

# Weekly Fire Danger Assessment NCFS – All Regions

For Time Period:

Friday (4/5/24) to Thursday (4/11/24)

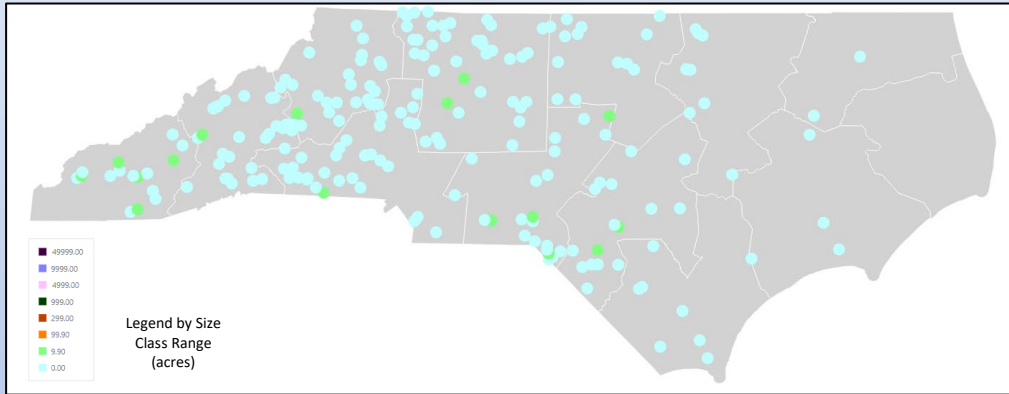
*Created by: Jamie Dunbar  
Fire Environment Staff Forester  
NC Forest Service*

# Incident Activity

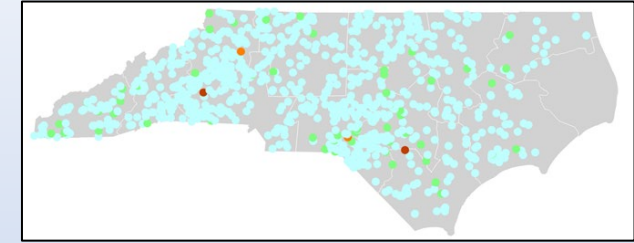
fiResponse Incident Location Map (for general context, preliminary data)

**7-Day Activity: 3/29 – 4/4, 2024**

Report: Business Intelligence Module, Response Trends Map



March: 3/1 – 3/31



**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)*

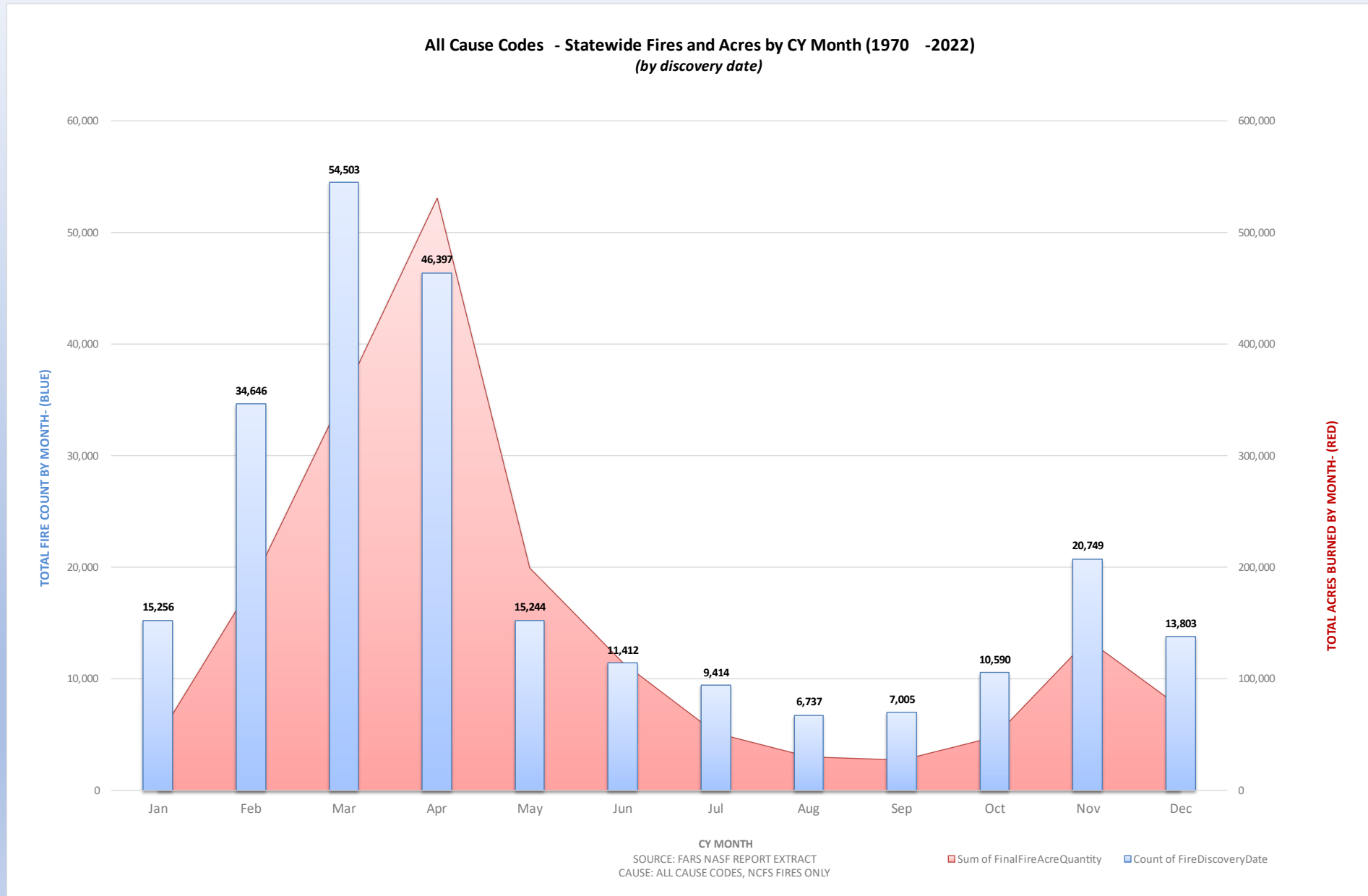
**Largest incidents Last 7 Days (Ending 4/4):**  
 \*from fiResponse & preliminary reporting only\*

Incident Name	Discovery Date	Region	District	County	Acres
Hawk's Nest	3/31/2024	Region 3	District 1	Buncombe County	73.00
Sugar Fork	3/30/2024	Region 3	District 9	Jackson County	43.00
Fish Hatchery	3/31/2024	Region 3	District 2	Burke County	40.00
Navajo	4/1/2024	Region 2	District 6	Robeson County	40.00
Beaverdam Church Rd	3/31/2024	Region 2	District 3	Richmond County	30.00
Bunny fire	3/31/2024	Region 2	District 6	Cumberland County	25.00
Everhart Rd	4/1/2024	Region 2	District 10	Davie County	20.00
X Way Rd	4/2/2024	Region 2	District 3	Scotland County	20.00
Forsyth County - Stratford Road	4/4/2024	Region 2	District 10	Forsyth County	20.00
Cambridge Way	3/30/2024	Region 3	District 9	Haywood County	19.00

NCFS – By Region				
7-Day <u>Fire</u> Activity (Does Not Include Federal Ownerships)				
Data Source:	Signal 14 Regional Activity Summary Report (Signal 14 is a daily snapshot in time)			
Date Range:	3/29 – 4/4, 2024			
Area	Wildfire Count	Wildfire Acres	RX Count (State & Private)	RX Acres (State & Private)
R1	15	13.8	3	1,363
R2	90	214	17	2,245
R3	93	270.4	1	39

No "209" Criteria Fires for April as of 4/4/24

# 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

## Regional Comments:

D4: 5 ac fire in Onslow yesterday. Otherwise, occurrence has been minimal. Last rainfall was about 1.5 to 2 inches but has been absorbed. Water in most ditches is gone. Drying more each day and do not expect much from next system.

D7: This last rain event was disappointing in D7. 0.1-0.2". But we still have decent moisture from previous rains. It can change quick this time of year though. Greenup is progressing well but not there yet. Seems a few weeks ahead of usual. West side of Chowan river is greener than the East side. Looks like RH in the 30s and breezy next few days... D7 is down to 3 equipment operators so the lack of "capabilities" are greatly affecting our RPs.

D8: Our soils are very wet, Very little chance of organic or turf issues in the near future. Stream flow is up with recent rains. Pocosins have water in them now. Fire on the ridge is a concern going into late week and the weekend, however, hardwood areas and Pocosins will impede fire growth unless high winds allow pocosins to run across the top until the wind lays. Green up is progressing fast with the moisture and temps we have seen recently. Soil temperature is up for this time of year and aiding in rapid development. That will be paused slightly with the cool nights we are experiencing on the back side of the cold front yesterday, but should get back on pace pretty quickly next week.

D13: No activity. Ground fire is out. We're quiet. No real concerns with conditions at this time.

---

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

- Today - Look for dry and breezy conditions from the FL peninsula through much of the Southeast coastal plain, while the Appalachians will see breezy and cold conditions continue, along with a few rain or snow showers.
- Tomorrow - A Southern Great Plains Wildfire Outbreak appears increasingly likely Saturday. The Southeast will remain abnormally dry, but winds will generally be light (for eastern portions of the SA).
- Sunday – A nearly continuous burn period will extend into Sunday across the High Plains; look for windy conditions through the day, with peak winds likely occurring in late morning and early afternoon, with gusts up to 40 mph common in the southern TX panhandle. The eastern states will see warmer conditions with RH as low as 30-40%; winds will generally be light except near sea breezes.
- 10-hour fuels: 10-hour fuels will dry out the next few days in most of the Southeast and Appalachians, with increasing values likely next week as more humid conditions and rainfall return.
- 100-hr fuels: Drying will continue in the Southeast and adjacent areas through early next week, before moisture increased from west to east.

## Regional Comments for this Week – R2

### Regional Comments:

- N/A

---

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

- Today - Look for dry and breezy conditions from the FL peninsula through much of the Southeast coastal plain, while the Appalachians will see breezy and cold conditions continue, along with a few rain or snow showers.
- Tomorrow - A Southern Great Plains Wildfire Outbreak appears increasingly likely Saturday. The Southeast will remain abnormally dry, but winds will generally be light (for eastern portions of the SA).
- Sunday – A nearly continuous burn period will extend into Sunday across the High Plains; look for windy conditions through the day, with peak winds likely occurring in late morning and early afternoon, with gusts up to 40 mph common in the southern TX panhandle. The eastern states will see warmer conditions with RH as low as 30-40%; winds will generally be light except near sea breezes.
- 10-hour fuels: 10-hour fuels will dry out the next few days in most of the Southeast and Appalachians, with increasing values likely next week as more humid conditions and rainfall return.
- 100-hr fuels: Drying will continue in the Southeast and adjacent areas through early next week, before moisture increased from west to east.

# Regional Comments for this Week – R3

## Regional Comments:

- Fire activity increased over the weekend with warm temperatures, low humidity, and breezy conditions.
- Comments from several recent fires - 1's and 10's consumed well. 100's and 1000's charred but did not consume. Have gotten feedback from staff that aeriels (snags, and jackpots way off the ground) are burning, but this could be due to exposure. Mop up has not been a problem for them and normal mountain tactics are working.
- Tuesday morning's precipitation brought variable amounts of rain across the region.
- Amounts ranged from 0.1" in the Asheville basin and northern D12, to approximately 1+" along the Tennessee state line and along the northern portion of the Blue Ridge Escarpment.
- Following the precipitation the region has been experiencing mostly cloudy, breezy, and cooler than average temperatures. Higher elevations saw accumulating snow over the past 48 hours.
- Fire activity will likely increase over the weekend with an associated warming trend; however, relative humidities should not reach critical values.
- At elevations below 2000' were at 20-40% green up, between 2000'-2500' poplars and maples are between 10-15% green up.

---

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

- Today - Look for dry and breezy conditions from the FL peninsula through much of the Southeast coastal plain, while the Appalachians will see breezy and cold conditions continue, along with a few rain or snow showers.
- Tomorrow - A Southern Great Plains Wildfire Outbreak appears increasingly likely Saturday. The Southeast will remain abnormally dry, but winds will generally be light (for eastern portions of the SA).
- Sunday – A nearly continuous burn period will extend into Sunday across the High Plains; look for windy conditions through the day, with peak winds likely occurring in late morning and early afternoon, with gusts up to 40 mph common in the southern TX panhandle. The eastern states will see warmer conditions with RH as low as 30-40%; winds will generally be light except near sea breezes.
- 10-hour fuels: 10-hour fuels will dry out the next few days in most of the Southeast and Appalachians, with increasing values likely next week as more humid conditions and rainfall return.
- 100-hr fuels: Drying will continue in the Southeast and adjacent areas through early next week, before moisture increased from west to east.

# Daily WIMS Observations and NFDRS Estimates

Averaged by FDRA SIG Group

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

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

Daily WIMS Forecast Observations and NFDRS Estimates are also available

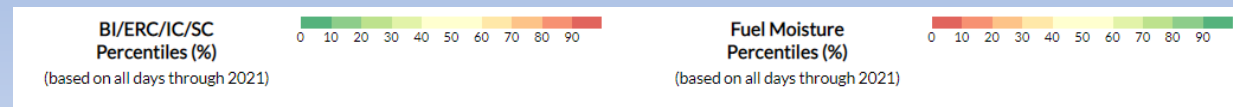
Averaged by FDRA SIG Group

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

## 4/4/24 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	2024-04-04	53.50 71.8%	18.80 60.5%	3.30 51.9%	28.47 71.8%	31.67	15.22 58.0%	16.78 41.9%	20.98 69.9%	23.75 93.9%	95.57	94.67	43.3°F	55.0%	WNW 6.0 mph	0.00 in.	0.0
Central Mountains	3	2024-04-04	33.77 60.0%	17.03 50.1%	2.67 51.9%	11.37 59.7%	67.67	13.70 54.7%	16.92 42.0%	18.41 34.3%	22.11 83.1%	140.67	129.67	43.7°F	54.3%	SSW 4.3 mph	0.02 in.	1.7
Northern Highlands	2	2024-04-04	12.00 21.8%	3.90 20.2%	0.05 21.8%	5.85 38.6%	25.00	25.72 84.3%	17.52 49.9%	18.69 50.6%	22.46 80.1%	139.35	135.50	37.5°F	66.0%	S 10.0 mph	0.02 in.	1.5
Blue Ridge Escarpment	3	2024-04-04	60.03 67.9%	30.40 68.9%	5.10 54.4%	22.50 66.3%	69.00	12.63 55.0%	14.52 31.1%	18.83 45.9%	17.81 20.3%	114.93	111.33	47.3°F	48.7%	WNW 6.7 mph	0.00 in.	0.3
Western Piedmont	3	2024-04-04	47.87 57.2%	25.43 52.3%	6.37 57.2%	17.33 57.8%	84.00	10.90 43.9%	13.81 27.2%	17.63 49.4%	21.40 76.6%	150.13	126.00	56.0°F	35.3%	W 8.0 mph	0.00 in.	0.0
Sandhills	3	2024-04-04	47.73 81.7%	34.07 38.9%	12.50 73.8%	13.07 97.2%	45.00	10.08 32.4%	14.65 33.5%	18.78 55.6%	21.23 77.3%	244.20	195.33	56.0°F	37.0%	W 10.0 mph	0.07 in.	0.7
Eastern Piedmont	4	2024-04-04	43.98 22.7%	18.25 22.1%	5.90 42.0%	19.00 24.8%	41.00	11.64 51.1%	16.65 53.3%	19.11 55.5%	21.50 78.3%	181.73	155.25	55.5°F	42.5%	W 11.0 mph	0.22 in.	1.0
Southern Coastal	7	2024-04-04	83.79 68.5%	38.94 60.4%	12.37 85.0%	36.60 74.7%	76.57	9.92 22.6%	18.41 57.8%	21.50 71.9%	23.16 88.7%	100.70	92.43	61.0°F	35.7%	WSW 6.1 mph	0.09 in.	1.3
Northern Coastal	4	2024-04-04	29.78 21.5%	15.48 22.1%	4.95 41.2%	9.63 21.7%	94.25	10.98 36.6%	21.03 77.4%	20.86 75.2%	23.04 91.6%	203.38	149.50	60.0°F	39.8%	SW 8.3 mph	0.02 in.	1.0

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



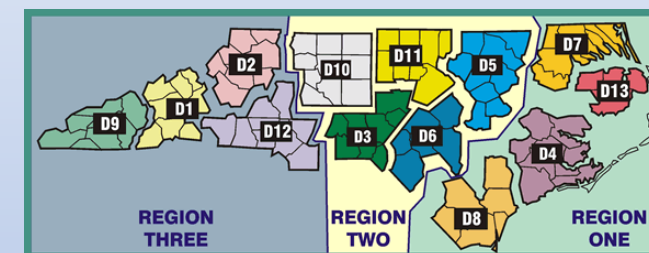
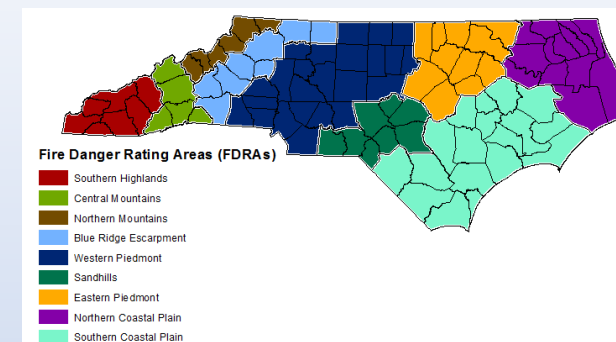
# Important notes for next slide group:

## A. Current ERC, KBDI, 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.

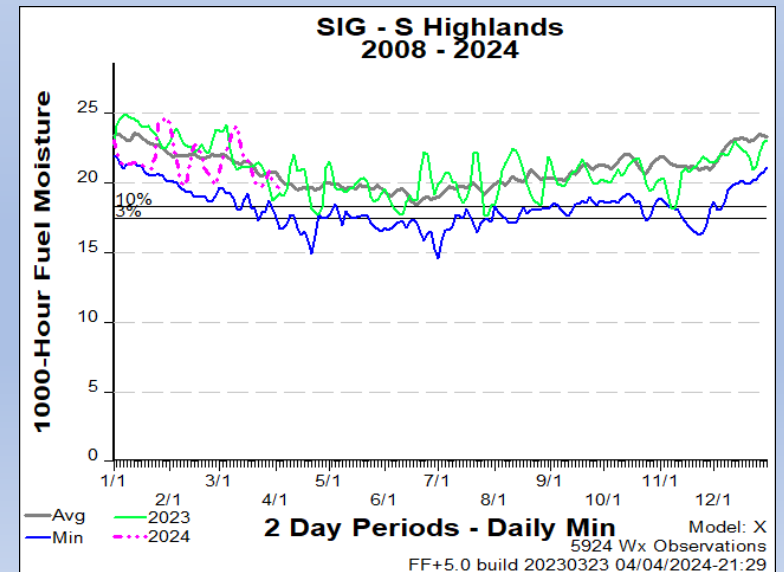
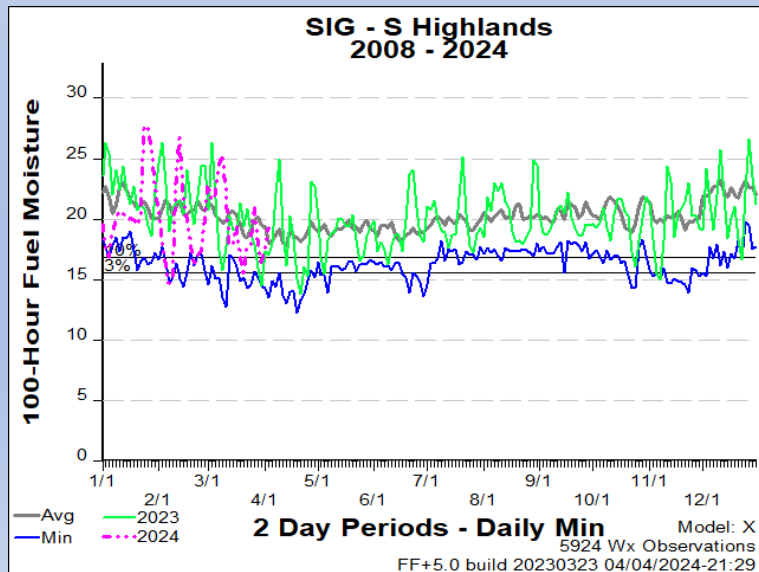
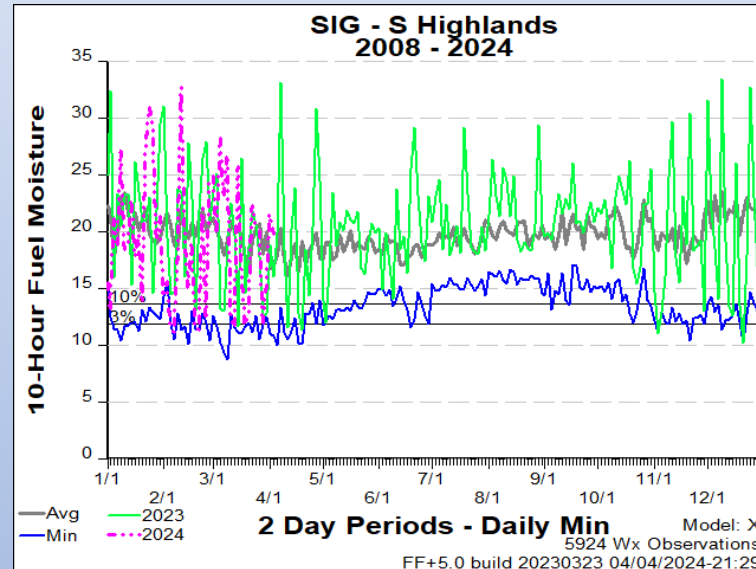
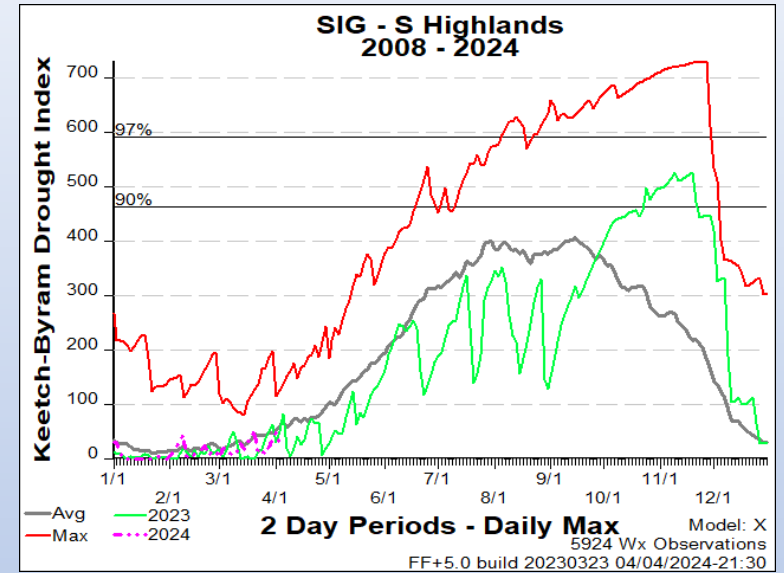
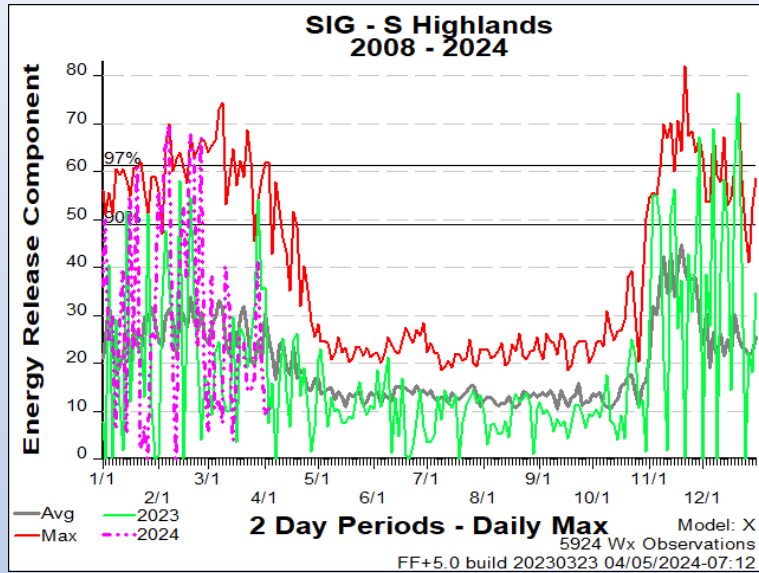
To reduce duplication & increase situational awareness, slides 9-26 are organized by FDRA in this order:

*\*(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 05-Apr	SAT 06-Apr	SUN 07-Apr	MON 08-Apr	TUE 09-Apr	WED 10-Apr	THU 11-Apr
Avg. Max. Temp. (°F)	49	57	66	65	63	66	64
Avg. Min. Humidity (%)	42	33	33	49	64	64	67
Avg. 20' Wind Speed (mph)	10	7	6	7	6	8	12
Avg. Wind Direction*	NW	NW	S	S	S	SSE	S
Avg. Probability of Precip. (%)	3	0	26	26	53	57	65
Days Since a Wetting Rain**	3.0	4.0	5.0				
Forecast ERC (Fuel Model X)	24.1	35.7	46.7	43.8	22.1	10.7	8.8
Forecast BI (Fuel Model X)	78.6	91.9	117.0	130.1	71.5	40.4	42.5
Forecast IC (Fuel Model X)	4.1	5.5	9.0	11.0	4.5	2.5	2.7
Forecast 100-Hr. FMC	19.9	19.0	18.0	17.2	17.3	18.3	21.9
Forecast 1000-Hr. FMC	23.7	23.6	23.5	23.3	23.1	22.8	22.9
KBDI	31.7						

#### 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

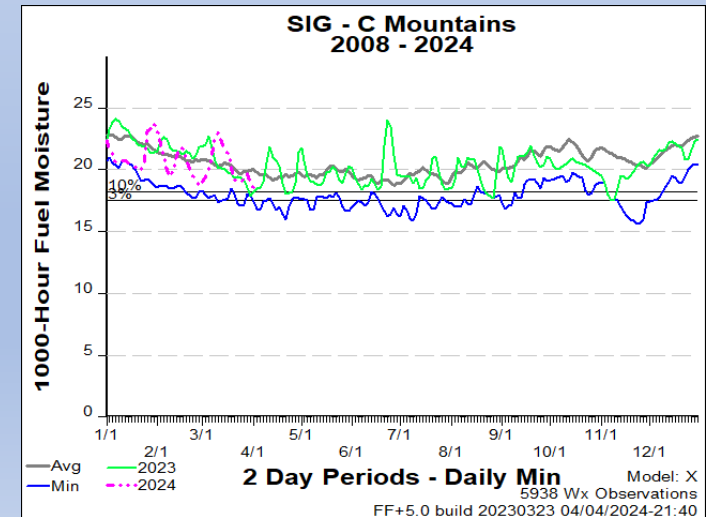
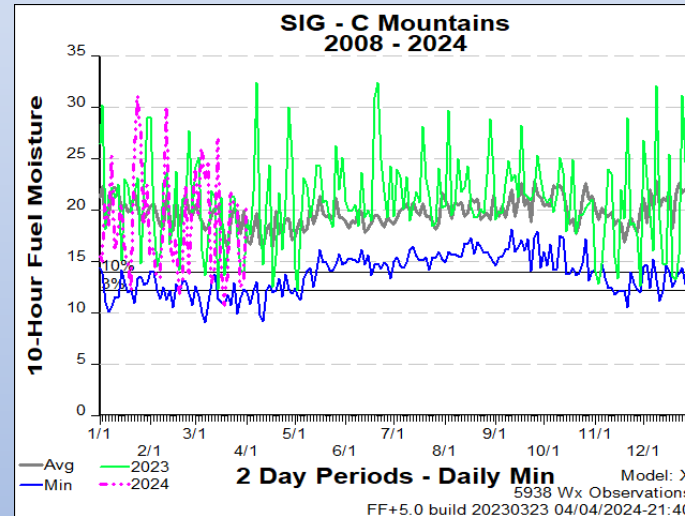
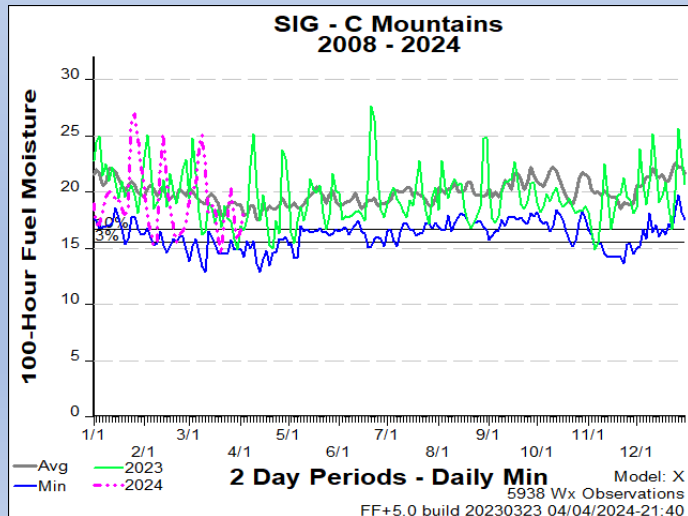
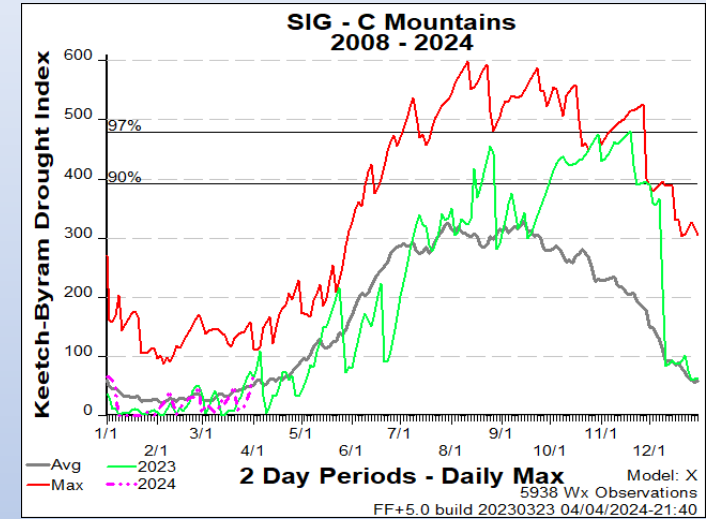
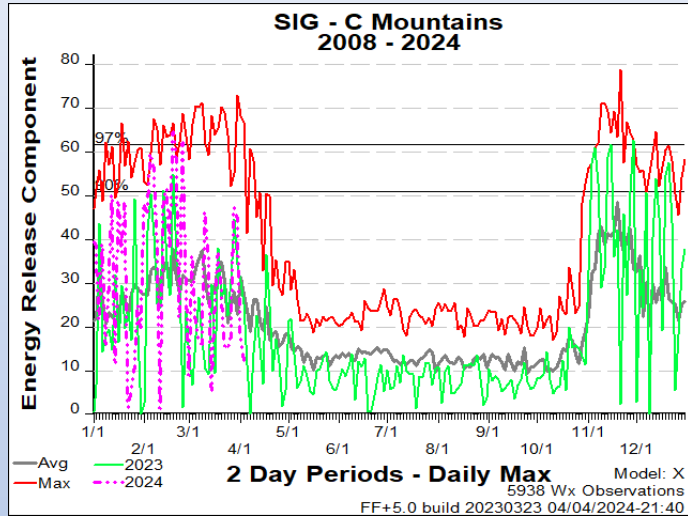
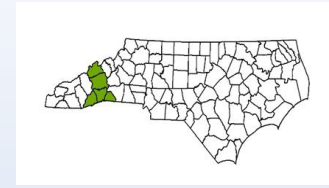
Values in the table above are averages from 3 stations in this FDRA:

- 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 05-Apr	SAT 06-Apr	SUN 07-Apr	MON 08-Apr	TUE 09-Apr	WED 10-Apr	THU 11-Apr
Avg. Max. Temp. (°F)	51	57	68	70	67	68	67
Avg. Min. Humidity (%)	37	33	31	41	56	59	62
Avg. 20' Wind Speed (mph)	13	12	6	7	5	6	10
Avg. Wind Direction*	NNW	NNW	SSW	S	SSW	S	S
Avg. Probability of Precip. (%)	9	0	19	22	47	55	65
Days Since a Wetting Rain**	2.3	3.3	4.3				
Forecast ERC (Fuel Model X)	18.8	23.8	29.4	25.6	14.3	9.2	7.4
Forecast BI (Fuel Model X)	58.2	68.3	74.5	79.5	42.9	32.4	35.1
Forecast IC (Fuel Model X)	3.3	4.6	6.1	7.7	3.6	2.1	2.4
Forecast 100-Hr. FMC	17.6	17.1	16.5	16.2	16.2	17.3	21.0
Forecast 1000-Hr. FMC	21.9	21.9	21.8	21.7	21.5	21.5	21.5
KBDI	67.7						

#### 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

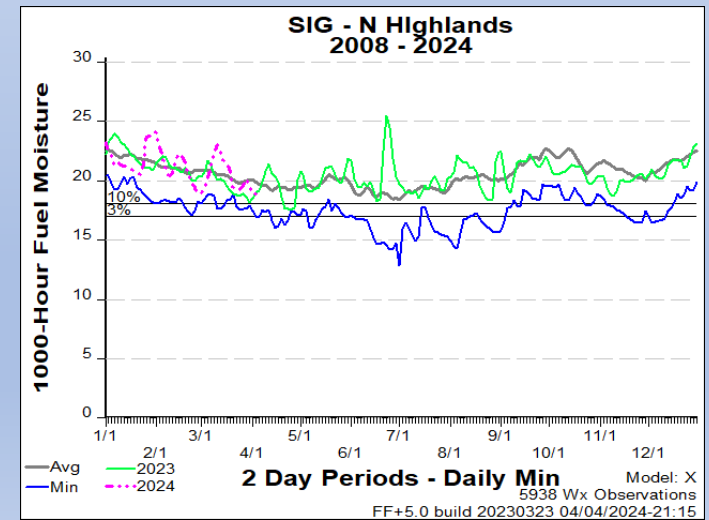
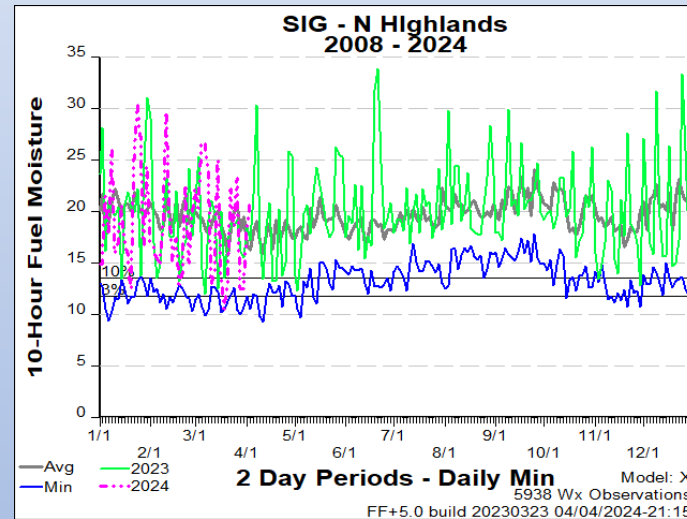
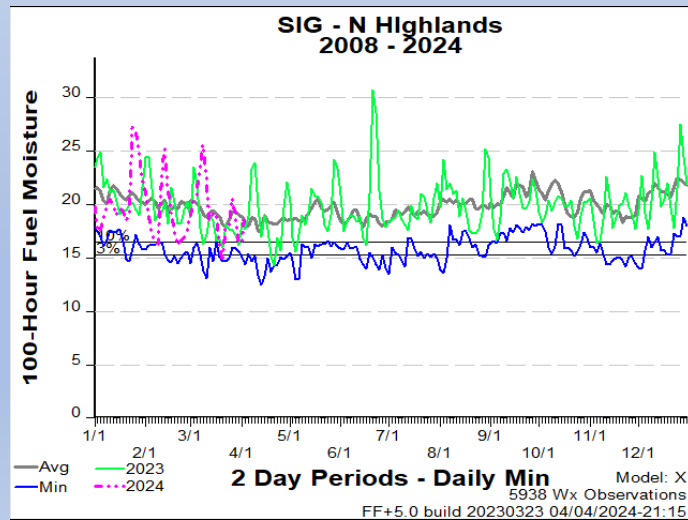
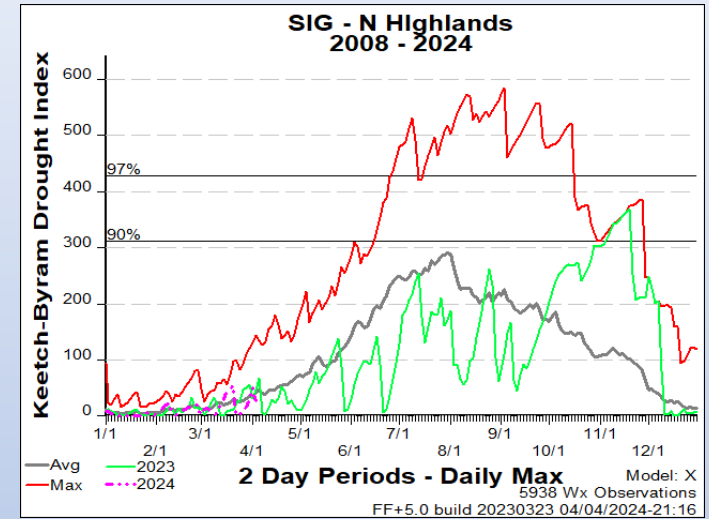
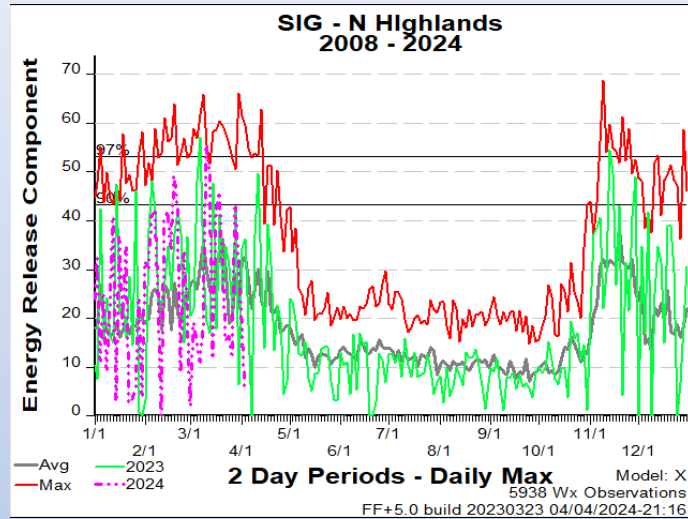
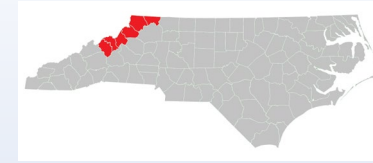
Values in the table above are averages from 3 stations in this FDRA:

- 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 05-Apr	SAT 06-Apr	SUN 07-Apr	MON 08-Apr	TUE 09-Apr	WED 10-Apr	THU 11-Apr
Avg. Max. Temp. (°F)	43	48	60	62	63	62	62
Avg. Min. Humidity (%)	46	39	30	48	56	60	64
Avg. 20' Wind Speed (mph)	17	14	6	8	7	8	12
Avg. Wind Direction*	NW	NNW	WSW	S	WSW	SSW	S
Avg. Probability of Precip. (%)	9	0	21	23	44	49	61
Days Since a Wetting Rain**	1.7	2.7	3.7				
Forecast ERC (Fuel Model X)	17.3	19.3	24.7	23.4	15.8	11.8	9.4
Forecast BI (Fuel Model X)	50.0	49.4	56.9	63.2	41.1	36.4	36.4
Forecast IC (Fuel Model X)	3.1	3.6	5.0	6.0	3.3	2.4	2.2
Forecast 100-Hr. FMC	18.4	17.9	17.2	16.4	16.4	16.6	19.2
Forecast 1000-Hr. FMC	22.3	22.2	22.1	22.0	21.9	21.7	21.8
KBDI	25.0						

#### Data Source:

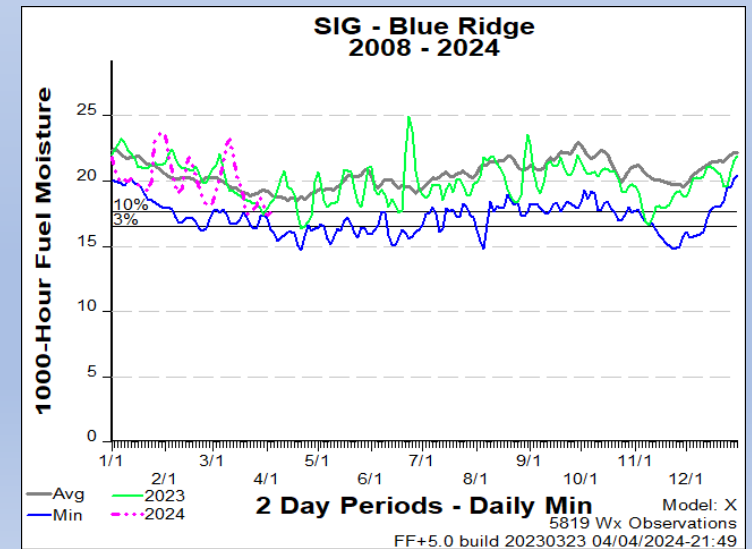
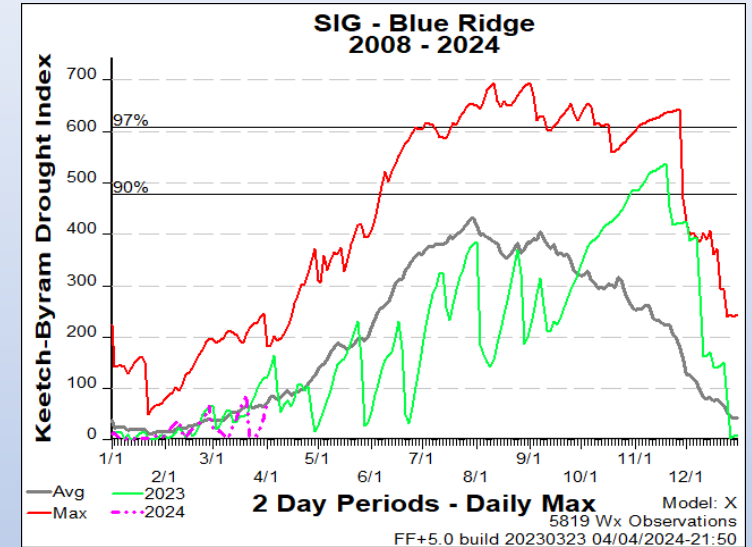
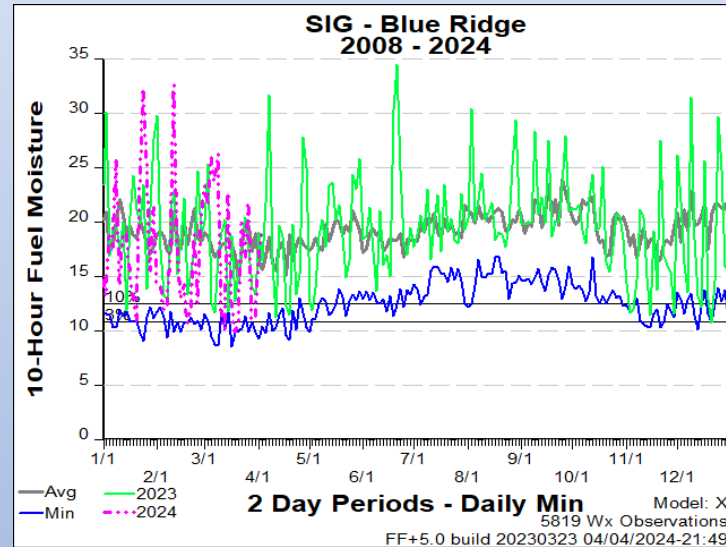
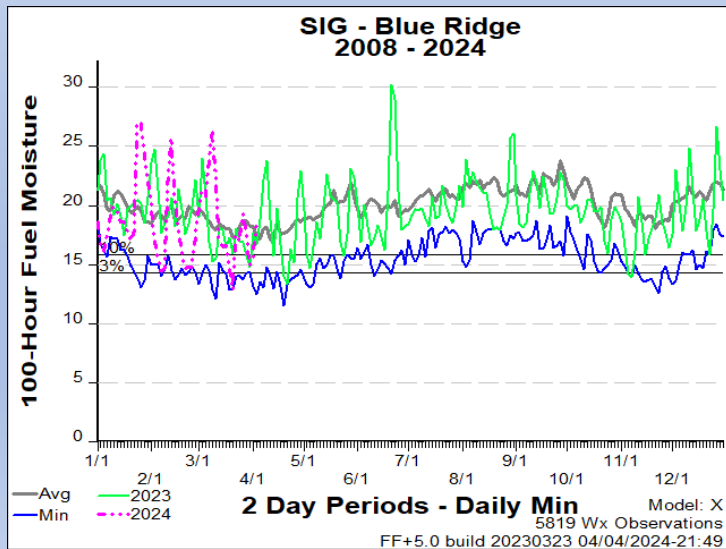
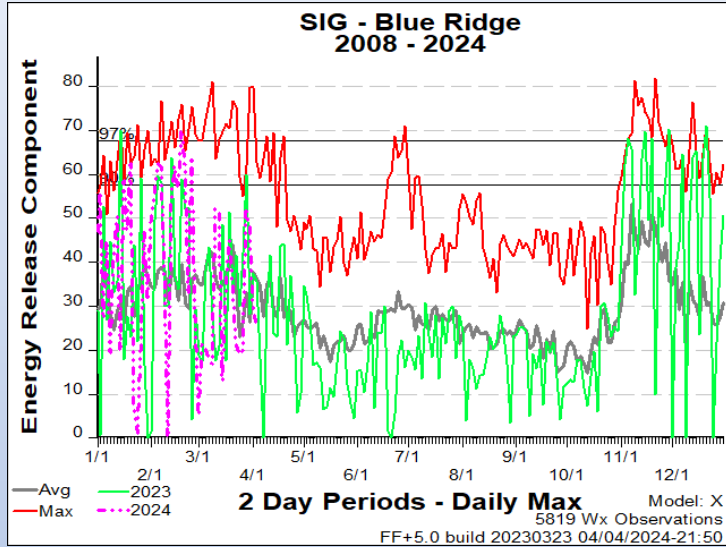
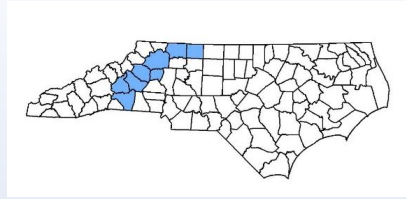
- Weather forecasts come from the National Weather Service's [Digital Forecast Database](#). The wind speed and direction, and probability of precipitation, are calculated as averages of the 1 am, 7 am, 1 pm, and 7 pm forecasts. The 20-foot wind speed is estimated from the 10-meter forecast using the 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 05-Apr	SAT 06-Apr	SUN 07-Apr	MON 08-Apr	TUE 09-Apr	WED 10-Apr	THU 11-Apr
Avg. Max. Temp. (°F)	52	56	64	68	67	67	67
Avg. Min. Humidity (%)	38	35	33	46	57	61	63
Avg. 20' Wind Speed (mph)	12	9	5	6	6	6	9
Avg. Wind Direction*	NW	NW	SW	S	WSW	SSW	S
Avg. Probability of Precip. (%)	5	0	16	18	40	48	60
Days Since a Wetting Rain**	3.0	4.0	5.0				
Forecast ERC (Fuel Model X)	31.0	32.2	34.6	32.1	23.7	15.5	12.9
Forecast BI (Fuel Model X)	74.6	72.2	72.0	85.5	57.7	43.3	42.7
Forecast IC (Fuel Model X)	6.5	6.2	6.7	8.5	4.8	3.1	3.1
Forecast 100-Hr. FMC	16.7	15.9	15.1	14.7	14.9	16.6	18.3
Forecast 1000-Hr. FMC	17.9	17.9	17.7	17.3	17.2	17.2	17.3
KBDI	69.0						

#### 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.

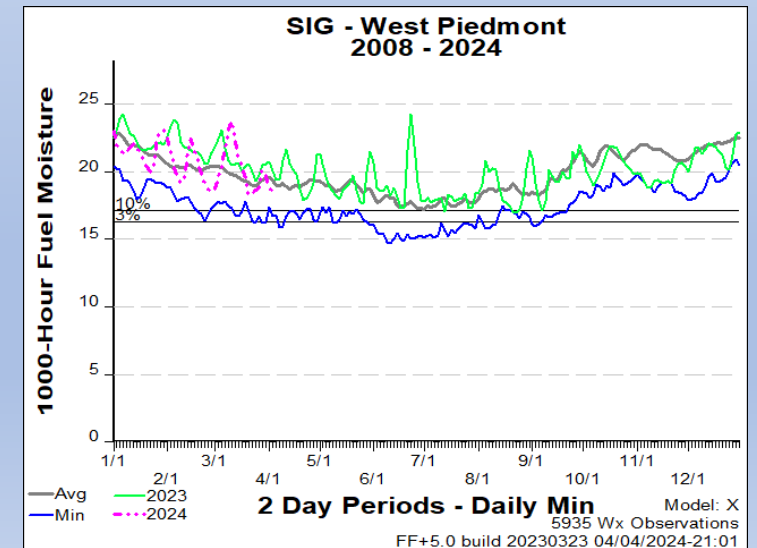
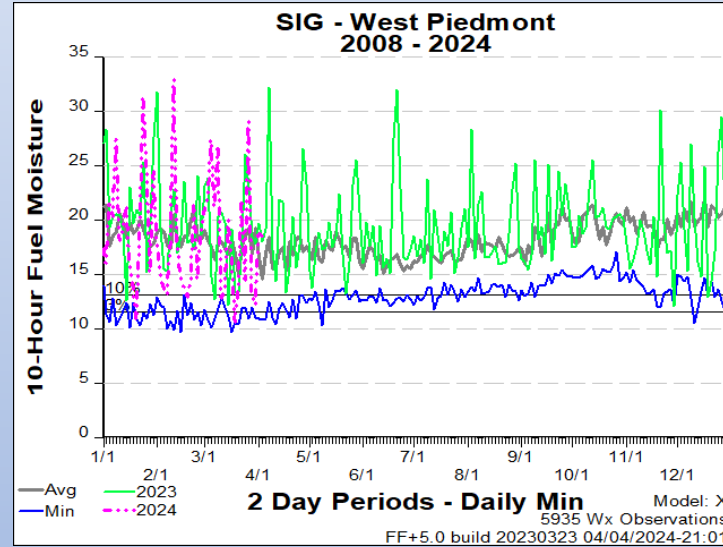
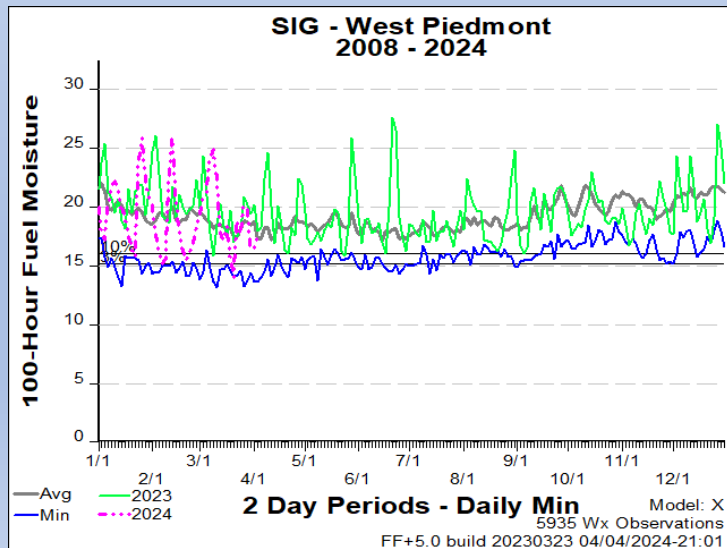
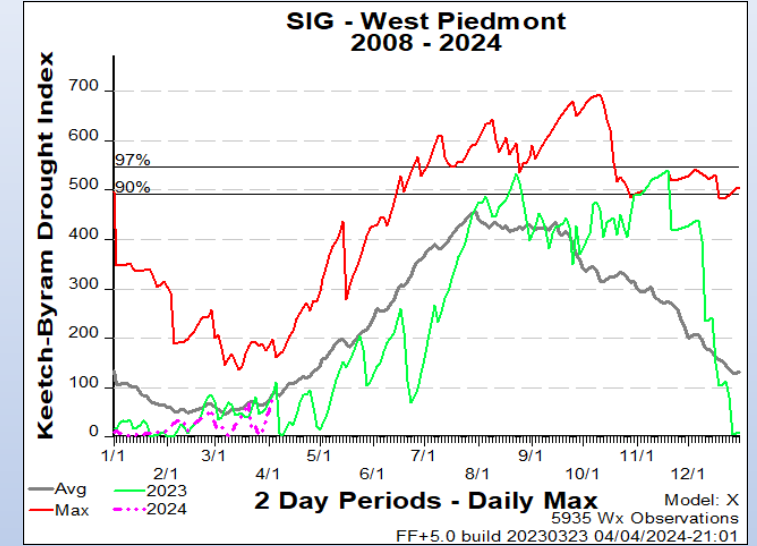
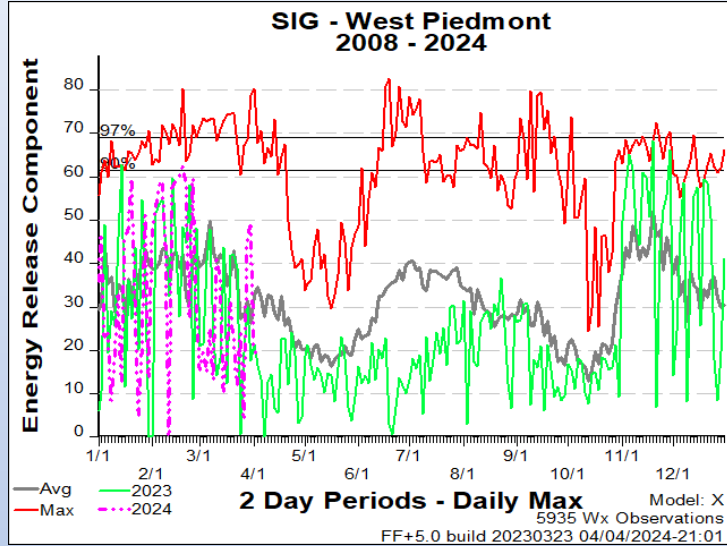
Values in the table above are averages from 3 stations in this FDRA:

- 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 05-Apr	SAT 06-Apr	SUN 07-Apr	MON 08-Apr	TUE 09-Apr	WED 10-Apr	THU 11-Apr
Avg. Max. Temp. (°F)	60	61	66	72	74	74	75
Avg. Min. Humidity (%)	30	31	30	41	52	54	57
Avg. 20' Wind Speed (mph)	9	8	3	6	6	7	10
Avg. Wind Direction*	WNW	NW	SSW	S	SW	SSW	S
Avg. Probability of Precip. (%)	0	0	8	11	25	37	52
Days Since a Wetting Rain**	3.0	4.0	5.0				
Forecast ERC (Fuel Model X)	21.4	25.8	28.5	26.5	14.8	11.7	11.7
Forecast BI (Fuel Model X)	43.5	65.4	56.4	70.9	34.5	30.1	35.4
Forecast IC (Fuel Model X)	4.9	7.1	5.7	8.3	4.0	2.8	3.4
Forecast 100-Hr. FMC	16.6	16.0	15.5	15.4	15.3	16.6	17.7
Forecast 1000-Hr. FMC	21.4	21.3	21.2	21.1	20.9	20.7	20.7
KBDI	84.0						

#### 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

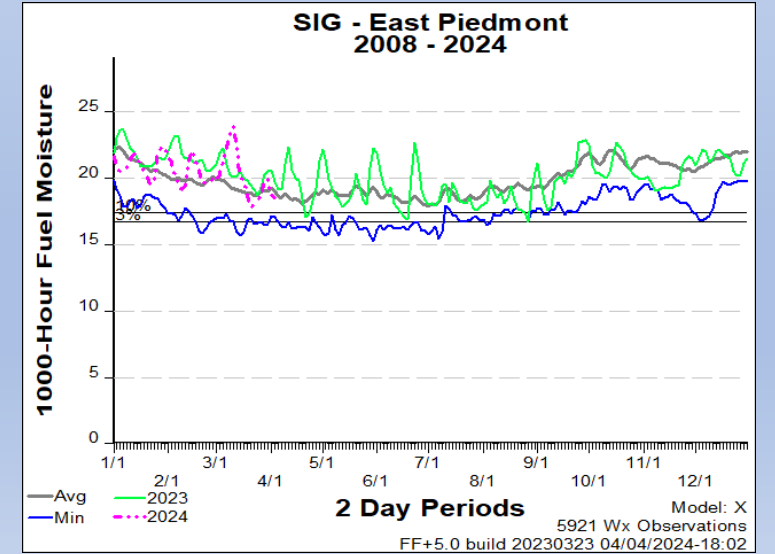
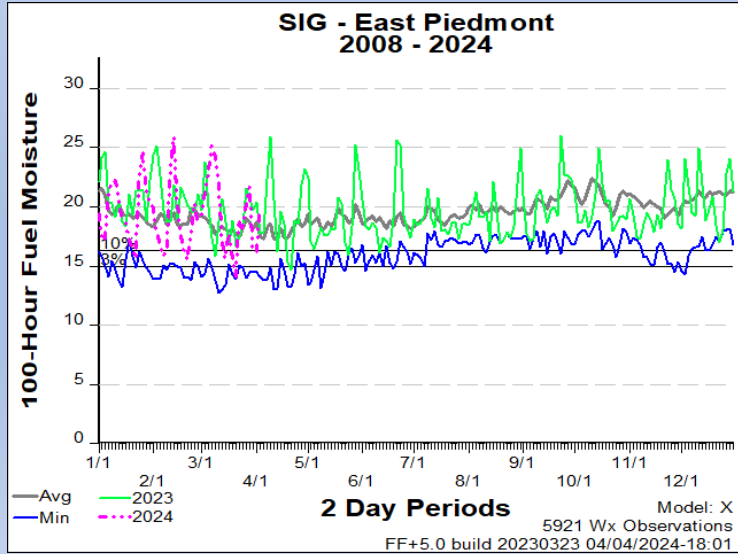
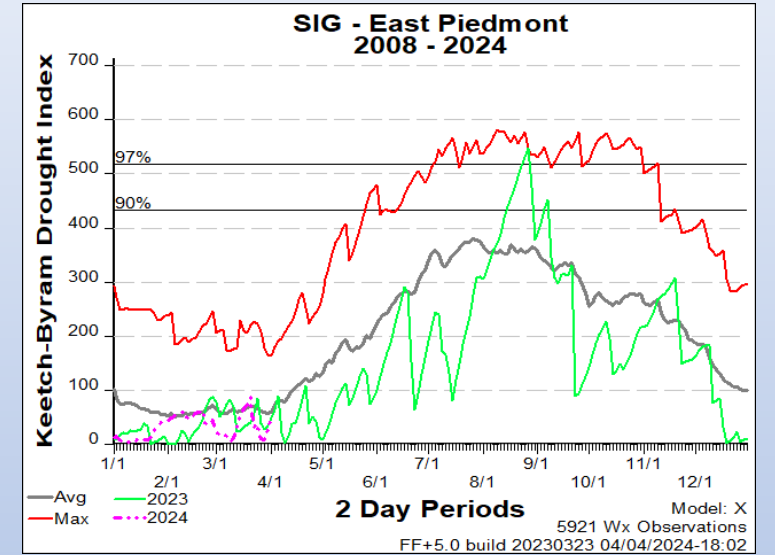
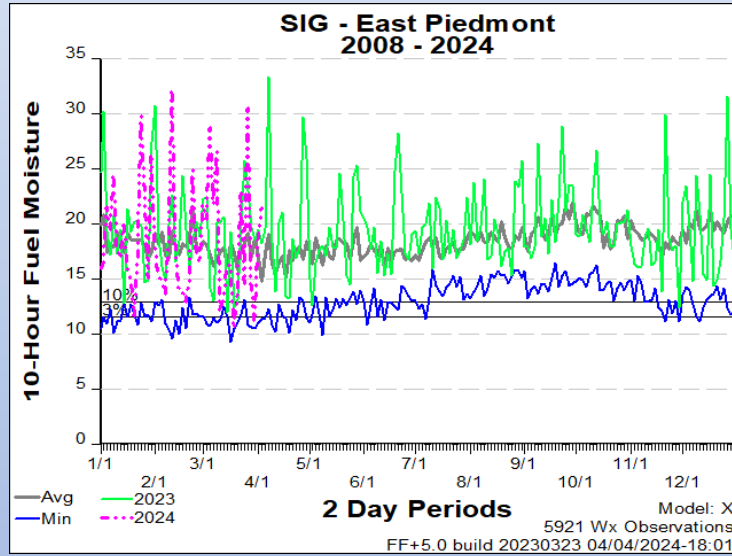
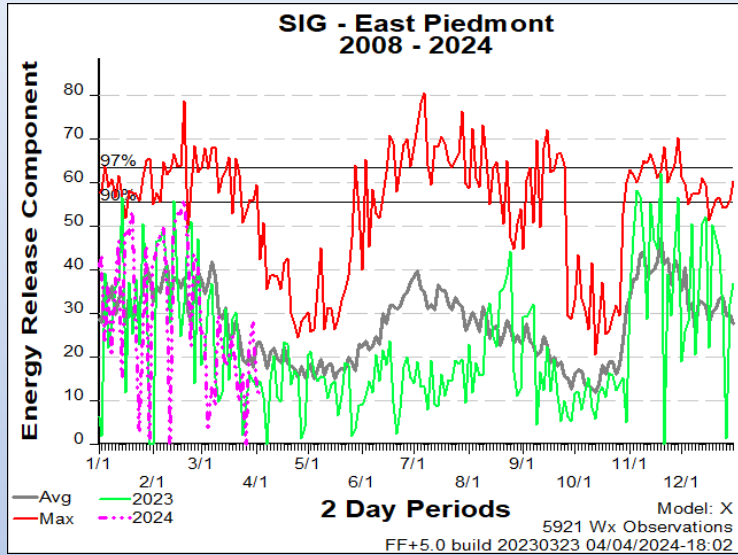
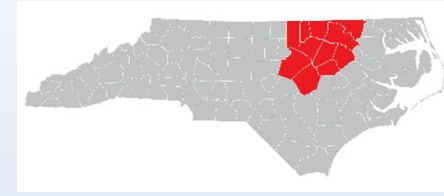
Values in the table above are averages from 3 stations in this FDRA:

- 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 05-Apr	SAT 06-Apr	SUN 07-Apr	MON 08-Apr	TUE 09-Apr	WED 10-Apr	THU 11-Apr
Avg. Max. Temp. (°F)	61	60	65	71	76	76	76
Avg. Min. Humidity (%)	32	35	32	44	48	51	56
Avg. 20' Wind Speed (mph)	10	8	2	6	7	7	11
Avg. Wind Direction*	WNW	NW	W	SSE	SW	SSW	S
Avg. Probability of Precip. (%)	1	0	3	8	16	27	41
Days Since a Wetting Rain**	1.0	2.0	3.0				
Forecast ERC (Fuel Model X)	18.2	19.9	18.0	17.5	14.0	11.7	11.4
Forecast BI (Fuel Model X)	36.5	39.9	30.7	32.9	28.3	26.4	32.9
Forecast IC (Fuel Model X)	4.2	4.8	3.3	3.9	3.6	2.8	3.5
Forecast 100-Hr. FMC	18.7	17.8	17.0	16.4	16.5	17.4	18.4
Forecast 1000-Hr. FMC	21.4	21.4	21.3	21.3	21.1	21.0	20.9
KBDI	41.0						

#### Data Source:

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

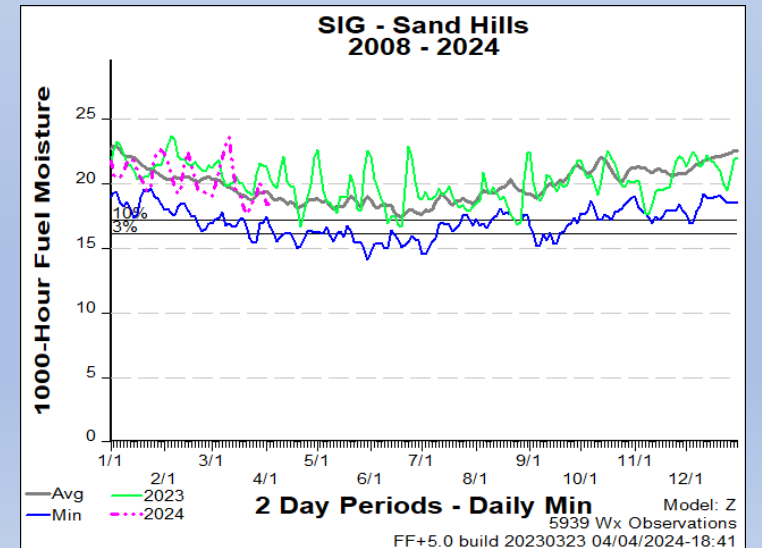
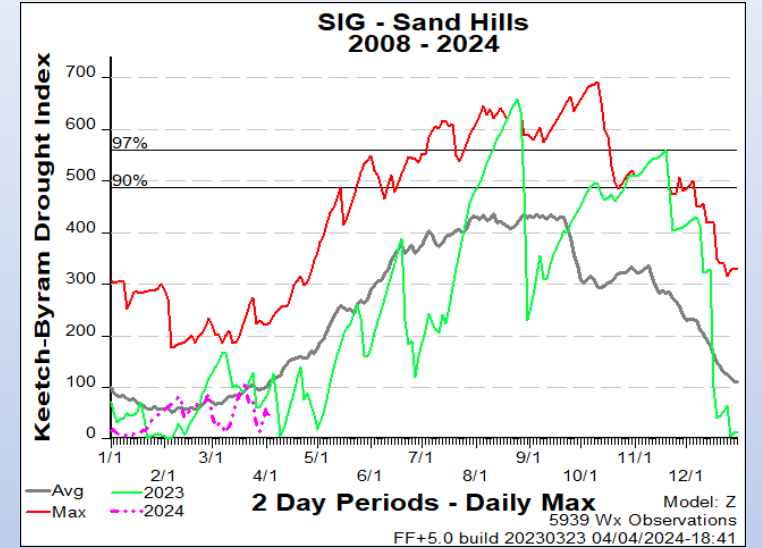
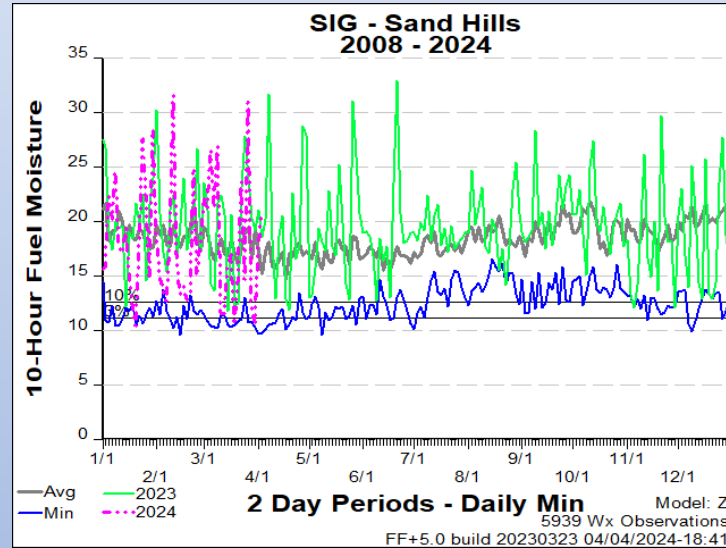
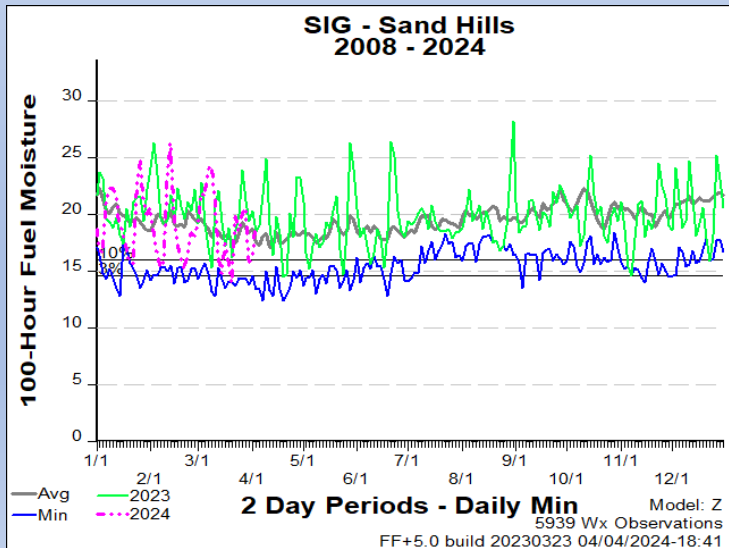
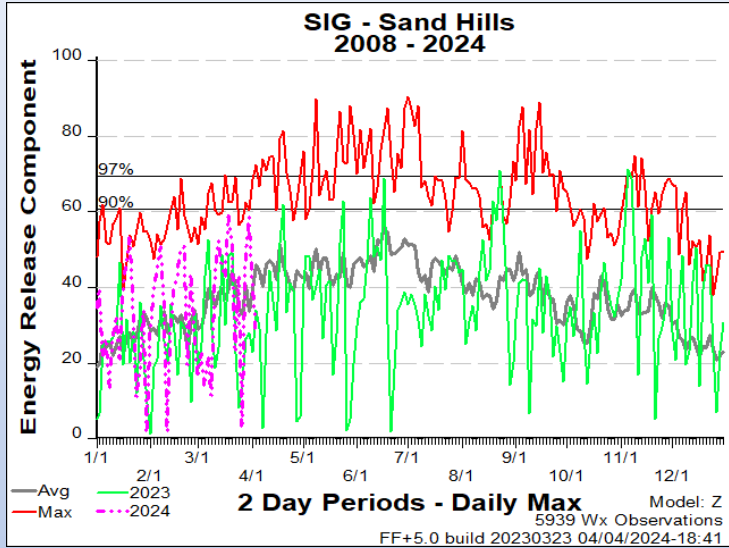
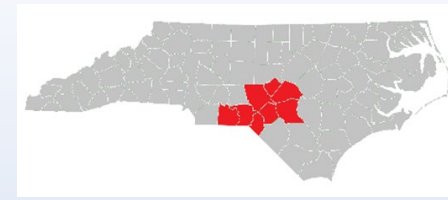
Values in the table above are averages from 4 stations in this FDRA:

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

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

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

# FDRA – Sandhills



## Weekly Outlook

### Sandhills FDRA - General Fire Danger Forecast

For planning purposes only; forecast is subject to change

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

DAY	FRI 05-Apr	SAT 06-Apr	SUN 07-Apr	MON 08-Apr	TUE 09-Apr	WED 10-Apr	THU 11-Apr
Avg. Max. Temp. (°F)	63	62	67	75	76	76	77
Avg. Min. Humidity (%)	29	30	29	37	45	48	52
Avg. 20' Wind Speed (mph)	9	8	2	6	6	7	11
Avg. Wind Direction*	WNW	NNW	WSW	S	SW	S	S
Avg. Probability of Precip. (%)	0	0	4	7	18	28	43
Days Since a Wetting Rain**	2.3	3.3	4.3				
Forecast ERC (Fuel Model Z)	41.5	45.3	43.9	42.0	36.2	31.7	30.7
Forecast BI (Fuel Model Z)	44.9	49.1	34.1	44.4	38.4	36.1	46.7
Forecast IC (Fuel Model Z)	9.1	10.8	6.7	10.0	8.1	6.2	8.8
Forecast 100-Hr. FMC	18.0	17.1	16.3	16.0	15.9	17.0	18.0
Forecast 1000-Hr. FMC	21.1	21.1	21.1	21.0	20.8	20.6	20.5
KBDI	45.0						

#### Data Source:

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

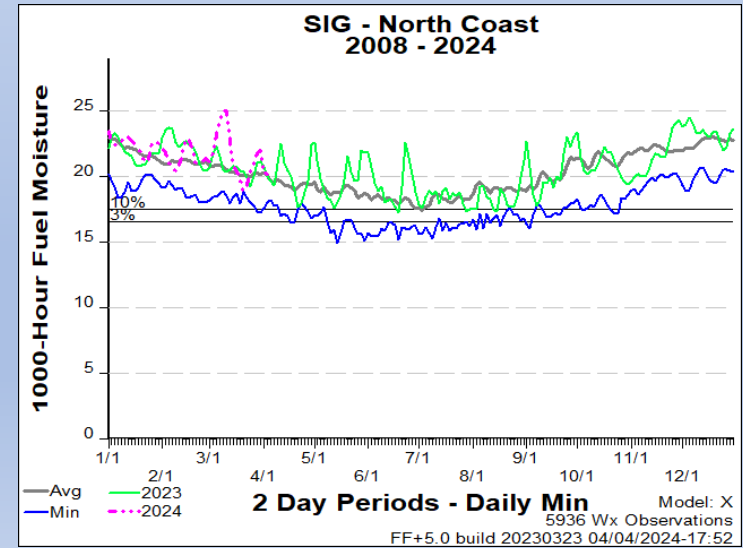
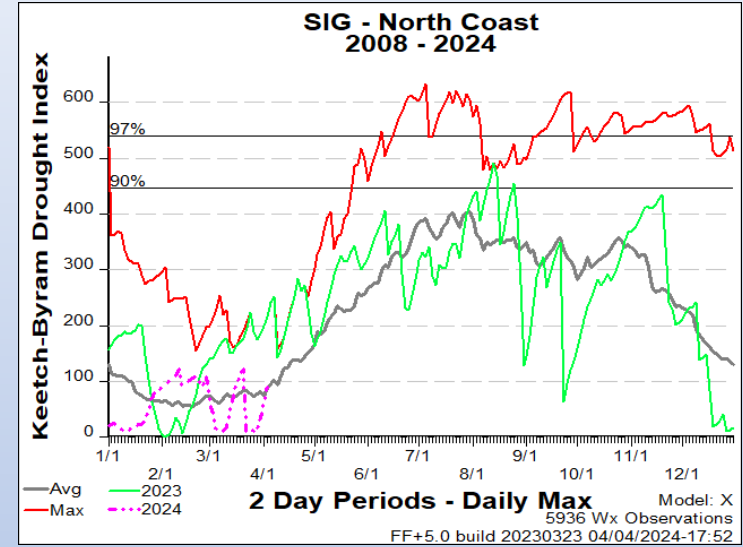
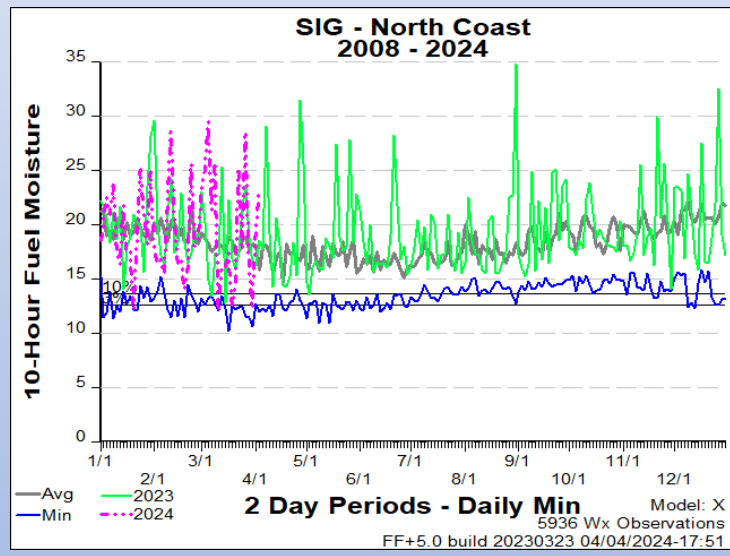
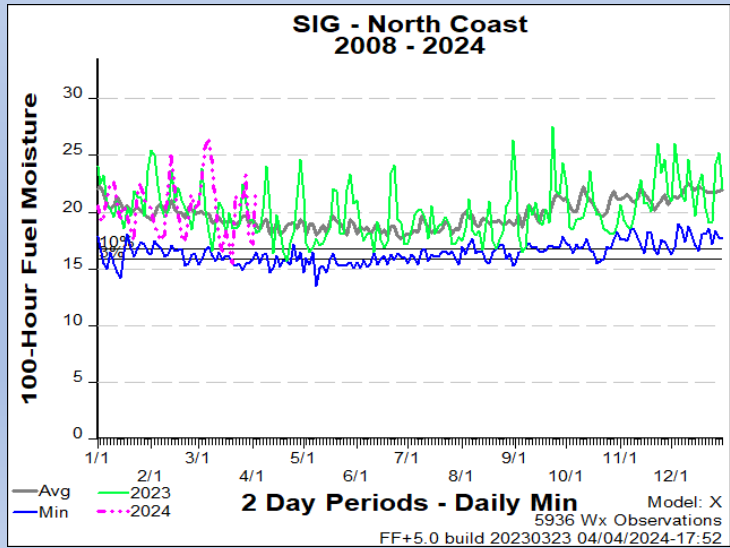
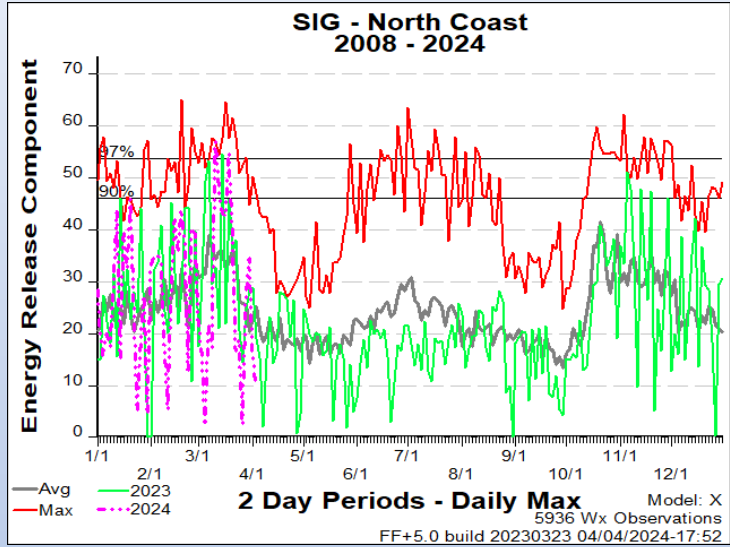
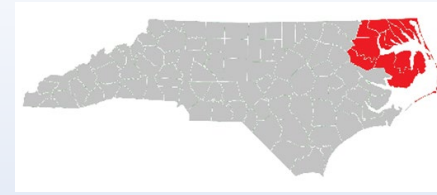
Values in the table above are averages from 3 stations in this FDRA:

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

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

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

# FDRA – North Coast



## Weekly Outlook

### Northern Coastal FDRA - General Fire Danger Forecast

For planning purposes only; forecast is subject to change

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

DAY	FRI 05-Apr	SAT 06-Apr	SUN 07-Apr	MON 08-Apr	TUE 09-Apr	WED 10-Apr	THU 11-Apr
Avg. Max. Temp. (°F)	63	60	63	68	77	75	76
Avg. Min. Humidity (%)	34	36	37	43	51	56	60
Avg. 20' Wind Speed (mph)	9	8	6	5	7	8	11
Avg. Wind Direction*	W	NW	WNW	SE	SW	S	S
Avg. Probability of Precip. (%)	9	0	2	8	13	19	34
Days Since a Wetting Rain**	4.5	5.5	6.5				
Forecast ERC (Fuel Model X)	17.1	18.6	16.8	13.5	12.5	10.7	10.0
Forecast BI (Fuel Model X)	34.5	36.9	28.8	20.8	23.6	20.2	22.5
Forecast IC (Fuel Model X)	4.4	4.9	3.4	2.2	3.0	2.0	2.0
Forecast 100-Hr. FMC	21.1	19.8	18.7	18.3	18.1	18.6	19.2
Forecast 1000-Hr. FMC	22.9	22.8	22.7	22.7	22.5	22.3	22.1
KBDI	94.3						

#### Data Source:

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

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

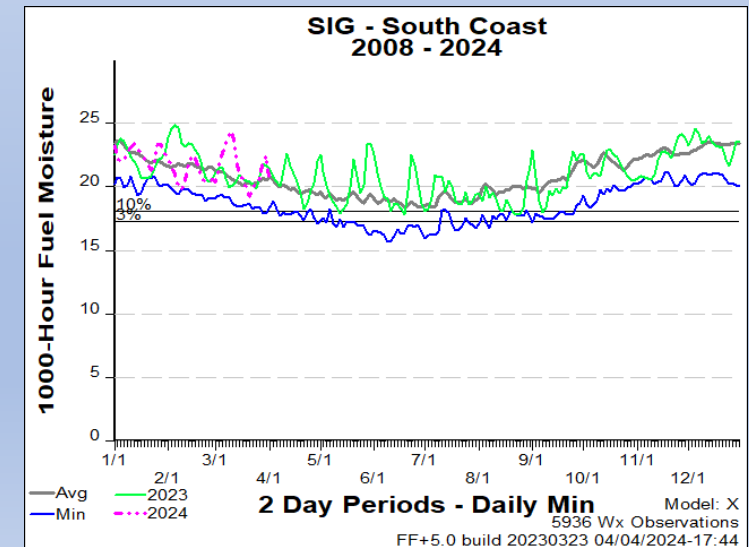
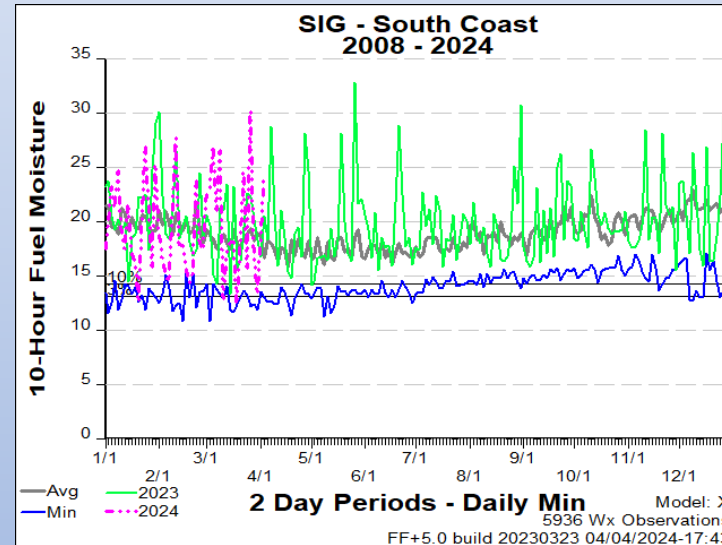
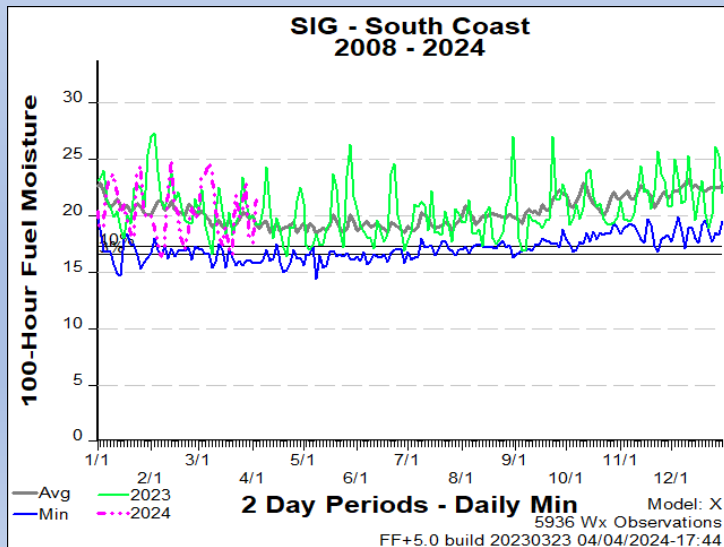
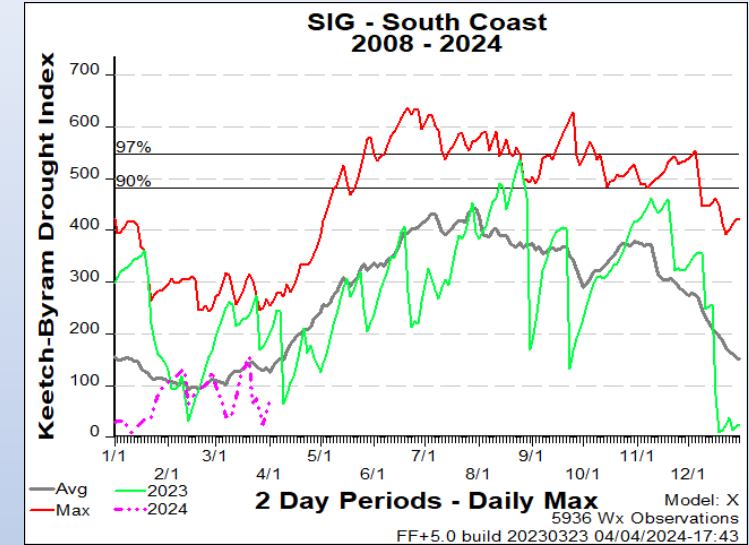
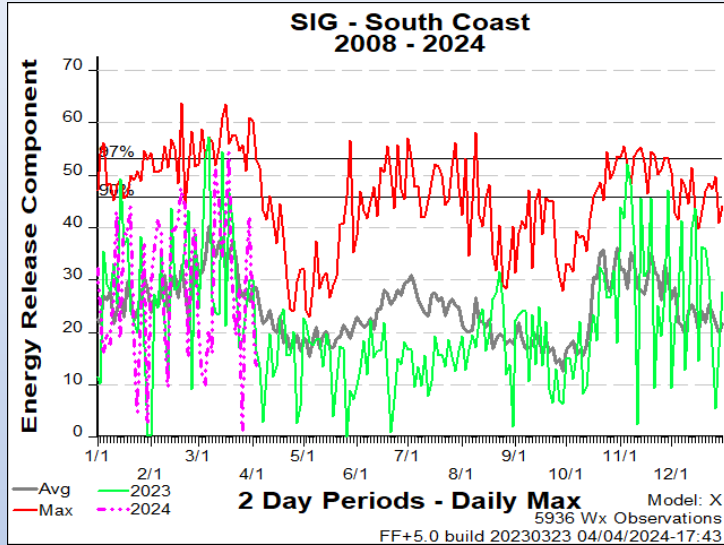
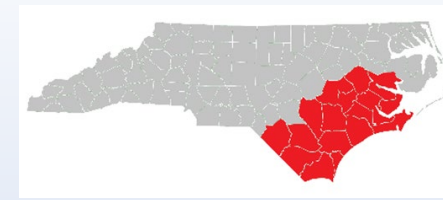
- Elizabeth City (311503)
- Greens Cross (313001)
- Pocosin Lakes (315201)
- Fairfield (317901)

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

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



# FDRA – South Coast



## Weekly Outlook

### Southern Coastal FDRA - General Fire Danger Forecast

For planning purposes only; forecast is subject to change

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

DAY	FRI 05-Apr	SAT 06-Apr	SUN 07-Apr	MON 08-Apr	TUE 09-Apr	WED 10-Apr	THU 11-Apr
Avg. Max. Temp. (°F)	64	62	66	73	78	77	77
Avg. Min. Humidity (%)	32	33	34	40	48	54	58
Avg. 20' Wind Speed (mph)	8	8	5	5	7	6	11
Avg. Wind Direction*	WNW	NW	WSW	SSE	SW	S	S
Avg. Probability of Precip. (%)	1	0	1	4	9	18	32
Days Since a Wetting Rain**	3.0	4.0	5.0				
Forecast ERC (Fuel Model X)	34.8	37.4	31.3	23.9	17.1	13.3	12.5
Forecast BI (Fuel Model X)	86.9	93.2	64.8	53.5	41.2	31.1	38.5
Forecast IC (Fuel Model X)	9.8	11.5	7.3	6.3	5.2	3.4	4.1
Forecast 100-Hr. FMC	20.9	19.4	18.3	17.9	17.7	18.3	18.9
Forecast 1000-Hr. FMC	23.0	22.9	22.9	22.7	22.5	22.2	22.1
KBDI	76.6						

#### Data Source:

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

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

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

KEY	Low to Moderate Burning Conditions	Burning Conditions Can be High CAUTION	Burning Conditions Can be Critical WATCH OUT!
Avg. Max. Temp.	Less than 50°F	Between 50°F and 65°F	Greater than 65°F
Avg. Min. Humidity	Greater than 40%	Between 35% and 40%	Less than 35%
Avg. 20' Wind Speed	Less than 5 mph	Between 5 mph and 10 mph	Greater than 10 mph
Avg. Wind Direction*	Criticality of wind direction is highly dependent on burn operations and/or structures threatened.		
Days Since a Wetting Rain**	A wetting rain is defined as 0.10" or greater. This is an average of the FDRA stations noted above.		
Energy Release Comp.	Less than 36.4	Between 36.4 and 47.2	Greater than 47.2
Burning Index	Less than 68.3	Between 68.3 and 89.5	Greater than 89.5
Ignition Component	Less than 7.9	Between 7.9 and 12	Greater than 12
100-Hour Fuel Moisture	Greater than 18.2%	Between 17.3% and 18.2%	Less than 17.3%
1000-Hour Fuel Moisture	Greater than 19%	Between 18% and 19%	Less than 18%
KBDI	Less than 385	Between 385 and 486	Greater than 486

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

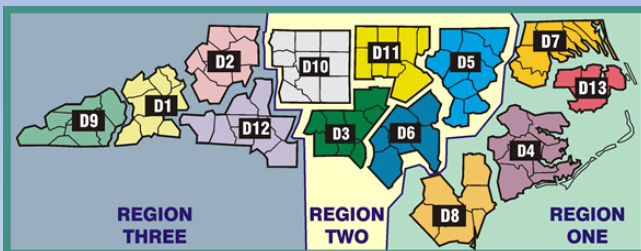
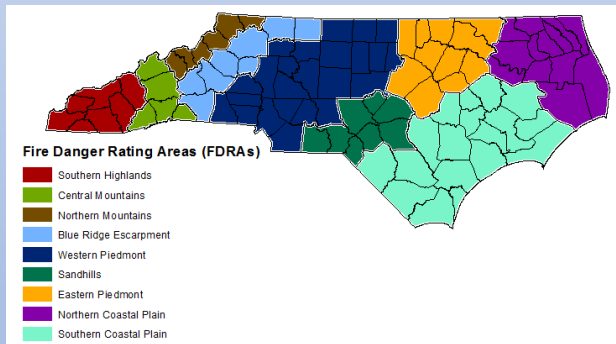
# Outlook Summary Tables – Organized by Region –

Output from NFDRS  
forecast generated on  
4/4/24 using 1300 Obs.

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

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

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



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

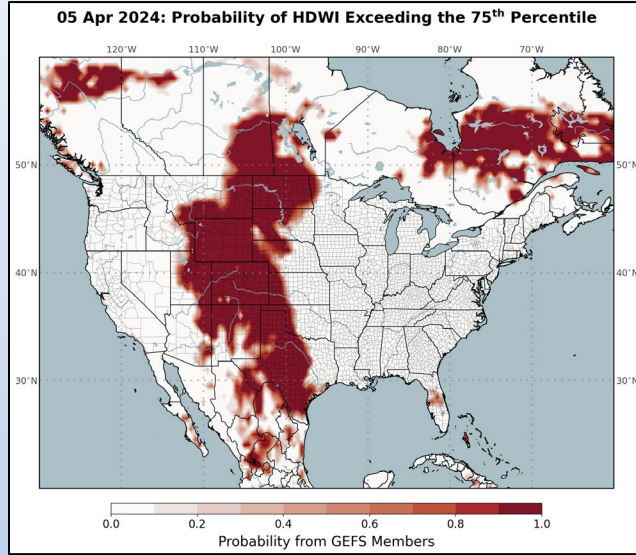
Date	Day of Week	FDRA Weekly Outlook - Matrix Summary - NCFS Region 2				
		Blue Ridge Escarp	Western Piedmont	Eastern Piedmont	Sandhills	South Coast
5-Apr	Fri	High	High	Low/Mod +	Low/Mod +	High
6-Apr	Sat	Critical -	High	Low/Mod +	High	High +
7-Apr	Sun	Critical -	High +	Low/Mod	Low/Mod +	Low/Mod +
8-Apr	Mon	Critical -	Low/Mod +	Low/Mod	High	High
9-Apr	Tues	Critical -	Low/Mod	Low/Mod	Low/Mod +	Low/Mod +
10-Apr	Wed	High	Low/Mod	Low/Mod	Low/Mod	Low/Mod
11-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
5-Apr	Fri	Low/Mod	Low/Mod +	Low/Mod	High	High
6-Apr	Sat	Low/Mod +	High	Low/Mod +	Critical -	High
7-Apr	Sun	High	High +	High +	Critical -	High +
8-Apr	Mon	High	High +	High	Critical -	Low/Mod +
9-Apr	Tues	Low/Mod +	Low/Mod	Low/Mod	Critical -	Low/Mod
10-Apr	Wed	Low/Mod	Low/Mod	Low/Mod	High	Low/Mod
11-Apr	Thurs	Low/Mod	Low/Mod	Low/Mod	Low/Mod	Low/Mod

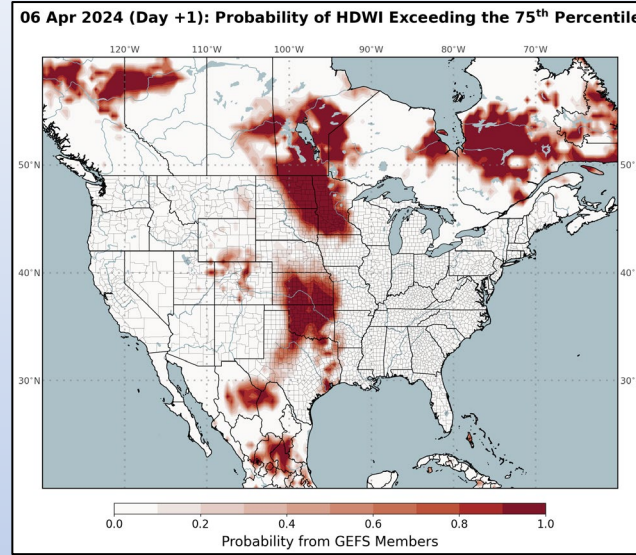
# Statewide Slides

# Hot-Dry-Windy Index (HDW)

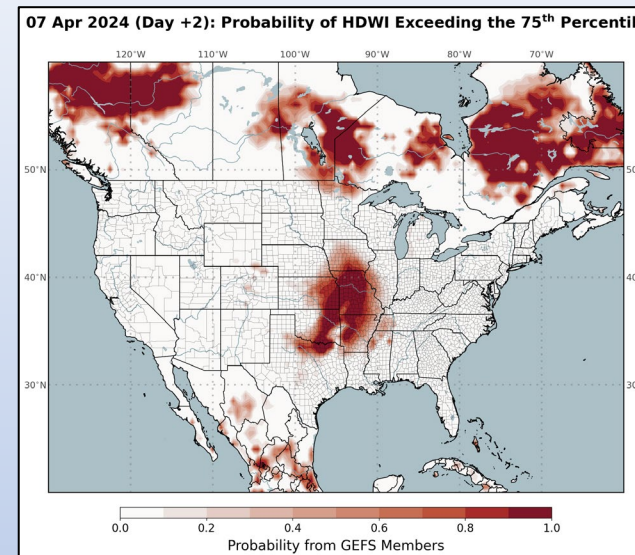
Friday > 75<sup>th</sup> Percentile



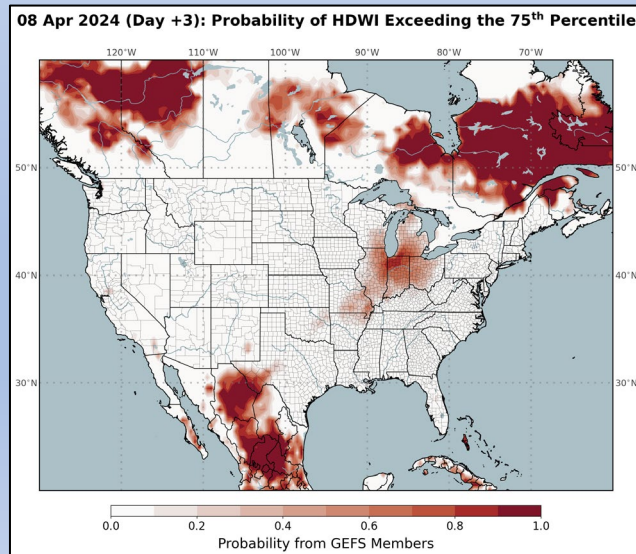
Saturday > 75<sup>th</sup> Percentile



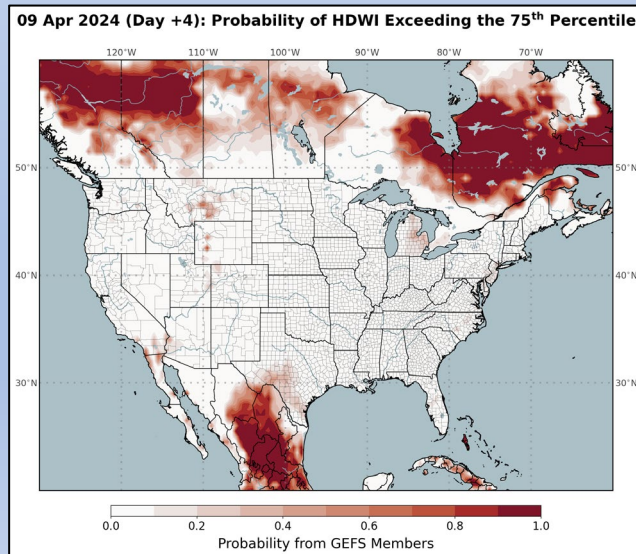
Sunday > 75<sup>th</sup> Percentile



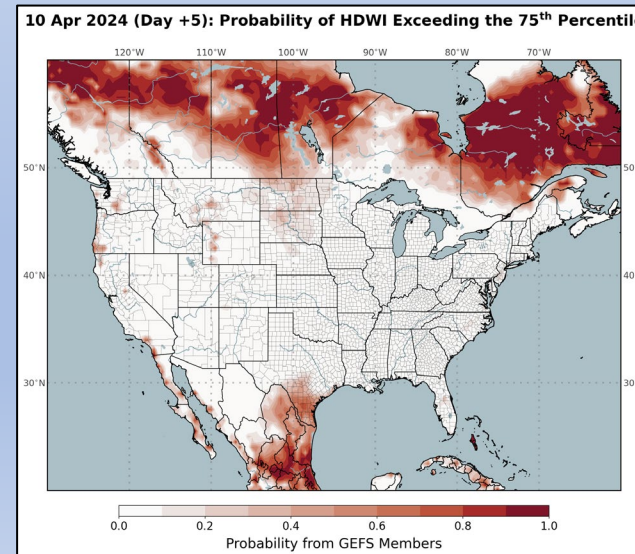
Monday > 75<sup>th</sup> Percentile



Tuesday > 75<sup>th</sup> Percentile

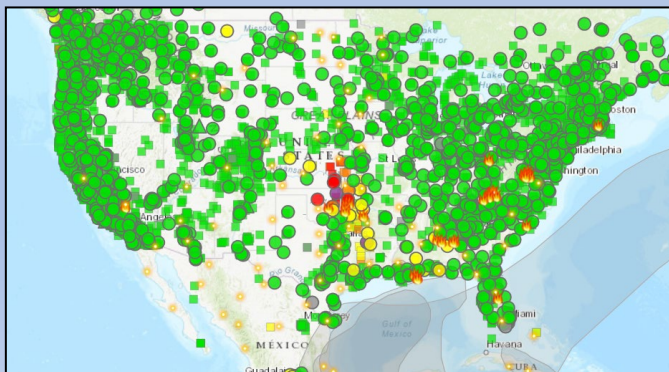
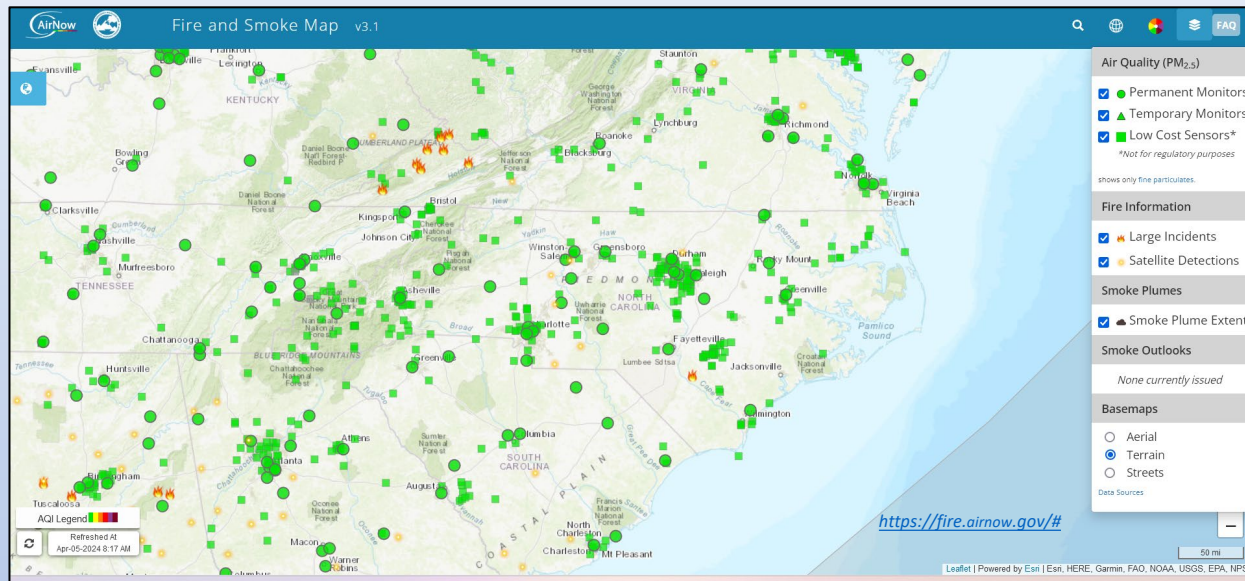


Wednesday > 75<sup>th</sup> Percentile



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

# Air Quality Notes

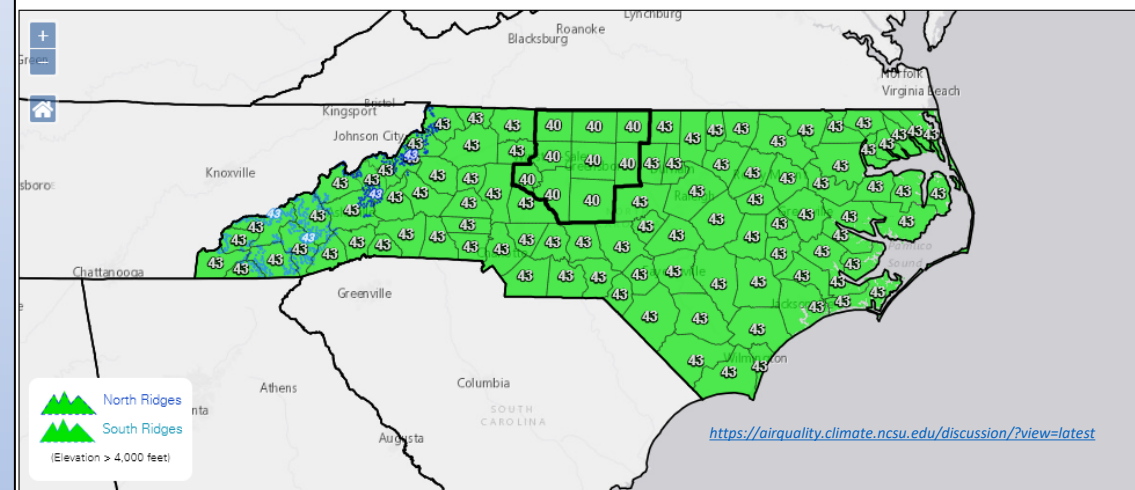


## Extended Air Quality Outlook

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
<a href="#">Thursday (Apr 4)</a>	40	Green	<a href="#">download</a>
<a href="#">Friday (Apr 5)</a>	43	Green	<a href="#">download</a>
<a href="#">Saturday (Apr 6)</a>	45	Green	<a href="#">download</a>
<a href="#">Sunday (Apr 7)</a>	45 to 48	Green	<a href="#">download</a>

### Maximum Air Quality Index for Apr 5, 2024



## NCDAQ Forecaster Discussion (Thursday - PM)

### General Forecast Discussion

Through Sunday, behind the front, the upper-level low will become trapped due to a Greenland upper-level ridge, setting up another period of below-normal temperatures across the eastern U.S. through the weekend. These conditions should result in a persistent dry, cool and clean air mass feed into the state on northwesterly winds and hold air quality levels in the Code Green range statewide.

# 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  $-0.5^{\circ}\text{C}$  (line shown in green) for 3 consecutive months. For El Niño, the departure must be at least  $0.5^{\circ}\text{C}$  above average for 3 consecutive months.

## Historical El Niño and La Niña Episodes Based on the ONI computed using ERSST.v5

Recent Pacific warm (red) and cold (blue) periods based on a threshold of  $\pm 0.5^{\circ}\text{C}$  for the Oceanic Niño Index (ONI) [3 month running mean of ERSST.v5 SST anomalies in the Niño 3.4 region (5N-5S, 120-170W)]. For historical purposes, periods of below and above normal SSTs are colored in blue and red when the threshold is met for a minimum of 5 consecutive over-lapping seasons.

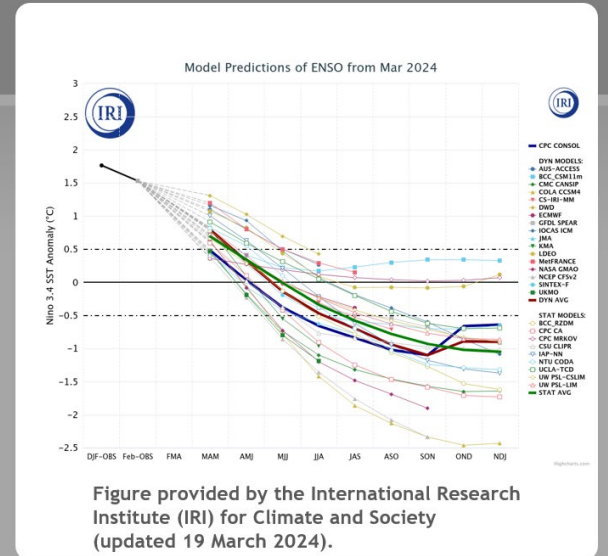
The ONI is one measure of the El Niño-Southern Oscillation, and other indices can confirm whether features consistent with a coupled ocean-atmosphere phenomenon accompanied these periods. The complete table going back to DJF 1950 can be found [here](#).

Year	DJF	JFM	FMA	MAM	AMJ	MJJ	JJA	JAS	ASO	SON	OND	NDJ
2012	-0.9	-0.7	-0.6	-0.5	-0.3	0.0	0.2	0.4	0.4	0.3	0.1	-0.2
2013	-0.4	-0.4	-0.3	-0.3	-0.4	-0.4	-0.4	-0.3	-0.3	-0.2	-0.2	-0.3
2014	-0.4	-0.5	-0.3	0.0	0.2	0.2	0.0	0.1	0.2	0.5	0.6	0.7
2015	0.5	0.5	0.5	0.7	0.9	1.2	1.5	1.9	2.2	2.4	2.6	2.6
2016	2.5	2.1	1.6	0.9	0.4	-0.1	-0.4	-0.5	-0.6	-0.7	-0.7	-0.6
2017	-0.3	-0.2	0.1	0.2	0.3	0.3	0.1	-0.1	-0.4	-0.7	-0.8	-1.0
2018	-0.9	-0.9	-0.7	-0.5	-0.2	0.0	0.1	0.2	0.5	0.8	0.9	0.8
2019	0.7	0.7	0.7	0.7	0.5	0.5	0.3	0.1	0.2	0.3	0.5	0.5
2020	0.5	0.5	0.4	0.2	-0.1	-0.3	-0.4	-0.6	-0.9	-1.2	-1.3	-1.2
2021	-1.0	-0.9	-0.8	-0.7	-0.5	-0.4	-0.4	-0.5	-0.7	-0.8	-1.0	-1.0
2022	-1.0	-0.9	-1.0	-1.1	-1.0	-0.9	-0.8	-0.9	-1.0	-1.0	-0.9	-0.8
2023	-0.7	-0.4	-0.1	0.2	0.5	0.8	1.1	1.3	1.6	1.8	1.9	2.0
2024	1.8											

## IRI Pacific Niño 3.4 SST Model Outlook

The majority of models indicate El Niño will persist through March-May 2024 and then transition to ENSO-neutral during April-June 2024.

After a brief period of ENSO-neutral conditions, most models indicate a transition to La Niña around July-September 2024.

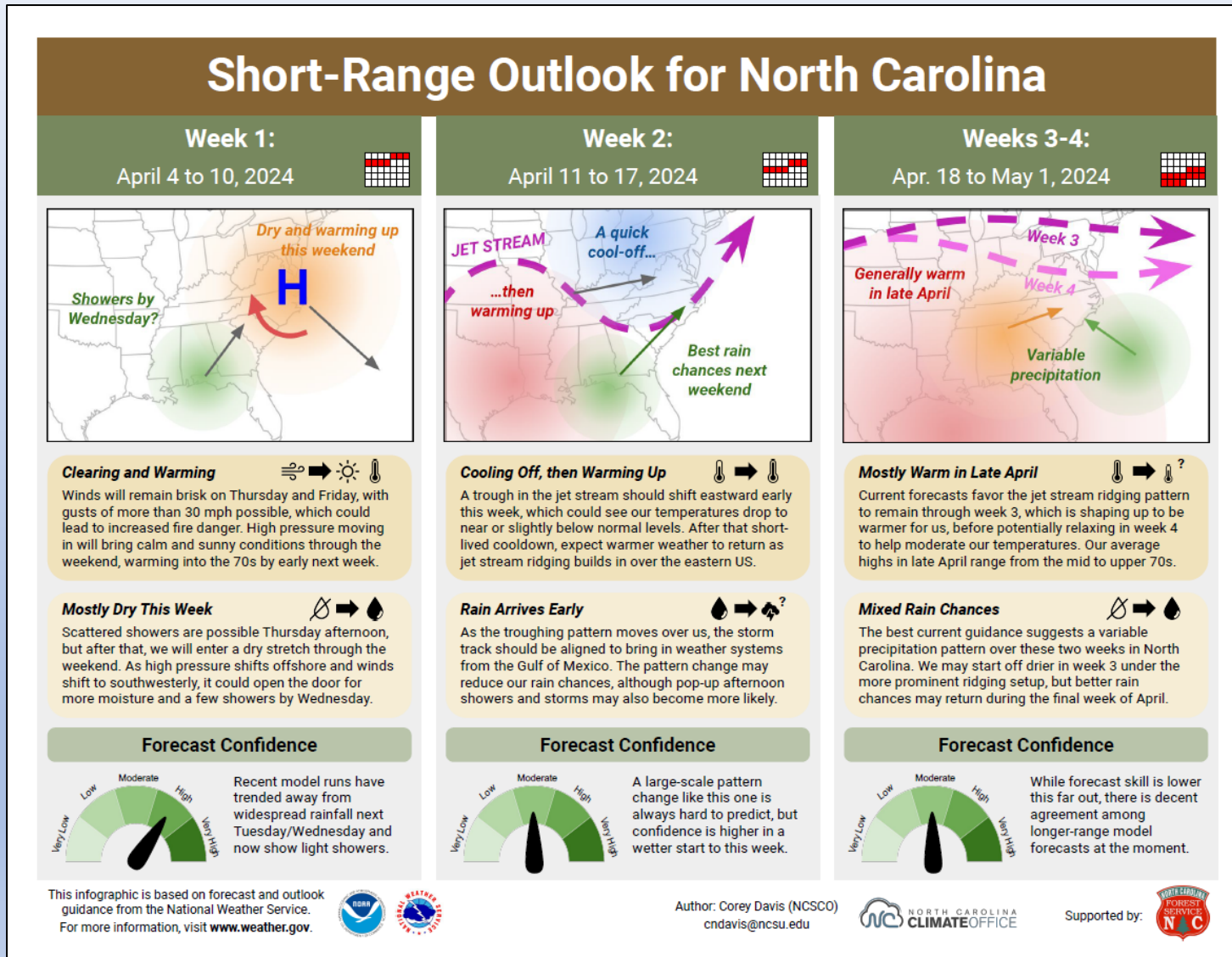


From the most recent CPC Diagnostic Discussion ([ENSO Diagnostics Discussion](#)):

[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]).]

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

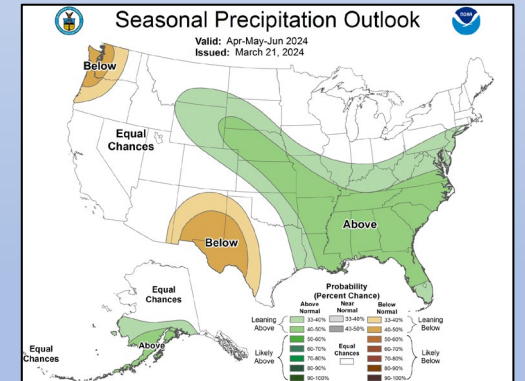
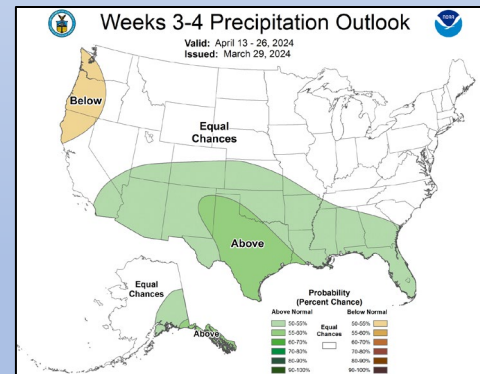
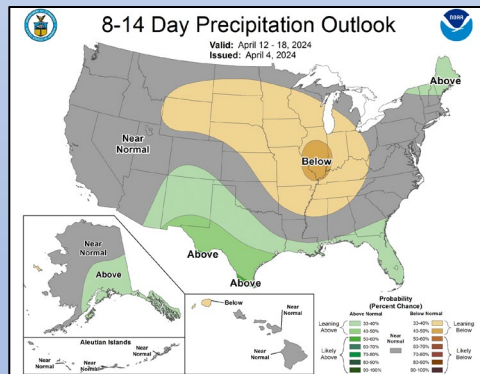
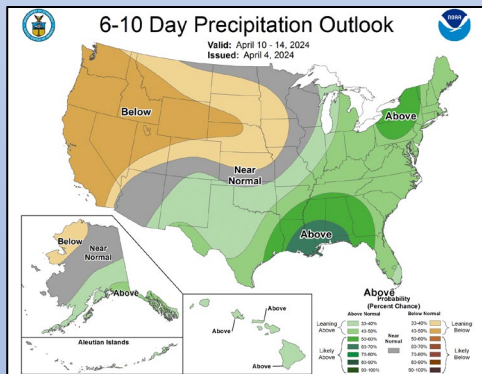
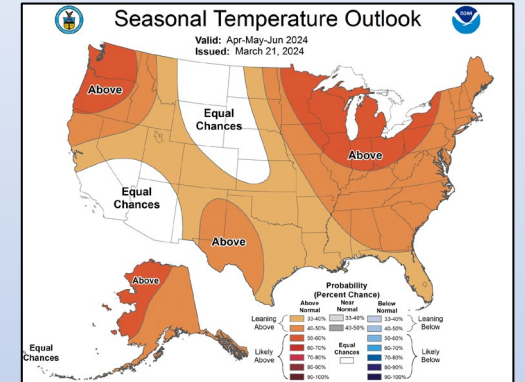
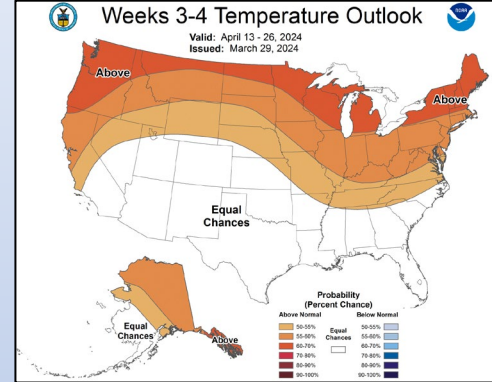
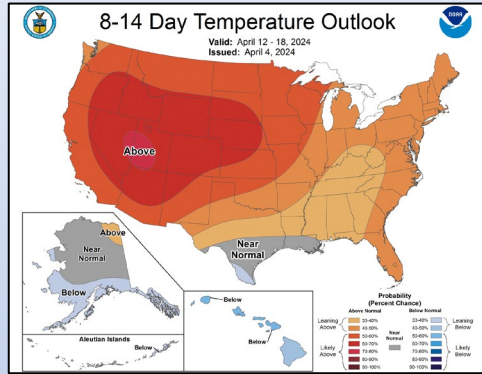
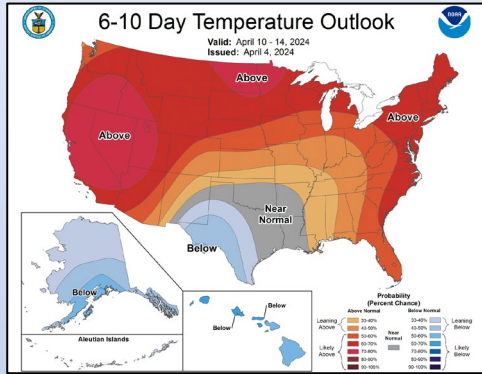
Released 4/4/24 & Location: <https://climate.ncsu.edu/fire/outlooks/>





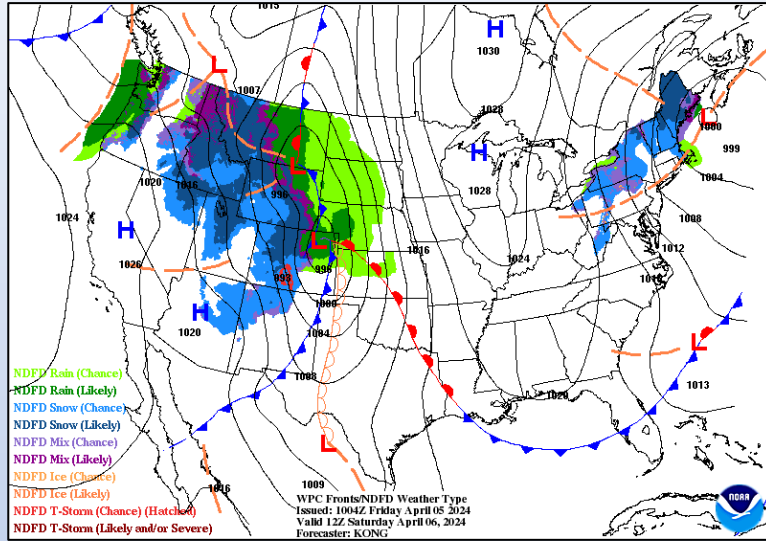
# CPC Temp & Precip Outlook

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

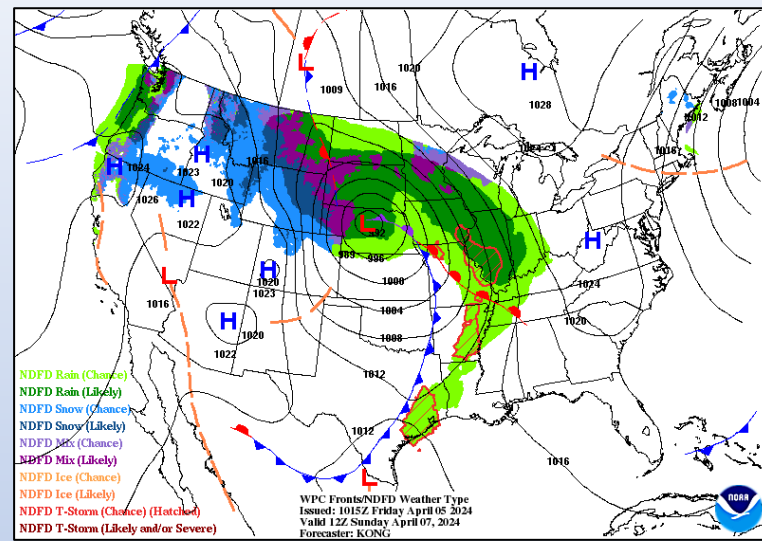


# WPC Forecasted Surface Fronts & Sea-Level Pressures

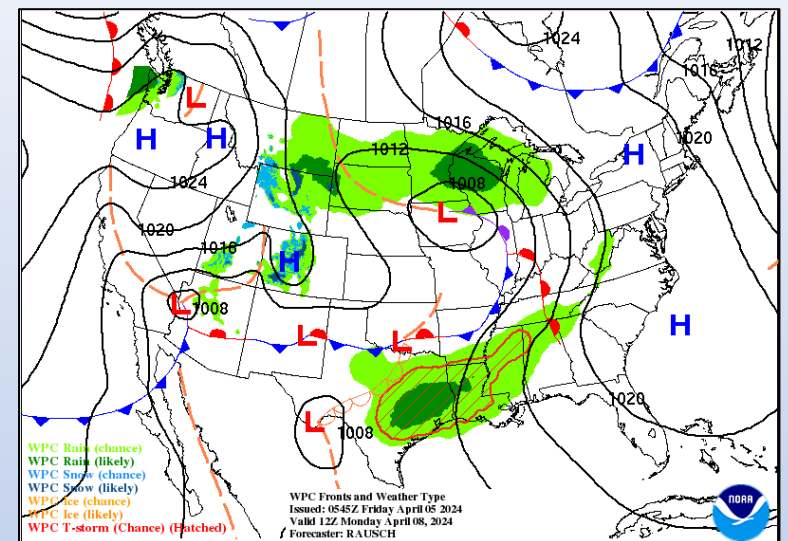
Saturday - 800 am



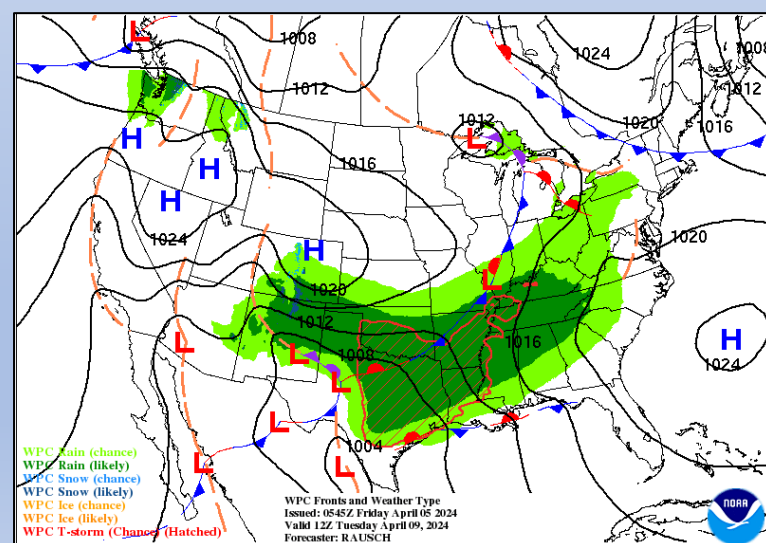
Sunday - 800 am



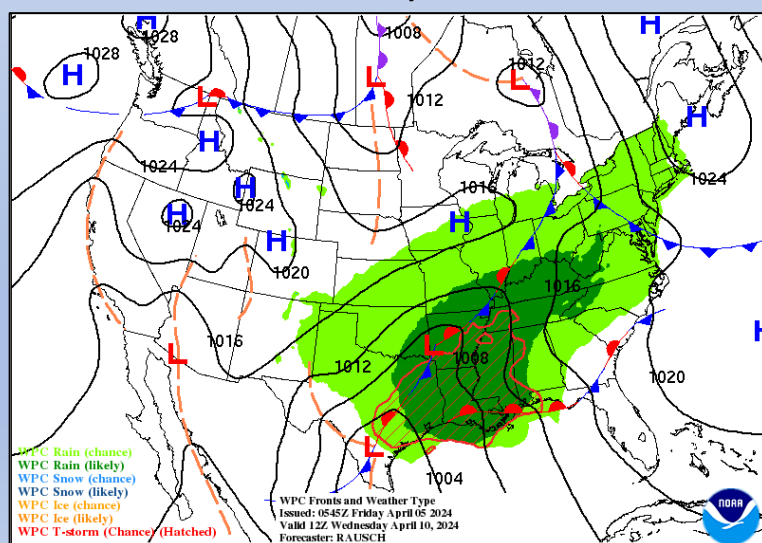
Monday - 800 am



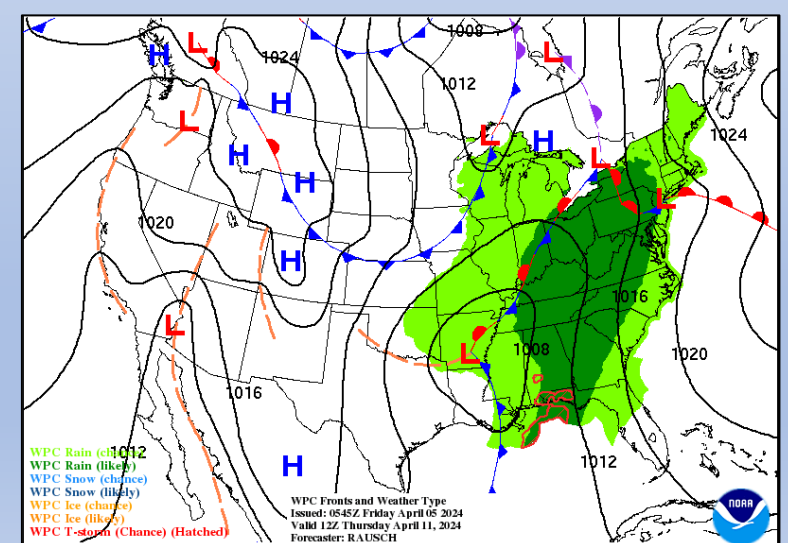
Tuesday - 800 am



Wednesday - 800 am



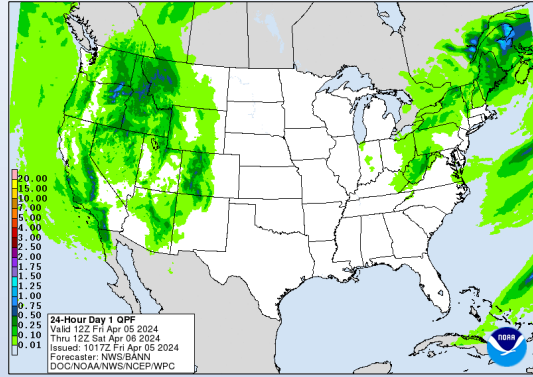
Thursday - 800 am



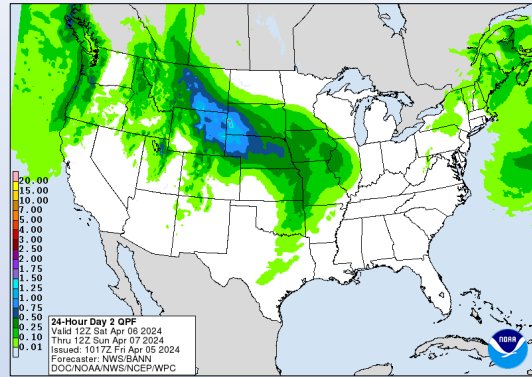
# Quantitative Precipitation Forecast, 7-Day

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

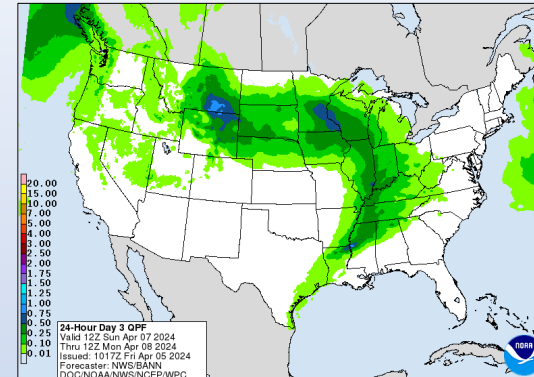
Day - 1



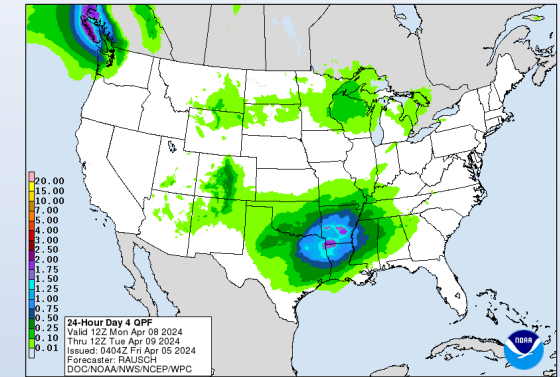
Day - 2



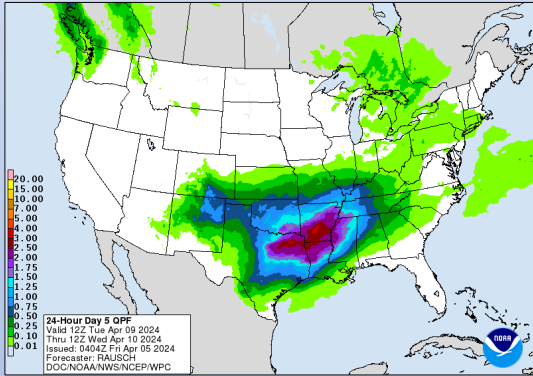
Day - 3



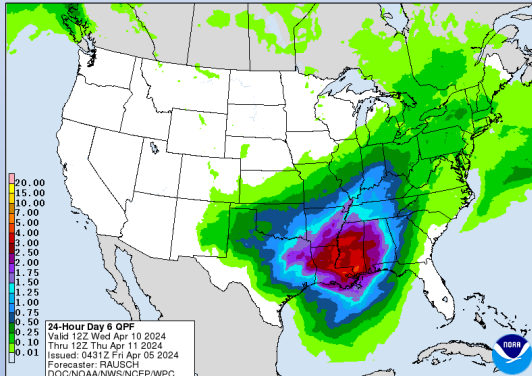
Day - 4



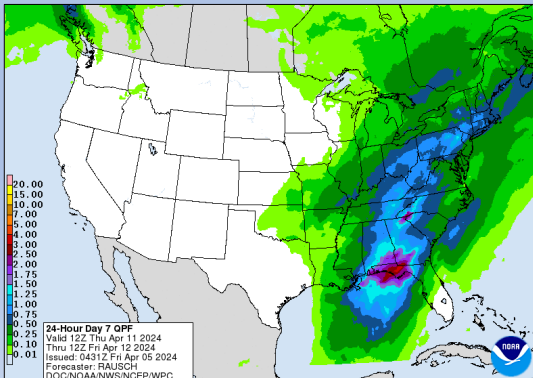
Day - 5



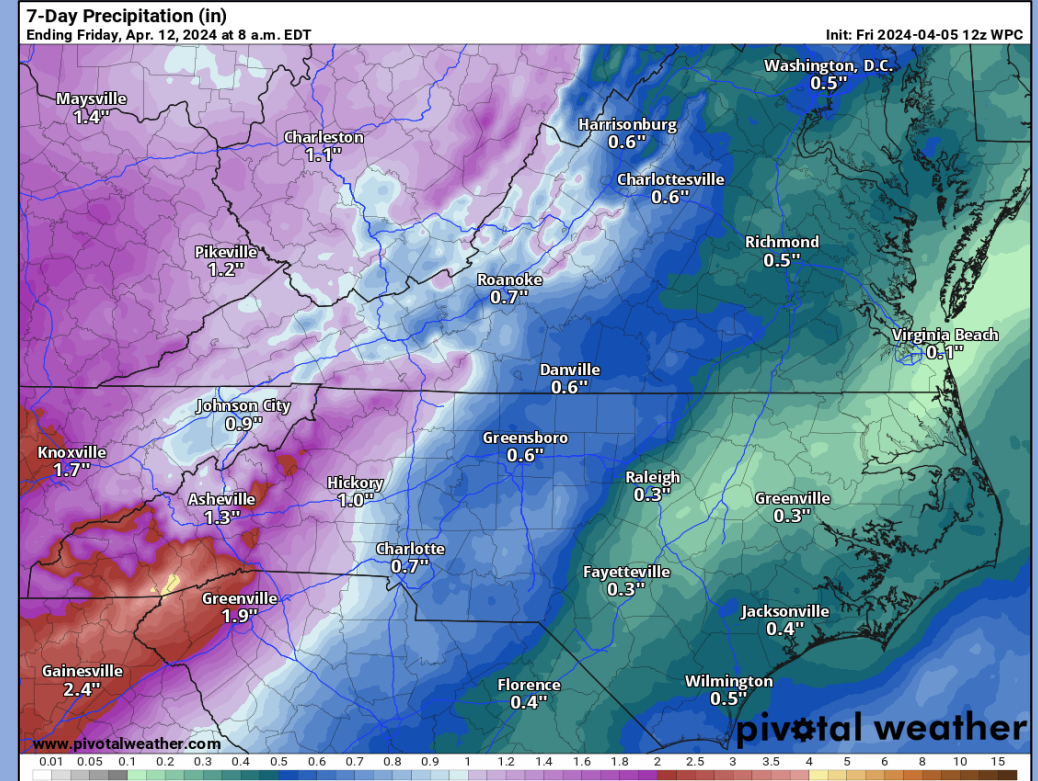
Day - 6



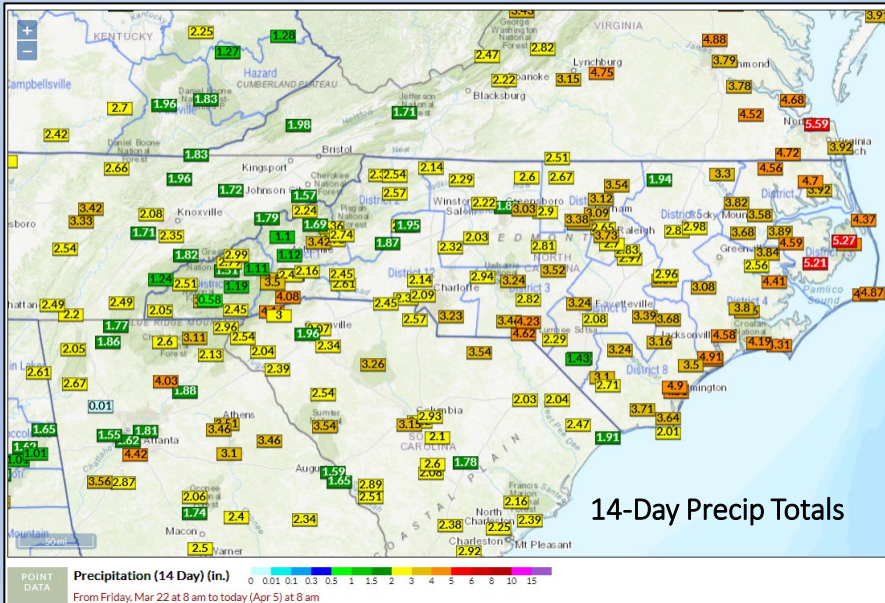
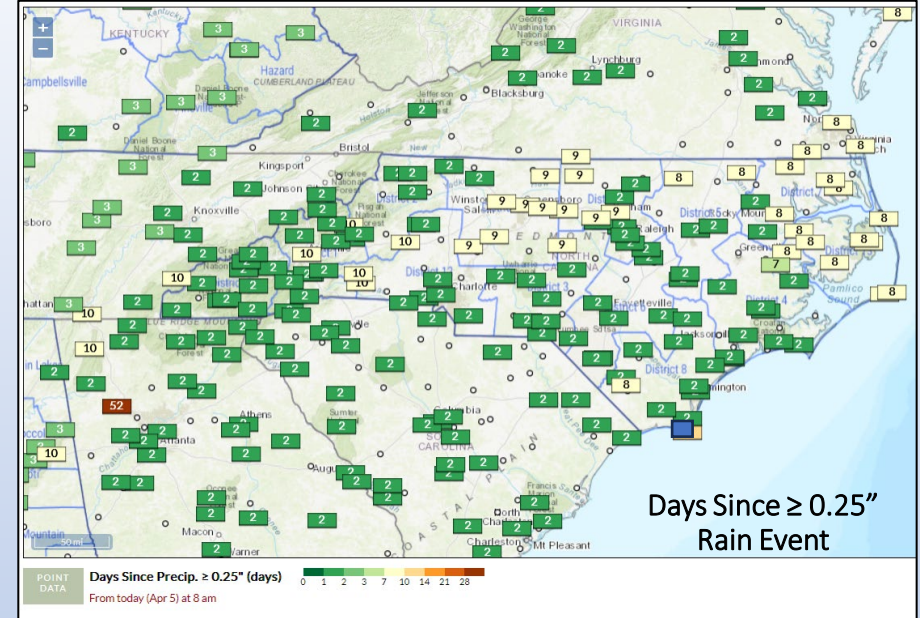
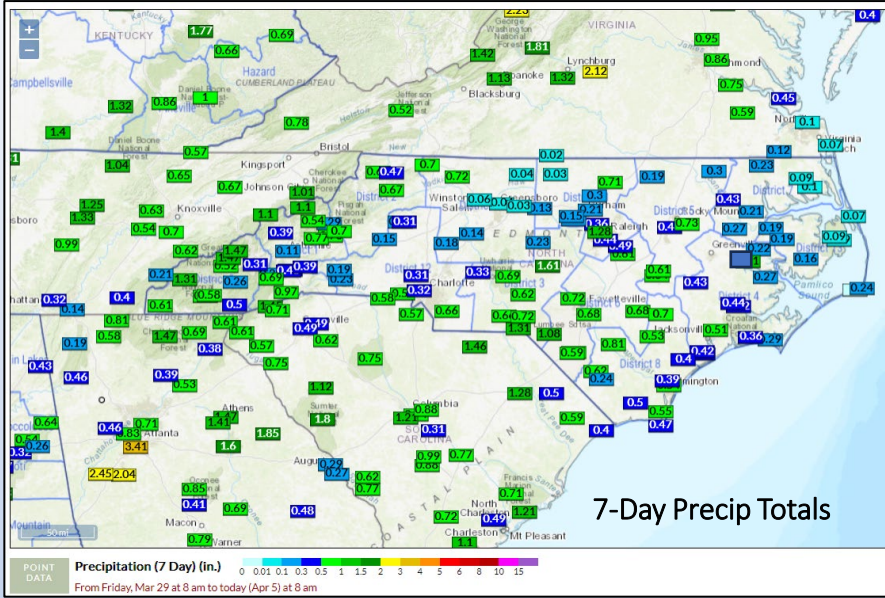
Day - 7



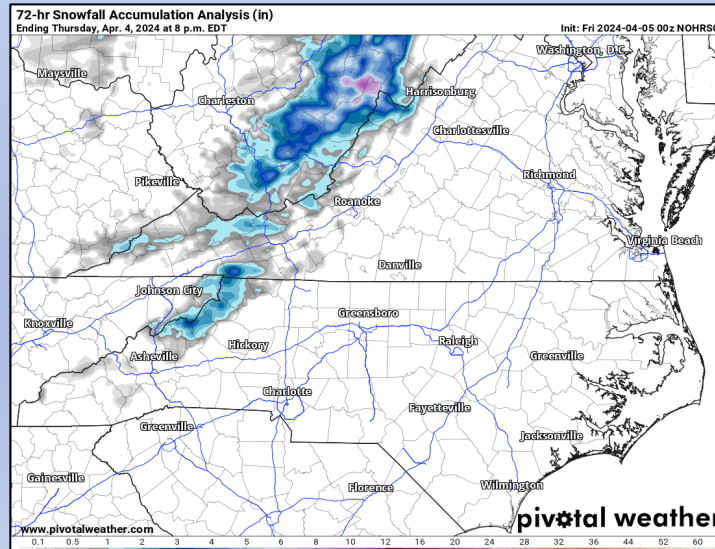
*\*Important to note these values are subject to **significant change** as weather system modeled tracks adjust farther out in time.*



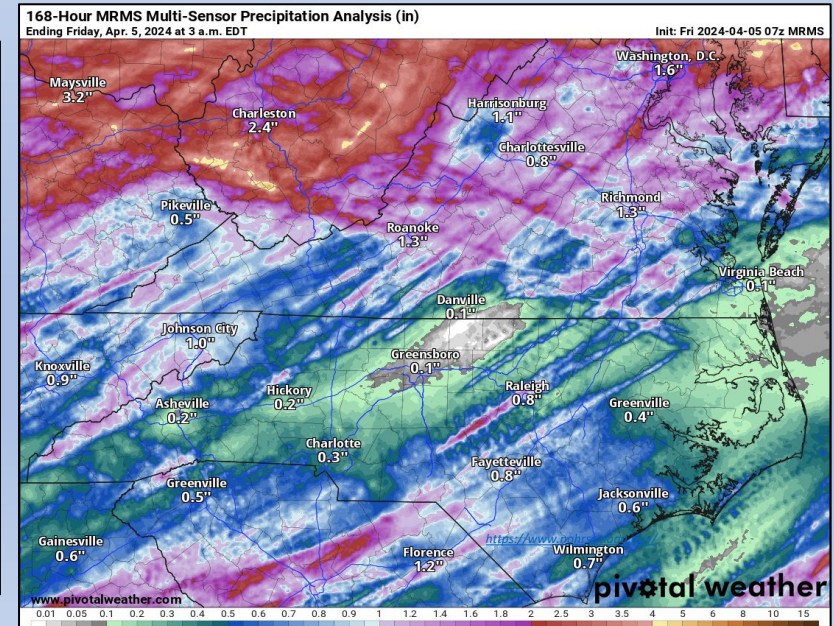
# Observed Precipitation



## 3-Day Estimated Snow Totals

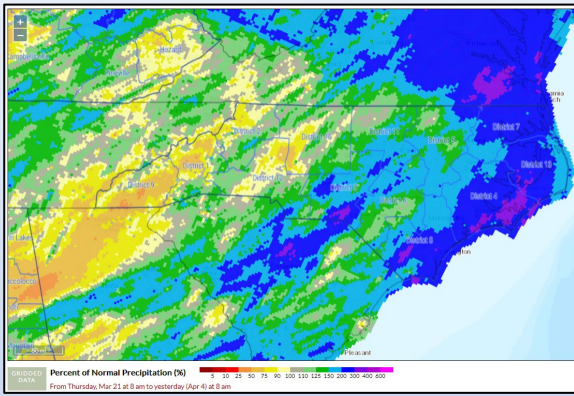


## 7-Day Estimated Rain Totals



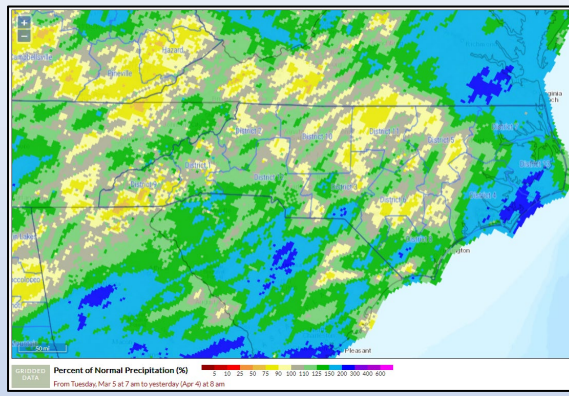
# Percent of Normal Precip & SPI, FWIP (Ending Thursday @ 0800 4/4)

**14-Day % of Normal**



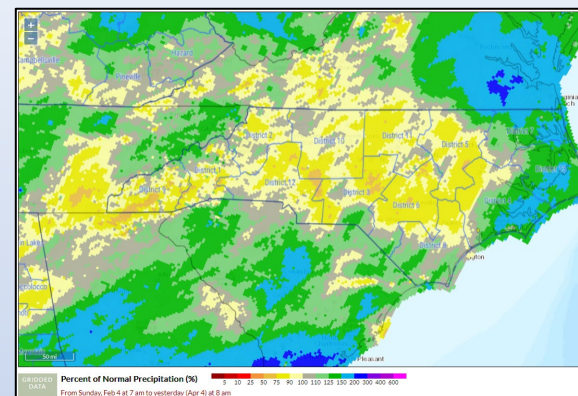
PNP: ~45% of Normal in Central D-9 areas at 14-day Scale

**30-Day % of Normal**



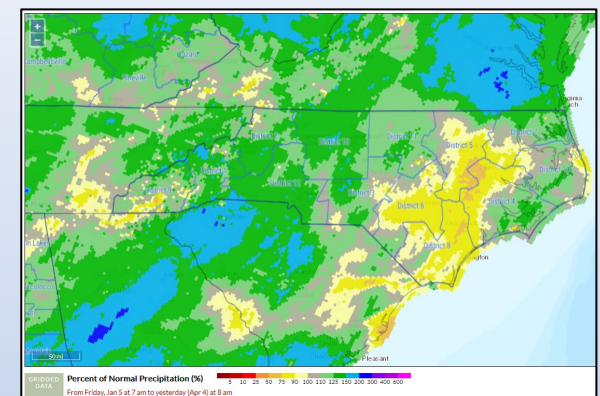
Driest areas at ~75% of normal at 1-Month scale.

**60-Day % of Normal**



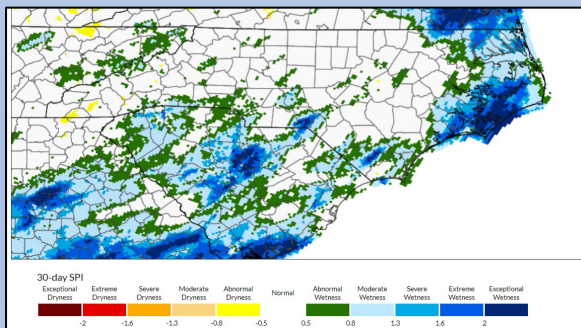
Driest areas at ~65% of normal at 2-Month scale.

**90-Day % of Normal**

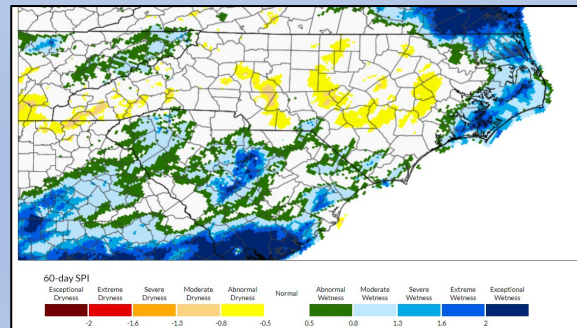


Driest areas ~70% of normal at 3-Month scale.

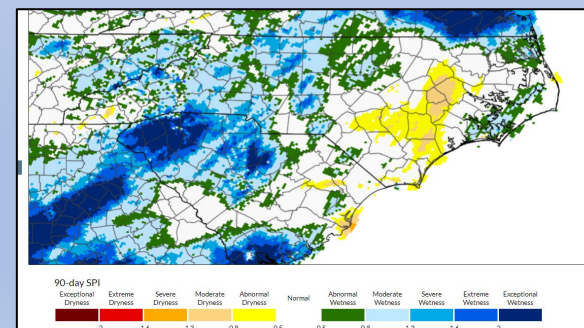
**30-Day SPI**



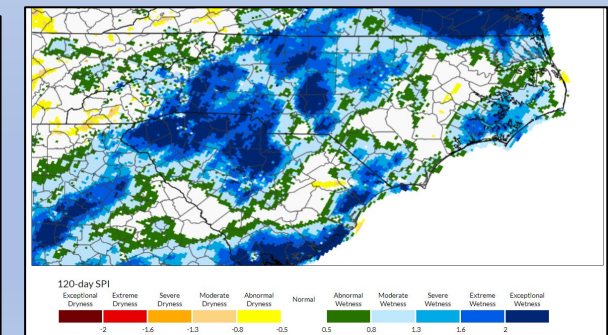
**60-Day SPI**



**90-Day SPI**

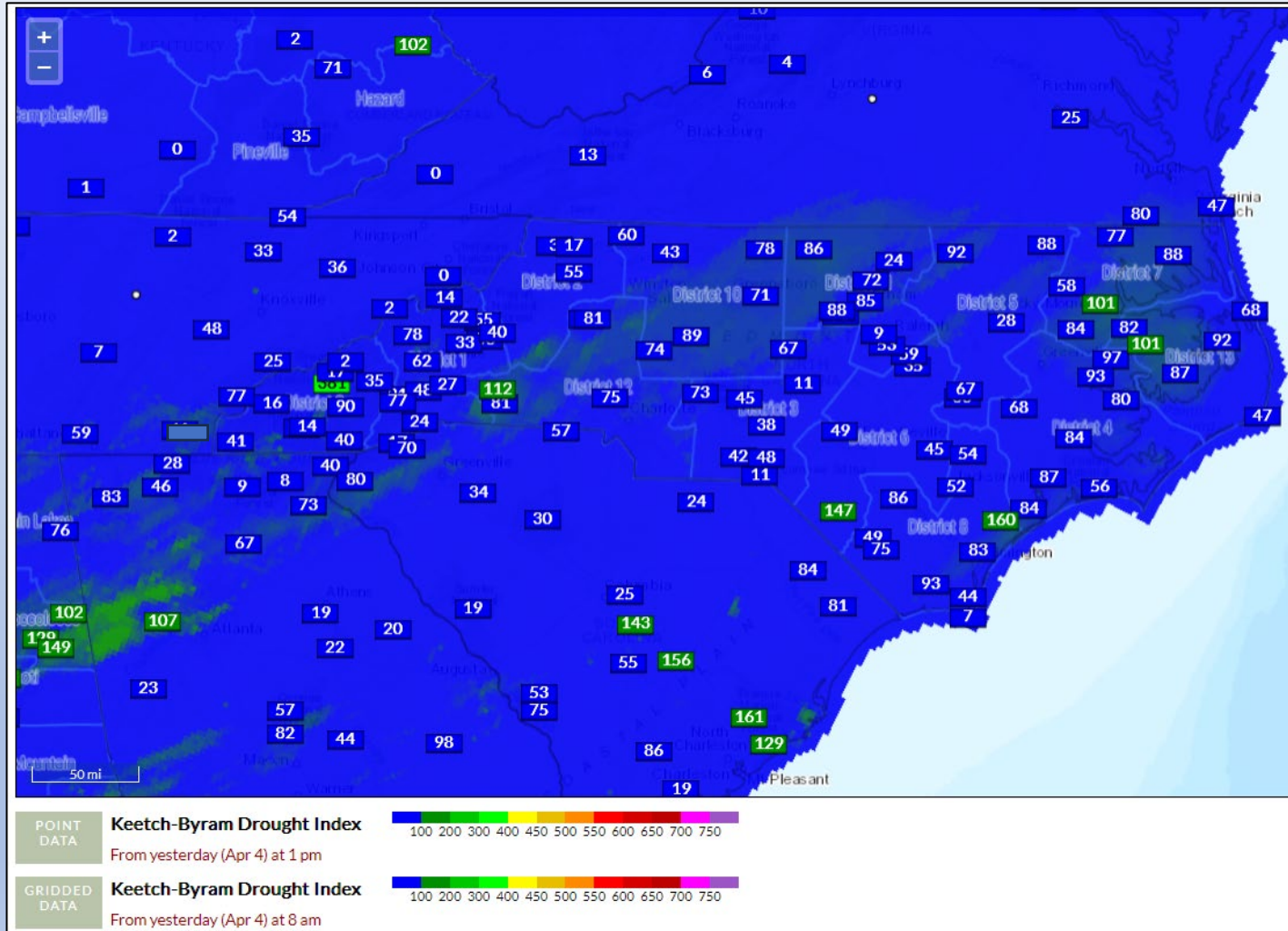


**120-Day SPI**

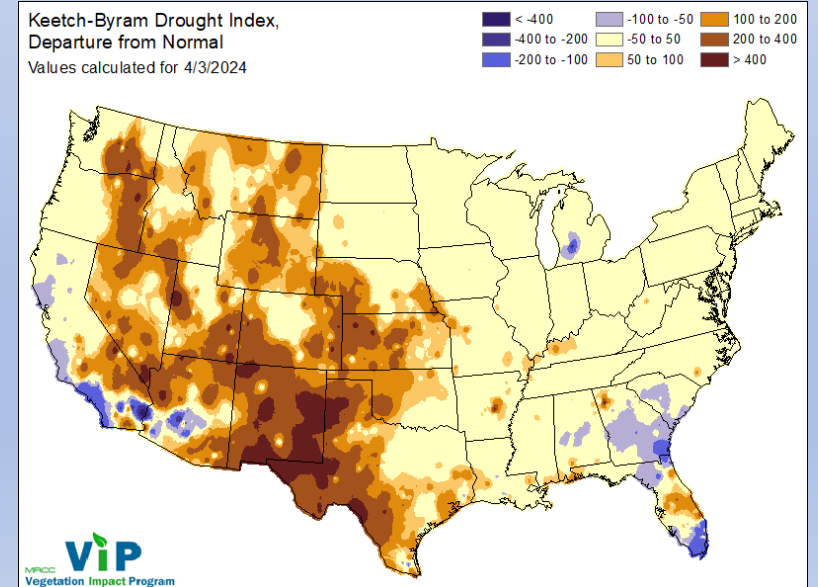
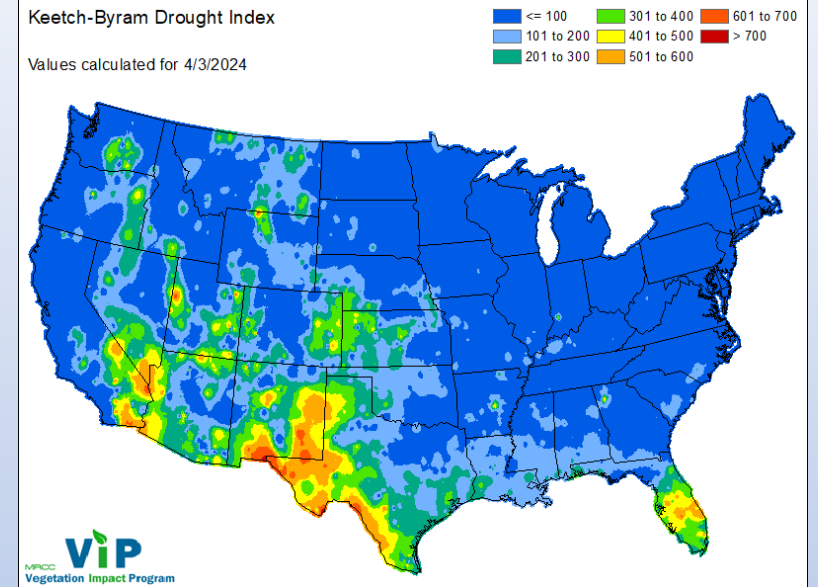


# KBDI - Gridded & Station Points

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



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

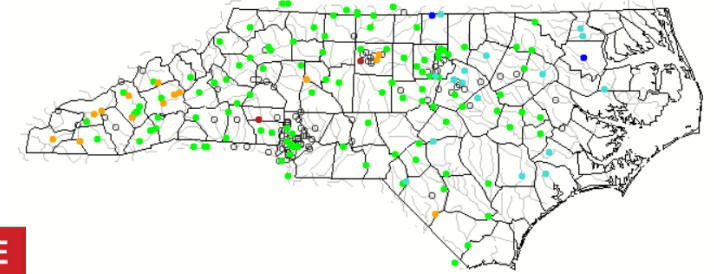


# Drought Situation

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

North Carolina or Water-Resources Regions All Days

Thursday, April 04, 2024



Search USGS streamgage

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

Explanation - Percentile classes							
<span style="color: red;">●</span>	<span style="color: orange;">●</span>	<span style="color: green;">●</span>	<span style="color: cyan;">●</span>	<span style="color: blue;">●</span>	<span style="color: black;">●</span>	<span style="color: gray;">○</span>	
Low	<10 Much below normal	10-24 Below normal	25-75 Normal	76-90 Above normal	>90 Much above normal	High	Not-ranked

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

Note general decline in stream flows in central and southwest mountains.

## North Carolina Drought Update

Created By:

North Carolina  
Drought Management Advisory Council  
[www.ncdrought.org](http://www.ncdrought.org)

NORTH CAROLINA  
CLIMATE OFFICE  
[climate.ncsu.edu](http://climate.ncsu.edu) @NCSCO

NC STATE

USGS

For the assessment period ending **Apr. 2, 2024**  
 From the US Drought Monitor, with input from the NC DMAC

### The Main Takeaway

More heavy rain at the coast last week prevented any degradations, but deficits of 2 to 3 inches remain in parts of eastern North Carolina dating back to January.

### This Week's Summary

While it was another wet week for parts of the Coastal Plain and on-the-ground conditions such as soil moisture and streamflows have improved, the late-winter dryness continues to show in rainfall deficits and drought indices, so improvements have been limited in that region. In addition, last week's totals were less than an inch in Sampson and Cumberland counties.

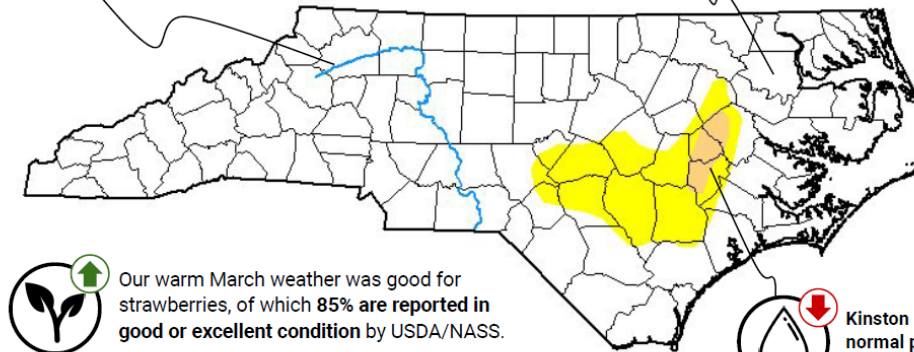
### Rainfall Records

A series of storm systems along the coast made for a record wet March in Hatteras (13.86 inches), Ocracoke (13.01 inches), and Elizabeth City (9.25 inches).

For your local drought status, visit [www.ncdrought.org](http://www.ncdrought.org)

Although weekly rainfall totals were less than half an inch, **W. Kerr Scott Reservoir is holding at its target level.**

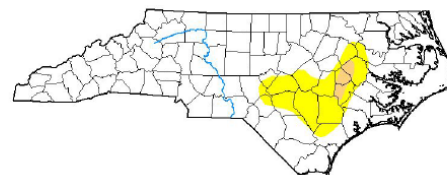
After starting March near record low monthly levels, **streamflows on the Cashie River near Windsor are now at 253% of normal.**



Our warm March weather was good for strawberries, of which **85% are reported in good or excellent condition** by USDA/NASS.

Kinston is **2.78 inches below its normal precipitation** since the beginning of the calendar year.

### Last Week's Drought Status

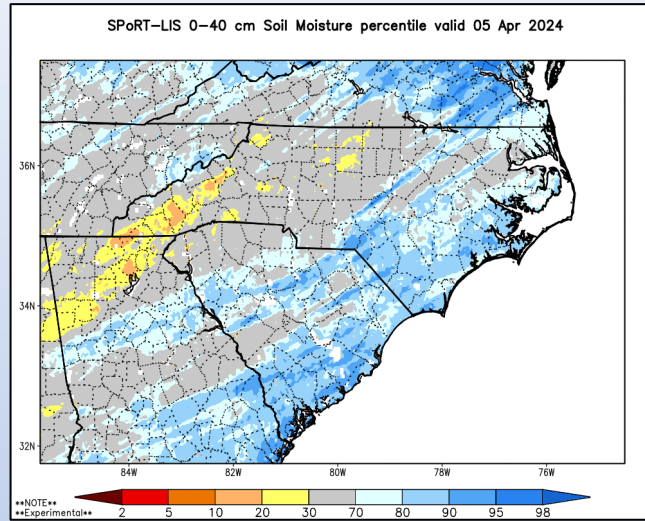


### Statewide Coverage by Category

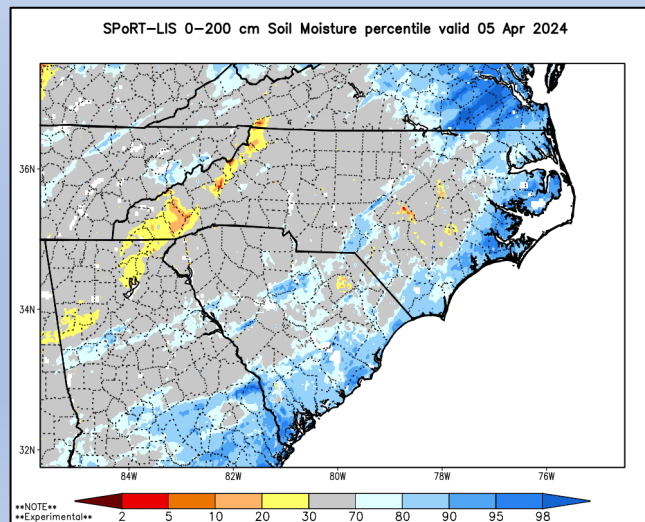
Category	Current Coverage	Change Since Last Week
<b>D0: Abnormally Dry</b>	10.21%	-1.79%
<b>D1: Moderate Drought</b>	1.27%	0.00%
<b>D2: Severe Drought</b>	0.00%	0.00%
<b>D3: Extreme Drought</b>	0.00%	0.00%
<b>D4: Exceptional Drought</b>	0.00%	0.00%

# SPoRT Modeled Relative Soil Dryness

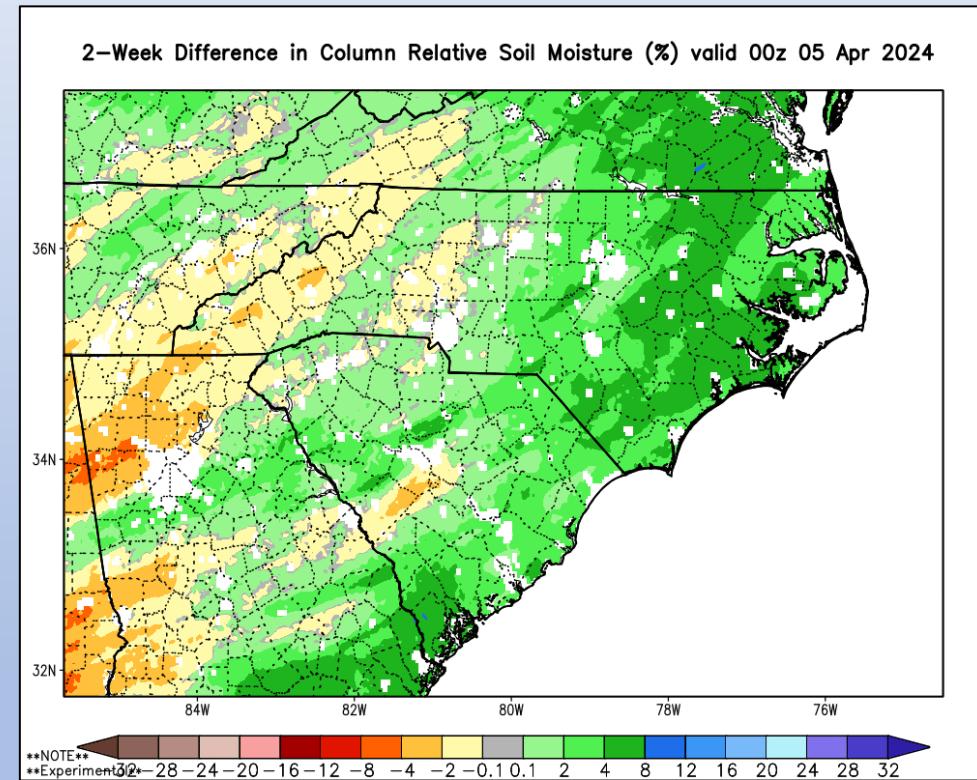
## 0-40 cm Depth



## 0-200 cm Depth



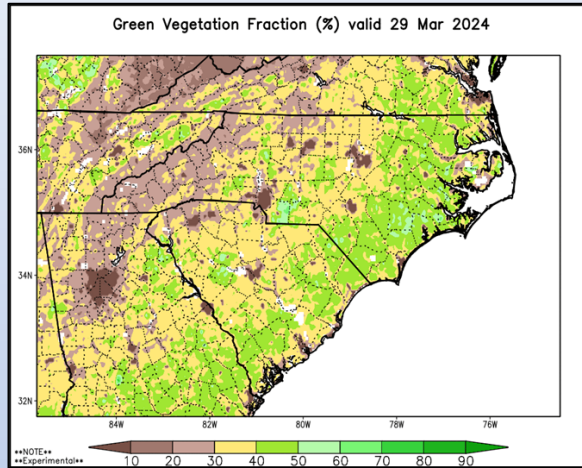
- Note areas of modeled improvement/degradation over the past couple of weeks. Dryness creeping back in to portions of the west. As green-up and evaporative demand increases, expect more rapid changes if rainfall continues to be scattered in nature.



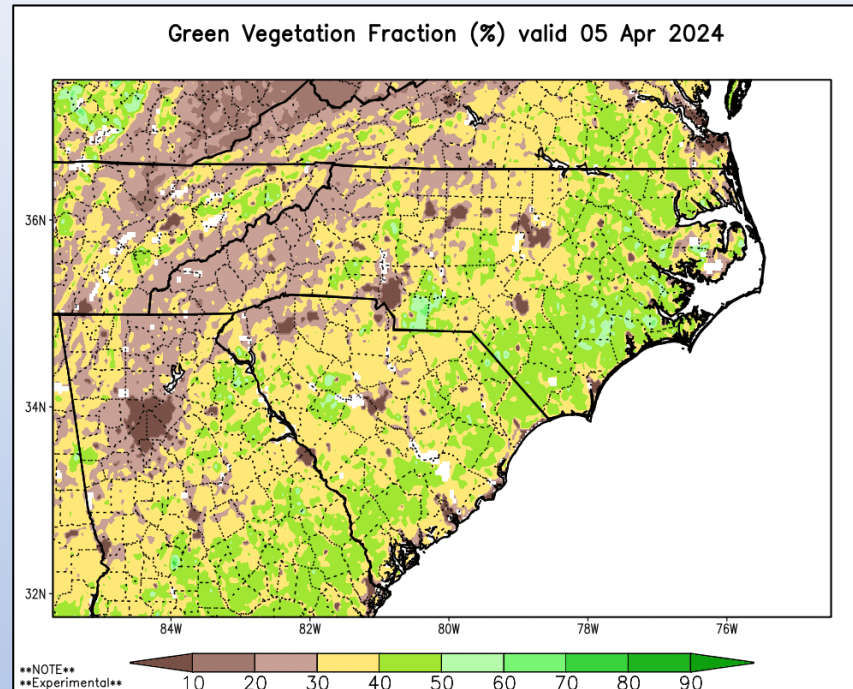


# Green Fraction & Green-Up Anomaly

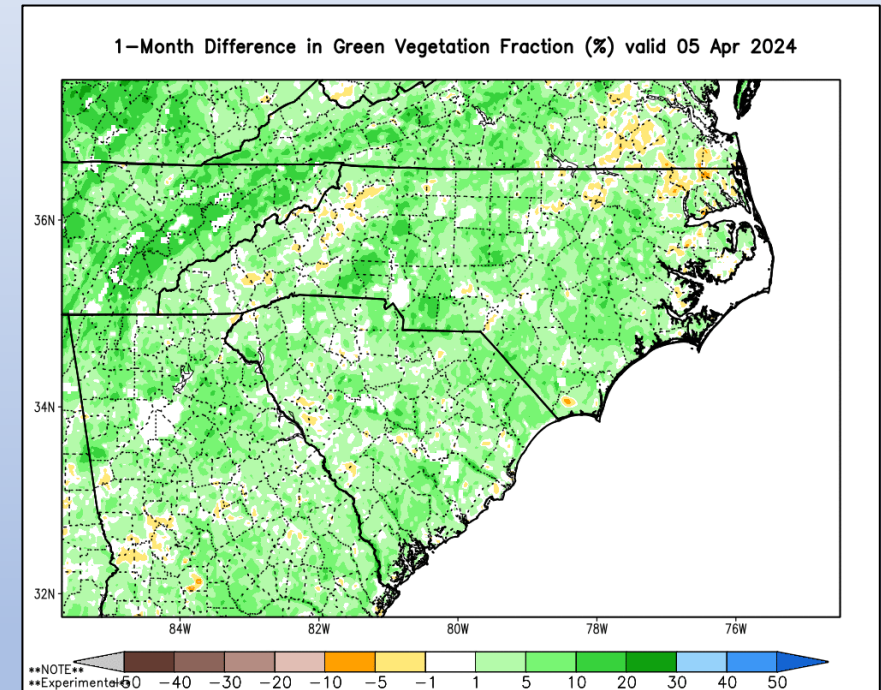
Last Week



Current



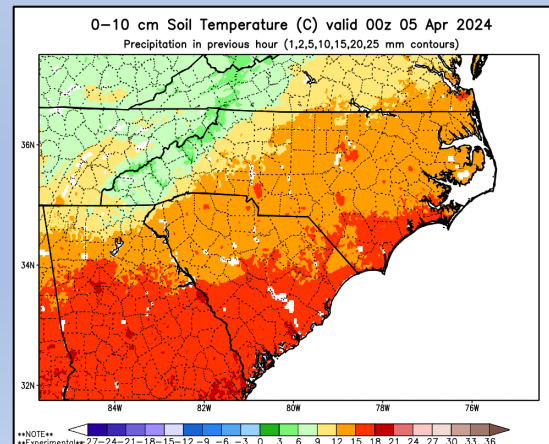
1-Month Change



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\*

Another frost and freeze event looks to occur before the next significant warm up into next week.

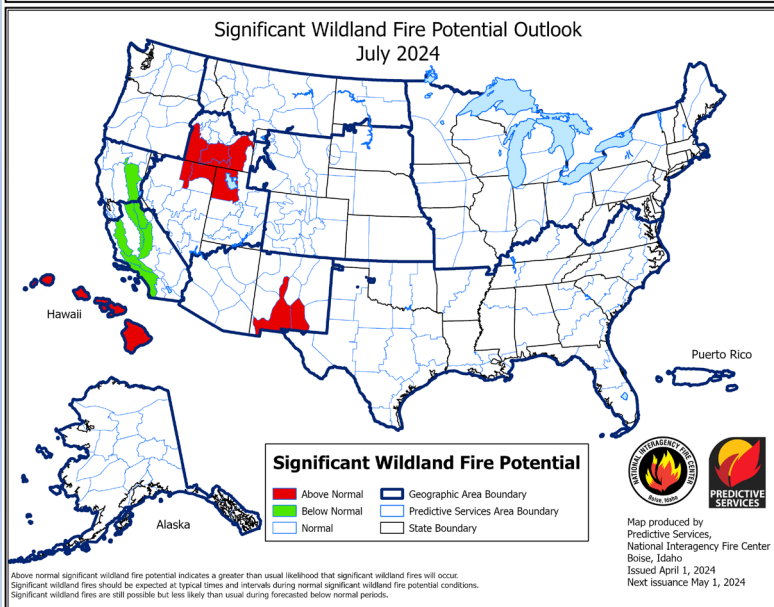
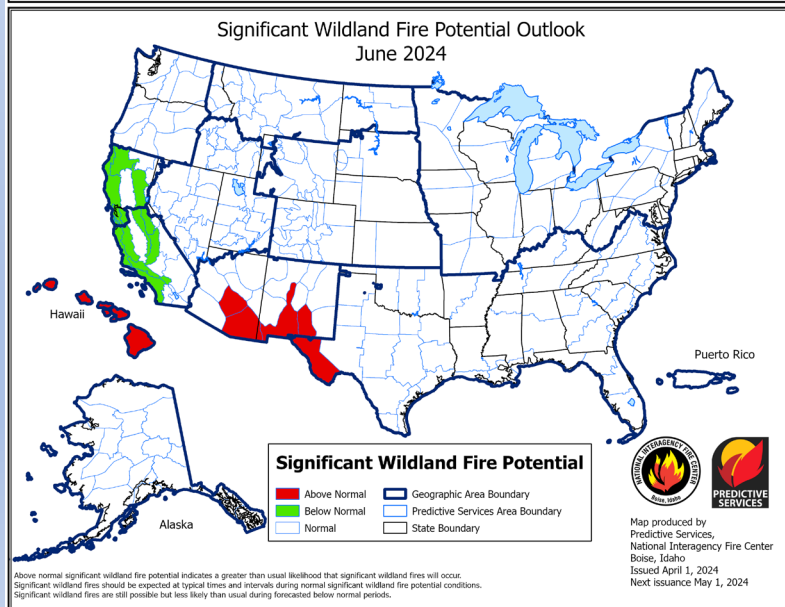
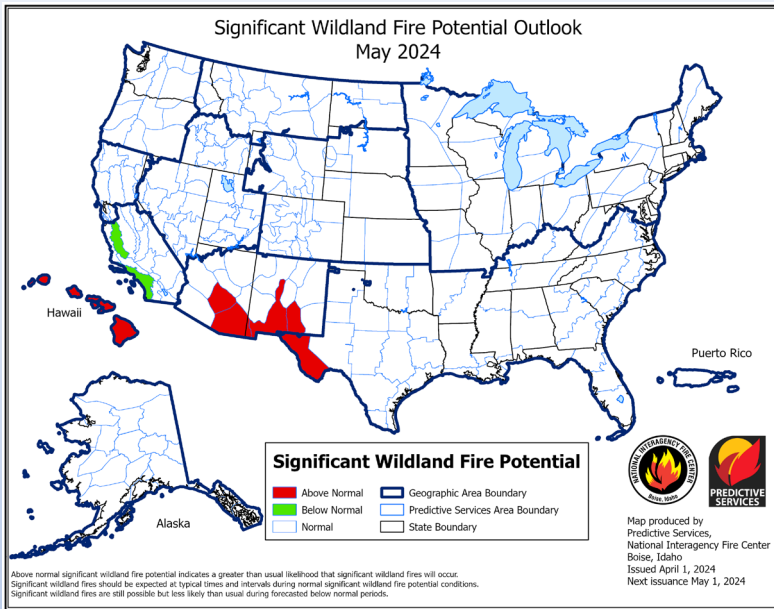
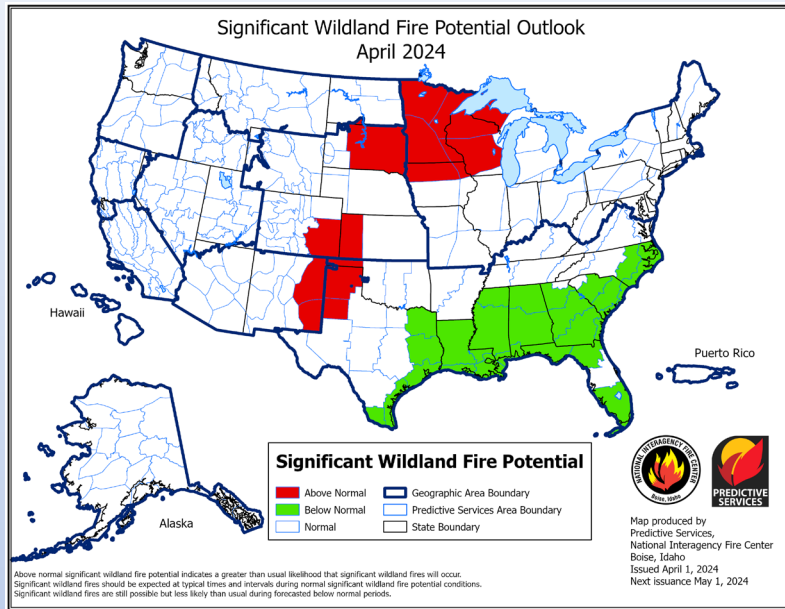
Road shoulder or yard grass greening can also be setback by rapid depletion of shallow plant available water, if rainfall deficits build in combination with arrival of Spring.



Many 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.

# Significant Wildland Fire Potential Outlook:

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



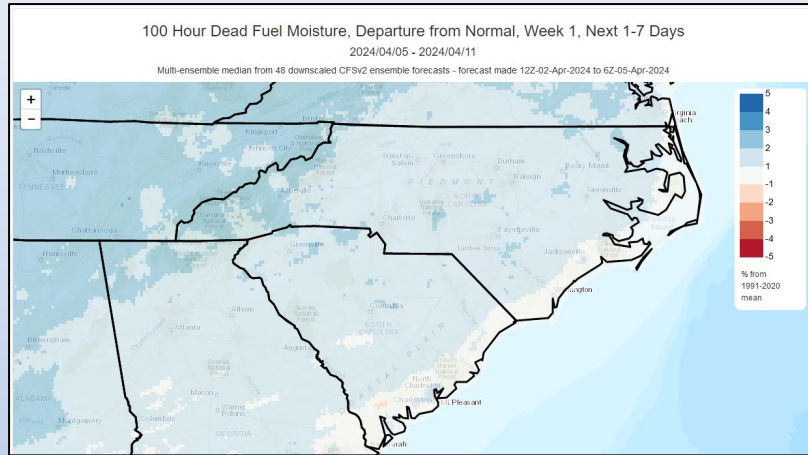
*A significant fire is one that requires resources from outside the district (other than aviation). IA potential is based more on shorter term weather factors. Just a few days of dry weather can increase IA activity considerably as we have seen this year.*

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

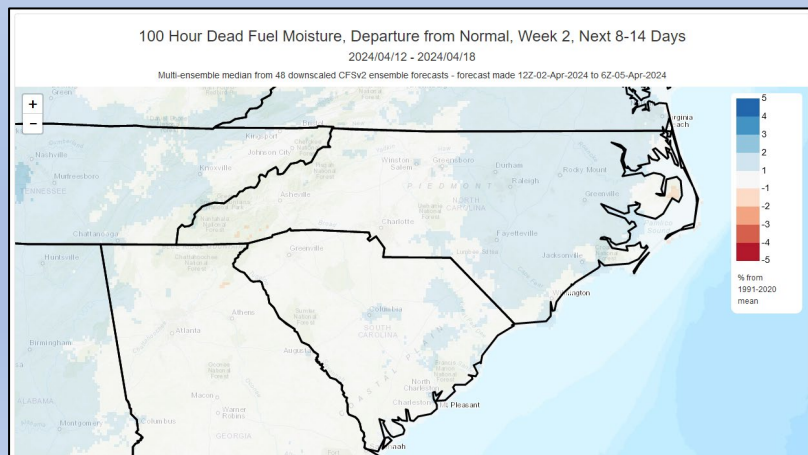
# Modeled Departure from Normal by Week: 100-hr Fuels

*Output relies on experimental forecast outputs and is subject to change*

## Week-1



## Week-2



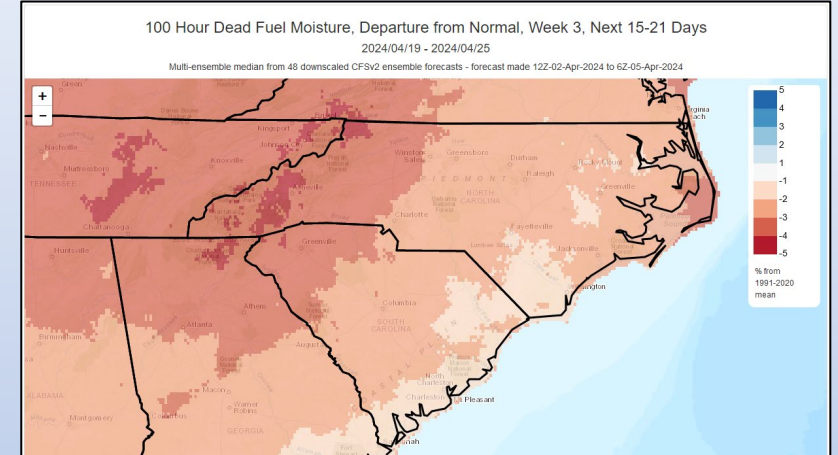
This output can provide insight into general drying trends and potential impacts to overall fire danger, especially prior to full green-up.

Note near normal conditions for Weeks 1-2. Weeks 3-4 show potential for fuel moistures to be significantly drier, especially west.

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

