



Wildfire Activity: A Look Back and Outlook for Fall / Winter

The Drought Management Advisory Council
Annual Meeting
September 14th, 2021

Cabe Speary
Fire Environment Forester
NC Forest Service



NC Forest Service Wildfire Activity

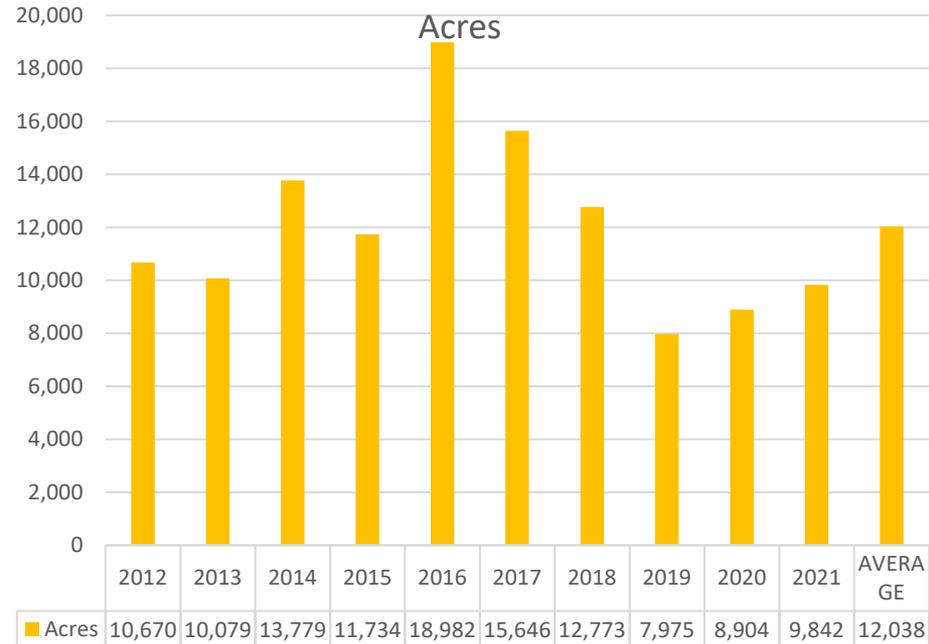
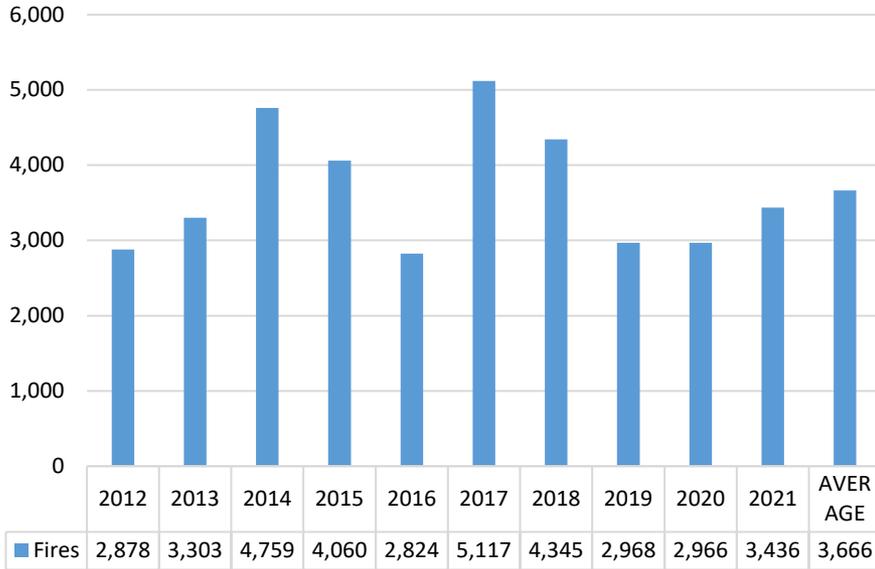
Period	# Fires*	# Acres*
9/1/20-8/31/21	3,436	9,842
Previous Year	2,966	8,904
10 Year AVG	3,666	12,038
Deviation from AVG %	-6	-18

* These numbers do not include fires on federal lands.



NC Forest Service Wildfire Activity, 2012-2021

Fires



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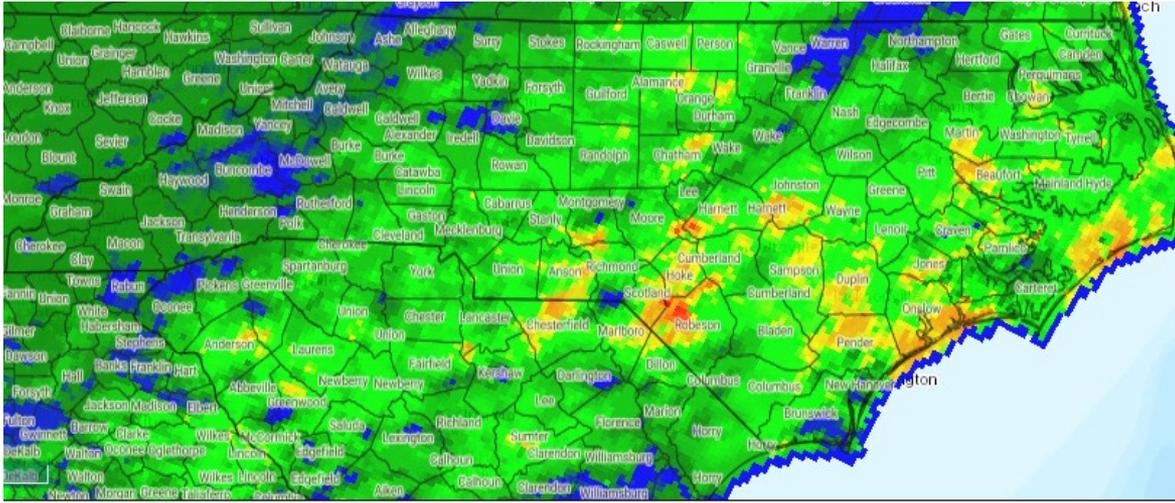
Keetch-Byram Drought Index (KBDI)

KBDI is a soil/duff drought index that ranges from 0 (no drought) to 800 (extreme drought) and is based on soil capacity of 8 inches of water. Factors include latitude, maximum daily temperature, daily precipitation, antecedent precipitation, and annual average precipitation.

- Between **0 and 200**, soil moisture and large class fuel moistures are high and do not contribute significantly to fire intensity.
- Readings of **201-400** are typical of late spring, early growing season. Lower litter and duff layers are drying and beginning to contribute to fire intensity.
- Readings of **401-600** indicate a possible burgeoning drought and are seen in late summer/early fall in drier years. Lower litter and duff layers burn intensely.
- Readings of **601-800** are associated with severe drought. Intense, deep burning fires with significant downwind spotting. Extensive mop-up required. Live fuels burn actively.



KBDI Map



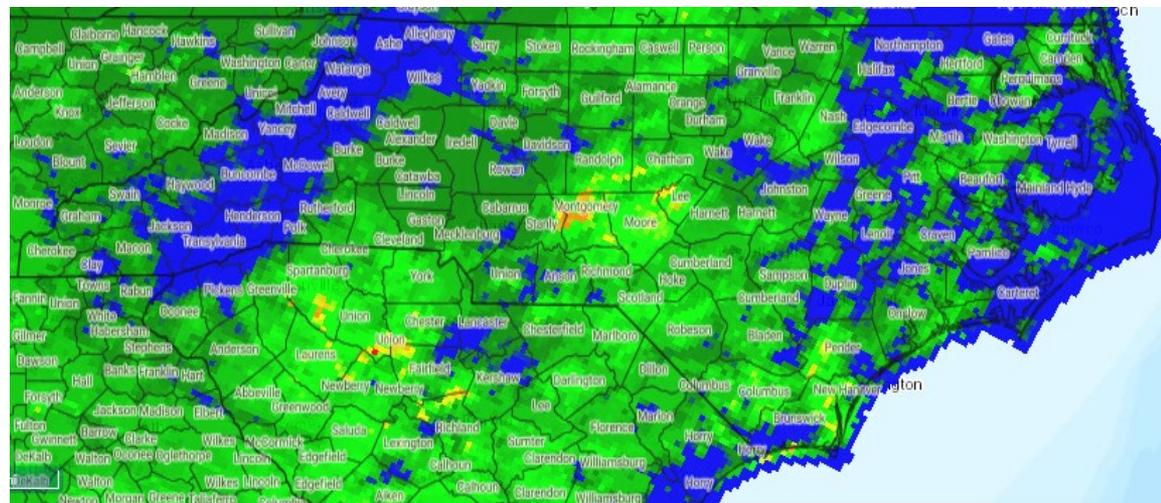
2021

Keetch-Byram Drought Index



From today (Sep 13) at 8 am

2020



Keetch-Byram Drought Index

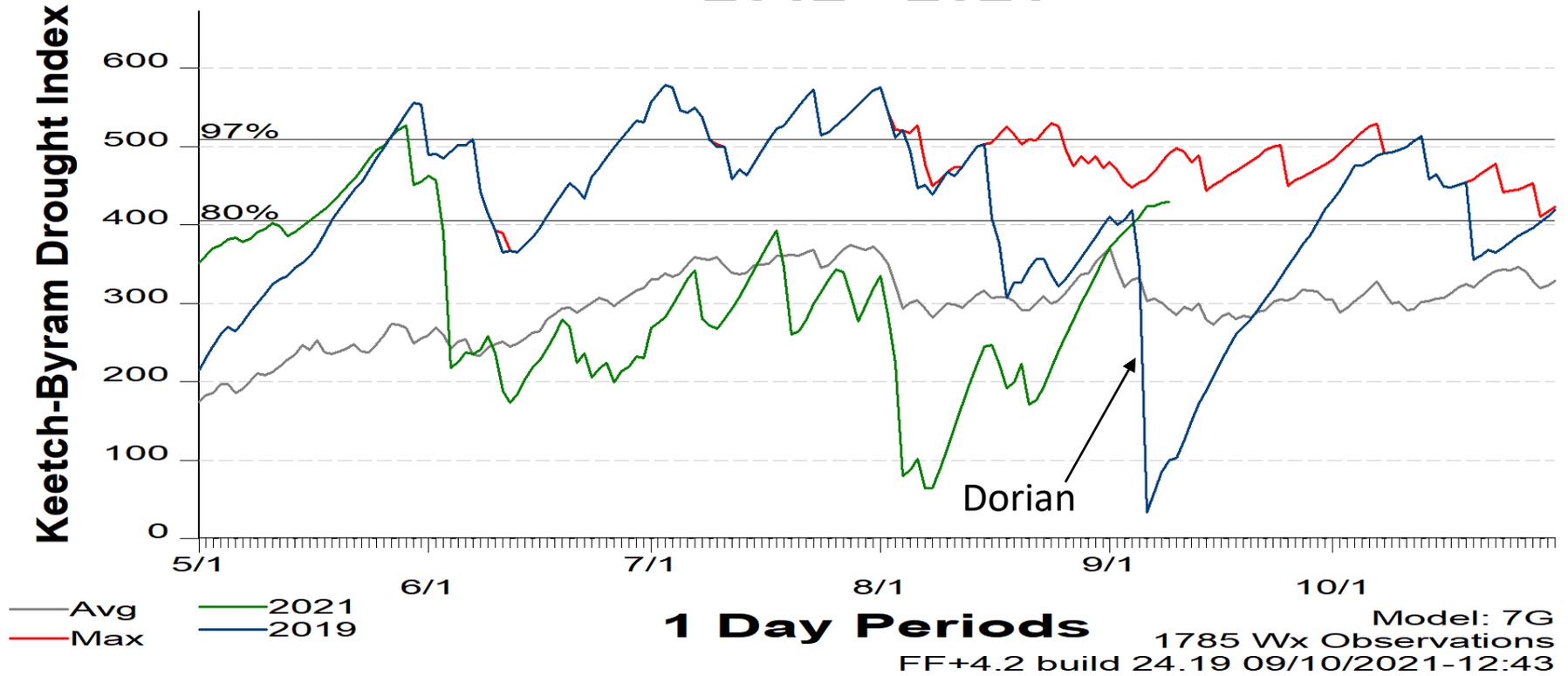


From Sunday, Sep 13, 2020 at 8 am



Coastal KBDI, Summer 2021

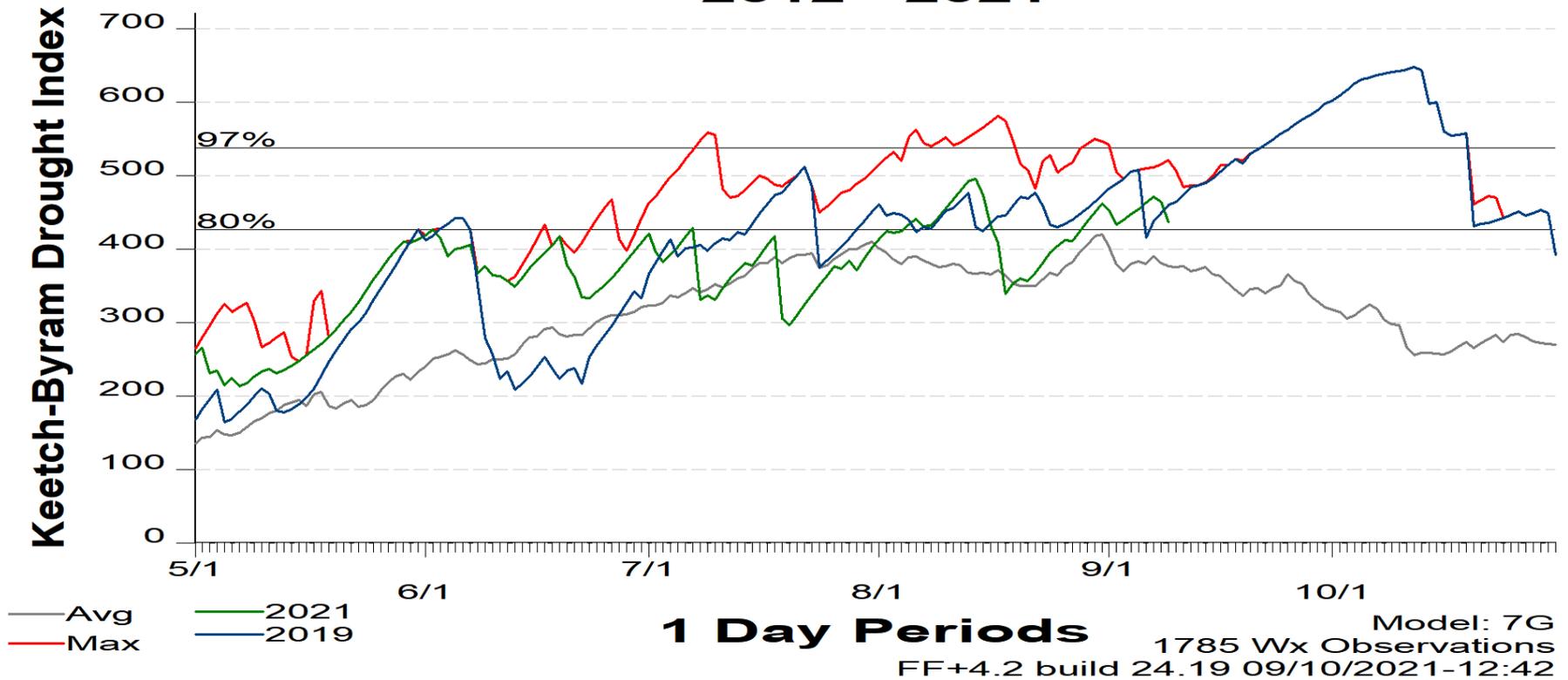
SIG - Coastal 2012 - 2021





Piedmont KBDI, Summer 2021

SIG - Piedmont 2012 - 2021

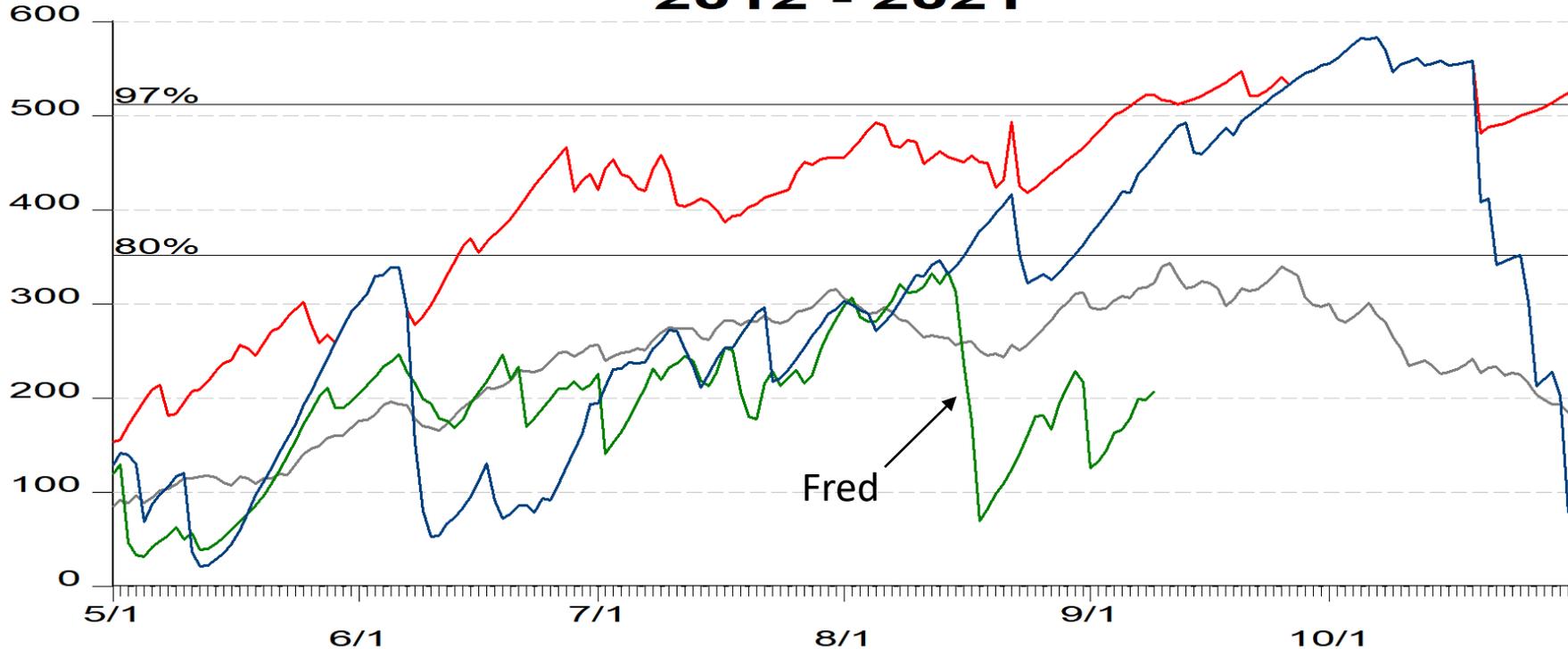




Mountains KBDI, Summer 2021

SIG - Mountains 2012 - 2021

Keetch-Byram Drought Index



— Avg
— 2021
— Max
— 2019

1 Day Periods

Model: 7G
 1785 Wx Observations
 FF+4.2 build 24.19 09/10/2021-12:47



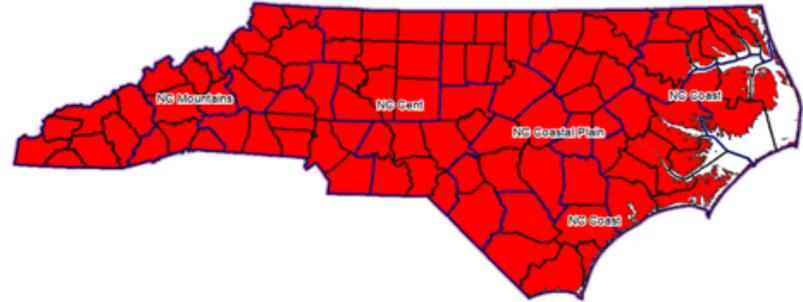
SIGNIFICANT WILDLAND FIRE POTENTIAL OUTLOOK



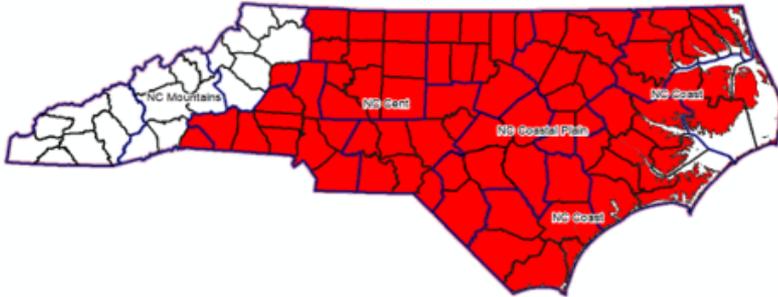
September



November



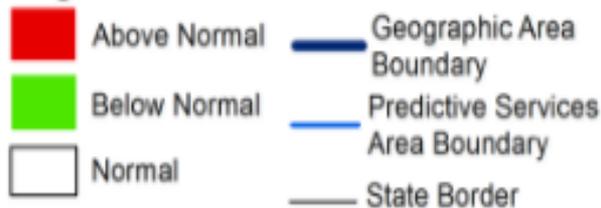
October



December



Significant Wildland Fire Potential





QUESTIONS?



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