

Weekly Fire Danger Assessment NCFS – All Regions

For Time Period:

Friday (3/22/24) to Thursday (3/28/24)

*Created by: Jamie Dunbar
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NC Forest Service*

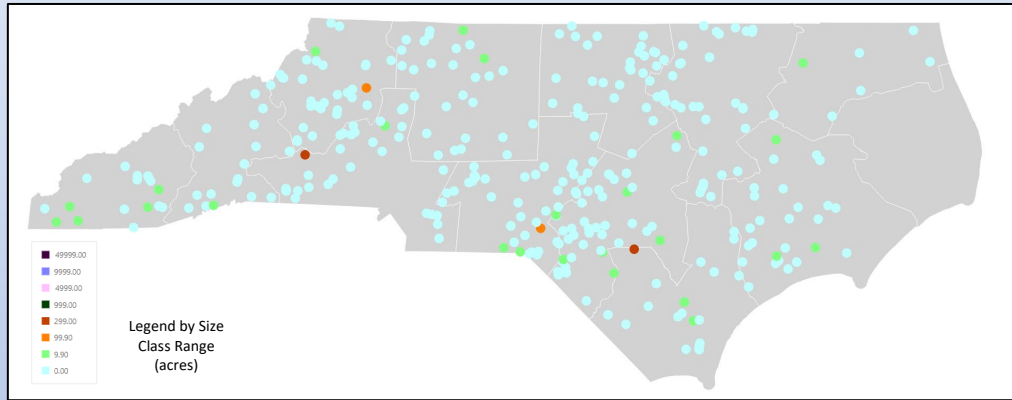
Month to Date Incident Activity

3/1 – 3/21

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

Date Range: 3/15 – 3/21, 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)

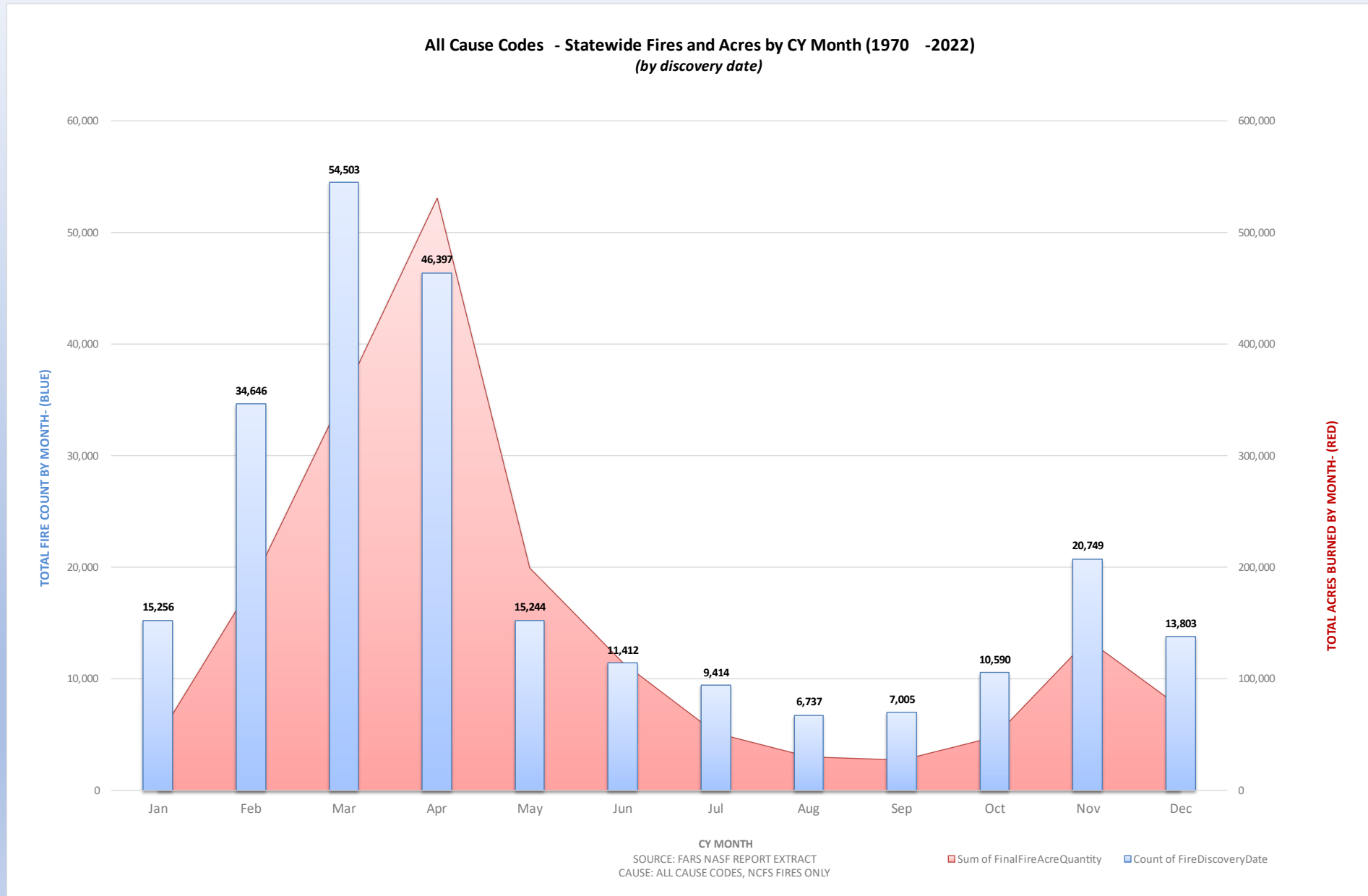
Largest incidents Last 7 Days (Ending 3/21):
 from fiResponse & preliminary reporting only

Discovery Date	Region	District	County	Acres
3/21/2024	Region 1	District 8	Bladen County	500.00
3/19/2024	Region 3	District 12	Rutherford County	462.00
3/19/2024	Region 3	District 2	Wilkes County	125.00
3/18/2024	Region 2	District 3	Scotland County	110.00
3/21/2024	Region 1	District 4	Onslow County	80.00
3/19/2024	Region 2	District 6	Robeson County	65.00
3/21/2024	Region 3	District 1	Henderson County	60.00
3/21/2024	Region 1	District 7	Hertford County	60.00
3/20/2024	Region 2	District 10	Stokes County	54.00
3/18/2024	Region 2	District 3	Richmond County	40.00
3/20/2024	Region 2	District 3	Richmond County	40.00

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:	3/15 – 3/21, 2024			
Area	Wildfire Count	Wildfire Acres	RX Count (State & Private)	RX Acres (State & Private)
R1	60	845.3	19	3,798
R2	161	754.3	62	4,064
R3	89	800.0	9	710

"209 Criteria" Fires for March - 2024 (ending 3/21/24)				
Incident Number	Incident Name	County	Discovery Date	Size (ac)
NC-NCS-240010	Usher Clearing	Robeson	03/14/2024 1800 EDT	1.5
NC-NCS-240011	Drop Zone	Scotland	03/18/2024 1758 EDT	110
NC-NCS-240012	Huckleberry Mountain	Rutherford	03/19/2024 0700 EDT	462
NC-NCS-240013	Brushy Mountain	Wilkes	03/19/2024 1325 EDT	125
NC-NCS-240014	Horseshoe Lake	Bladen	03/20/2024 1930 EDT	550
NC-NCS-240015	Brook View	Wilkes	03/20/2024 1330 EDT	3

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



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

Regional Comments for this Week – R1

General Comments:

- Hardwood bud break and leaf out continue, generally 1-2 weeks ahead of normal for many species.
- Soil moisture drawdown can be observed in many roadside ditches and non-tidal canals within forested blocks as days since soaking rain build.
- IA activity, extended burning periods, and average fire size increased substantially during the week, as conducive weather lined up with multiple days of poor overnight RH recovery (very low moisture contents of 1's, 10's and 100-hr fuel classes).



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

- Today - Developing low pressure over the Gulf states will bring widespread rain and embedded thunderstorms to the Southeast today (and into tonight).
- Tomorrow - Windy weather will follow departing rainfall in the eastern states Saturday – if any areas miss out on rain until then, Low Risks [for GACC Predictive Service Areas] may be introduced given wind gusts that will exceed 30 mph throughout the Appalachians and Southeast – RH is not expected to fall appreciably until overnight and Sunday.
- Sunday - High pressure will bring dry conditions back to the Mid-Miss. Valley and Appalachians – areas that may miss rain the next couple of days are most at risk for an increased wildfire potential, to include the northern KY mountains into western KY and TN; RH will drop to 25-30%, while E to SE winds will gust up to 20 mph.
- 10-hour fuels will see a 2-to-3-day stretch of drying in most of the rest of the region prior to rain returning early next week and then again by next weekend.
- 100-hr drying will return to the Appalachians Sunday and Monday, possibly lingering into Tuesday before rain returns.
- Multiple wetting rain events will be likely in central and eastern parts of the geographic area over the next week.

Regional Comments for this Week – R2

General Comments:

- Very dry conditions this week led to elevated fire danger.
- Low RH values and poor nighttime recovery accelerated drying of fuels and led to extended burning periods.
- All fuels inside the woods are available to burn.
- 1- and 10-hour fuels are very dry, 100's and 1000's have steadily dried out and are adding to fire intensity and causing mop up issues.
- Green fuels still have low moisture content and are consuming with dead fuels.
- Fields are beginning to green up but are not completely stopping fire spread especially if there is dead grass mixed in with green.

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

- Today - Developing low pressure over the Gulf states will bring widespread rain and embedded thunderstorms to the Southeast today (and into tonight).
- Tomorrow - Windy weather will follow departing rainfall in the eastern states Saturday – if any areas miss out on rain until then, Low Risks [for GACC Predictive Service Areas] may be introduced given wind gusts that will exceed 30 mph throughout the Appalachians and Southeast – RH is not expected to fall appreciably until overnight and Sunday.
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- 100-hr drying will return to the Appalachians Sunday and Monday, possibly lingering into Tuesday before rain returns.
- Multiple wetting rain events will be likely in central and eastern parts of the geographic area over the next week.

Updated 3/22/24 AM

Harnett County 3/20/24 2300



Backfire Operation Steam Plant Fire
Stokes County 3/20/24



Regional Comments for this Week – R3

General Comments:

- Very dry conditions this week with RH values in the mid to upper teens and breezy conditions led to elevated fire danger.
- Poor nighttime recovery accelerated drying of fuels and led to extended burning periods.
- 1- and 10-hour fuels are very dry following , 100's and 1000's have steadily dried out and are adding to fire intensity and causing mop up issues.
- Mountain Laurel and Rhododendron have been contributing to fire behavior, especially on southern and western exposures where wind and slope alignment occurs. Duff has started to smolder towards the end of the period.
- Fields are beginning to green up but are not completely stopping fire spread especially if there is dead grass mixed in with green.
- Bud swell/break is beginning to occur at lower elevations, in some locations yellow-poplar is greening up.

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

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Updated 3/22/24 AM



Windy Gap Fire - 3/21/24
(D9/Jackson Co)

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>

3/21/24 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	2	2024-03-21	83.05 80.4%	41.60 87.3%	11.80 92.7%	33.10 74.0%	50.00	9.96 11.3%	12.71 7.7%	17.34 17.0%	24.48 93.9%	104.15	100.00	65.5°F	22.5%	SSE 4.5 mph	0.00 in.	0.0
Central Mountains	3	2024-03-21	62.20 72.1%	38.67 81.6%	10.17 89.0%	19.63 65.8%	47.67	9.09 6.9%	12.11 4.1%	16.35 8.1%	23.45 92.5%	133.13	116.33	65.7°F	24.3%	SSW 2.3 mph	0.00 in.	0.0
Northern Highlands	2	2024-03-21	112.40 87.8%	48.80 90.3%	18.50 97.7%	54.65 86.3%	52.00	8.72 5.0%	10.91 2.1%	16.76 21.0%	23.67 96.1%	96.85	108.00	62.0°F	21.0%	SSW 8.0 mph	0.00 in.	0.0
Blue Ridge Escarpment	3	2024-03-21	83.97 73.0%	47.90 85.8%	18.57 95.5%	29.30 69.6%	82.33	7.33 2.5%	9.47 0.5%	13.14 0.9%	17.84 20.5%	127.17	120.33	70.3°F	18.7%	W 4.7 mph	0.00 in.	0.0
Western Piedmont	3	2024-03-21	37.30 48.8%	31.83 63.8%	7.70 69.8%	7.53 39.4%	65.67	8.38 7.0%	10.96 3.2%	15.56 17.5%	22.47 87.4%	167.47	144.00	66.3°F	22.7%	SE 2.7 mph	0.00 in.	0.0
Sandhills	3	2024-03-21	34.60 46.1%	44.50 60.9%	9.97 60.2%	4.83 47.6%	106.33	8.98 19.9%	10.90 4.5%	15.26 6.8%	21.75 86.8%	250.00	200.00	67.3°F	27.7%	SSE 3.7 mph	0.00 in.	0.0
Eastern Piedmont	4	2024-03-21	25.18 14.7%	23.03 26.7%	3.75 30.6%	4.45 7.7%	85.50	10.42 24.4%	10.86 3.0%	15.37 5.2%	22.16 89.0%	212.85	176.25	58.3°F	31.8%	SW 2.3 mph	0.00 in.	0.0
Southern Coastal	7	2024-03-21	81.99 66.5%	42.99 67.1%	8.76 71.7%	35.66 73.2%	165.29	11.17 35.5%	16.64 49.3%	17.12 14.3%	23.32 88.7%	50.00	90.00	64.9°F	40.3%	E 5.9 mph	0.00 in.	0.0
Northern Coastal	4	2024-03-21	62.70 46.0%	47.55 76.8%	7.20 54.4%	15.73 31.8%	119.50	10.27 22.0%	12.83 9.0%	16.69 21.9%	23.48 91.6%	81.55	90.00	58.0°F	39.8%	SE 5.3 mph	0.00 in.	0.0

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.



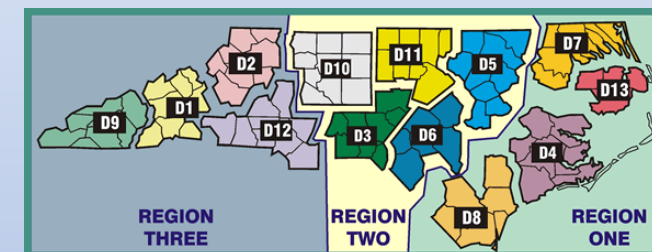
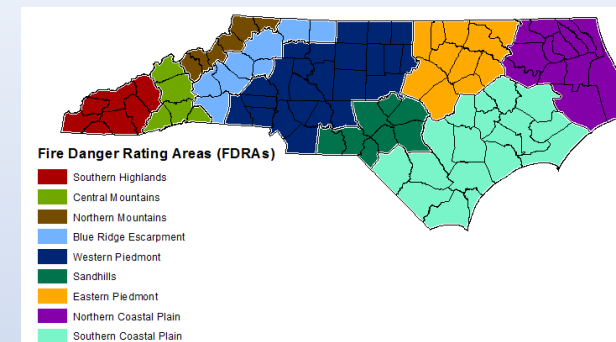
Important notes for next slide group:

A. Current ERC, KBDI, 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:

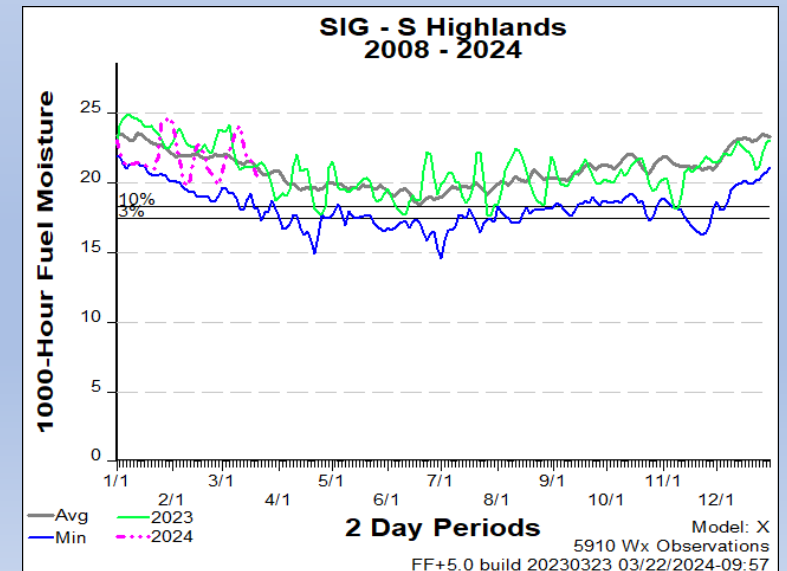
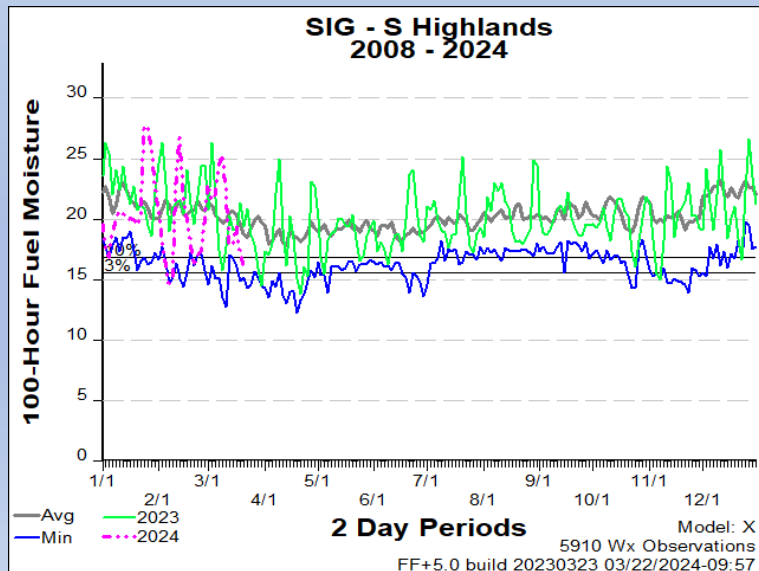
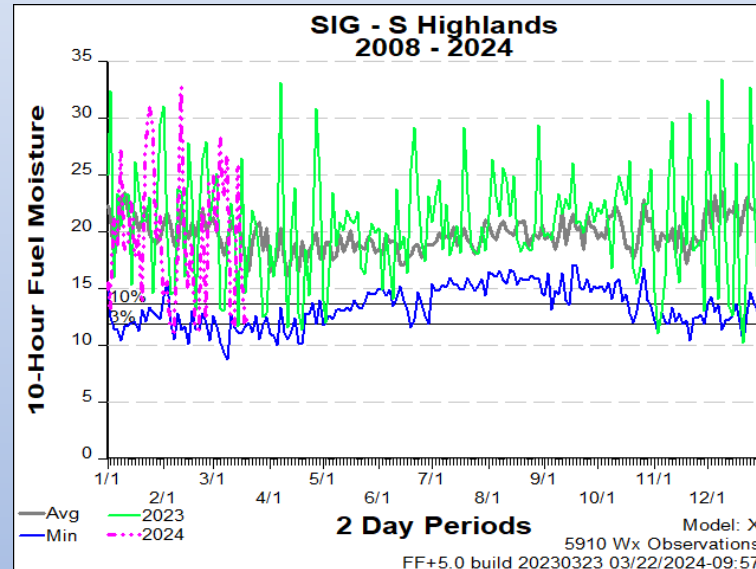
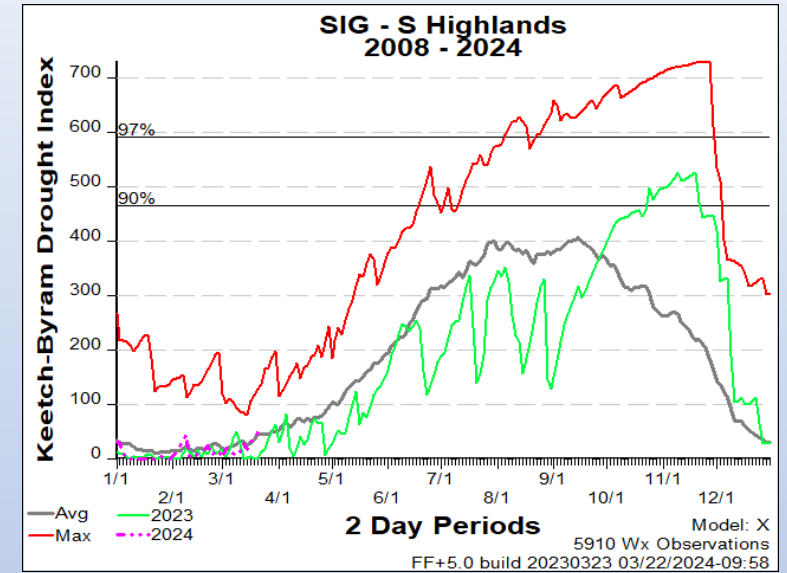
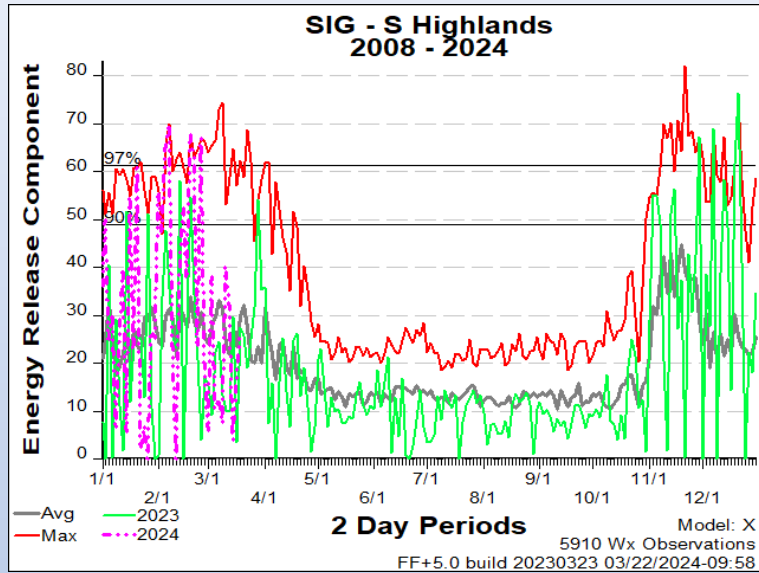
- Read the key and notes for each FDRA, included on the outlook matrix page.
- Forecasts are variable and can change significantly over a forecast cycle and across the landscape.
- This is another tool for gaining better situational awareness, and should be used for general planning purposes only.
- 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 22-Mar	SAT 23-Mar	SUN 24-Mar	MON 25-Mar	TUE 26-Mar	WED 27-Mar	THU 28-Mar
Avg. Max. Temp. (°F)	55	55	63	58	55	59	58
Avg. Min. Humidity (%)	70	64	28	30	66	49	34
Avg. 20' Wind Speed (mph)	12	12	7	12	17	10	10
Avg. Wind Direction*	ESE	W	ESE	ESE	SE	WNW	NNW
Avg. Probability of Precip. (%)	99	51	0	30	74	47	11
Days Since a Wetting Rain**	0.0	0.0	1.0				
Forecast ERC (Fuel Model X)	23.6	8.7	31.3	42.7	29.2	11.1	26.9
Forecast BI (Fuel Model X)	79.6	38.8	80.3	127.0	119.8	39.1	94.3
Forecast IC (Fuel Model X)	7.7	2.0	8.3	16.2	10.2	2.8	7.8
Forecast 100-Hr. FMC	16.8	17.3	18.8	18.7	17.8	17.9	19.0
Forecast 1000-Hr. FMC	24.2	24.2	23.7	23.5	23.4	23.3	23.1
KBDI	50.0						

Data Source:

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

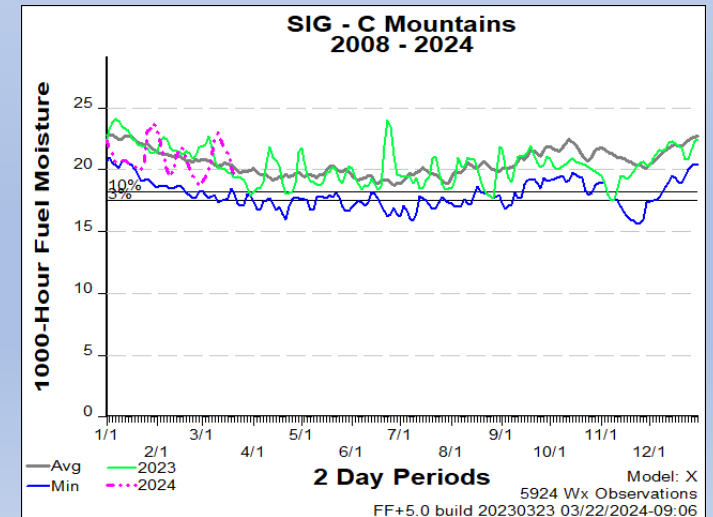
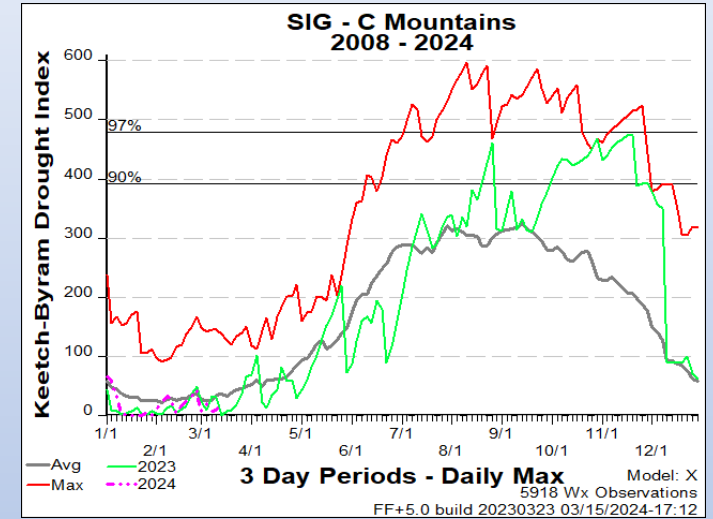
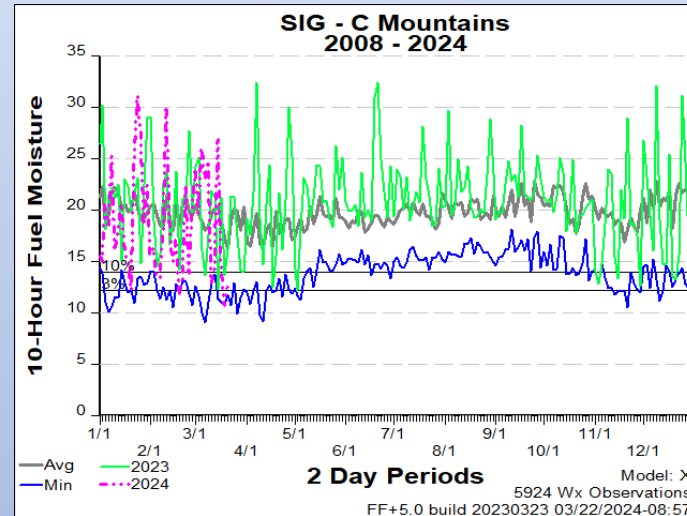
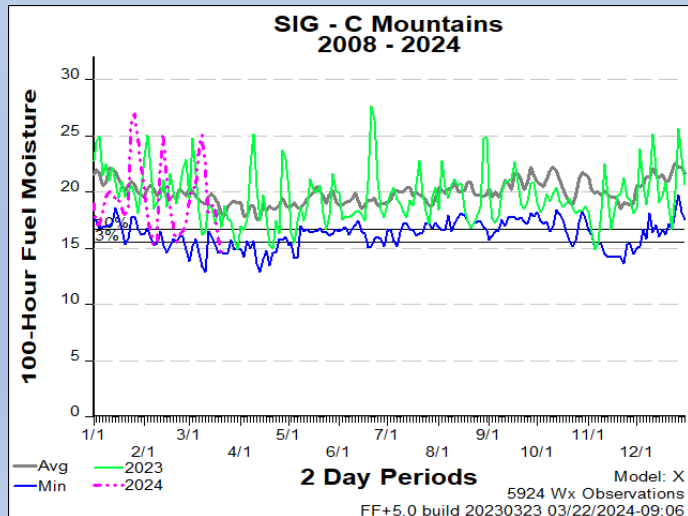
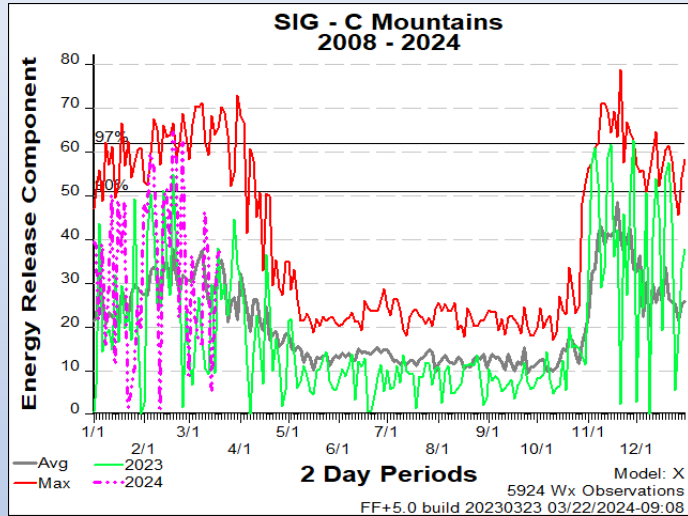
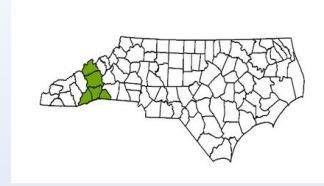
Values in the table above are averages from 3 stations in this FDRA:

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

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

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

FDRA – Central Mountains



Weekly Outlook

Central Mountains FDRA - General Fire Danger Forecast

For planning purposes only; forecast is subject to change

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

DAY	FRI 22-Mar	SAT 23-Mar	SUN 24-Mar	MON 25-Mar	TUE 26-Mar	WED 27-Mar	THU 28-Mar
Avg. Max. Temp. (°F)	51	56	63	61	57	61	59
Avg. Min. Humidity (%)	75	62	25	28	60	49	34
Avg. 20' Wind Speed (mph)	10	16	10	10	14	9	11
Avg. Wind Direction*	ESE	NW	SSW	SE	SE	W	NNW
Avg. Probability of Precip. (%)	99	67	0	21	72	54	16
Days Since a Wetting Rain**	0.0	0.0	1.0				
Forecast ERC (Fuel Model X)	19.9	5.9	24.6	30.7	23.4	10.8	23.8
Forecast BI (Fuel Model X)	59.0	34.3	59.4	83.8	77.0	37.5	77.1
Forecast IC (Fuel Model X)	5.0	1.5	6.7	10.6	7.1	2.6	6.2
Forecast 100-Hr. FMC	15.4	15.9	18.3	18.6	17.8	18.0	19.0
Forecast 1000-Hr. FMC	23.1	23.3	22.6	22.6	22.5	22.6	22.3
KBDI	47.7						

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

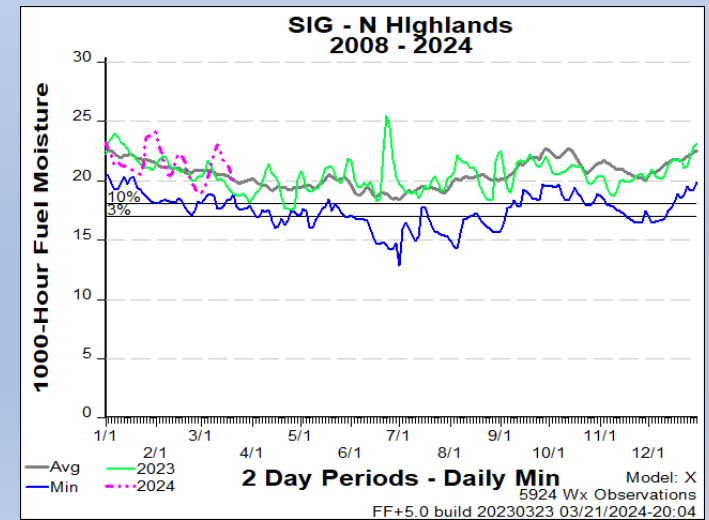
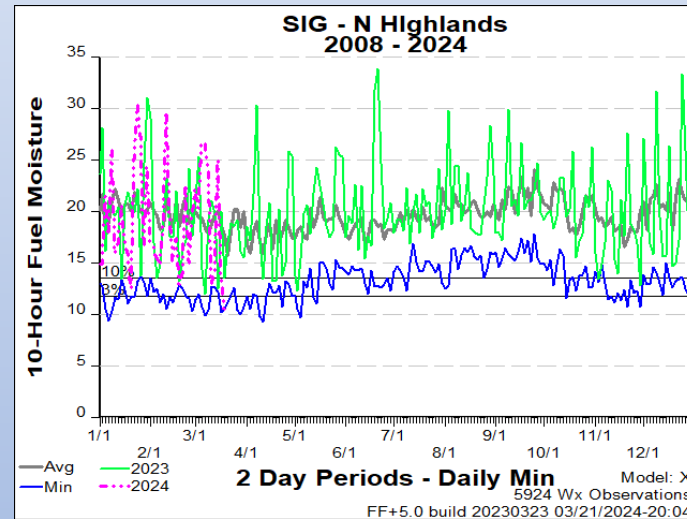
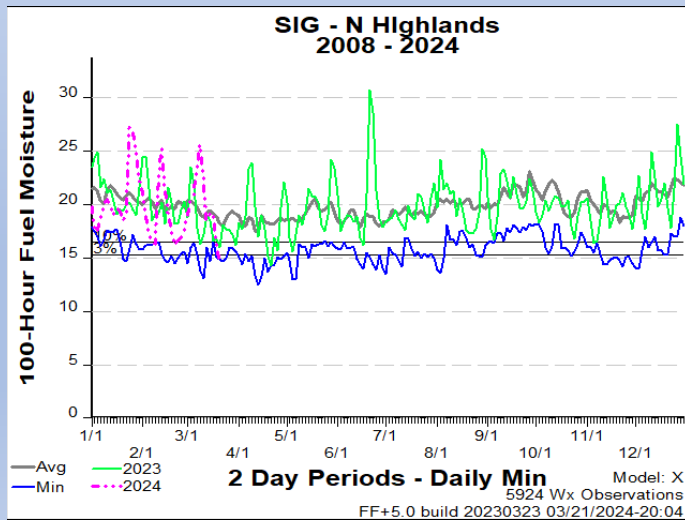
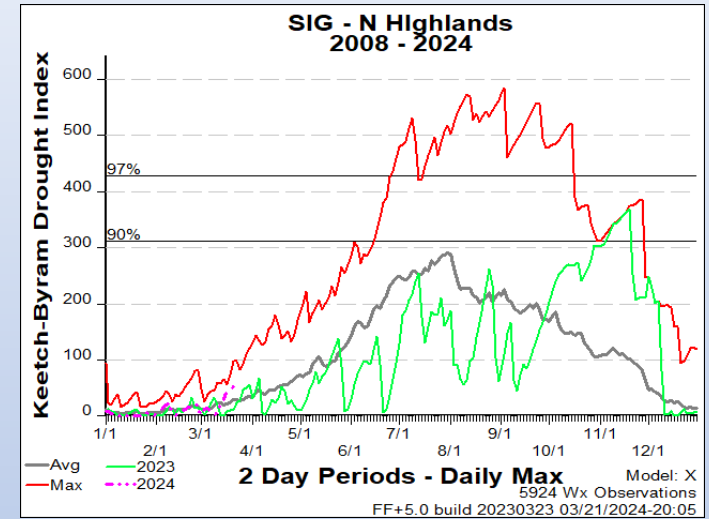
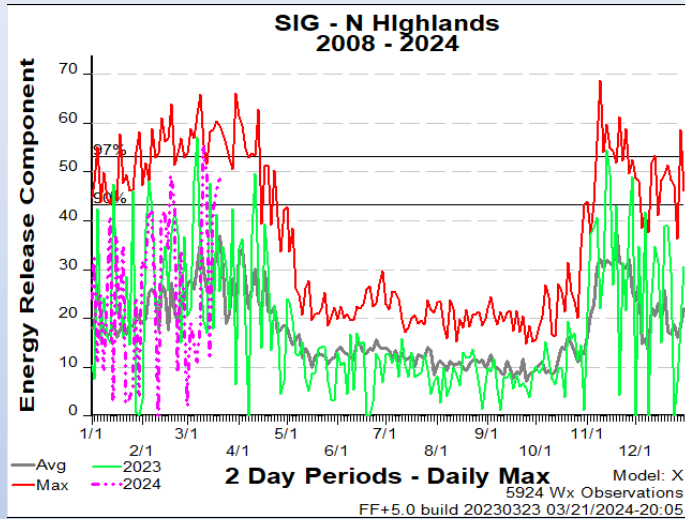
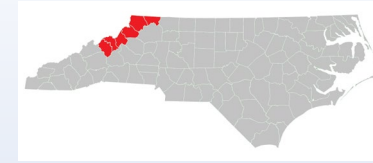
Values in the table above are averages from 3 stations in this FDRA:

- 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 22-Mar	SAT 23-Mar	SUN 24-Mar	MON 25-Mar	TUE 26-Mar	WED 27-Mar	THU 28-Mar
Avg. Max. Temp. (°F)	47	50	57	54	50	56	53
Avg. Min. Humidity (%)	76	60	28	32	61	52	37
Avg. 20' Wind Speed (mph)	8	19	13	9	11	10	12
Avg. Wind Direction*	ESE	W	SSW	ESE	SE	W	NNW
Avg. Probability of Precip. (%)	100	83	0	14	72	56	23
Days Since a Wetting Rain**	0.0	0.0	1.0				
Forecast ERC (Fuel Model X)	29.8	6.8	26.4	34.3	28.1	12.4	22.5
Forecast BI (Fuel Model X)	74.9	35.9	65.5	89.1	76.5	36.2	63.6
Forecast IC (Fuel Model X)	7.2	1.5	7.7	10.6	7.0	2.4	6.4
Forecast 100-Hr. FMC	15.4	15.7	18.1	18.4	17.9	17.8	18.4
Forecast 1000-Hr. FMC	23.3	23.5	22.8	22.7	22.6	22.5	22.4
KBDI	52.0						

Data Source:

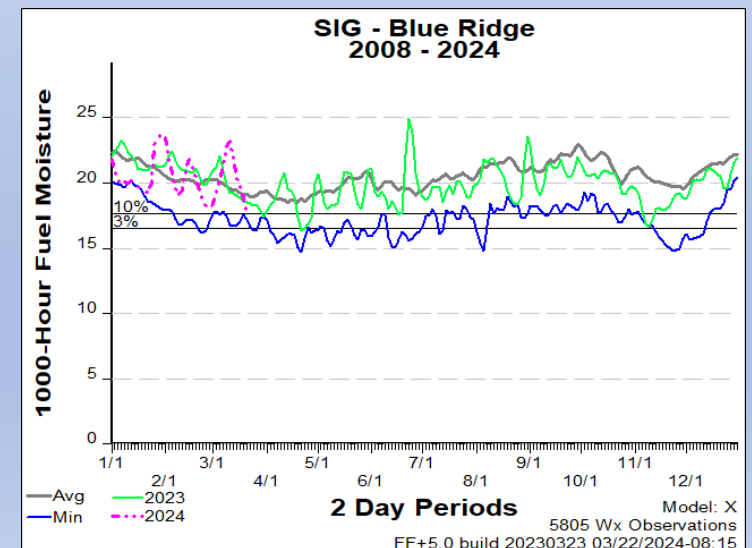
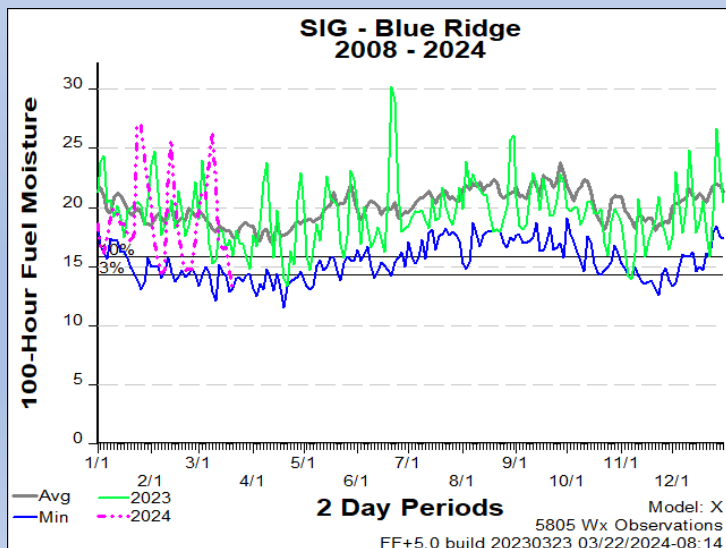
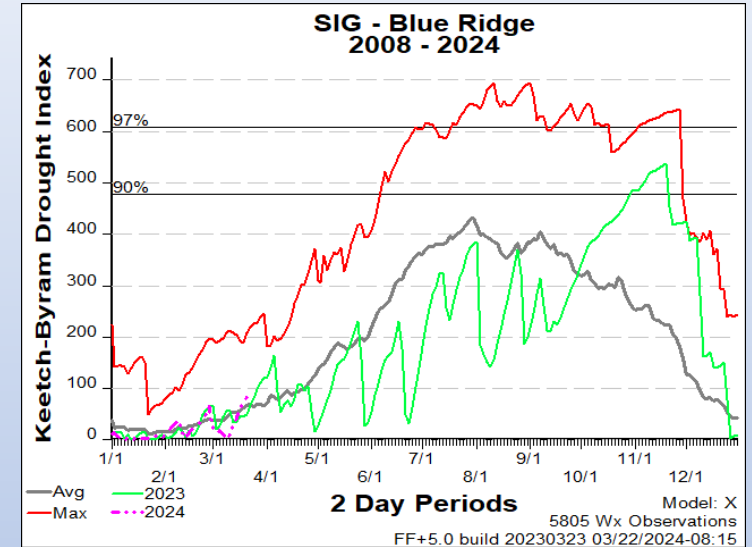
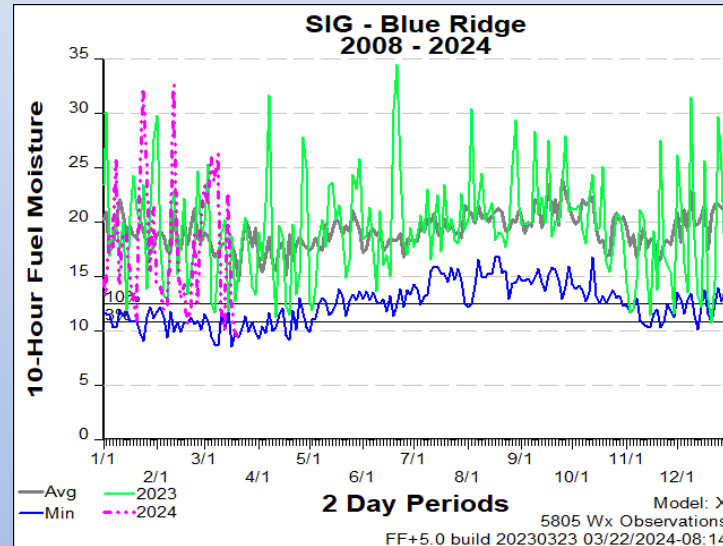
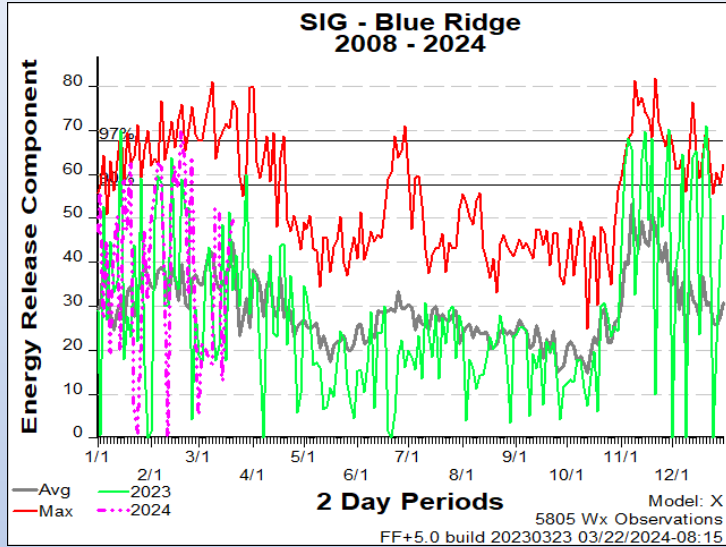
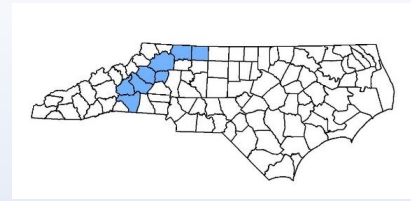
- Weather forecasts come from the National Weather Service's [Digital Forecast Database](#). The wind speed and direction, and probability of precipitation, are calculated as averages of the 1 am, 7 am, 1 pm, and 7 pm forecasts. The 20-foot wind speed is estimated from the 10-meter forecast using the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

- 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 22-Mar	SAT 23-Mar	SUN 24-Mar	MON 25-Mar	TUE 26-Mar	WED 27-Mar	THU 28-Mar
Avg. Max. Temp. (°F)	49	58	60	58	54	62	60
Avg. Min. Humidity (%)	78	54	28	33	61	51	35
Avg. 20' Wind Speed (mph)	7	14	10	7	9	8	10
Avg. Wind Direction*	ENE	WSW	SSW	E	ESE	SW	NNW
Avg. Probability of Precip. (%)	100	76	0	13	68	55	21
Days Since a Wetting Rain**	0.0	0.0	1.0				
Forecast ERC (Fuel Model X)	29.3	9.3	31.0	34.1	30.0	20.2	28.5
Forecast BI (Fuel Model X)	54.2	38.5	57.7	73.5	66.6	49.5	73.7
Forecast IC (Fuel Model X)	5.8	2.4	7.0	9.0	6.5	3.3	7.3
Forecast 100-Hr. FMC	12.3	17.7	19.5	18.1	16.9	16.9	16.9
Forecast 1000-Hr. FMC	16.7	17.1	17.1	17.4	17.5	17.7	17.7
KBDI	82.3						

Data Source:

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

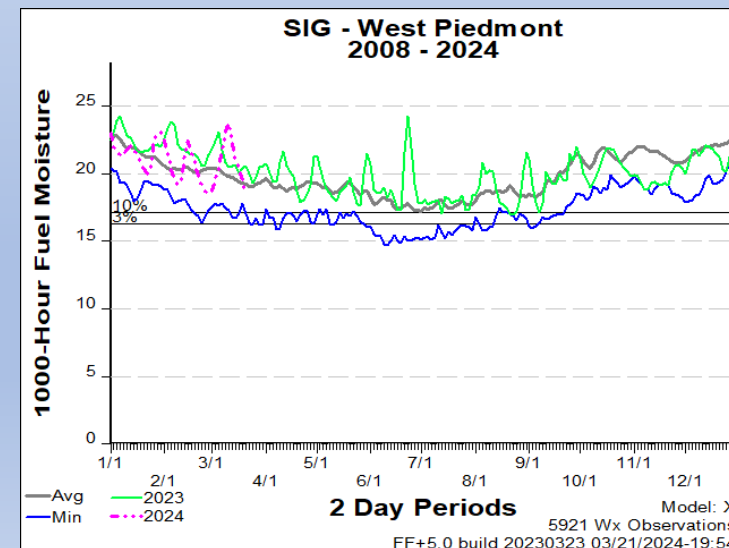
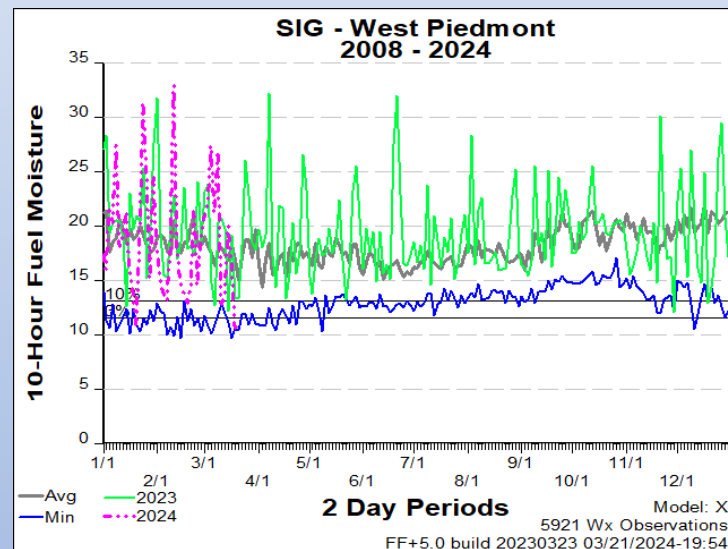
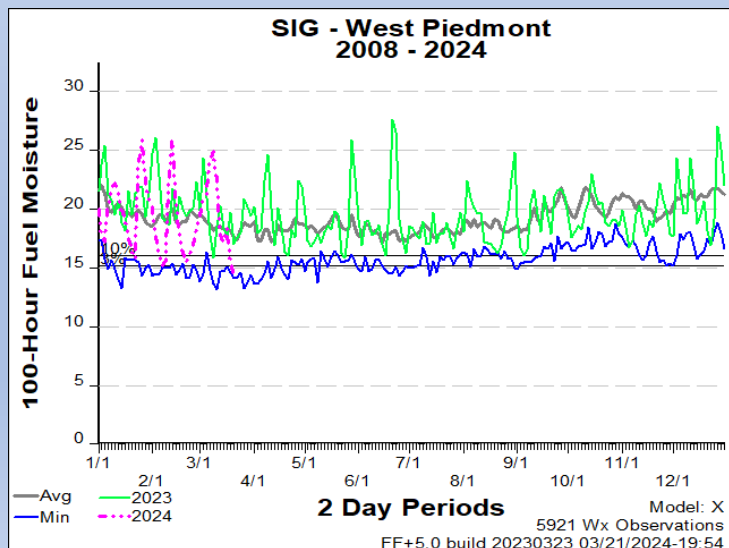
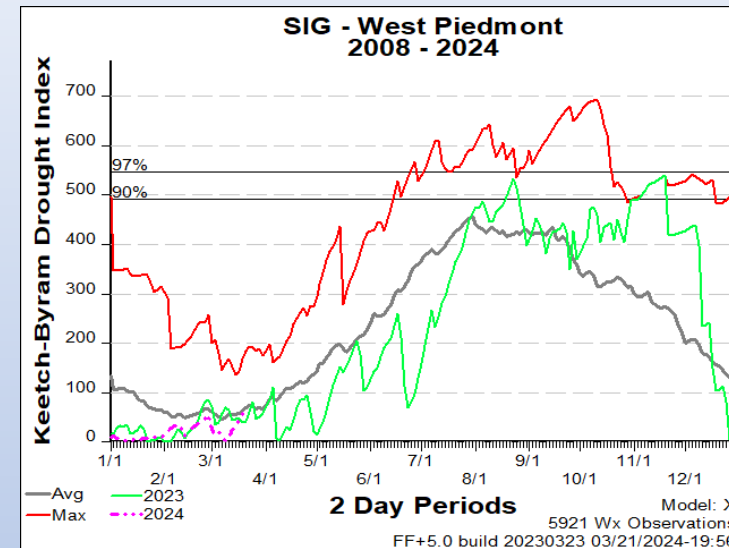
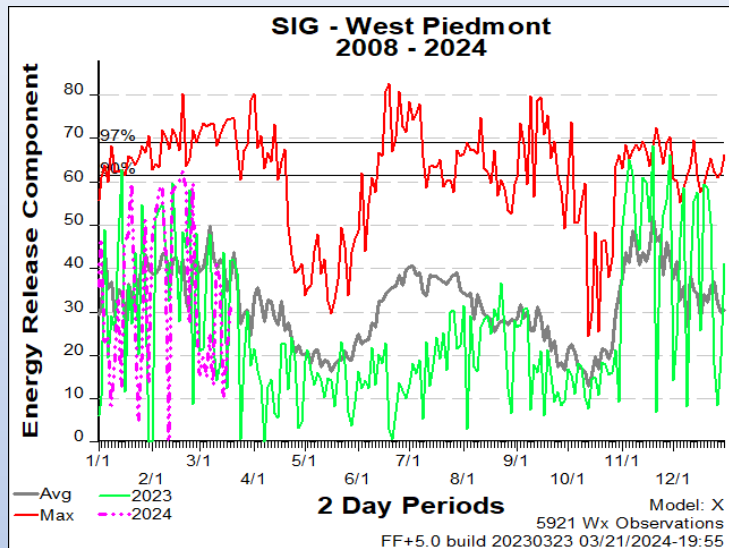
Values in the table above are averages from 3 stations in this FDRA:

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

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

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

FDRA – Western Piedmont



Weekly Outlook

Western Piedmont FDRA - General Fire Danger Forecast

For planning purposes only; forecast is subject to change

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

DAY	FRI 22-Mar	SAT 23-Mar	SUN 24-Mar	MON 25-Mar	TUE 26-Mar	WED 27-Mar	THU 28-Mar
Avg. Max. Temp. (°F)	58	62	59	63	63	66	62
Avg. Min. Humidity (%)	70	61	32	34	51	59	41
Avg. 20' Wind Speed (mph)	7	11	11	7	8	8	9
Avg. Wind Direction*	E	S	NE	NE	E	SSE	SW
Avg. Probability of Precip. (%)	98	71	1	4	49	51	29
Days Since a Wetting Rain**	0.0	0.0	1.0				
Forecast ERC (Fuel Model X)	18.1	4.5	20.1	22.2	20.2	12.9	16.7
Forecast BI (Fuel Model X)	30.4	19.7	43.0	42.2	40.7	31.4	43.4
Forecast IC (Fuel Model X)	3.4	0.9	5.7	5.3	4.8	2.4	4.5
Forecast 100-Hr. FMC	15.0	16.3	19.2	19.3	18.3	18.1	18.3
Forecast 1000-Hr. FMC	22.1	22.5	22.0	21.7	21.7	21.6	21.6
KBDI	65.7						

Data Source:

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

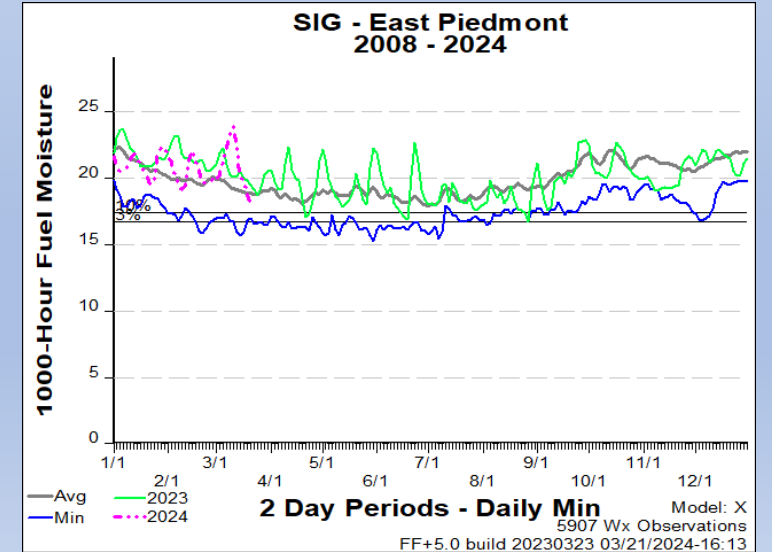
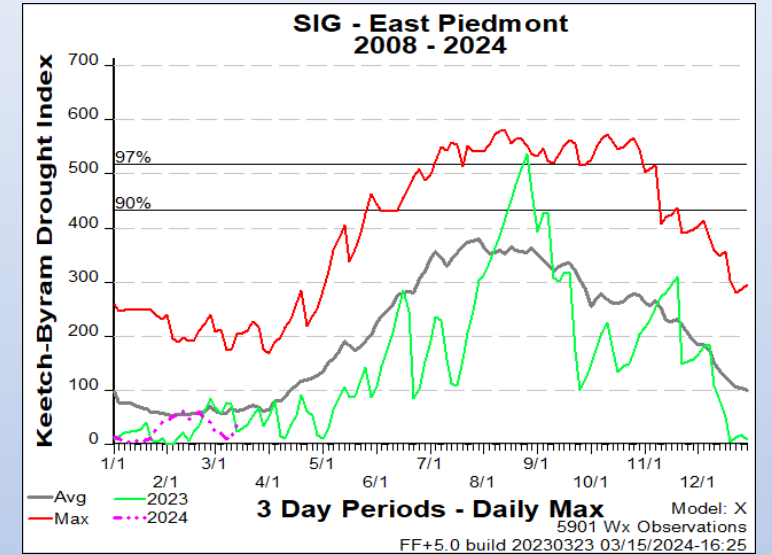
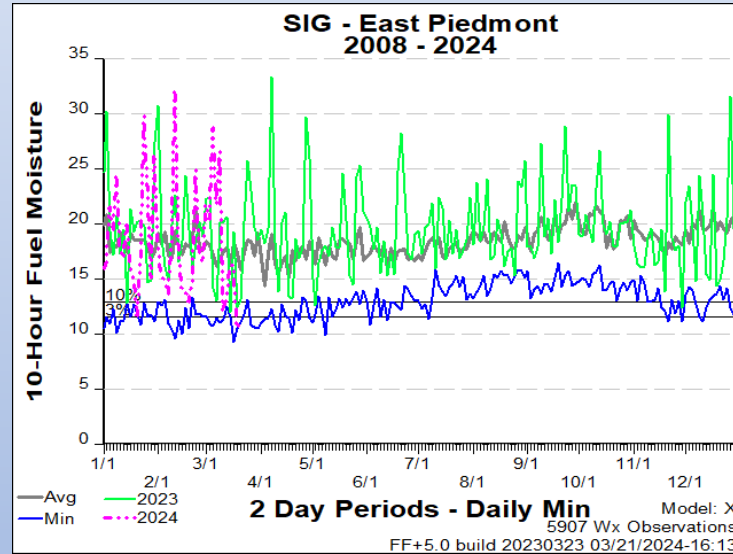
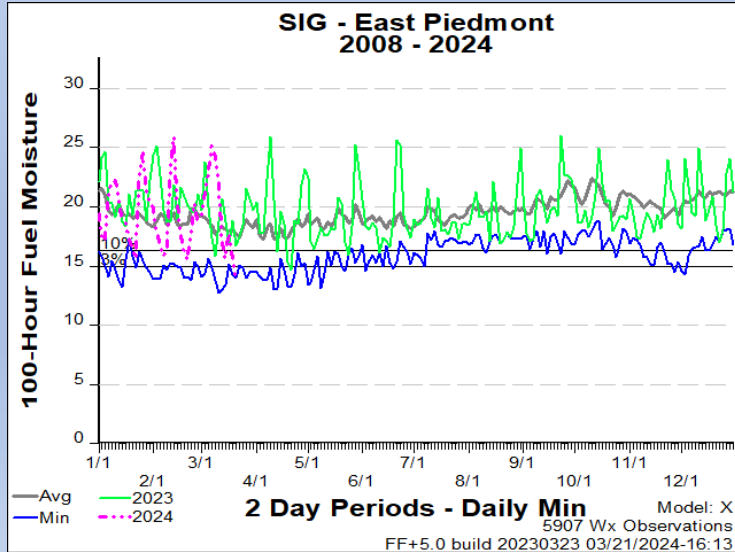
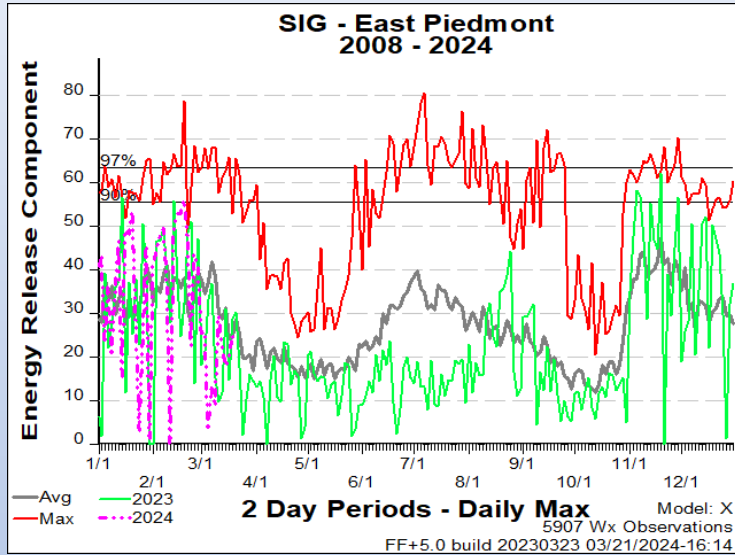
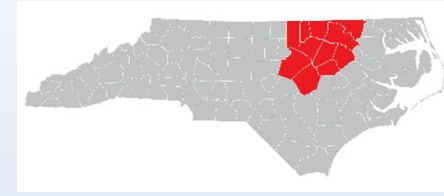
Values in the table above are averages from 3 stations in this FDRA:

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

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

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

FDRA – Eastern Piedmont



Weekly Outlook

Eastern Piedmont FDRA - General Fire Danger Forecast

For planning purposes only; forecast is subject to change

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

DAY	FRI 22-Mar	SAT 23-Mar	SUN 24-Mar	MON 25-Mar	TUE 26-Mar	WED 27-Mar	THU 28-Mar
Avg. Max. Temp. (°F)	65	64	57	63	64	67	61
Avg. Min. Humidity (%)	58	68	35	38	50	63	49
Avg. 20' Wind Speed (mph)	9	12	15	8	7	8	9
Avg. Wind Direction*	ESE	SSE	NNE	NE	ENE	SSW	NNW
Avg. Probability of Precip. (%)	97	79	1	0	27	46	34
Days Since a Wetting Rain**	0.0	0.0	1.0				
Forecast ERC (Fuel Model X)	15.5	3.0	17.5	18.9	16.6	12.1	12.1
Forecast BI (Fuel Model X)	27.9	11.8	39.8	32.6	29.5	26.8	31.8
Forecast IC (Fuel Model X)	3.0	0.6	5.2	4.1	3.2	2.4	2.8
Forecast 100-Hr. FMC	15.3	17.9	20.1	19.8	18.8	18.6	18.5
Forecast 1000-Hr. FMC	21.9	22.3	22.0	21.7	21.7	21.6	21.6
KBDI	85.5						

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

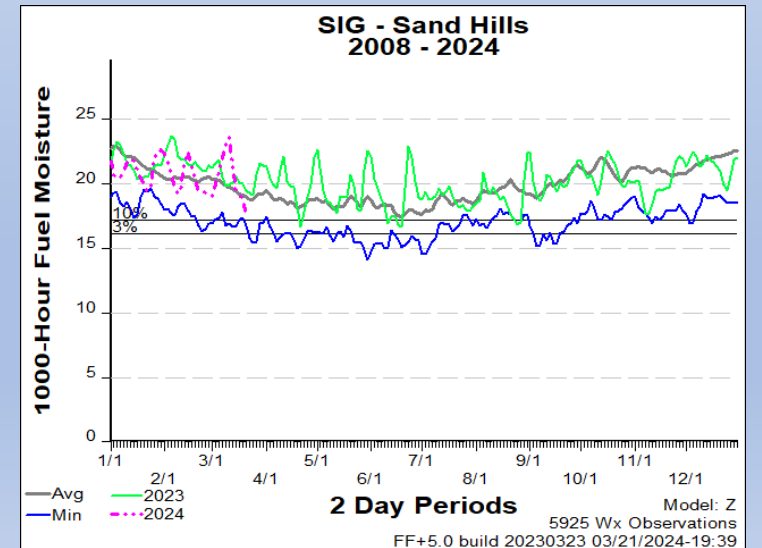
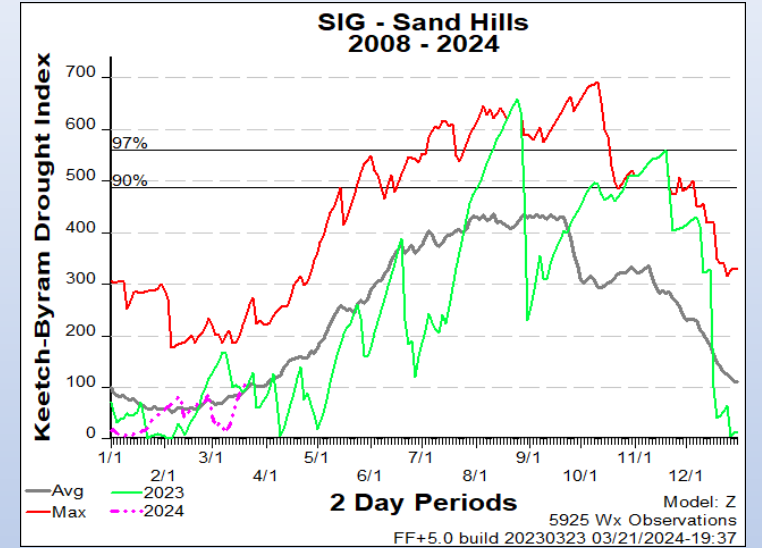
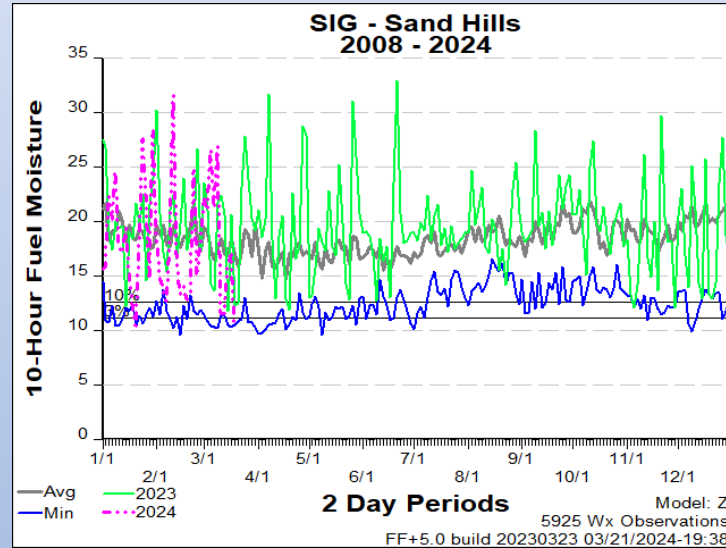
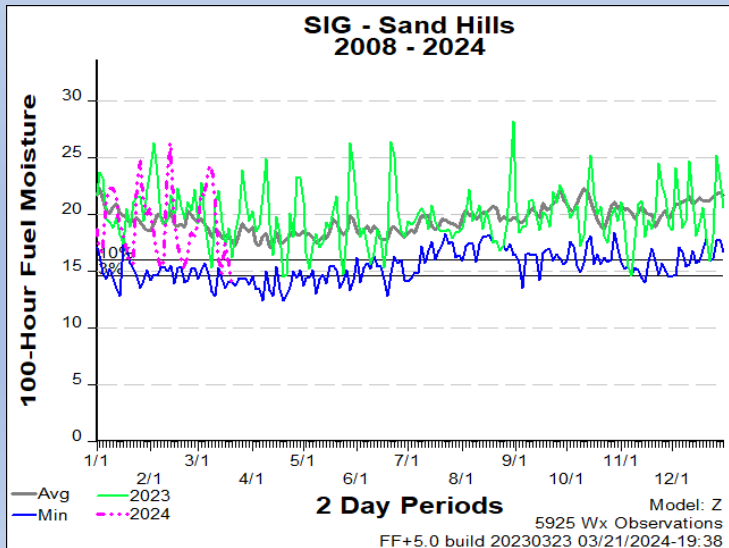
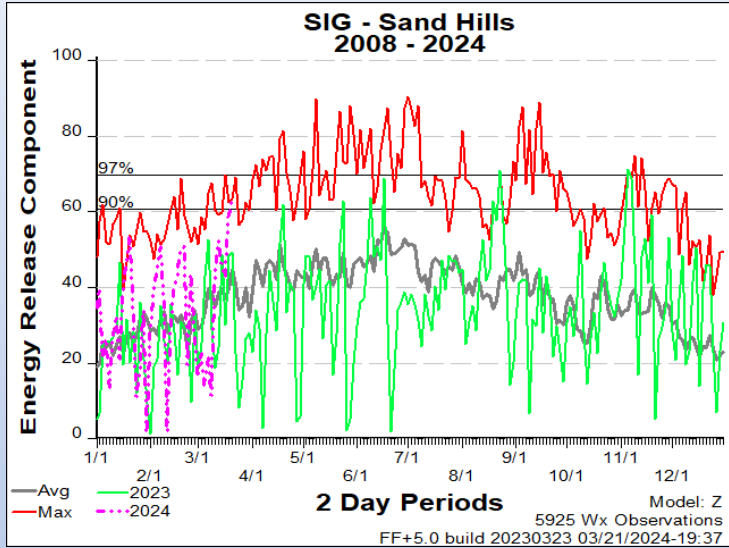
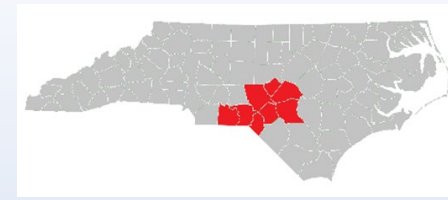
Values in the table above are averages from 4 stations in this FDRA:

- 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 22-Mar	SAT 23-Mar	SUN 24-Mar	MON 25-Mar	TUE 26-Mar	WED 27-Mar	THU 28-Mar
Avg. Max. Temp. (°F)	66	65	60	65	67	70	64
Avg. Min. Humidity (%)	64	64	28	32	47	56	42
Avg. 20' Wind Speed (mph)	9	10	12	7	7	8	9
Avg. Wind Direction*	ESE	S	NNE	NE	E	SE	ESE
Avg. Probability of Precip. (%)	96	64	0	0	31	46	32
Days Since a Wetting Rain**	0.0	0.0	1.0				
Forecast ERC (Fuel Model Z)	35.9	4.7	35.3	39.3	39.0	28.9	31.9
Forecast BI (Fuel Model Z)	38.6	9.5	50.2	41.8	42.0	38.0	44.8
Forecast IC (Fuel Model Z)	6.0	0.3	12.2	10.0	9.0	5.7	7.5
Forecast 100-Hr. FMC	15.3	19.6	21.2	20.5	19.1	18.7	18.5
Forecast 1000-Hr. FMC	21.5	21.9	21.7	21.6	21.5	21.4	21.4
KBDI	106.3						

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

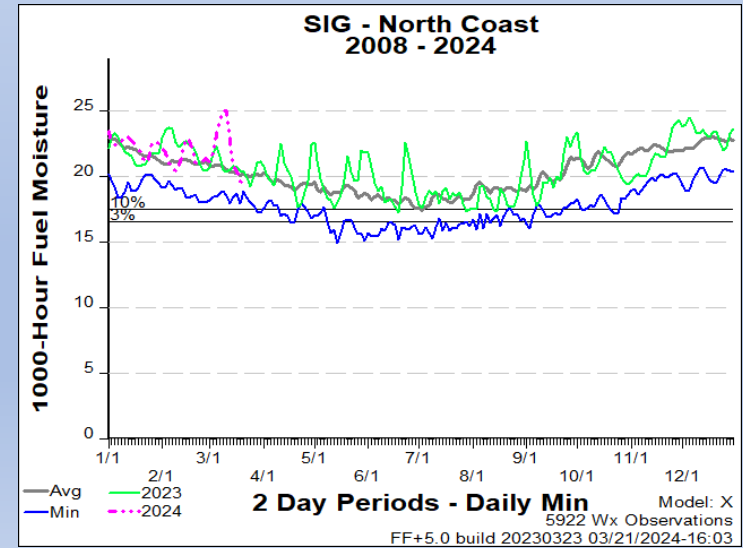
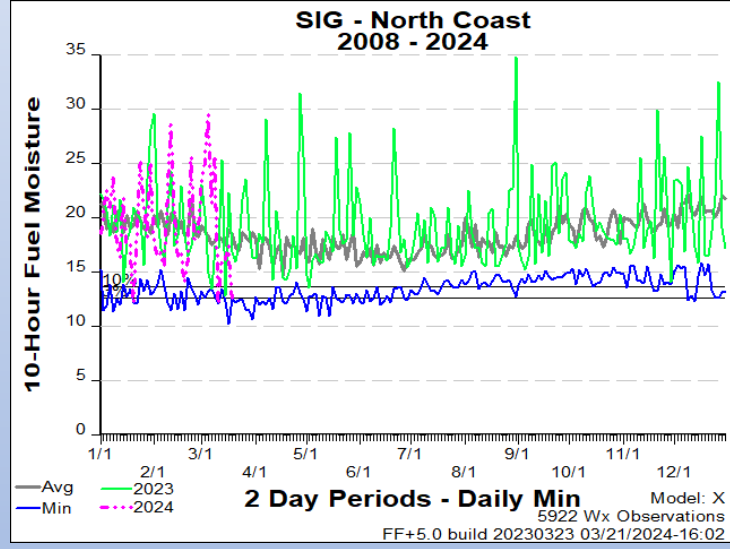
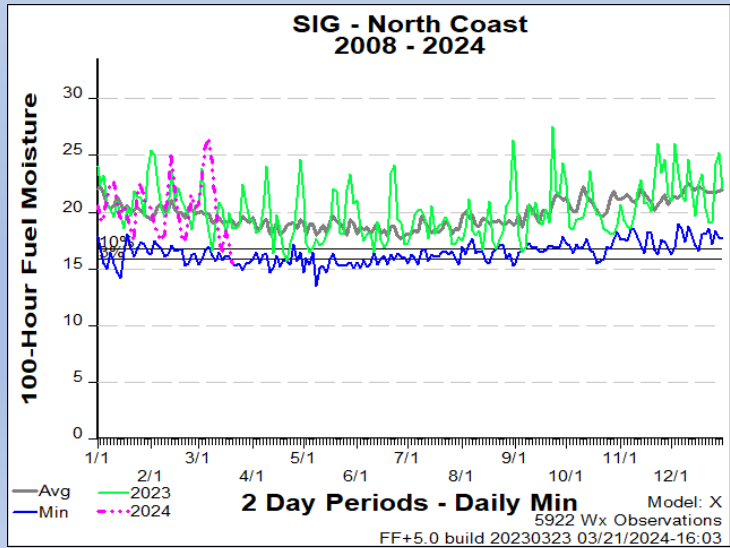
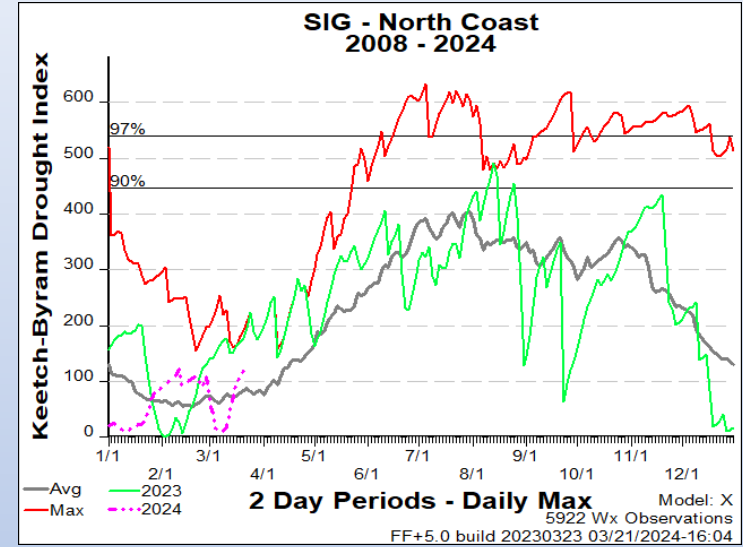
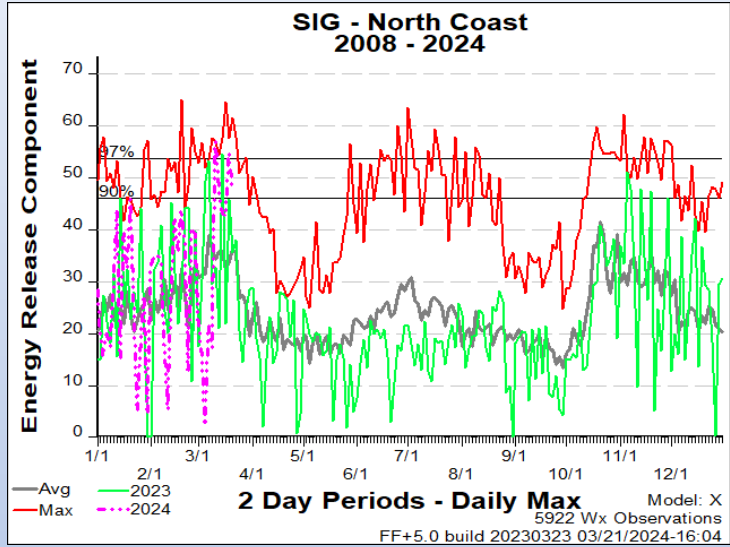
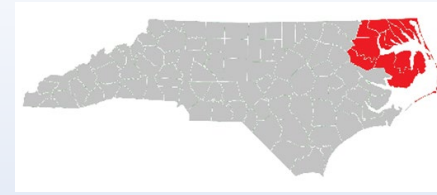
Values in the table above are averages from 3 stations in this FDRA:

- 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 22-Mar	SAT 23-Mar	SUN 24-Mar	MON 25-Mar	TUE 26-Mar	WED 27-Mar	THU 28-Mar
Avg. Max. Temp. (°F)	64	69	54	60	62	69	62
Avg. Min. Humidity (%)	60	77	44	47	55	66	56
Avg. 20' Wind Speed (mph)	12	16	20	12	9	7	11
Avg. Wind Direction*	SE	SW	SE	NNE	NE	E	SE
Avg. Probability of Precip. (%)	96	99	6	0	12	45	42
Days Since a Wetting Rain**	0.0	0.0	1.0				
Forecast ERC (Fuel Model X)	28.7	11.0	17.8	23.6	14.1	11.8	10.7
Forecast BI (Fuel Model X)	86.4	39.8	74.4	67.0	36.2	27.3	32.2
Forecast IC (Fuel Model X)	6.8	2.8	6.9	6.6	2.8	1.9	1.9
Forecast 100-Hr. FMC	16.6	18.4	21.4	21.8	20.9	20.5	20.0
Forecast 1000-Hr. FMC	23.3	23.6	23.4	23.3	23.3	23.2	23.3
KBDI	119.5						

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.

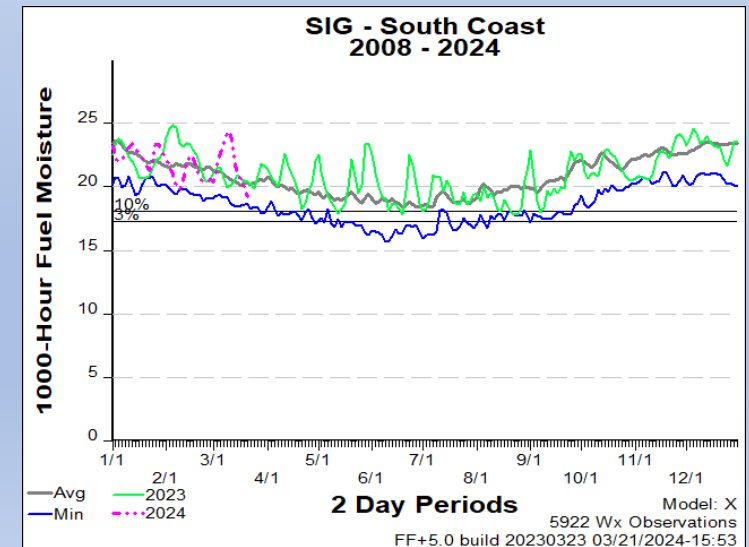
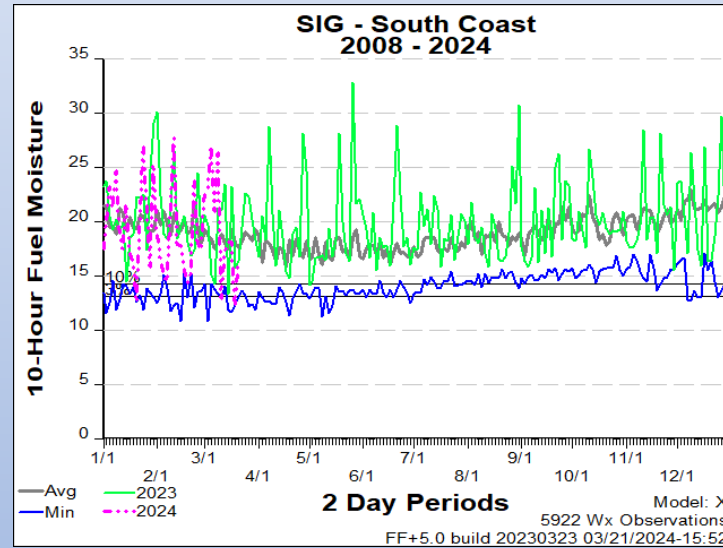
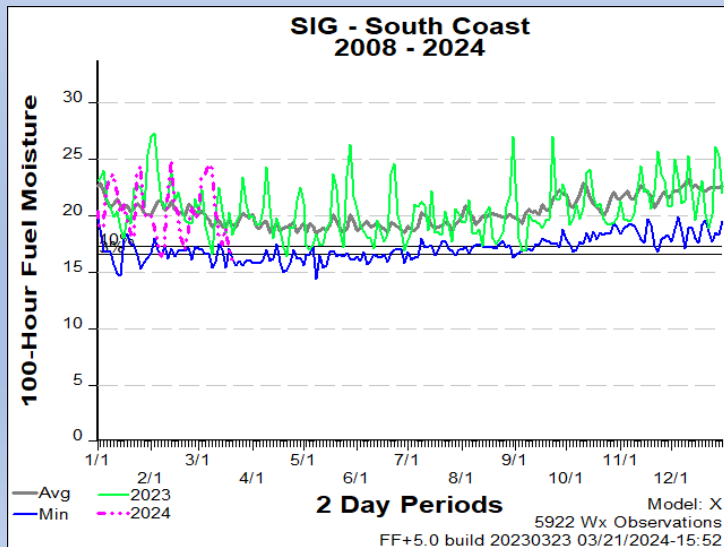
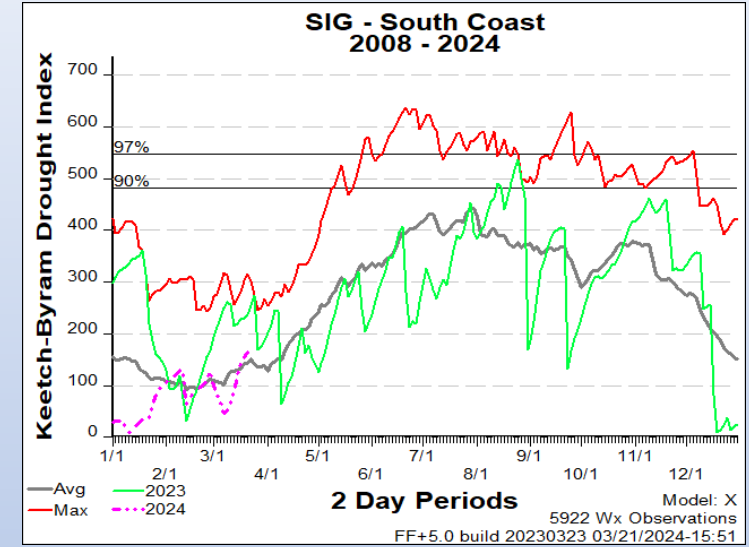
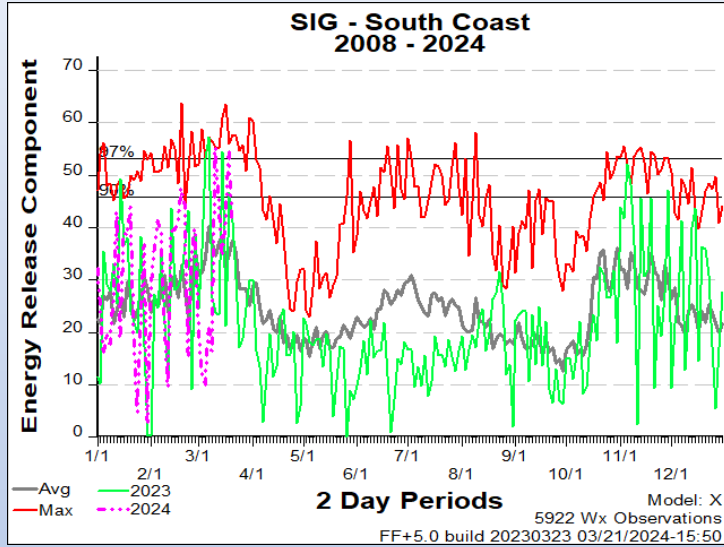
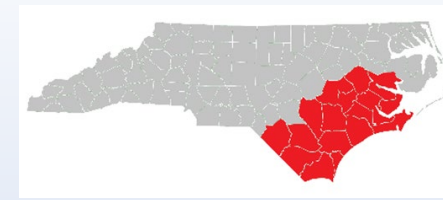
Values in the table above are averages from 4 stations in this FDRA:

- 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 22-Mar	SAT 23-Mar	SUN 24-Mar	MON 25-Mar	TUE 26-Mar	WED 27-Mar	THU 28-Mar
Avg. Max. Temp. (°F)	68	70	59	65	67	72	65
Avg. Min. Humidity (%)	67	73	37	39	49	61	50
Avg. 20' Wind Speed (mph)	11	13	17	10	8	7	10
Avg. Wind Direction*	ESE	SSW	NNE	NNE	ENE	SSE	WSW
Avg. Probability of Precip. (%)	98	82	3	0	15	40	39
Days Since a Wetting Rain**	0.0	0.0	1.0				
Forecast ERC (Fuel Model X)	29.1	5.4	35.3	42.0	33.7	25.2	25.0
Forecast BI (Fuel Model X)	88.9	22.4	130.9	110.6	86.4	77.8	85.4
Forecast IC (Fuel Model X)	6.6	1.1	11.0	10.5	6.8	5.3	5.6
Forecast 100-Hr. FMC	17.1	21.0	23.2	21.9	20.5	19.9	19.4
Forecast 1000-Hr. FMC	23.0	23.4	23.2	23.0	23.0	23.0	22.9
KBDI	165.3						

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 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

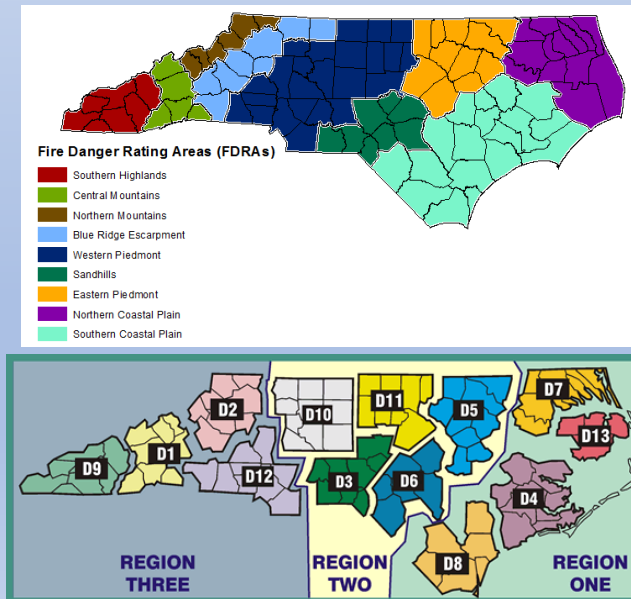
Outlook Summary Tables – Organized by Region –

Output from NFRS
forecast generated on
3/21/24.

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
22-Mar	Fri	High	High
23-Mar	Sat	Low/Mod	Low/Mod
24-Mar	Sun	Low/Mod	High -
25-Mar	Mon	Low/Mod	High -
26-Mar	Tues	Low/Mod	Low/Mod
27-Mar	Wed	Low/Mod	Low/Mod
28-Mar	Thurs	Low/Mod	Low/Mod

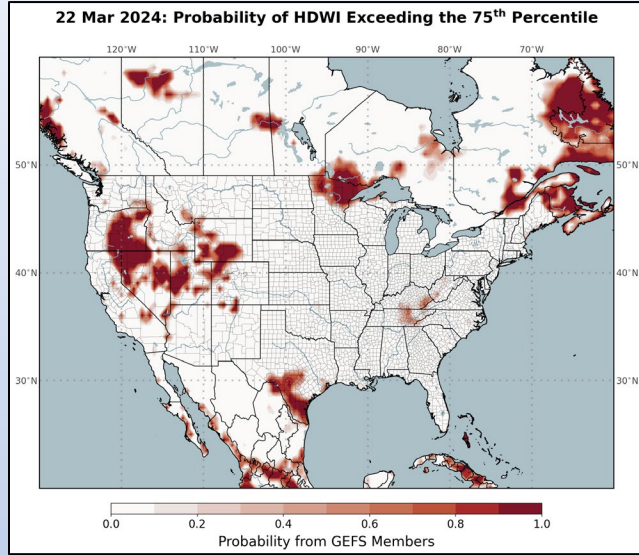
Date	Day of Week	FDRA Weekly Outlook - Matrix Summary - NCFS Region 2				
		Blue Ridge Escarp	Western Piedmont	Eastern Piedmont	Sandhills	South Coast
22-Mar	Fri	High -	Low/Mod +	Low/Mod +	Low/Mod +	High
23-Mar	Sat	Low/Mod	Low/Mod	Low/Mod	Low/Mod	Low/Mod
24-Mar	Sun	High -	Low/Mod	Low/Mod	Low/Mod +	High -
25-Mar	Mon	High	Low/Mod +	Low/Mod	Low/Mod +	High -
26-Mar	Tues	High	Low/Mod	Low/Mod	Low/Mod	Low/Mod
27-Mar	Wed	High	Low/Mod	Low/Mod	Low/Mod	Low/Mod
28-Mar	Thurs	High	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
22-Mar	Fri	Low/Mod +	Low/Mod +	High -	High -	Low/Mod +
23-Mar	Sat	Low/Mod	Low/Mod	Low/Mod	Low/Mod	Low/Mod
24-Mar	Sun	Low/Mod	High	High	High -	Low/Mod
25-Mar	Mon	Critical -	High	High	High	Low/Mod +
26-Mar	Tues	High	High -	High	High	Low/Mod
27-Mar	Wed	Low/Mod +	Low/Mod	Low/Mod	High	Low/Mod
28-Mar	Thurs	Low/Mod	High	Low/Mod +	High	Low/Mod

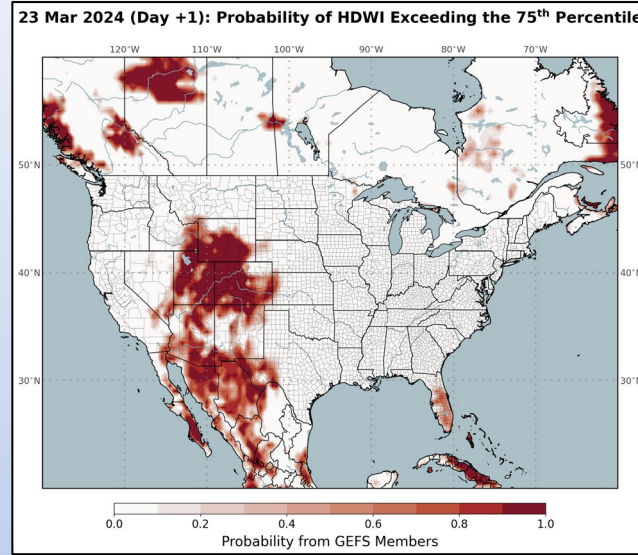
Statewide Slides

Hot-Dry-Windy Index (HDW)

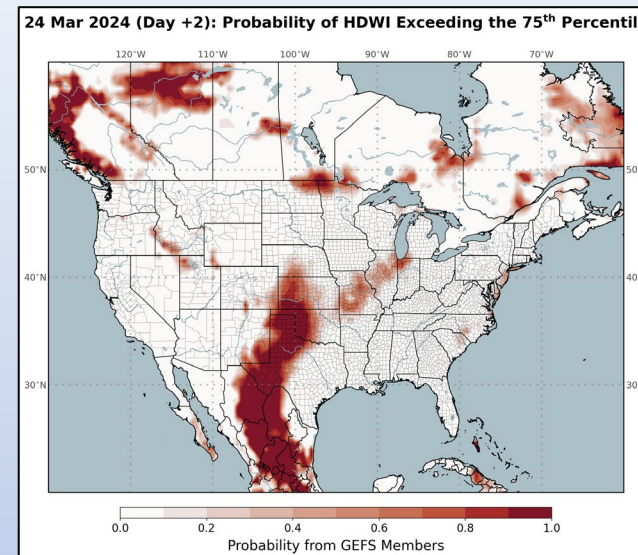
Friday > 75th Percentile



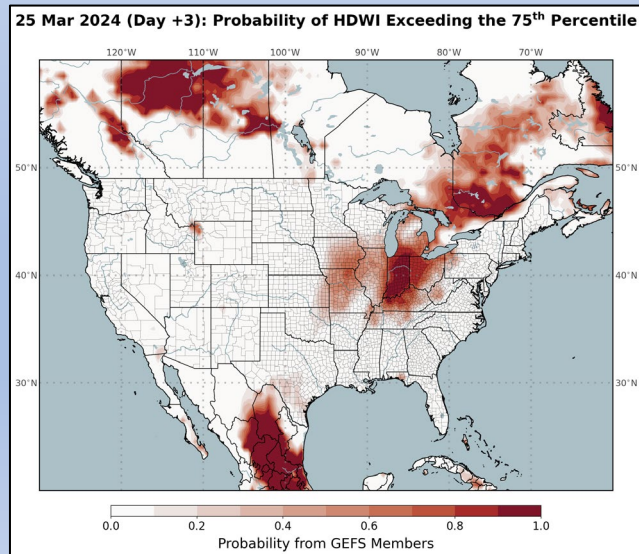
Saturday > 75th Percentile



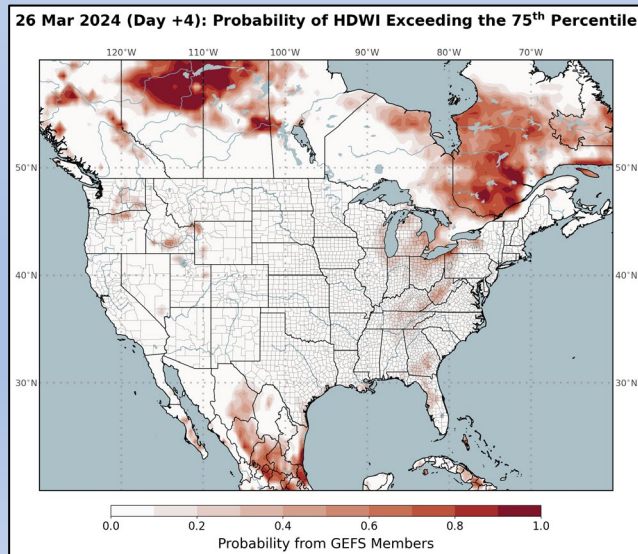
Sunday > 75th Percentile



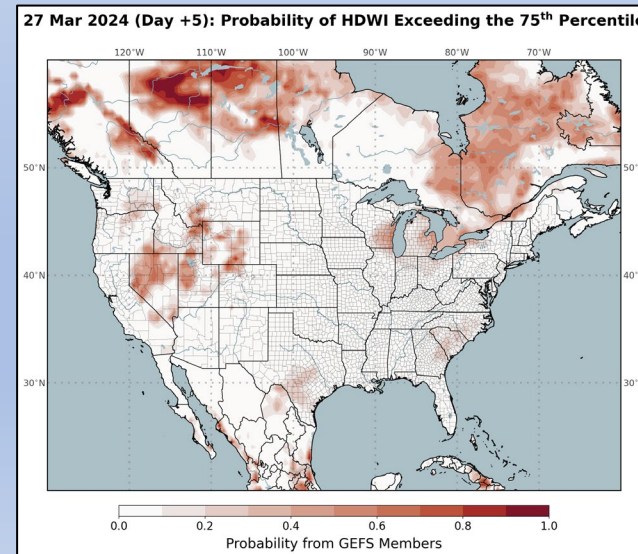
Monday > 75th Percentile



Tuesday > 75th Percentile

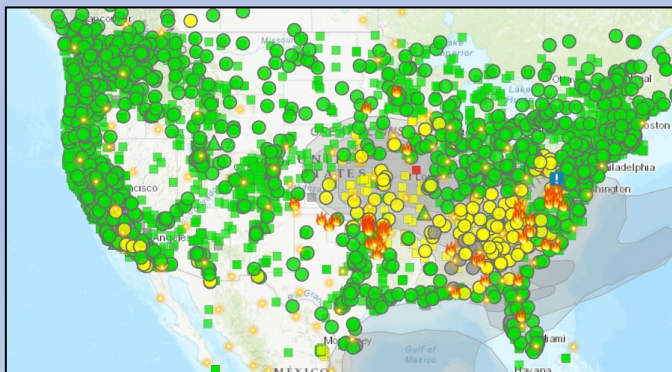
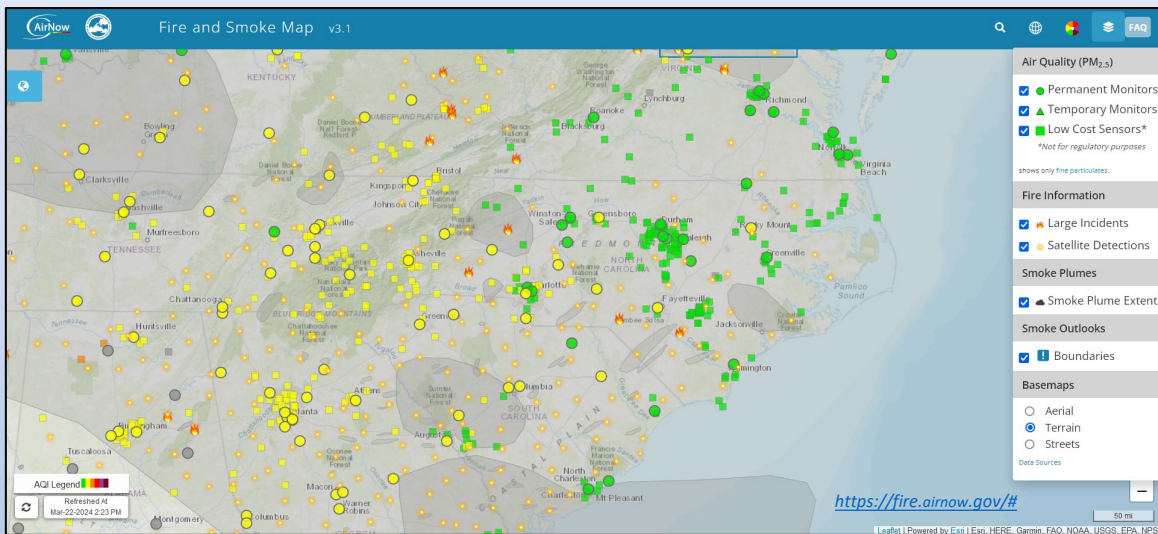


Wednesday > 75th Percentile



- 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 and Topo

Air Quality Notes

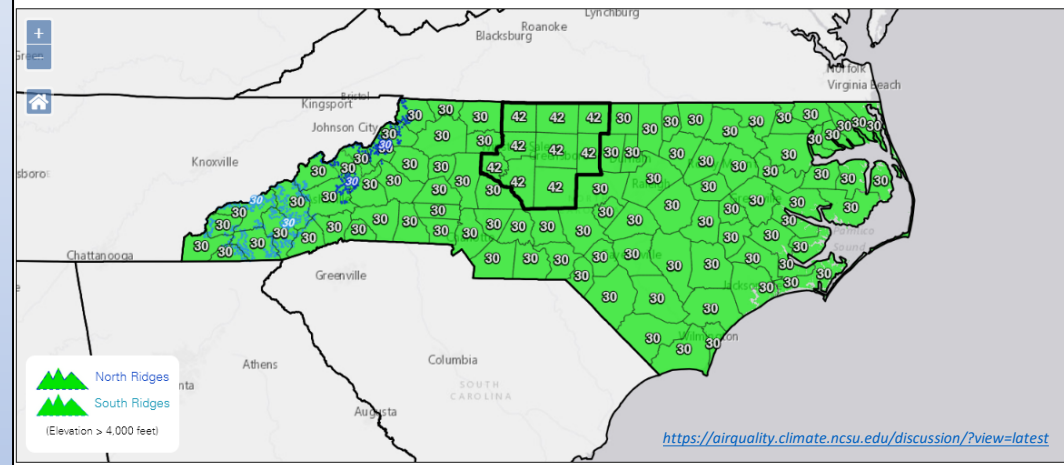
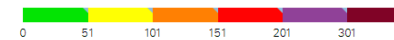


Extended Air Quality Outlook

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
Friday (Mar 22)	30 to 71	Green to Yellow	download
Saturday (Mar 23)	30	Green	download
Sunday (Mar 24)	33	Green	download
Monday (Mar 25)	40	Green	download

Maximum Air Quality Index for Mar 23, 2024



NDAQ Forecaster Discussion (Today - PM)

General Forecast Discussion

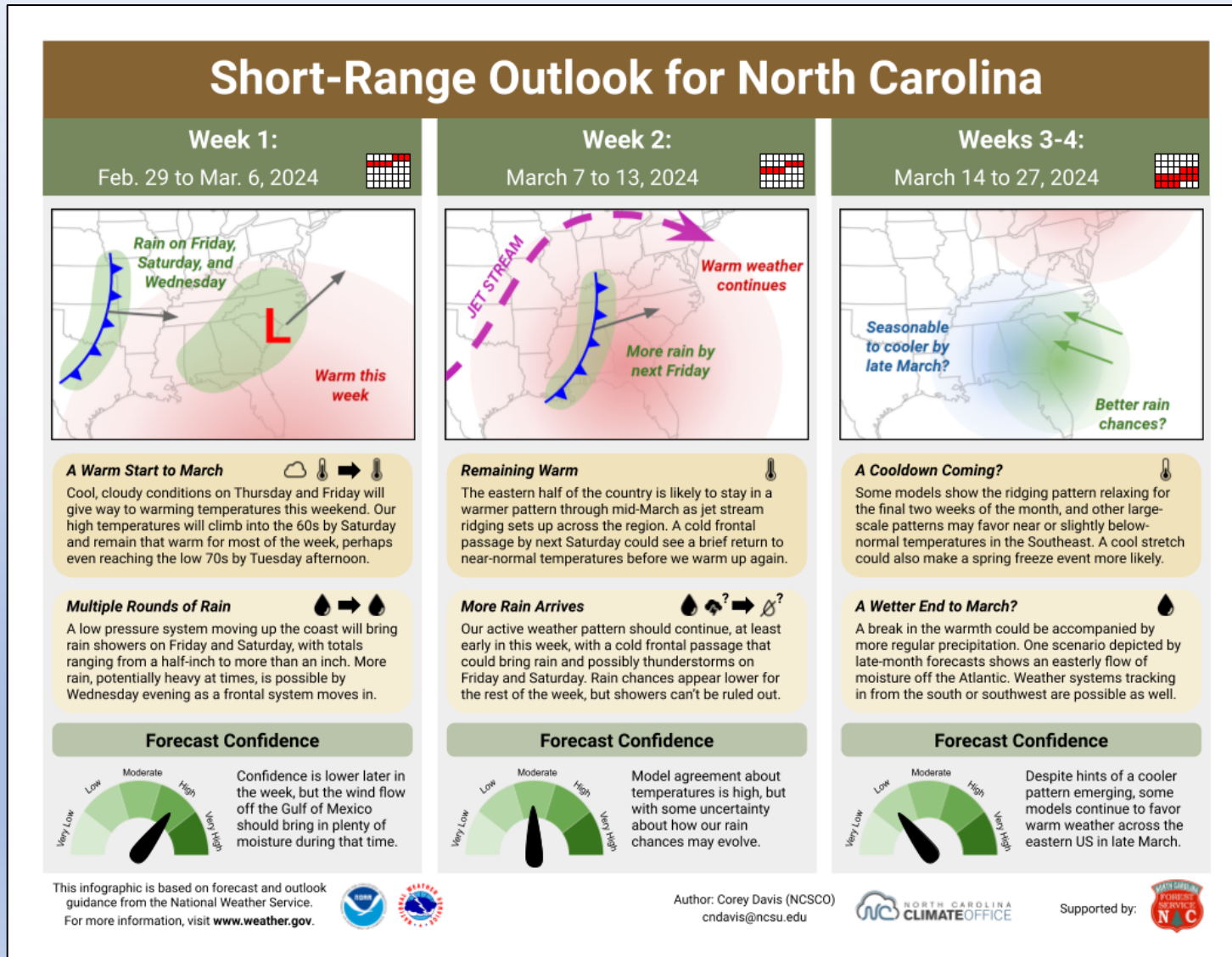
Tonight, into Saturday, a strong shortwave in the southern branch of the jet stream will rapidly approach from the west and induce cyclogenesis along the Gulf Coast, resulting in a surface low developing over the Deep South. A widespread, soaking rain will develop over the state from south to north later tonight through Saturday morning and should result in air quality levels remaining in the Code Green range statewide through the period.

Outlook

Sunday on into Monday, behind the departing storm system a cold and dry air mass will build in along with strong surface high pressure. Air quality levels should hold in the Code Green range.

State Climate Office: Short-Range Monthly Outlook for NC

Released **2/29/24** & Location: <https://climate.ncsu.edu/fire/outlooks/>

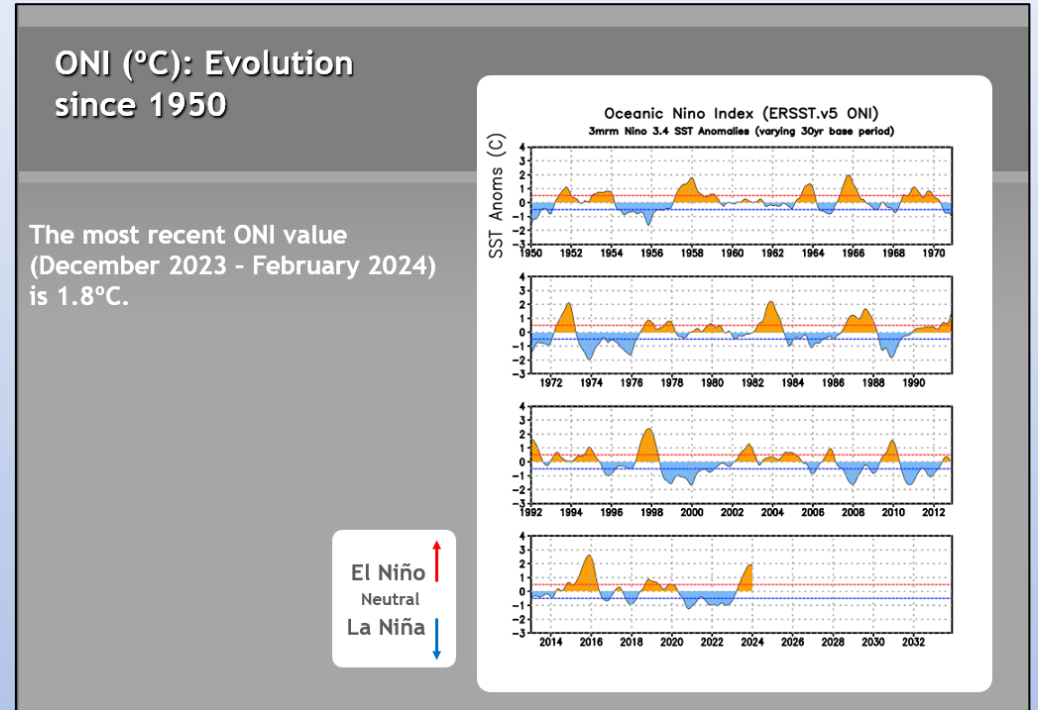
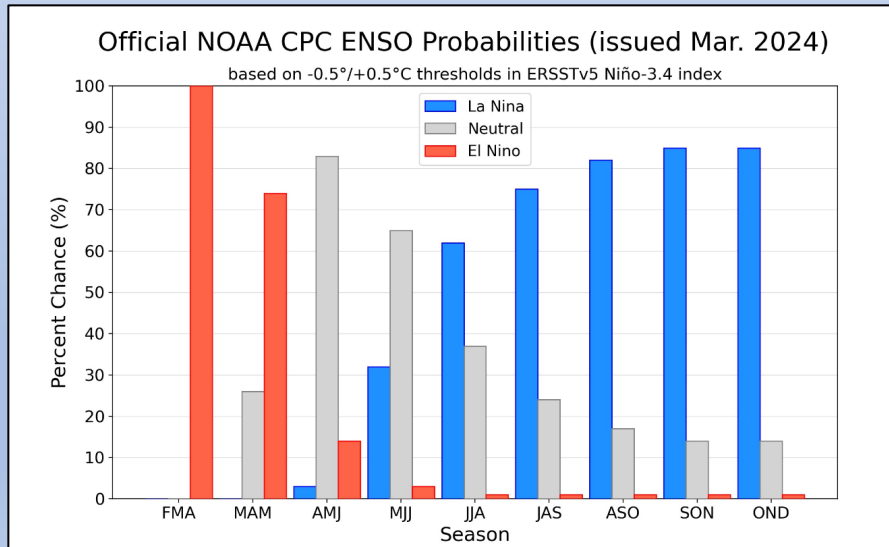


ENSO Notes from the CPC (3/14/24 Update)

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

A transition from El Niño to ENSO-neutral is likely by April-June 2024 (83% chance), with the odds of La Niña developing by June-August 2024 (62% 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.

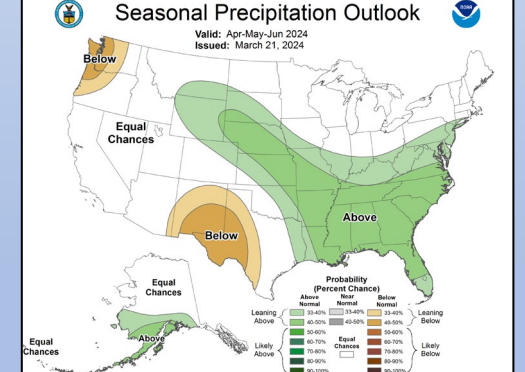
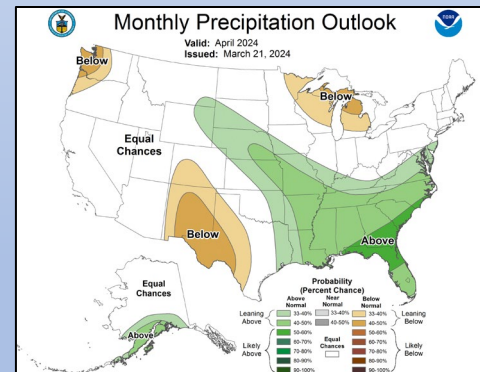
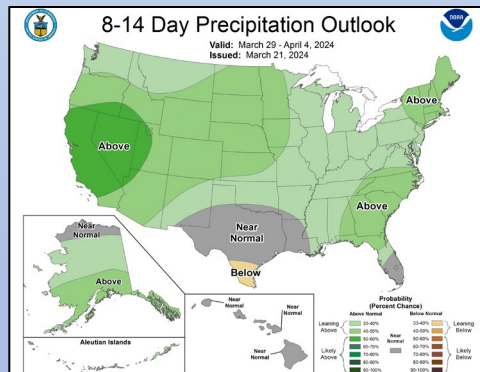
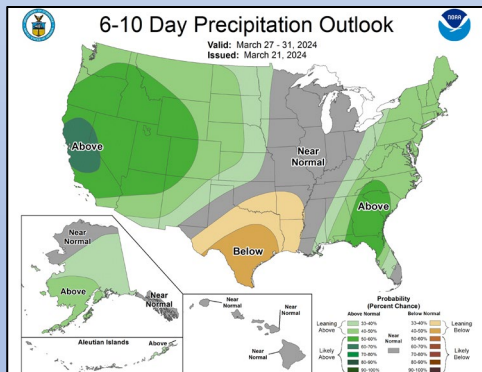
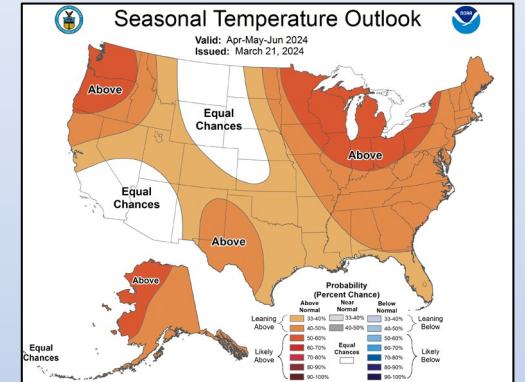
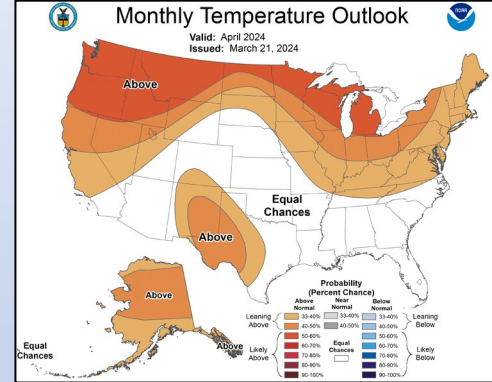
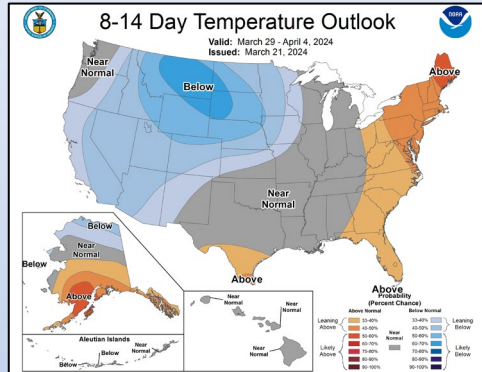
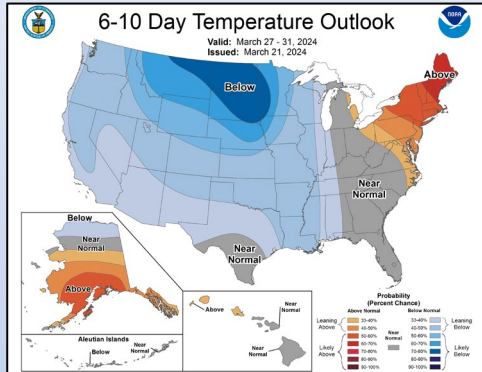


From the most recent CPC Diagnostic Discussion ([ENSO Diagnostics Discussion](#)):

[The most recent IRI plume indicates a transition to ENSO-neutral during spring 2024, with La Niña potentially developing during summer 2024 [Fig. 6]. While different types of models suggest La Niña will develop, the forecast team favors the dynamical model guidance, which is slightly more accurate for forecasts made during this time of year. Even though forecasts made through the spring season tend to be less reliable, there is a historical tendency for La Niña to follow strong El Niño events. In summary, a transition from El Niño to ENSO-neutral is likely by April-June 2024 (83% chance), with the odds of La Niña developing by June-August 2024 (62% chance; [Fig. 7]).]

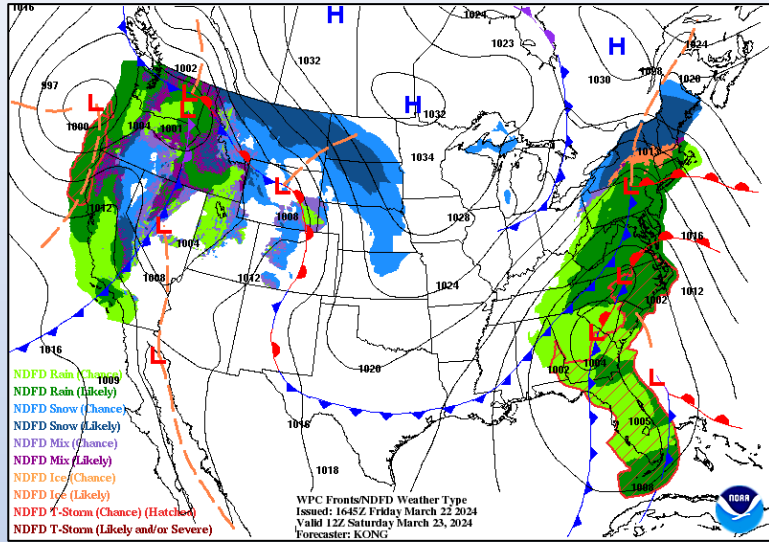
CPC Temp & Precip Outlook

6-10 Day, 8-14 Day, Monthly, Seasonal

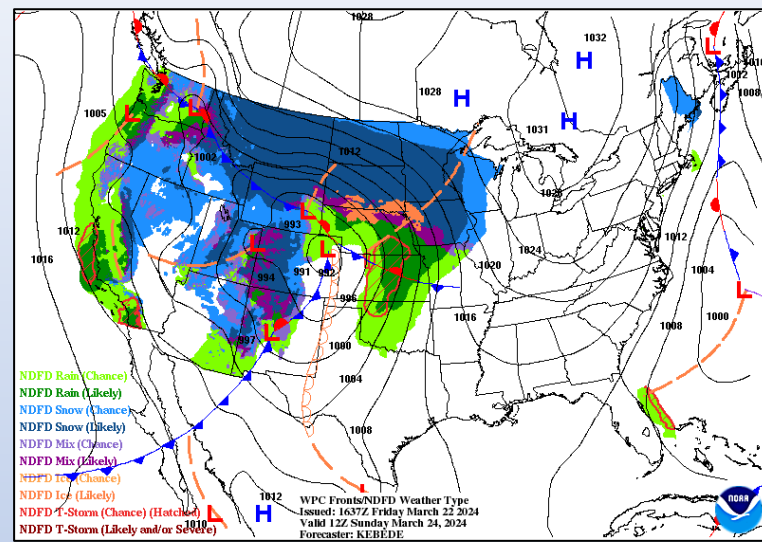


WPC Forecasted Surface Fronts & Sea-Level Pressures

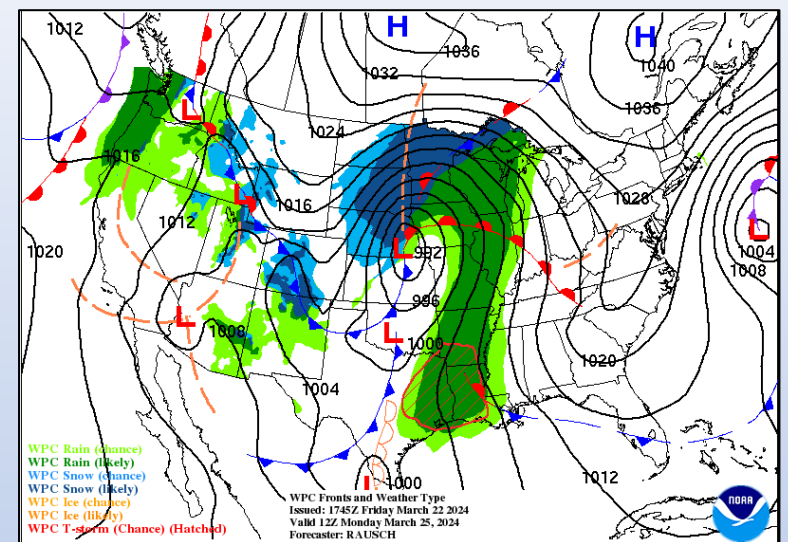
Saturday - 800 am



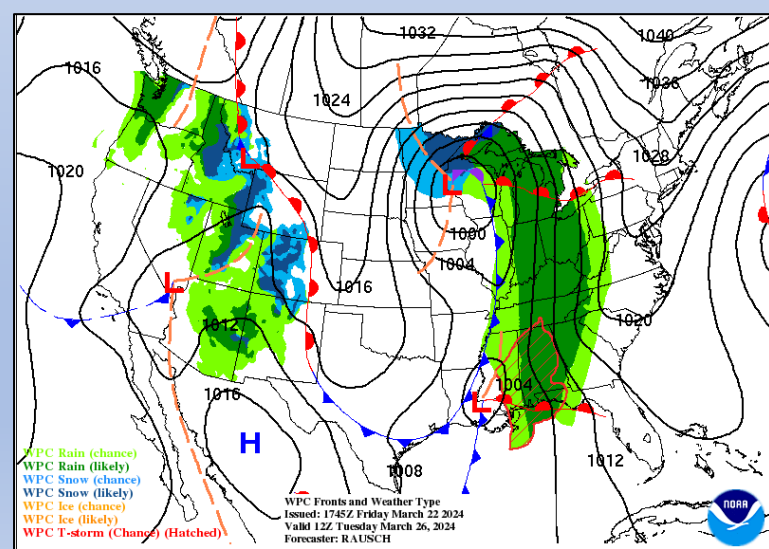
Sunday - 800 am



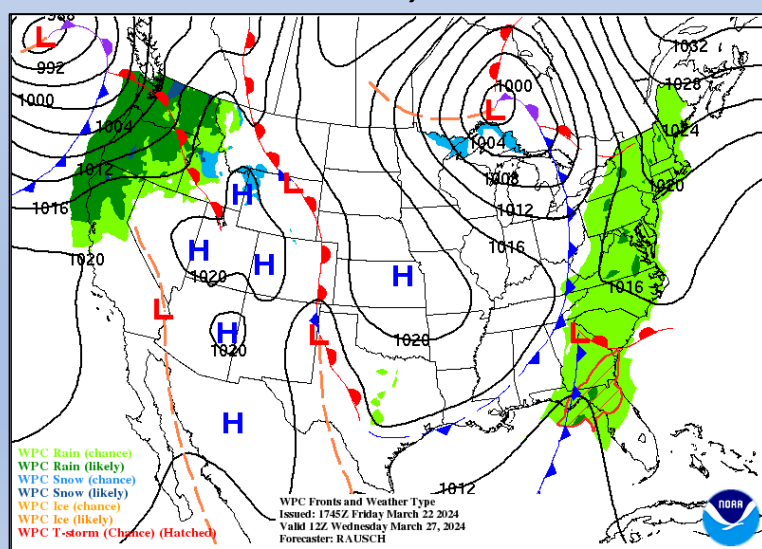
Monday - 800 am



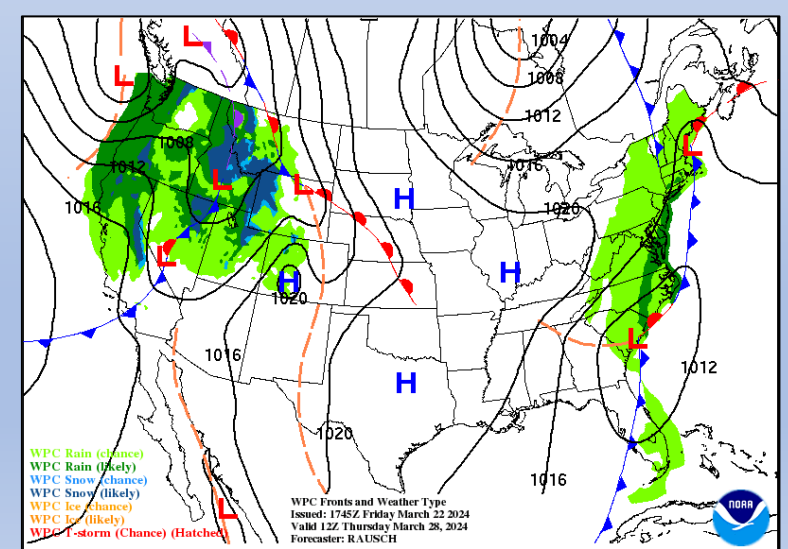
Tuesday - 800 am



Wednesday - 800 am



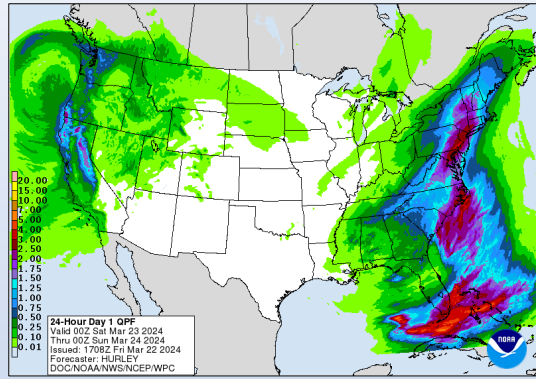
Thursday - 800 am



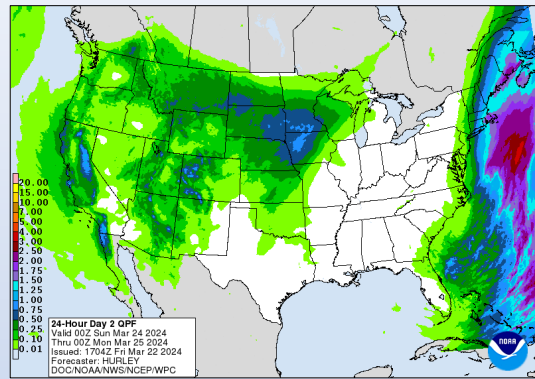
Quantitative Precipitation Forecast, 7-Day

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

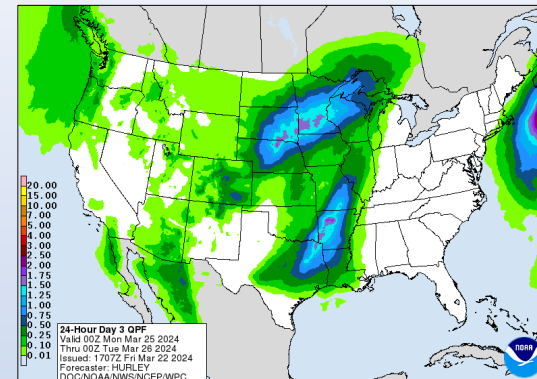
Day - 1



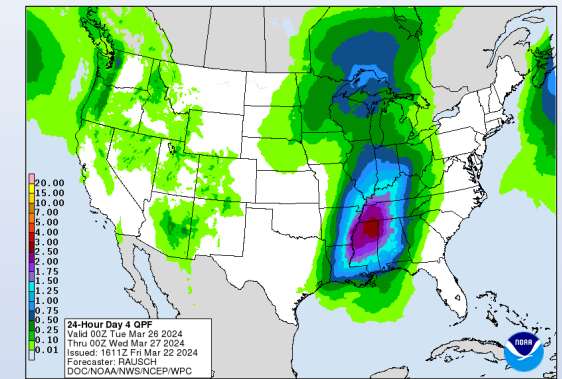
Day - 2



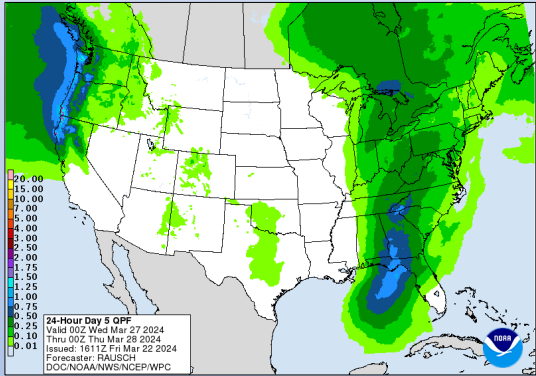
Day - 3



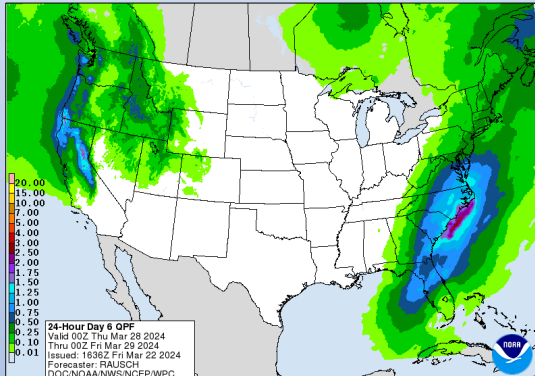
Day - 4



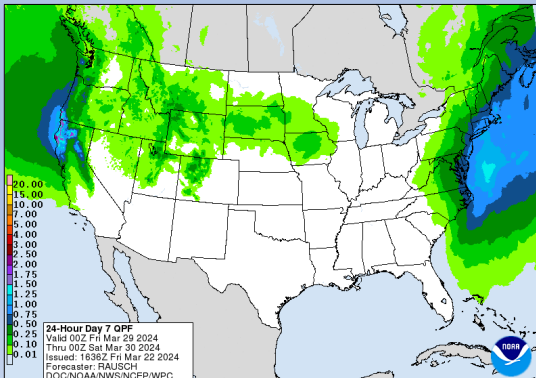
Day - 5



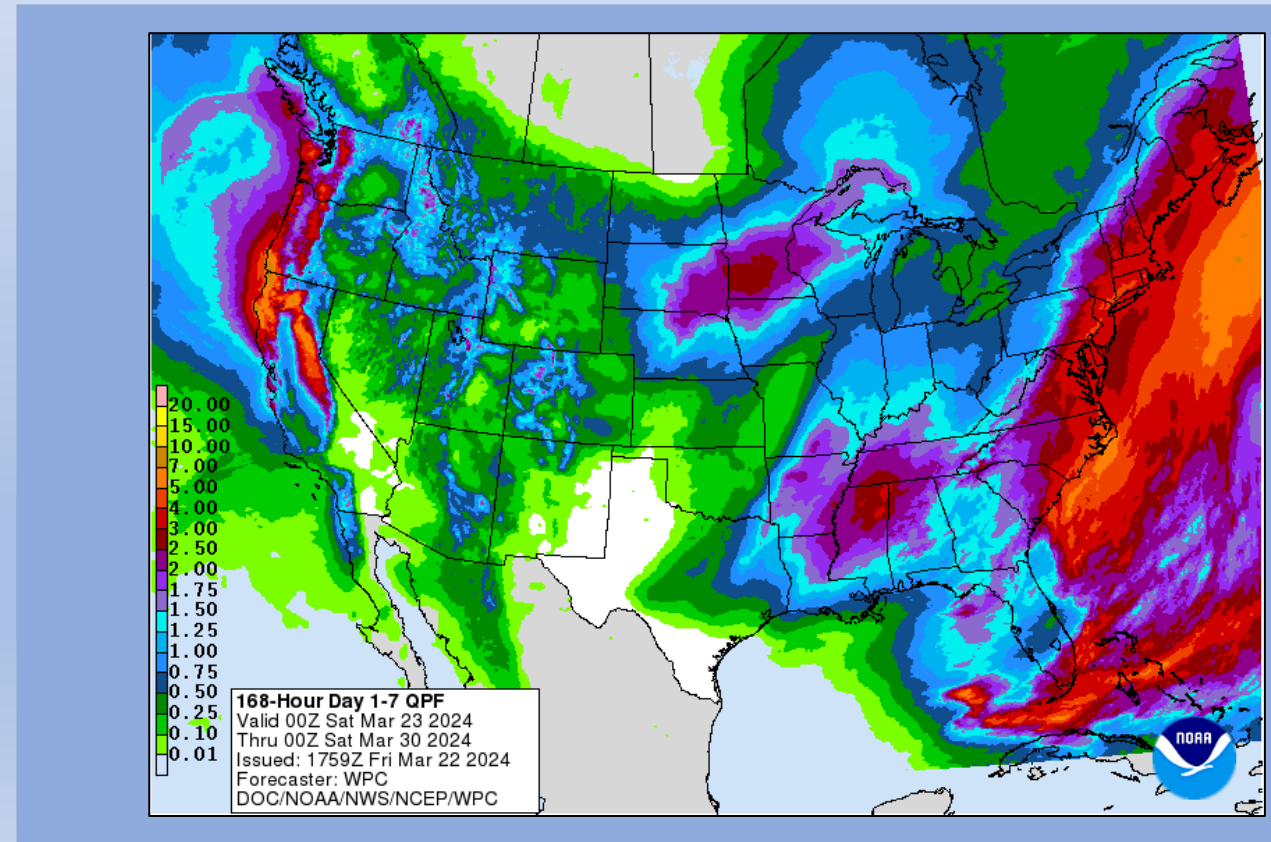
Day - 6

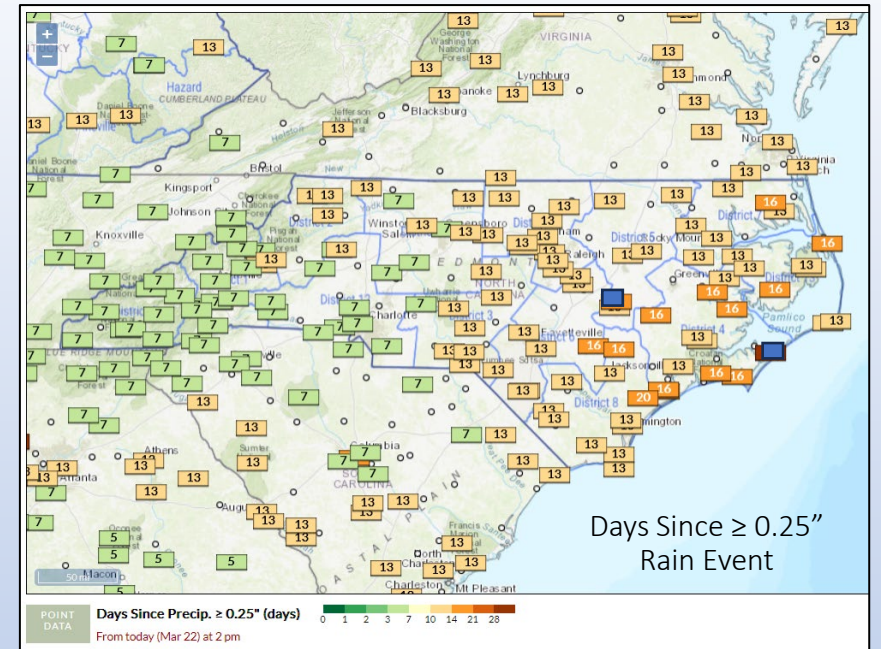
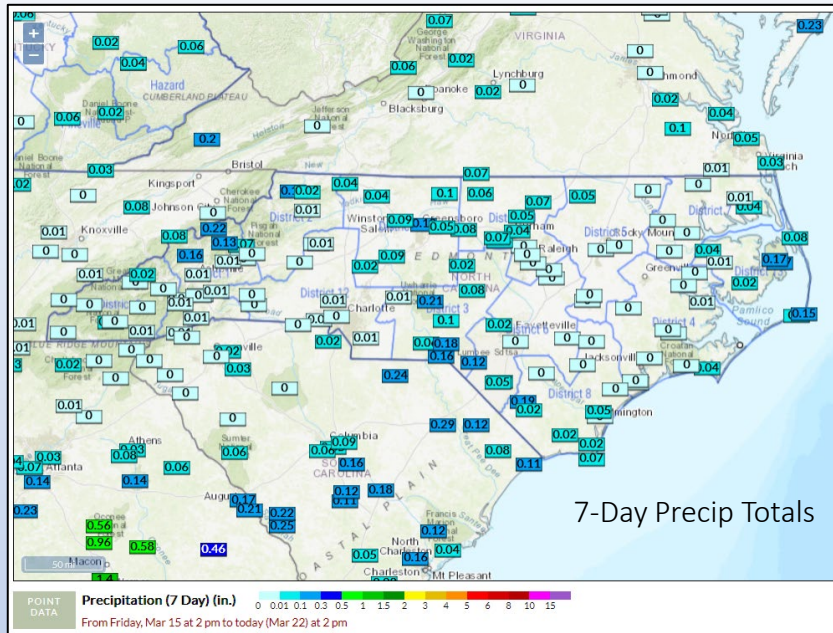


Day - 7

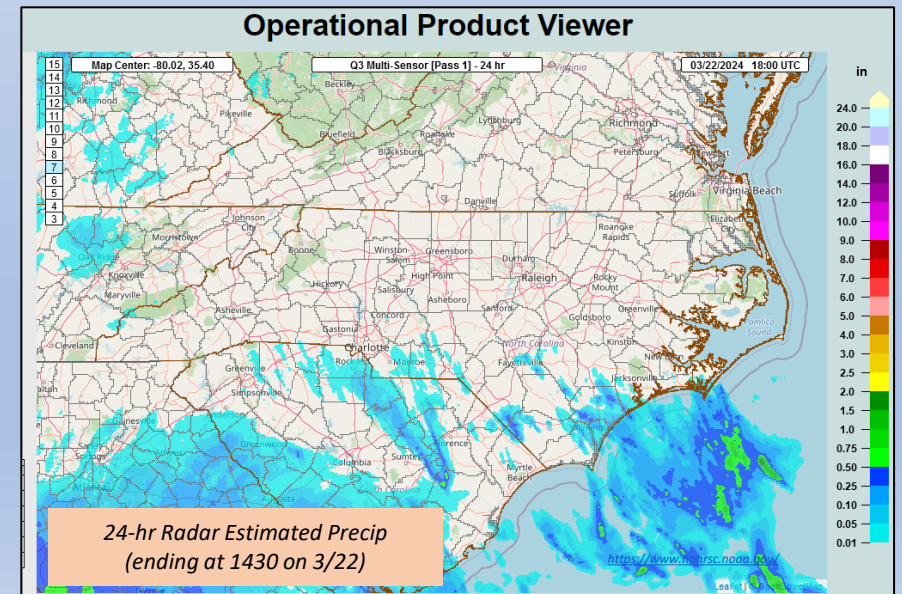
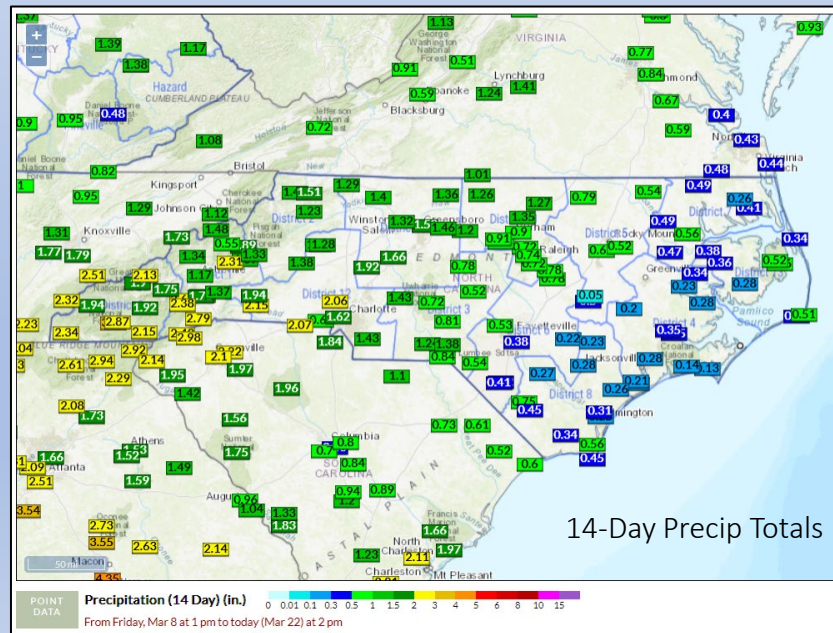


Important to note these values are subject to **significant change as weather system modeled tracks adjust farther out in time.*





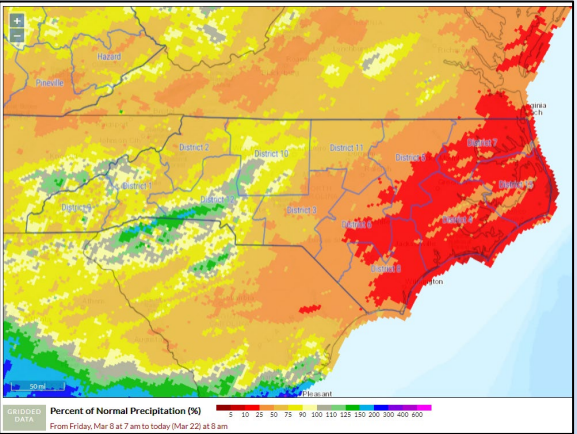
Observed Precipitation



https://mrns.nssl.noaa.gov/qvs/product_viewer/

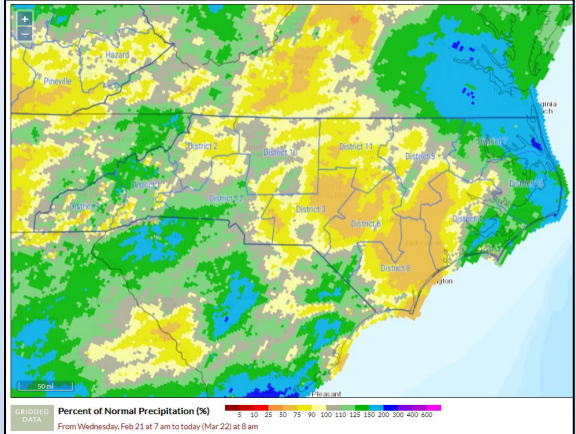
Percent of Normal Precip & SPI, FWIP (Ending 0800 3/22)

14-Day % of Normal



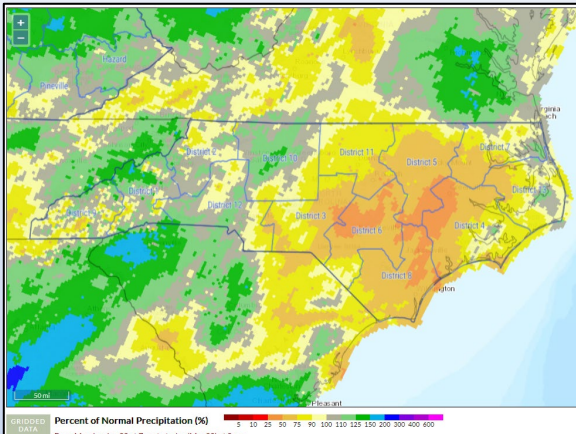
PNP: ~20% of Normal along Coastal Areas at 14-day Scale

30-Day % of Normal



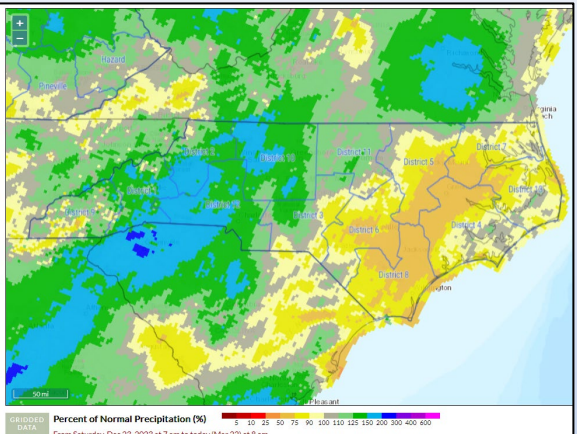
Driest areas at ~55% of normal at 1-Month scale.

60-Day % of Normal



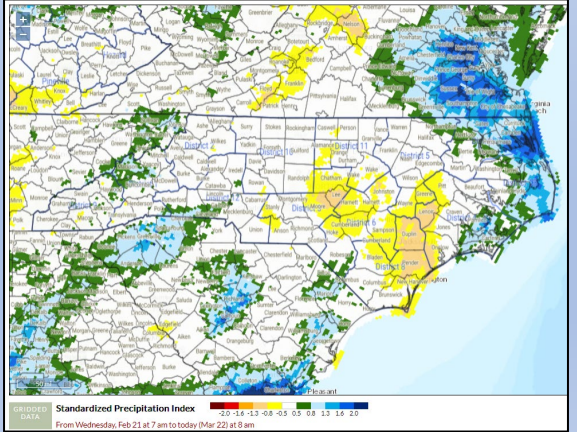
Driest areas at ~40% of normal at 2-Month scale.

90-Day % of Normal

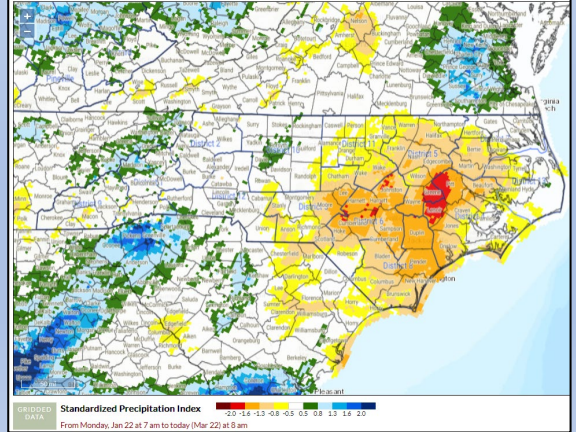


Driest areas ~ 55-60% of normal at 3-Month scale.

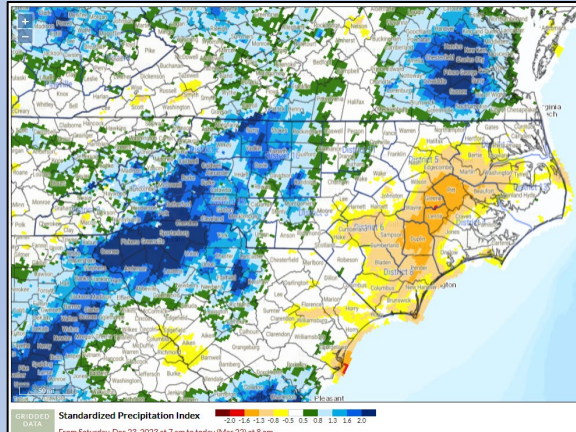
30-Day SPI



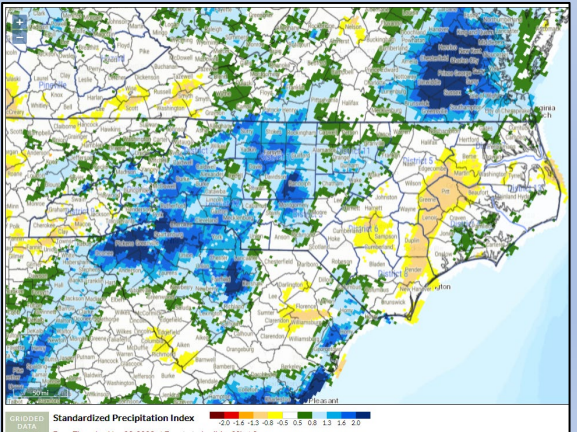
60-Day SPI



90-Day SPI

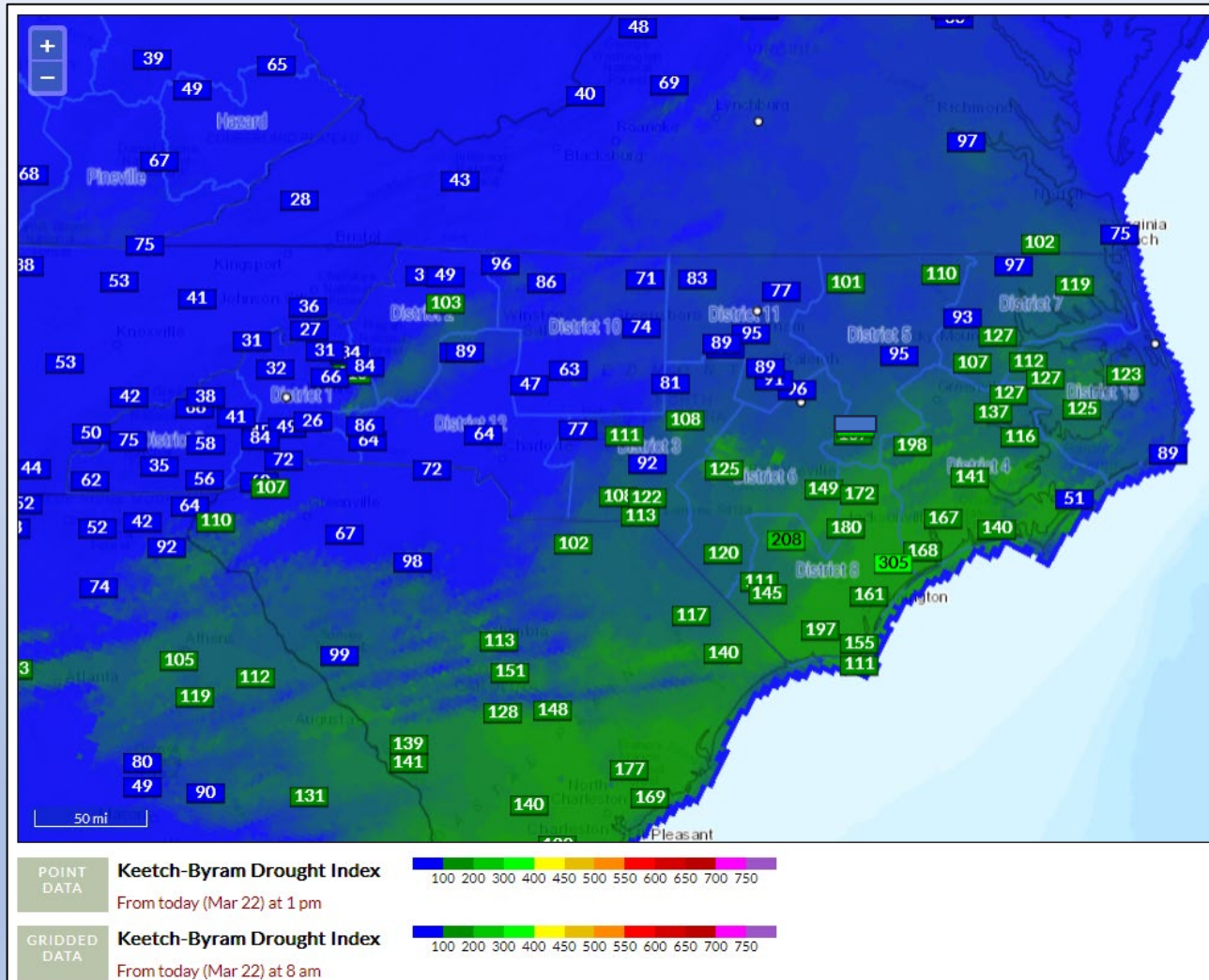


120-Day SPI

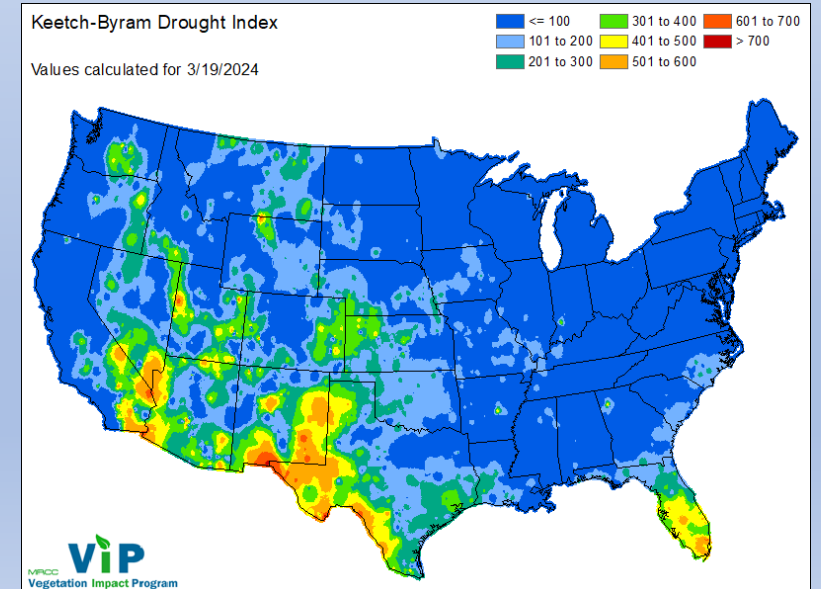
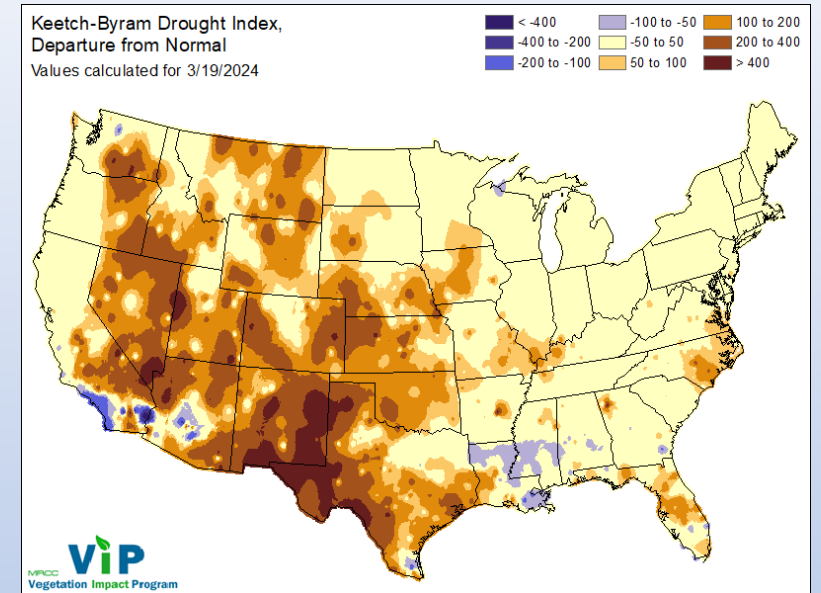


KBDI - Gridded & Station Points

FWIP (Point calculation from WIMS @ 1300 on 3/22/24, SCO created Grid ending 0800 3/22/24)

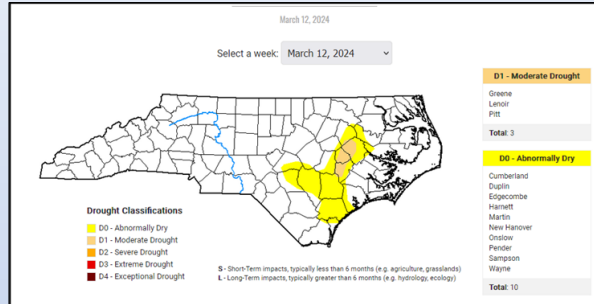


Product below is created by the Midwestern Regional Climate Center. See [FAQ](#).

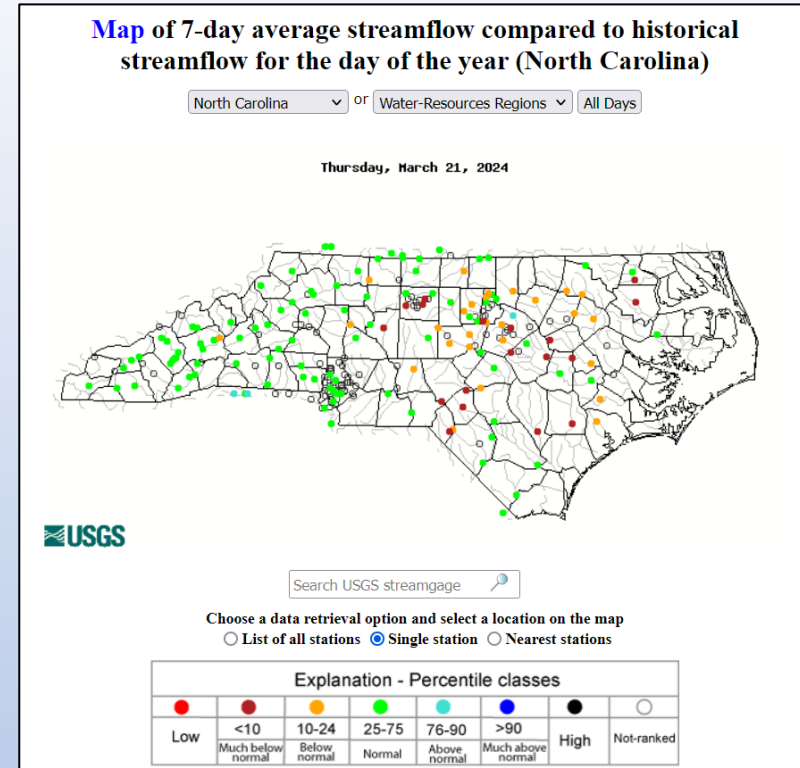
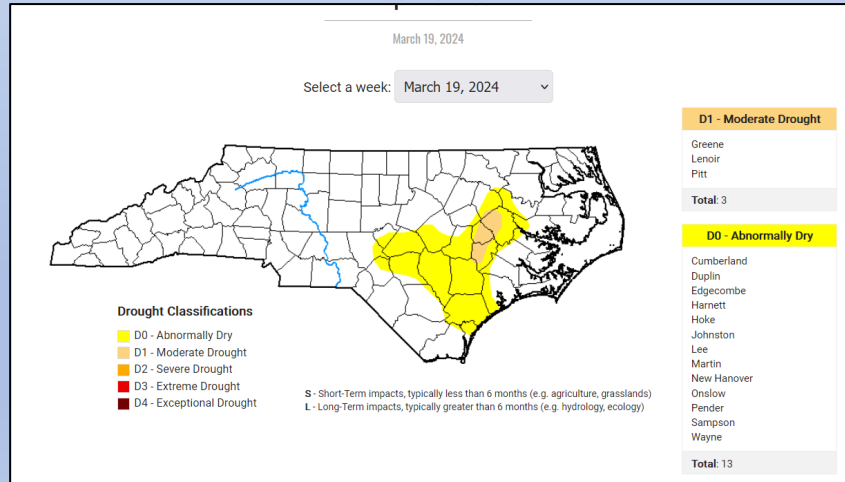


Drought Situation

Previous Week:



Current Week:



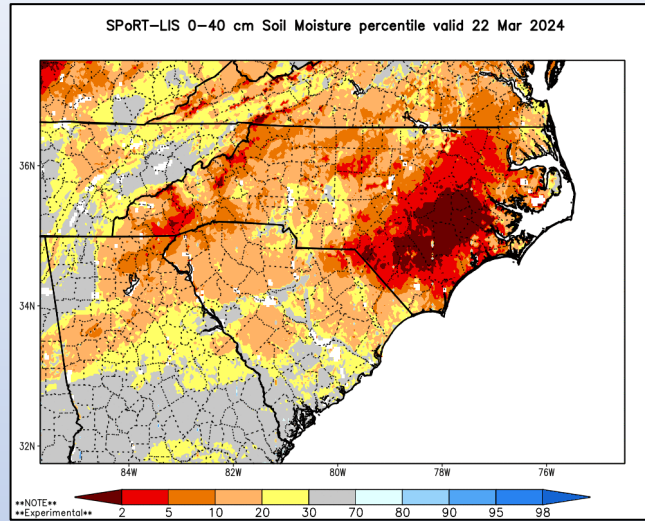
- D-0 Abnormally Dry Conditions Increased (~14.5% of State)
- D-1 Moderate Drought, No Change (~1.5% of State)

- 7-Day Stream flow averages have declined since last week, especially east.

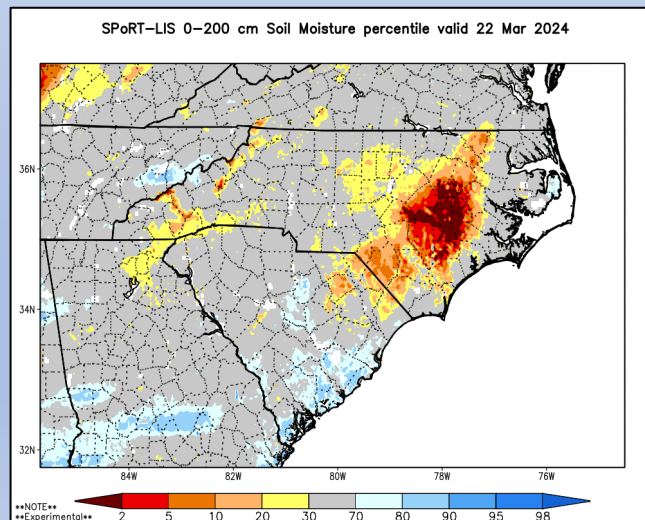
- Green-Up & Higher Evaporative Demand will reduce stream flows as we progress into Spring 2024. If dry spells continue expect more rapid decreases.

SPoRT Modeled Relative Soil Dryness

0-40 cm Depth

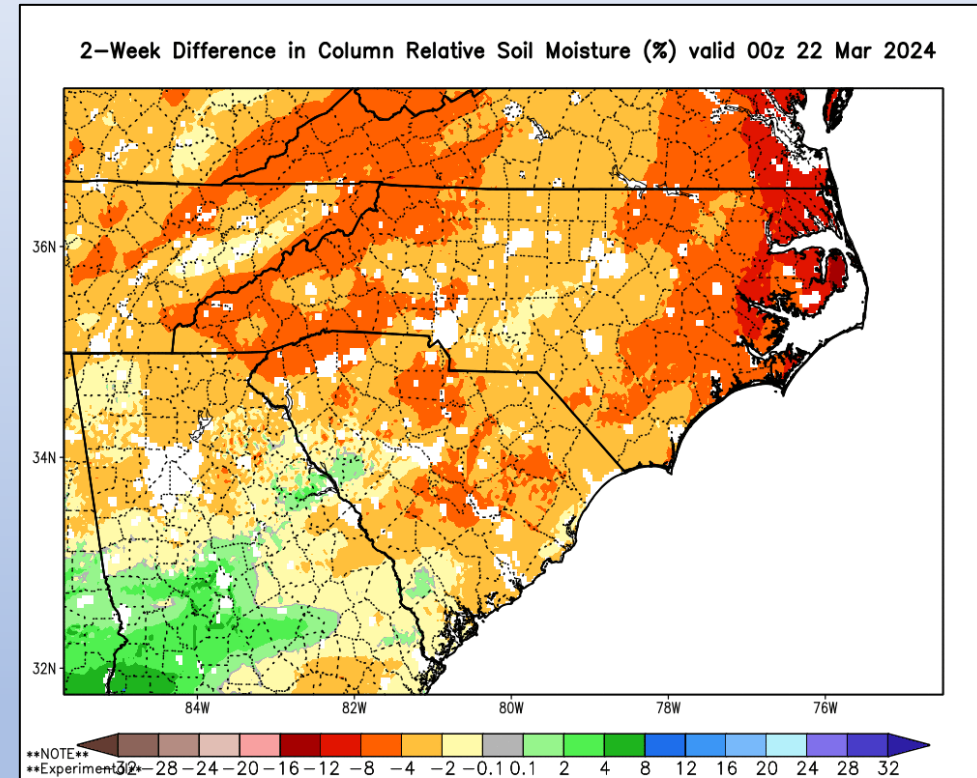


0-200 cm Depth



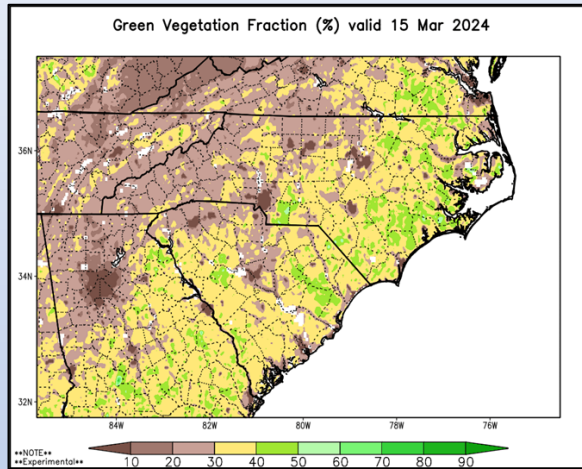
- Note areas of modeled improvement/degradation over the past couple weeks. Shallow degradation most significant.

(Some of darkest red polygon extent to the left likely continues to be processing artifacts from SPoRT Outputs.)

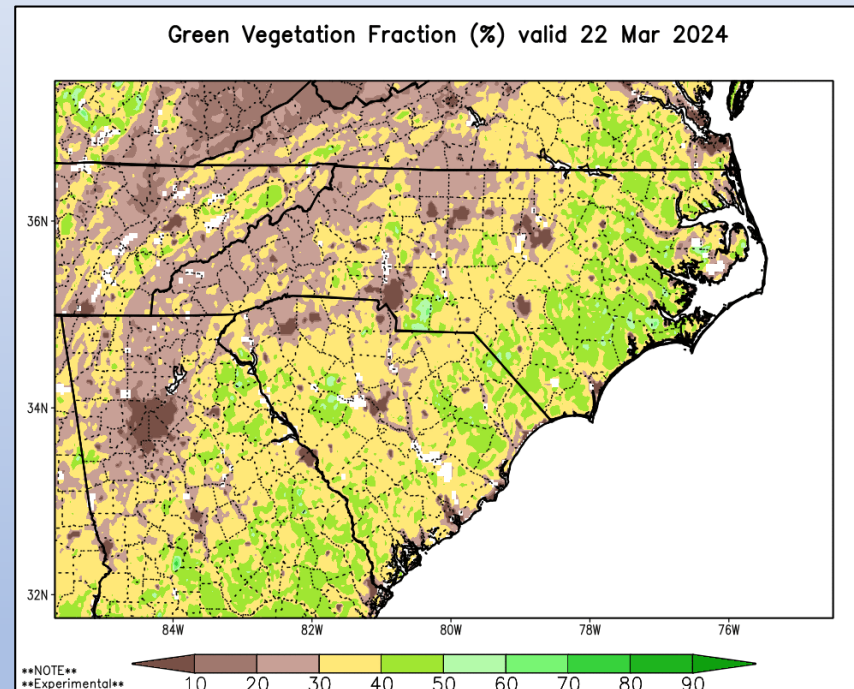


Green Fraction & Green-Up Anomaly

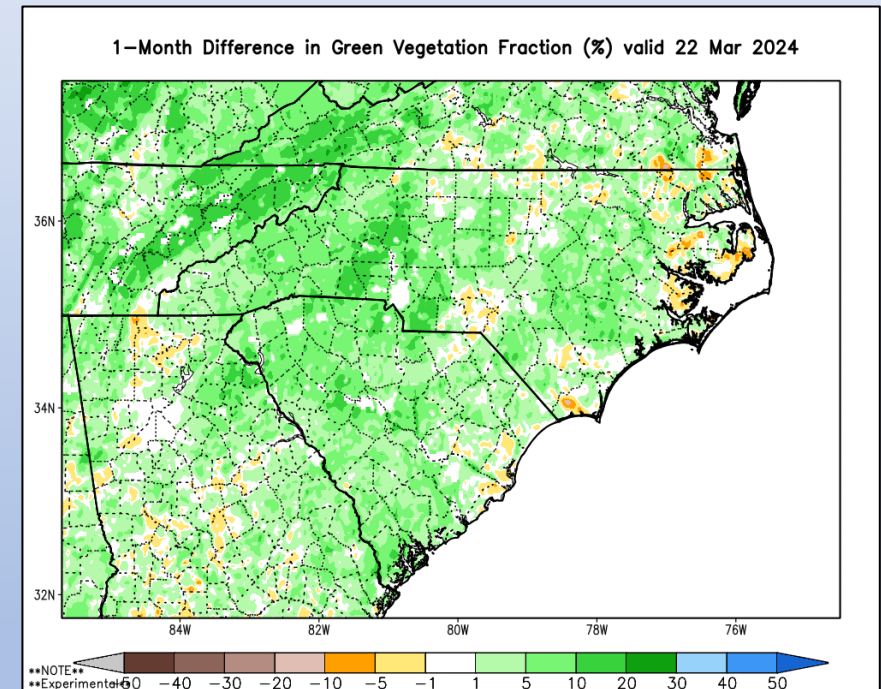
Last Week



Current



1-Month Change



Lower elevation sites remain about 1-2 weeks ahead of "normal" related to green-up processes, due to abnormally warm conditions and generally conducive rainfall.

Not Pocosin or Bay Environments

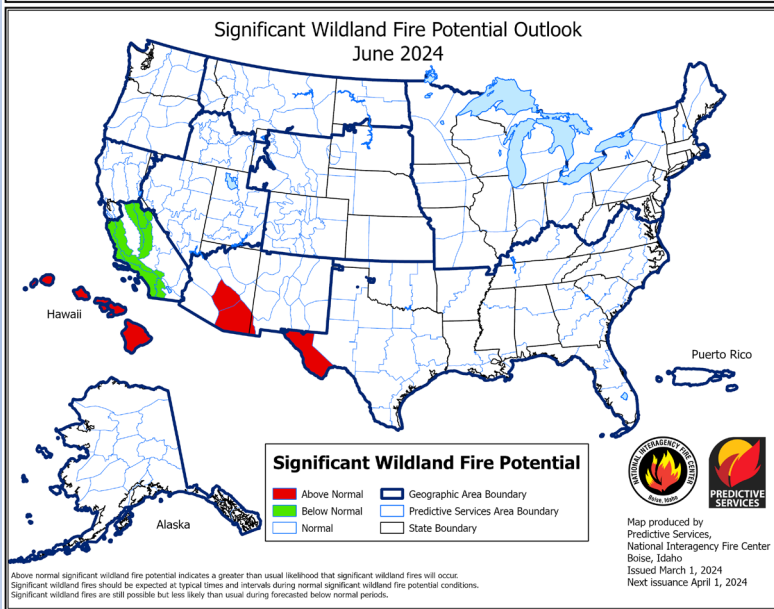
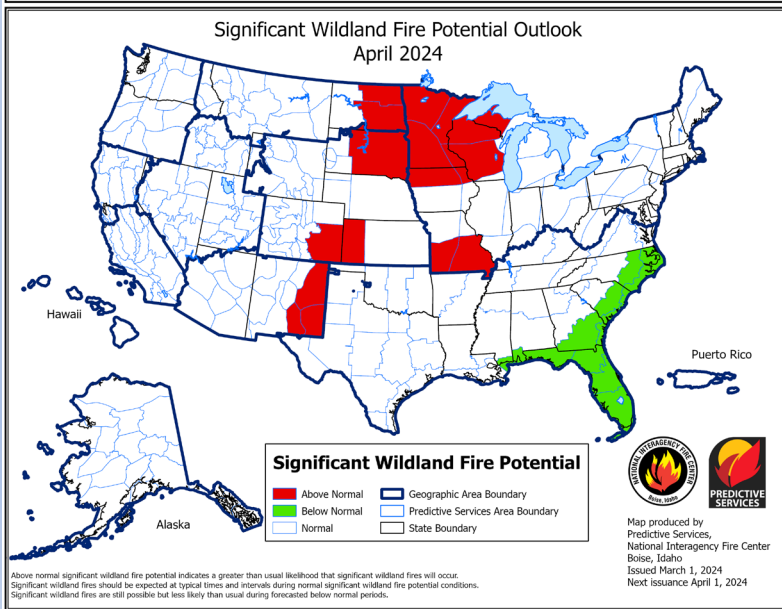
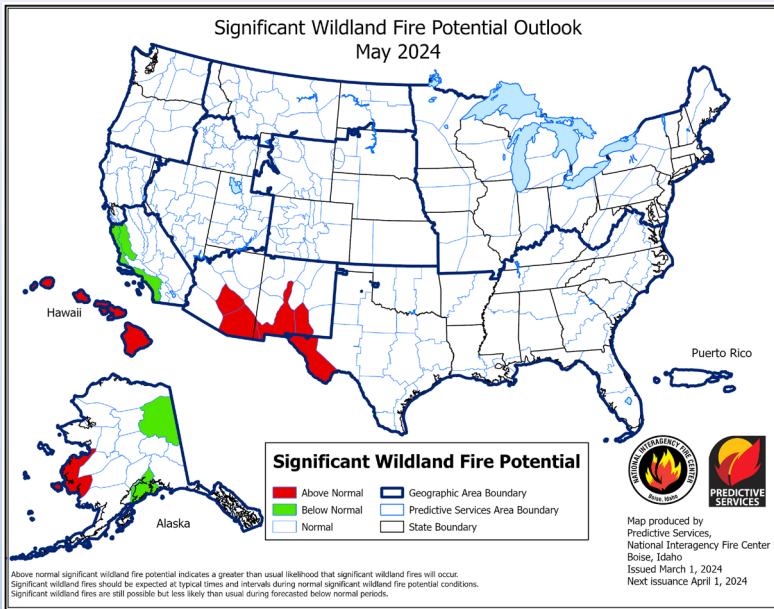
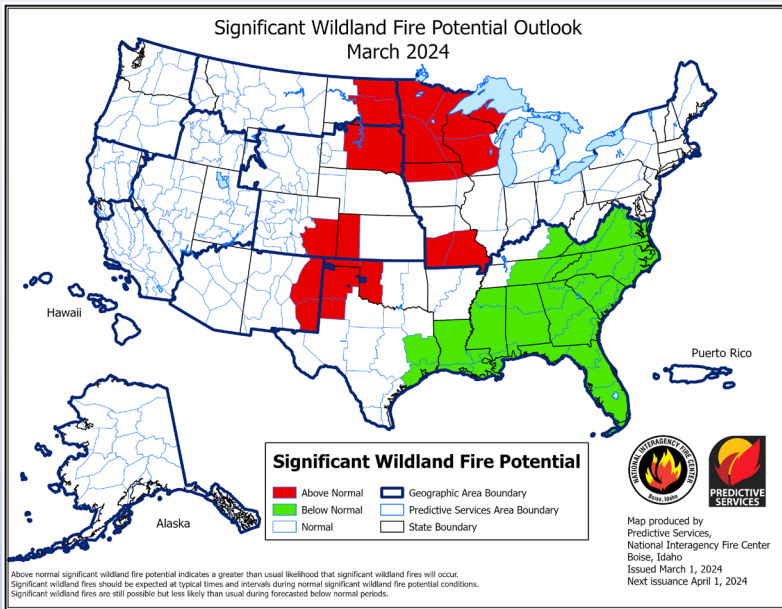
Potential frost & freeze events that occurred this week and likely next week could easily slow or reset some of the more sensitive species.

Road shoulder or yard grass greening can also be setback by rapid depletion of shallow plant available water, if rainfall deficits build in combination with arrival of Spring.

Last year was a little ahead of 2024, hence the slight "decline" in GVF.

Significant Wildland Fire Potential Outlook:

Updated 3/1/24 – Next Update on 4/1/24



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.

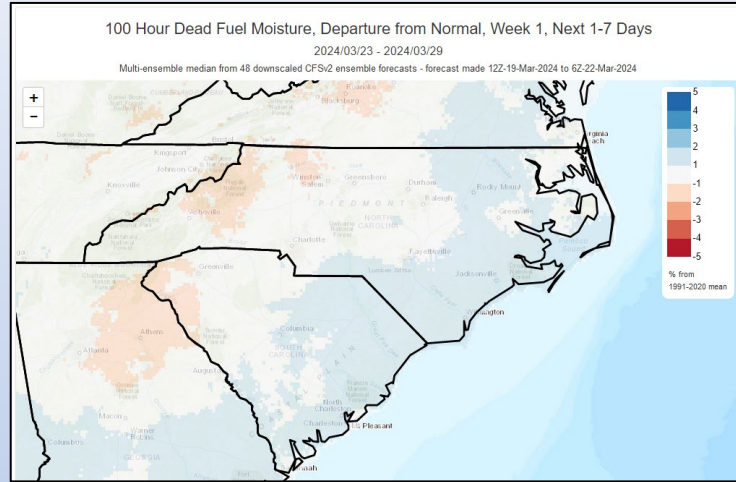
***Forecast uncertainty could easily lead to an expansion of “Normal” or “Above Normal” Fire Potential if abnormally dry conditions expand/worsen going into Spring.**

Especially for portions of the NC Coastal Plain already showing significant rainfall deficits at varied scales. Spring “Green-Up” has the potential to rapidly draw down available soil moisture.

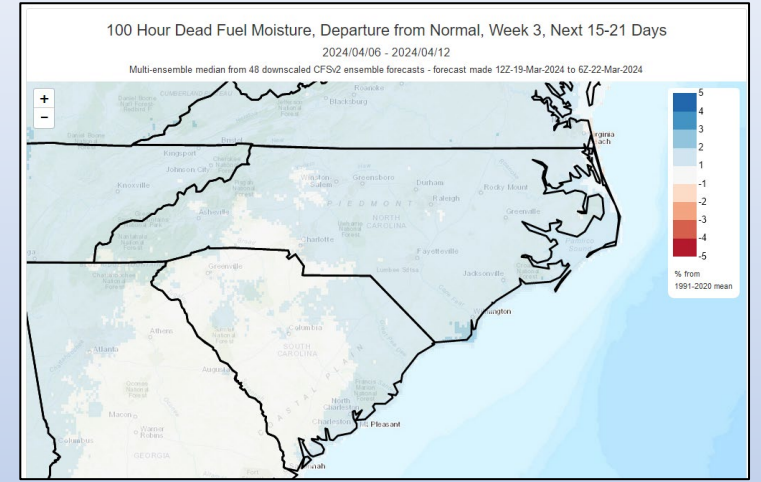
Modeled Departure from Normal by Week: 100-hr Fuels

Output relies on experimental forecast outputs and is subject to change

Week-1



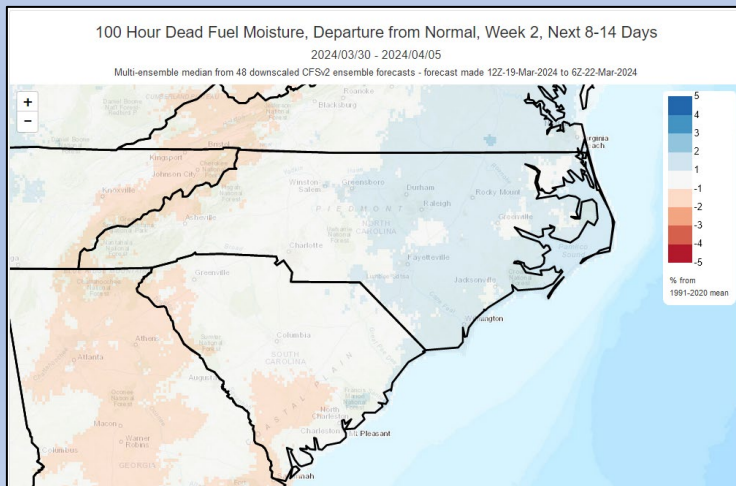
Week-3



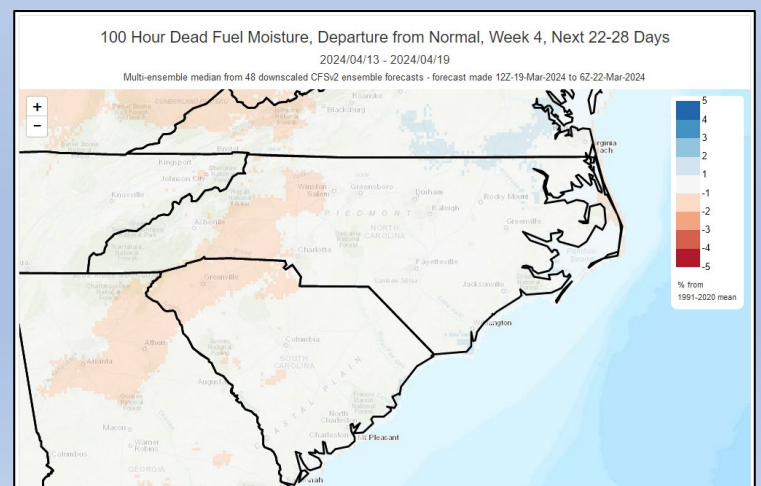
This output can provide insight into general drying trends and potential impacts to overall fire danger, especially prior to full green-up.

Note pronounced return to near normal for Week-1 as compared to our current week. Weeks 2-4 show potential for fuel moistures to be near normal as a potentially more active weather pattern continues.

Week-2



Week-4



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.