

Weekly Fire Danger Assessment NCFS - Region **THREE**

For Time Period:

Saturday (4/1/23) to Friday (4/7/23)

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NC Forest Service*

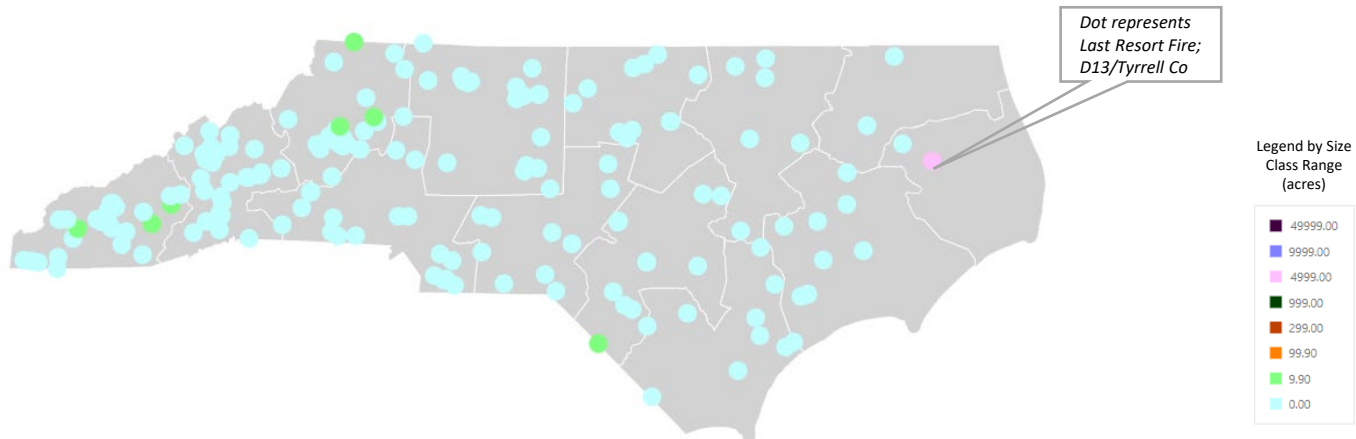
Past Week's Signal 14 Activity

NCFS - Region 3			
Previous 7-Day Fire Activity (Does Not Include Federal Ownerships)			
Data Source:	Signal 14 Regional Activity Summary Report (Signal 14 is a snapshot in time)		
Date Range:	3/24 - 3/30, 2023		
	Type	Number	Acres
	Wildfires:	77	295.6
	Prescribed Fires (State & Private Lands):	7	450

fiResponse Incident Location Map (for general context)

Date Range: 3/24 – 3/30, 2023

Report: Business Intelligence Module, Response Trends Map



Current and Forecasted Fire Danger Conditions by FDRA

R3

Regional Comments for this Week – R3

- 100-hr fuels are beginning to contribute to fire behavior and starting to consume. (Also note FF+ Graphs)
- 1000-hr and duff seem to be holding well, so far.
- No changes in tactics so far.
- Greenup still about two weeks ahead in the lower elevations.
- Big wind event with low RH's tomorrow. Could have a big impact on fire behavior & initial attack if we don't get a lot of precip tomorrow morning.

Important notes for next slide group:

A. Current ERC, 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

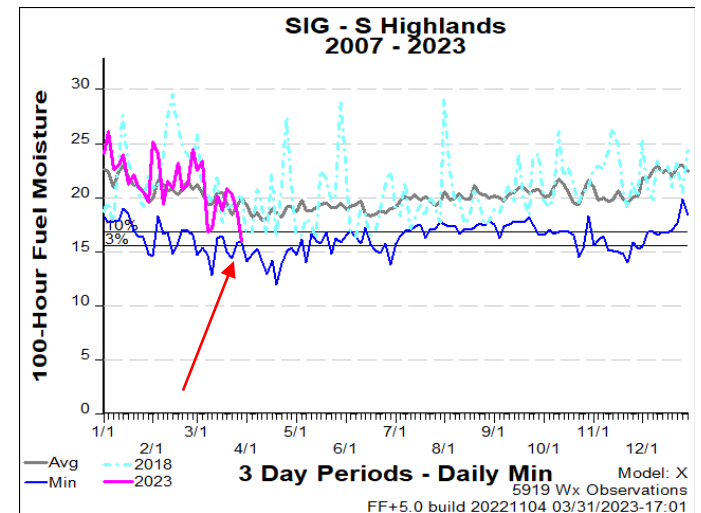
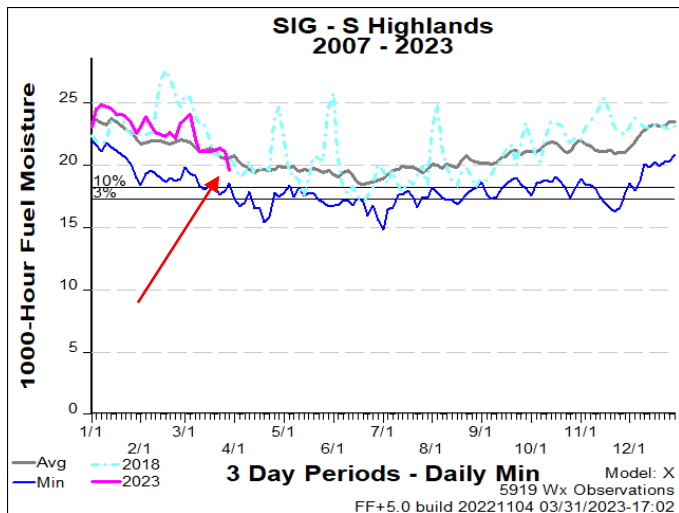
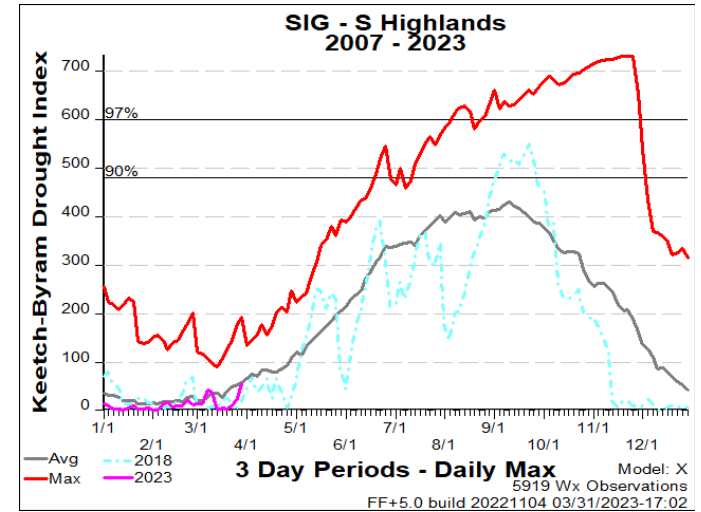
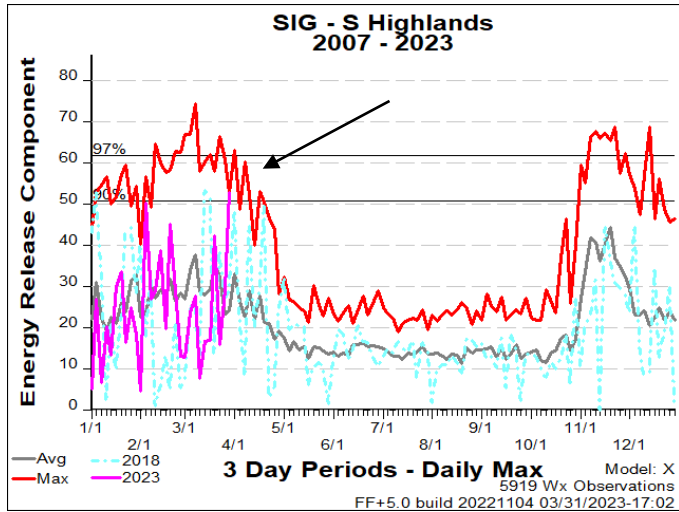
Dead fuel moisture forecast values are grouped into three categories based on historical percentiles, assessed using the FF+ All Days filter through 2021:

- 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.

Region Specific – 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	SAT 01-Apr	SUN 02-Apr	MON 03-Apr	TUE 04-Apr	WED 05-Apr	THU 06-Apr	FRI 07-Apr
Avg. Max. Temp. (°F)	68	63	62	73	74	68	65
Avg. Min. Humidity (%)	31	28	51	57	56	55	56
Avg. 20' Wind Speed (mph)	19	7	6	6	8	6	6
Avg. Wind Direction*	W	WNW	SSE	S	S	WSW	E
Avg. Probability of Precip. (%)	49	11	31	28	43	38	47
Days Since a Wetting Rain**	0.0	1.0	2.0				
Forecast ERC (Fuel Model X)	43.6	51.3	53.1	28.3	24.5	20.2	28.0
Forecast BI (Fuel Model X)	214.3	115.0	137.4	91.7	97.7	70.0	85.0
Forecast IC (Fuel Model X)	12.6	8.7	11.6	5.1	6.4	4.4	5.9
Forecast 100-Hr. FMC	17.3	18.5	18.0	17.8	18.9	19.8	20.1
Forecast 1000-Hr. FMC	23.1	22.8	22.6	22.3	22.0	21.9	21.7
KBDI	66.3						

****Saturday's output values dependent upon actual rainfall received.**

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

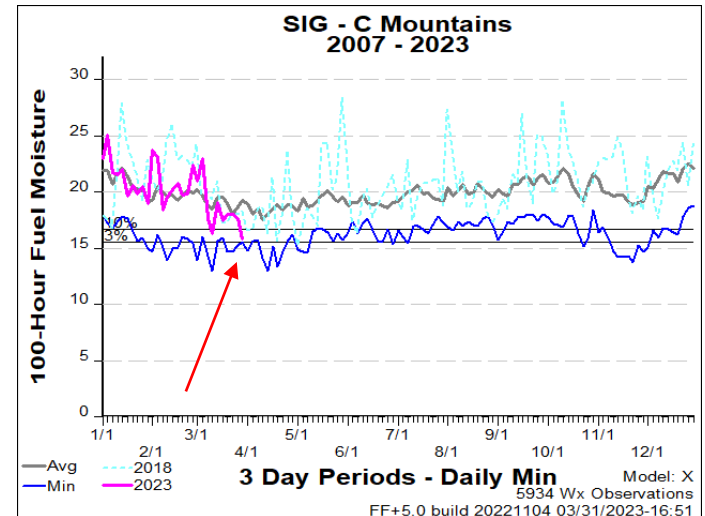
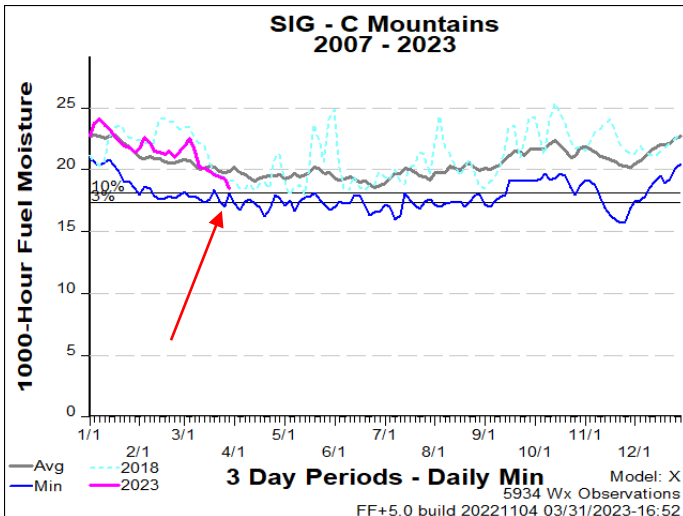
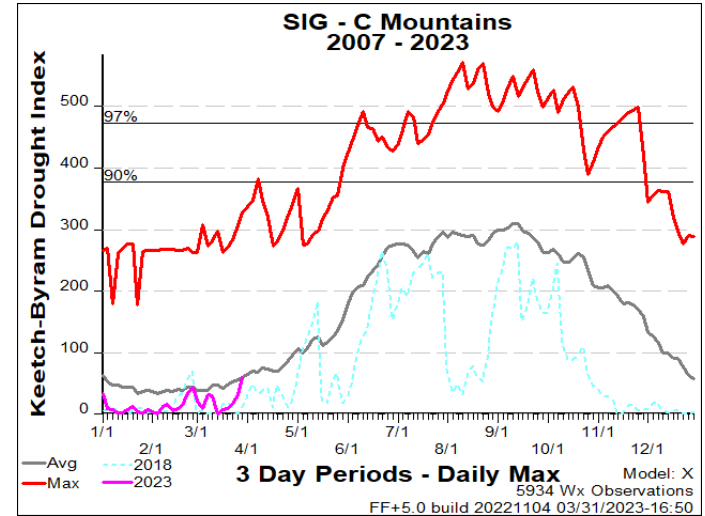
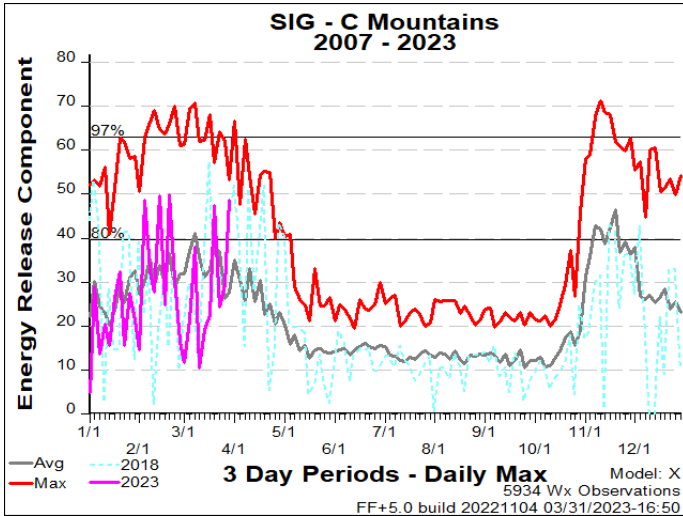
Values in the table above are averages from 3 stations in this FDRA:

- 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

Region Specific – 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	SAT 01-Apr	SUN 02-Apr	MON 03-Apr	TUE 04-Apr	WED 05-Apr	THU 06-Apr	FRI 07-Apr
Avg. Max. Temp. (°F)	71	62	67	77	77	71	67
Avg. Min. Humidity (%)	25	27	40	46	49	47	49
Avg. 20' Wind Speed (mph)	20	10	7	7	9	8	7
Avg. Wind Direction*	WSW	WNW	S	S	S	W	SE
Avg. Probability of Precip. (%)	62	9	23	24	36	36	45
Days Since a Wetting Rain**	0.0	1.0	2.0				
Forecast ERC (Fuel Model X)	36.1	45.0	40.6	22.0	18.0	15.4	17.5
Forecast BI (Fuel Model X)	174.0	95.4	112.8	67.9	61.3	42.7	44.3
Forecast IC (Fuel Model X)	13.9	8.4	10.1	6.0	6.2	3.9	3.8
Forecast 100-Hr. FMC	16.3	17.2	17.0	16.7	17.3	18.2	18.7
Forecast 1000-Hr. FMC	21.8	21.6	21.5	21.3	21.1	21.1	20.9
KBDI	78.0						

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 [NDFRS Forecast](#) product does not include precipitation amounts, which are used to adjust KBDI from day to day

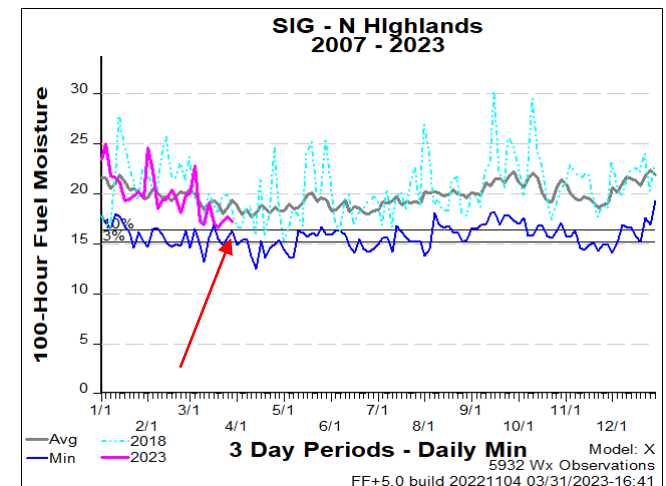
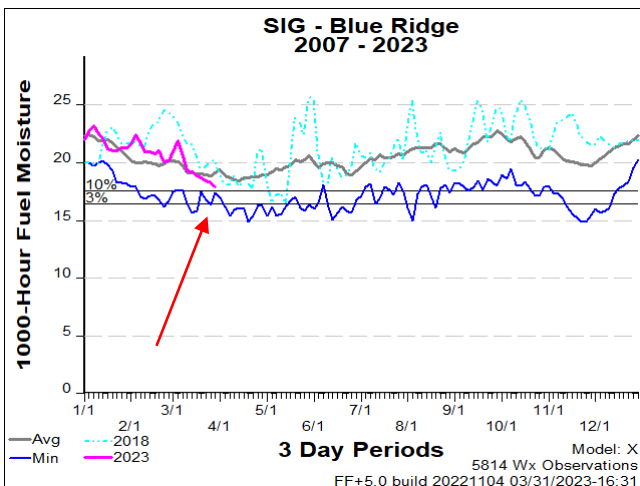
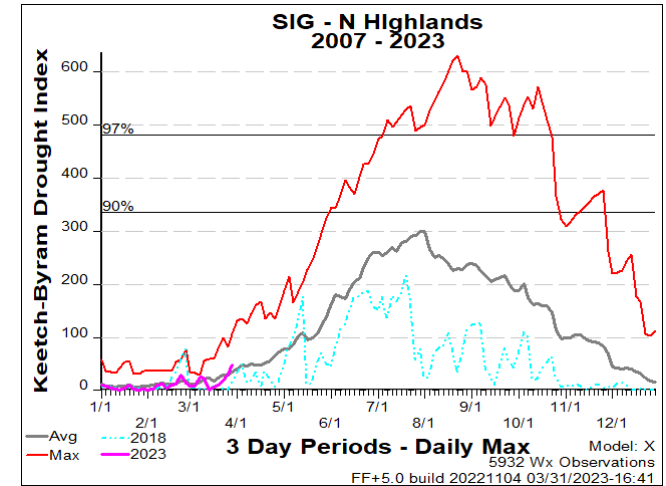
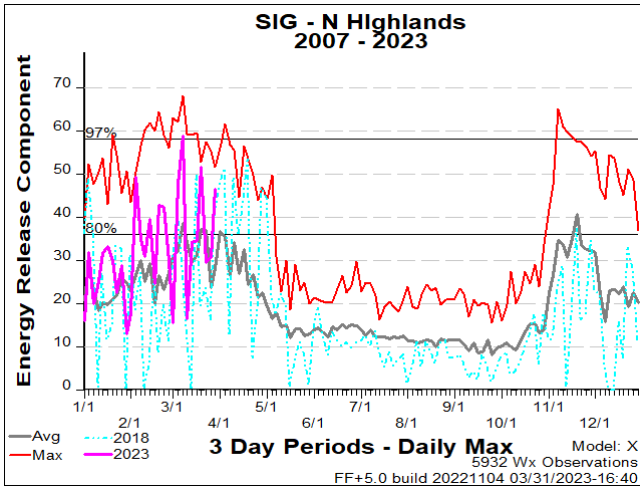
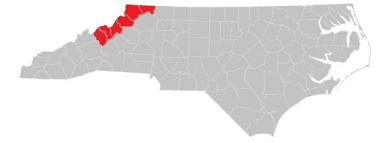
Values in the table above are averages from 3 stations in this FDRA:

- 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

Region Specific – 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	SAT 01-Apr	SUN 02-Apr	MON 03-Apr	TUE 04-Apr	WED 05-Apr	THU 06-Apr	FRI 07-Apr
Avg. Max. Temp. (°F)	66	57	62	72	73	66	58
Avg. Min. Humidity (%)	26	30	41	51	54	45	50
Avg. 20' Wind Speed (mph)	25	15	9	9	10	10	9
Avg. Wind Direction*	WSW	WNW	SSW	SSW	SSW	W	SSW
Avg. Probability of Precip. (%)	84	3	20	25	38	38	45
Days Since a Wetting Rain**	0.0	1.0	2.0				
Forecast ERC (Fuel Model X)	33.4	44.4	42.3	29.5	19.9	19.8	30.9
Forecast BI (Fuel Model X)	158.3	99.2	118.0	90.6	77.6	69.0	87.7
Forecast IC (Fuel Model X)	13.7	9.2	10.5	6.9	5.8	5.4	6.7
Forecast 100-Hr. FMC	17.1	17.4	17.0	16.8	17.2	18.0	18.5
Forecast 1000-Hr. FMC	21.2	21.0	20.9	20.7	20.7	20.6	20.3
KBDI	53.0						

Data Source:

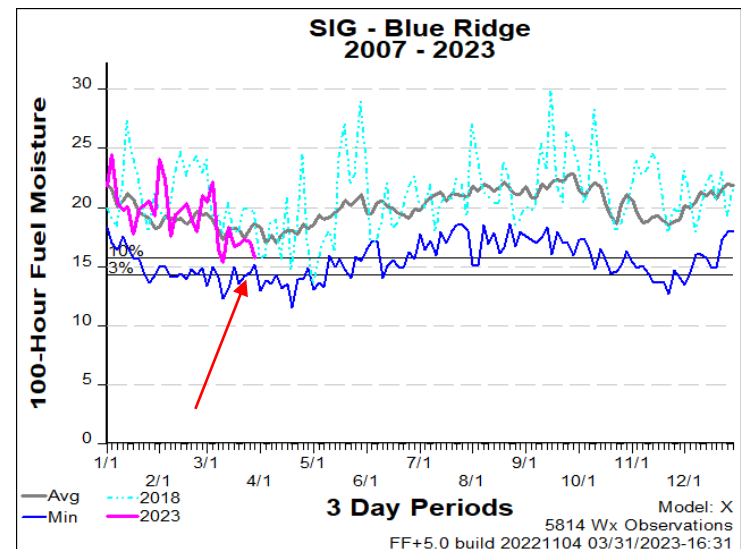
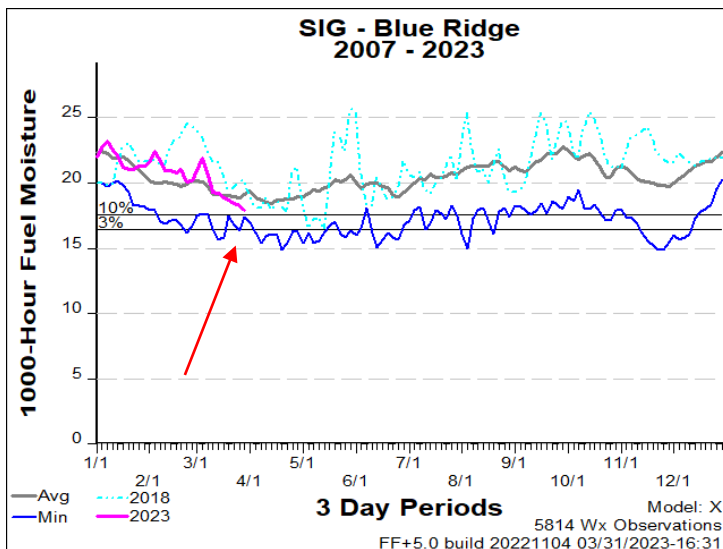
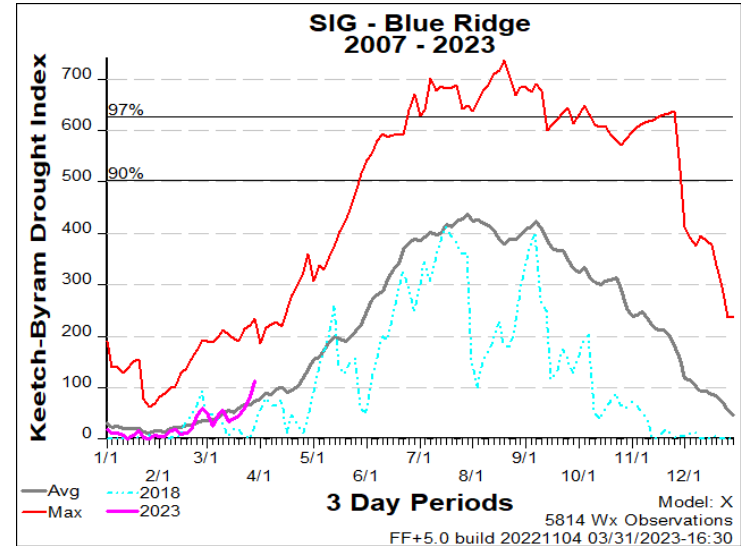
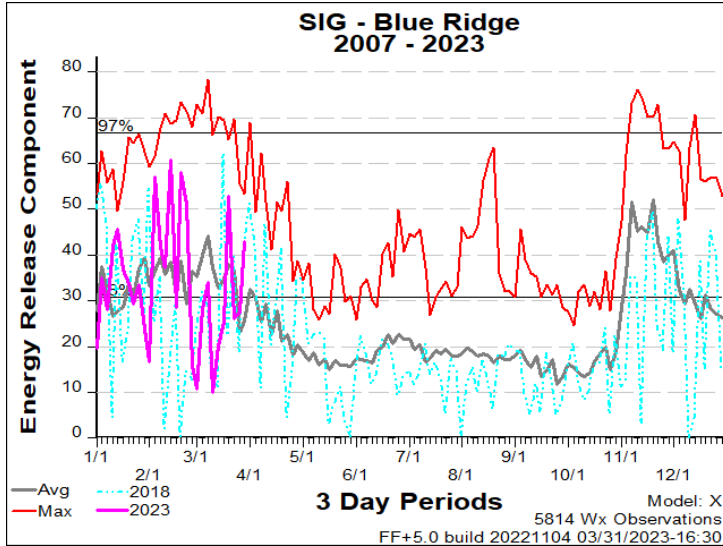
- Weather forecasts come from the National Weather Service's [Digital Forecast Database](#). The wind speed and direction, and probability of precipitation, are calculated as averages of the 1 am, 7 am, 1 pm, and 7 pm forecasts. The 20-foot wind speed is estimated from the 10-meter forecast using the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

Region Specific – 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	SAT 01-Apr	SUN 02-Apr	MON 03-Apr	TUE 04-Apr	WED 05-Apr	THU 06-Apr	FRI 07-Apr
Avg. Max. Temp. (°F)	73	63	66	75	78	73	63
Avg. Min. Humidity (%)	24	29	41	51	53	46	51
Avg. 20' Wind Speed (mph)	18	9	6	6	8	8	7
Avg. Wind Direction*	WSW	W	SW	SW	SSW	W	E
Avg. Probability of Precip. (%)	78	4	19	20	30	32	41
Days Since a Wetting Rain**	0.0	1.0	2.0				
Forecast ERC (Fuel Model X)	44.6	53.3	46.2	33.2	23.0	25.2	32.8
Forecast BI (Fuel Model X)	188.1	90.9	126.1	90.2	79.0	70.4	81.4
Forecast IC (Fuel Model X)	16.2	9.9	12.8	7.7	6.2	6.4	7.4
Forecast 100-Hr. FMC	17.4	17.3	16.1	15.7	17.6	18.7	18.0
Forecast 1000-Hr. FMC	17.5	17.4	17.3	17.2	17.1	17.4	17.8
KBDI	121.3						

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.

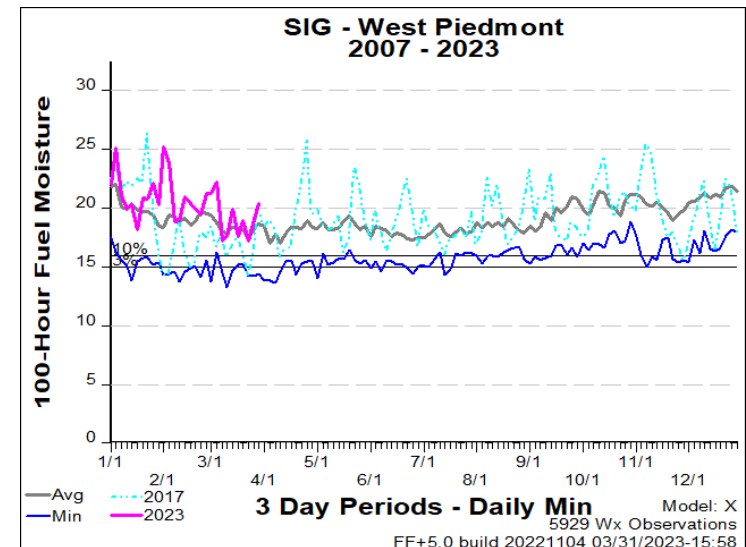
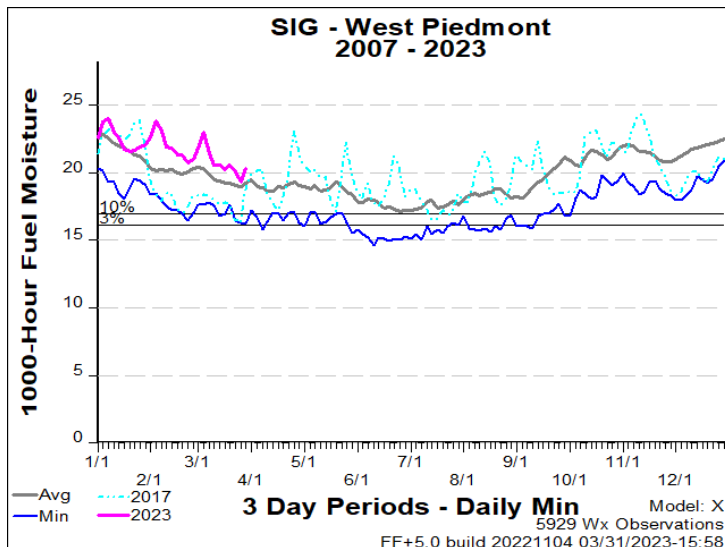
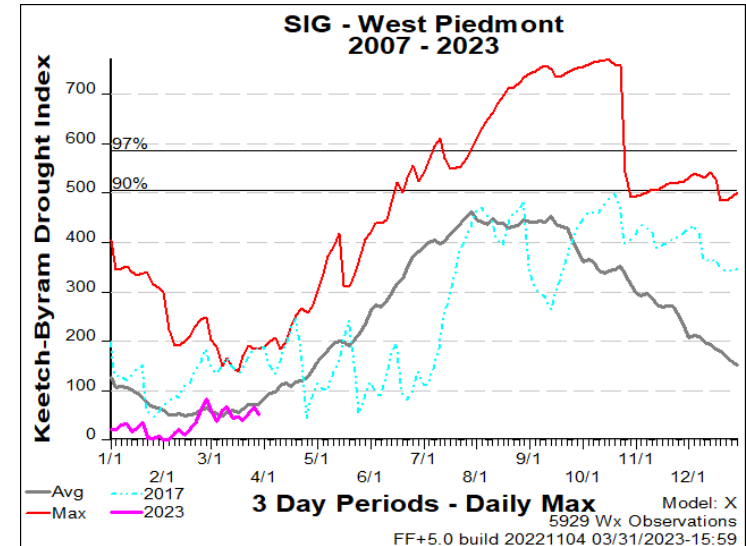
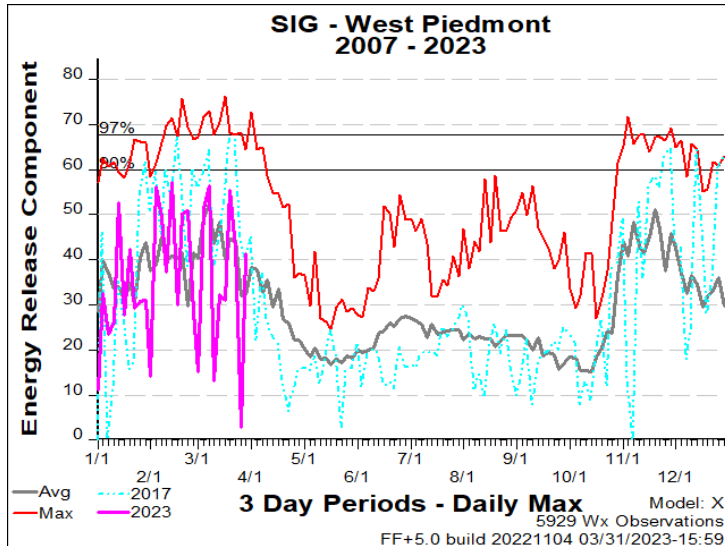
Values in the table above are averages from 3 stations in this FDRA:

- 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

Region Specific – 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	SAT 01-Apr	SUN 02-Apr	MON 03-Apr	TUE 04-Apr	WED 05-Apr	THU 06-Apr	FRI 07-Apr
Avg. Max. Temp. (°F)	77	65	72	80	85	80	68
Avg. Min. Humidity (%)	34	32	41	50	49	49	45
Avg. 20' Wind Speed (mph)	17	7	8	8	11	11	10
Avg. Wind Direction*	SW	W	S	SSW	SSW	WSW	NE
Avg. Probability of Precip. (%)	69	2	14	14	26	34	36
Days Since a Wetting Rain**	0.0	1.0	2.0				
Forecast ERC (Fuel Model X)	34.9	50.5	44.9	28.8	22.6	23.8	34.3
Forecast BI (Fuel Model X)	144.0	95.6	125.1	85.1	84.6	75.6	92.3
Forecast IC (Fuel Model X)	9.7	9.5	12.0	7.0	7.3	7.3	9.3
Forecast 100-Hr. FMC	19.6	18.7	17.6	17.2	17.8	18.3	18.1
Forecast 1000-Hr. FMC	22.8	22.8	22.7	22.4	22.1	21.8	21.6
KBDI	57.3						

Data Source:

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

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

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

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

Outlook Summary Table – R3

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

Forecast Subject to Change

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

Date	Day of Week	FDRA Matrix Summary - NCFS Region 3				
		Southern Highlands	Central Mountains	Northern Highlands	Blue Ridge Escarp	Western Piedmont
1-Apr	Sat	High**	Critical	Critical	Critical	High
2-Apr	Sun	High	High	High	Critical	High
3-Apr	Mon	High	High	Critical	High	High
4-Apr	Tues	Low/Mod	High	High	Critical	Low/Mod
5-Apr	Weds	Low/Mod	High	High	High	Low/Mod
6-Apr	Thurs	Low/Mod	Low/Mod	High	Low/Mod	Low/Mod
7-Apr	Fri	Low/Mod	Low/Mod	High	High	Low/Mod

**Saturday’s output values dependent upon actual rainfall received,
 Southern Highlands FDRA favoring Critical.

Weather Outlook Discussion

Greenville-Spartanburg NWS (PM Fire WX Forecast Discussion):

National Weather Service Greenville-Spartanburg SC
232 PM EDT Fri Mar 31 2023

.DISCUSSION...

The chances for widespread showers and scattered thunderstorms will increase tonight through early Saturday, as a cold front approaches the area. Very windy conditions will develop behind the front on Saturday and linger into early Sunday. Rain chances increase again by the middle of next week as another cold front moves through the region.

Blacksburg NWS (PM Fire WX Forecast Discussion):

National Weather Service Blacksburg VA
220 PM EDT Fri Mar 31 2023

.DISCUSSION...

...High Wind Warning Along/West of the Blue Ridge and Wind Advisory Piedmont...

Showers will be around through the afternoon/evening but less coverage tonight. A line of showers arrive Saturday morning. Most areas will receive a wetting rain, but highest amounts will be over the mountains. Southwest winds will be gusty tonight ahead of the front but the stronger winds arrive with the front and behind it Saturday into Saturday night. Gusts to 40 to 60 mph will be common Saturday afternoon evening. RH values drop to 20 to 30 percent Saturday. Winds weaken Sunday as high pressure builds in.

Damaging Winds Probable Late Tonight Through Late Saturday

OVERVIEW:

- A strong cold front will push into the western Carolinas and northeast Georgia late tonight.
- Strong damaging wind gusts are probable across the higher elevations of the North Carolina mountains.

TIMING

- Damaging wind gusts are probable around daybreak across the higher NC mountain elevations. Isolated damaging winds may also work down into the valleys and foothills by the afternoon Saturday.

HAZARDS & IMPACTS

- Winds 20 to 30 MPH with gusts up to 60 MPH possible in locations highlighted in the High Wind Warning.
- Several trees and power lines may be knocked down. Scattered power outages possible.

High Wind Warning and Advisory

Weather Forecast Office
Greenville-Spartanburg
Valid: 800 AM Sat through 400 AM Sunday
Issued Mar 31, 2023 3:58 PM EDT

NWS ALERTS

- High Wind Warning and Wind Advisory (see image to the left).

FORECAST CHALLENGES

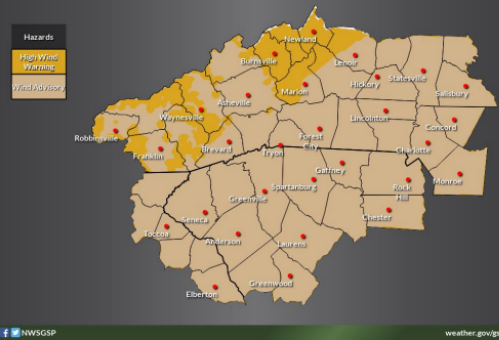
- The timing of the stronger winds may vary depending on the overall speed of the frontal system.
- The amount of precipitation ahead of the stronger winds will have an impact on the degree of damage. Higher rainfall and loose soils could lead to more trees and power lines blown down.
- There could be fire-weather concerns behind the front, but the actual amount of rainfall and eventual fuel moisture dryness will determine the extent of this threat.

ADDITIONAL INFORMATION

- As the front pushes into the NC mountains tonight, the atmosphere will become unstable enough to produce a few severe thunderstorms. These storms will be capable of producing damaging winds and large hail before sunrise Saturday.

NEXT BRIEFING

- By 6 AM Saturday, April 1st.



ISSUED: 3/31/2023 4:07 PM Eastern Time

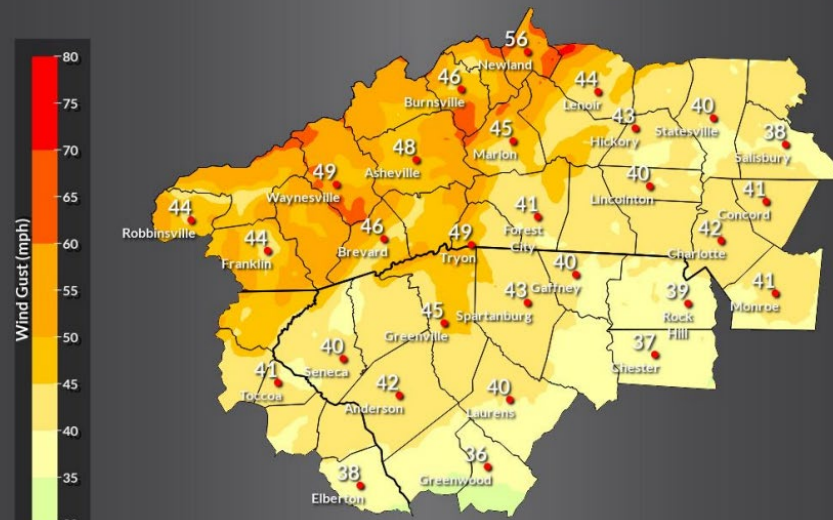
www.weather.gov/gsp

<https://www.weather.gov/gsp/brief>

Peak Wind Gusts

Valid: 800 AM Sat through 800 AM Sunday

Weather Forecast Office
Greenville-Spartanburg
Issued Mar 31, 2023 4:12 PM EDT



www.weather.gov/gsp

www.weather.gov/gsp

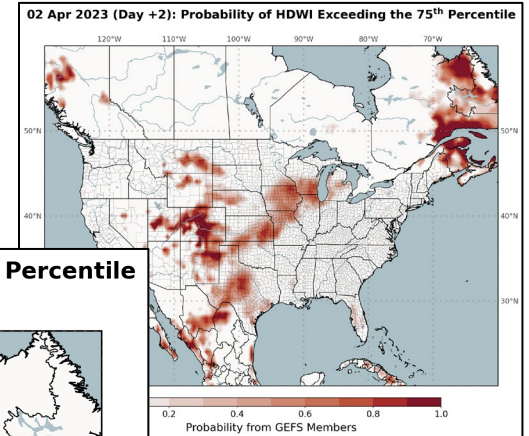
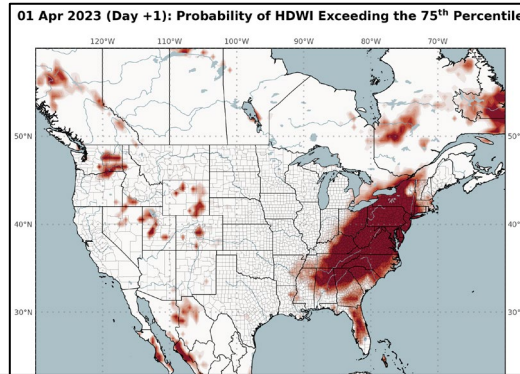
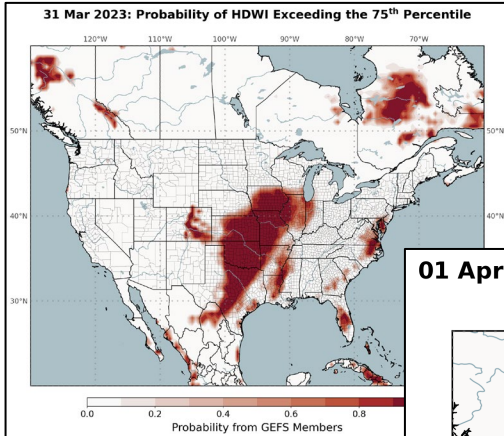
www.weather.gov/gsp

Hot-Dry-Windy Index (HDW)

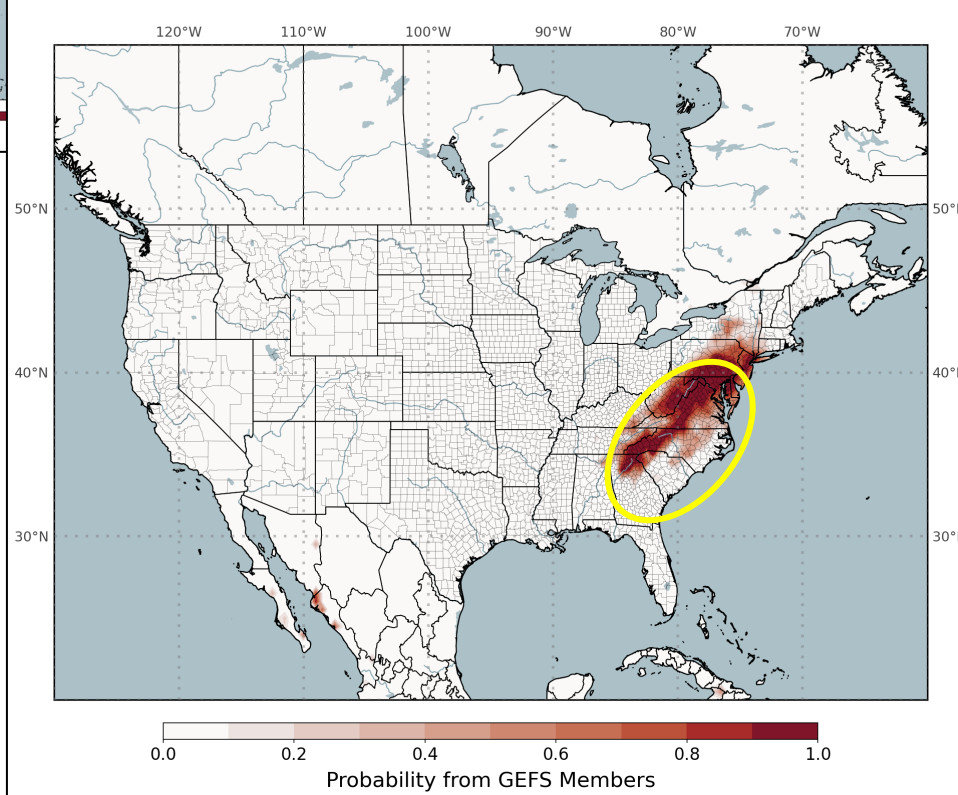
Saturday > 75th Percentile

Friday > 75th Percentile

Sunday > 75th Percentile



01 Apr 2023 (Day +1): Probability of HDW Exceeding the 95th Percentile



- Another visualization tool to pick up on broader predicted atmospheric conditions.
- Output comes from a multiplication of the maximum wind speed and maximum vapor pressure deficit (VPD) in the lowest 50 or so millibars in the atmosphere.
- Coarse Resolution - 0.5 Degree Grid
- **No** Account of Local Fuel Conditions and Topo.

Saturday > 95th Percentile

NC DAQ Air Quality Forecast - *Next Three Days*


The North Carolina Division of Air Quality issues forecasts for fine particulate matter year-round and ozone from March through October. Forecasts and discussions are updated each afternoon for the next three days, and are sometimes updated in the morning to reflect the latest ambient conditions.

View: The latest forecast discussion The forecast discussion from

This forecast was issued on **Friday, March 31, 2023 at 2:17 pm.** ✔ This forecast is currently valid.

Today's Air Quality Conditions

Low Code Yellow ozone concentrations are being observed in the southern ridgetops today, with Code Green elsewhere. Daily average fine particulate concentrations in the upper Code Green to low Code Yellow range are being observed in areas of the Mountains and Piedmont, with lower Code Green conditions elsewhere.

 For a display of the most recent Air Quality Index (AQI) conditions throughout the day, visit the *Ambient Information Reporter (AIR)* tool.

General Forecast Discussion

On Saturday, a strong closed low pressure system will traverse eastward over the Great Lakes/NE region of the US. The attendant cold front will sweep across NC over the course of the day and the prefrontal showers, very strong winds and mixing will hold ozone and fine particulates in the Code Green range.

Outlook

Expect continued Code Green air quality on Sunday as a cooler, cleaner airmass from the north settles in behind the fropa. Both ozone and fine particulate concentrations may build into Monday as winds shift more south-southwesterly but values should remain Code Green.

Author: *Kreuser*- NC Division of Air Quality

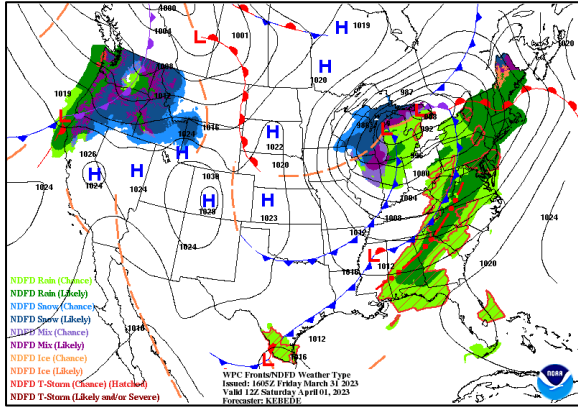
Extended Air Quality Outlook

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.

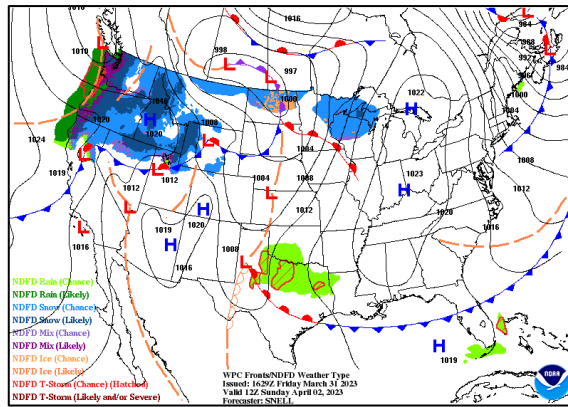
Forecast Day	AQI Range	Category Range
Friday (Mar 31)	50 to 85	Green to Yellow
Saturday (Apr 1) 🌧️	35	Green
Sunday (Apr 2)	40	Green
Monday (Apr 3)	45	Green

WPC Forecasted Surface Fronts & Sea-Level Pressures

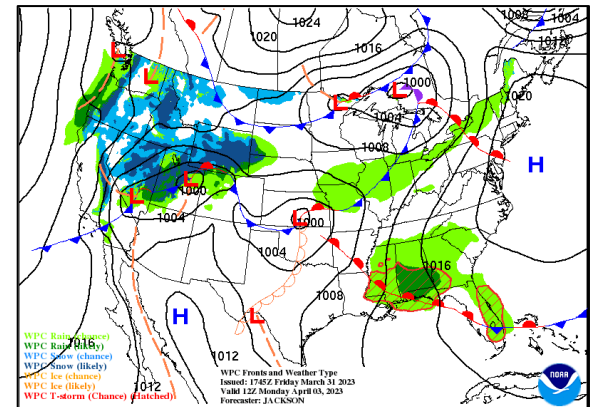
Saturday – 800 am



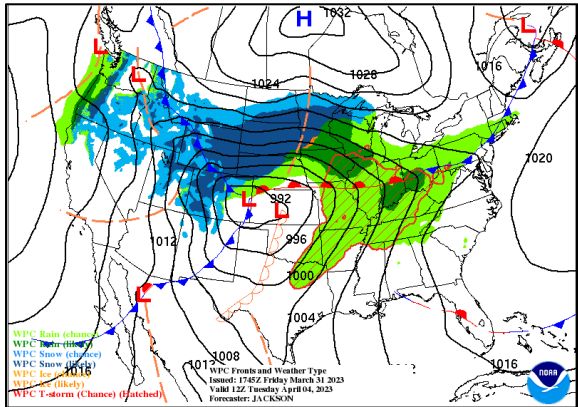
Sunday - 800 am



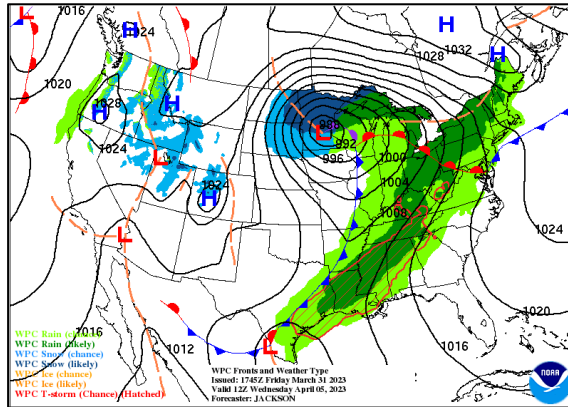
Monday - 800 am



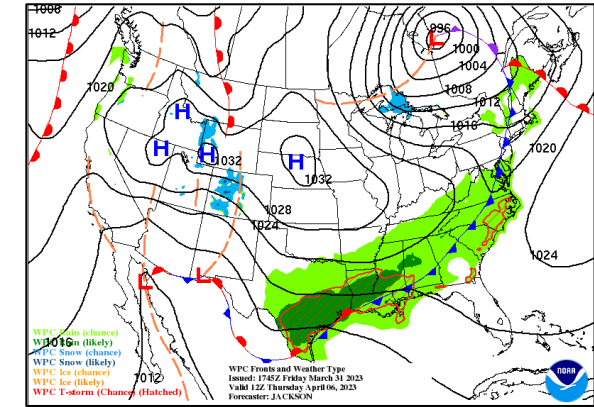
Tuesday - 800 am



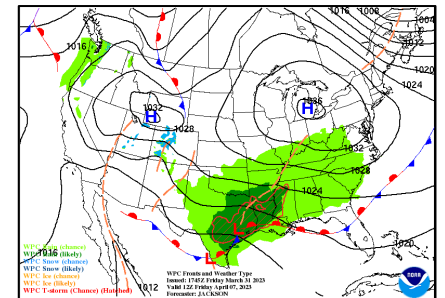
Wednesday - 800 am



Thursday - 800 am

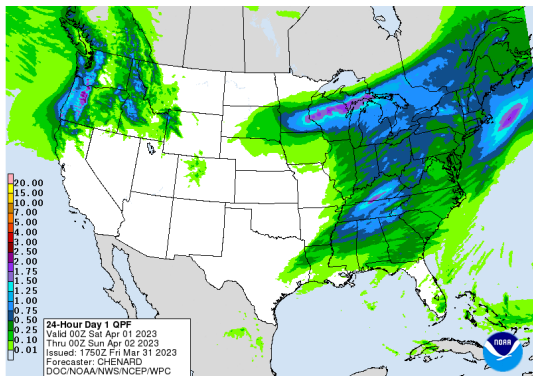


Friday - 800 am

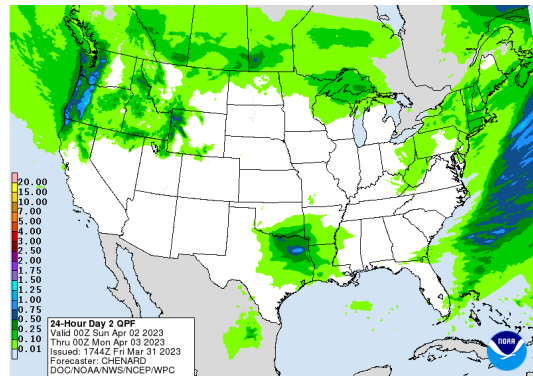


Quantitative Precipitation Forecast, 7-Day

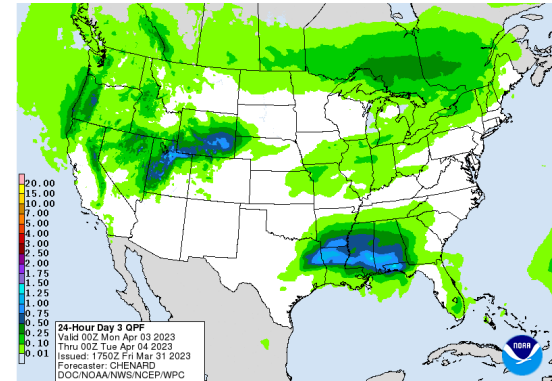
Day - 1



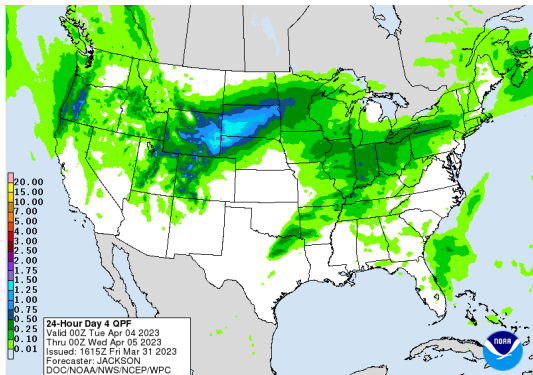
Day - 2



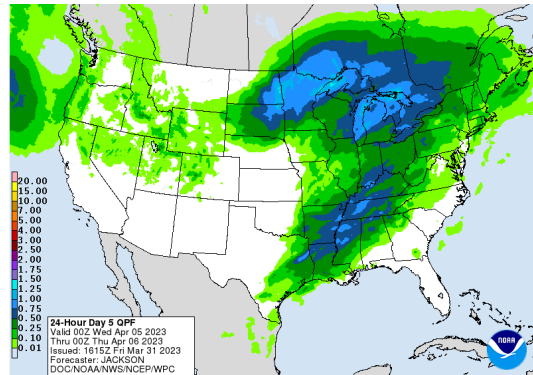
Day - 3



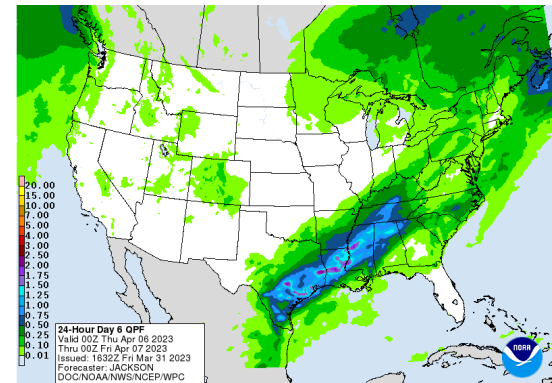
Day - 4



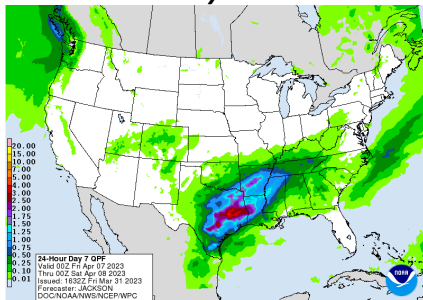
Day - 5



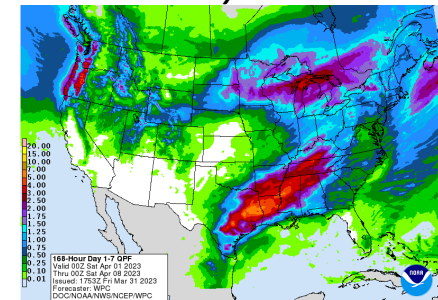
Day - 6



Day - 7



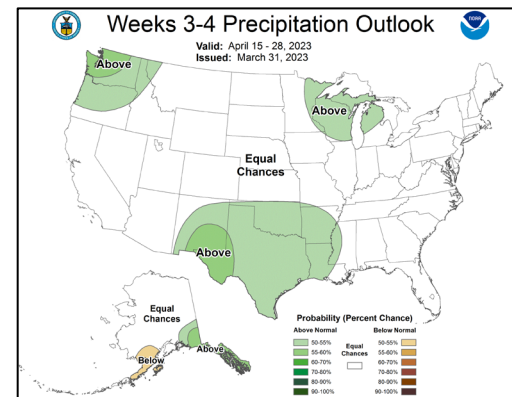
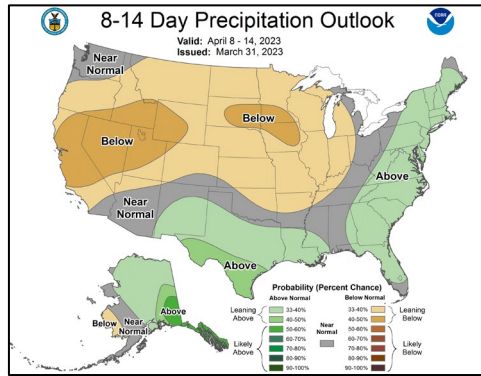
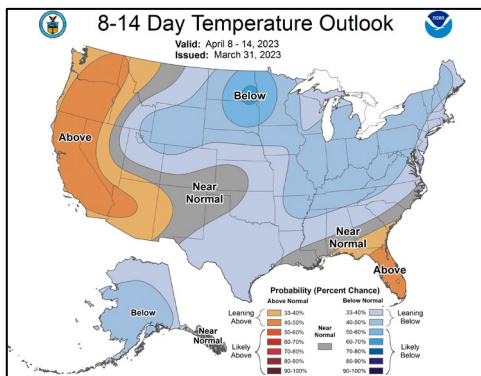
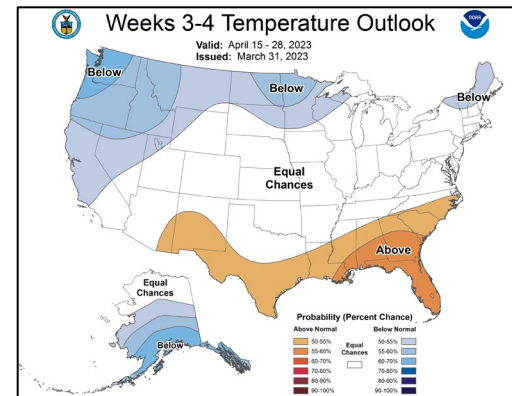
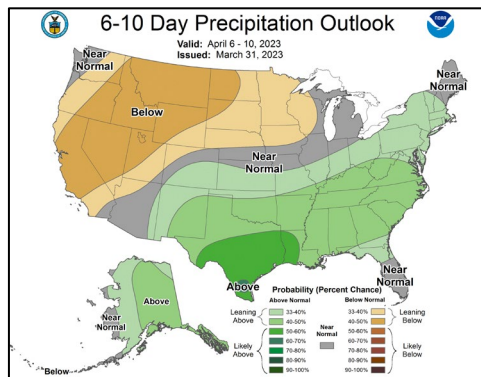
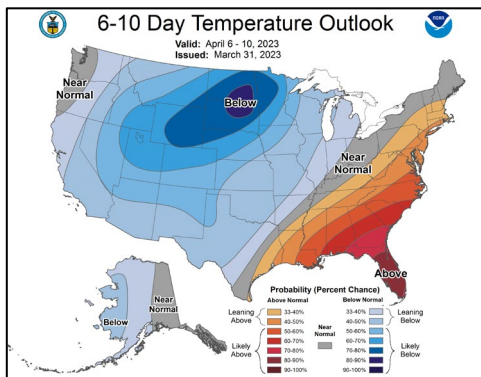
Days 1 - 7



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

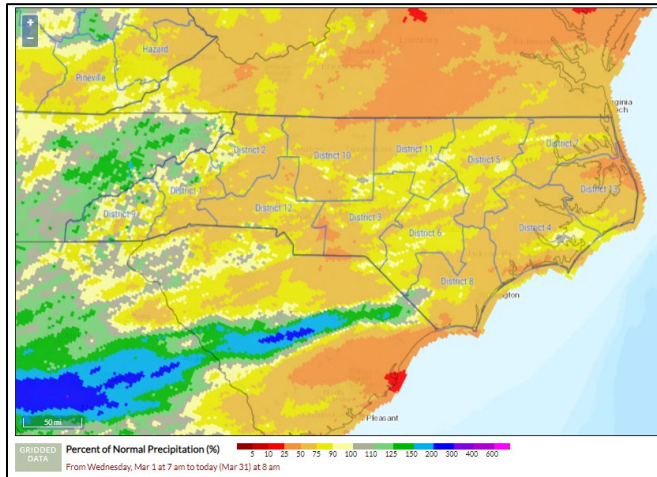
Temp & Precip Outlook

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

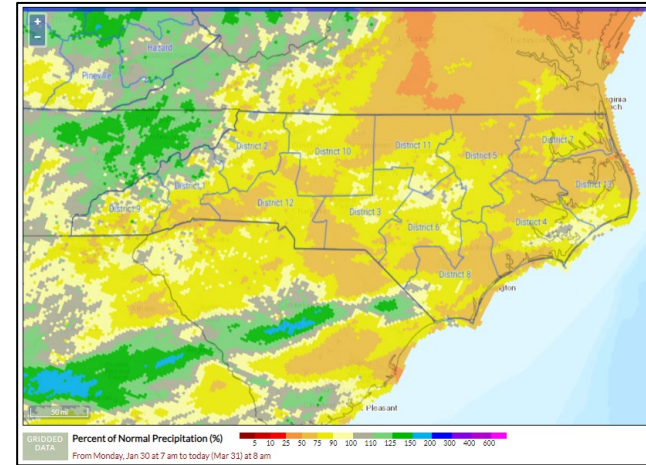


Percent of Normal Precip, *FWIP* (Ending 0800 3/31)

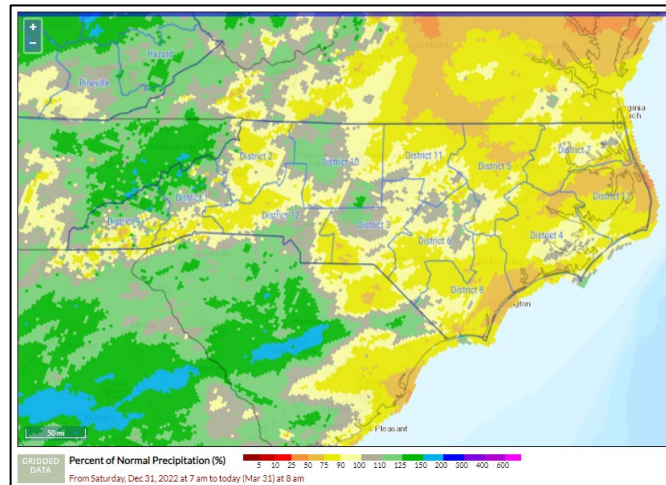
30-Day % of Normal



60-Day % of Normal

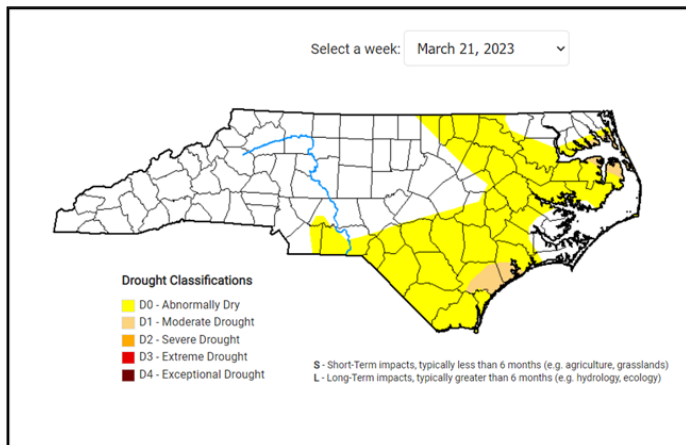


90-Day % of Normal

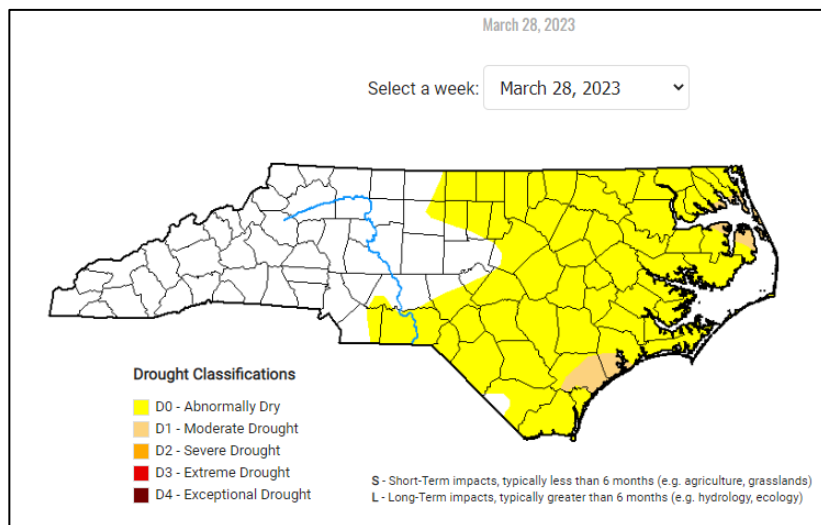


Drought Situation

Previous Week:



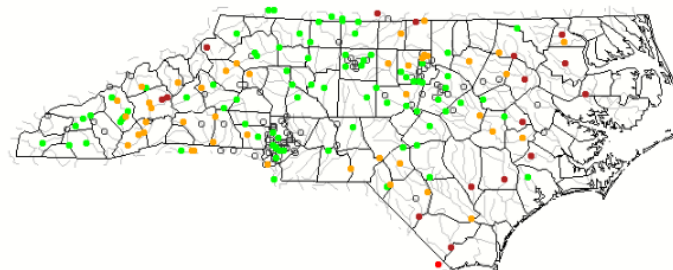
Current Week:



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, March 30, 2023



Choose a data retrieval option and select a location on the map

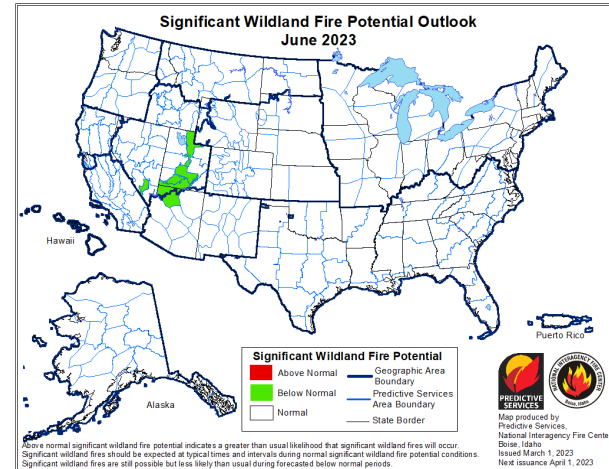
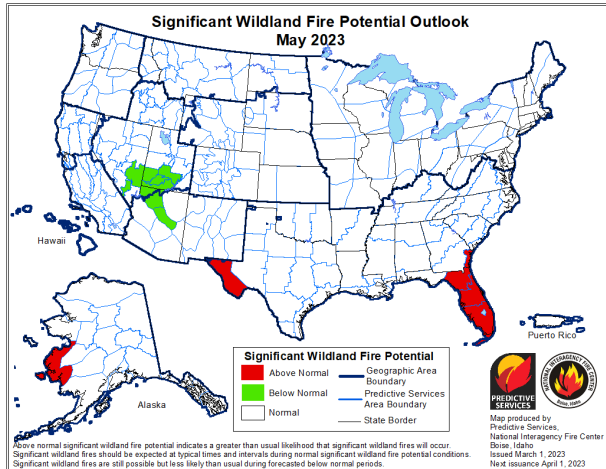
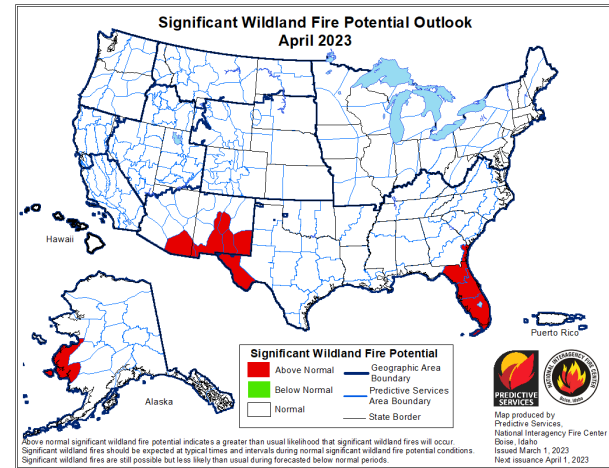
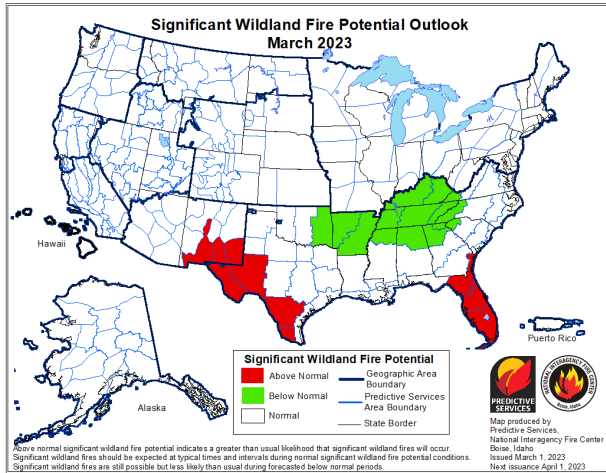
List of all stations Single station Nearest stations

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

- D-0 Abnormally Dry Conditions Expansion (~56% of State)
- D-1 Moderate Drought in Several Counties. (~2% of State)
- 7-Day Stream flow averages continue to decline, note decline in both East and West.

Significant Wildland Fire Potential Outlook:

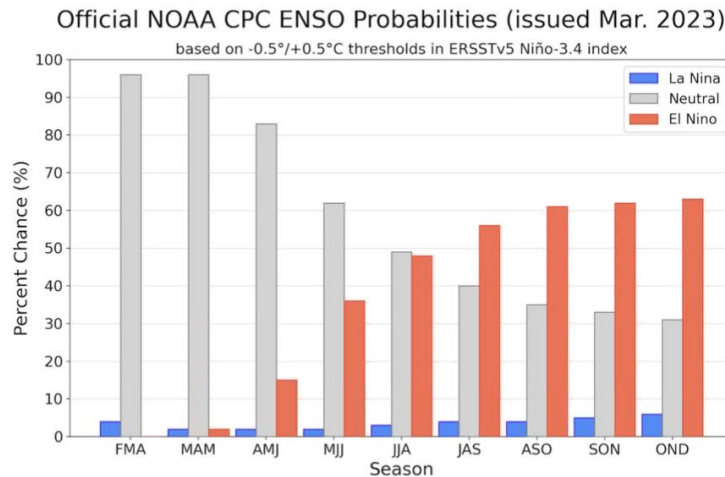
Updated 3/1/23 – **Next Update on 4/1/23**



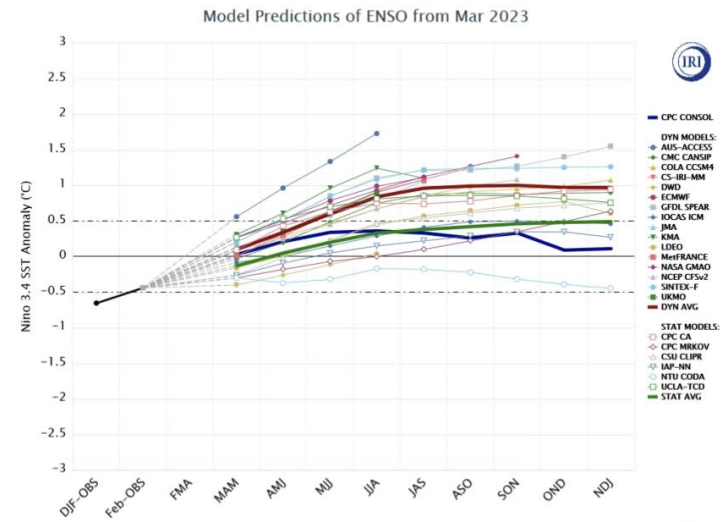
A significant fire is one that requires resources from outside the district (other than aviation). IA potential is based more on shorter term weather factors. Just a few days of dry weather can increase IA activity considerably as we have already seen this year.

ENSO Note

ENSO (El Niño-Southern Oscillation)



La Niña has ended, and ENSO-neutral conditions are expected to continue through the Northern Hemisphere spring and early summer 2023. There is a chance of El Niño forming during the summer, with at least a 60% chance by the August-October period.

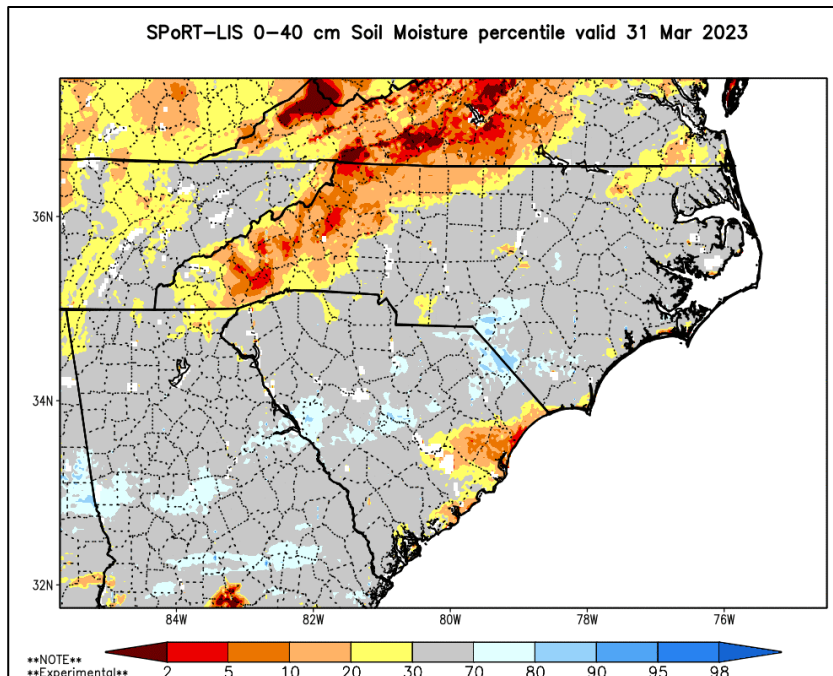


https://iri.columbia.edu/our-expertise/climate/forecasts/enso/current/?enso_tab=enso-sst_table

https://www.cpc.ncep.noaa.gov/products/analysis_monitoring/enso_advisory/ensodisc.shtml

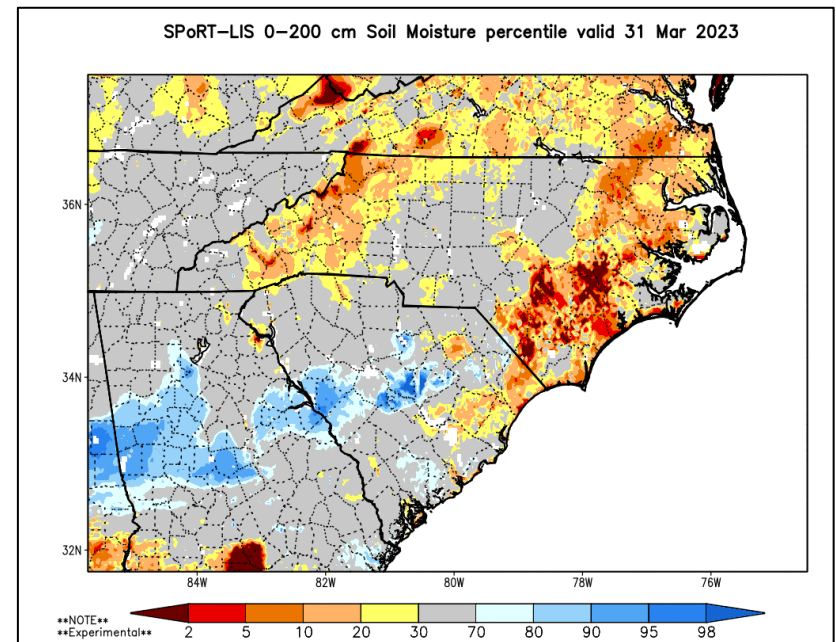
SPoRT Relative Soil Dryness

0-40 cm Depth



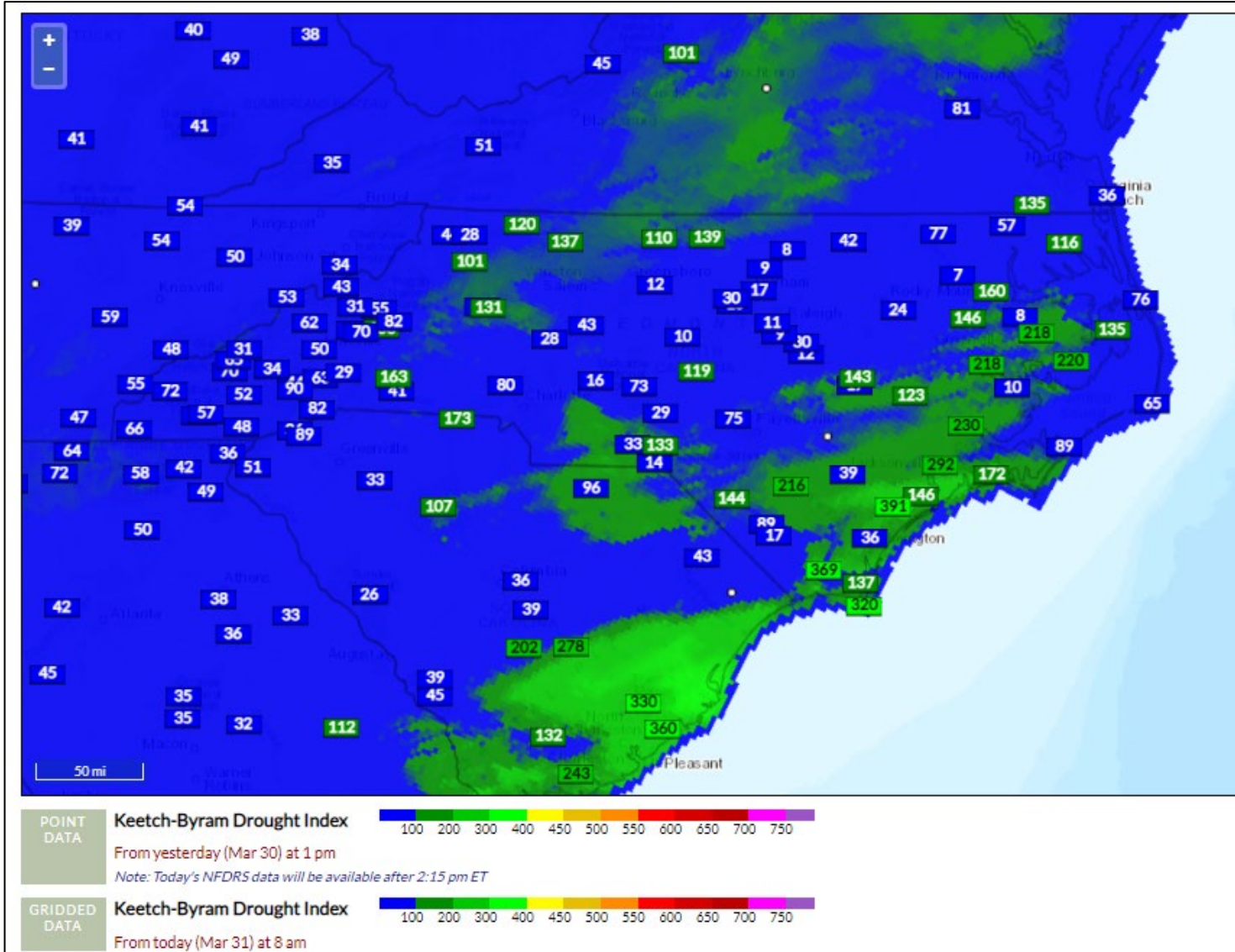
- Overall Modeled Drying Trend Continues
- Recent Rains have benefited areas to the east, note short-term reduction in shallow dryness.

0-200 cm Depth



KBDI - Gridded & Station Points

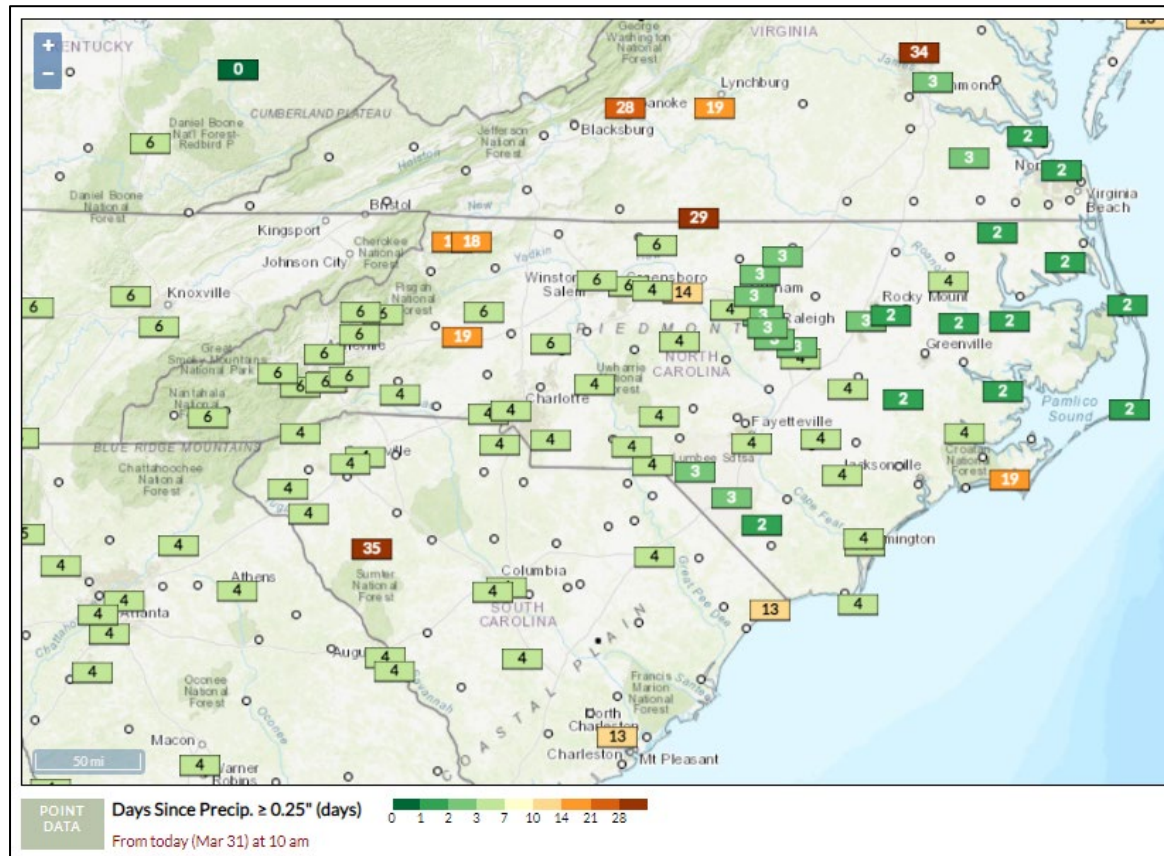
FWIP (Point calculation from 1300 on 3/30, Grid ending 0800 3/31)



Days Since Daily Precip $\geq 0.25''$

Note – Latest product run was on 3/31/23 at 1000.
Does not consider rainfall after that point.

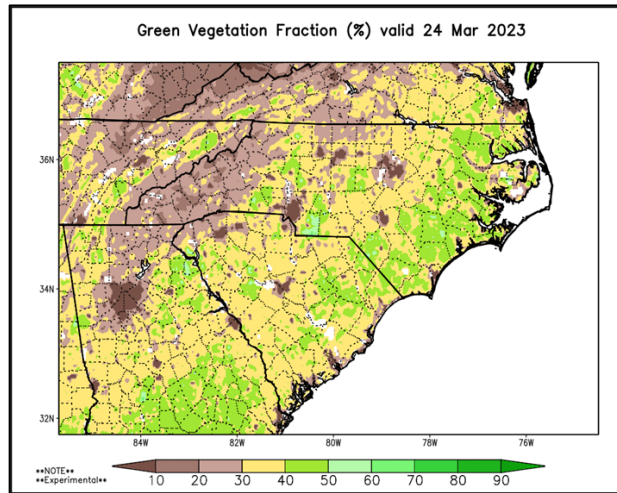
*Displaying ECONet, ASOS and AWOS Sites Only



Green Fraction & Green-Up Anomaly

- Green-Up Continues

Last Week



(Some areas previously shown with green color followed later by brown color in coastal areas likely due to larger scale agricultural activities.)

Current

