

# Flint Hills Wildland Fire Update

March 24, 2023

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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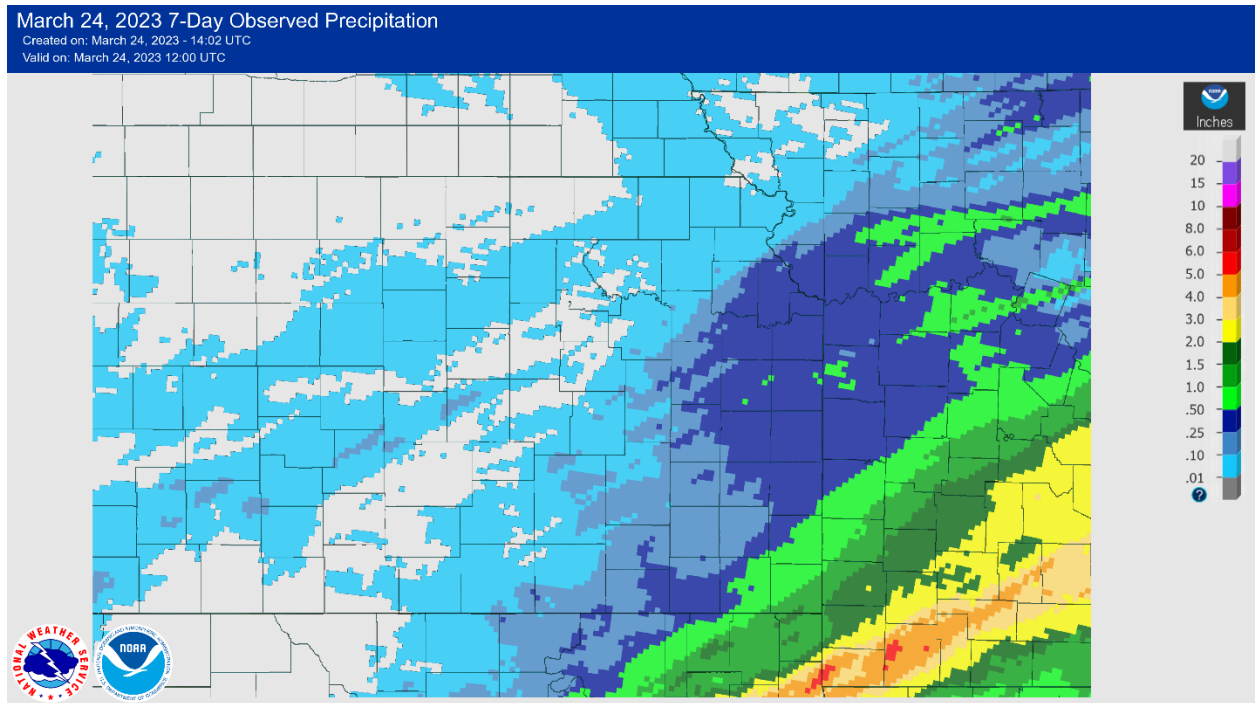
This website was developed as part of the development of the Kansas Flint Hills Smoke Management Plan. Kansas State University hosts the webpage and it includes important information for ranchers and others who might be interested in the Flint Hills. It provides training, regulations, policies, publications, 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

Below normal temperatures were observed Friday and especially Saturday across the region under a brisk north wind. This wind shifted to become southerly on Sunday and began a warm-up which also allowed relative humidity values to drop below 20 percent in many areas. Warm temperatures and breezy conditions occurred on Monday with near critical fire weather conditions in some locations as relative humidity dropped below 30 percent. Light rain moved across the region late Monday into early Tuesday with a trace to near a quarter inch of rainfall across the Flint Hills. Warm temperatures continued Wednesday with variable winds as a storm system moved across the region. Temperatures were closer to normal on Thursday under a cool northeast breeze.

## Precipitation

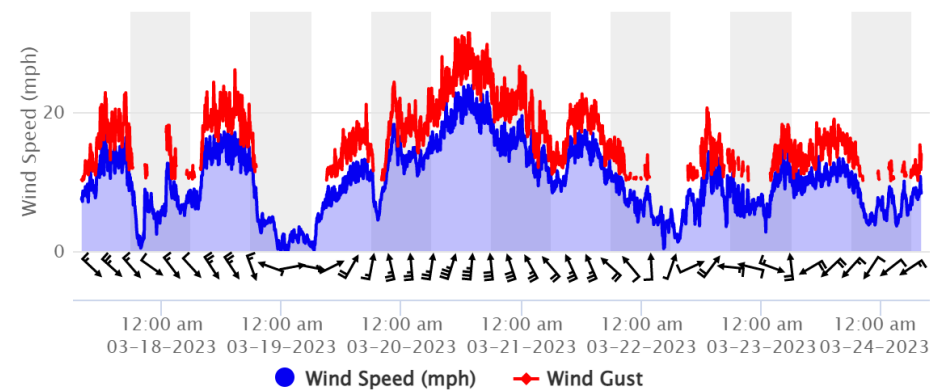
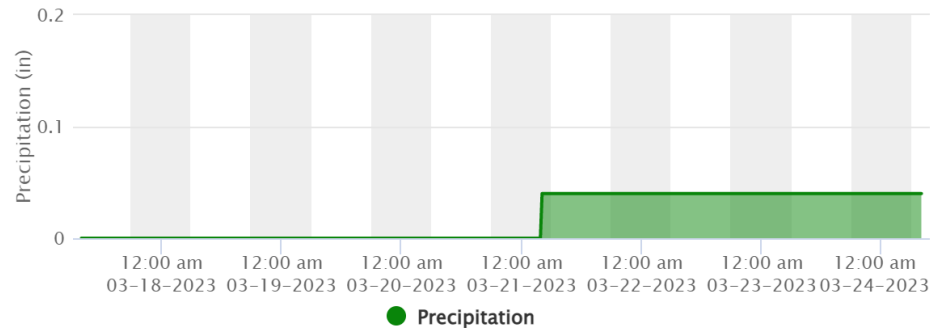
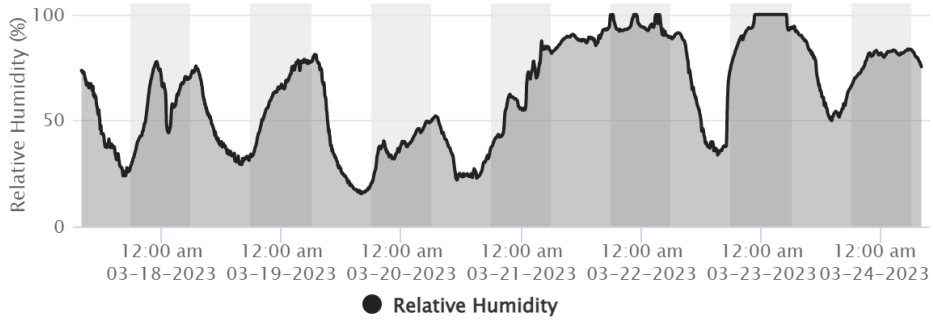
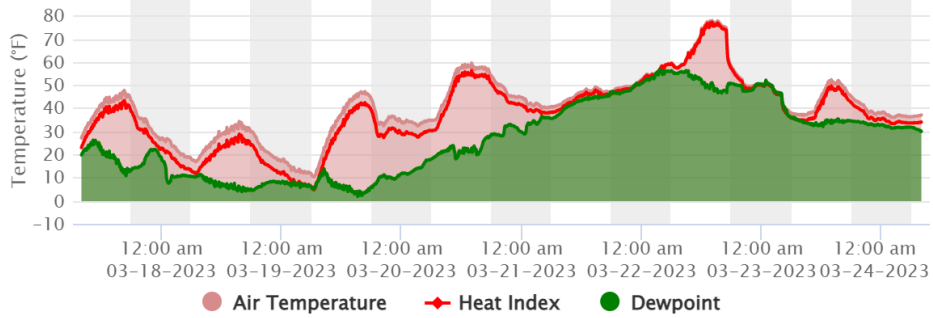


NOAA/NWS Observed Total Precipitation for March 17-24, 2023.

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## Meteogram for Elmdale 1SE



7-day (March 17-24, 2023) Observed Weather from the Kansas Mesonet station near Elmdale, Kansas (<https://mesonet.k-state.edu/>)



## Fire, Smoke, and Air Quality

For the period of March 17-23, 2023 there were no air quality exceedances that were potentially influenced by prescribed fire within the Flint Hills region.

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

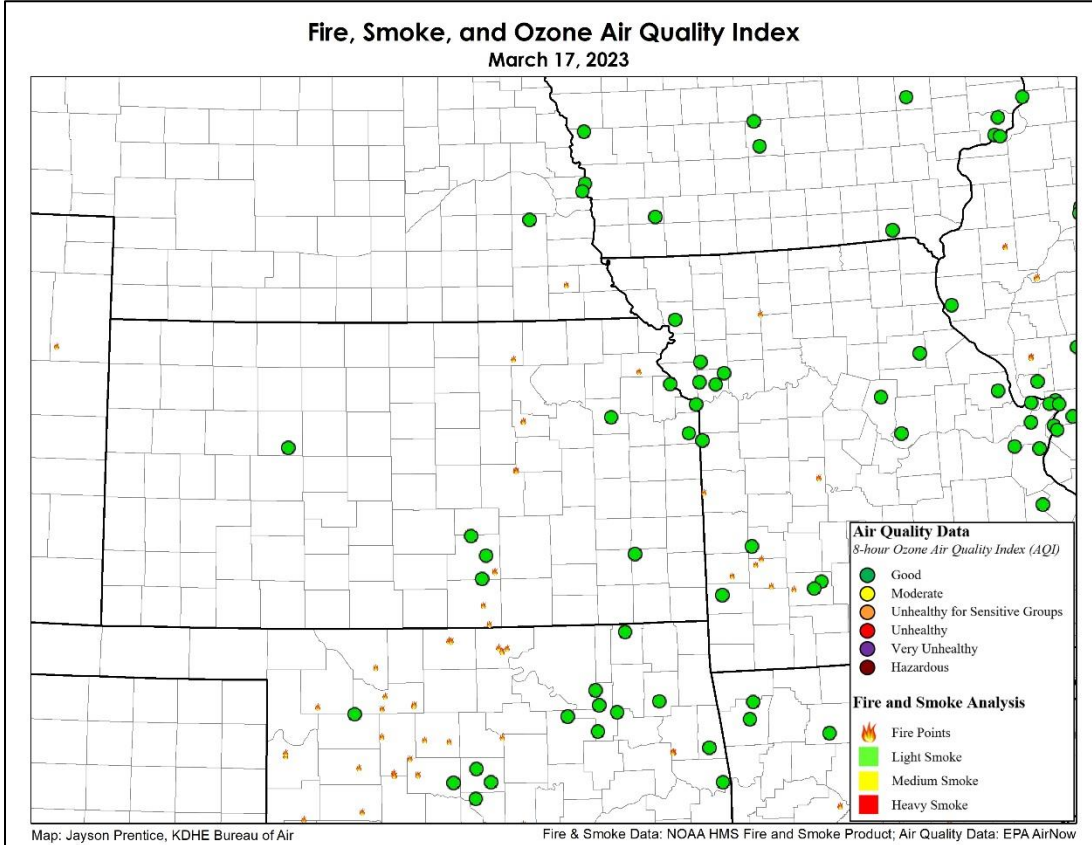
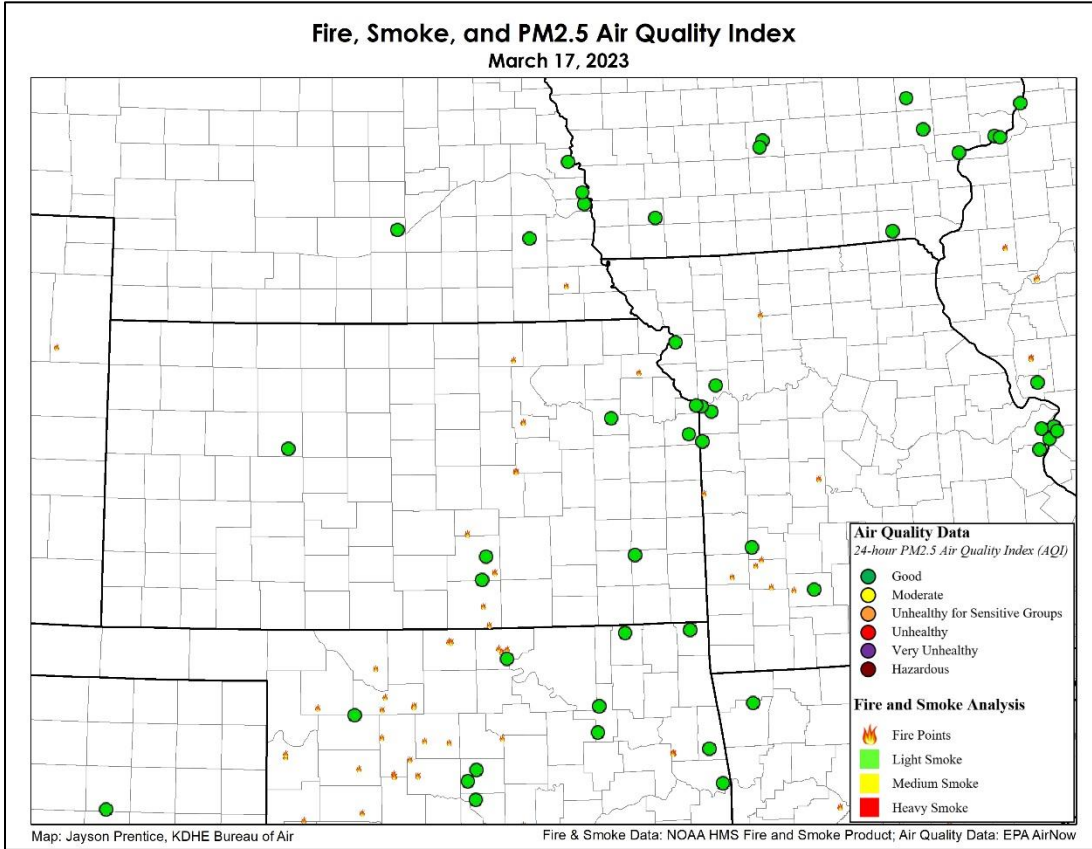
**PM<sub>2.5</sub>:** Preliminary data indicates no exceedances of the NAAQS daily 24-hour average maximum of 35 µg/m<sup>3</sup>.

Minimal prescribed fire activity occurred on Friday and Saturday with cool temperatures and brisk northwest winds. As winds turned to the southwest and temperatures warmed on Sunday a considerable amount of prescribed burning was observed across the region; Smoke however mixed out well with good transport winds which led to minimal smoke impacts to air quality. At least a few wildfires were also noted on Monday with near-critical fire weather conditions.

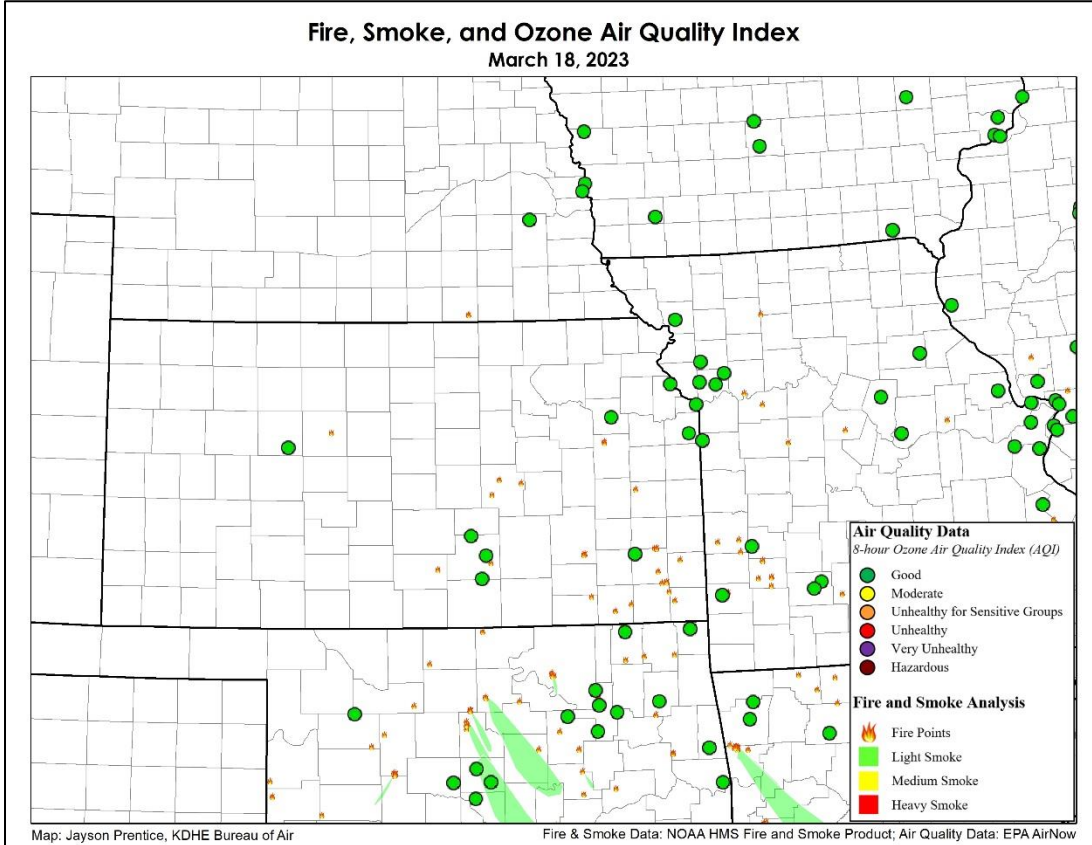
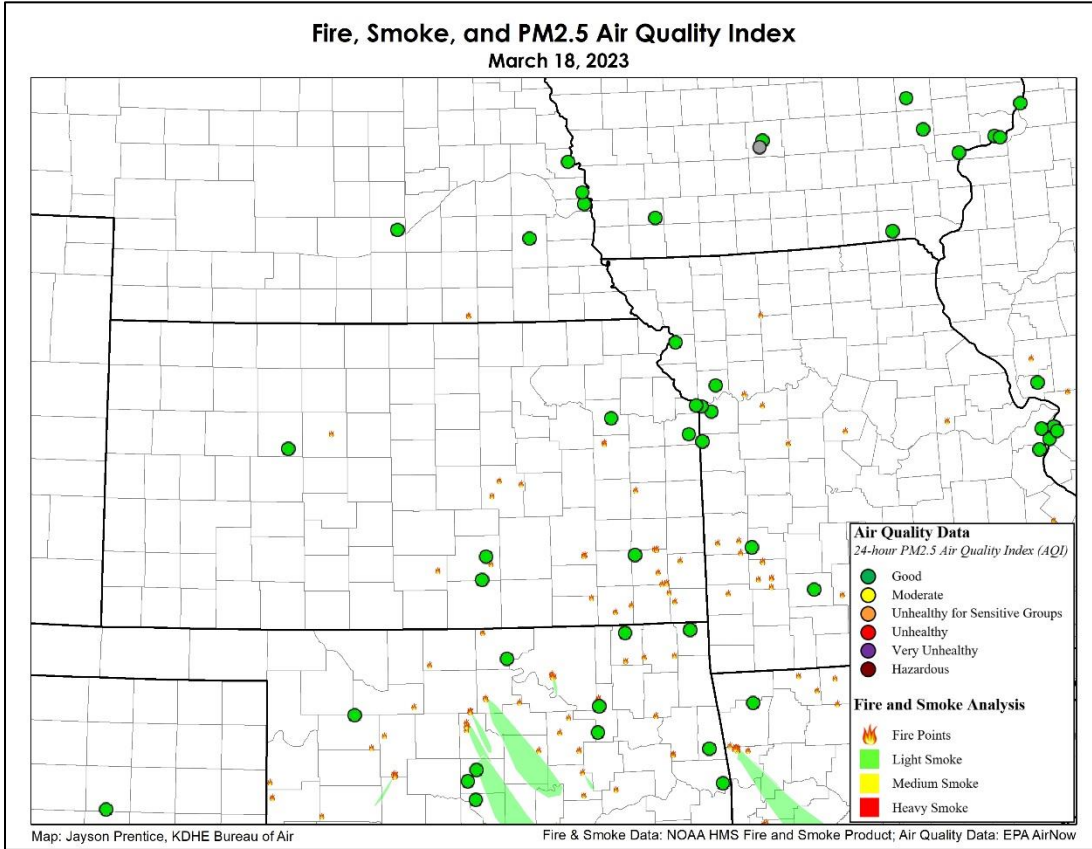
An increase in cloud cover, breezy conditions, light precipitation, and cooler temperatures overall limited the use of prescribed fire for the remainder of the week although some fire activity was observed beneath the cloud deck across the Flint Hills and adjacent areas. Moderate Air Quality Index (AQI) was measured at air quality monitors across the region on Tuesday, Wednesday, and Thursday – this however was more likely attributed to regional pollutants rather than smoke from prescribed fire activity.

*The following pages have two maps for each day; One showing the 24-hour average Air Quality Index category for PM<sub>2.5</sub> 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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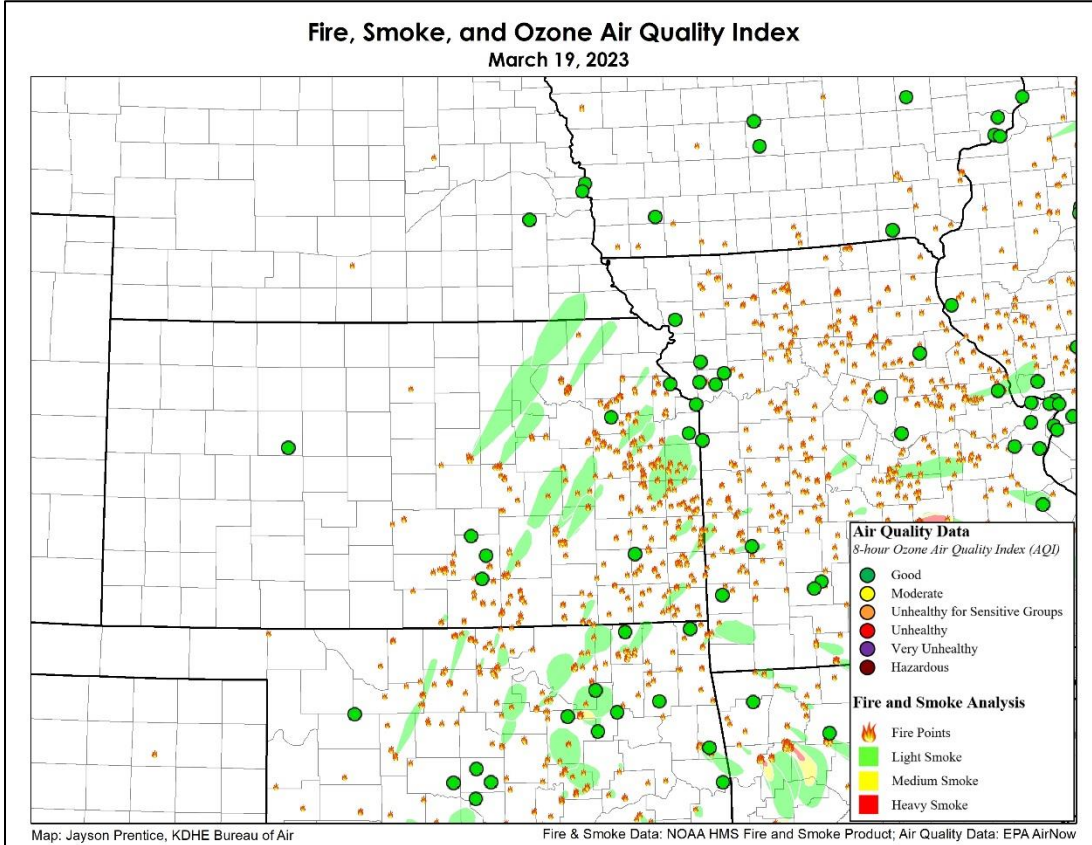
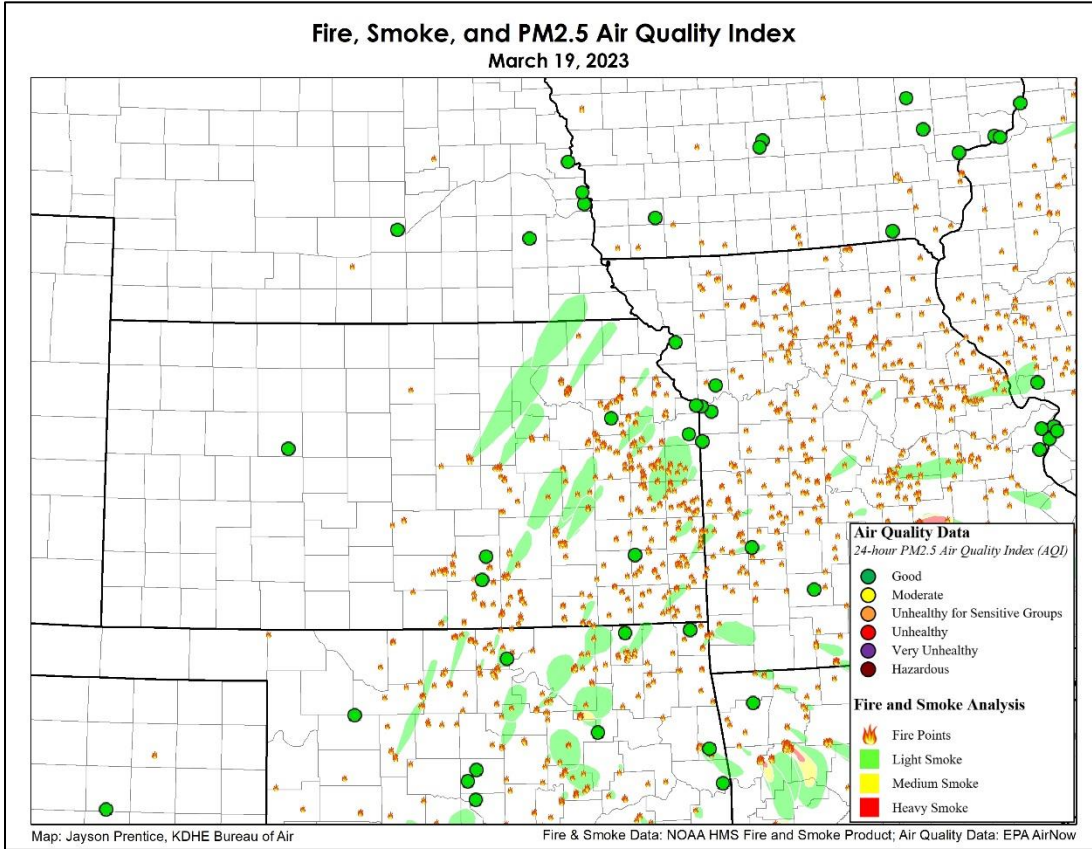


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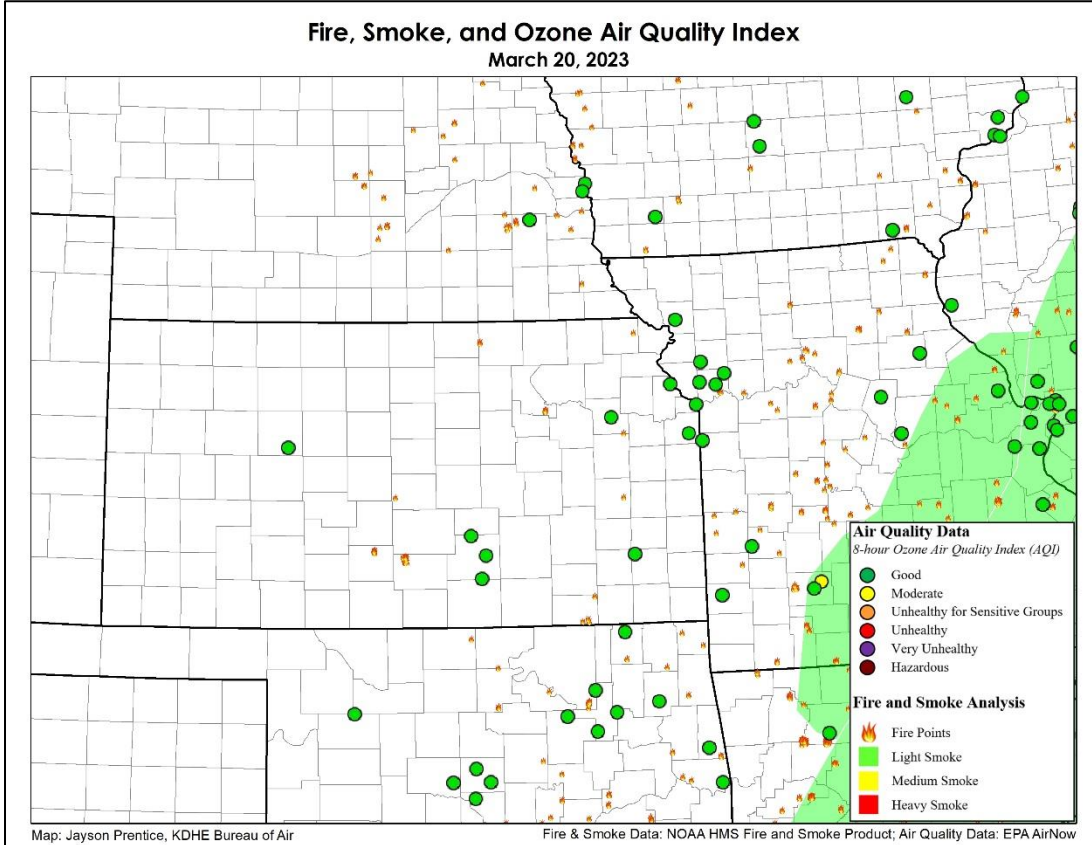
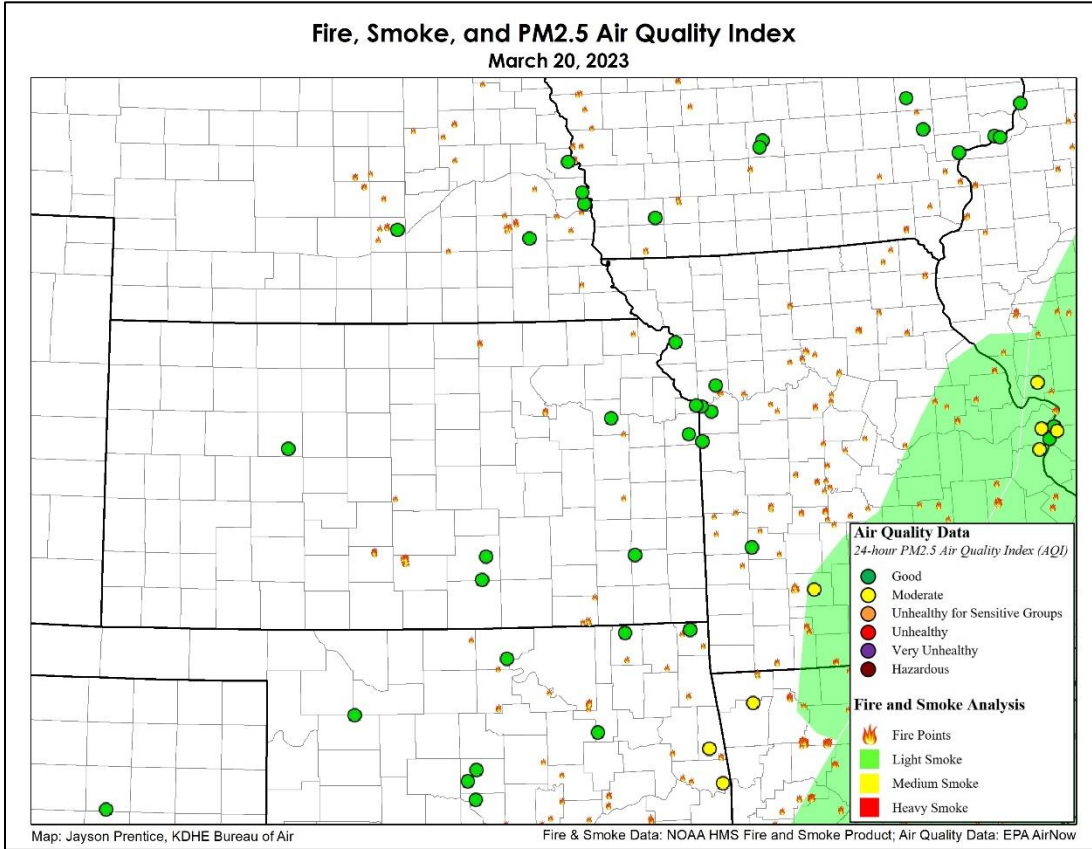




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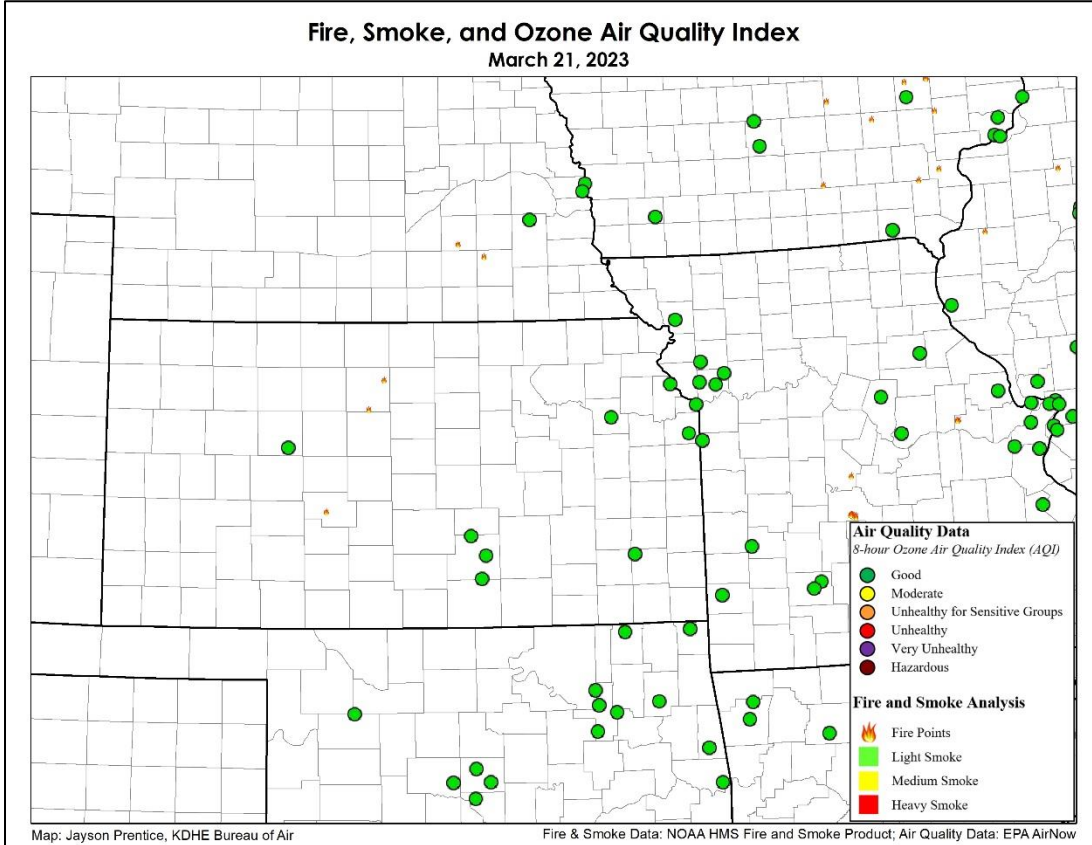
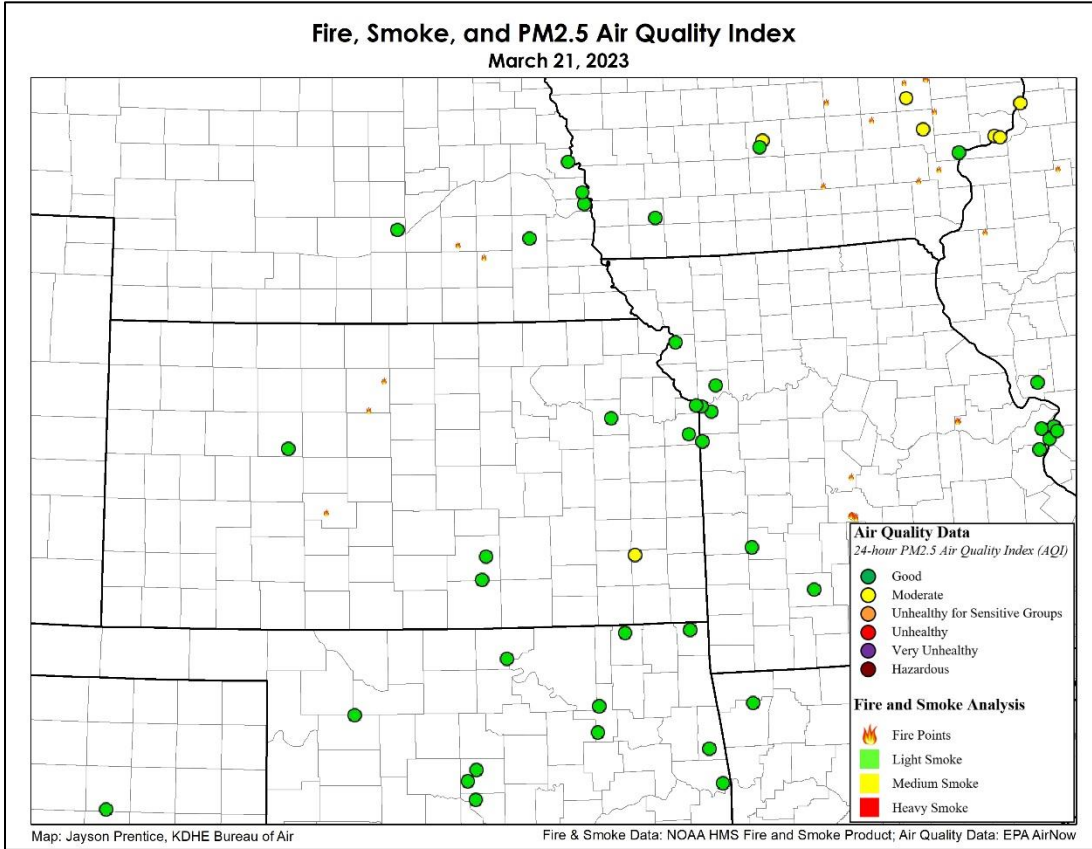


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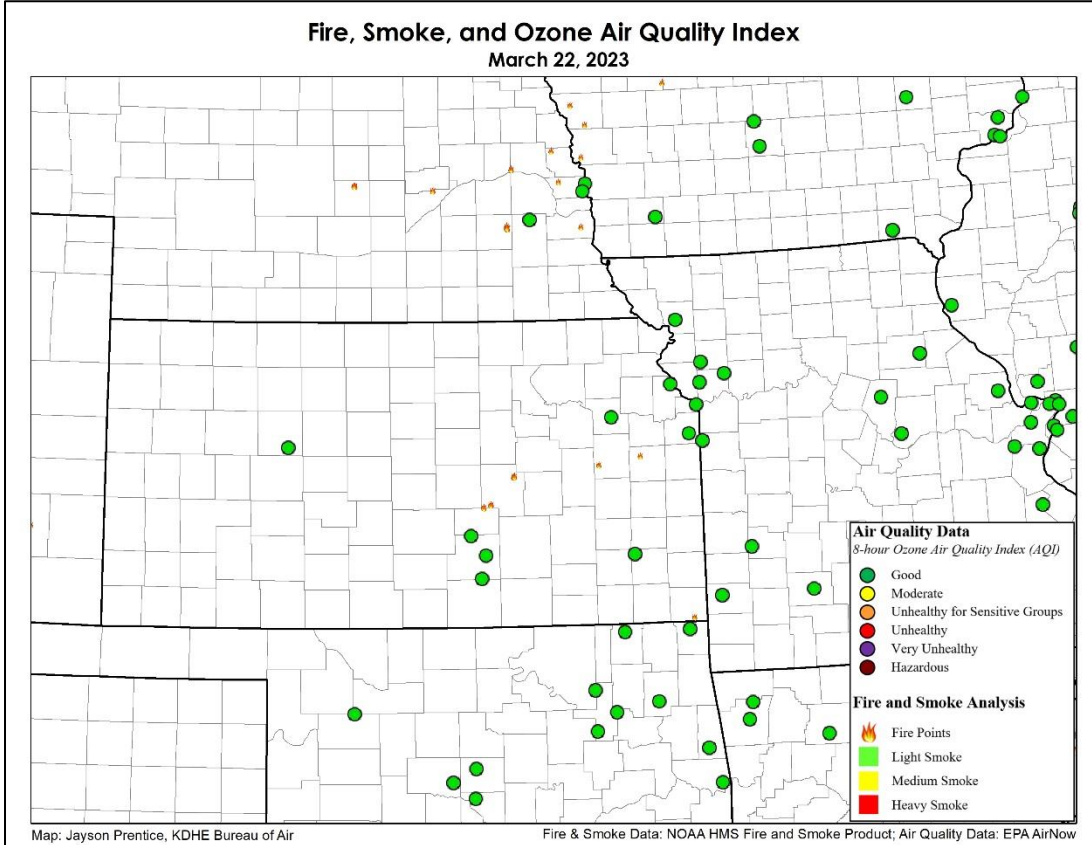
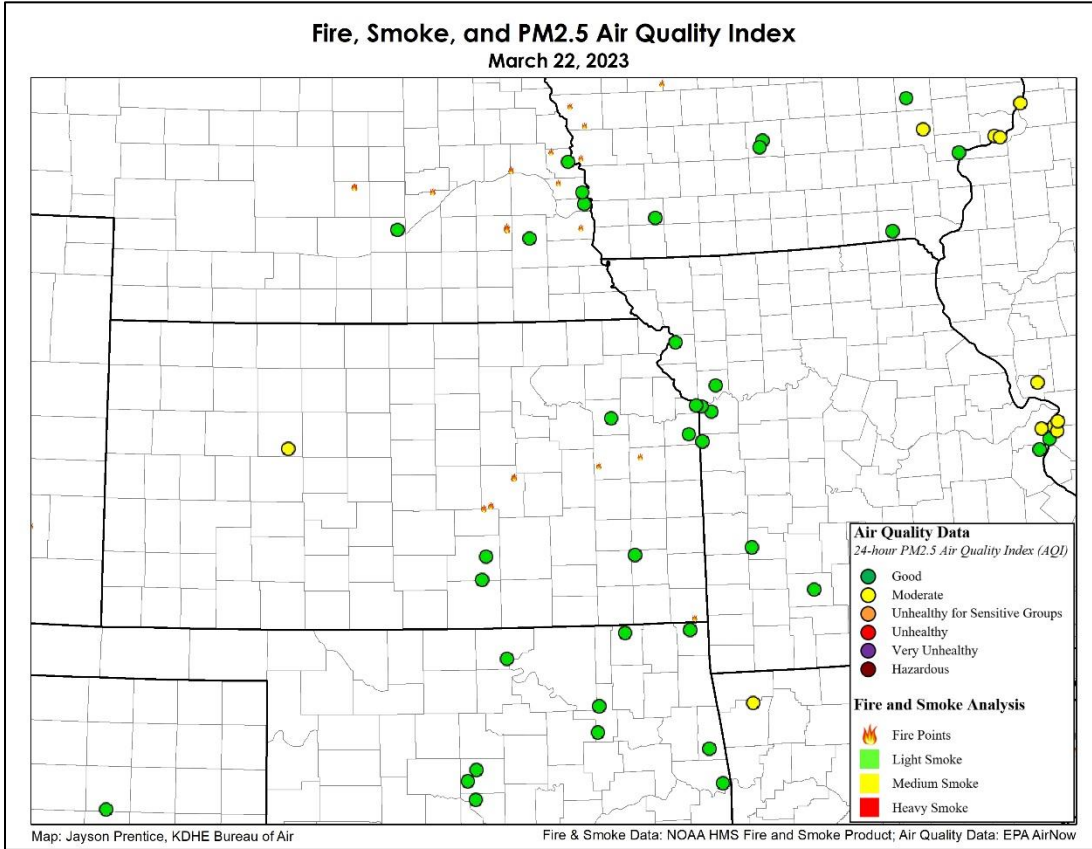




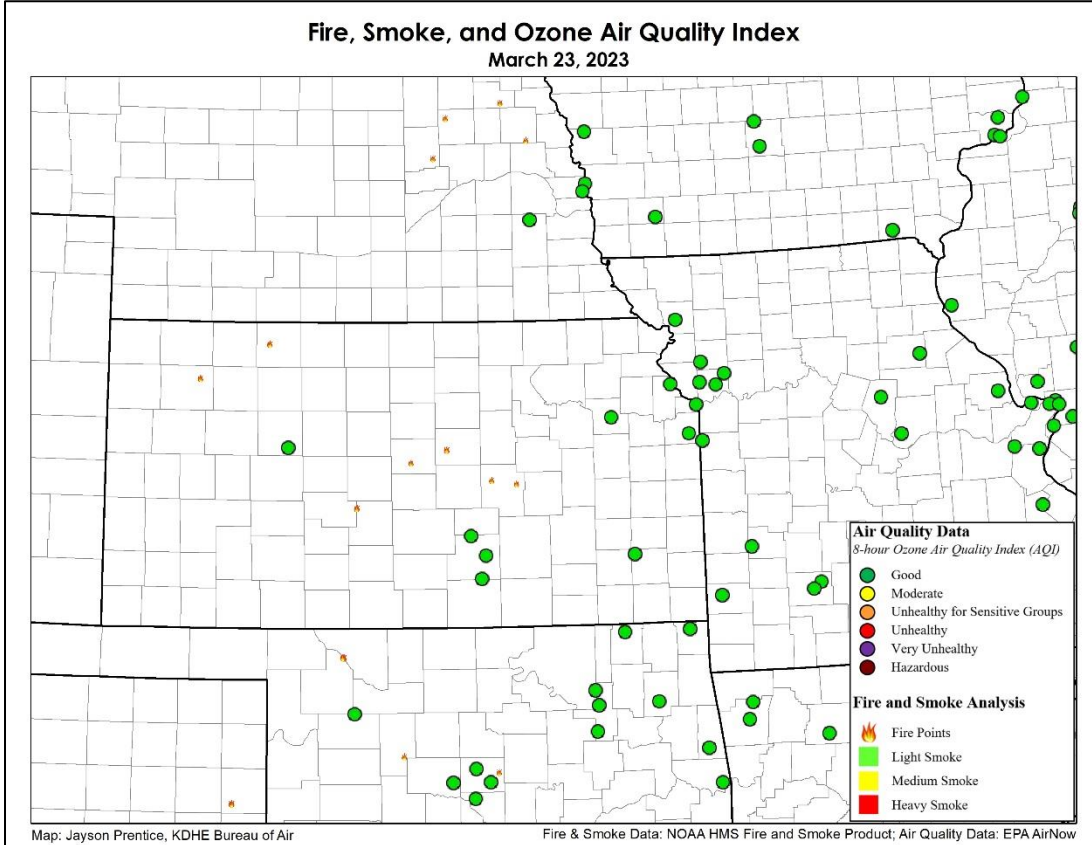
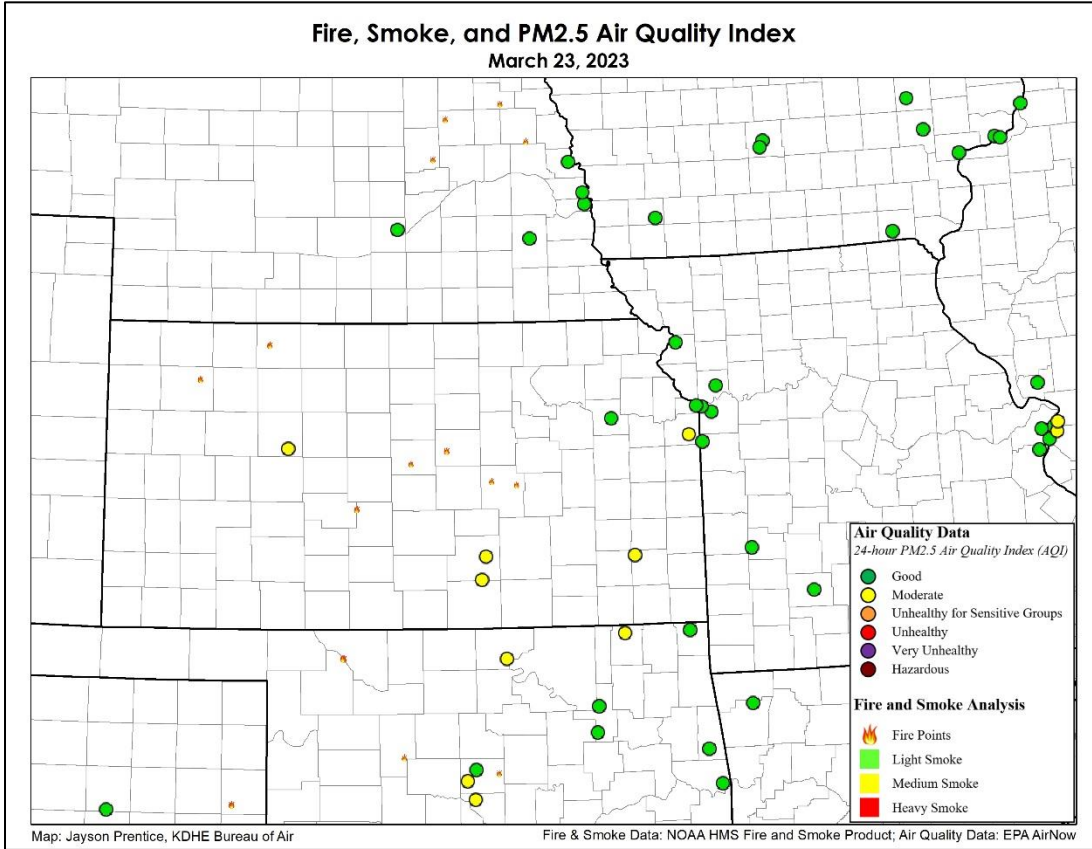
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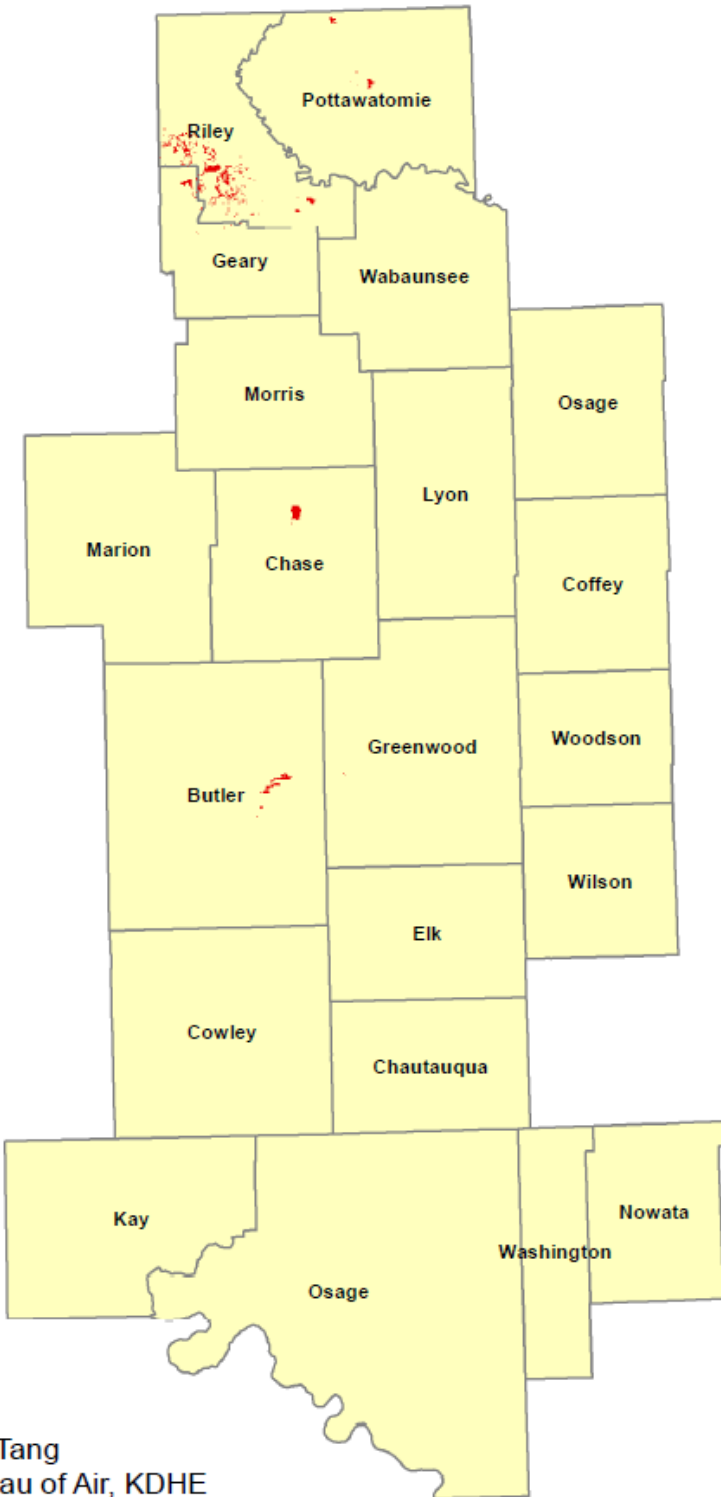


# Flint Hills Wildland Fire Update





## Flint Hills Acreage Burned (February 3 – March 5, 2023)



Yao Tang  
Bureau of Air, KDHE

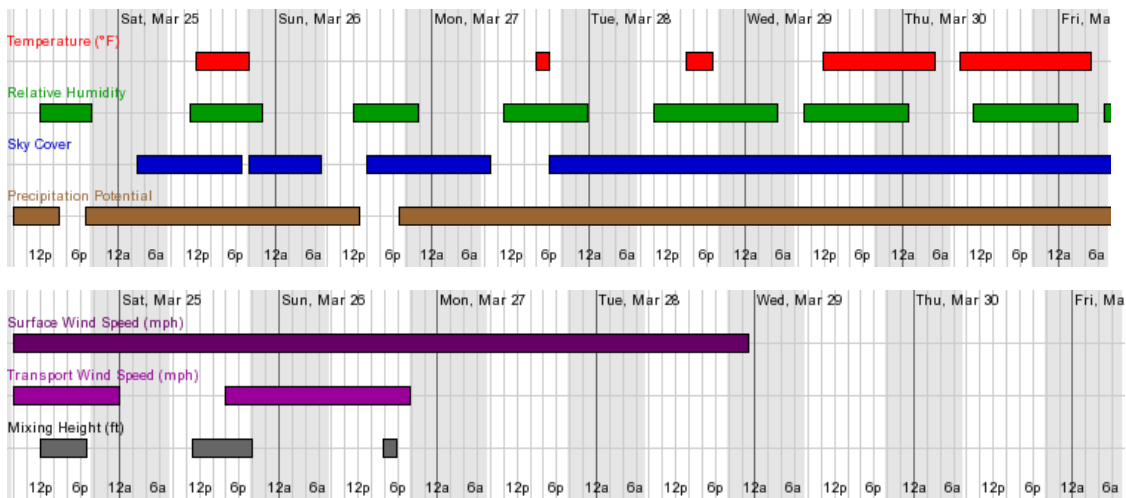
<u>Counties</u>	<u>Acres Burned</u>
<b>Butler</b>	1,761
<b>Chase</b>	1,544
<b>Chautauqua</b>	0
<b>Coffey</b>	0
<b>Cowley</b>	0
<b>Elk</b>	0
<b>Geary</b>	1,189
<b>Greenwood</b>	31
<b>Lyon</b>	0
<b>Marion</b>	0
<b>Morris</b>	0
<b>Osage (KS)</b>	0
<b>Pottawatomie</b>	958
<b>Riley</b>	10,749
<b>Wabaunsee</b>	0
<b>Wilson</b>	0
<b>Woodson</b>	0
<b>Nowata (OK)</b>	0
<b>Osage (OK)</b>	0
<b>Washington (OK)</b>	0
<b>Kay (OK)</b>	0
<b>Total</b>	<b>16,232</b>
<i>* Denotes county was partly or completely covered by clouds during latest analysis.</i>	



## Upcoming Look at Fires and Smoke

Occasional cloud cover and rain showers are expected today (Friday) and on Sunday but with lower chances still existing on Saturday and Monday for parts of the Flint Hills. Look for at least some prescribed fire potential on Saturday and Monday with the lower rain chances, warmer temperatures, and lighter winds. Tuesday may also present some prescribed fire opportunity as seasonal temperatures are expected with increased relative humidity and continued light winds. Temperatures warm-up for the latter half of next week but the winds also increase with breezy to windy conditions expected; There is also a low-end chance for rain entering the forecast for Wednesday-Thursday as well.

### 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](http://KSFire.org). Conditions are most favorable when each parameter has a colored boxplot displayed. Forecast valid: 8am March 24, 2022.*

For more information, contact:

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 Kansas Department of Health & Environment  
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