

# Flint Hills Wildland Fire Update

May 5, 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/>

• • •

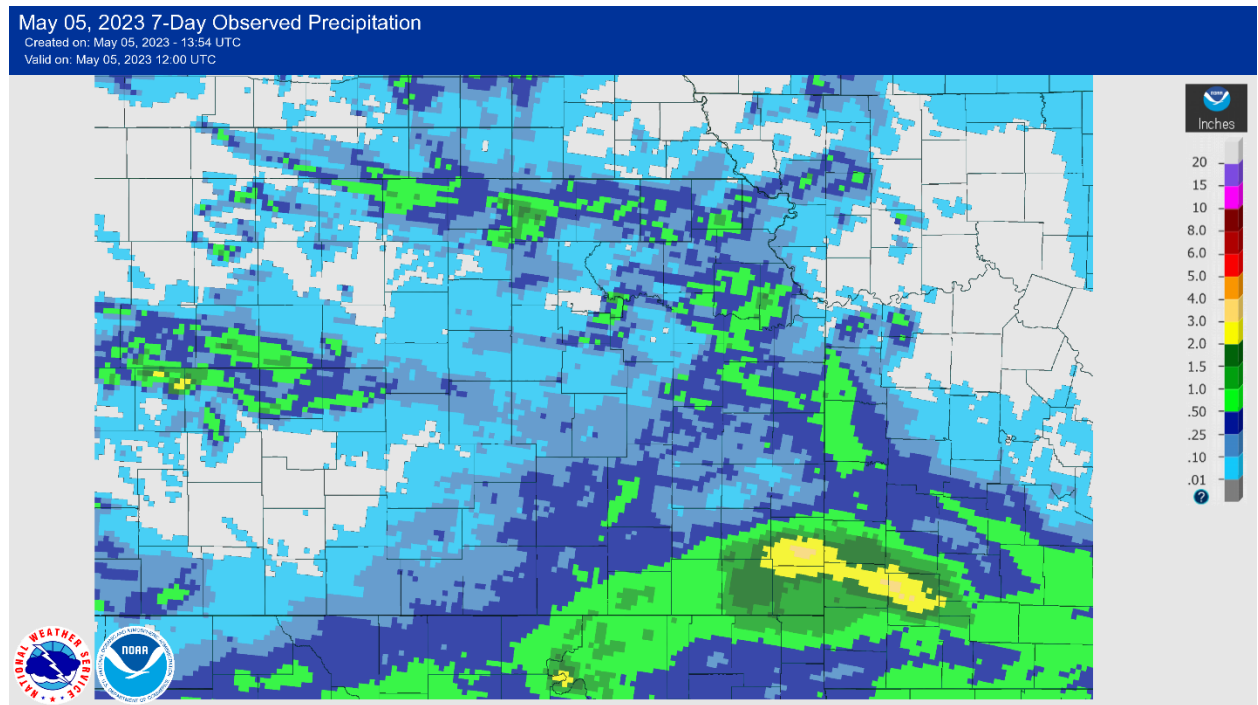
This website was developed as part of the development of the Kansas Flint Hills Smoke Management Plan. Kansas State University hosts the webpage and it includes important information for ranchers and others who might be interested in the Flint Hills. It provides training, regulations, policies, publications,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

Behind a fairly strong cold front conditions remained rather cloudy and cool last Friday (April 28) under northwesterly winds. Temperatures rebounded quickly on Saturday (April 29) with highs into the 70s under sunny skies for most of the Flint Hills despite breezy northwest winds continuing. A stiff north wind continued on Sunday (April 30) with temperatures a bit below normal. A slow warm-up began on Monday and Tuesday (May 1-2) as winds slowly transitioned away from the north and become more southerly on Wednesday (May 3) as highs once again moved back into the 70s for the core of the Flint Hills. A warm front moved across the region on Thursday (May 4) bringing stronger south winds, increased humidity, and some showers and thunderstorms to the area.

## Precipitation

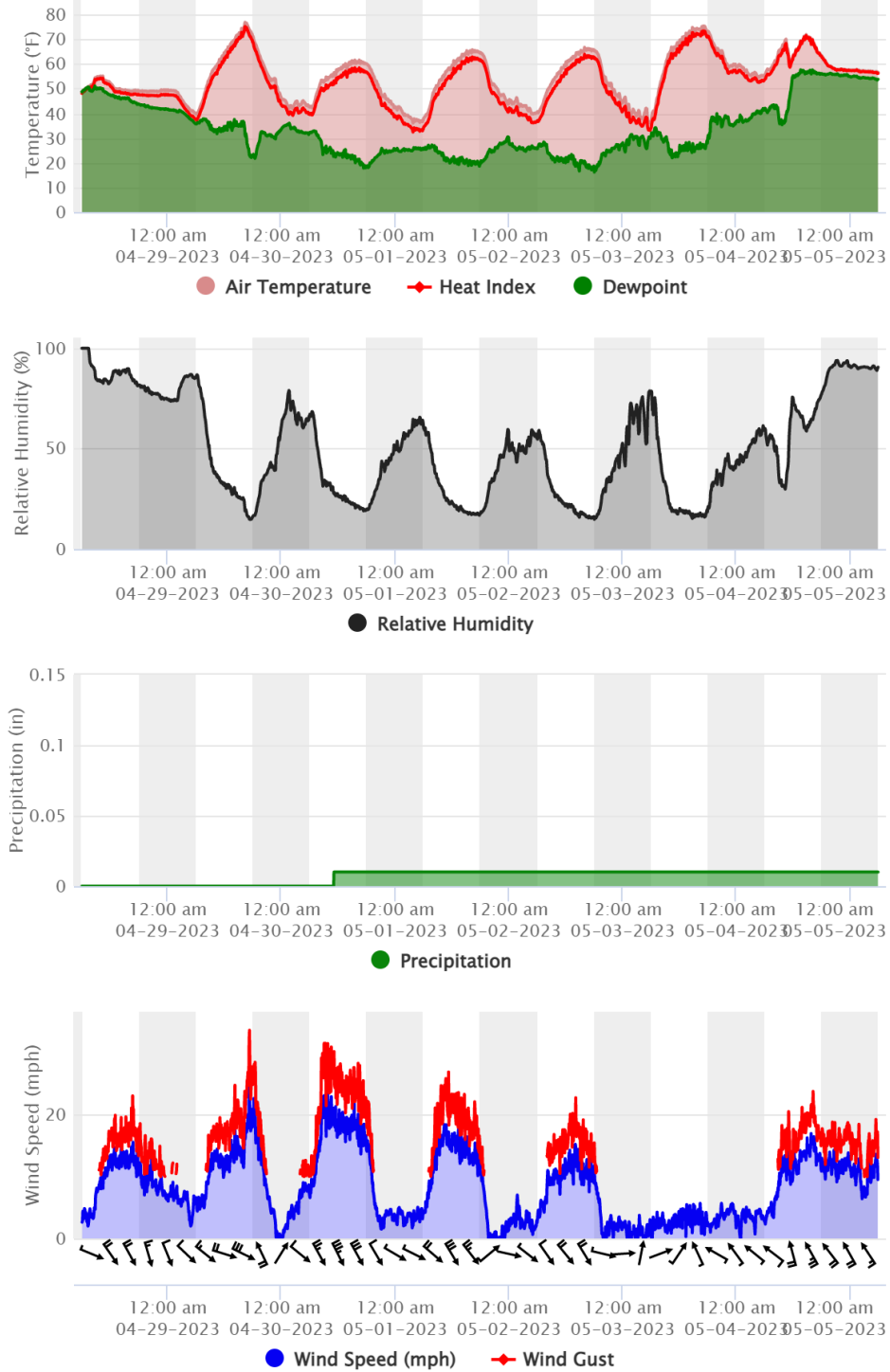


NOAA/NWS Observed Total Precipitation for Apr 28 – May 5, 2023.

# Flint Hills Wildland Fire Update



## Meteogram for Elmdale 1SE



7-day (Apr 28 – May 5, 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 April 28 – May 4, 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.

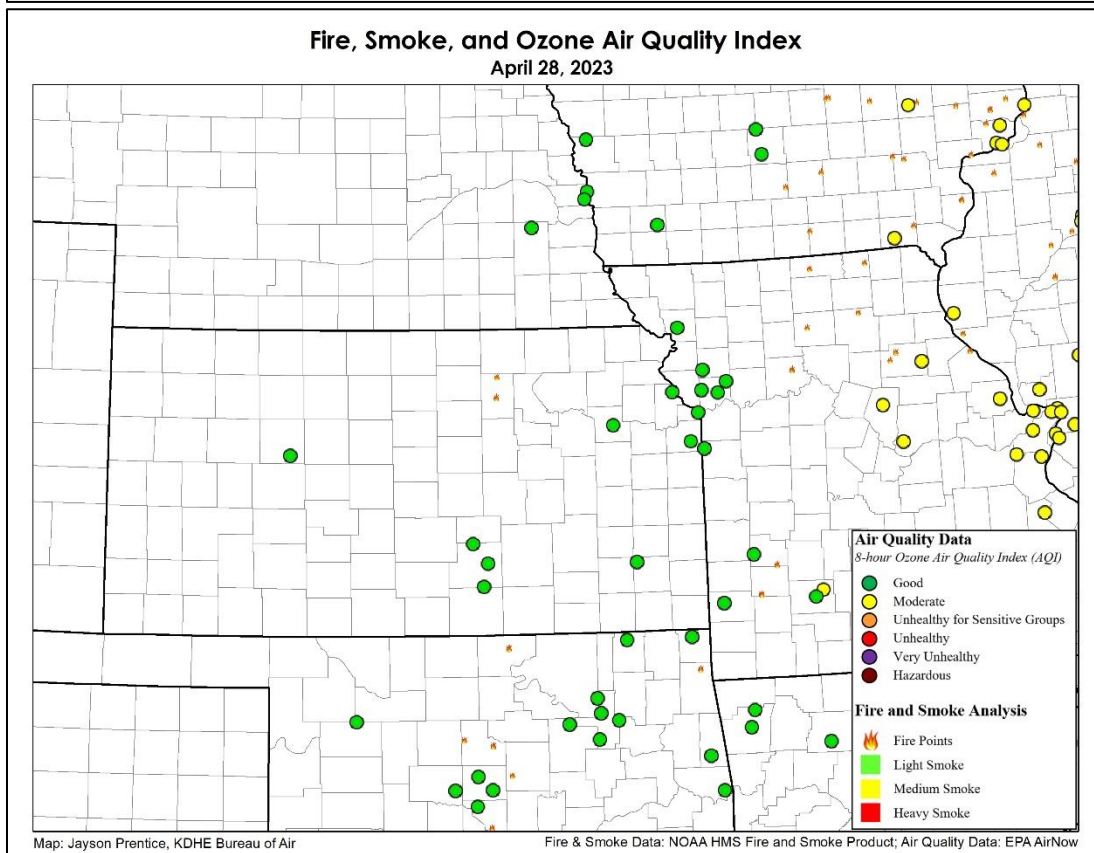
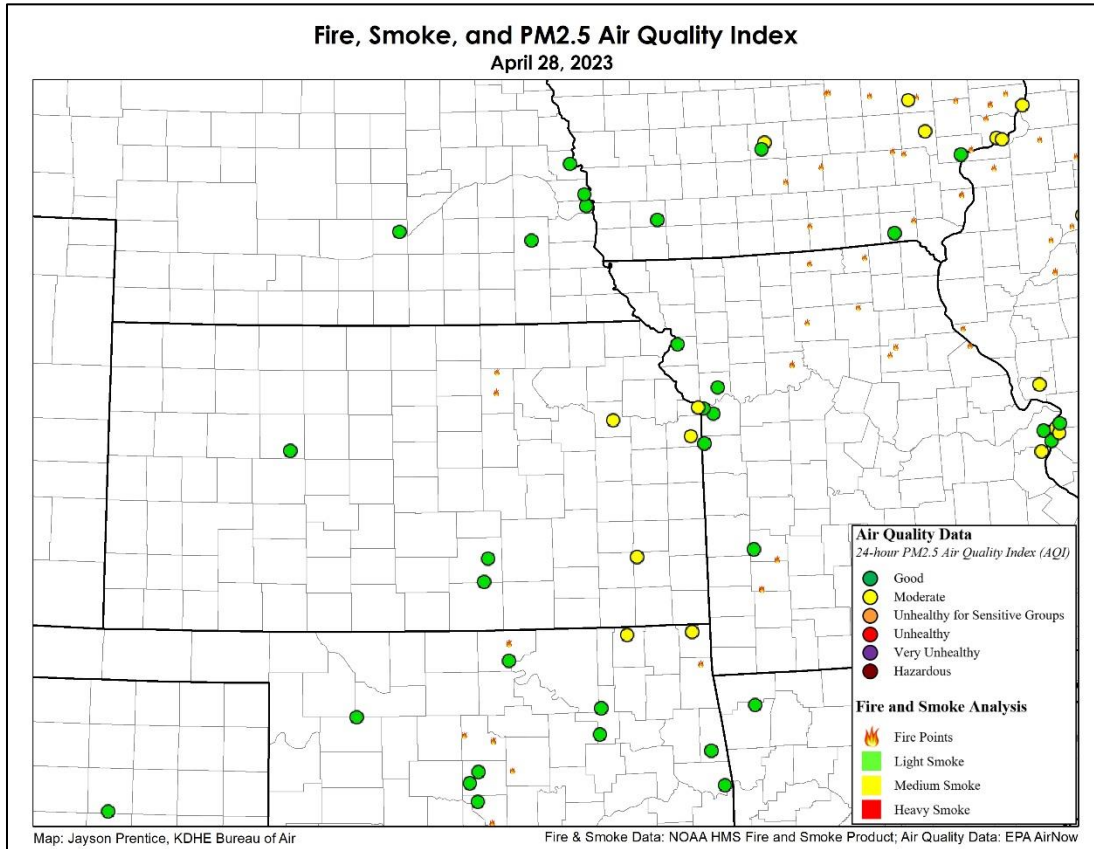
**PM<sub>2.5</sub>:** Preliminary data indicates no exceedances of the NAAQS daily 24-hour average maximum of 35 µg/m<sup>3</sup>.

Prescribed fire activity was minimal last Friday (April 28) under cloud skies and strong northwest winds. Some prescribed fire activity occurred on Saturday and Sunday (April 29-30) under the similar northwest winds – the increase in activity likely owing to the weekend. A few prescribed fires were analyzed on Monday (May 1) under clear skies and continued northwest winds; Several smoke plumes were easily analyzed across the region. Throughout this early portion of the prior week the air quality impacts were primarily localized.

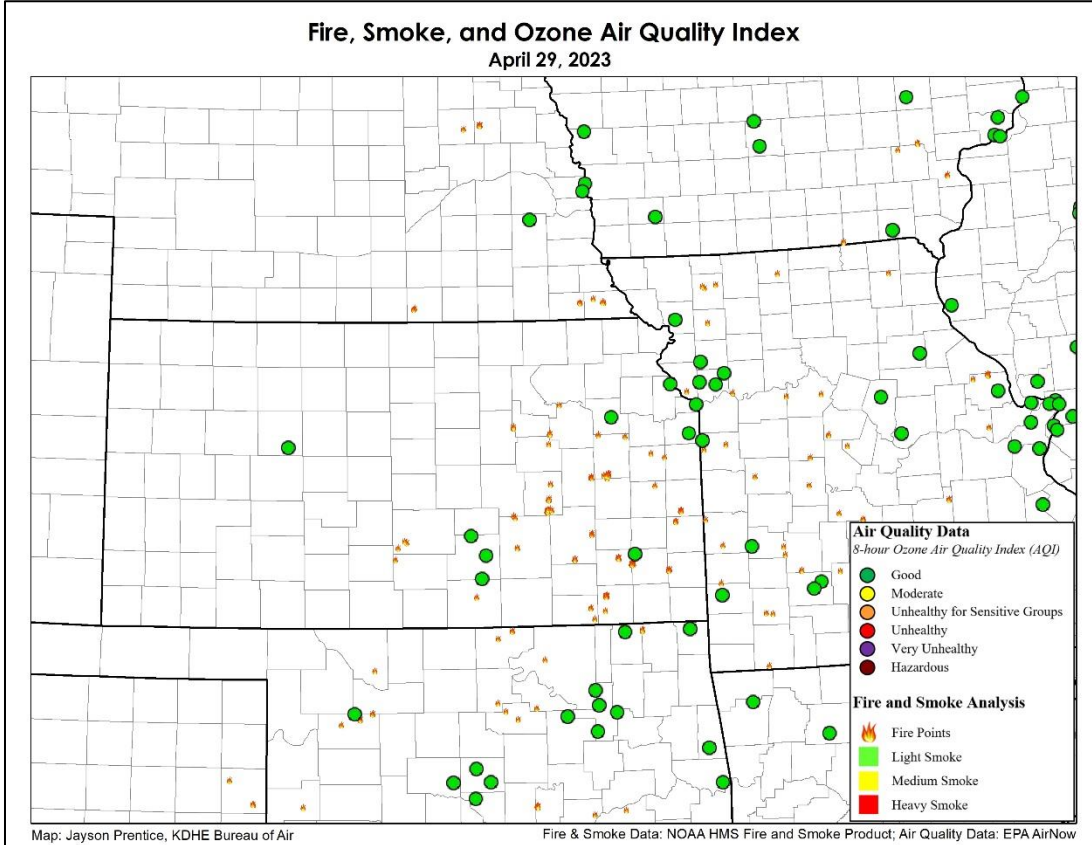
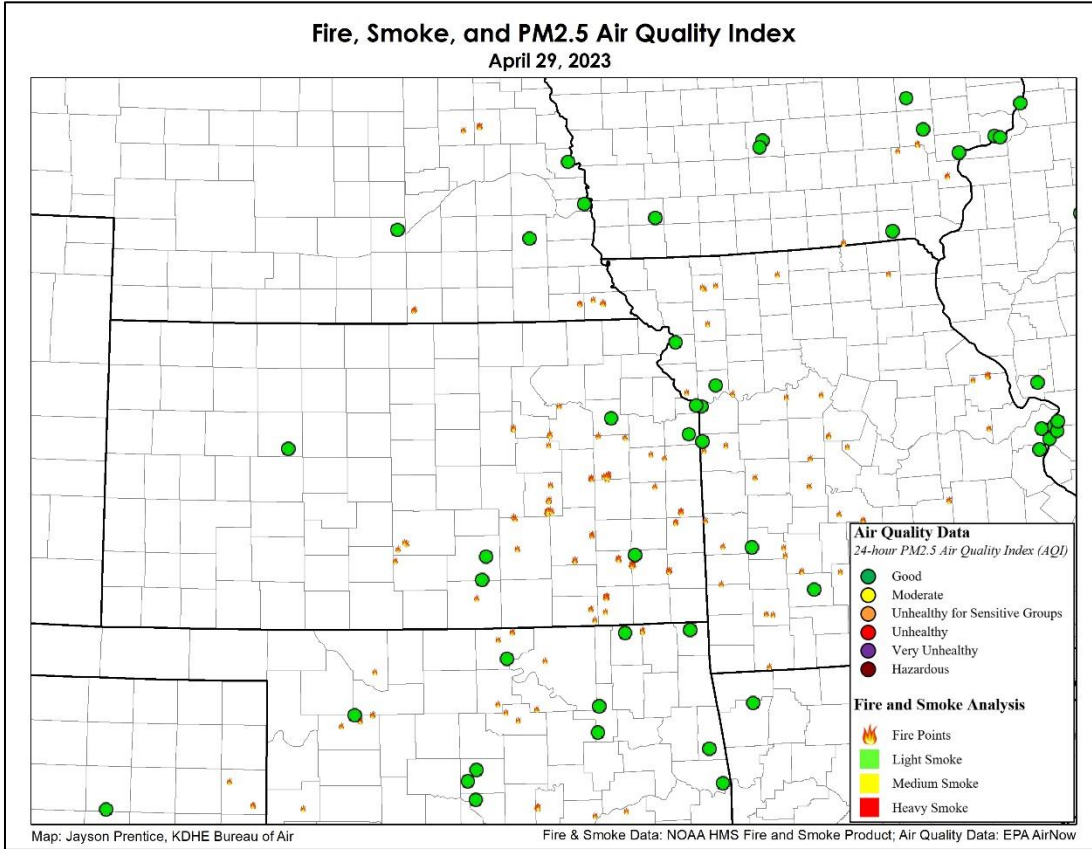
Activity increased as winds subsided, and temperatures began to warm-up slightly with more fires analyzed not only within the Flint Hills but also the surrounding region. This increased activity occurred on Tuesday and Wednesday (May 2-3) before some rainfall and clouds moved into at least the Flint Hills area on Thursday (May 4). Air quality was impacted at times throughout the region with primarily Moderate Air Quality Index (AQI) values although some localized impacts were likely more significant. A rather lackluster transport wind kept smoke overhead throughout the region – depicted by the green and yellow shading that covers much of the maps below during this period.

*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.*

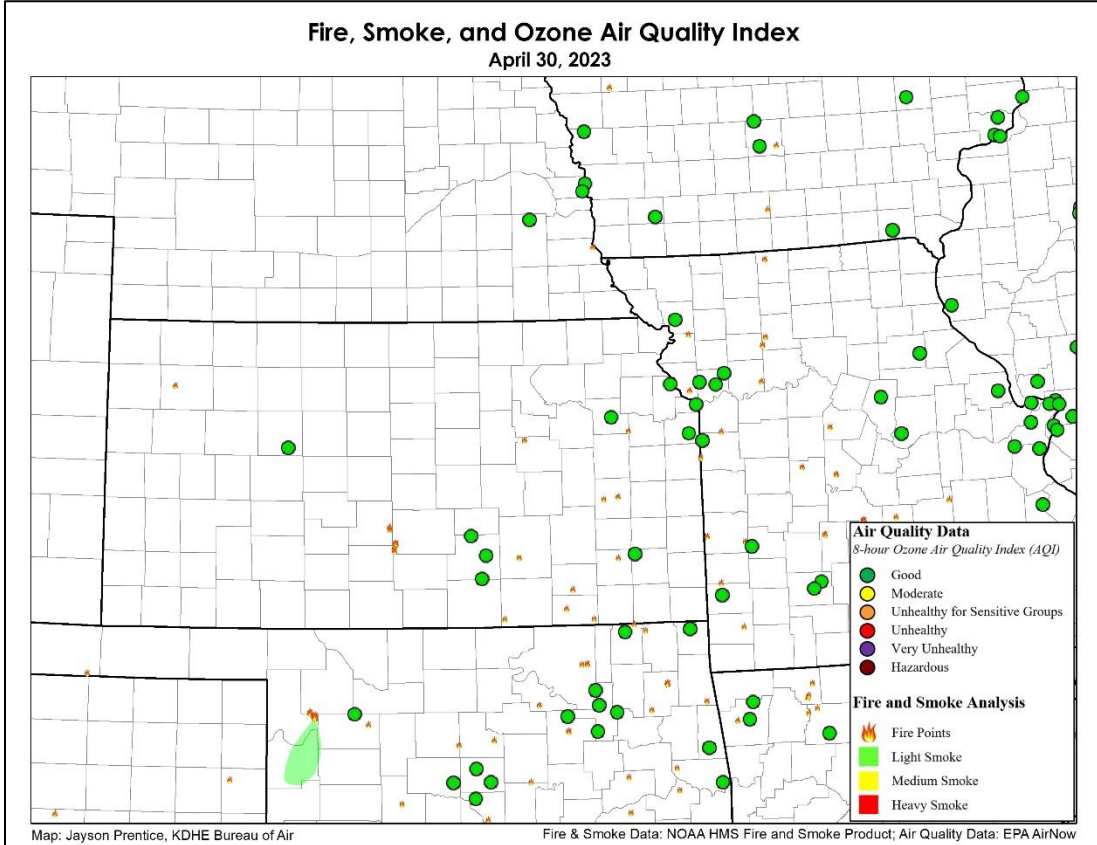
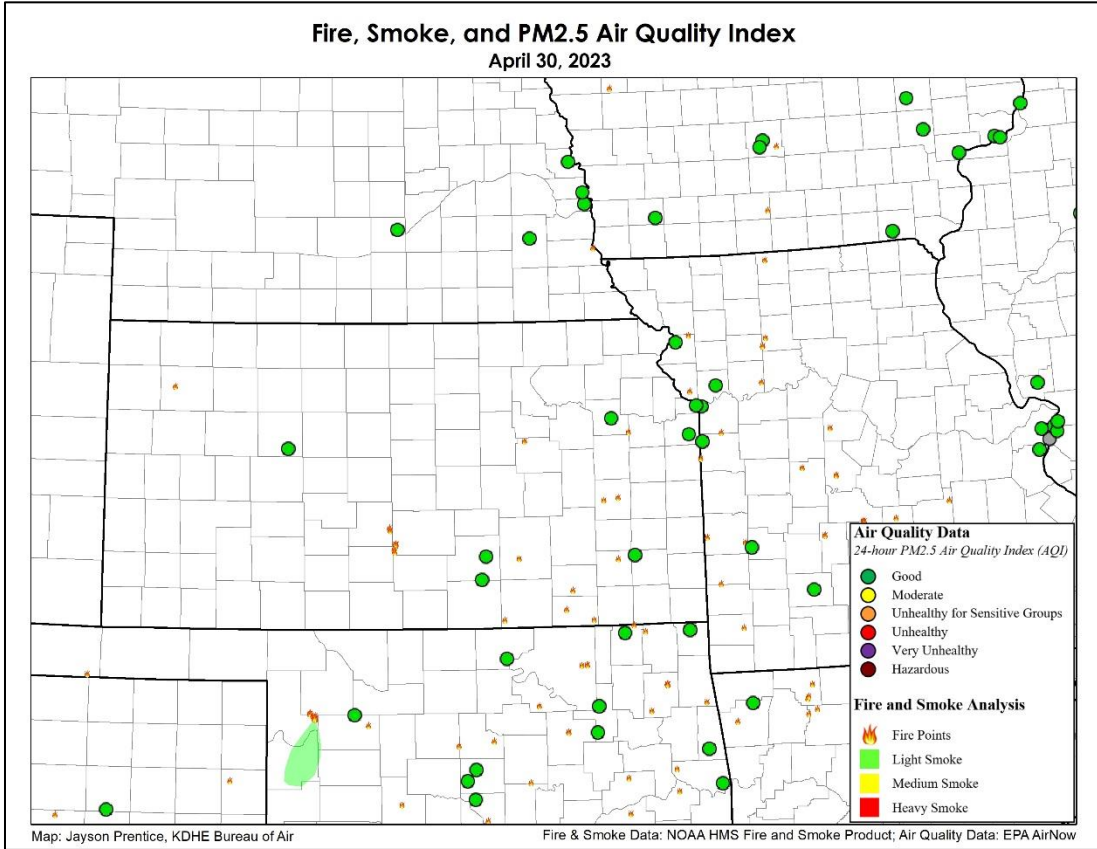
# Flint Hills Wildland Fire Update



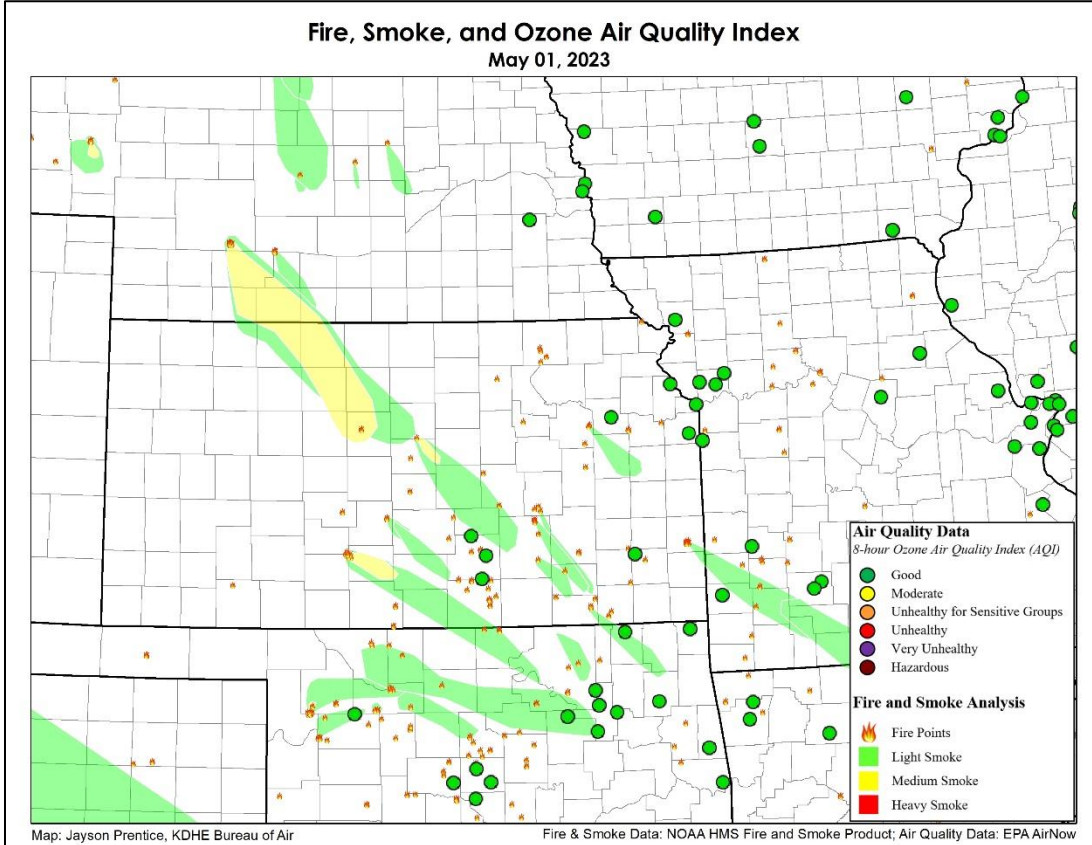
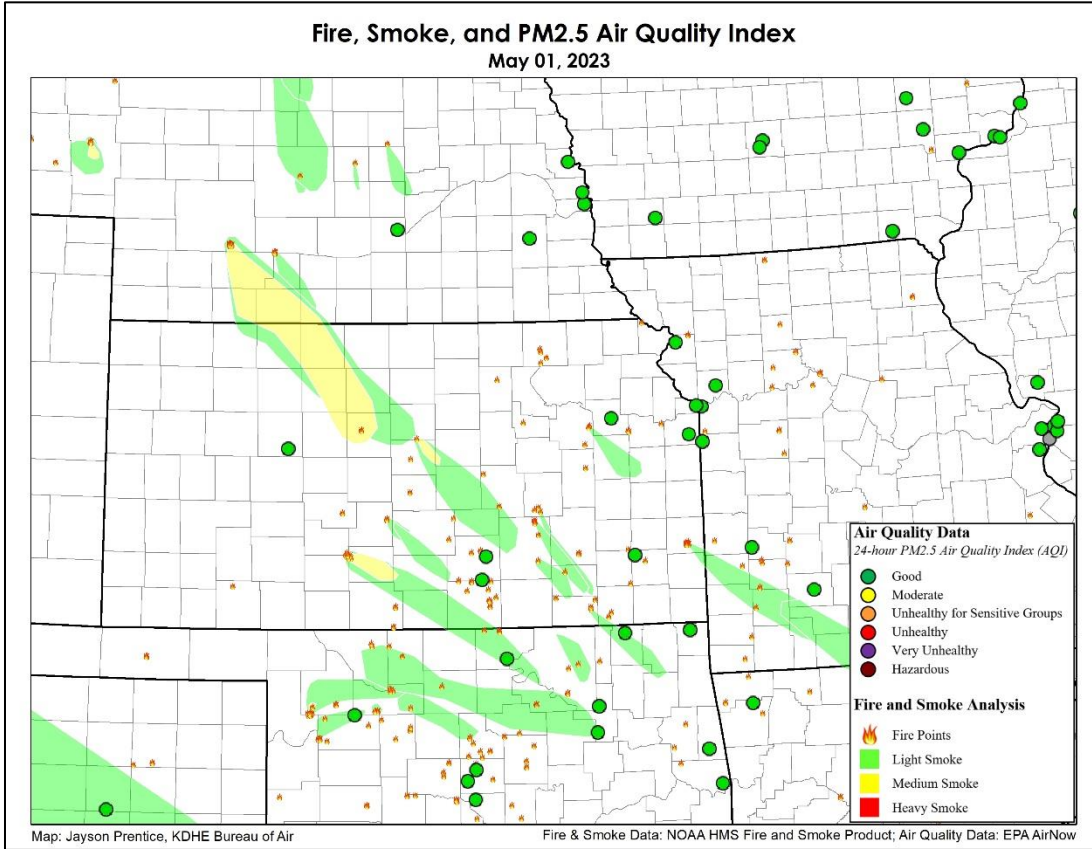
# Flint Hills Wildland Fire Update



# Flint Hills Wildland Fire Update

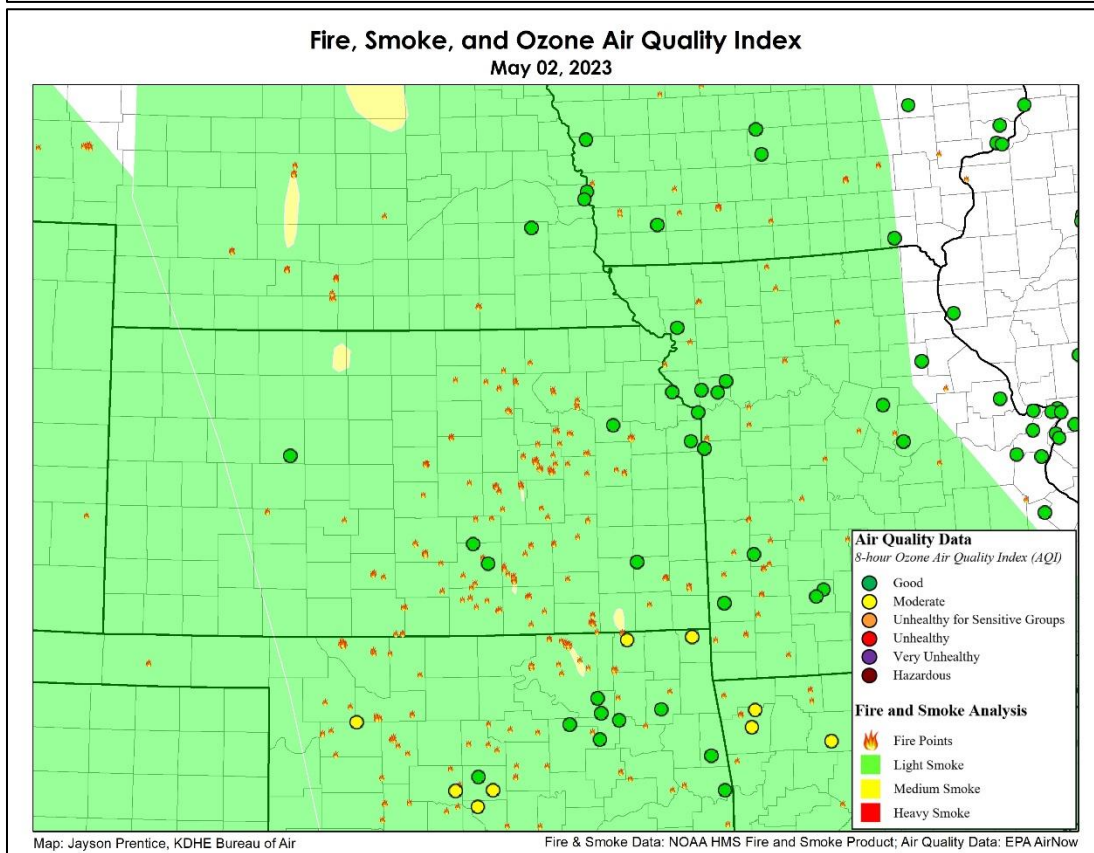
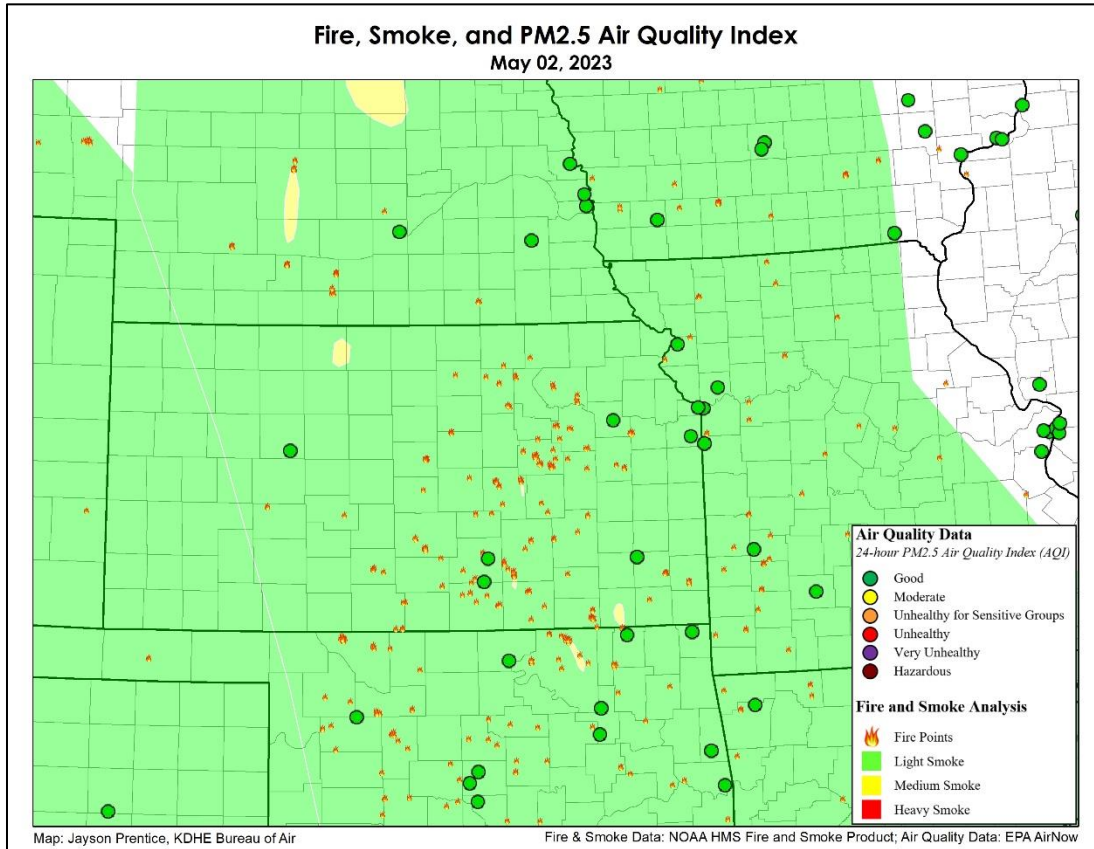


# Flint Hills Wildland Fire Update

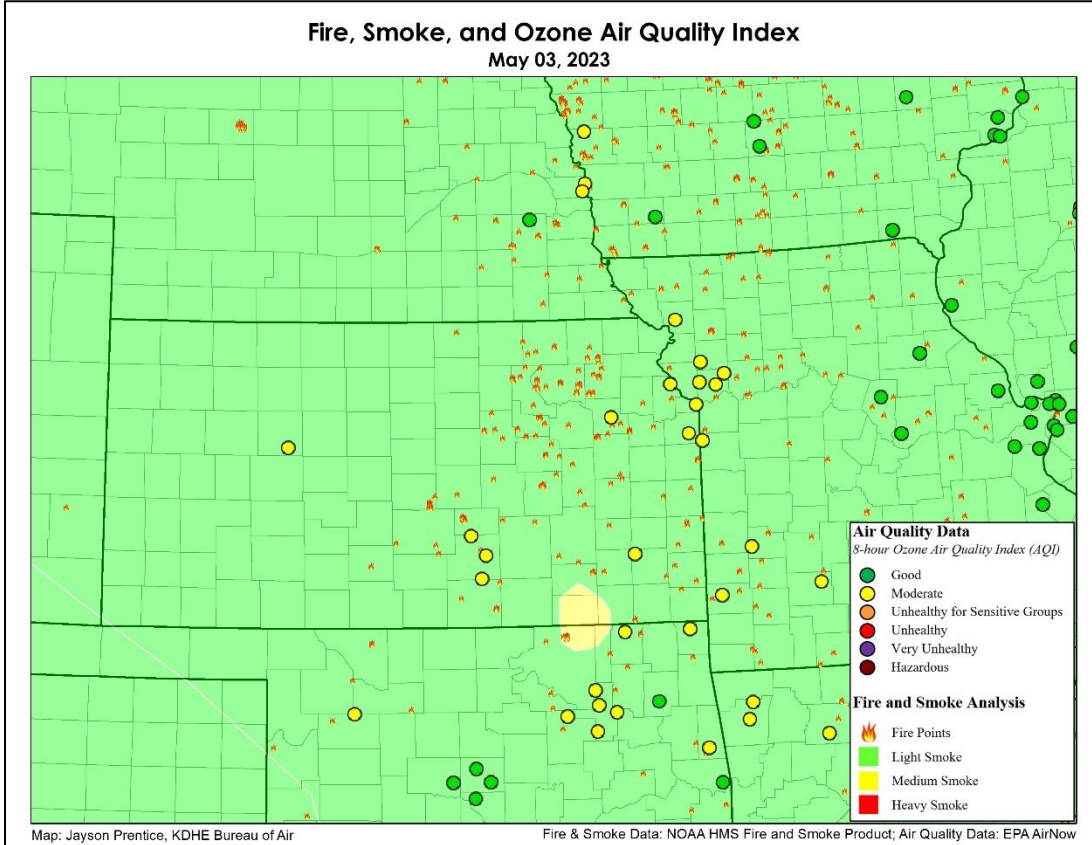
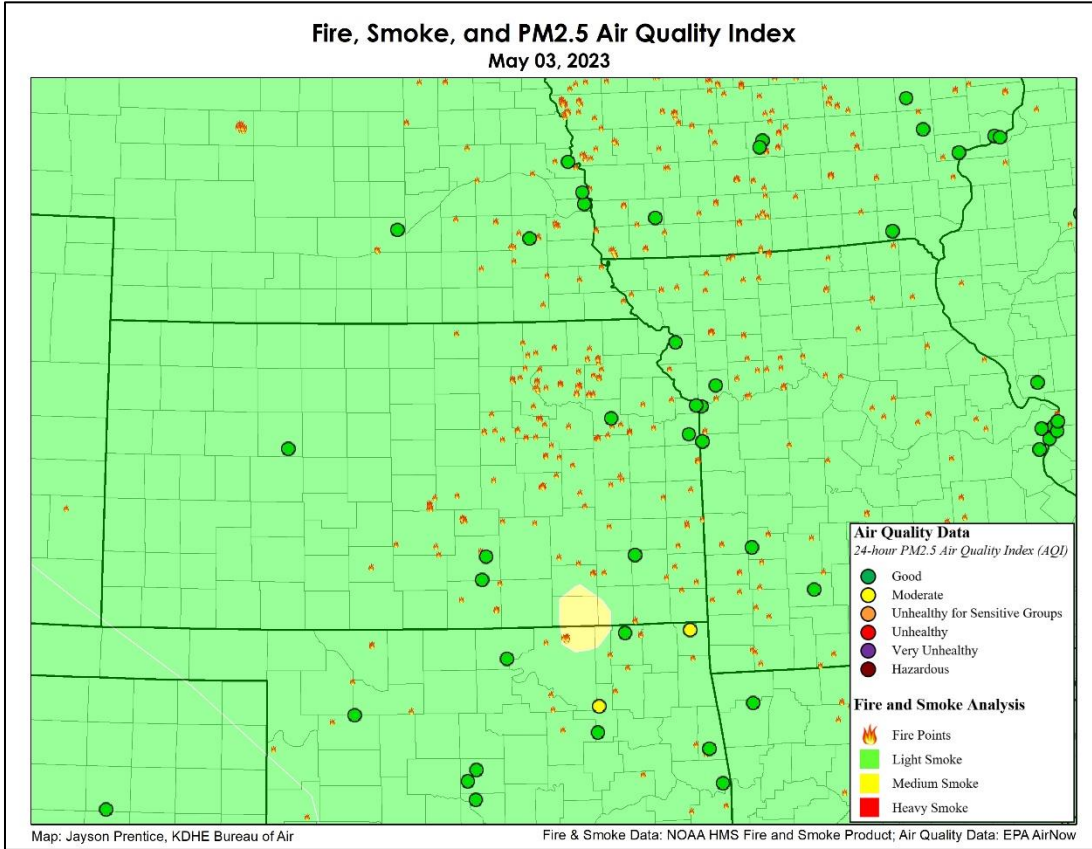




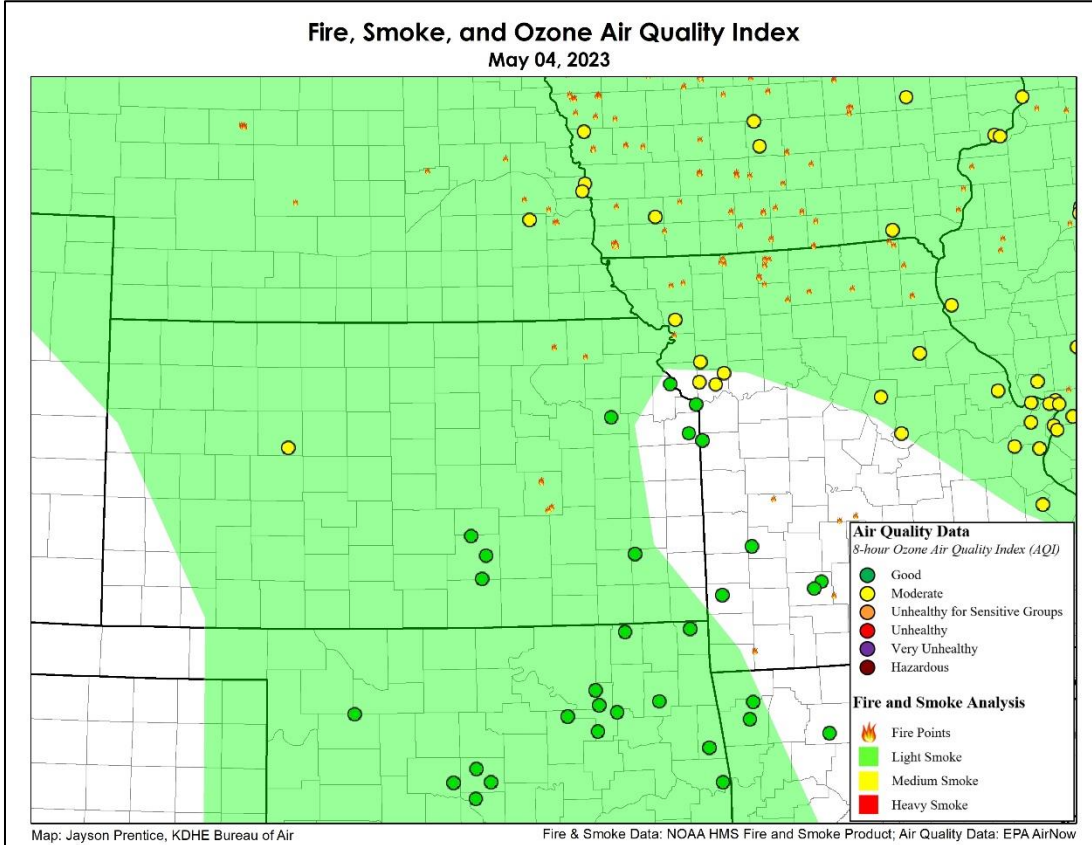
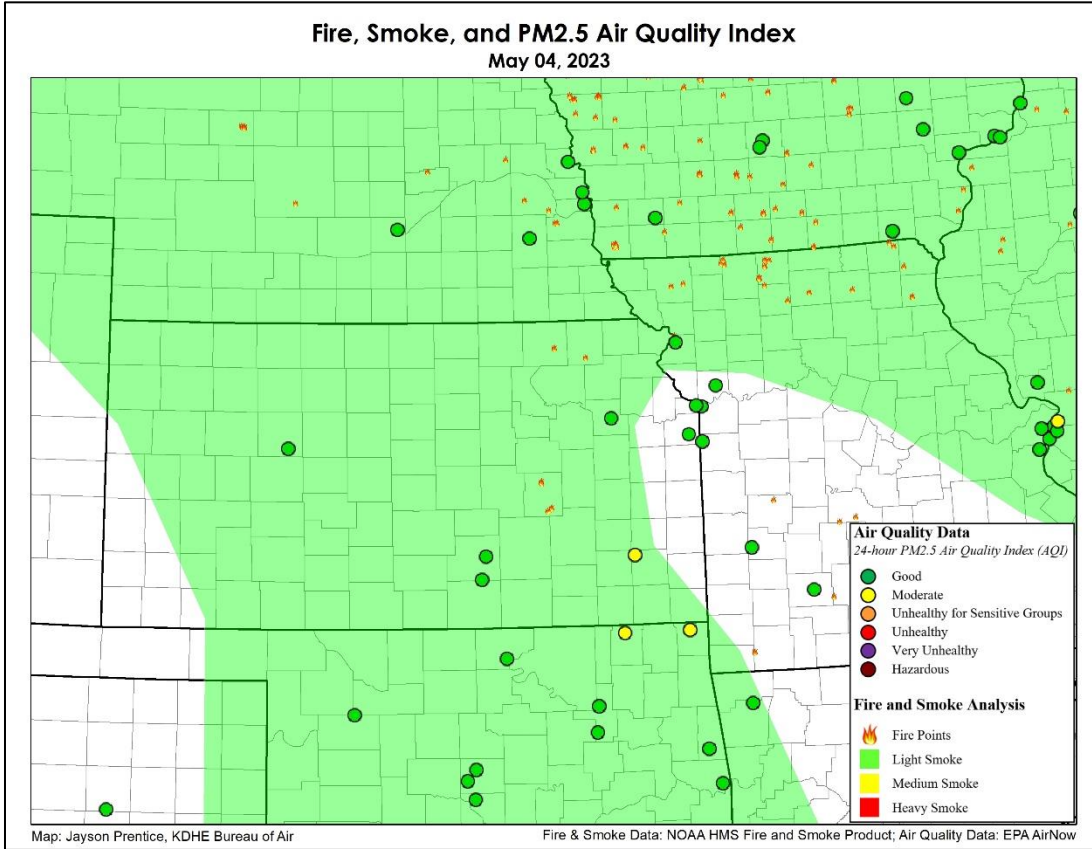
# Flint Hills Wildland Fire Update



# Flint Hills Wildland Fire Update

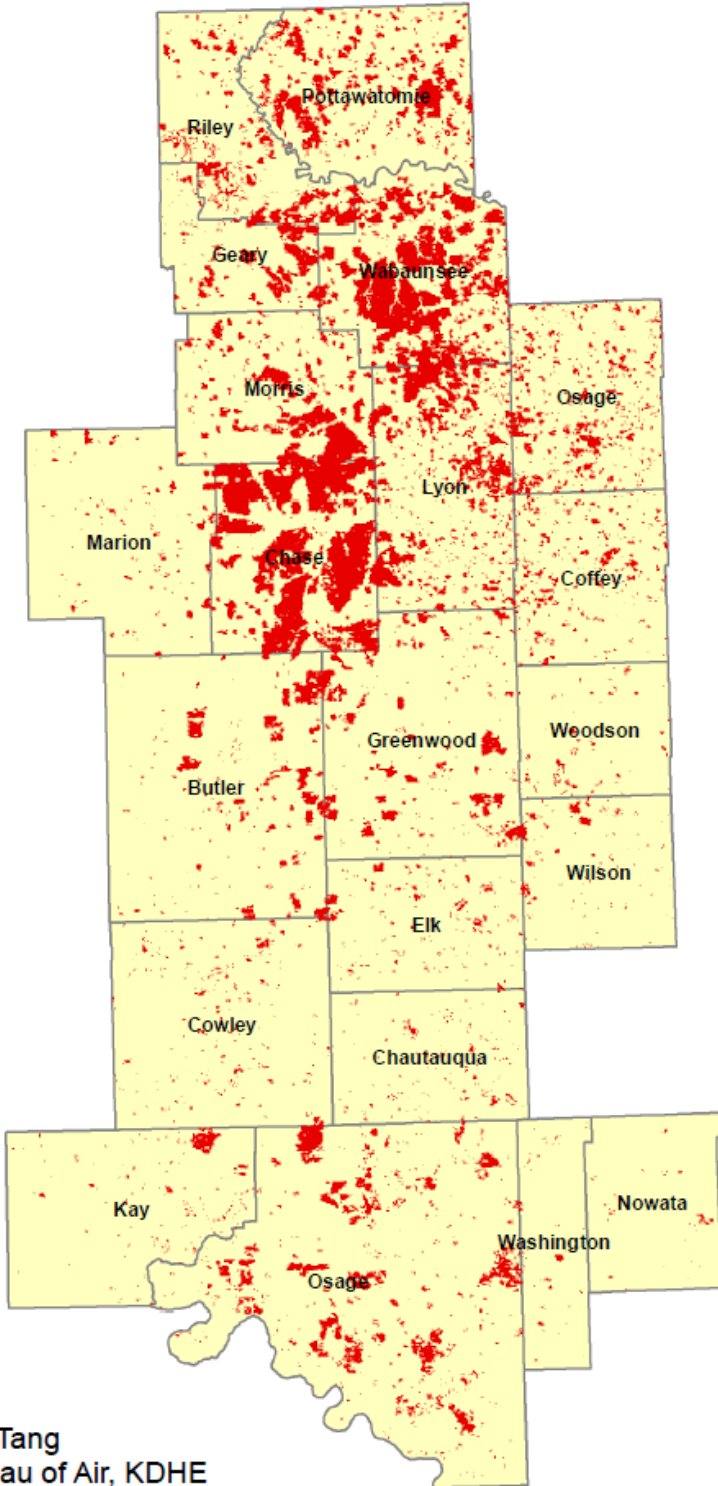


# Flint Hills Wildland Fire Update





## Flint Hills Acreage Burned (February 3 – May 1, 2023)



<u>Counties</u>	<u>Acres Burned</u>
Butler	52,418
Chase	238,693
Chautauqua	7,645
Coffey	26,178
Cowley	13,112
Elk	14,301
Geary	38,147
Greenwood	54,704
Lyon	115,091
Marion	16,047
Morris	81,268
Osage (KS)	51,167
Pottawatomie	94,597
Riley	56,326
Wabaunsee	196,421
Wilson	9,653
Woodson	6,162
Nowata (OK)	1,961
Osage (OK)	111,478
Washington (OK)	2,595
Kay (OK)	12,649
<b>Total</b>	<b>1,200,613</b>
<i>* Denotes county was partly or completely covered by clouds during latest analysis.</i>	

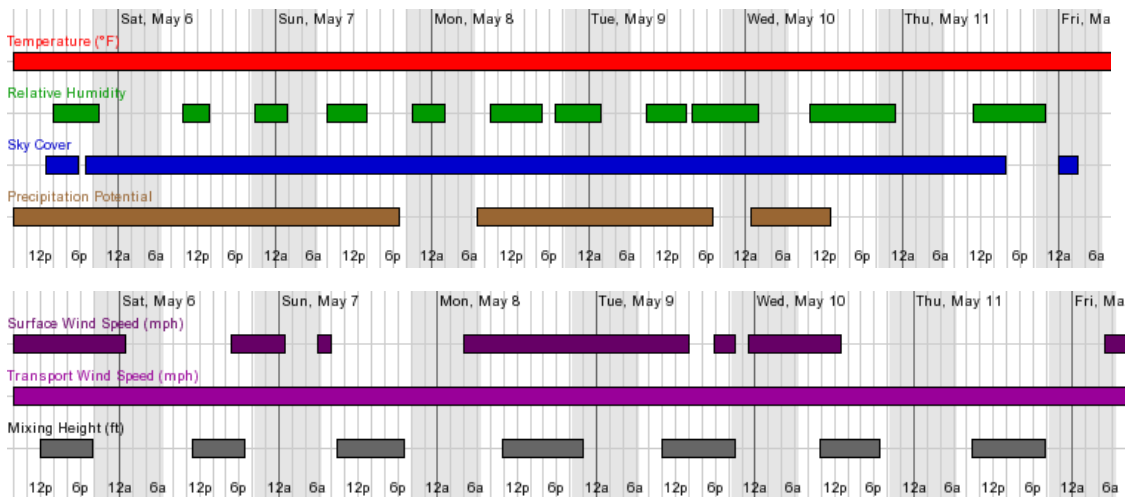
Yao Tang  
Bureau of Air, KDHE



## Upcoming Look at Fires and Smoke

Significant vegetation growth (green-up) has occurred throughout the Flint Hills region and has largely brought an end to widespread prescribed fire activity. The upcoming week does still present some opportunities for early growing season fires; However, periods of showers and thunderstorms chances alongside breezy conditions are forecast within the week ahead. The best opportunities given the current forecast are today (Friday, May 5) and Monday (May 8) where lighter winds exist with drier conditions for parts of the Flint Hills.

### 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 May 5, 2023.*

This is the final weekly Flint Hills Wildland Fire Update for the 2023 season. A season summary will be provided later this month when all data has been collected and reviewed.

For more information, contact:

**Jayson Prentice**

Chief, Environmental Data & Projects, Bureau of Air  
Kansas Department of Health & Environment  
785-291-3782  
Jayson.Prentice@ks.gov