

Flint Hills Wildland Fire Update

April 26, 2024

The following information on the Flint Hills wildland fires is provided weekly to keep stakeholders up to date on fires, smoke, and air quality.



<https://www.KSFire.org/>

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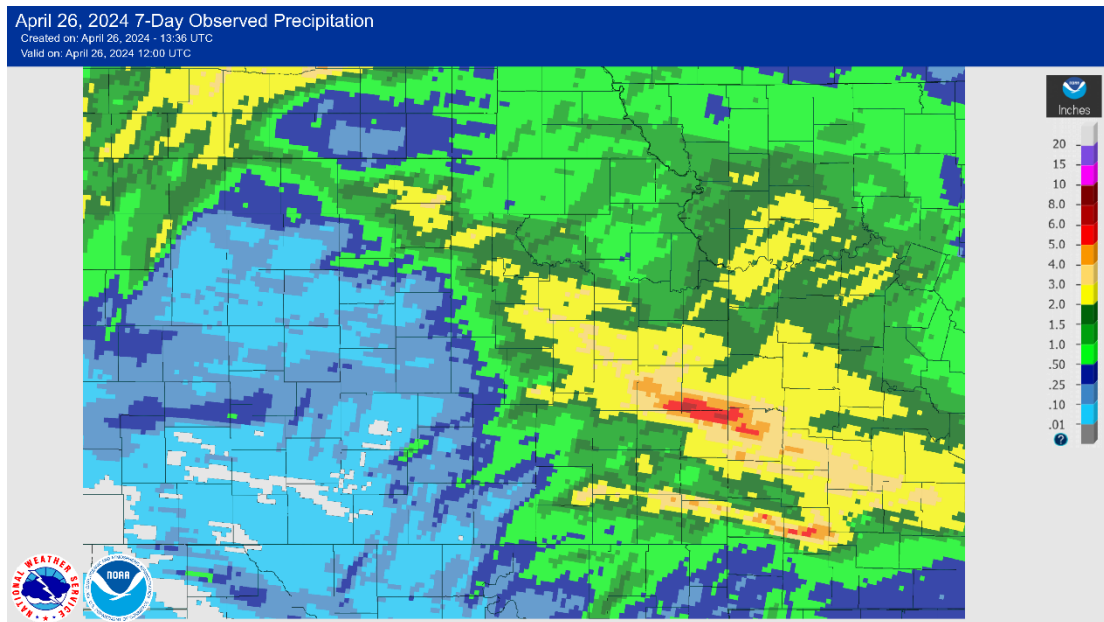
This website was developed as part of the development of the Kansas Flint Hills Smoke Management Plan. Kansas State University hosts the webpage, and it includes important information for ranchers and others who might be interested in the Flint Hills. It provides training, regulations, policies, publications, a modeling tool and other links to guide people looking for information on smoke management. The development of the Flint Hills Smoke Management Plan is an attempt to balance the need for prescribed fire in the Flint Hills with the need for clean air in downwind areas.



Meteorology

A bit cooler than normal last Friday (Apr 19) with early morning cloud cover and otherwise light east to northeast wind. Cloud cover and northerly winds increased for Saturday (Apr 20) as temperatures struggled to rise during the daytime hours resulting in chilly conditions for most of the Flint Hills. Sunshine returned for Sunday (Apr 21) under a northwest wind and a bit warmer temperature with highs near 60. A quick warm-up occurred for Monday (Apr 22) driven by south winds gusting greater than 35 mph. The above normal temperatures continued Tuesday (Apr 23) under light and variable winds but very low relative humidities – into the teens for most – which resulted in higher fire danger. Partly cloudy skies, southwest winds, and warm temperatures were observed Wednesday (Apr 24) as some precipitation began to impact the region. Stronger southerly winds moved in on Thursday (Apr 25) along with cloud cover and rounds of thunderstorms. Total precipitation over the prior week across the Flint Hills ranged from near a tenth of an inch in the southwestern Flint Hills to more than two inches in the northern Flint Hills.

Precipitation

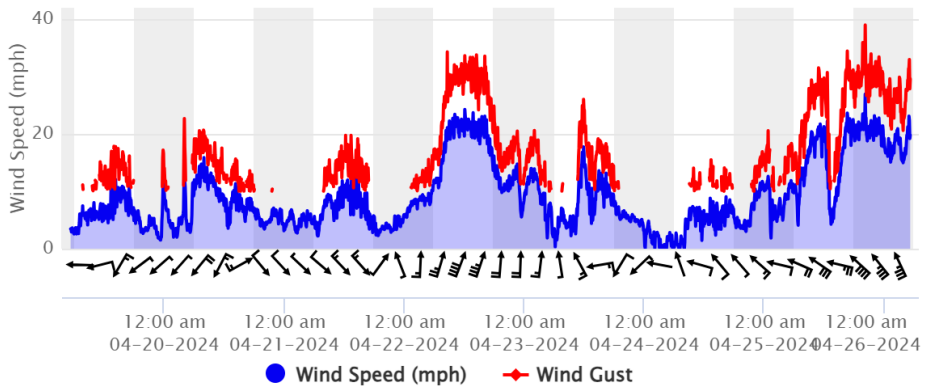
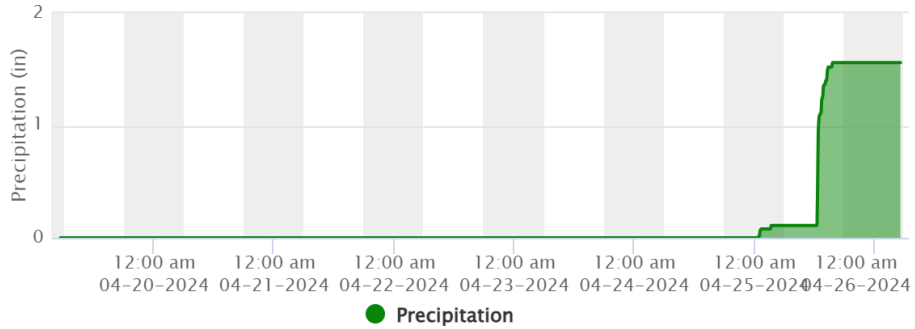
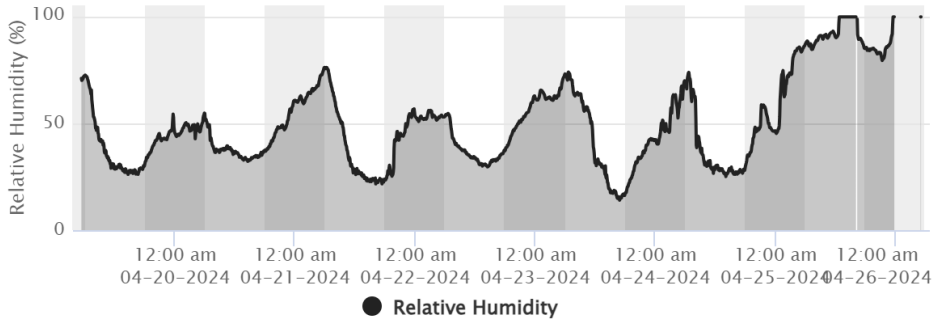
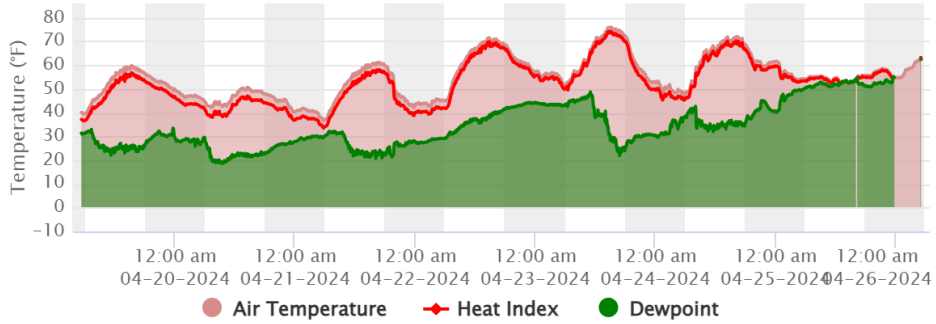


NOAA/NWS Observed Total Precipitation for April 19-26, 2024.

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Meteogram for Elmdale 1SE



7-day (April 19-26, 2024) Observed Weather from the Kansas Mesonet station near Elmdale, Kansas (<https://mesonet.k-state.edu/>)



Fire, Smoke, and Air Quality

For the period of April 19-25, 2024, there were no preliminary air quality exceedances that were potentially influenced by prescribed fire within the Flint Hills.

Ozone: Preliminary data indicates no exceedances of the NAAQS daily 8-hour average maximum of 70 ppb.

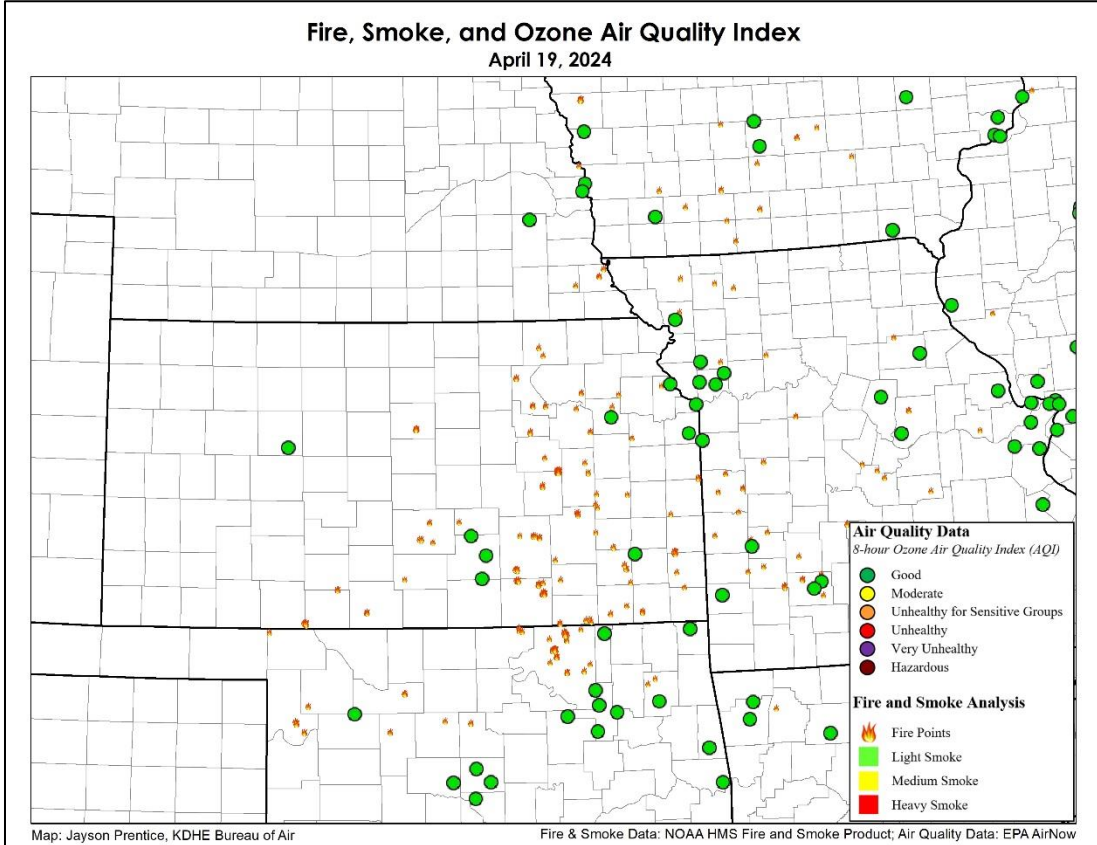
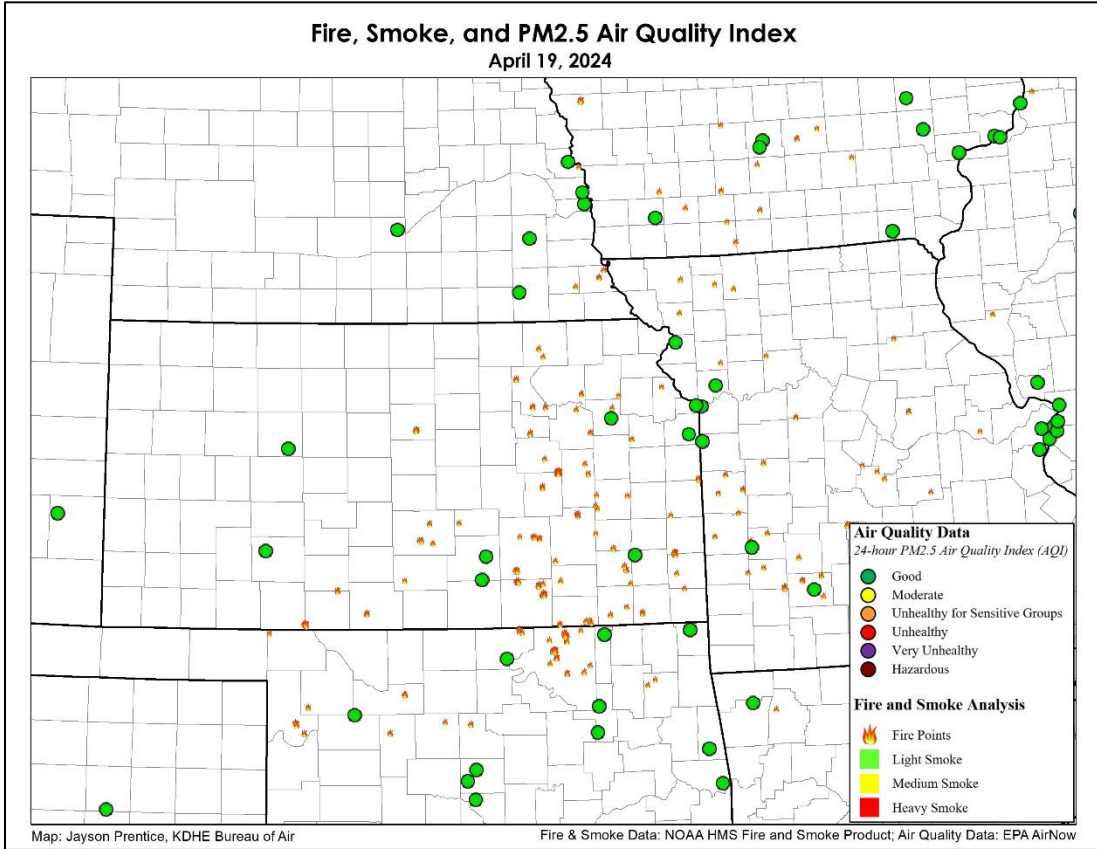
PM_{2.5}: Preliminary data indicates no exceedances of the NAAQS daily 24-hour average maximum of 35 µg/m³.

Some prescribed fire activity was observed last Friday (Apr 19) with a few larger fires detected by satellite analysis, however air quality impacts were limited. Very few fires were noted for Saturday (Apr 20) although extensive cloud cover likely contributed to inability to detect fires. Activity increased on Sunday (Apr 21) but air quality impacts were limited due to good mixing under northwest winds. A light haze was analyzed throughout the region on Sunday with fires also occurring across parts of Iowa, southern Minnesota, southeast South Dakota, and other adjacent areas contributing.

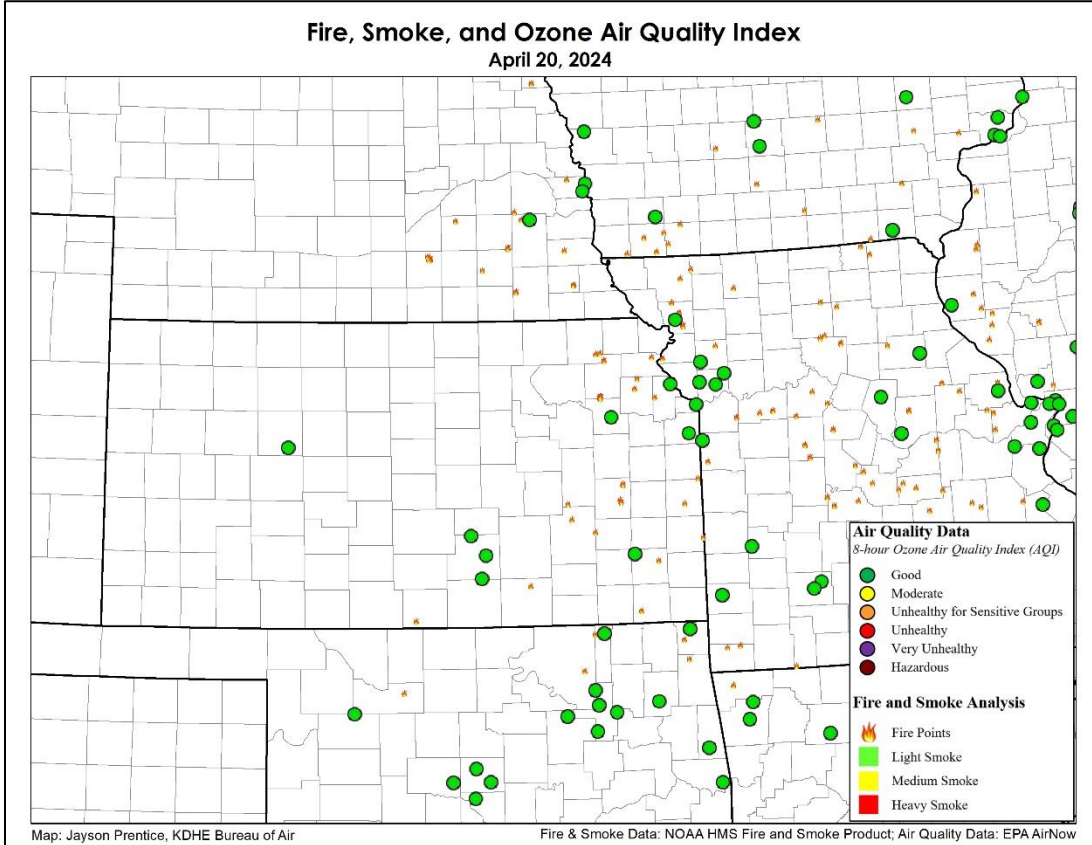
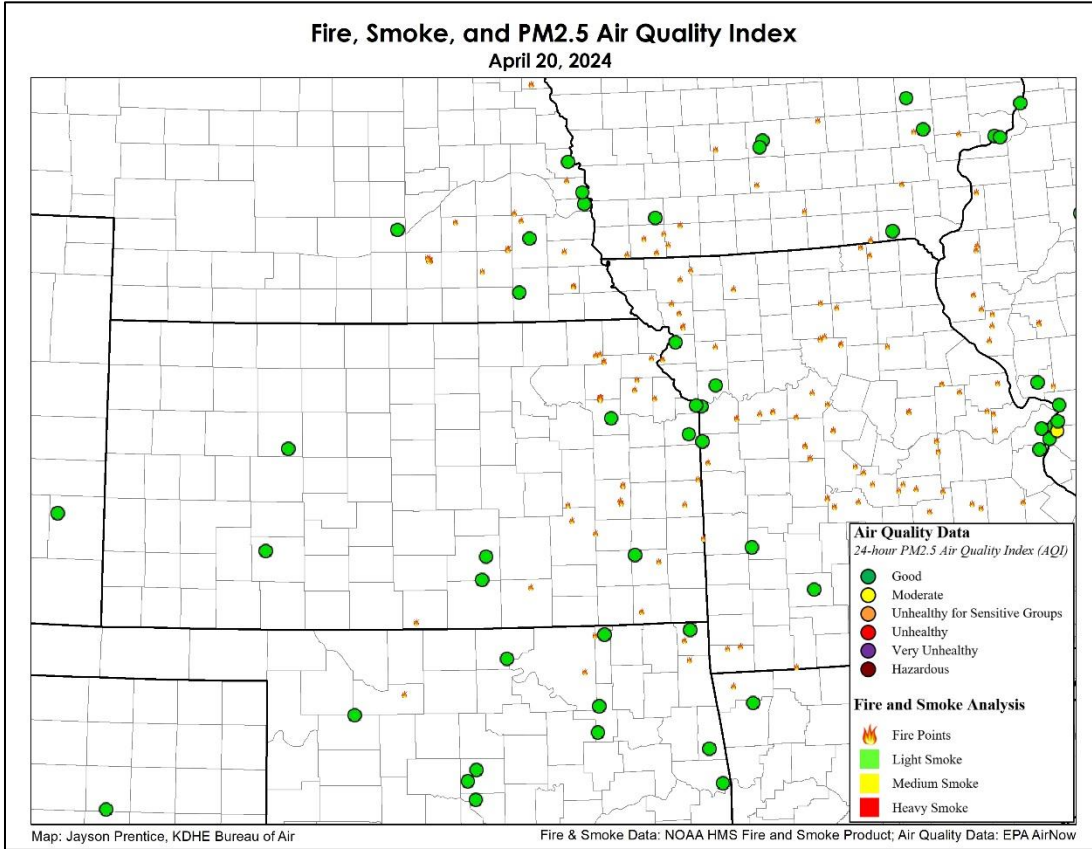
Fire activity was limited on Monday (Apr 22) and Tuesday (Apr 23) under strong south winds. Ozone increases on Tuesday were likely attributed to above normal temperatures and sunny skies. Limited prescribed fire activity occurred on Wednesday (Apr 24) with air quality impacts being localized to near-fires; Some elevated ozone also occurred with the combination of nearby smoke and warmer temperatures. Minimal fire activity was analyzed on Thursday (Apr 25) with cloud cover and rain in the region. A regional light smoke (haze) was analyzed again for Wednesday and Thursday, likely due to local, regional, and national (prescribed) fire activity.

The following pages have two maps for each day; One showing the 24-hour average Air Quality Index category for PM_{2.5} and the other showing the 8-hour average maximum Air Quality Index category for Ozone from regulatory air quality monitors in the region. Both maps show fires and smoke as analyzed by NOAA Hazard Mapping Services.

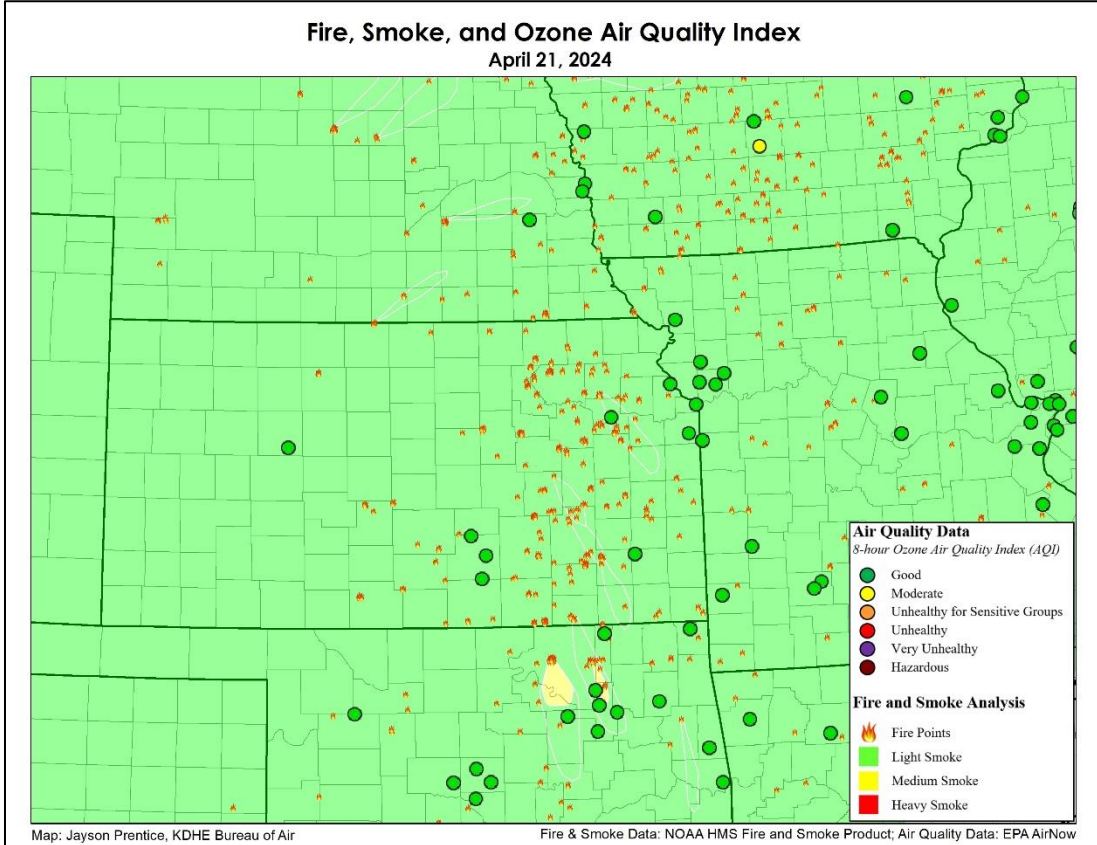
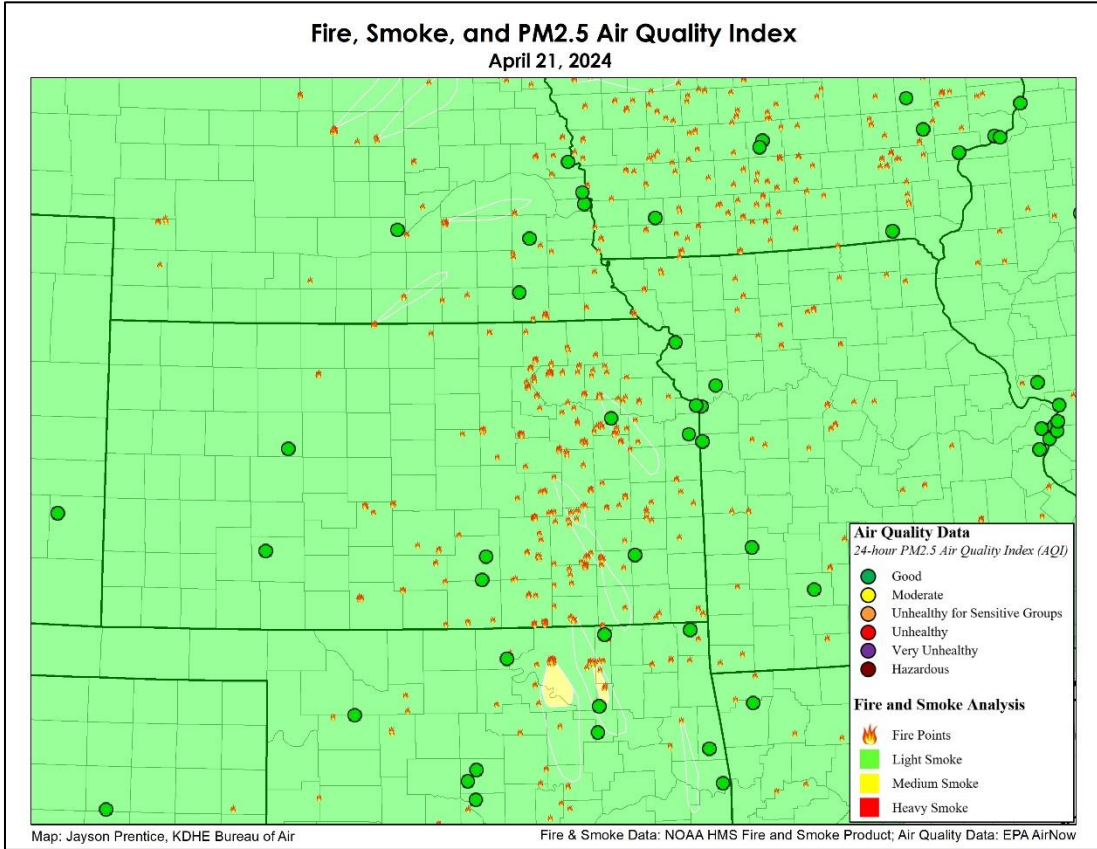
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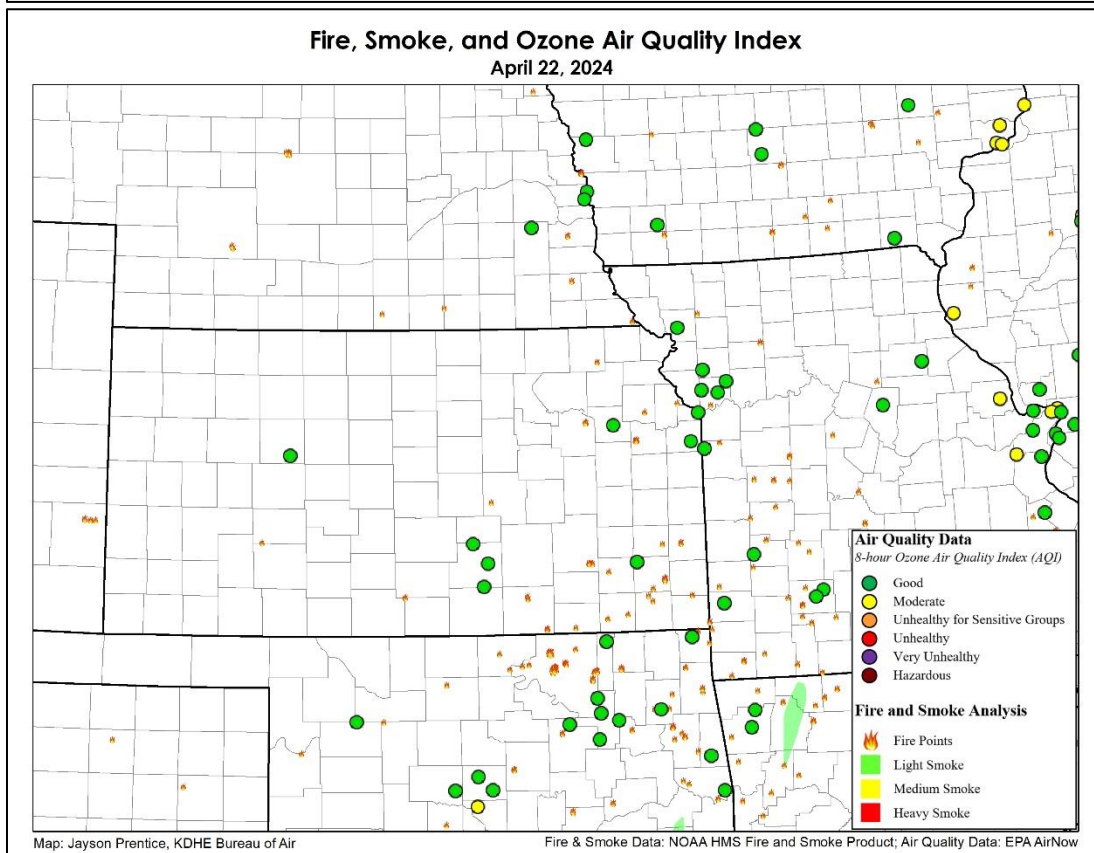
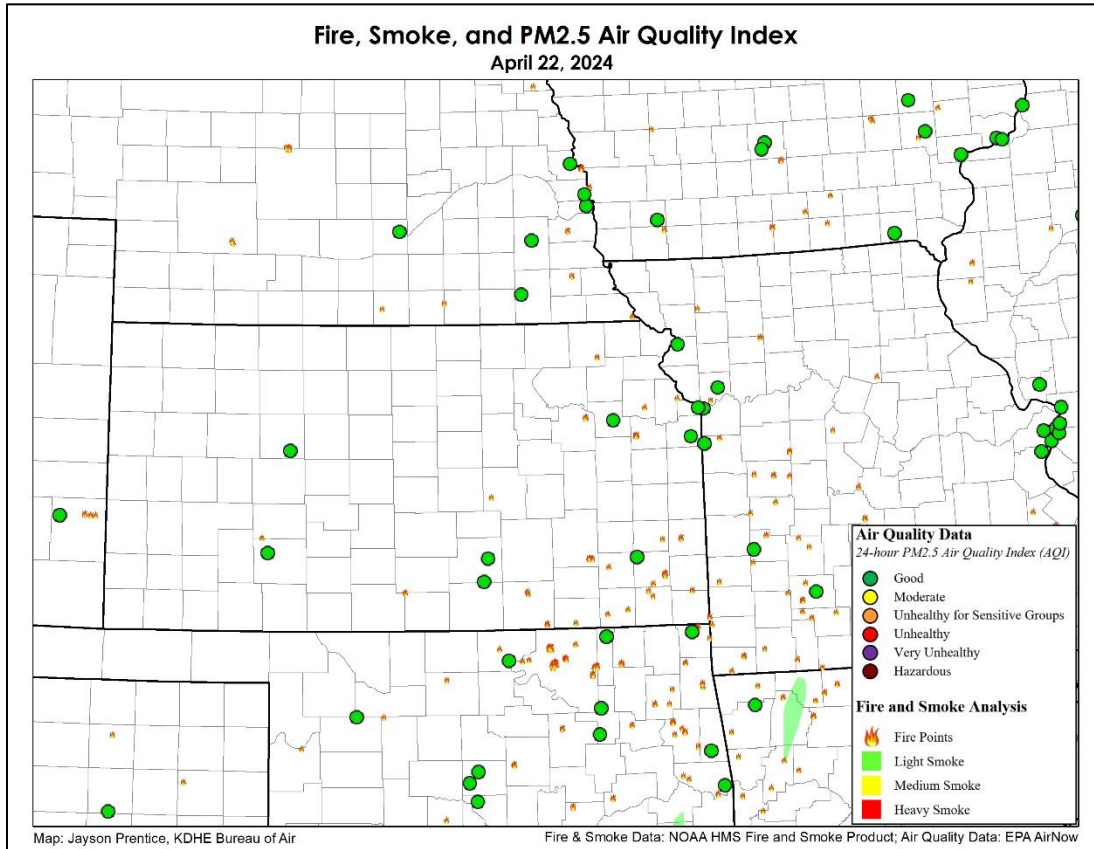
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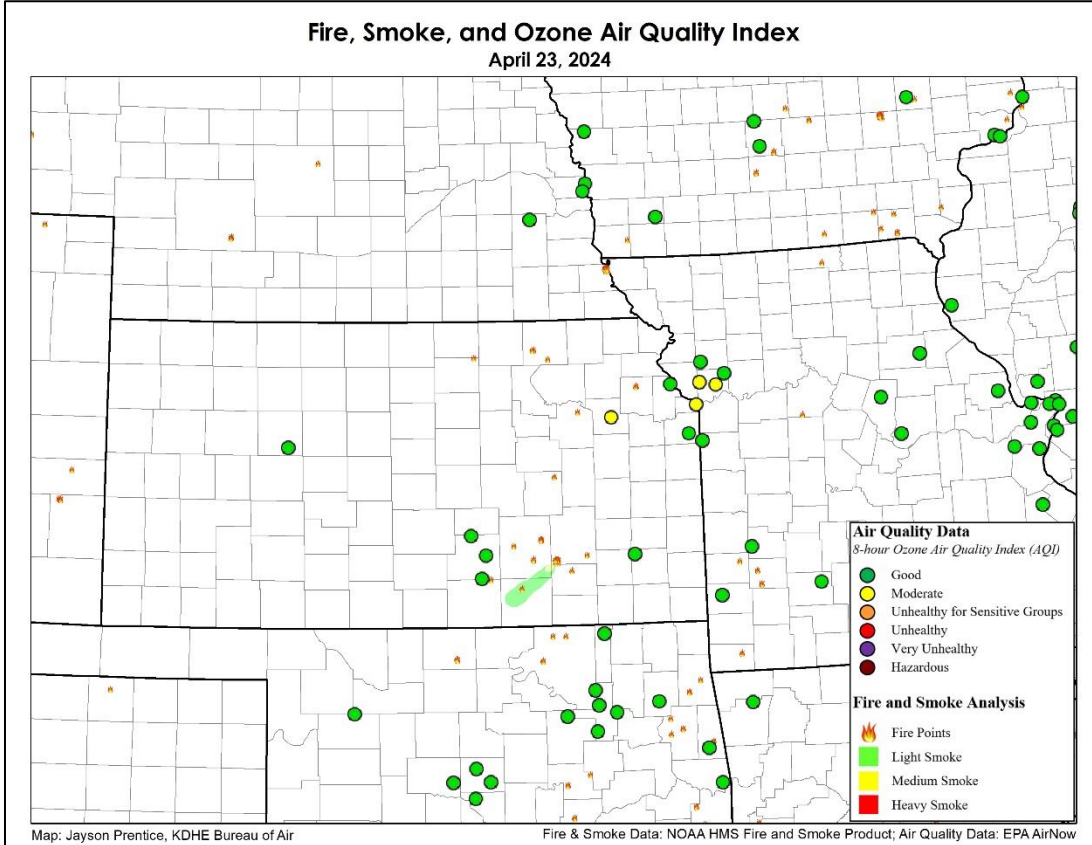
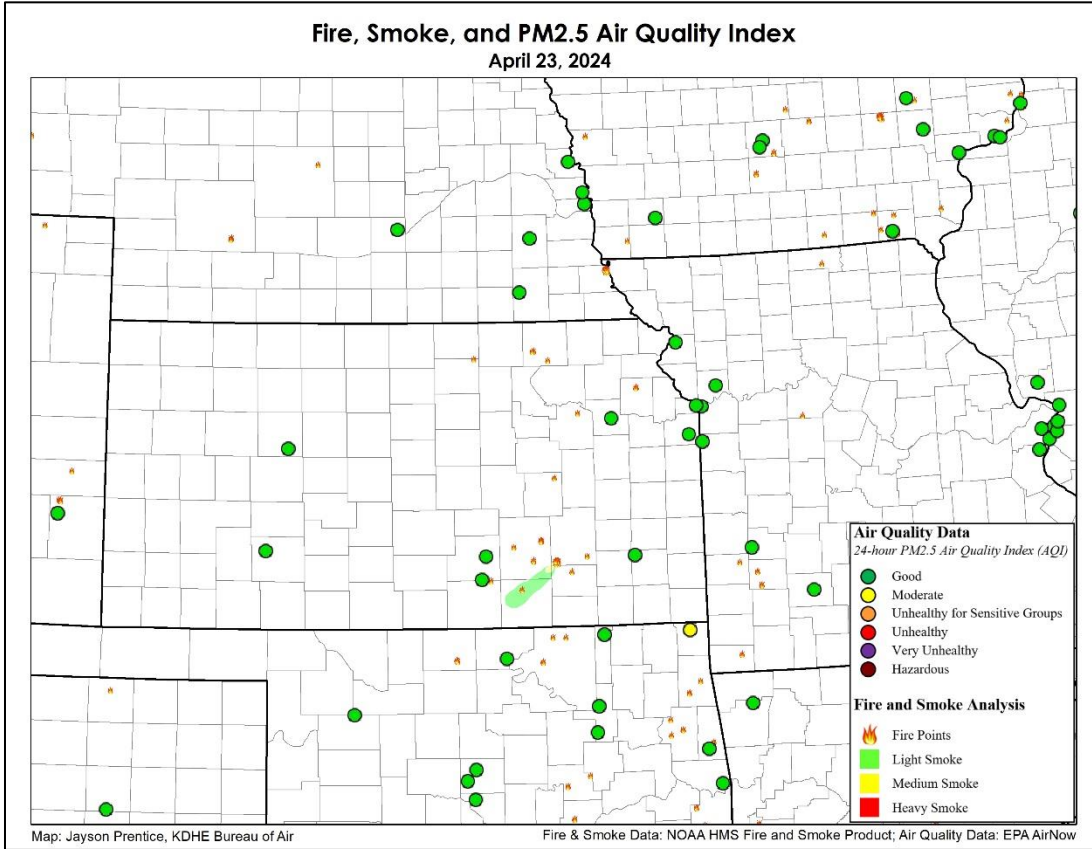
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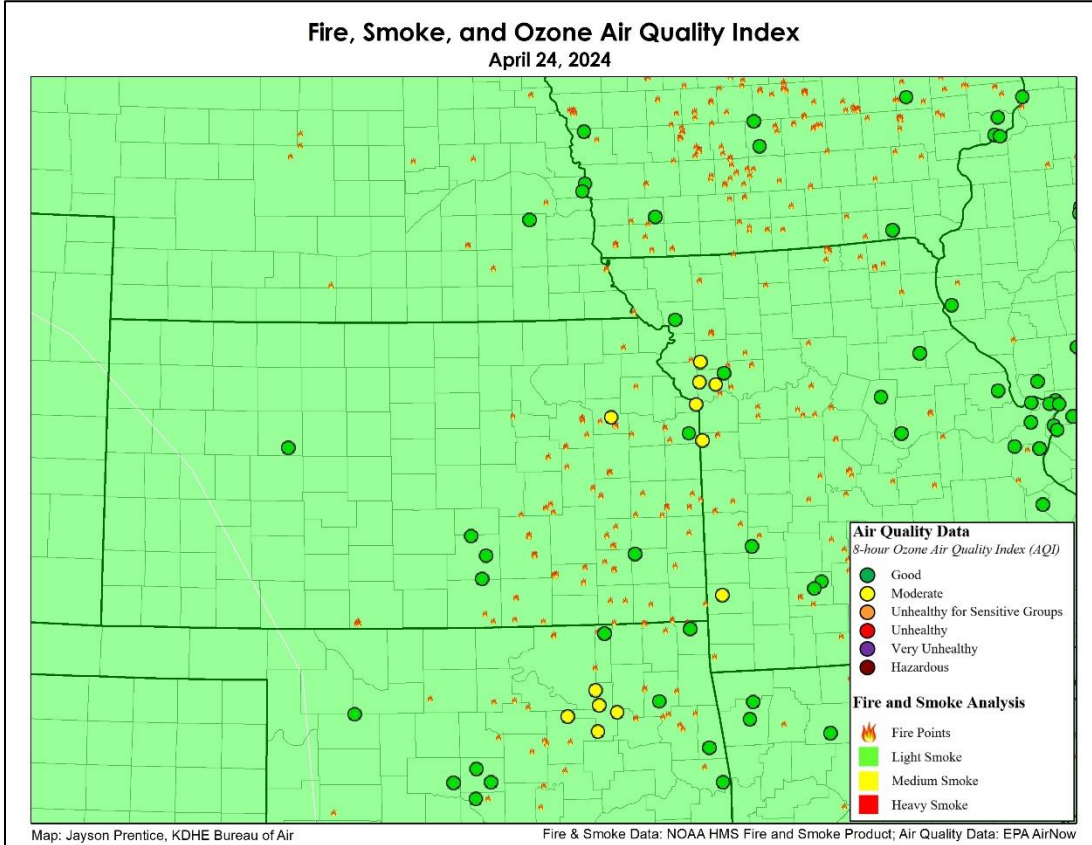
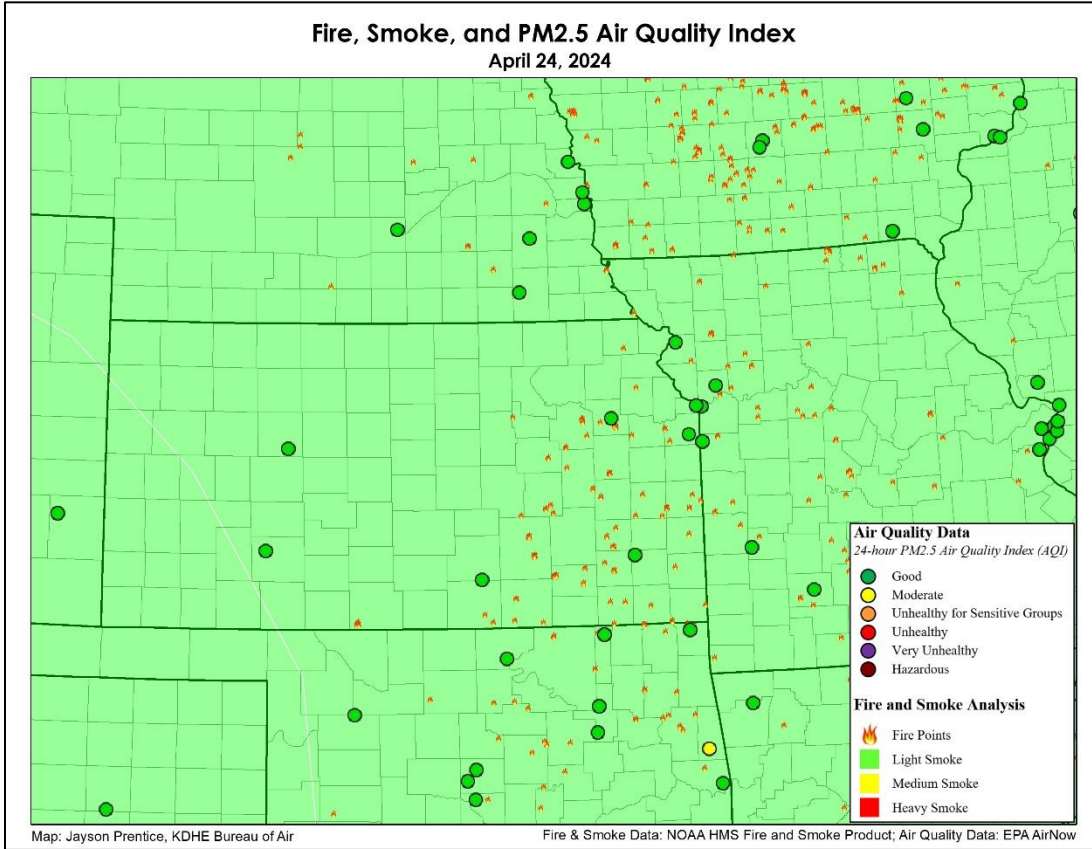
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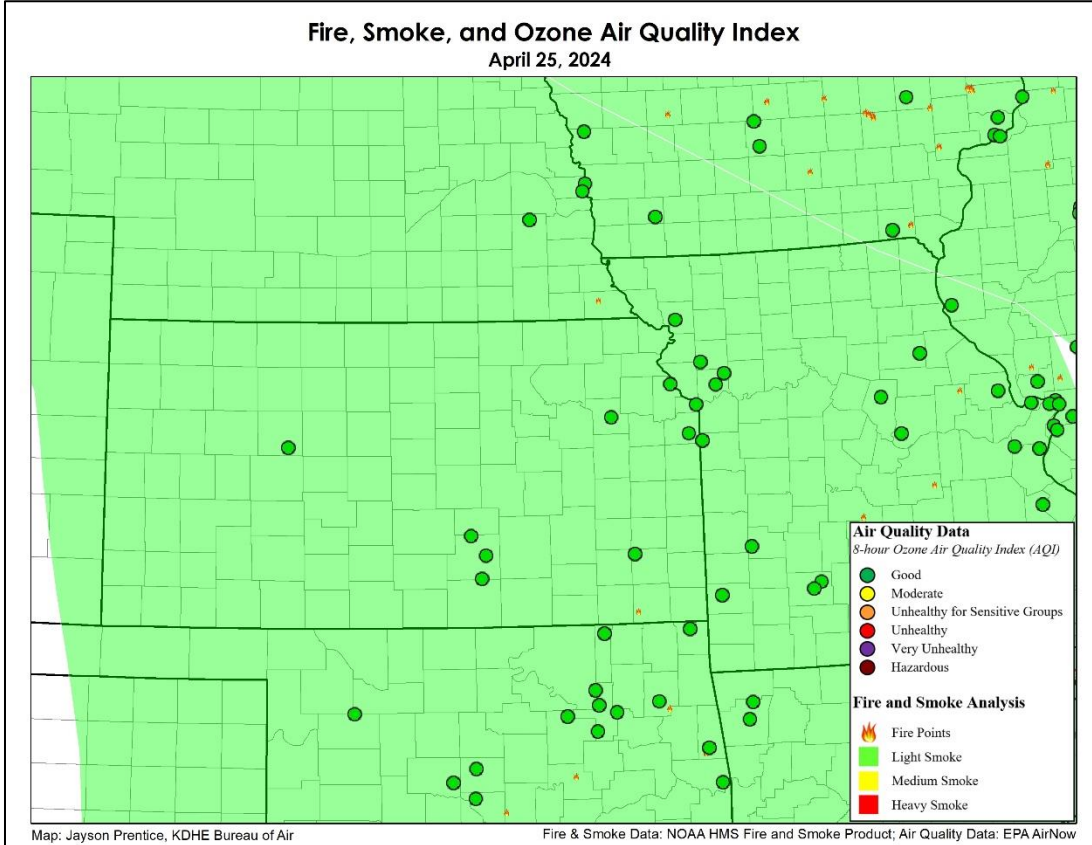
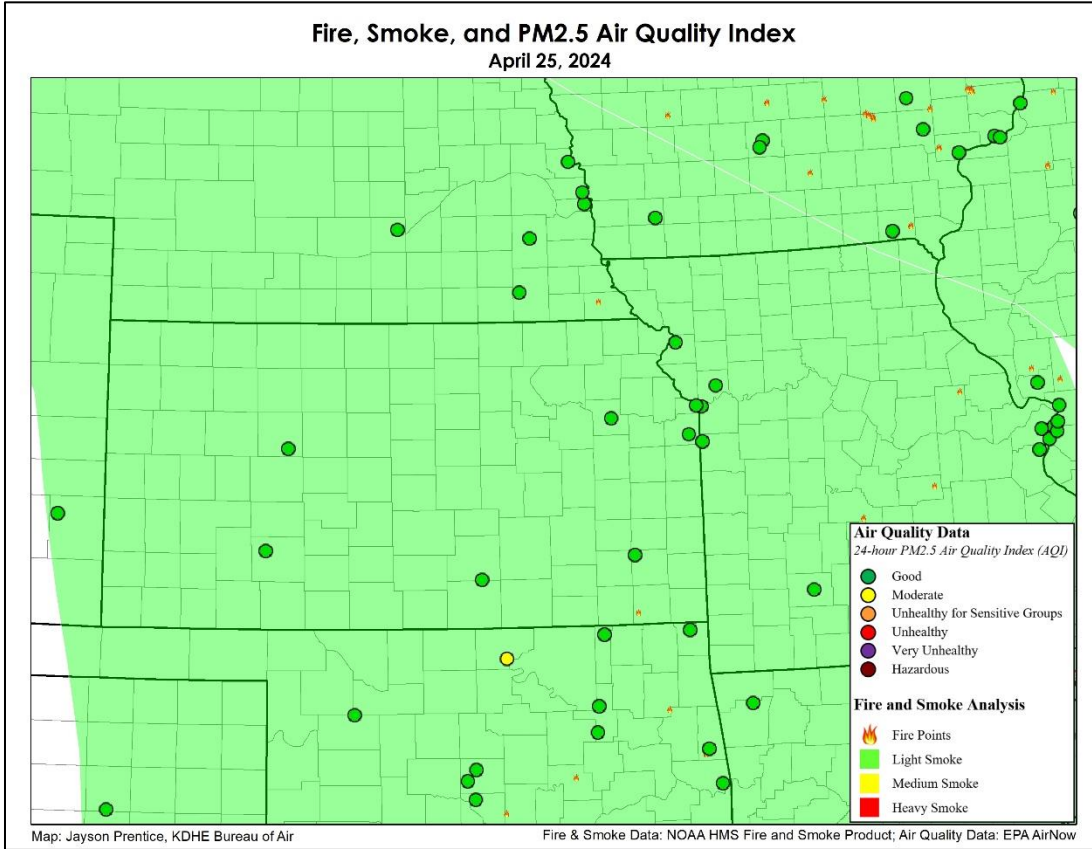
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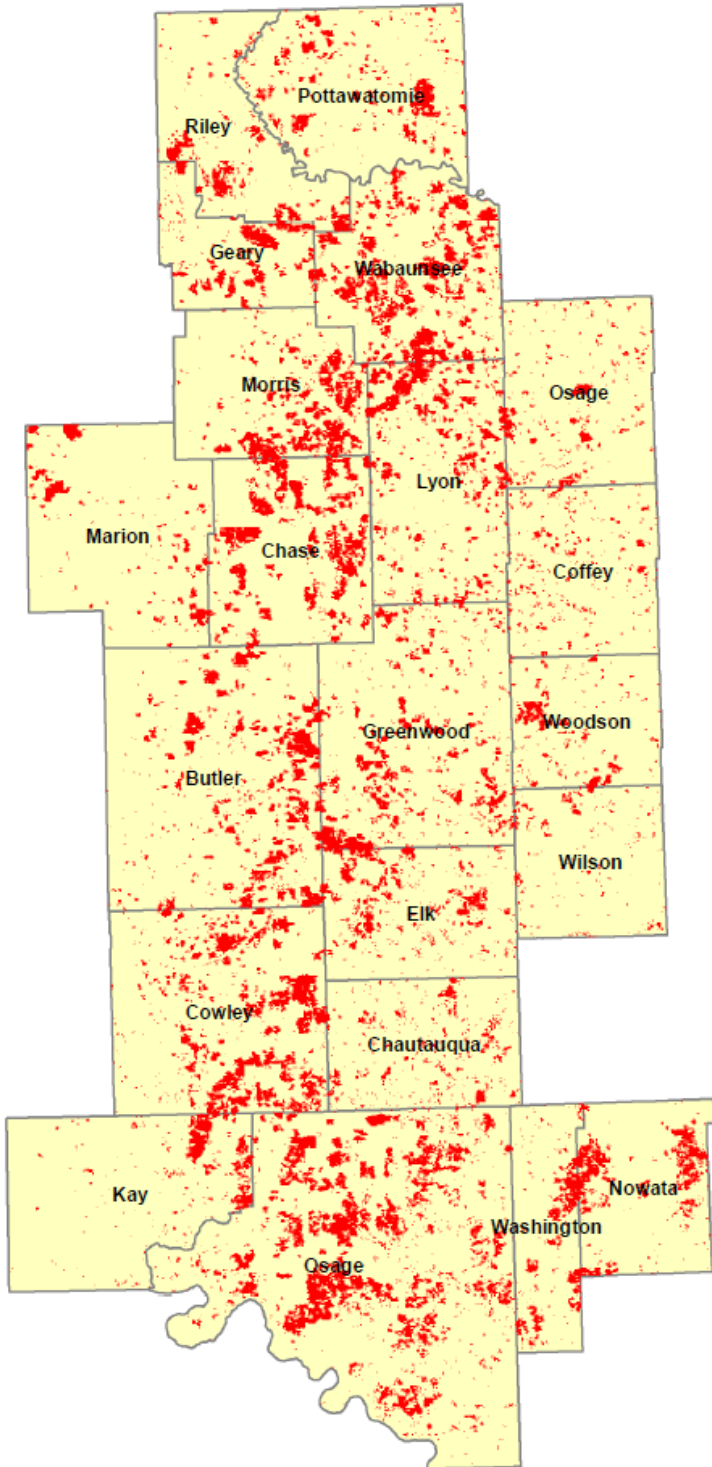


Flint Hills Wildland Fire Update





Flint Hills Acreage Burned (February 14 – April 17, 2024)



<u>Counties</u>	<u>Acres Burned</u>
Butler	97,686
Chase	89,531
Chautauqua	27,244
Coffey	20,294
Cowley	112,265
Elk	43,908
Geary	36,835
Greenwood	78,025
Lyon	76,465
Marion	28,201
Morris	70,998
Osage (KS)	24,618
Pottawatomie	45,854
Riley	34,364
Wabaunsee	110,767
Wilson	11,645
Woodson	22,317
Nowata (OK)	43,847
Osage (OK)	220,994
Washington (OK)	28,912
Kay (OK)	30,070
Total	1,254,840
* Denotes county was partly or completely covered by clouds during latest analysis.	

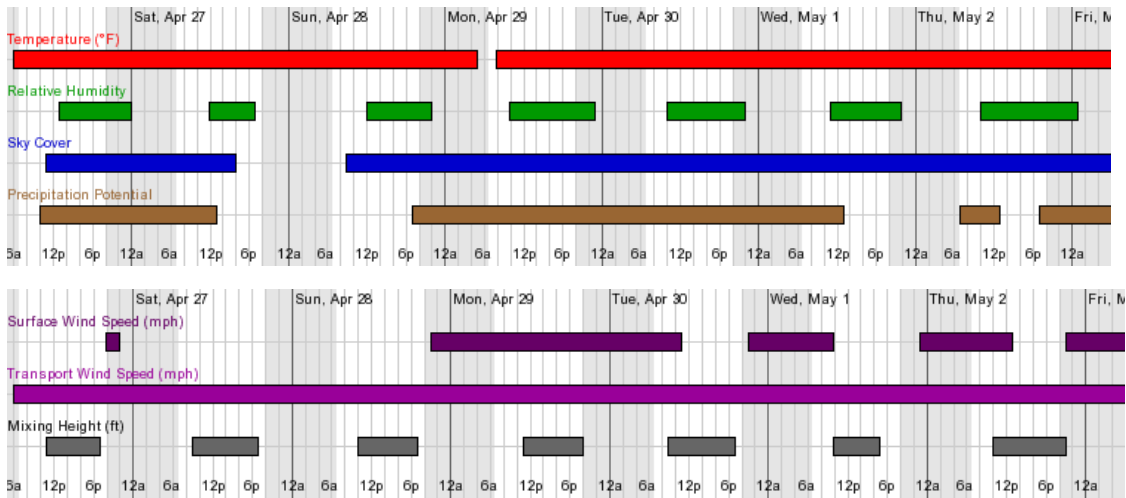


Upcoming Look at Fires and Smoke

Somewhat breezy conditions are expected for Friday (Apr 26), Saturday (Apr 27), and Sunday (Apr 28) as a storm system impacts the region. This system will also bring occasional rounds of thunderstorms – even severe weather – across parts of the Flint Hills. Any fires will have favorable dispersion, but opportunities appear very limited due to winds and rainfall.

Winds subside on Monday (Apr 29) behind this weather system with variable wind directions, but sunny skies and seasonable temperatures which could prompt some late Spring prescribed fire activity. Anticipate above normal temperatures for much of next week driven by stronger south winds, especially Tuesday (Apr 30) where highs in the 80s are forecast. Another round of showers and thunderstorms also appear possible for Wednesday (May 1) and Thursday (May 2). Opportunities for prescribed fire activity appear limited beyond Monday.

Ideal Weather Conditions for Prescribed Burning



Current National Weather Service forecast for the approximate center of the Flint Hills showing when conditions may be most favorable for wildland burning as described at [KSFire.org](https://ksfire.org). Conditions are most favorable when each parameter has a colored boxplot displayed. Forecast valid: 8am April 26, 2024.

For more information, contact:

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