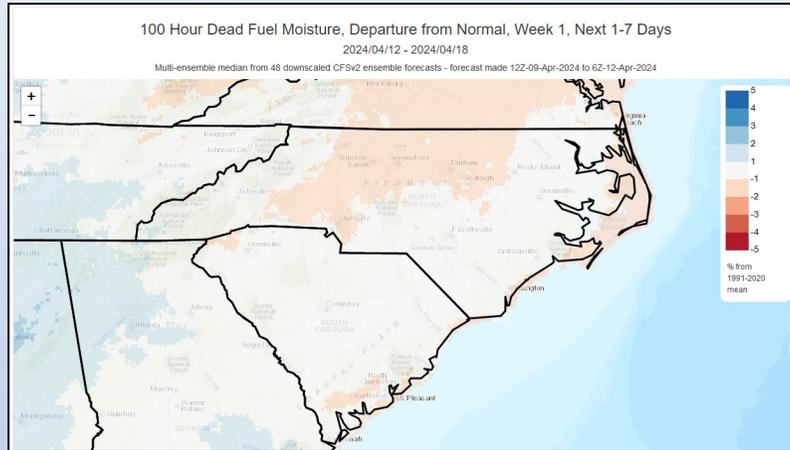
A significant fire is one that requires resources from outside the district (other than aviation). IA potential is based more on shorter term weather factors. Just a few days of dry weather can increase IA activity considerably as we have seen this year.

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

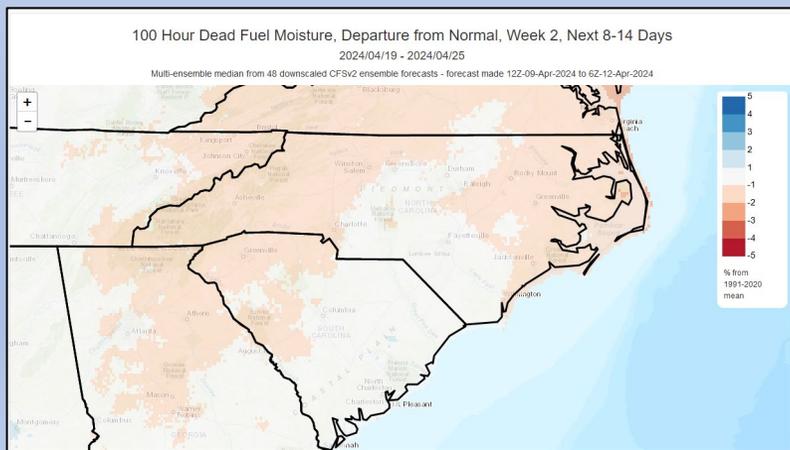
Modeled Departure from Normal by Week: 100-hr Fuels

Output relies on experimental forecast outputs and is subject to change

Week-1



Week-2



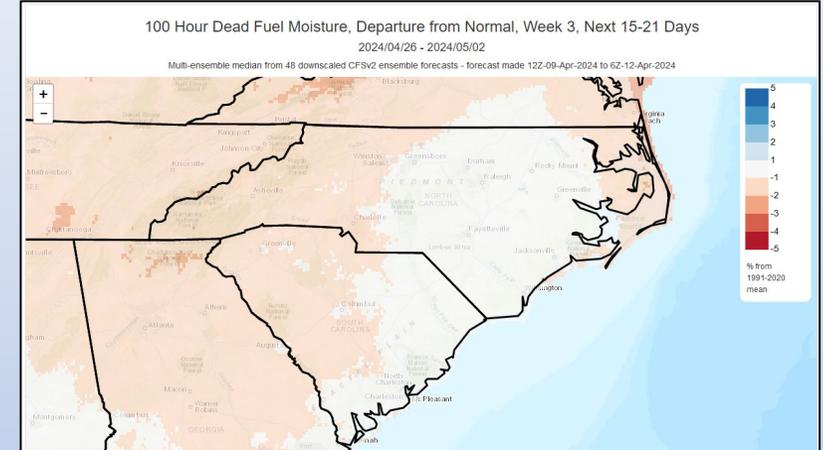
This output can provide insight into general drying trends and potential impacts to overall fire danger, especially prior to full green-up.

Note near normal transitioning to slightly drier conditions for Weeks 1-3. Week-4 show potential for fuel moistures to be significantly drier, especially northwest.

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

