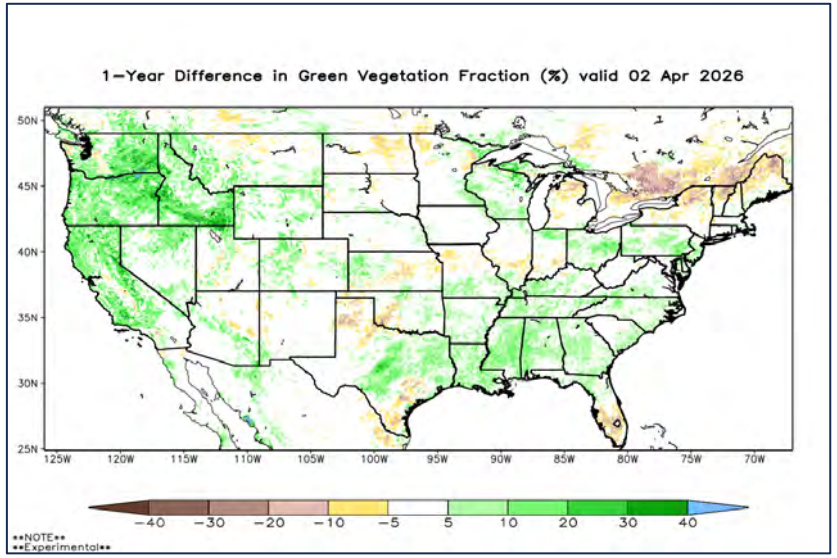
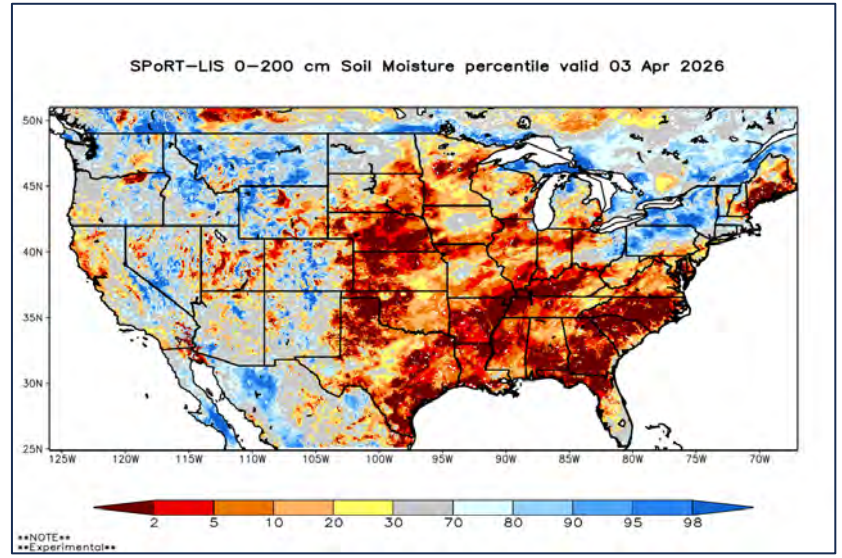
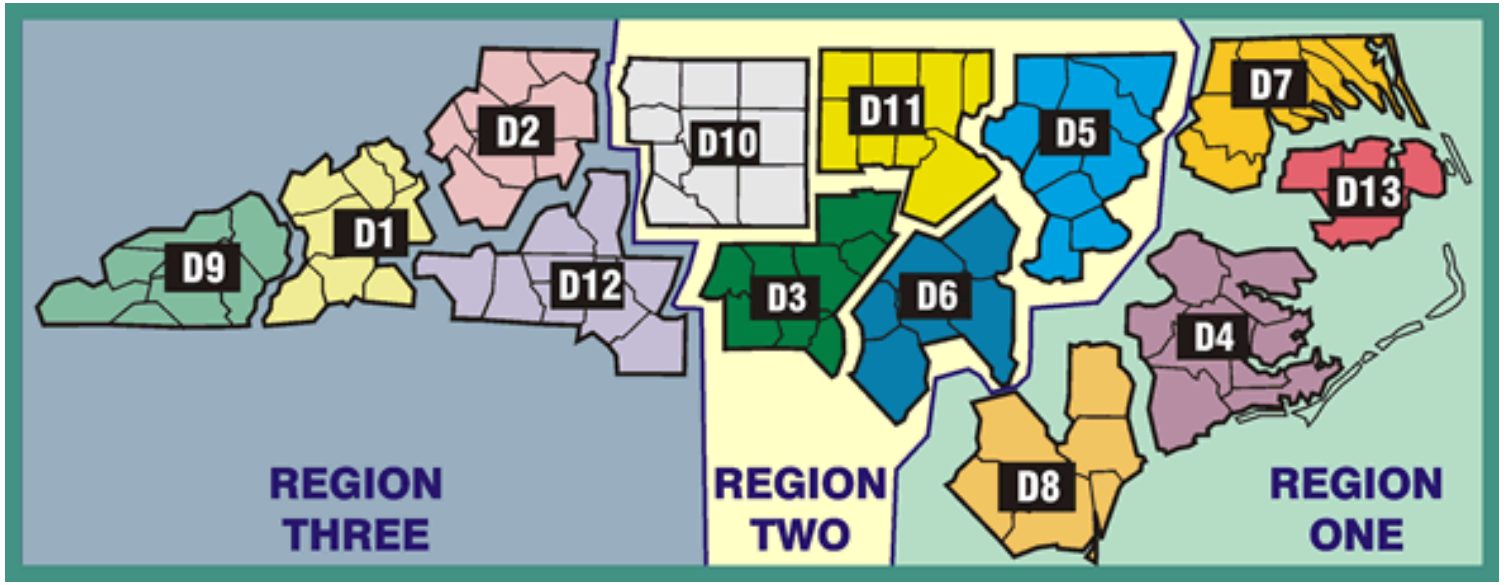
Weekly Fire Danger Assessment
NCFS – All Regions







For Time Period:

Friday (4/3/26) to Thursday (4/9/26)

Created by: Jamie Dunbar
Fire Environment Staff Forester
NC Forest Service
Created: 4/3/26

Statewide Wildfire Context

January: 10-yr avg is 339 fires for 702 acres
February: 10-yr avg is 639 fires for 1,683 acres
March: 10-yr avg is 1,009 fires for 6,401 acres
***April: 10-yr avg is 627 fires for 6,803 acres**
May: 10-yr avg is 283 fires for 1,298 acres
June: 10-yr avg is 231 fires for 2,383 acres
July: 10-yr avg is 182 fires for 551 acres
August: 10-yr avg is 126 fires for 420 acres
September: 10-yr avg is 194 fires for 422 acres
October: 10-yr avg is 265 fires for 1,996 acres
November: 10-yr avg is 534 fires for 6,173 acres
December: 10-yr avg is 372 fires for 733 acres

January: 1,083 incidents for 1,964 acres
February: 829 incidents for 1,136 acres
March: 1,418 incidents for 6,289 acres

7-Day Activity (ending 4/2): 325 incidents for 1,755 acres

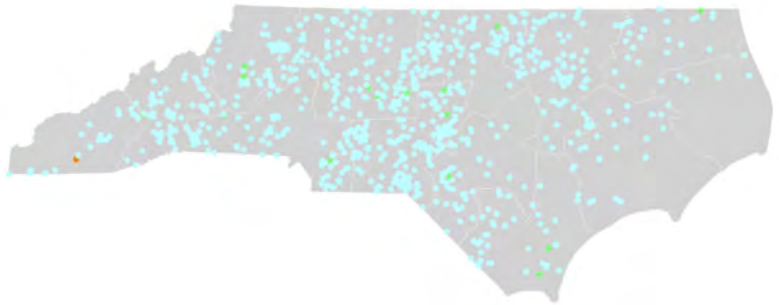
All wildfire activity data is preliminary
Does not include additional federal wildfires/acres
2016-2025 CY Average

**Largest incidents by discovery date, March & April MTD:
from fiResponse & preliminary reporting only

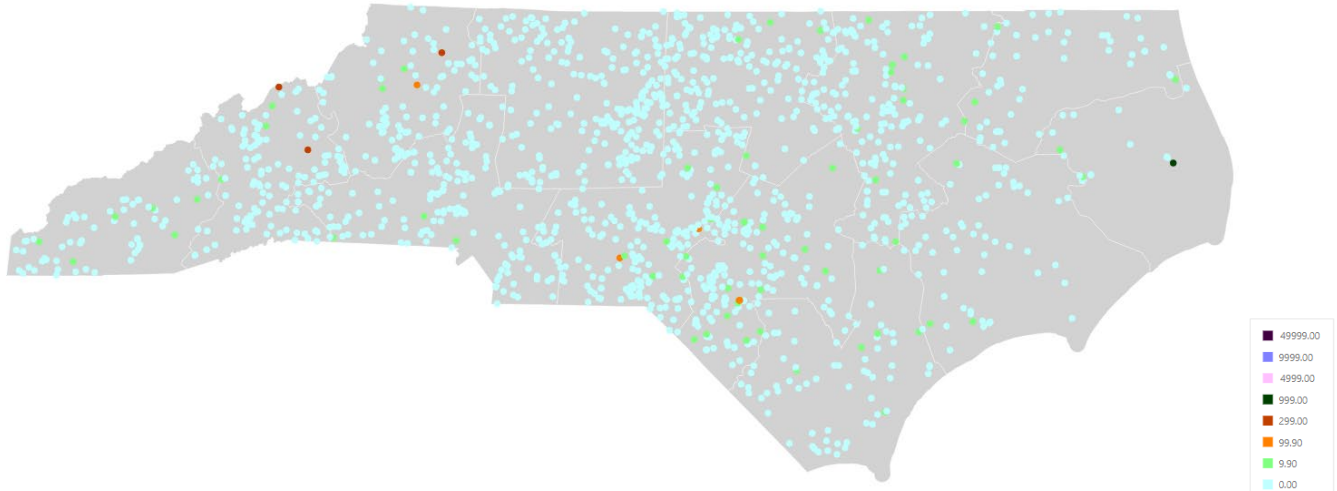
Incident Name	Discovery Date	Region	District	County	Acres
East Tower	3/4/2026	Region 1	District 13	Dare County	1,410.00
Cane Creek	3/29/2026	Region 3	District 2	Wilkes County	574.00
Jumping Branch	3/29/2026	Region 3	District 1	McDowell County	420.00
Poplar	3/23/2026	Region 3	District 1	Mitchell County	370.00
TRACERS	3/11/2026	Region 2	District 3	Richmond County	220.00
Soapstone	3/21/2026	Region 3	District 2	Wilkes County	190.00
Blue Skies	3/28/2026	Region 2	District 6	Robeson County	184.00
Orange Skies	3/10/2026	Region 2	District 6	Robeson County	150.63
Union Church Rd	3/20/2026	Region 2	District 3	Moore County	145.00
Leechville Marsh Fire	3/30/2026	Region 1	District 13	Hyde County	70.00
Wiggins Creek	4/2/2026	Region 3	District 9	Swain County	65.00
Deer pen	3/12/2026	Region 2	District 11	Granville County	63.00
Ruby Rd	3/4/2026	Region 2	District 6	Robeson County	60.00
Hines Branch	3/14/2026	Region 3	District 2	Caldwell County	60.00

January 2026

February 2026

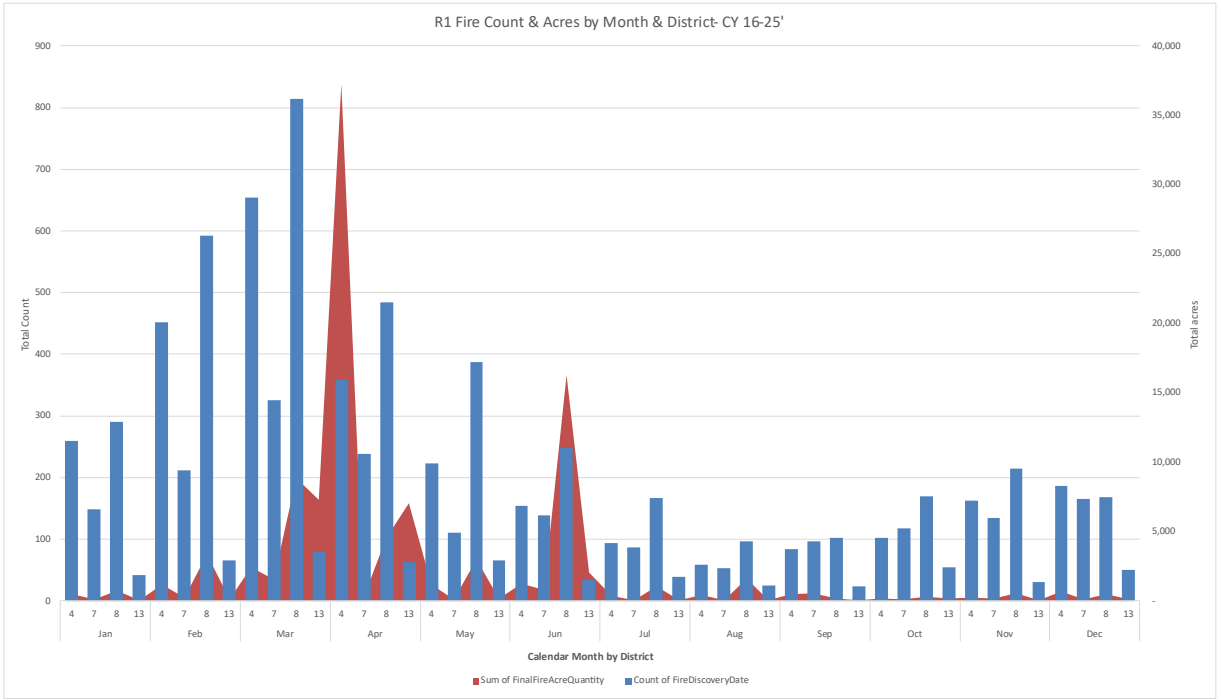


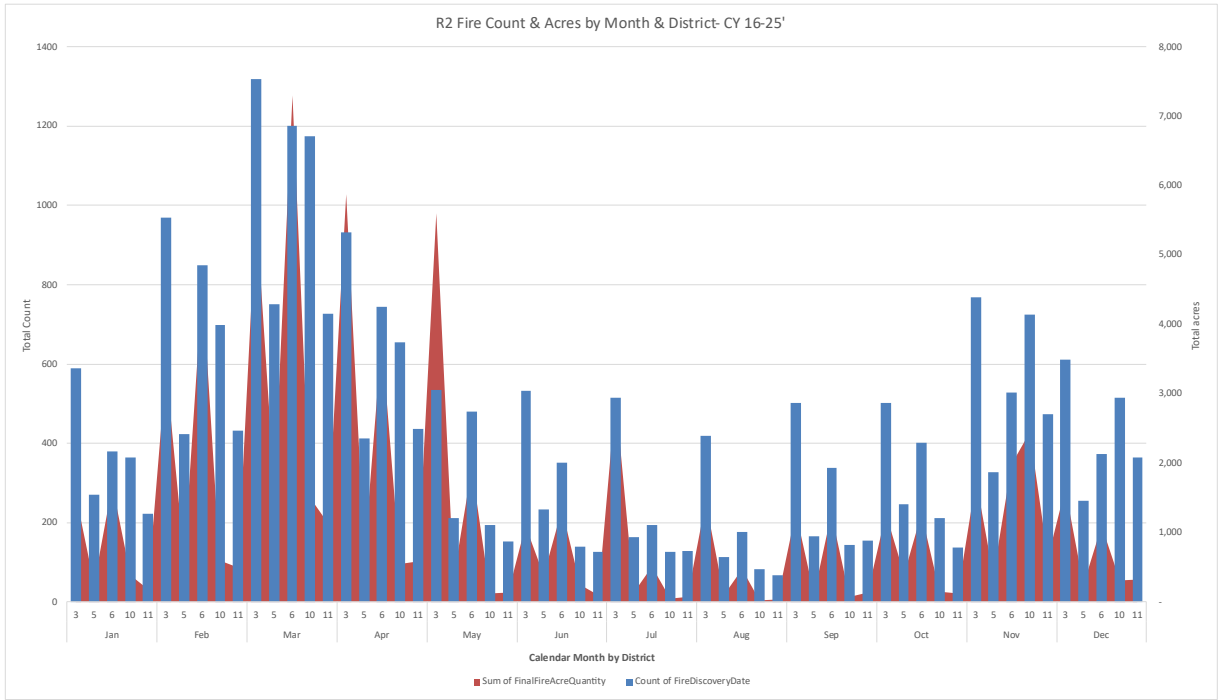
March & April, MTD

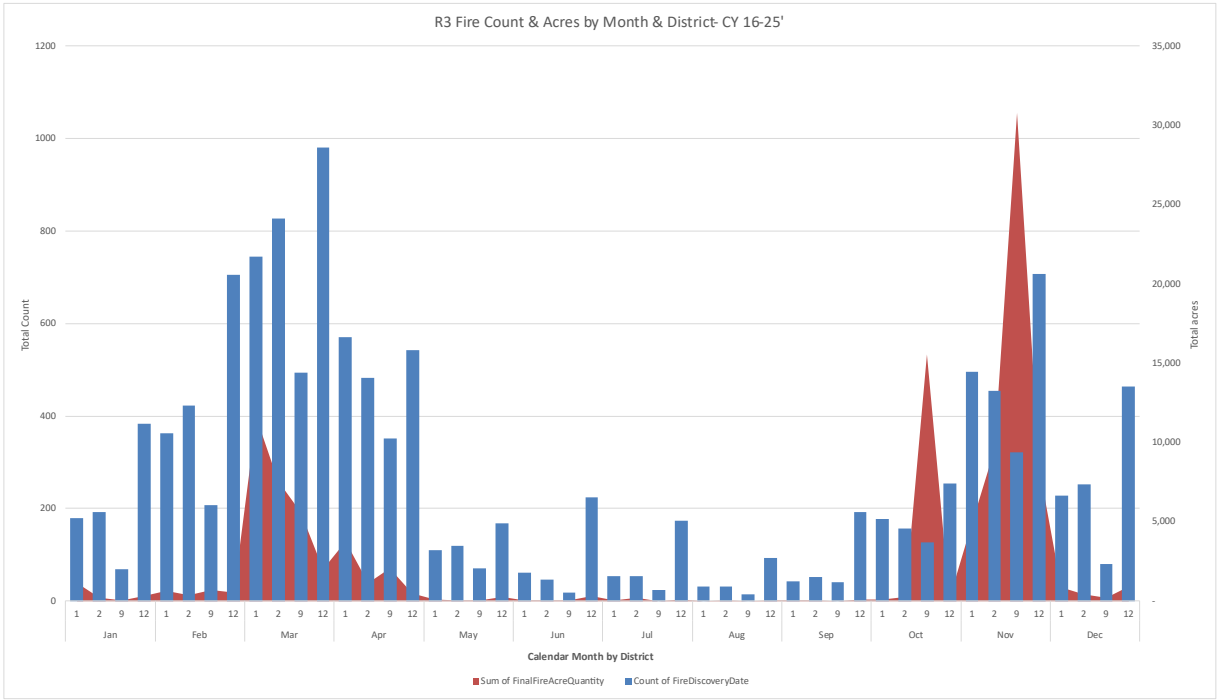


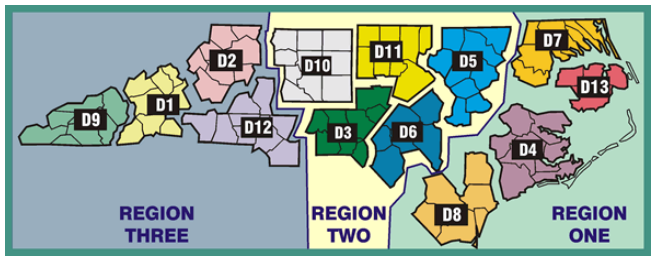
***Note: Dept. of War & other entirely federal ownership wildfires typically not shown on fiResponse, unless NCFS integrated into response.*

Seasonal Distribution of Regional Fires & Acres by Month from 2016-2025





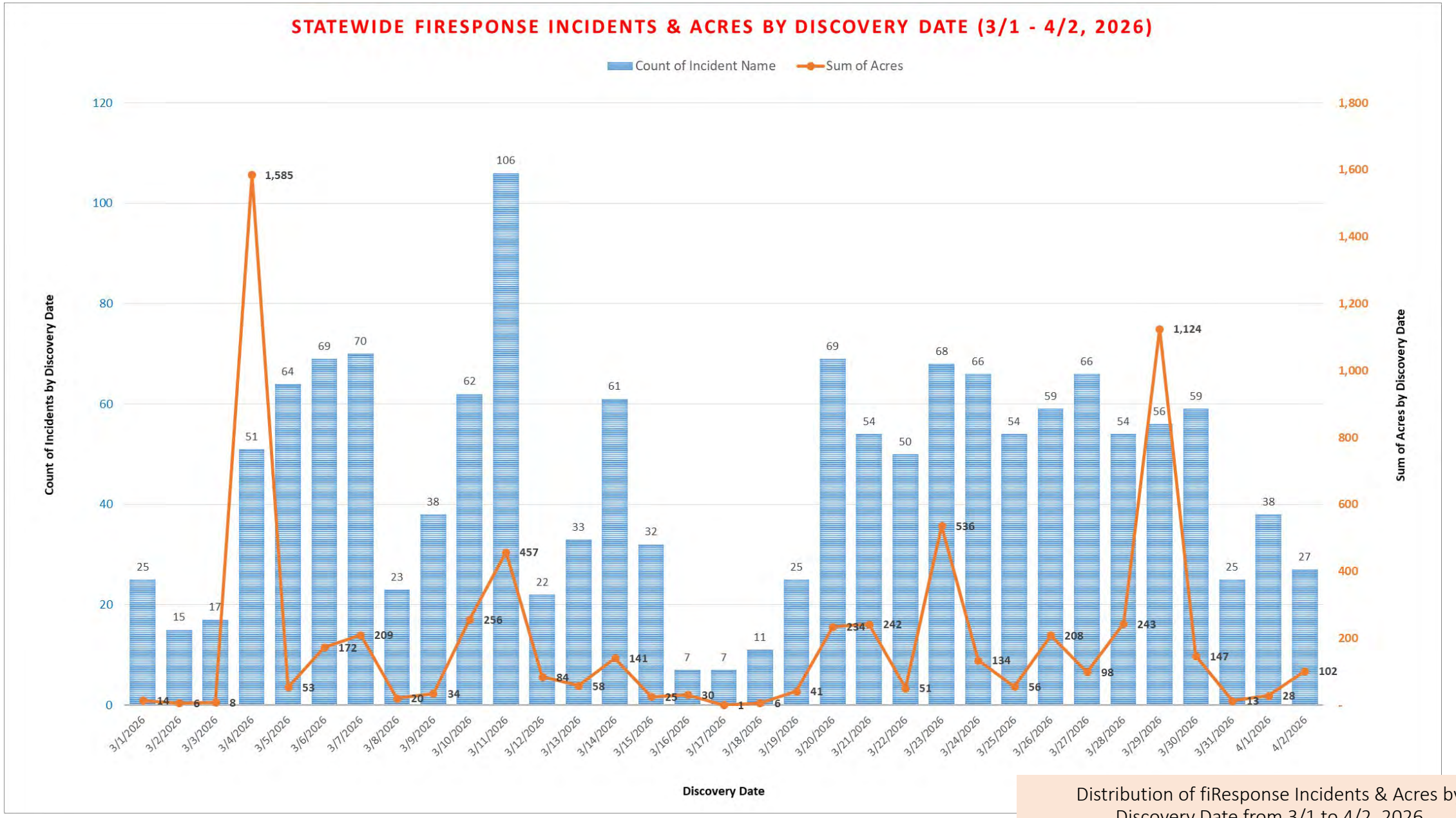




Cause: All Cause Codes, Statewide, NCFS Reported Fires Only.
Preliminary Data from NASF Report Extract

Peak Fire Count vs. Peak Acres (by Discovery Date)

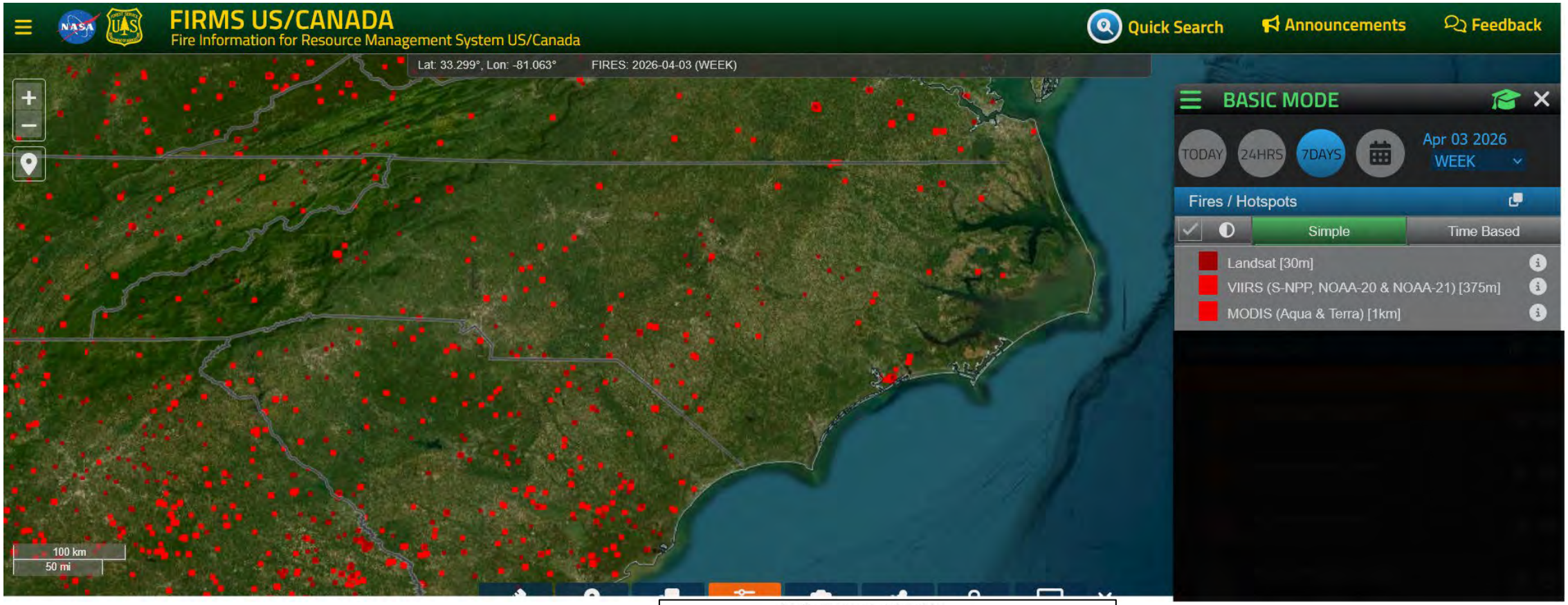
- Fuel Dormancy?
- Live Fuel Volatility?
- Human Factor?
- Drought Influences?



Distribution of fiResponse Incidents & Acres by Discovery Date from 3/1 to 4/2, 2026

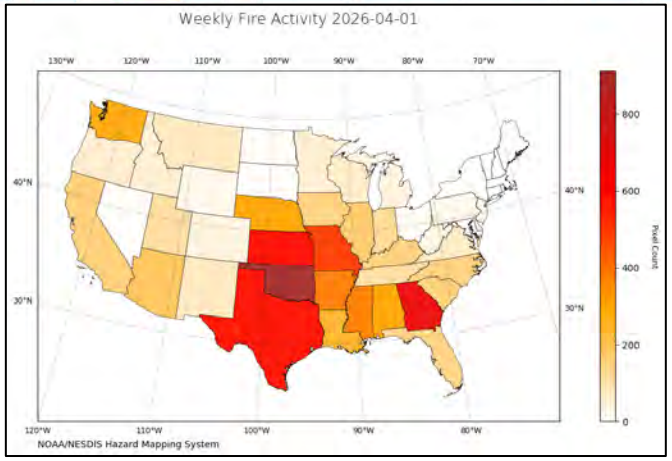
Data is preliminary and subject to change

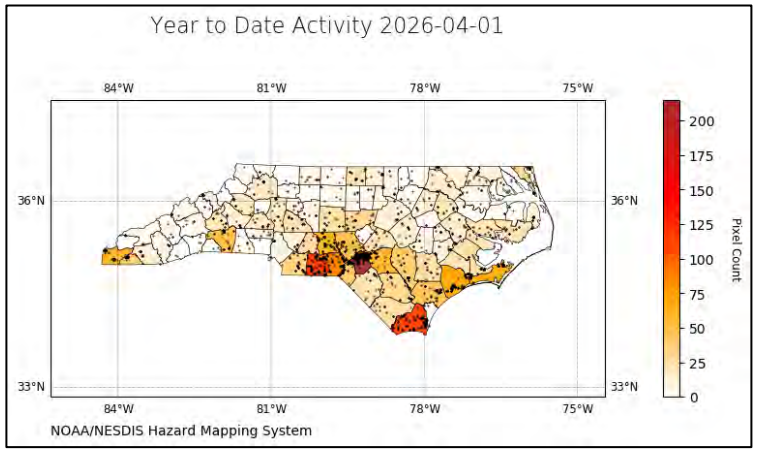
Weekly Heat Detects



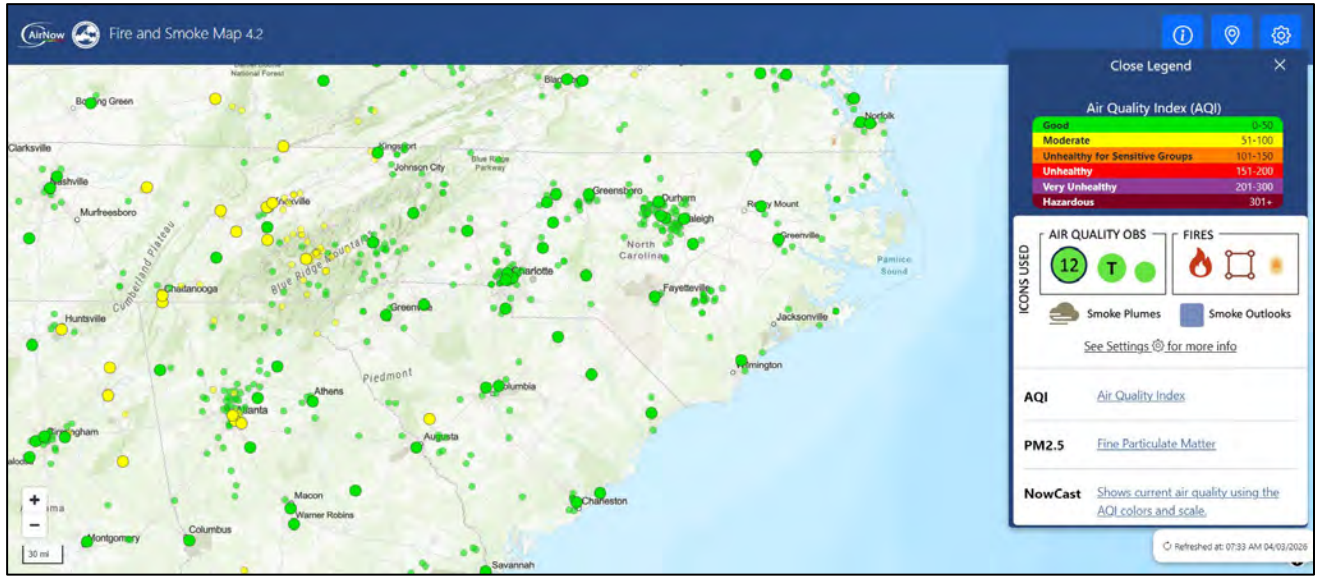
NC Map showing past week satellite detects from same source & bottom right maps display fire pixel counts. Note NC map below is by CY-Year (YTD context ending on 4/1/26) . Note that cloud cover and other factors can limit detections, not all detects may be “forestry related”. Hazard Mapping System link:

https://www.ospo.noaa.gov/products/land/hms.html#maps

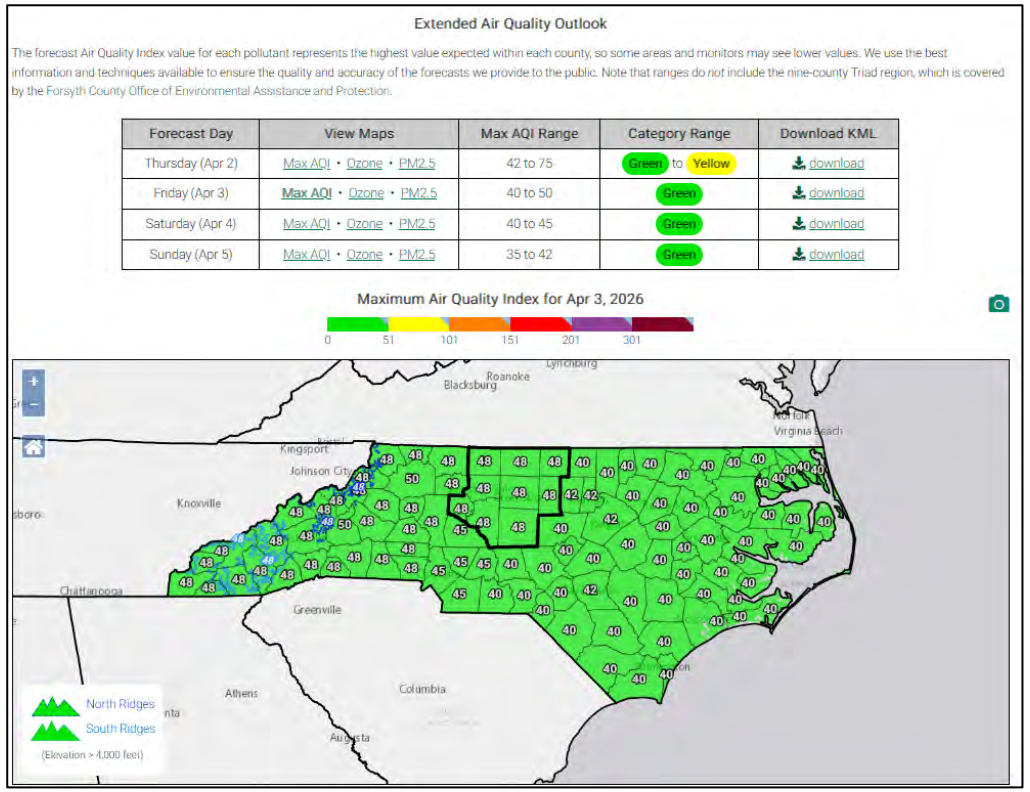




Air Quality Notes



Fire & Smoke Map heat detects from VIIRS (above). *https://fire.airnow.gov/#*



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	View Maps	Max AQI Range	Category Range	Download KML
Thursday (Apr 2)	Max AQI • Ozone • PM2.5	42 to 75	Green to Yellow	download
Friday (Apr 3)	Max AQI • Ozone • PM2.5	40 to 50	Green	download
Saturday (Apr 4)	Max AQI • Ozone • PM2.5	40 to 45	Green	download
Sunday (Apr 5)	Max AQI • Ozone • PM2.5	35 to 42	Green	download

Maximum Air Quality Index for Apr 3, 2026

0 51 101 151 201 301

This forecast was issued on **Thursday, April 2, 2026** at **2:19 pm**. This forecast is currently valid.

Today's Air Quality Conditions

Current daily averages of fine particulates are mostly in Code Green range across the state with the exception being parts of the Piedmont where averages are in low Code Yellow range. There are still a couple notable wildfires burning across the western portion of the state. However, containment has continued to increase for all of the fires and visible satellite imagery today has not shown any smoke. Localized air quality degradation can still occur for areas immediately near the fires. As for ozone, hourly readings are in Code Green range statewide.

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

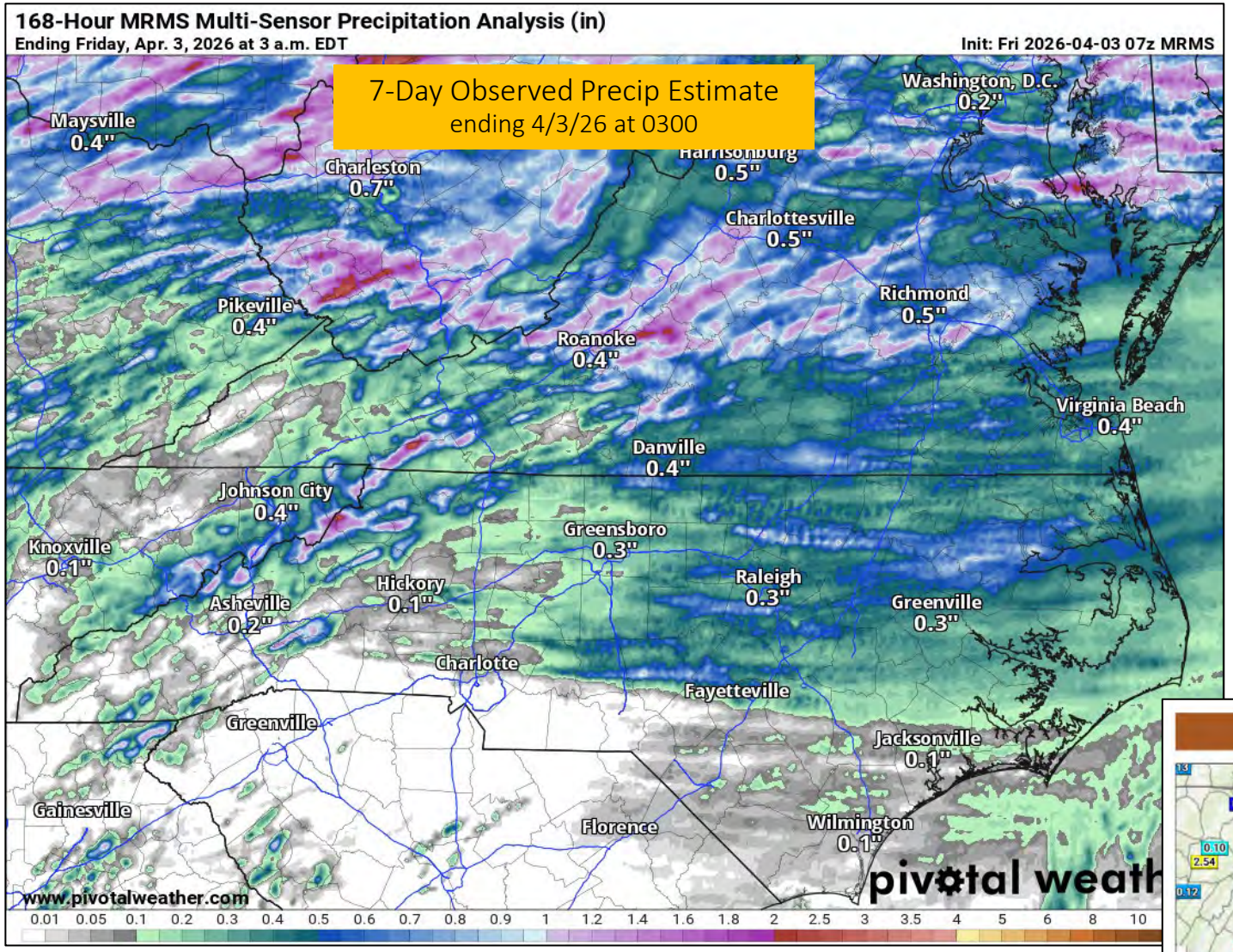
Very little will change Friday and Saturday as the same weather pattern will remain in place - high pressure centered to our east that will continue to bring southeasterly to southerly flow across the state. This will continue to advect in cleaner air from off the coast that will keep fine particulate averages largely in Code Green range, although some localized spots across the Piedmont could end up in low Code Yellow range due to some pooling. Regarding smoke from wildfires, containment continues to increase and no smoke was visible from satellite imagery Thursday afternoon. Assuming no major changes, smoke should not be an issue except possibly some very localized air quality degradation for areas immediately near the fires. As for ozone, the cleaner air, combined with patchy clouds, and enough wind for mixing/dispersion, should keep maximum 8-hour averages in Code Green range yet again.

Outlook

On Sunday, our weather pattern will finally change as a cold front is expected to move across the state. This front will bring clouds and scattered rain with it, which will be unfavorable for ozone formation. The front will also bring some slightly cleaner air behind it. Air quality will remain in Code Green range as a result.

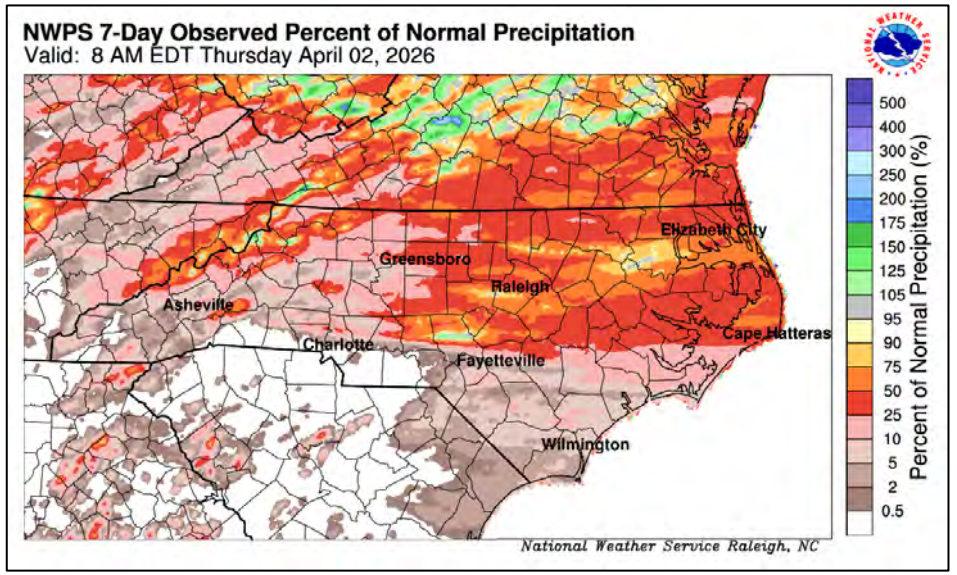
Author: *Jordan Root (jordan.root@deq.nc.gov) - NC Division of Air Quality*

https://airquality.climate.ncsu.edu/discussion/?view=latest

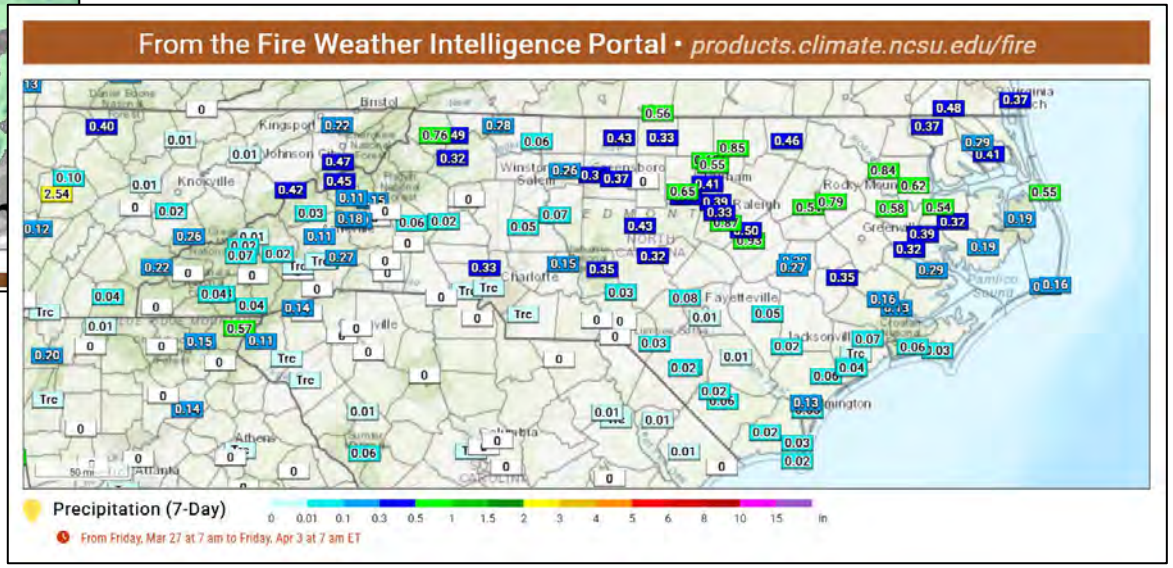


Very minimal/scattered amounts over the past week.

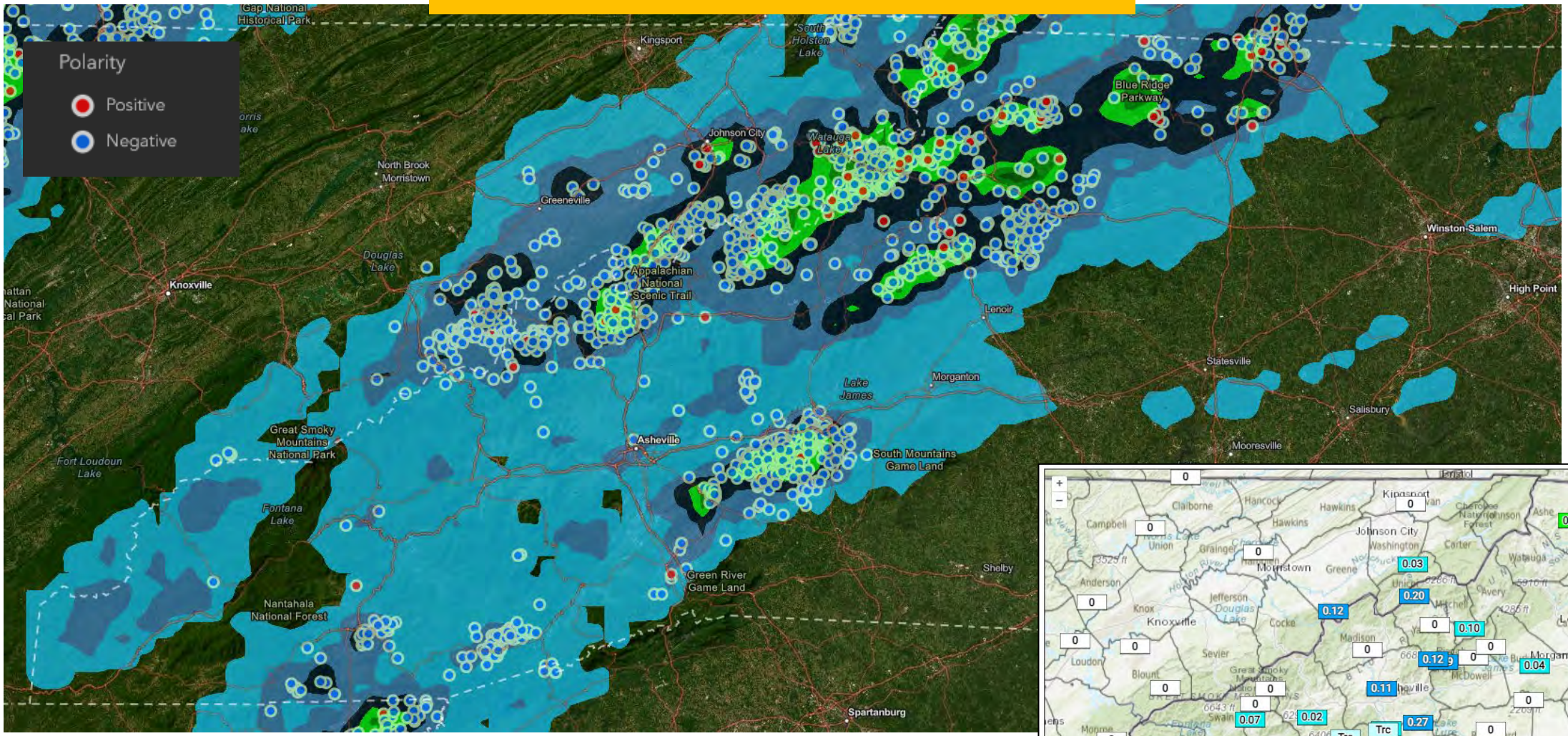
7-Day Percent of Normal Precip

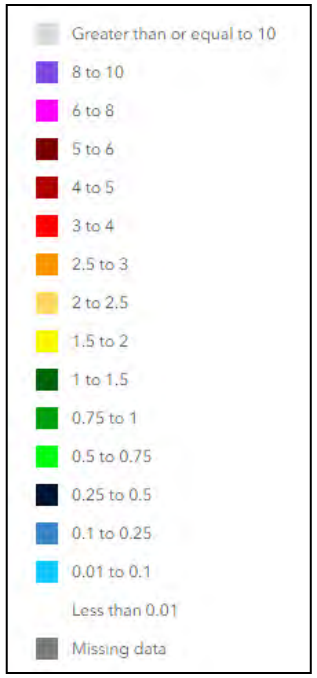


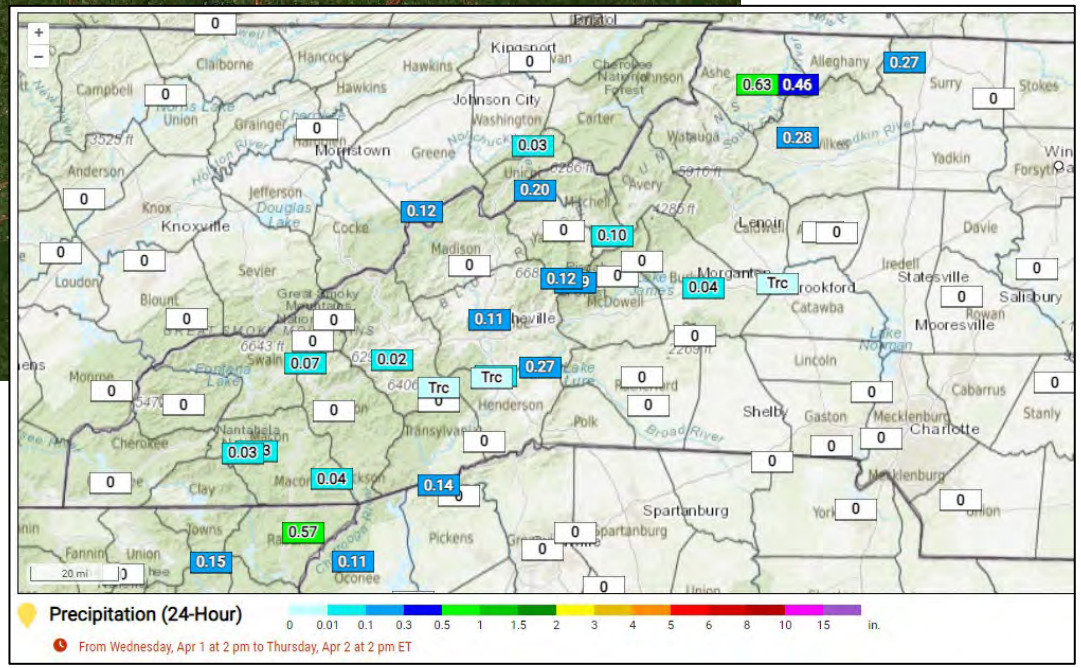
7-Day Station Precip Totals



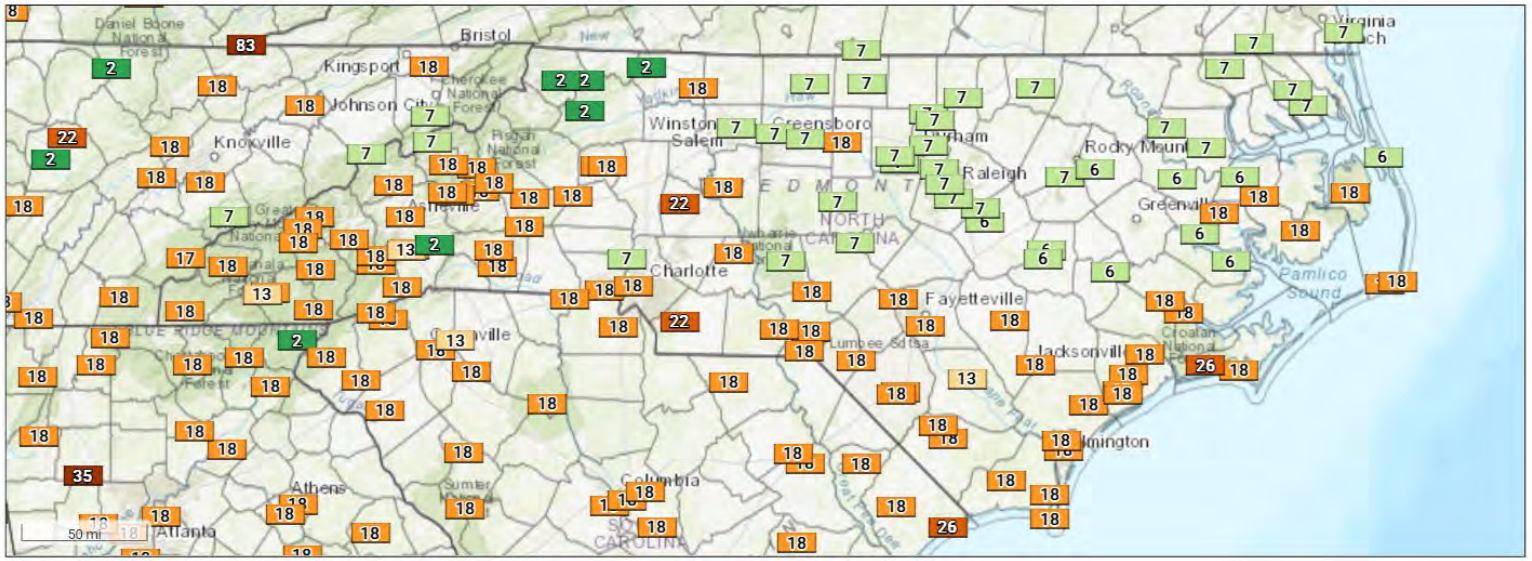
24-hr Lightning and Precip: Ending 4/2/26 at 1400







From the Fire Weather Intelligence Portal • *products.climate.ncsu.edu/fire*



Days Since ≥ 0.25" Precip.

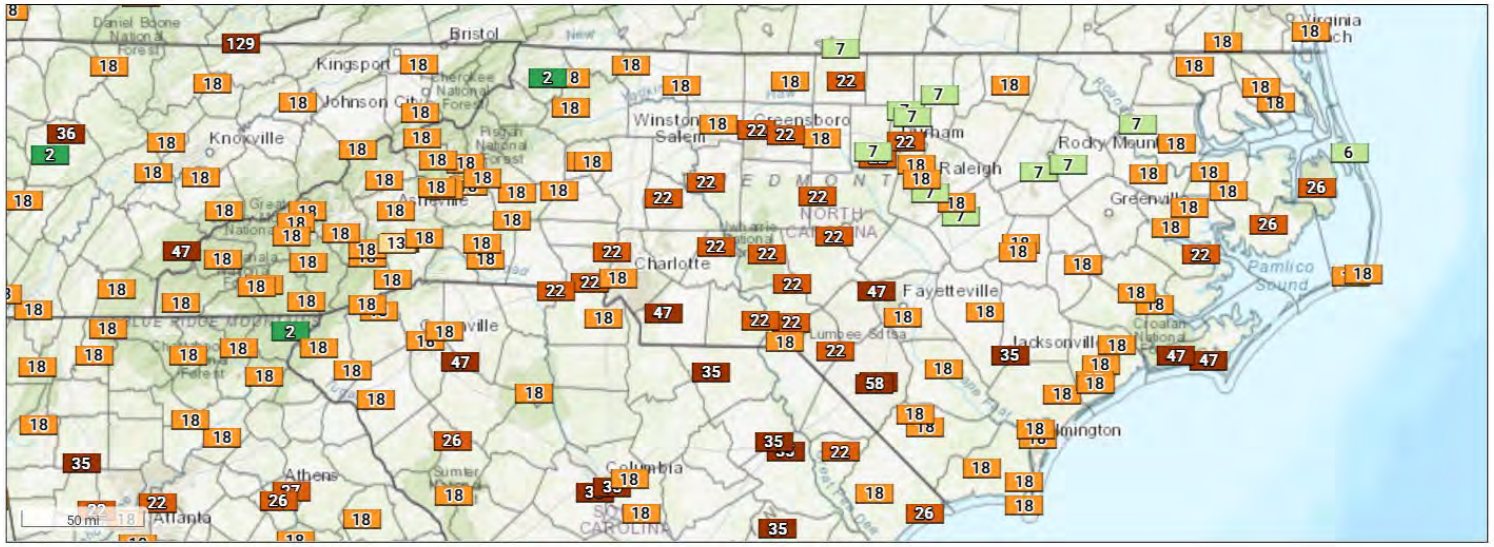
0 1 2 3 7 10 14 21 28 days

From today (Apr 3) 7 am ET

Days since ≥ 0.25” Precip Event

Days since ≥ 0.50” Precip Event

From the Fire Weather Intelligence Portal • *products.climate.ncsu.edu/fire*

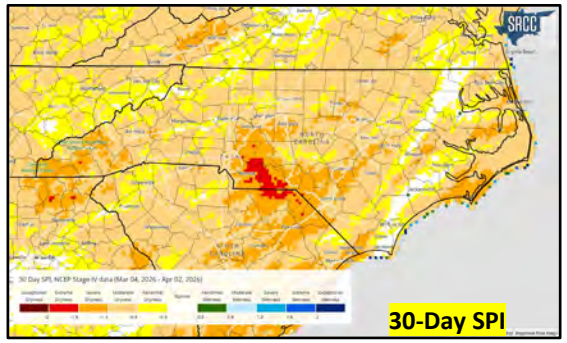


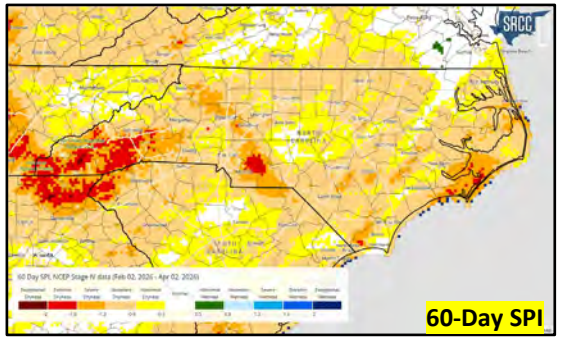
Days Since ≥ 0.50" Precip.

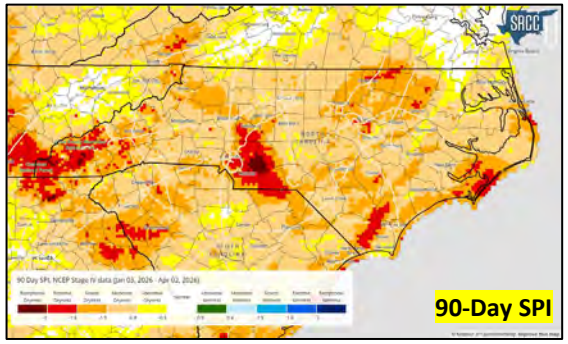
0 1 2 3 7 10 14 21 28 days

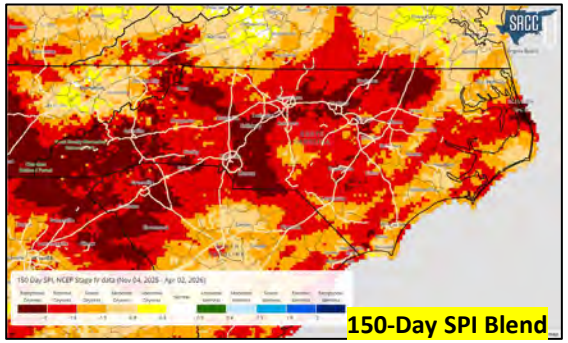
From today (Apr 3) 7 am ET

https://srcc.tamu.edu/water_portal/

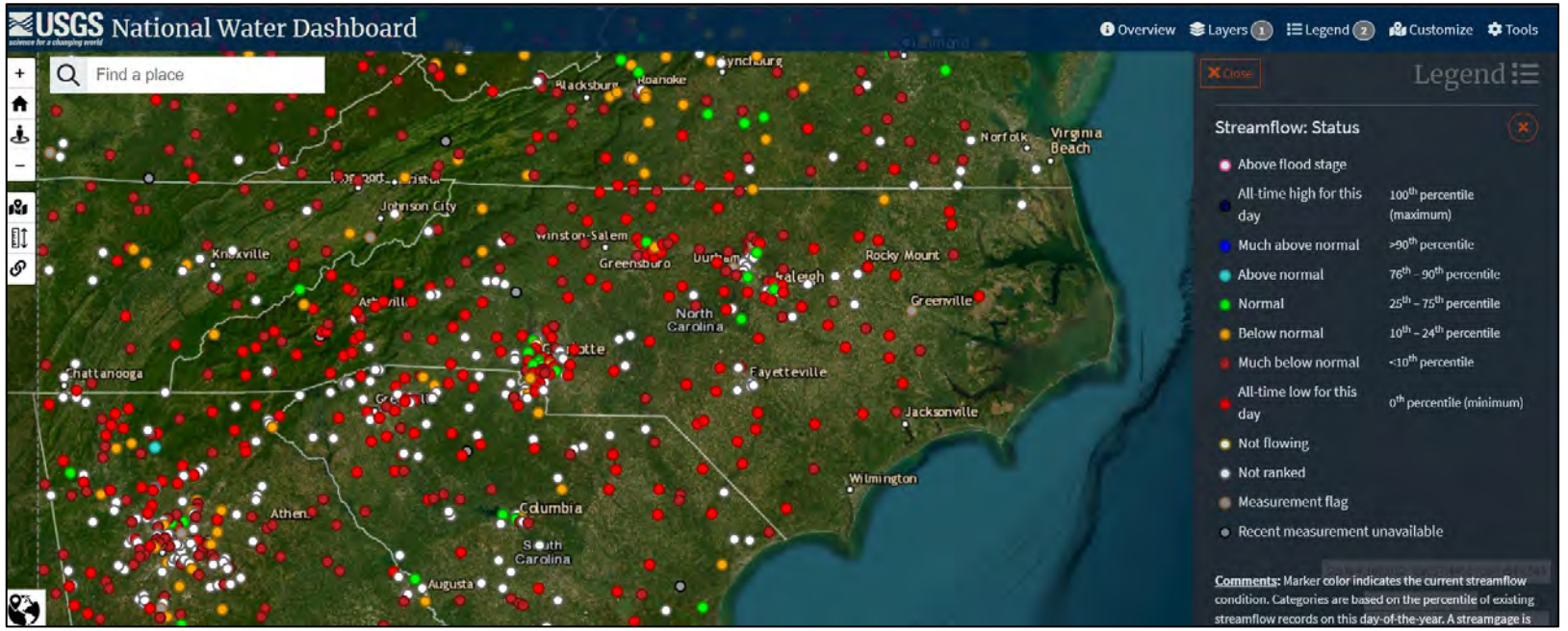








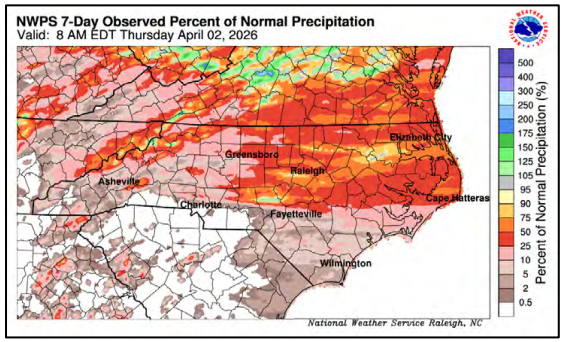
New USGS Streamflow Map: Real-time



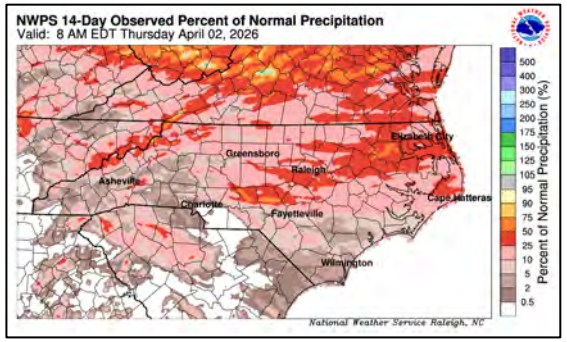
Another round of limited precip over the past 7-days continues to show response on the 30-day SPI map, offsetting earlier reductions. Longer time scale SPI products continue to indicate entrenched conditions. As dormancy break continues – expect further decreases in streamflow and lower duff/soil moisture.

Real-time streamflow from 4/3/26 shows return of "below" to "much below" normal flow conditions for many gauges in NC. This low-flow (especially in context of baseflow) trend continues to be very significant as we move towards the growing season/spring. Many swamps & larger canal networks remain low, compared to seasonal "normal".

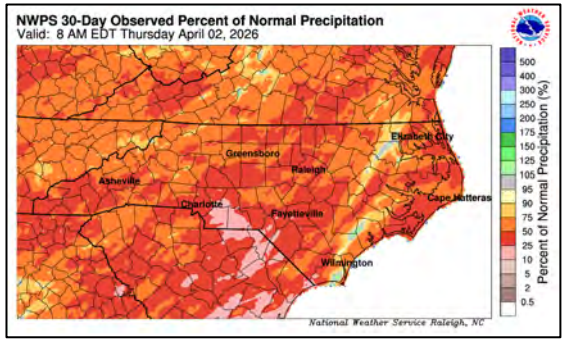
7-Day PNP



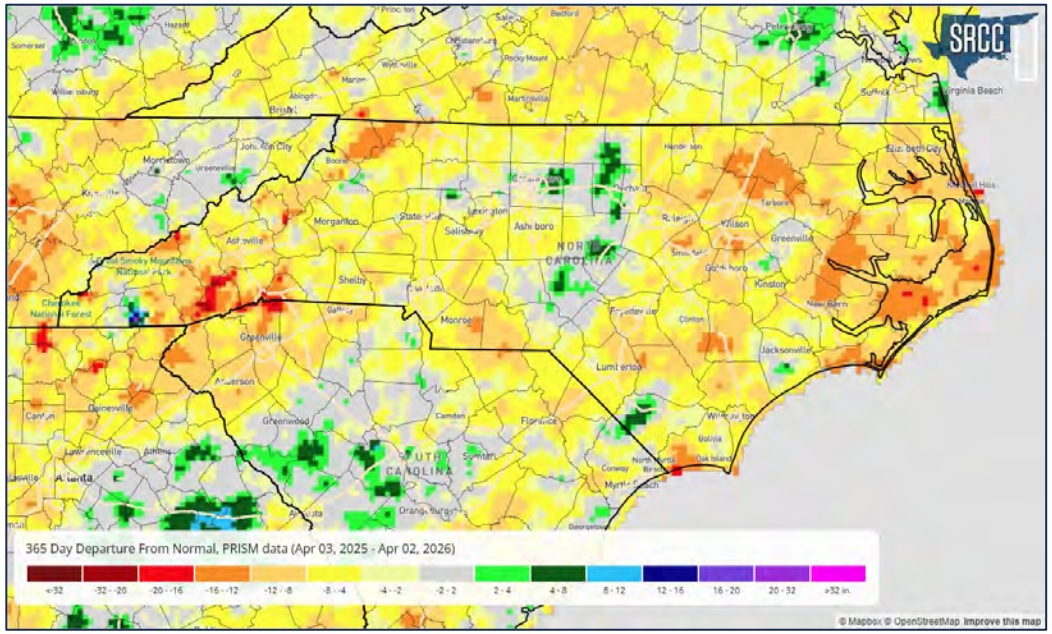
14-Day PNP



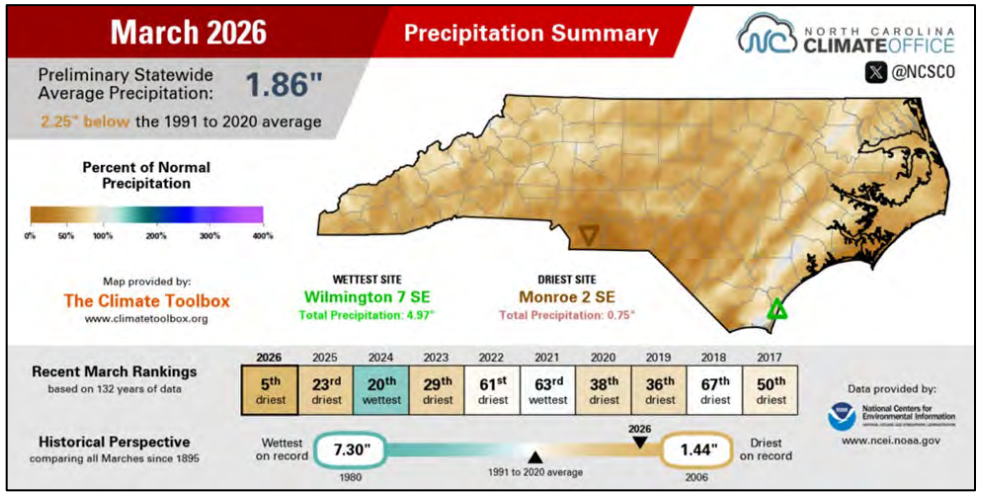
30-Day PNP



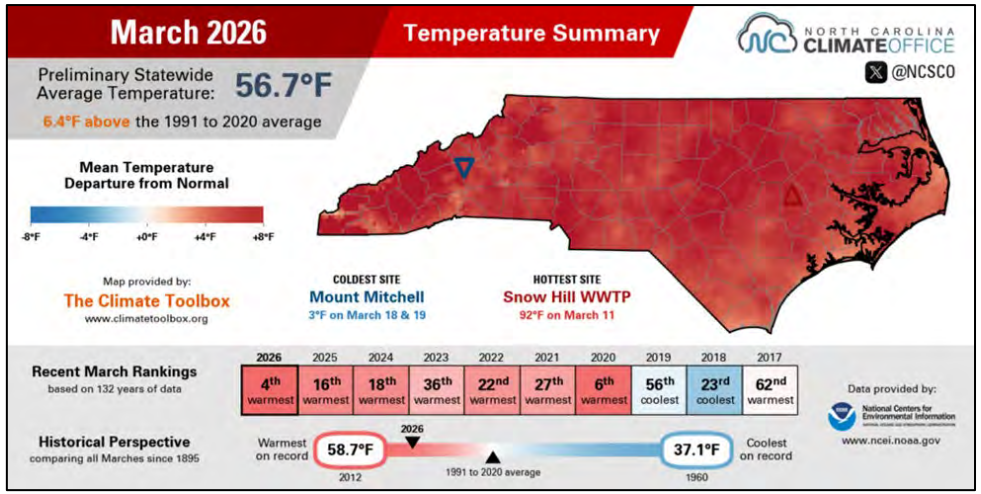
12-Month Departure From Normal (inches)

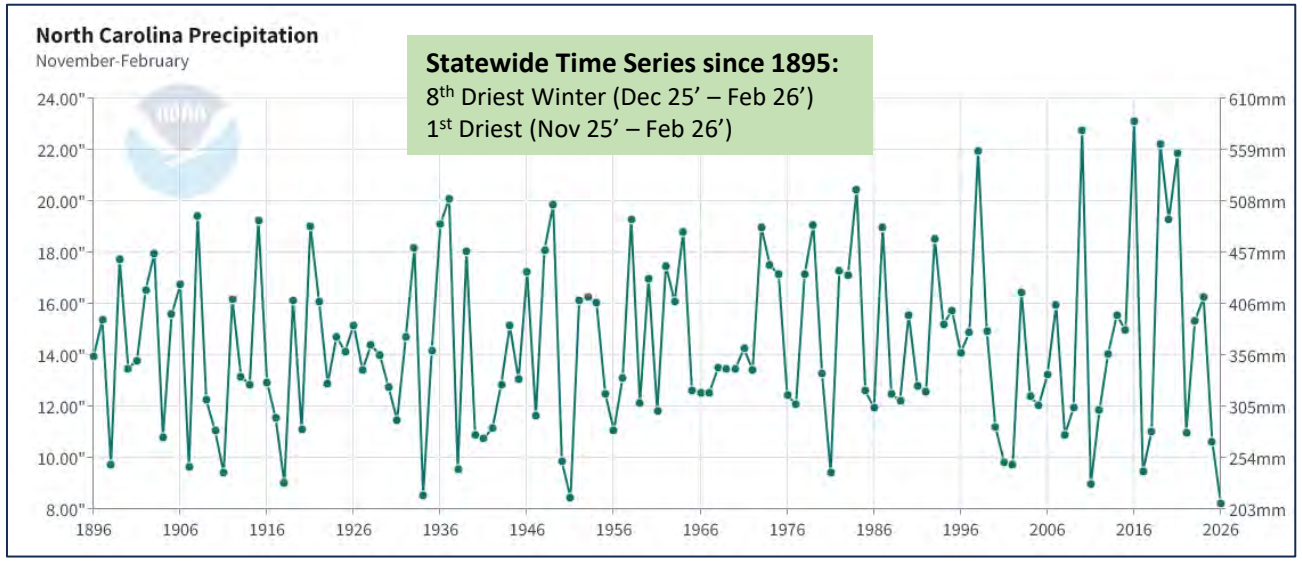


March Precip Summary

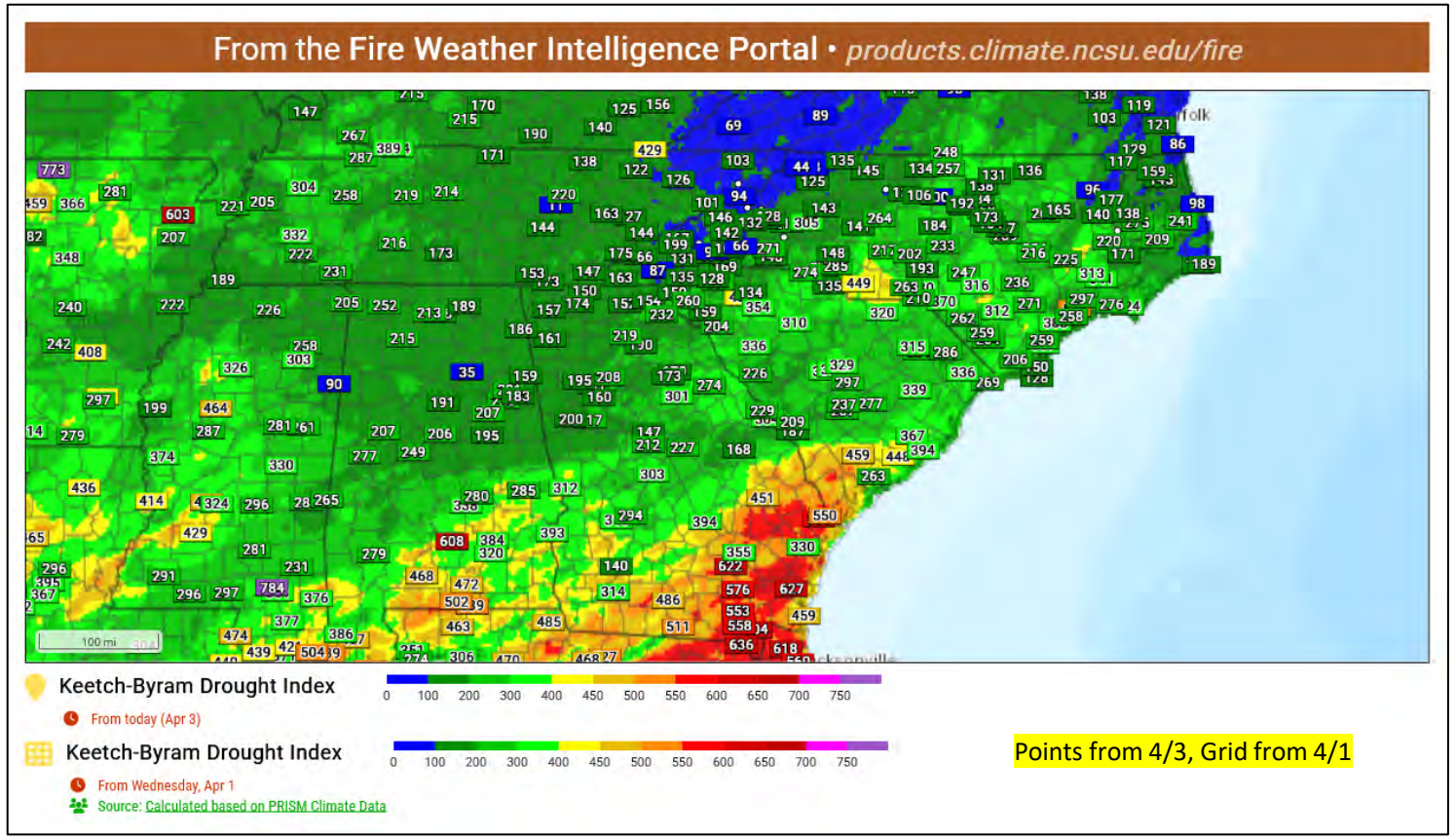


March Temp Summary

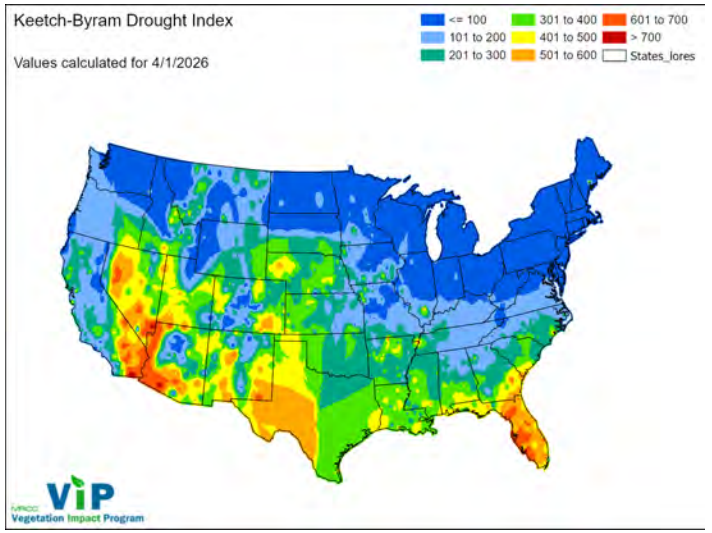


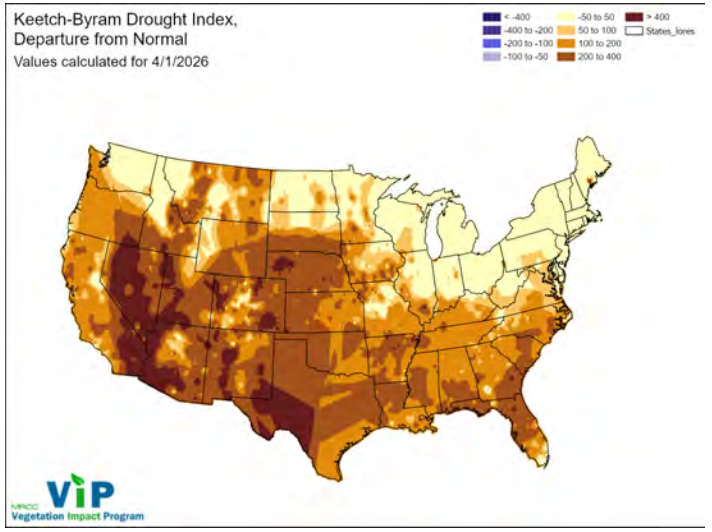


https://www.ncei.noaa.gov/access/monitoring/climate-at-a-glance/statewide/time-series/31/pcp/4/2/1895-2026



Points from 4/3, Grid from 4/1





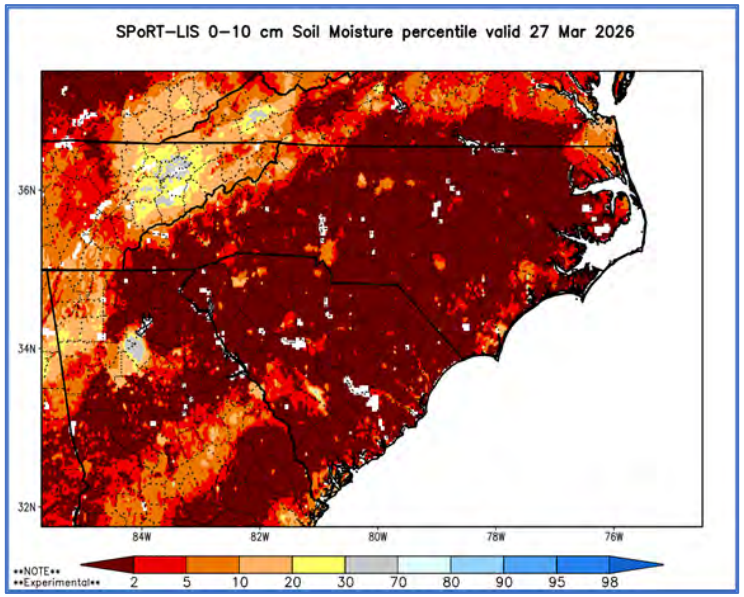
- KBDI is much less representative of the fire problem in the cold season, while max temperatures are low. A moderate rainfall can seemingly "erase" higher KBDI values, as the daily climb after the rain event is minimal (while true drought hasn't been erased). This metric is much more useful in the growing season. The map shows the impact of continued overall warm weather in daily expansion of KBDI values. Expect more rapid daily climbs when daily max temps rebound again.

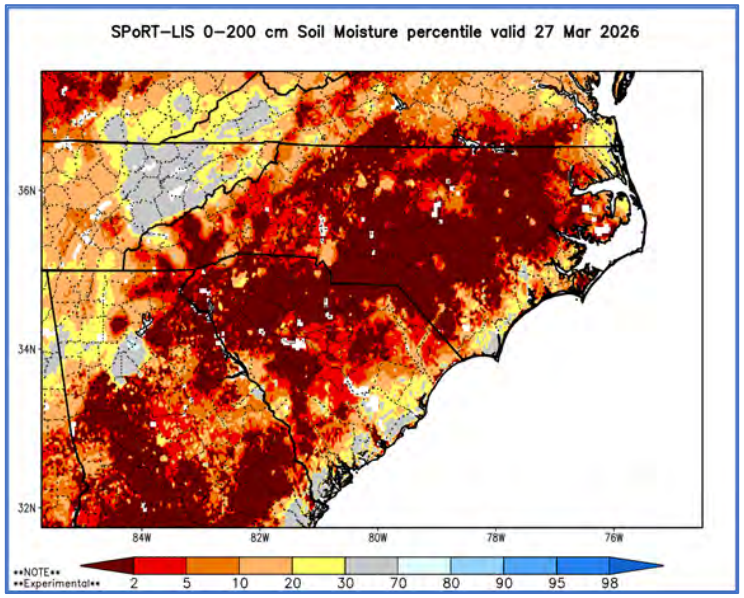
- Intense surface fire can still occur even with low KBDI values in the dormant season. Additionally, there are multiple areas still showing values in the 300's + on the gridded map above. The national maps to the right are calculated by MRCC, but paint a similar picture in a broader context.

https://mrcc.purdue.edu/VIP/indexKBDI2

SPoRT Modeled Soil Moisture Percentiles for ~4” and ~72” profile.

3/27/26

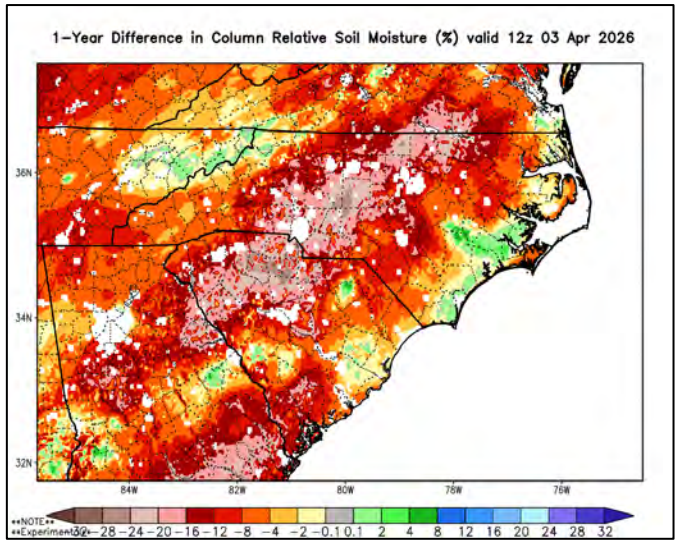




~ 1-Week ago Left, today on Right.
Just a model.

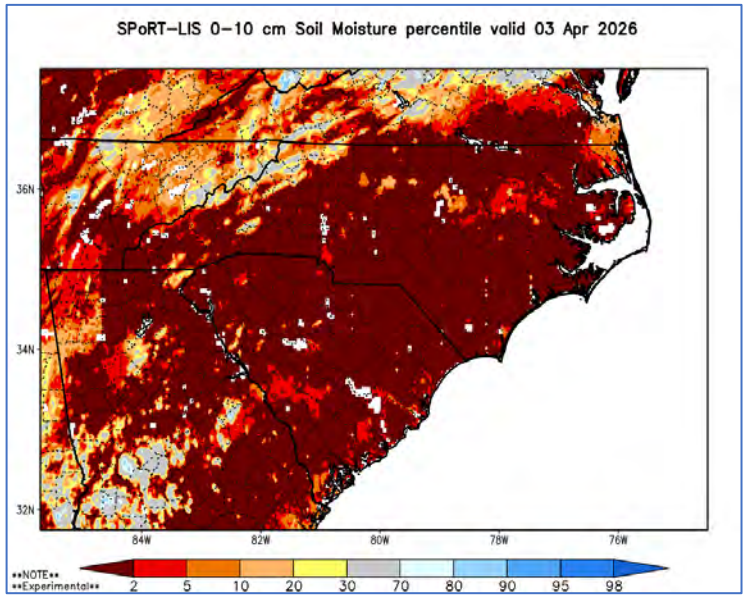
Another week of general drying.

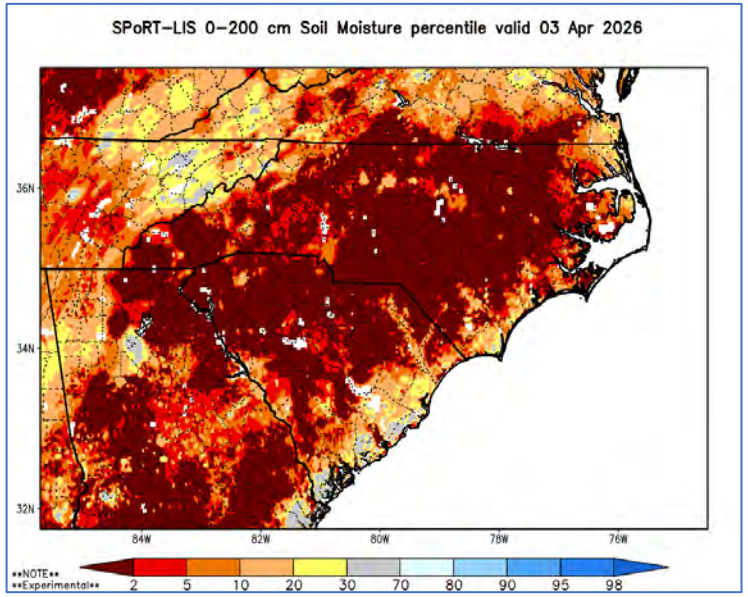
Note 1-year difference graphic below.



https://weather.ndc.nasa.gov/sport/case_studies/lis_NC.html

4/3/26





North Carolina Drought Update

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

For the assessment period ending **Mar. 31, 2026**

From the US Drought Monitor, with input from the NC DMAC

The Main Takeaway

After our 5th-driest March on record statewide, Severe Drought (D2) now covers most of the Coastal Plain and Extreme Drought (D3) has emerged in the Mountains.

This Week's Summary

Aside from two locally heavy mid-month rain events, the past month had limited rainfall and ended with warm, dry, and windy weather that has prompted a statewide burning ban. In addition to wildfire activity, we're still seeing low streamflow, topsoil moisture, and groundwater levels. With little moisture flowing in, reservoirs may struggle to reach their summer targets.

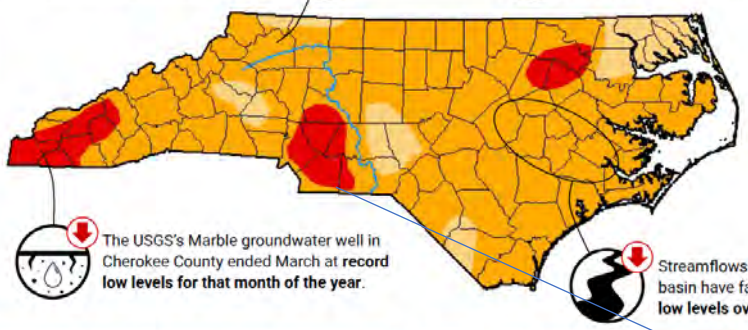
Last Month's Precipitation

The statewide average was 1.86 inches last month, but the driest spots received less than an inch, including **Monroe** (0.75 inches) and **Newport** (0.78 inches).

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

The largest wildfire this week **burned 600 acres in rural in Wilkes County** and was 90% contained by Wednesday morning.

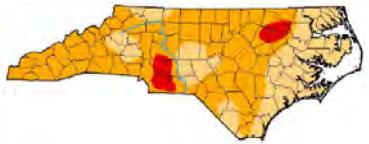
This week's USDA/NASS Crop Progress Report shows **63% of topsoil moisture as short or very short** – a 49% increase since March 1.



The USGS's Marble groundwater well in Cherokee County ended March at **record low levels for that month of the year**.

Streamflows in the Neuse River basin have fallen to **daily record low levels over the past week**.

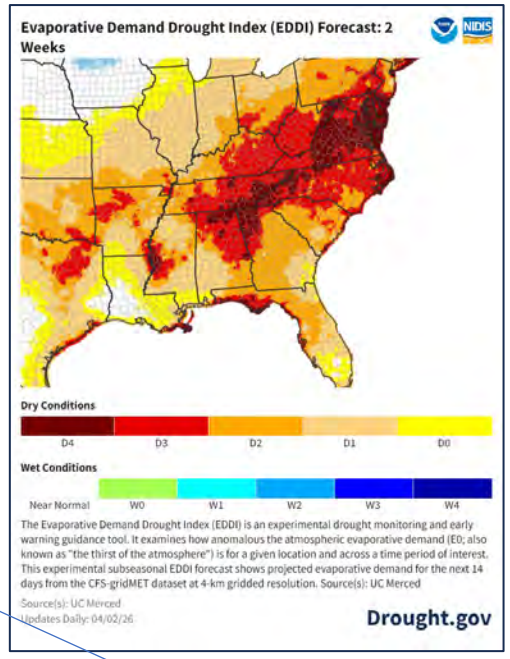
Last Week's Drought Status

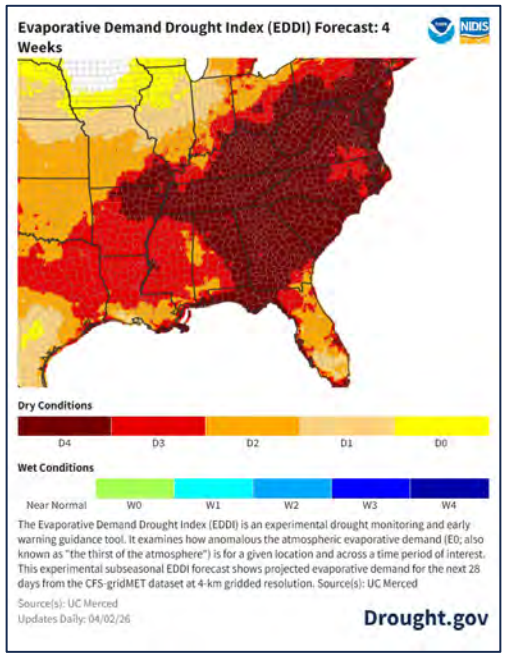


Statewide Coverage by Category

Category	Current Coverage	Change Since Last Week
D0: Abnormally Dry	0.00%	0.00%
D1: Moderate Drought	10.60%	-23.89%
D2: Severe Drought	79.76%	+18.95%
D3: Extreme Drought	9.64%	+4.93%
D4: Exceptional Drought	0.00%	0.00%

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





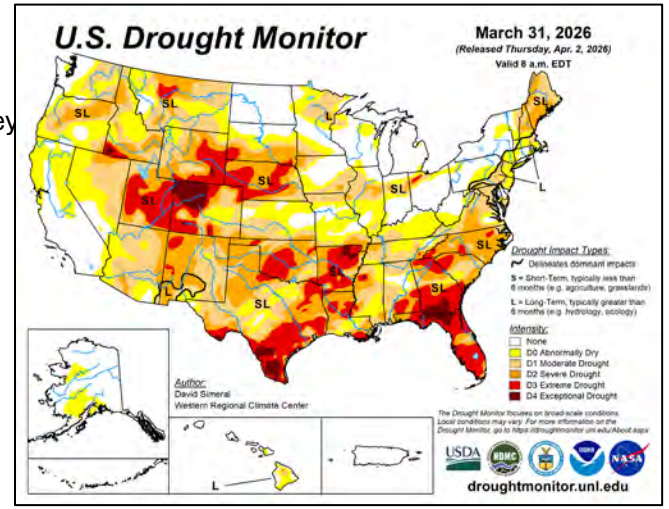
EDDI & Drought

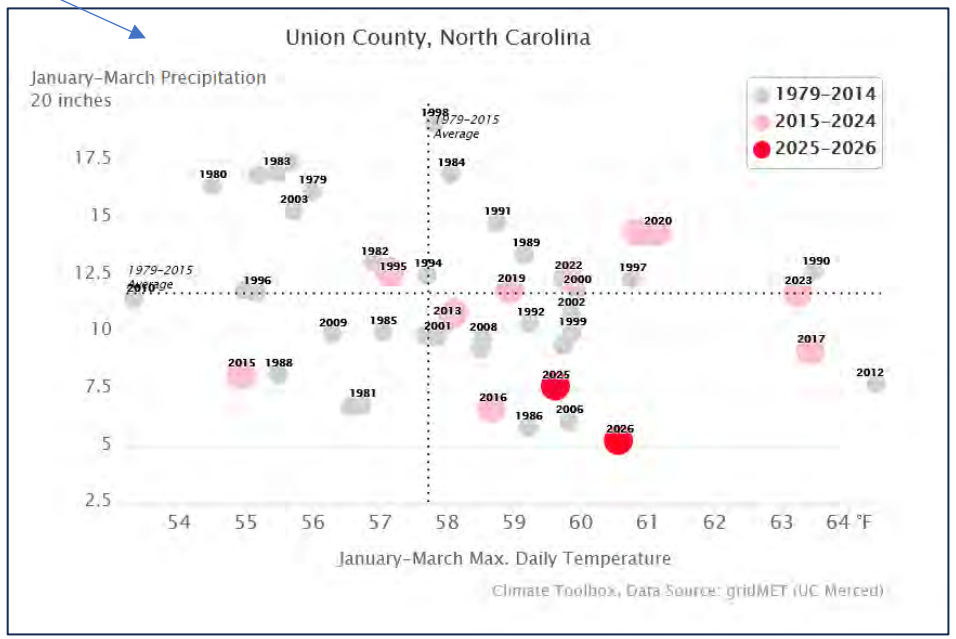
EDDI Maps - The EDDI maps at the top right illustrate modeled evaporative demand at the two-week and four-week avg level. They are trending much drier than normal for NC in the 2 & 4-week time scale. Warmth, lack of precip and dry air accelerates this index.

US Drought Monitor – Most recent USDM map release above (3/31/26). Drought intensification continues to be possible as we move into the growing season, should rainfall deficits continue.

Seasonal Drought Outlook - See detailed state/regional discussions here.

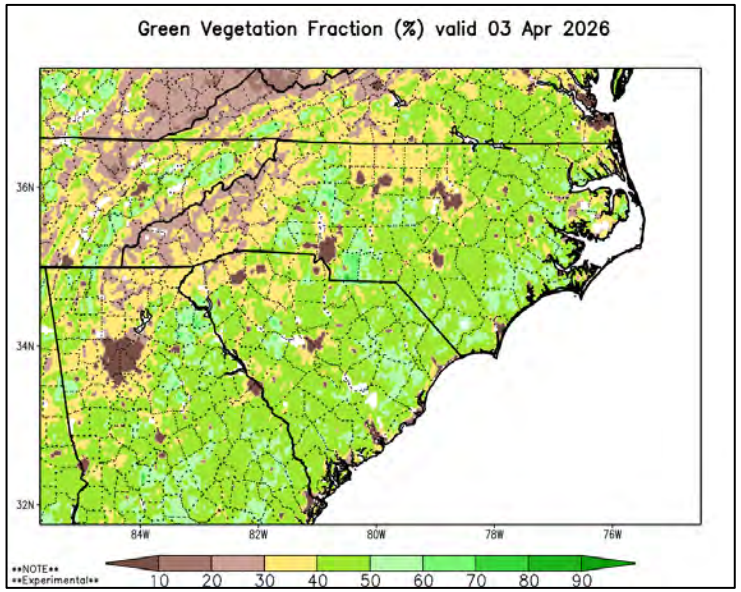
Climate Scatter Plot Graphic – Union County as an example of Jan-March avg precip vs max daily temp (date range 1979 – 2026).

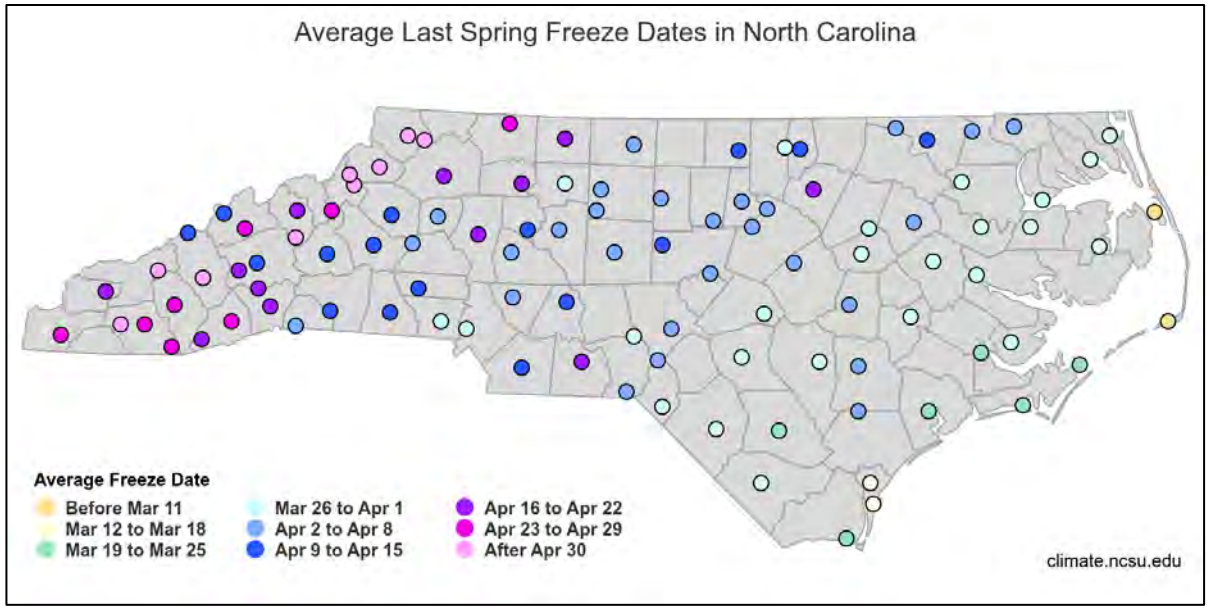


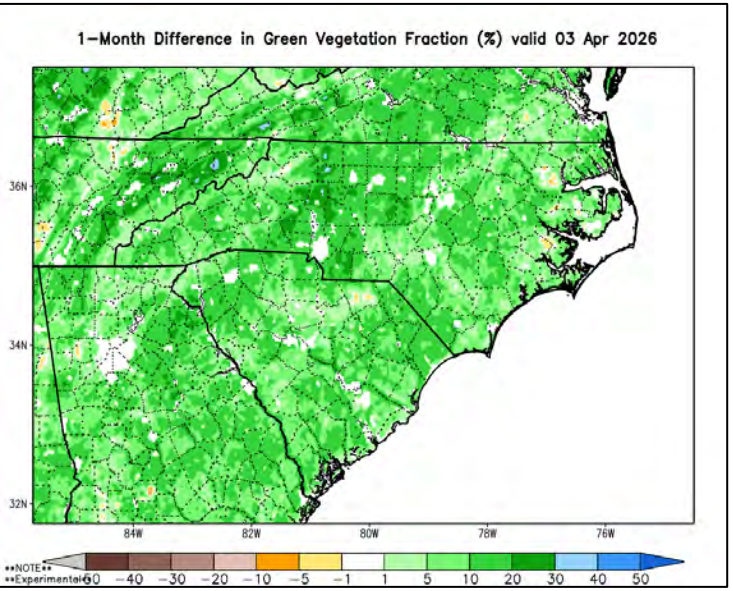


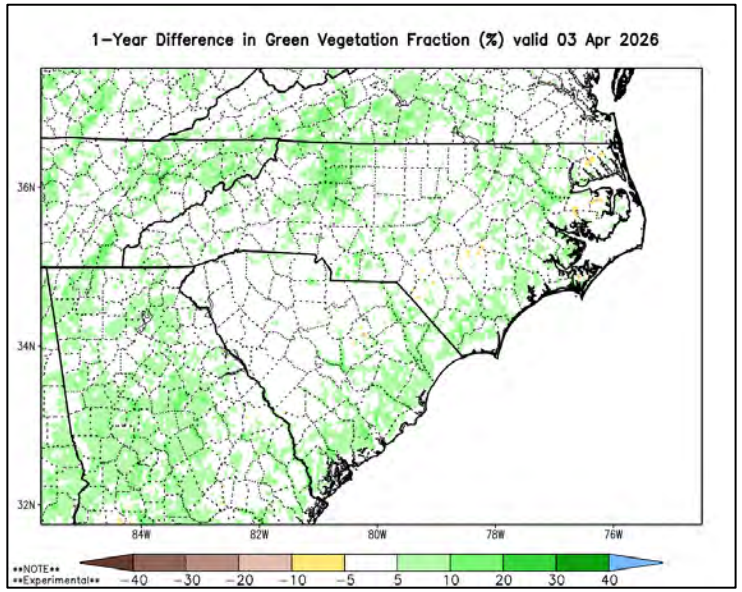
https://climatetoolbox.org/tool/Historical-Climate-Scatter

SPoRT Modeled Green Vegetation Fraction









The daily GVF graphic show an increase in overall greenness across the state (top left), some lower elevation areas approaching 35-50%. The 1-mo difference graphic helps track progression across the landscape (bottom left). The 1-year difference graphic shows some areas generally being about 5% further along then last year at the same time. Actual greenness depends on species, aspect, freeze/frost/drought impacts; progressing from south to north & lower to upper elevation.

Higher GVF values **should not** be interpreted as meaning "canopy closure" at this point in seasonal progression.

The map above displays average last Spring Freeze Dates. Another round of cold overnight conditions is possible later next week.

Vegetative Greenness – Examples across the State

https://drivenc.gov/#

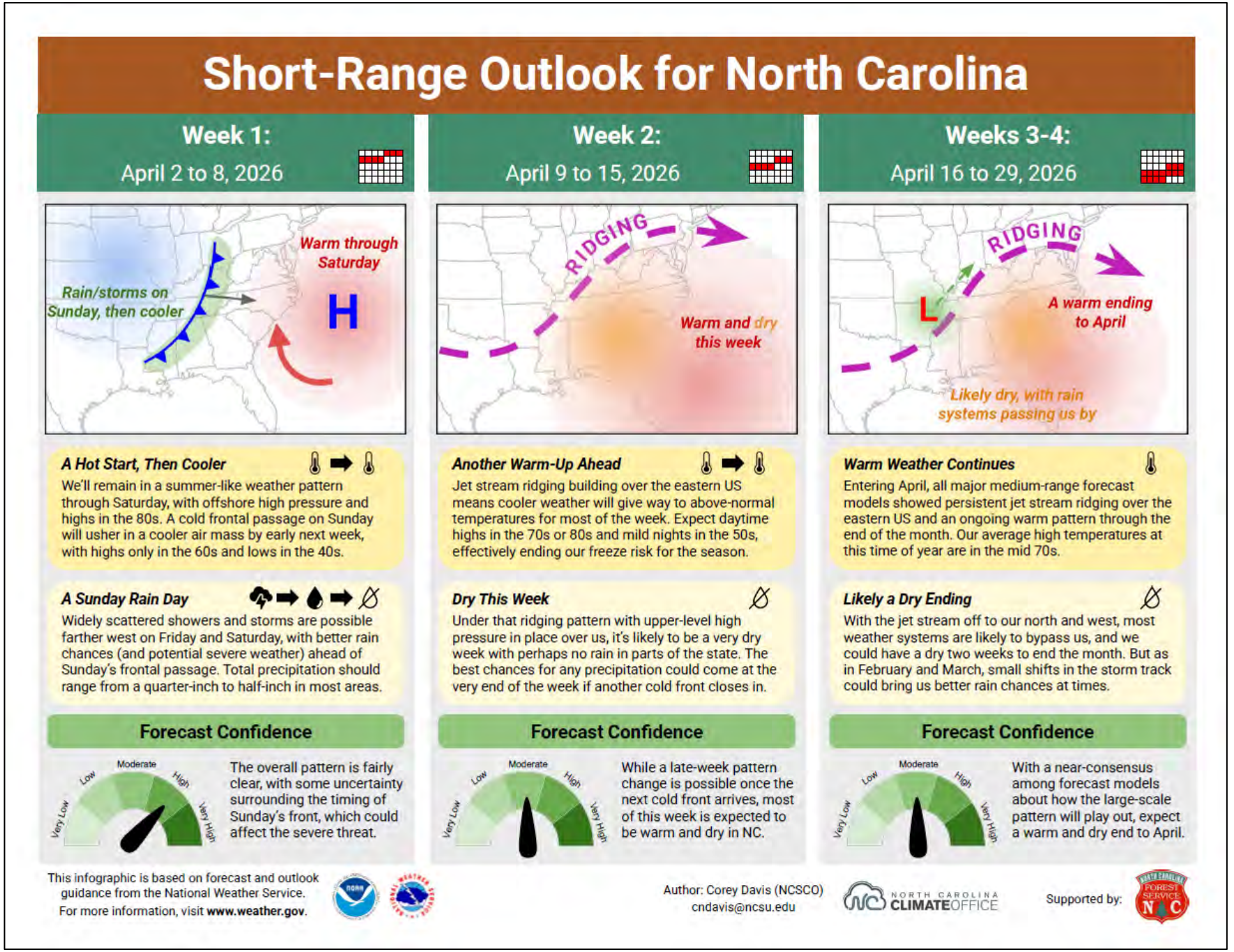
Although grasses may be greening in many areas, hardwood forest canopy is still far from being regenerated. Traffic cameras from across the state show this. **Volatility of forest fuels will remain significant until forest canopy closes, drought conditions are abated, and waxy leaved shrubs reach maturity much later this spring.**

Alignment of fire effective weather with available fuels will continue to lead to enhanced difficulty of control, especially Helene or drought impacted areas.

The anticipated continued lack of significant wetting rain for the next ~2+ weeks will encourage shallow soils and duff to dry as plants increase transpiration needs.

State Climate Office: Short-Range Monthly Outlook for NC

Released ***4/2/26***
Location: https://climate.ncsu.edu/fire/outlooks/

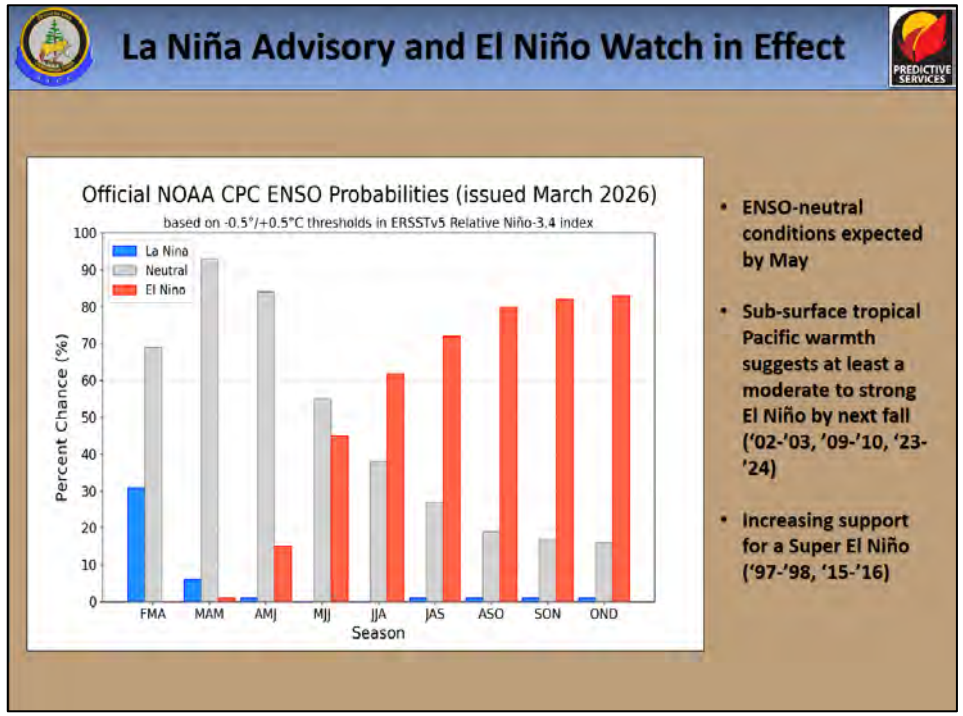


ENSO Notes from the CPC (3/12/26 Update)

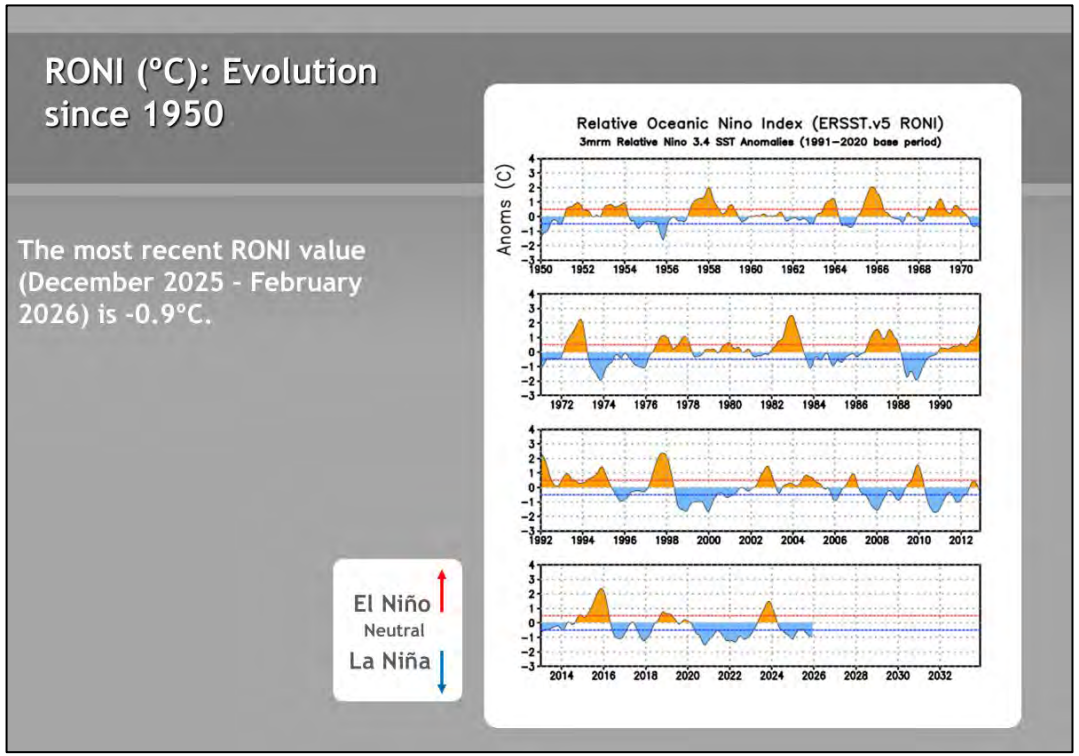
ENSO Alert System Status: **La Niña Advisory / El Niño Watch**

A transition from La Niña to ENSO-neutral is expected in the next month, with ENSO-neutral favored through May-July 2026 (55% chance). In June-August 2026, El Niño is likely to emerge (62% chance) and persist through at least the end of 2026.

ENSO, or El Nino 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 Nina, NC has drier than normal conditions and can have more fire occurrence. However, La Nina also can lead to more tropical activity. El Nino, on the other hand, usually means wetter weather for NC, but less opportunity for tropical landfalls due to increased wind shear. Recent changes in defining either ENSO state can be found here.



From SA Fire Environment Briefing 4/3/26



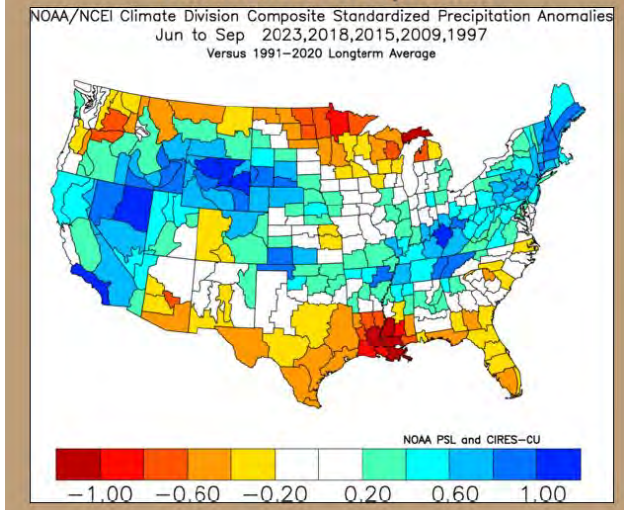
From the most recent CPC Diagnostic Discussion (ENSO Diagnostics Discussion):

The North American Multi-Model Ensemble (NMME) average, including the NCEP CFSv2 (Fig. 6), points toward ENSO-neutral through the late Northern Hemisphere Spring 2026, with a transition to El Niño thereafter. Even though model forecasts are relatively less accurate this time of year, the increasing odds of El Niño are supported by the large amount of heat in the subsurface ocean and the expected weakening of the low-level trade winds. If El Niño forms, the potential strength remains very uncertain, with a 1-in-3 chance that it would be "strong" during October-December 2026 (Niño-3.4 +1.5C). In summary, a transition from La Niña to ENSO-neutral is expected in the next month, with ENSO-neutral favored through May-July 2026 (55% chance). In June-August 2026, El Niño is likely to emerge (62% chance) and persist through at least the end of 2026 (Fig. 7).

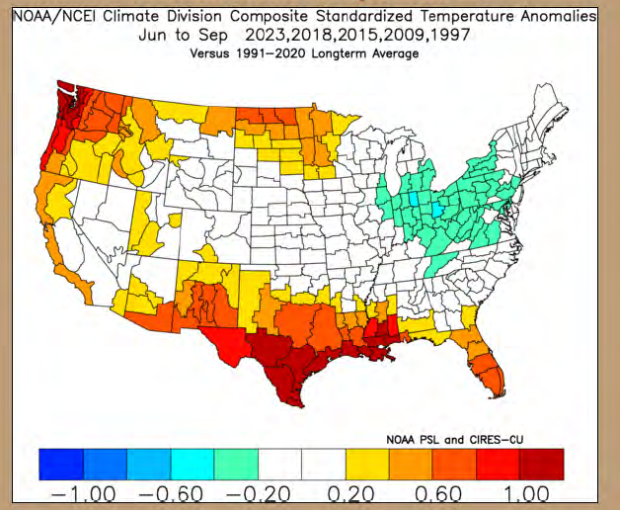
Slide Source: *https://www.cpc.ncep.noaa.gov/products/analysis_monitoring/lanina/enso_evolution-status-fcsts-web.ppt*

Summer Analogs

Standardized Precipitation

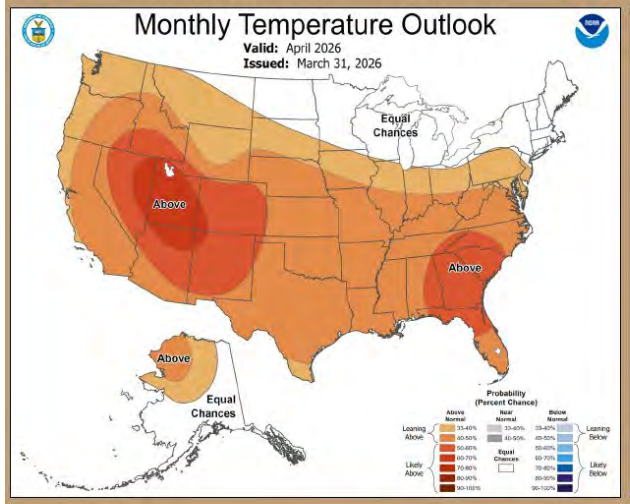


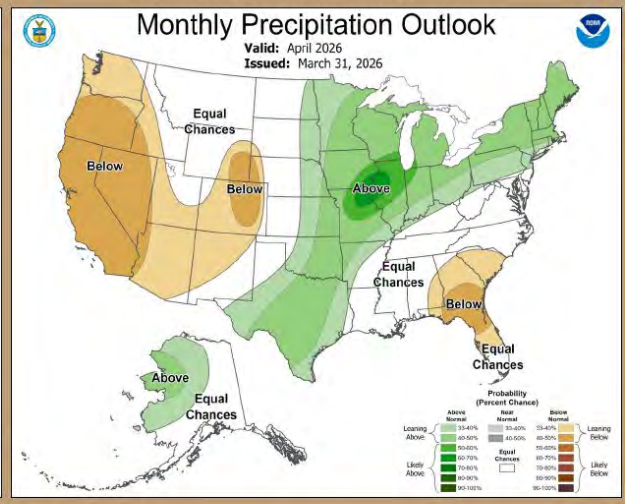
Standardized Temperatures



- Analogs for June to September, based on quick transition into a moderate/strong El Niño
- Strong signal for hot and dry conditions resulting in flash drought for the Gulf states
- Potentially wetter and milder across the northern tier
- El Niño usually increases shear over the Atlantic basin, but as in 2023, if Atlantic waters are also unusually warm, we could still see intense tropical cyclones

NOAA's April Outlook



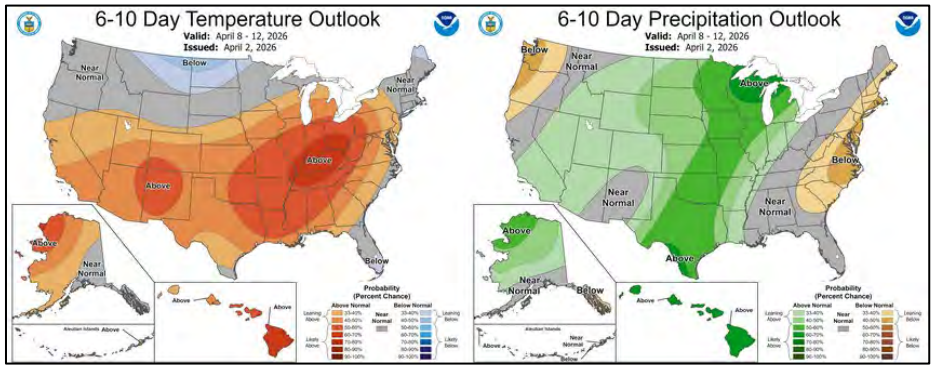


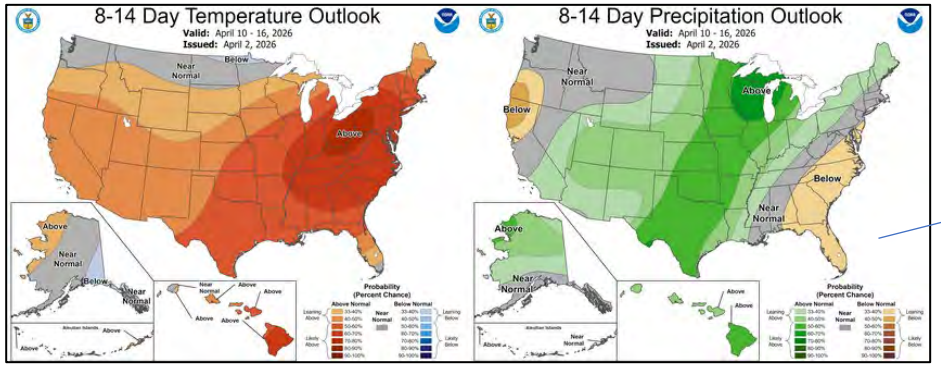
- Residual impacts from the weakening La Nina expected
- Drought intensifies across the Southeast due to above normal evaporative demand, warm temperatures and below average rainfall
- High Plains on the edge of relief

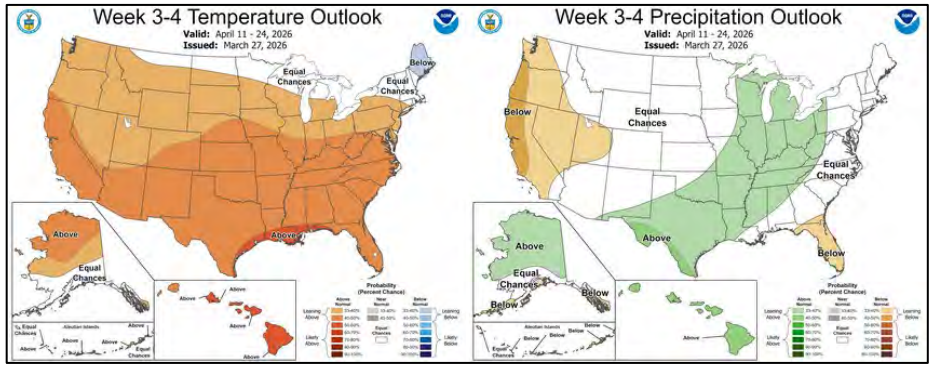
From SA Fire Environment Briefing 4/3/26

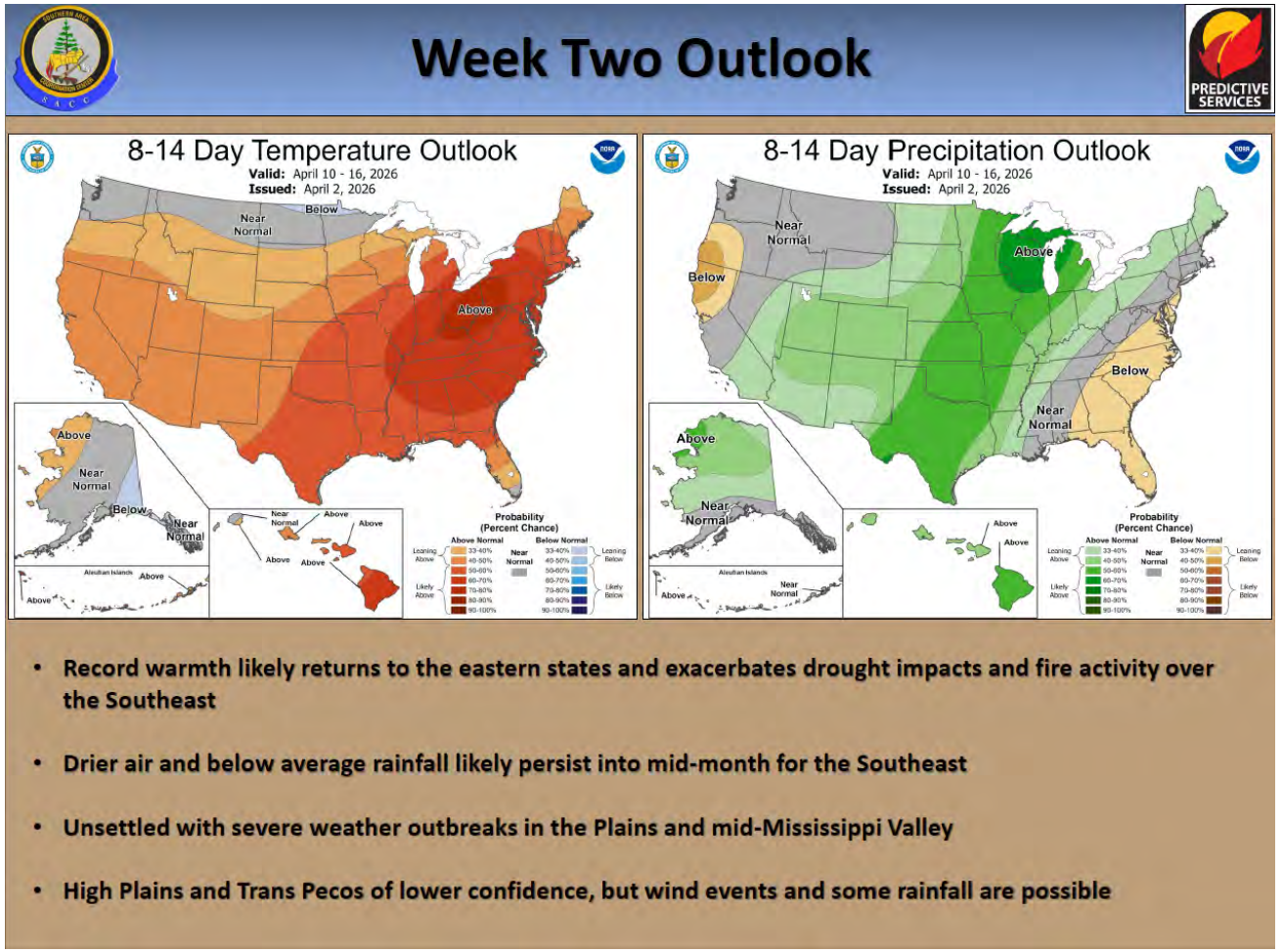
Temp & Precip Outlook

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









From SA Fire Environment Briefing 4/3/26

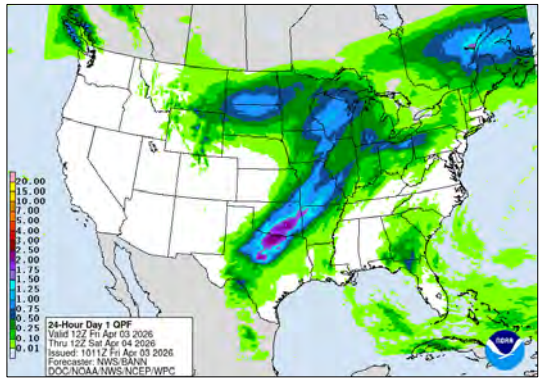
Source: https://www.cpc.ncep.noaa.gov/

https://www.cpc.ncep.noaa.gov/products/predictions/long_range/fxus05.html

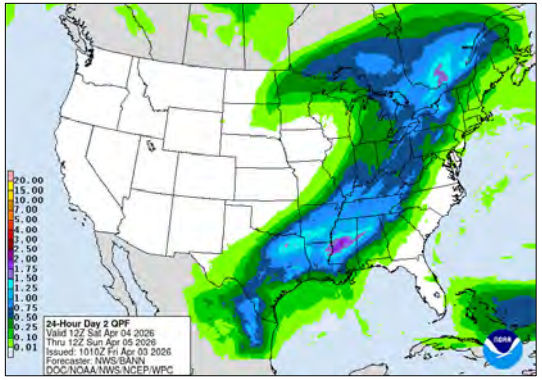
Quantitative Precipitation Forecast, 7-Day

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

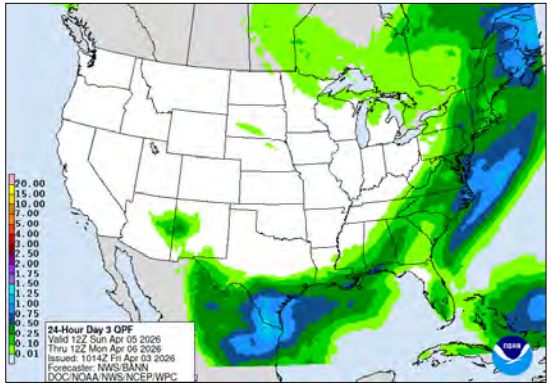
Day – 1



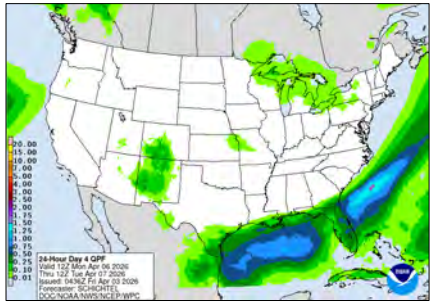
Day - 2



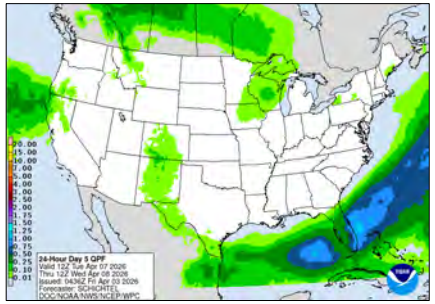
Day - 3



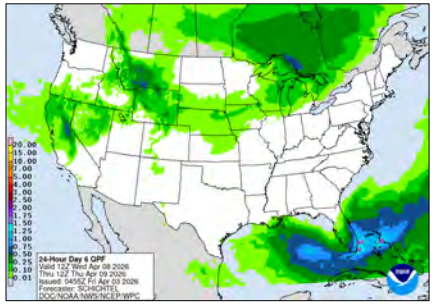
Day - 4



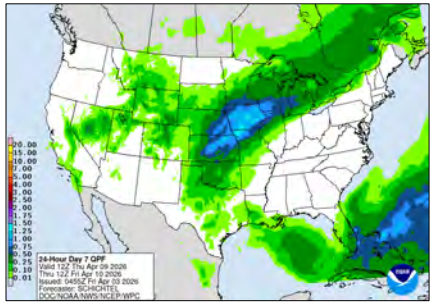
Day - 5



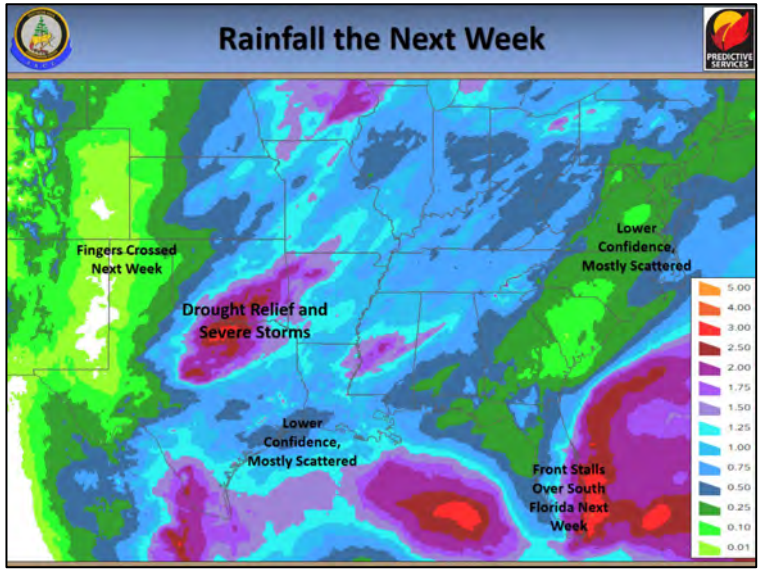
Day - 6



Day - 7

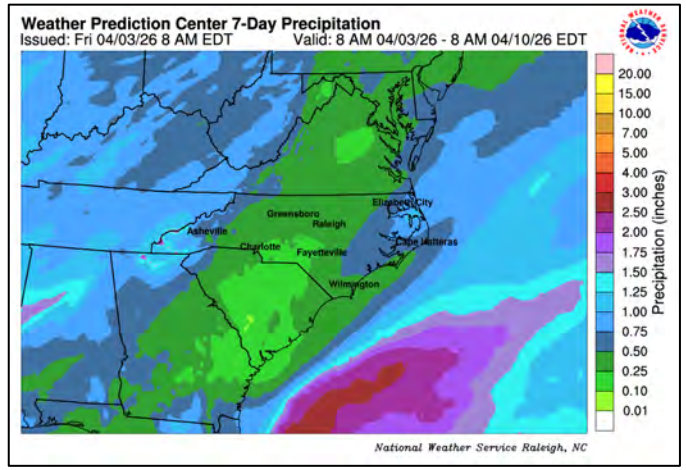


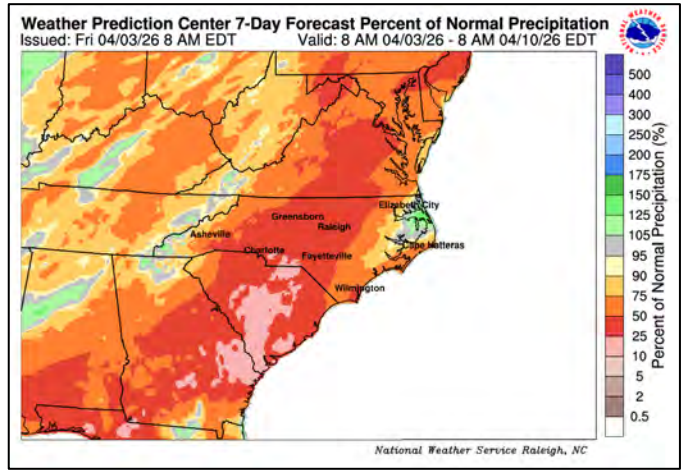
Days 1 – 7 QPF



From SA Fire Environment Briefing 4/3/26

Zoom - Day 1 – 7 QPF



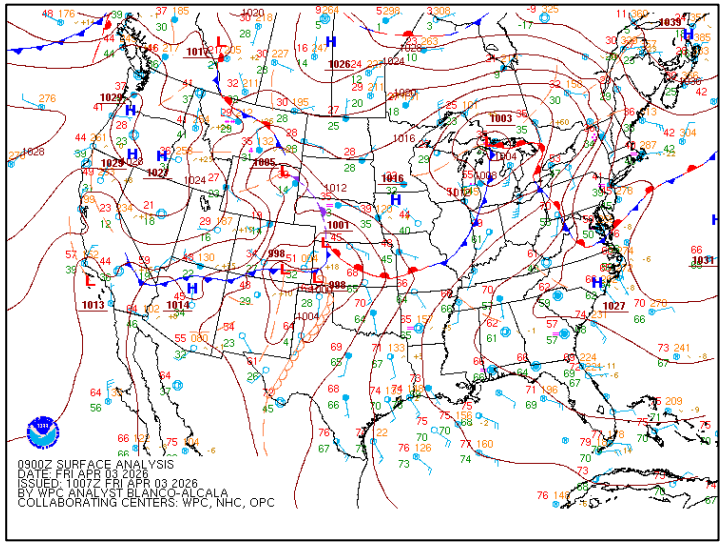


https://www.weather.gov/rah/nc#rain

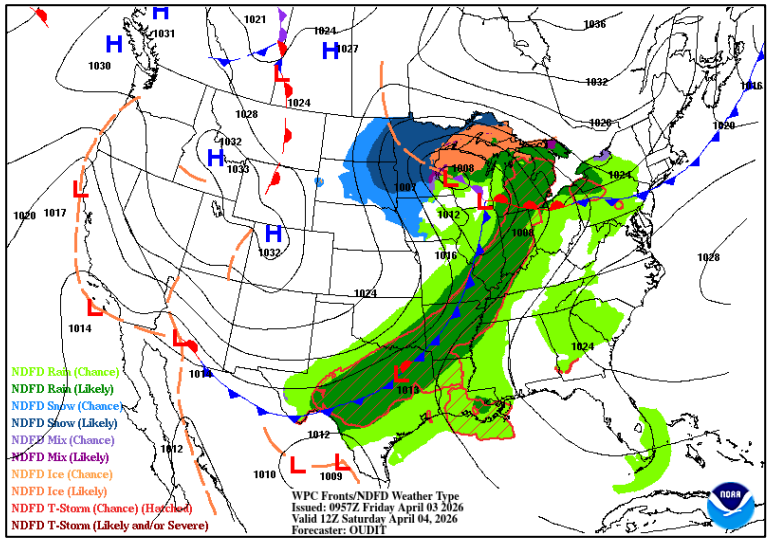
Limited chance of significant wetting rain over the next 7 days. Lightning risk should be considered as drought conditions worsen.

WPC Forecasted Surface Fronts & Sea-Level Pressures

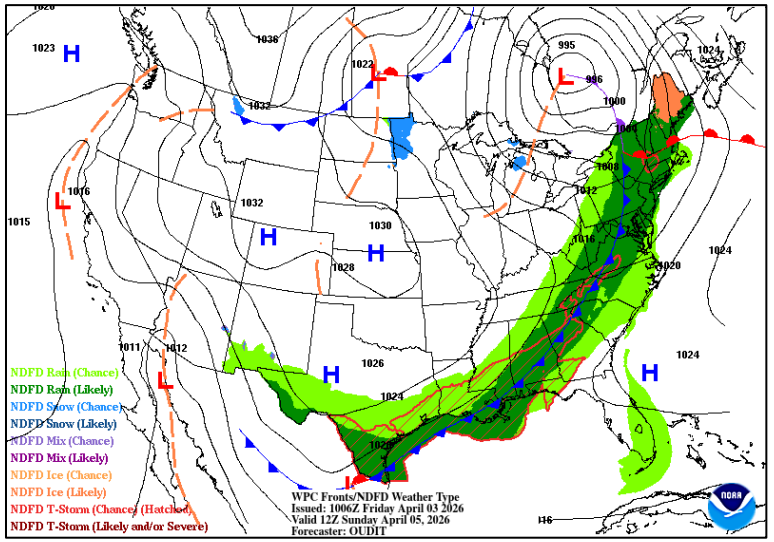
Day-1 @ 09Z Surface Analysis



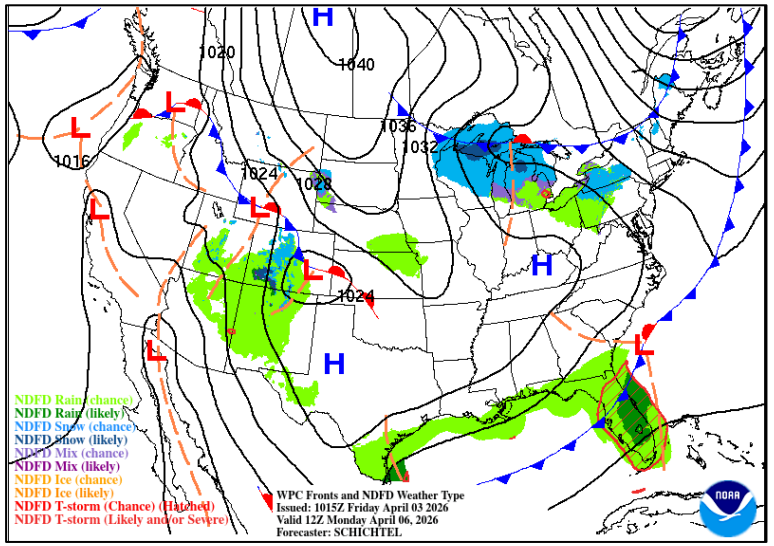
Day 2 - @ 12Z (0800 EDT)



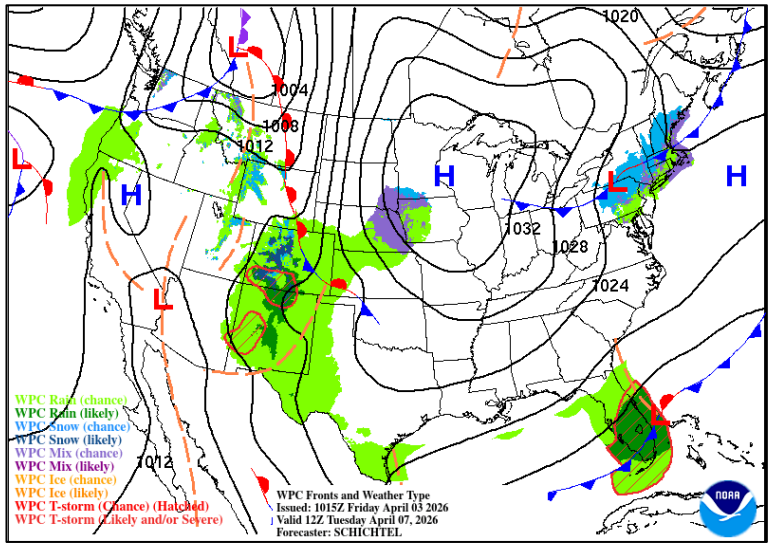
Day 3 @ 12Z (0800 EDT)



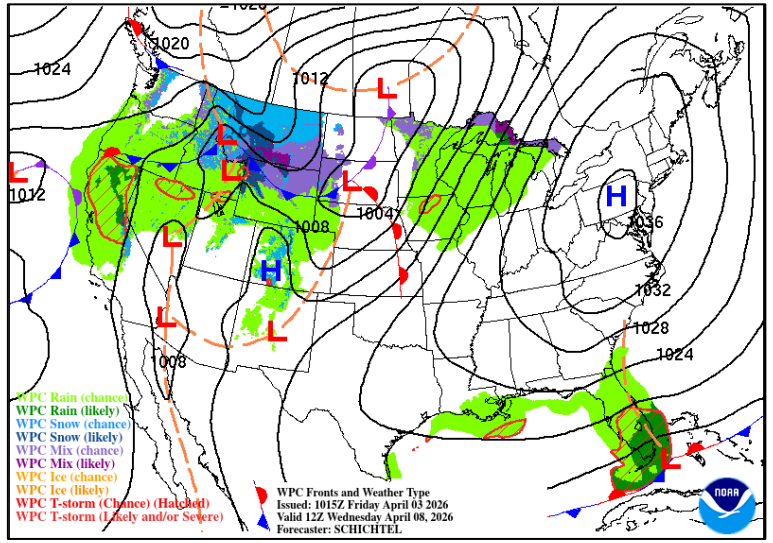
Day 4 @ 12Z (0800 EDT)



Day 5 @ 12Z (0800 EDT)



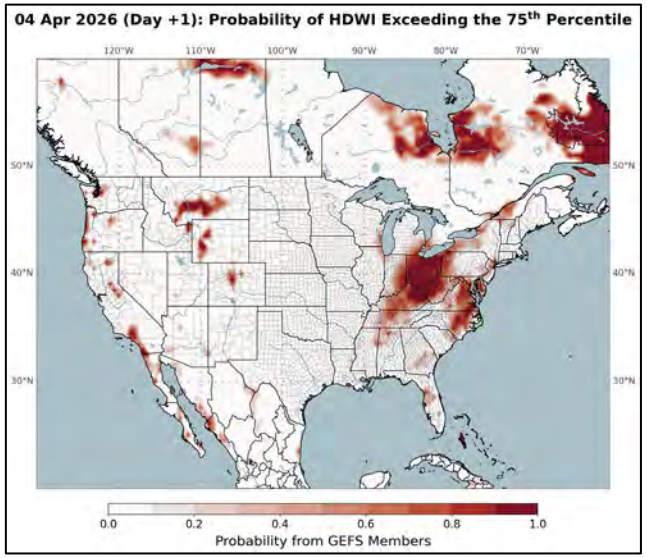
Day 6 @ 12Z (0800 EDT)



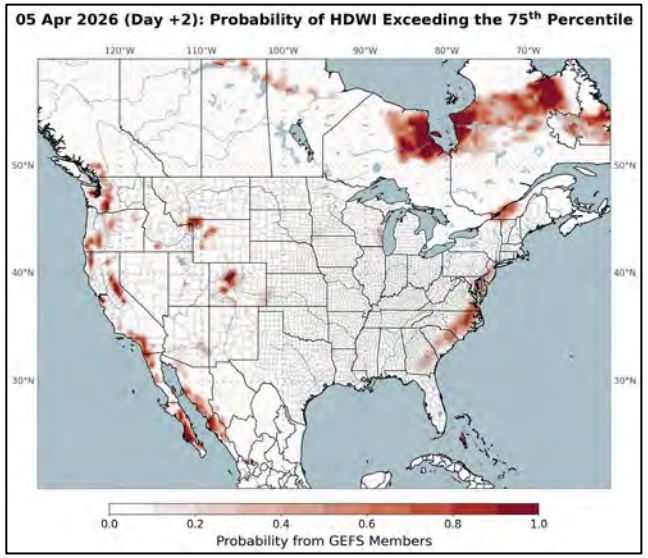
Location: https://www.wpc.ncep.noaa.gov/#

Hot-Dry-Windy Index (HDW)

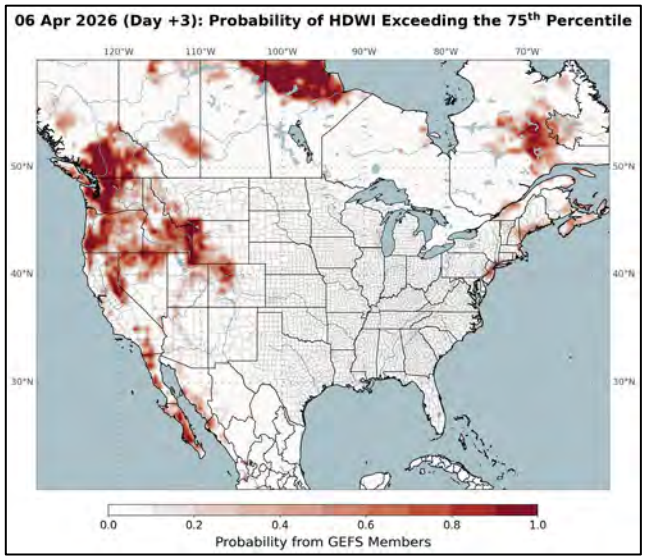
Saturday > 75th Percentile



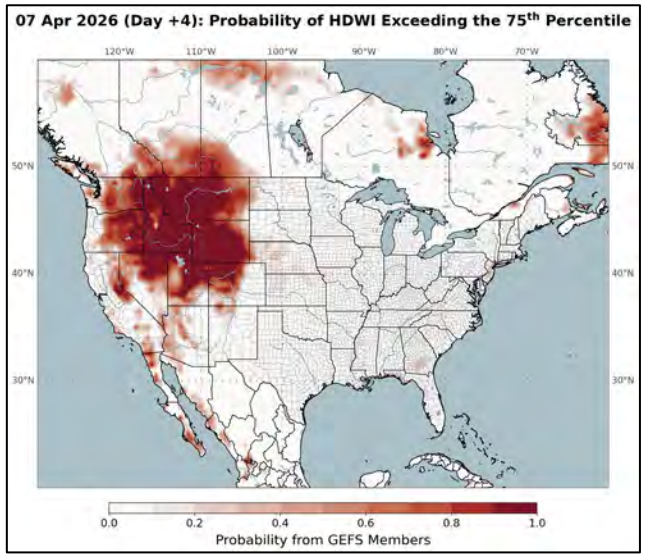
Sunday > 75th Percentile



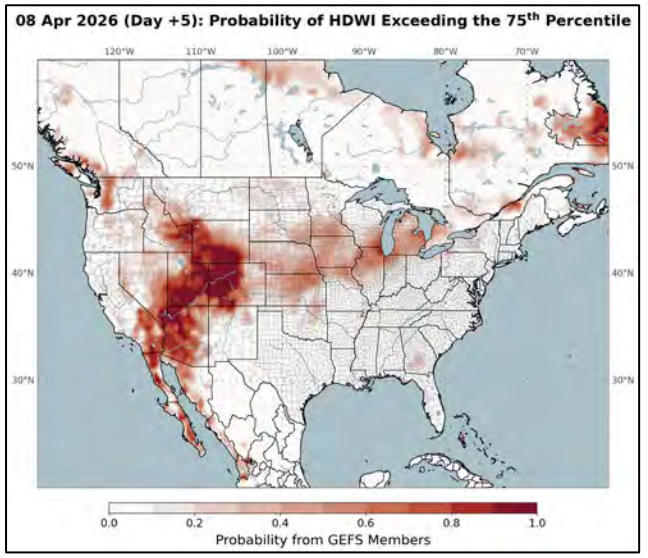
Monday > 75th Percentile



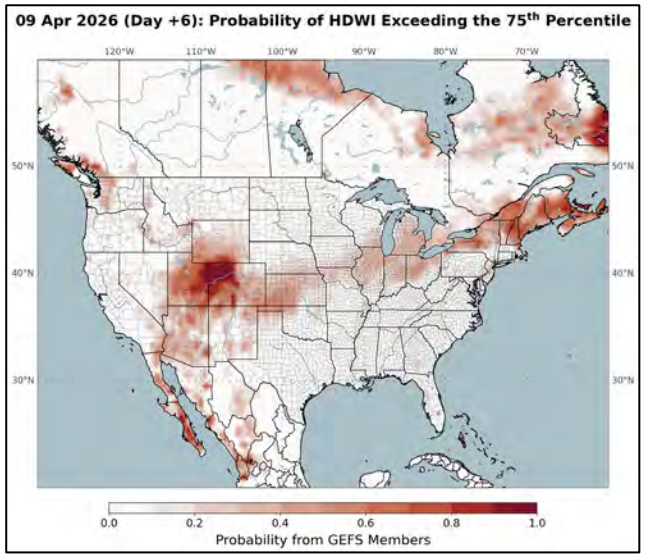
Tuesday > 75th Percentile



Wednesday > 75th Percentile



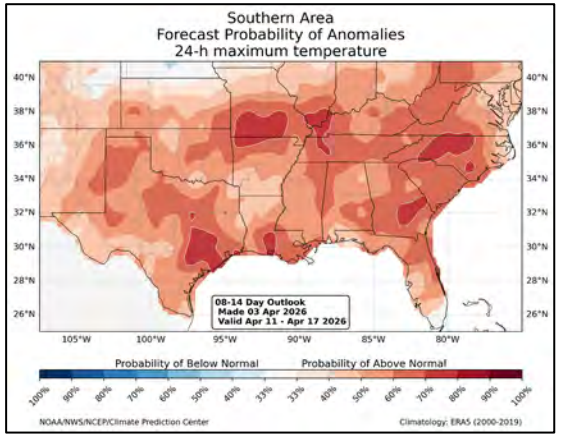
Thursday > 75th Percentile

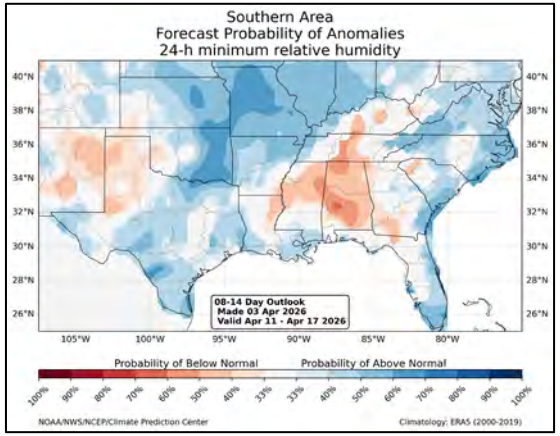


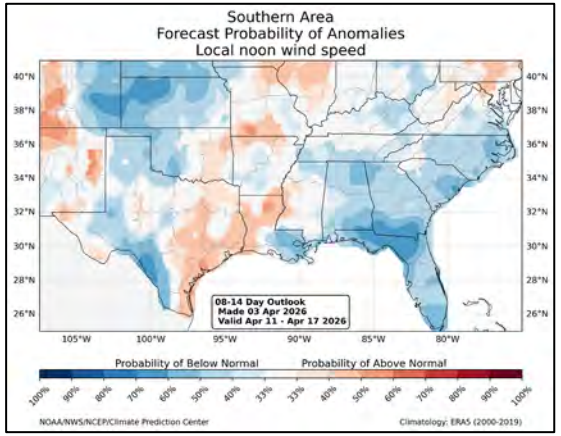
- Another visualization tool to pick up on broader weather, but with *limitations
- Only uses Max VPD (atmospheric moisture & temp) & Max Wind Speed to generate outputs
- Coarse Resolution - 0.5 Degree Grid
- No Account of Local Fuel Conditions and Topo

https://hdwindex.fs2c.usda.gov/probs.html

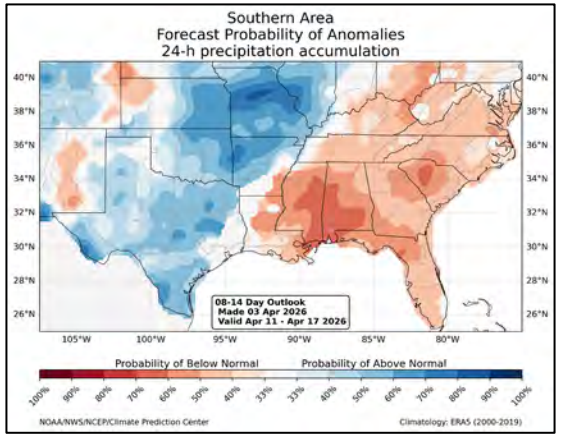
Week Two Forecast Anomalies: 4/11 – 4/17

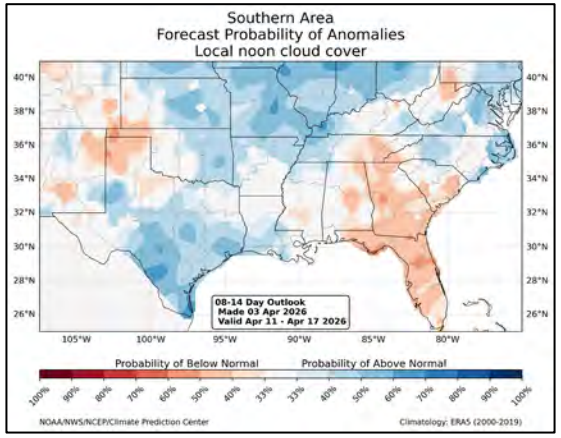






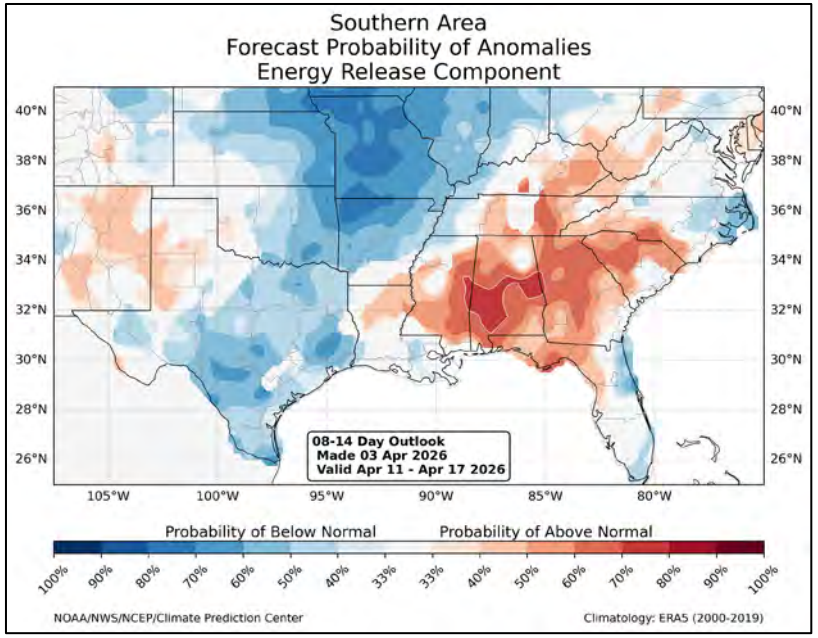
https://www.cpc.ncep.noaa.gov/products/extremes/fire-weather/cpc_wk2fw_index.html

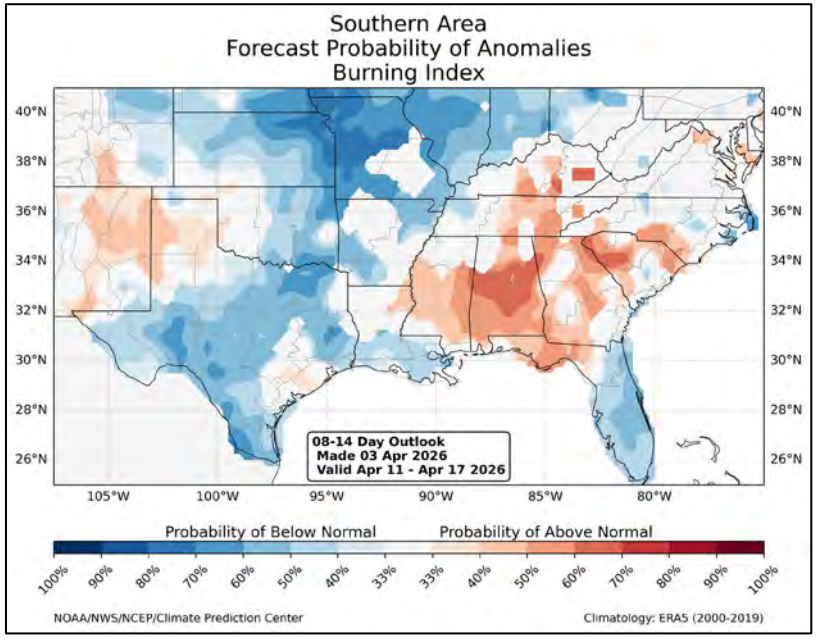




Important to note that there is significant forecast uncertainty as you go further out in time.

Models favoring warmer than normal temps, and lower precipitation. Forecast then applies those weather variables to show potential for near to above normal BI & ERC at week two for much of NC. Remember to apply this in seasonal context.

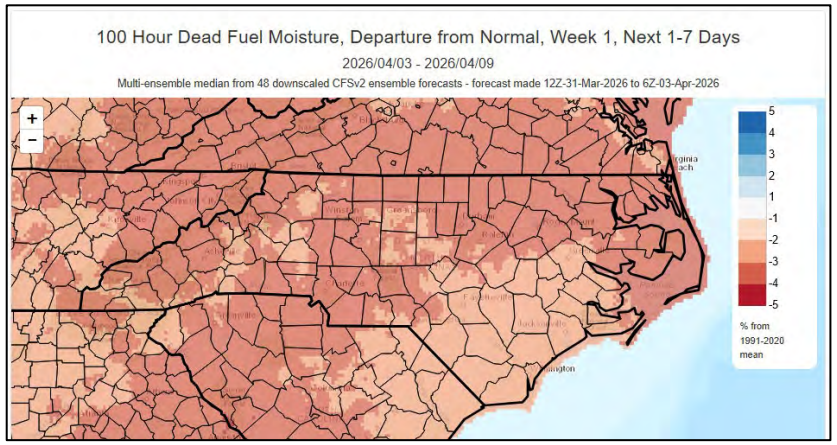




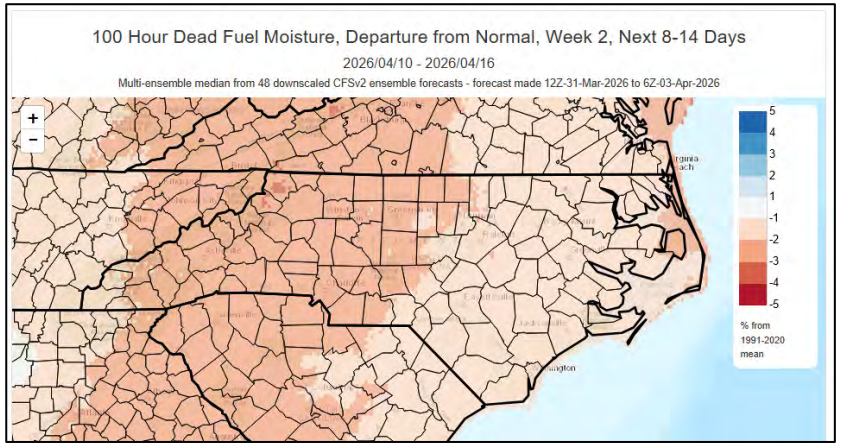
Modeled Departure from Normal by Week: 100-hr Fuels

Output relies on experimental forecast outputs and is subject to change

Week-1



Week-2

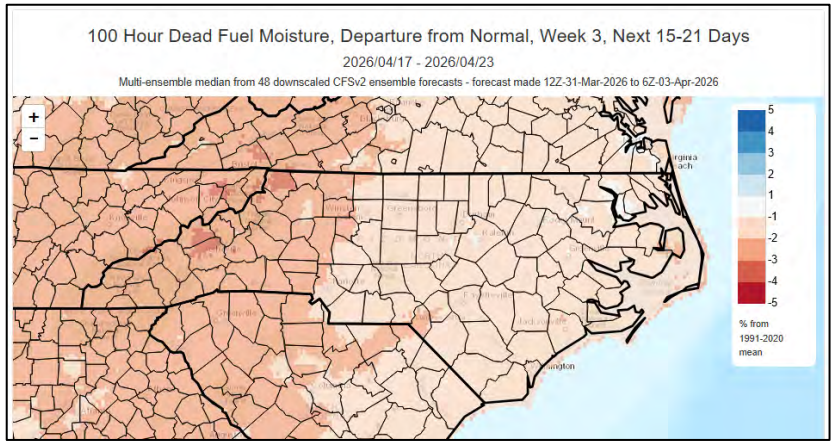


This output can provide insight into general drying trends and potential impacts to overall fire danger, especially prior to full green-up or in drought conditions. Outputs relate to interactions of warmer/colder temps, moist/dry air masses, precip amt/duration, wind and overnight RH recovery trends.

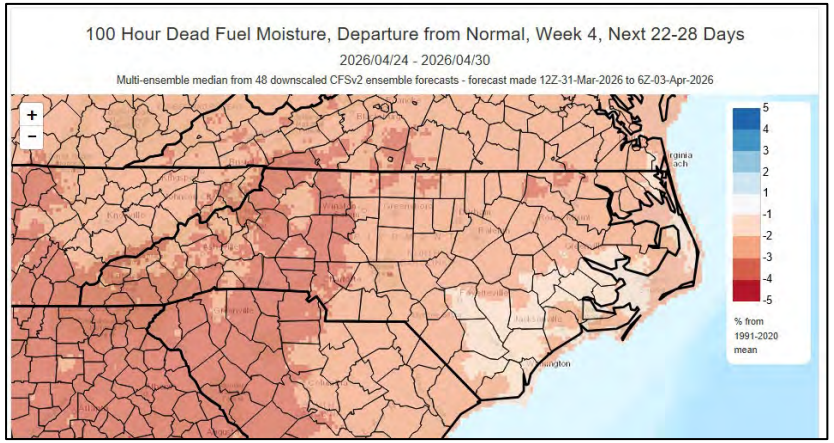
Note that <u>modeled</u> impacts of warmer/drier conditions (lower % mc or "worse") are focused west, most intensely on Weeks1 & 4.

Important to note that there is significant forecast uncertainty as you go further out in time, especially relating to any potential storm tracks.

Week-3



Week-4



From: https://climatetoolbox.org/tool/Climate-Mapper

Significant Wildland Fire Potential Outlook: *Updated 4/1/26*

April

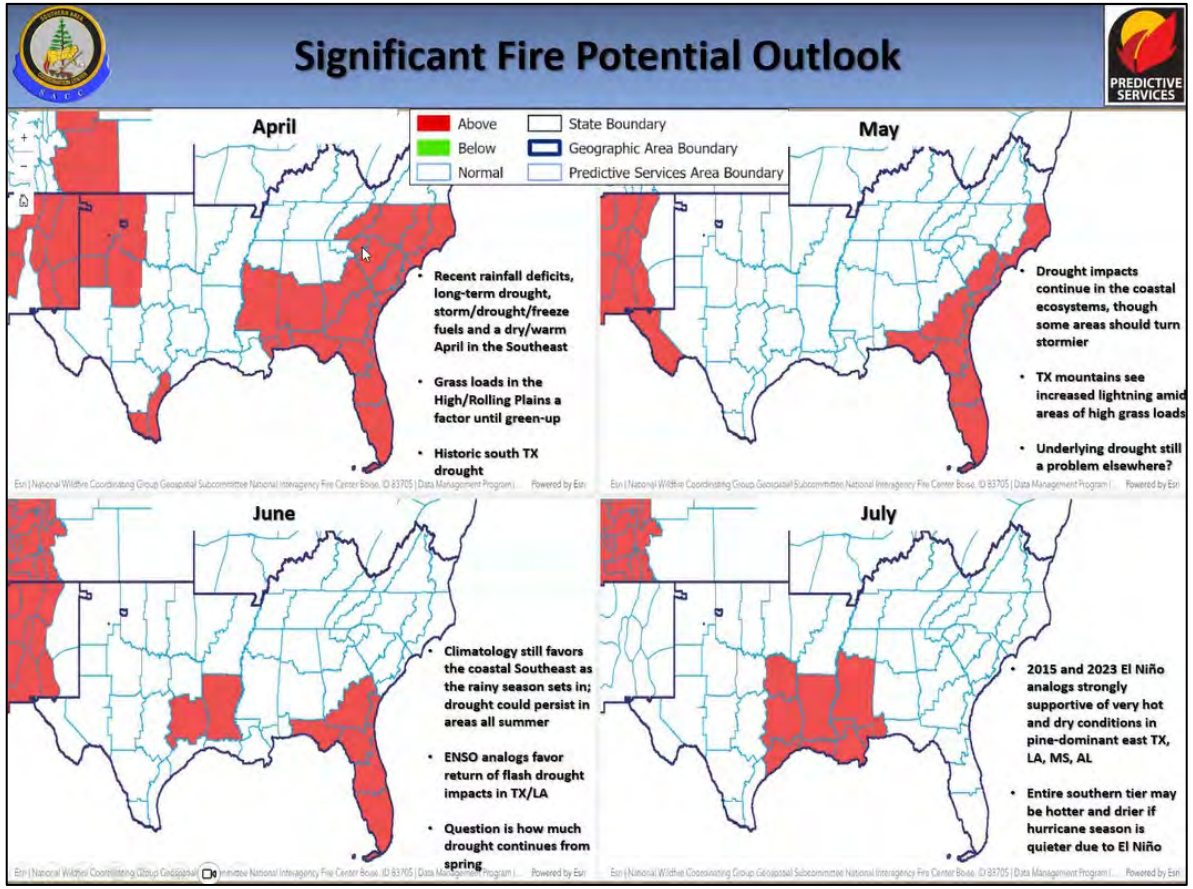
May

June

July

https://www.nifc.gov/nicc-files/predictive/outlooks/monthly_seasonal_outlook.pdf

From SA Fire Environment Briefing 4/3/26



**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 consistently seen from year to year.*

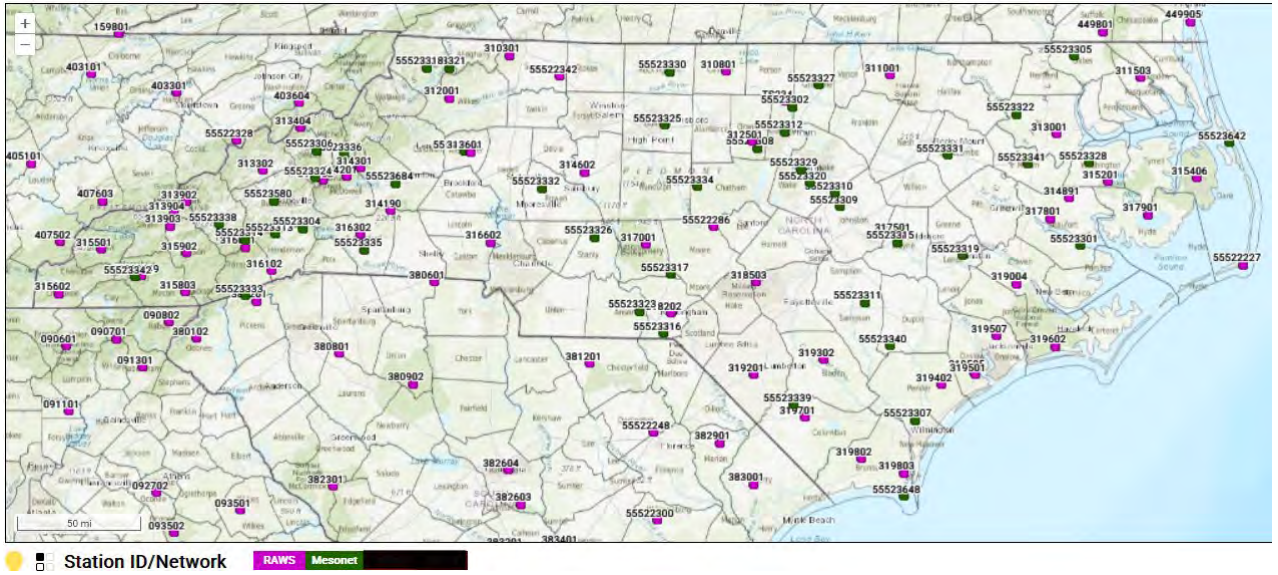
FEMS & NFDRS Notes:

- Mesonet Stations lost on 10/1/25, added back to FEMS on 1/29/26 (no prior period of record), added back to our SIGS on 3/12/26 after models better aligned.
- **Live Fuel Moisture Model remains at national catalog settings** – does not match local conditions as we move into greenup. FM-Z and FM-Y include only dead fuels.
- Data & modeling updates will occur soon – will redownload/process FF+ data & apply regional GSI settings (if available) to help temper Adj & Hazard Ratings in Growing Season
- Period of Record (Fires + Weather) now: **2010-2024**
- Period of Record for new analysis: **2011-2025**
- FDOP edits to be completed when we get the new data, process it and coordinate with cooperators.
- FM-Z has behaved reasonably well during the dormant season (Fall/Winter/Spring) so far.

New Planned RAWS (~Summer 2026):

- South Mountains – Rutherford/Burke/Cleveland border
- Crossnore/Gill State Forest – Avery/Burke border area
- Mortimer USFS Work Center – Caldwell
- Catawba/Lincoln County area – still looking

- NC State Climate Office also looking to place several stations over the next year



FDRA	Special Interest Group Stations (SIG Stations)	Missing SIG Stations
Northern Coastal Plain	Dare Bomb Range, Elizabeth City, Fairfield, Greens Cross, Pocosin Lakes NWR	0
Southern Coastal Plain	Beaufort, CL1 Sandy Run, New Bern, Turnbull Creek, Hofmann, Whiteville, Sunny Point, Finch's Station	0
Eastern Piedmont	Central Crops RS**, Lake Wheeler**, Oxford Tob RS**, Upper Coastal RS**, Warrenton	0
Sand Hills	Fort Bragg, Horseshoe House, Rockingham, Sandhills RS**	0
Western Piedmont	Caswell Game Land, Duke Forest, Lexington, Mt Island Lake	0
Blue Ridge Escarpment	North Cove Pinnacle, Raven Knob, Redezvous Mtn, Rutherford Co Hq, Taylorsville (Lenior)	0
Central Mountains	Davidson River, Guion Farms, Mtn Hort RS**, Seven Mile Ridge	0
Northern Highlands	Busick, Jessen Station, Upper Mtn RS**	0
Southern Highlands	Highlands, Jackson County, Locust Gap, Tusquitee	0

Analysis Settings				Matrix Combinations	
FDRA	Time Range	Daily Extremes	FM	Staffing/Hazard Level	Adjective Rating
Northern Coastal Plain	2010-2024	Y	Z	ERC/BI	ERC
Southern Coastal Plain	2010-2024	Y	Z	ERC/BI	ERC
Eastern Piedmont	2010-2024	Y	Z	ERC/BI	ERC
Sand Hills	2010-2024	Y	Z	ERC/BI	ERC
Western Piedmont	2010-2024	Y	Z	ERC/BI	ERC
Blue Ridge Escarpment	2010-2024	Y	Z	ERC/IC	ERC
Central Mountains	2010-2024	Y	Z	ERC/IC	ERC
Northern Highlands	2010-2024	Y	Z	ERC/BI	ERC
Southern Highlands	2010-2024	Y	Z	ERC/IC	ERC

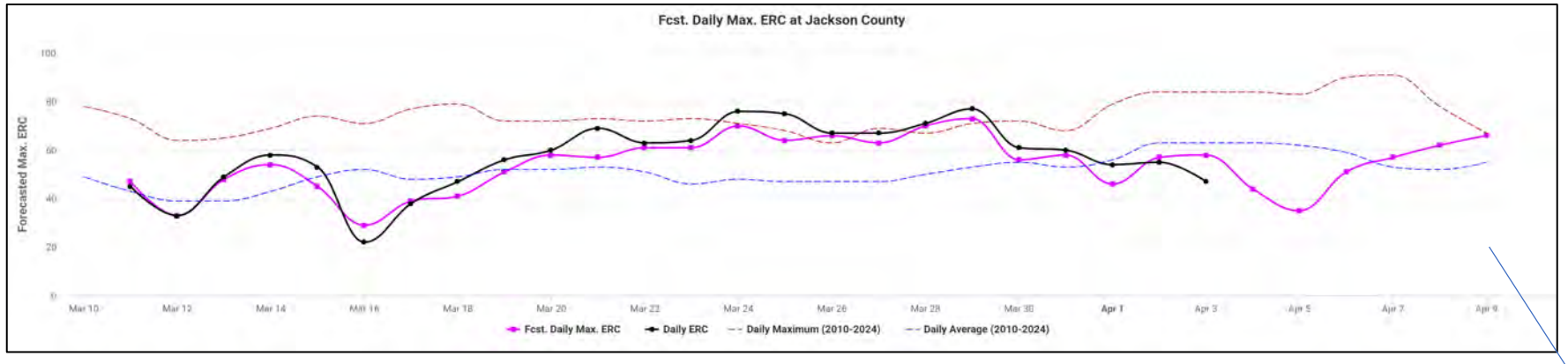
Fire Weather Intelligence Portal – Current Links & Notes

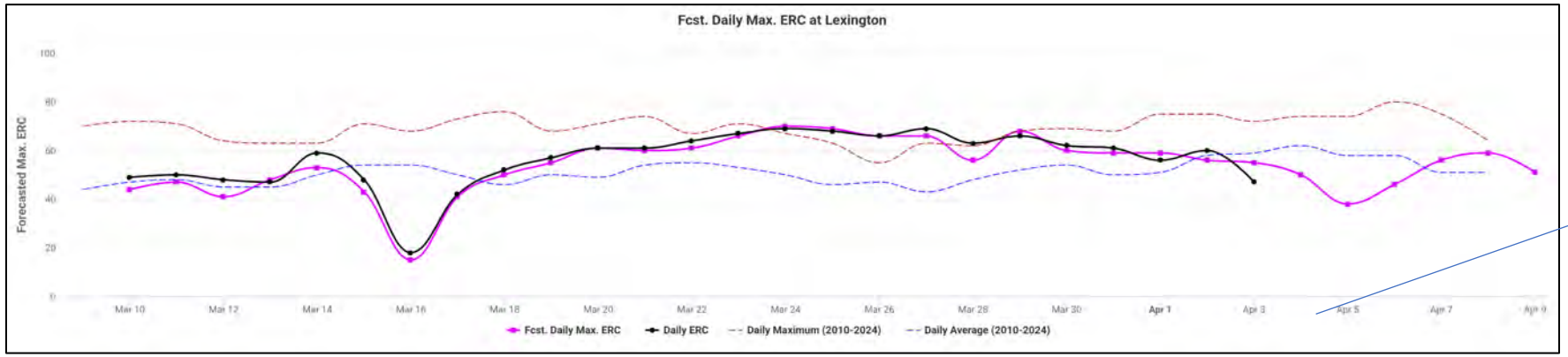
The interim breakpoints and percentiles based on FEMS implementation have been applied to the FWIP for North Carolina FDRAs. Content continues to be added and tools updated. Updated versions of the Hazard Assessment Tool, Adjective Fire Danger Rating Tool, and Daily Forecast/Observed Indices by Station have been implemented effective 3/12/26. The new versions automatically replaced the older versions. Additional features will be added (data analysis).

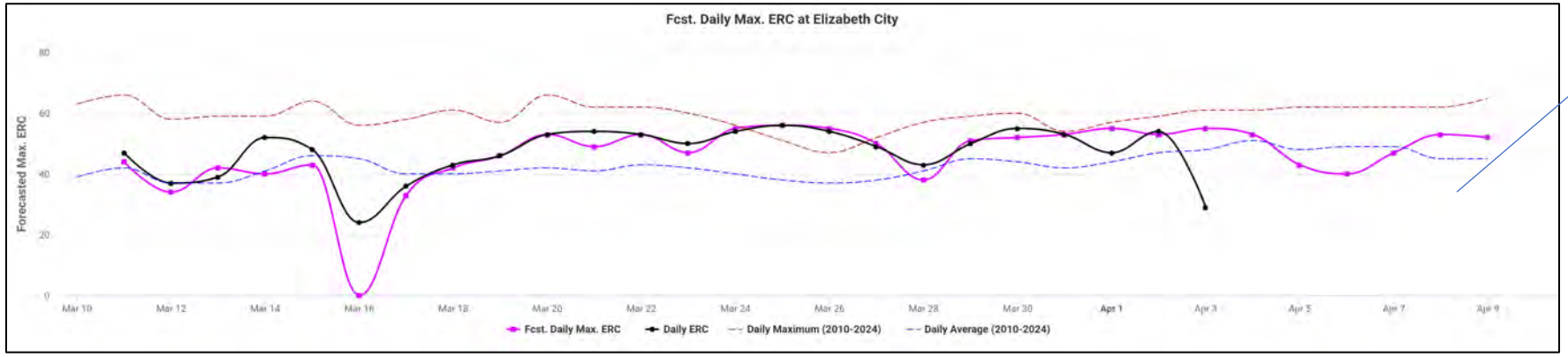
- Public Facing Fire Danger Page & Fire Danger Digest Table
  (NC ratings based on ERC-Z analysis)
- Station Viewer Portal
  (Past, Current, Forecast Conditions Tab)
  *HOURLY Station Fire Danger Observations have been added on the PAST and CURRENT Conditions Tabs, as of 3/6/26
- Hazard Assessment Tool
  (based on ERC-Z/BI-Z or ERC-Z/IC-Z depending on FDRA)
- FEMS Forecast NFDRS Indices by Station
- FEMS Observed NFDRS Indices by Station
- Quality Control Viewer Tool
- Summary Site – Supplemental Tools

The Weekly Outlook Tool is still offline – being revised to conform to new analysis/FEMS integration.

FWIP – Station Tracking/Seasonal Trend Examples (Observed and Forecasts with Max & Min for period of record)

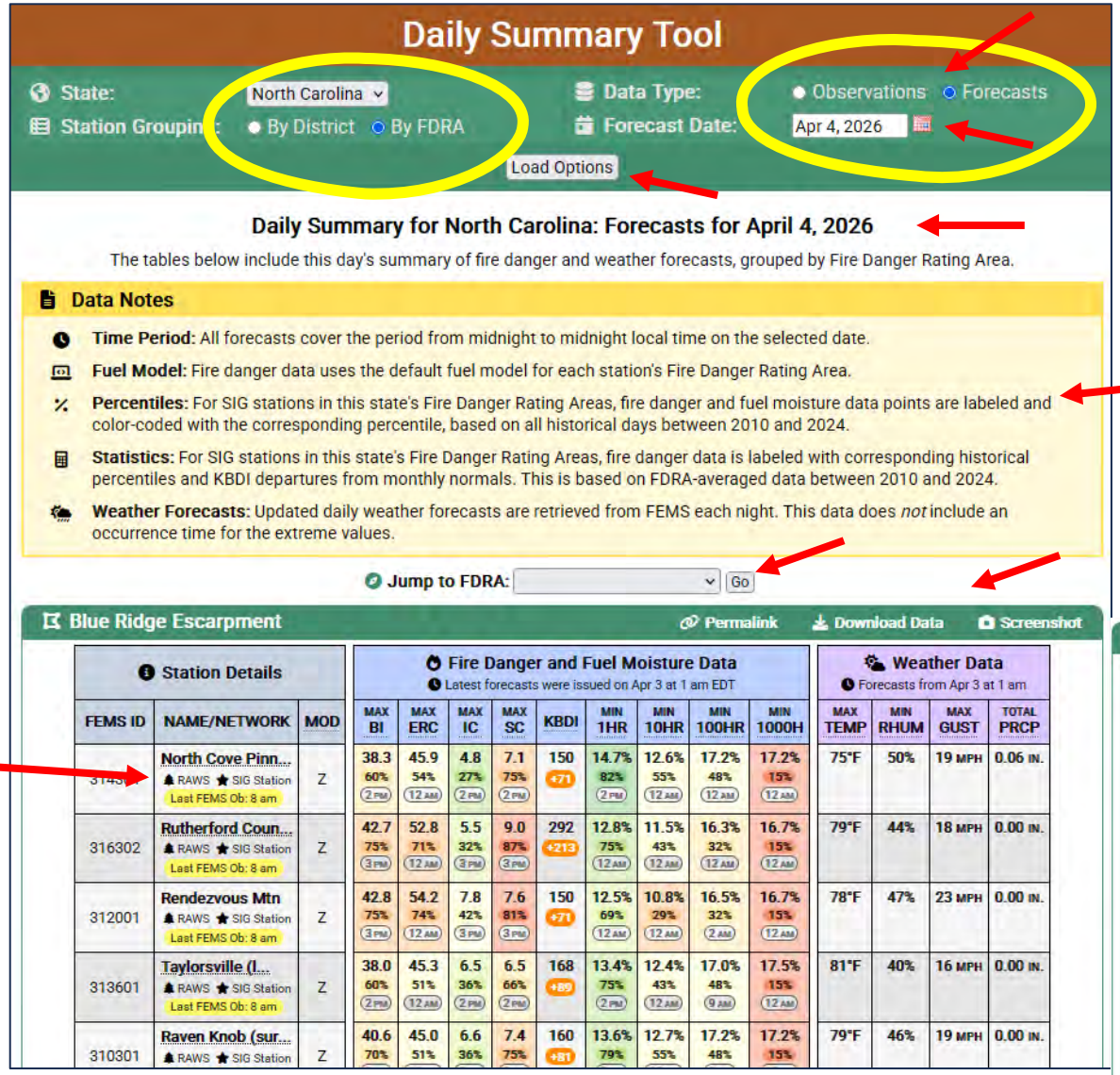






**FWIP database will be updated to reflect changes in FEMS processed weather and NFDRS outputs as we are made aware of changes related to station specific period of record.*

Examples of Changes to FWIP – Daily Summary Tool (Observed and Forecasts)



Daily Summary Tool

State: North Carolina | Station Grouping: By District / By FDRA | Data Type: Observations / Forecasts | Forecast Date: Apr 4, 2026 | Load Options

Daily Summary for North Carolina: Forecasts for April 4, 2026

The tables below include this day's summary of fire danger and weather forecasts, grouped by Fire Danger Rating Area.

Data Notes

- **Time Period:** All forecasts cover the period from midnight to midnight local time on the selected date.
- **Fuel Model:** Fire danger data uses the default fuel model for each station's Fire Danger Rating Area.
- **Percentiles:** For SIG stations in this state's Fire Danger Rating Areas, fire danger and fuel moisture data points are labeled and color-coded with the corresponding percentile, based on all historical days between 2010 and 2024.
- **Statistics:** For SIG stations in this state's Fire Danger Rating Areas, fire danger data is labeled with corresponding historical percentiles and KBDI departures from monthly normals. This is based on FDRA-averaged data between 2010 and 2024.
- **Weather Forecasts:** Updated daily weather forecasts are retrieved from FEMS each night. This data does *not* include an occurrence time for the extreme values.

Jump to FDRA: Go

Blue Ridge Escarpment — Permalink | Download Data | Screenshot

Station Details			Fire Danger and Fuel Moisture Data (Latest forecasts were issued on Apr 3 at 1 am EDT)									Weather Data (Forecasts from Apr 3 at 1 am)			
FEMS ID	NAME/NETWORK	MOD	MAX BI	MAX ERC	MAX IC	MAX SC	KBDI	MIN 1HR	MIN 10HR	MIN 100HR	MIN 1000H	MAX TEMP	MIN RHUM	MAX GUST	TOTAL PRCP
[illegible]	North Cove Pinn... RAWS SIG Station Last FEMS Ob: 8 am	Z	38.3 60% 2 PM	45.9 54% 12 AM	4.8 27% 2 PM	7.1 75% 2 PM	150 +71	14.7% 82% 2 PM	12.6% 55% 12 AM	17.2% 48% 12 AM	17.2% 15% 12 AM	75°F	50%	19 MPH	0.06 IN.
316302	Rutherford Coun... RAWS SIG Station Last FEMS Ob: 8 am	Z	42.7 75% 3 PM	52.8 71% 12 AM	5.5 32% 3 PM	9.0 87% 3 PM	292 +213	12.8% 75% 12 AM	11.5% 43% 12 AM	16.3% 32% 12 AM	16.7% 15% 12 AM	79°F	44%	18 MPH	0.00 IN.
312001	Rendezvous Mtn RAWS SIG Station Last FEMS Ob: 8 am	Z	42.8 75% 3 PM	54.2 74% 12 AM	7.8 42% 3 PM	7.6 81% 3 PM	150 +71	12.5% 69% 12 AM	10.8% 29% 12 AM	16.5% 32% 2 AM	16.7% 15% 12 AM	78°F	47%	23 MPH	0.00 IN.
313601	Taylorsville (I... RAWS SIG Station Last FEMS Ob: 8 am	Z	38.0 60% 2 PM	45.3 51% 12 AM	6.5 36% 2 PM	6.5 66% 2 PM	168 +89	13.4% 75% 2 PM	12.4% 43% 12 AM	17.0% 48% 9 AM	17.5% 15% 12 AM	81°F	40%	16 MPH	0.00 IN.
310301	Raven Knob (sur... RAWS SIG Station	Z	40.6 70%	45.0 51%	6.6 36%	7.4 75%	160 +81	13.6% 79%	12.7% 55%	17.2% 48%	17.2% 15%	79°F	46%	19 MPH	0.00 IN.

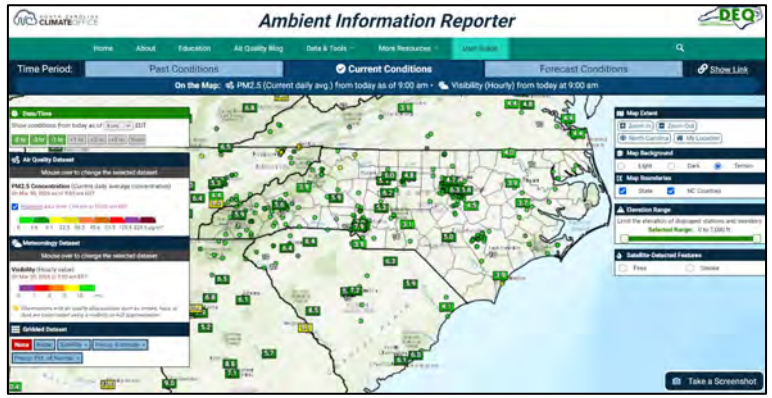
Summary by Region — Permalink | Download Data | Screenshot

Note: FDRA averages include **only the SIG stations** in each region with data available today

Region Details			Fire Danger and Fuel Moisture Averages									Weather Averages			
FDRA	NUM STN	MOD	MAX BI	MAX ERC	MAX IC	MAX SC	KBDI	MIN 1HR	MIN 10HR	MIN 100HR	MIN 1000H	MAX TEMP	MIN RHUM	MAX GUST	TOTAL PRCP
Southern Highlands	4	Z	29.2 30%	39.6 50%	3.0 22%	4.5 29%	161 +95	16.0% 81%	14.0% 58%	17.8% 51%	18.2% 20%	72°F	55%	18 MPH	0.11 IN.
Central Mountains	4	Z	30.9 47%	41.7 54%	3.6 29%	4.6 67%	178 +115	15.2% 78%	13.2% 46%	17.6% 53%	18.0% 21%	75°F	49%	16 MPH	0.06 IN.
Northern Highlands	3	Z	40.9 85%	39.3 58%	6.4 53%	8.4 94%	116 +78	13.7% 64%	13.8% 48%	18.1% 44%	17.9% 15%	73°F	51%	21 MPH	0.06 IN.
Blue Ridge Escarpment	5	Z	40.5 67%	48.6 61%	6.2 32%	7.5 75%	184 +105	13.4% 75%	12.0% 43%	16.8% 48%	17.0% 15%	78°F	45%	19 MPH	0.01 IN.
Western Piedmont	4	Z	51.3 84%	51.2 63%	16.7 75%	9.8 87%	237 +142	9.7% 59%	12.9% 59%	17.1% 49%	17.3% 17%	82°F	41%	18 MPH	0.00 IN.
Sandhills	4	Z	49.3 77%	50.5 61%	17.8 71%	9.0 80%	284 +138	9.2% 50%	12.6% 59%	17.7% 60%	18.2% 35%	82°F	42%	16 MPH	0.00 IN.
Eastern Piedmont	5	Z	56.0 89%	52.3 70%	19.9 85%	11.5 85%	163 +85	9.3% 38%	12.1% 42%	17.4% 45%	18.1% 31%	83°F	43%	17 MPH	0.00 IN.
Southern Coast	8	Z	51.0 94%	51.0 77%	16.3 81%	9.4 90%	275 +120	10.0% 47%	12.1% 31%	16.8% 35%	18.6% 35%	81°F	51%	16 MPH	0.00 IN.
Northern Coast	5	Z	58.3 96%	51.0 77%	18.6 89%	12.5 92%	236 +136	10.0% 41%	12.2% 31%	16.8% 37%	18.3% 22%	80°F	50%	19 MPH	0.00 IN.

- **Summary at Bottom of Page (either by FDRA or by District)**
- **Make sure to read descriptions at top of page, as there are slight differences between forecast, observed, etc.**
- **This example is forecast for Saturday 4/4/26**

Other Resources:



- https://airquality.climate.ncsu.edu/air/
- https://fire.airnow.gov/

Fuels and Fire Management Considerations for Hurricane Helene Damaged Areas

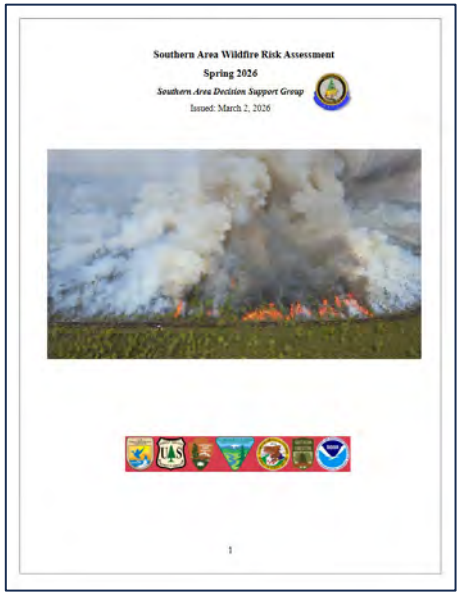
Executive Summary

Hurricane Helene has caused significant disruption to forested landscapes, resulting in widespread debris accumulation and altered fuel structure across the southeast particularly in the Southern Appalachians of southwest Virginia, western North Carolina, northeast Tennessee, northeast Georgia as well as the Piedmont of South Carolina, central Georgia and north Florida. The storm's high winds broke or toppled trees, and created extensive blowdown zones, transitioning fuel conditions from lighter models, such as grass and leaf litter, to heavy slash and debris typical of Fuel Models 12, 13, SB2, and SB3. This shift in fuel types presents substantial challenges for wildfire suppression efforts. The increased resistance to control, difficult access, and elevated potential for extreme fire behavior necessitates strategic adaptation of suppression tactics. The storm's aftermath has also introduced the need to reconcile older fire line production rates with the Scott and Burgan 40 fuel models used for modern fire behavior predictions, as the line production data for these newer models remains undeveloped. This report explores these challenges, provides practical insights for resource deployment, and outlines strategies for managing this complex landscape. The effects of Helene will be felt for some time. In a 2005 risk assessment for Hurricane Katrina, it was reported by the Mississippi Forestry Commission that debris from Hurricane Camille which struck in 1969 was still preventing access to certain areas.

This document provides fuel loading and modeling guidance, fire behavior expectations, and fire management considerations for both wildfire response and prescribed fire implementation for each of the hurricane damage severity categories described below:

Damage Severity	% of overstory altered/damaged
Catastrophic	>50%
Severe	34-50%
Moderate	16-33%
Light	~25%

"Fuels and Fire Management Considerations for Hurricane Damaged Areas"



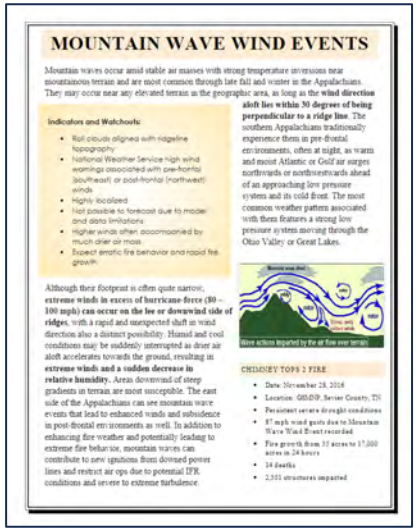
Southern Area Wildfire Risk Assessment

Spring 2026

Southern Area Decision Support Group

Issued: March 2, 2026

https://gacc.nifc.gov/sacc/resources/predictive/SASpringRiskAssessment_2026_final.pdf



MOUNTAIN WAVE WIND EVENTS

Mountain waves occur amid stable air masses with strong temperature inversions near mountainous terrain and are most common through late fall and winter in the Appalachians. They may occur near any elevated terrain in the geographic area, as long as the **wind direction aloft lies within 30 degrees of being perpendicular to a ridge line**. The southern Appalachians traditionally experience them in pre-frontal environments, often at night, as warm and moist Atlantic or Gulf air surges northwards or northwestwards ahead of an approaching low pressure system and its cold front. The most common weather pattern associated with them features a strong low pressure system moving through the Ohio Valley or Great Lakes.

Indicators and Watchouts:

- Roll clouds aligned with ridgeline topography
- National Weather Service high wind warnings associated with pre-frontal (southwest) or post-frontal (northwest) winds
- Highly localized
- Not possible to forecast due to model and data limitations
- Higher winds often accompanied by much drier air mass
- Expect erratic fire behavior and rapid fire growth

Although their footprint is often quite narrow, **extreme winds in excess of hurricane-force (80 – 100 mph) can occur on the lee or downwind side of ridges**, with a rapid and unexpected shift in wind direction also a distinct possibility. Humid and cool conditions may be suddenly interrupted as drier air aloft accelerates towards the ground, resulting in **extreme winds and a sudden decrease in relative humidity.** Areas downwind of steep gradients in terrain are most susceptible. The east side of the Appalachians can see mountain wave events that lead to enhanced winds and subsidence in post-frontal environments as well. In addition to enhancing fire weather and potentially leading to extreme fire behavior, mountain waves can contribute to new ignitions from downed power lines and restrict air ops due to potential IFR conditions and severe to extreme turbulence.

CHIMNEY TOPS 2 FIRE

- Date: November 28, 2016
- Location: GSMNP, Sevier County, TN
- Persistent severe drought conditions
- 87 mph wind gusts due to Mountain Wave Event recorded
- Fire growth from 35 acres to 17,000 acres in 24 hours
- 14 deaths
- 2,591 structures impacted

https://gacc.nifc.gov/sacc/predictive/outlooks/MountainWavesFactSheet.pdf

SOUTHERN Fire Exchange

Superfog: State of the Science

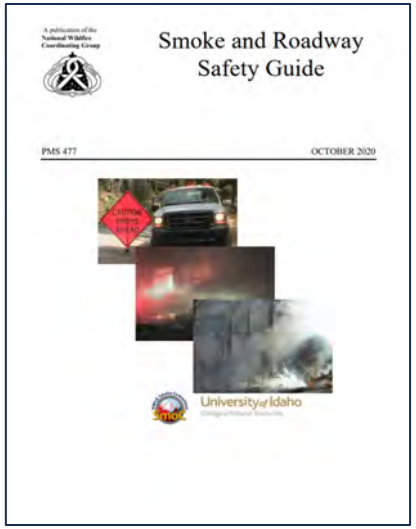
Alan Long, Joshua Weiss, Marko Princevac, and Christian Bartolome

INTRODUCTION

WHAT CAUSES SUPERFOG?

SMOKE DISPERSION MATRIX

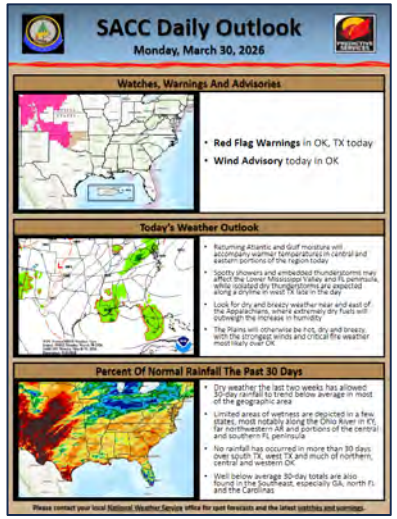
- Southern Fire Exchange Superfog Publication
- NWCG - Smoke and Roadway Safety Pocket Card
- NWCG – Smoke and Roadway Safety Guide



Smoke and Roadway Safety Guide

PMS 477 OCTOBER 2020

University of Idaho



SACC Daily Outlook

Monday, March 30, 2026

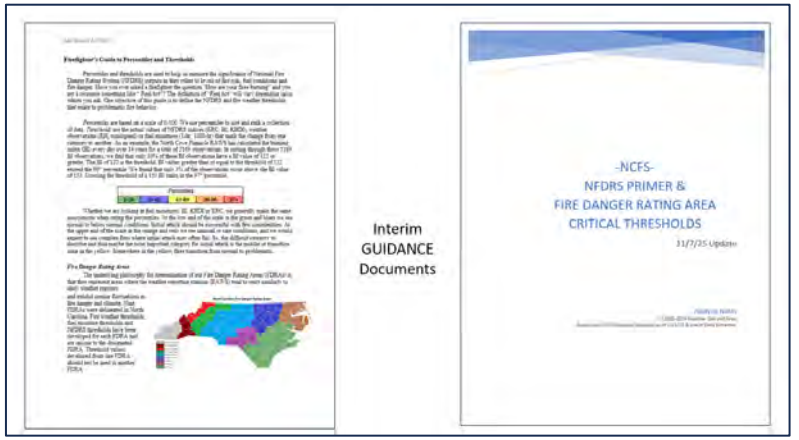
Watches, Warnings And Advisories

- **Red Flag Warnings** in OK, TX today
- **Wind Advisory** today in OK

Today's Weather Outlook

Percent Of Normal Rainfall The Past 30 Days

https://gacc.nifc.gov/sacc/resources/predictive/sacc-daily-outlook.pdf



Interim GUIDANCE Documents

-NCFS-

NFDRS PRIMER & FIRE DANGER RATING AREA CRITICAL THRESHOLDS

11/7/25 Update

SACC Daily Outlook, Selected Snips from Friday, 4/3/26

https://gacc.nifc.gov/sacc/resources/predictive/sacc-daily-outlook.pdf

SACC Daily Outlook
Friday, April 3, 2026

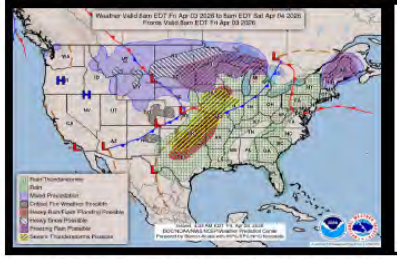
Weather Watches, Warnings and Advisories as of 9 am EDT this Morning

- There are no Watches/Warnings/Advisories in Effect at this time for the Southern Area.
- Severe Weather Watches may be issued at some point for at least portions of Oklahoma, Texas, and Arkansas.

Severe Weather Potential for Today

- The Storm Prediction Center has a Slight Risk for severe weatherfor most of Oklahoma, NW and north Central Texas, and clipping the NW corner of Arkansas.
- There is a Marginal Risk for severe thunderstorms for East Texas north, the eastern edge of the Texas Panhandle, West and Central Texas, the SE and NW corners of Oklahoma, the NW corner of Arkansas.
- The main concerns are damaging wind and Large hail, although an isolated tornado cannot be ruled out.
- Flash Flooding may also be possible under heavy showers along the cold front/dry line, mainly during the overnight hours.

Today's Weather Outlook



- A cold front is forecast to slowly move into the TX/OK Panhandles and West OK today, then speed up overnight, reaching AR, East TX north, Central TX, and through the Trans-Pecos by 7AM CDT.
- Ahead of the front, there is also a dry line forecast to be over the western half of TX today.
- The combination of the two will bring the potential for showers and storms for much of the area west of the MS River, especially tonight.
- High Pressure, sitting well off the Carolina coast, is forecast to keep a southerly flow over the area, which keeps moisture flowing into the Southern Area, which, when combined with daytime heating, brings the potential for showers and storms for most of the area.

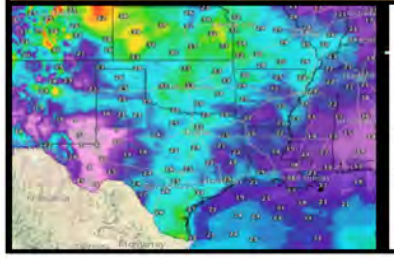
Please contact your local National Weather Service office for spot forecasts and the latest watches and warnings.

SACC Daily Outlook
Friday, April 3, 2026

SPC's Fire Weather Outlook Today

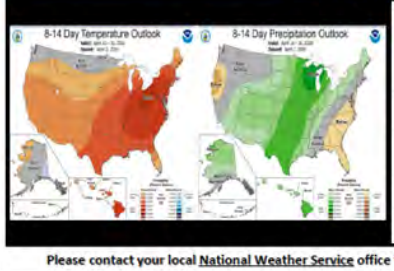
- The Storm Prediction Center has a very small area of Critical concern that clips a small area in the western edge of the TX Panhandle south.
- There is also an Elevated concern in the TX/OK Panhandles and the Trans-Pecos of TX due to low RH values ad possible breezy conditions associated with the cold front and low potential of rain.

The National Weather Service Forecast for Todays Wind Gusts at 10AM CDT



- The strongest gusts are forecast to be over OK and South TX, where gusts of 30mph to 40 mph are possible.
- The TX/OK Panhandles, North and Central TX, and AR may see gusts of 25mph to 30mph.
- The Trans-Pecos may also see gusts of around 30mph, mainly in the higher elvevations.

8 to 14 Day Outlook



- The Climate Prediction Center is forecasting the entire Southern Area, except for the southern tip of Florida, to have the potential for above normal temperatures, with the highest potential in the northeast portion of the Southern Area.
- The southern tip of Florida has equal chances to be above, below, or near normal.
- They are forecasting above normal potential for precipitation from the MS River, west.
- East of the River decreases to near normal potential in MS, AL, TN, eastern KY, AL, and the VA Mts.
- For areas east of the near normal potential, the forecast cast for slightly below normal potential for precipitation.

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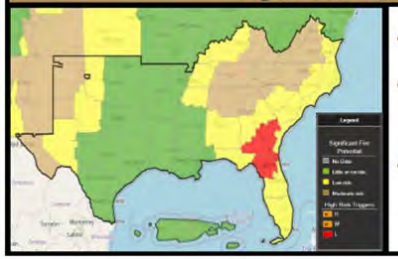
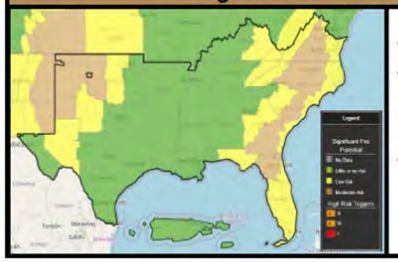
SACC Daily Outlook
Friday, April 3, 2026

Significant Potential for Today



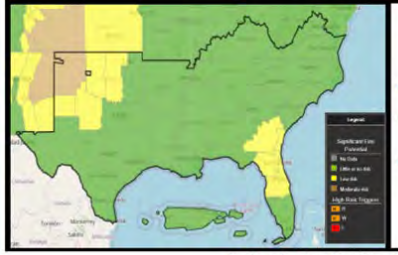
- **High Risk:** South GA and NE FL for lightning and dry fuels.
- **Moderate Risk:** The TX/OK Panhandles, the Trans-Pecos, N AL, Central TN, VA (exceot the coast), NC/SC/GA/TN/KY Mts, Central NC, and North GA for low RH, gusty wind, and dry fuels.
- **Low Risk:** West OK, NW TX, West TX, West KY, West TN, N MS, South AL, Central GA, SC, NC coastal plain and coast, coastal VA, and NW/Central/South FL for low RH and dry fuels.

Significant Fire Potential for Tomorrow



- **High Risk:** None.
- **Moderate Risk:** The TX/OK Panhandles, West OK, Central VA, Central/coastal plain NC, SC coastal plain, South GA, and NE FL for low RH, breezy conditions, and dry fuels.
- **Low Risk:** Central OK, NW TX, West TX, the KY/VA/NC/TN Mts, Central GA/SC, the VA/NC/SC/GA coasts, and NW/Central/South FL for low RH and dry fuels.

Significant Fire Potential for Sunday



- **High Risk:** None.
- **Moderate Risk:** The TX/OK Panhandles north for low RH, breezy conditions, and dry fuels.
- **Low Risk:** West/Central OK, the TX Panhandle south, NW TX, South GA, the GA coast, and NE/Central FL for low rh and dry fuels.

National 7-Day Significant Fire Potential Outlook

Overall Trends & Notes

- Most areas of the state are approaching three weeks since a ≥ 0.50” rain event. KBDI values are climbing due to higher daily max temps & streams gauges are showing below to well below normal flow. CPC forecasts show a continued trend of warmer temps and favoring of below normal precip for at least the next couple weeks. The updated Significant Wildland Fire Potential map places the entirety of NC in “Above Normal” activity for the month of April.

- IA & Difficulty of Control increased significantly when dry air interacted with dormant & dead fuels over the past weekend, as evidenced by several large extended attack fires. Several days of repeated poor recoveries & critically low min-rh’s led to 100’s/1000’s drying significantly & contributing to fire intensity & extended burn periods.

- We’ve since seen a decrease in IA due to the statewide Burn Ban (effective at 1800 on 3/28) & the return of better overnight recoveries/higher min rh’s that have helped stabilize 1-hr, 10-hr, and 100-hr time lag fuels. The larger 1000-hr dead fuel class is still much drier than normal for most areas of the state, especially in Helene impacted areas.

- 100-hr & 1000-hr (smaller end of scale) fuels have been consuming, along with aerial snags where consecutive days of fuel drying and lack of rain have aligned. Duff & organics on drought impacted landscape positions will begin consuming more effectively as greenup continues.

- The Hazard Level and Adjective Rating Forecasts (right) include modeled precip influences, notice the drying trend modeled later in the period. These forecasts are likely to change significantly based on actual observed precip.

- Although greenup is advancing, we are **still weeks away** from effective canopy closure, wind interception, temperature & fuel volatility moderation. Freeze event likely for higher elevation mountains next week.

- If the lack of wetting rain continues, it will begin to have a more pronounced impact on shoulder & yard grasses (especially engineered soils). Most dew, in periods of good recovery, doesn’t make it into the soil before evaporating – having limited impact on sustaining grass as evaporative demand increases.

- Watch for alignment of fire effective weather overlapping multiple days of drying & poor overnight recoveries. Lightning holdover fires will continue to become more of an issue as drought intensification continues into our traditional “lightning season”.

- Careful monitoring of post-burn prescribed fire units and wildfire footprints overlapping areas of abnormal dryness and low soil moisture will be critical as we move through the rest of Spring Fire Season, particularly when drying conditions/favorable weather could reinvigorate fire behavior due to freshly fallen/cured needle cast.

Daily Adjective Rating Outputs for each FDRA (ERC from FM-Z)
(Observed on Left, Forecast on Right)

Low | Moderate | High | Very High | Extreme

FDRA	Recent Data (Calculated from hourly estimates)							Forecast Data (Calculated using hourly forecasts)						
	FRI MAR 27	SAT MAR 28	SUN MAR 29	MON MAR 30	TUE MAR 31	WED APR 1	THU APR 2	FRI APR 3	SAT APR 4	SUN APR 5	MON APR 6	TUE APR 7	WED APR 8	THU APR 9
Southern Highlands	H	V	E	H	H	M	H	H	M	L	M	H	H	V
Central Mountains	V	V	E	V	H	M	H	H	M	L	M	M	H	H
Northern Highlands	H	H	V	H	H	M	M	H	M	L	M	M	H	H
Blue Ridge	H	V	E	H	H	M	M	H	M	L	M	M	M	H
Western Piedmont	V	H	V	H	H	M	H	M	M	M	M	H	H	H
Sandhills	H	M	H	M	M	M	M	M	M	M	M	M	H	H
Eastern Piedmont	H	M	H	M	M	M	M	M	M	M	M	M	H	H
Southern Coast	H	M	H	M	M	M	H	H	H	M	M	M	H	M
Northern Coast	H	M	M	H	H	M	H	H	M	M	M	M	M	M

Hazard Matrix Outputs for each FDRA (FM-Z)

Current Statewide Hazard Summary for NC

Click on any daily Hazard Level to view the calculation details for that FDRA.

FDRA	Recent Hazard Levels (Based on the final forecasts for each date)							Forecasted Hazard Levels (Based on the latest forecasts)						
	FRI MAR 27	SAT MAR 28	SUN MAR 29	MON MAR 30	TUE MAR 31	WED APR 1	THU APR 2	FRI APR 3	SAT APR 4	SUN APR 5	MON APR 6	TUE APR 7	WED APR 8	THU APR 9
Southern Highlands	2	4	5	2	2	1	2	3	1	1	2	3	3	4
Central Mountains	4	4	5	2	3	2	3	2	2	1	2	3	3	3
Northern Highlands	3	3	5	4	3	2	2	3	2	1	2	3	3	3
Blue Ridge	3	4	4	4	2	2	2	3	2	1	2	2	3	3
Western Piedmont	4	3	4	3	3	3	3	3	2	2	2	3	3	2
Sandhills	3	3	3	3	3	3	3	2	2	2	2	2	3	2
Eastern Piedmont	4	3	3	3	4	3	3	2	3	2	2	2	3	2
Southern Coast	3	3	3	3	3	3	3	3	3	3	2	2	3	3
Northern Coast	3	3	2	3	3	3	3	3	3	3	2	2	3	2

*Changes in actual precipitation amounts, min/max rh’s and other weather variables have significant impact on the model as you go further out in forecast period.