

# Flint Hills Wildland Fire Update

March 21, 2025

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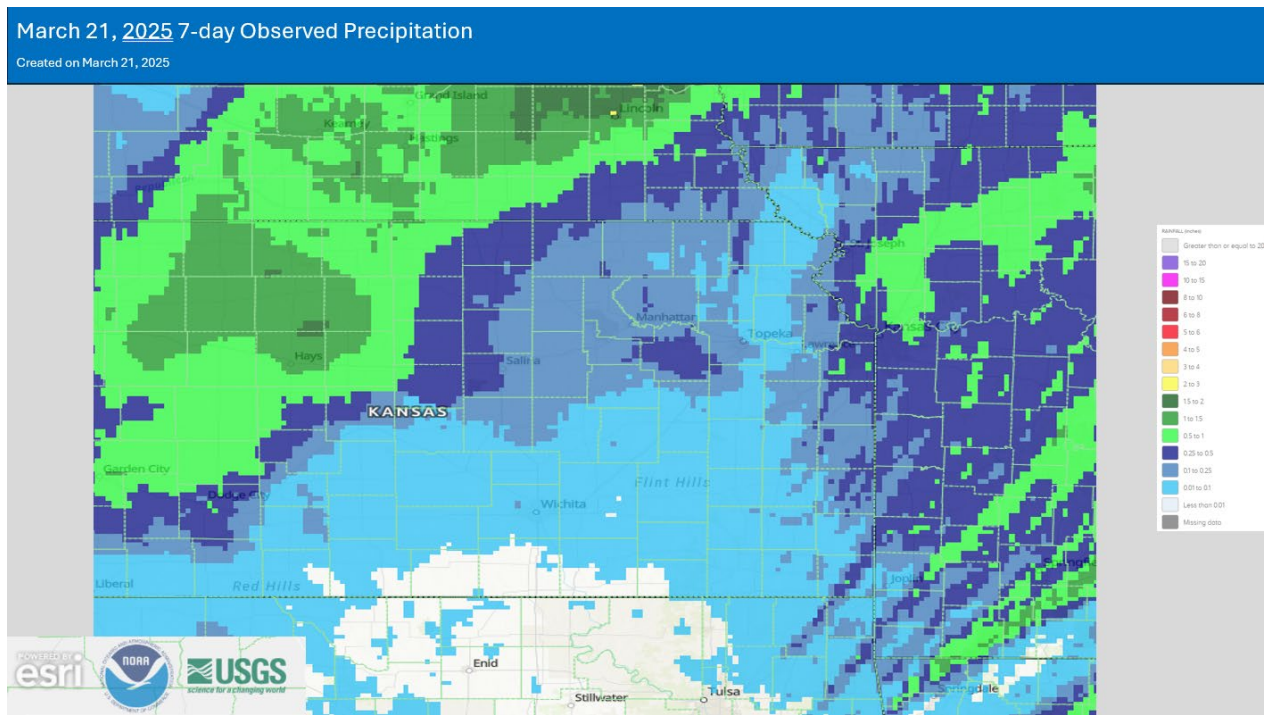
This website was developed as part of the development of the Kansas Flint Hills Smoke Management Plan. Kansas State University hosts the webpage, and it includes important information for ranchers and others who might be interested in the Flint Hills. It provides training, regulations, policies, publications,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



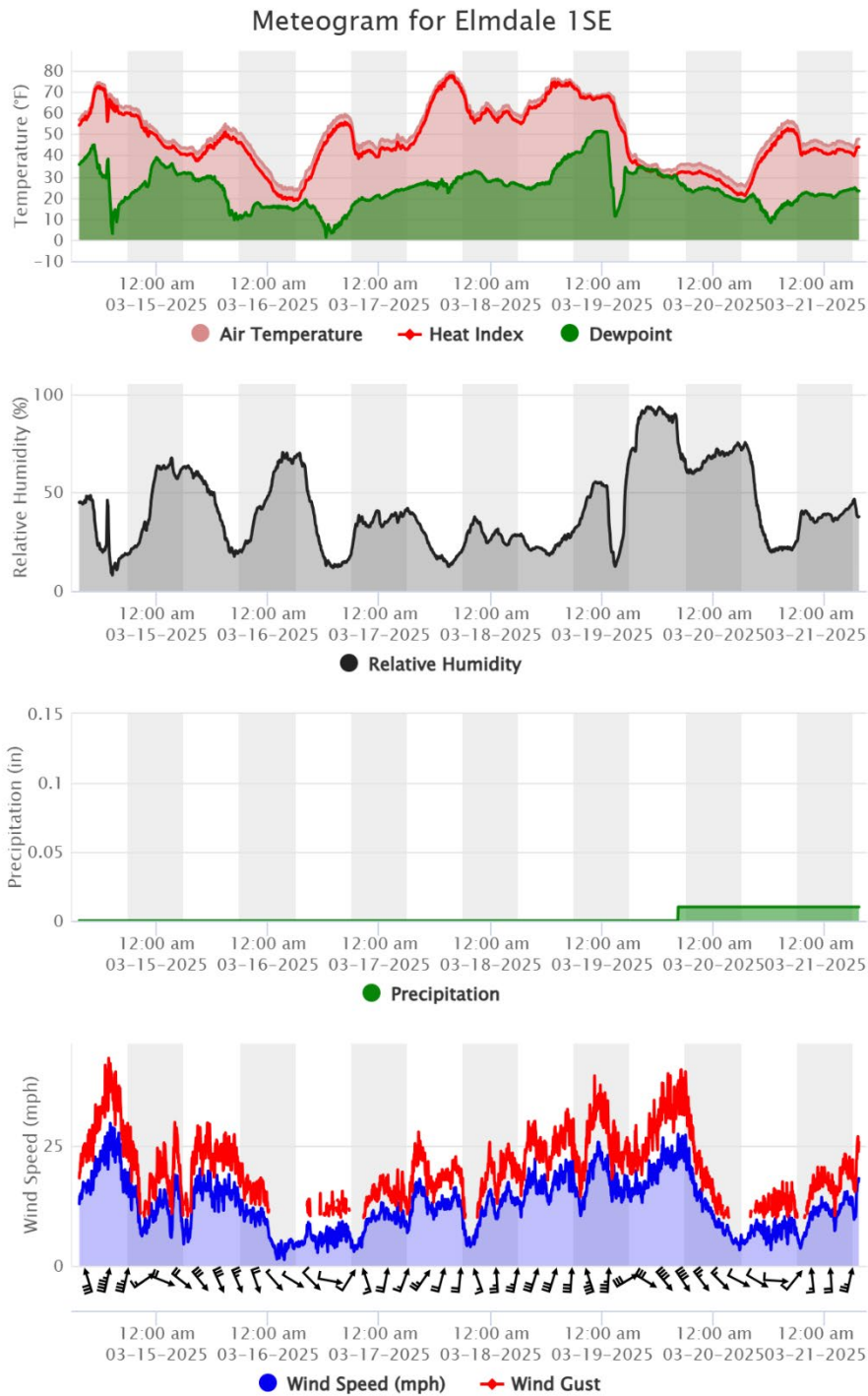
## Meteorology

Temperatures in the upper 70s and very strong south to south-southwest winds were observed last Friday (March 14) across the region with wind gusts up to 70 mph with blowing dust and smoke from wildfires in Oklahoma. Windy conditions persisted with falling temperatures (low 40s) on Saturday (March 15). NW winds of 5-15 mph in the morning, shifted to a more southerly direction by early evening and afternoon temperatures were near normal in the mid-50s on Sunday (March 16). Sunny skies were the rule on Monday (March 17) with temperatures climbing well above normal again in the upper 70s to low 80s with gusty SW winds (15-25 mph, gusting to 35 mph). Tuesday (March 18) saw similar conditions as Monday with strong south-southwesterly winds at 15-25 mph (gust 45 mph), and temperatures reaching the upper 70s. A very strong cold front swept across Kansas on Wednesday (March 19) with falling temperatures throughout the day and ranged from the mid-60s at 3am to around 32° by 6pm. Light rain quickly changed to light snow by early afternoon. Winds were strong from the south early in the morning but turned to the north by late morning at 20-30 mph and gusty. Near normal temperatures under sunny skies returned on Thursday (March 20) with highs once again in the 50s. Winds were light and variable through the day. Eastern Kansas only received very light precipitation (less than .25 inch) over the last week

## Precipitation



# Flint Hills Wildland Fire Update



7-day (March 14-March 21, 2025) 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 14 - March 20, 2025, there were no air quality exceedances that were potentially influenced by prescribed fire within the Flint Hills, but many occurred from blowing dust and wildfires on Friday, March 14, 2025 from winds gusting to 70mph.

**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 25 exceedances of the NAAQS daily 24-hour average maximum of 35 µg/m<sup>3</sup> occurred on Friday, March 14, 2025

Prescribed fire activity was limited on Friday (March 14) across Kansas with most of the fires (wildfires) scattered over Eastern Kansas and Oklahoma, with two large smoke plumes visible over Oklahoma northward into Southcentral and Eastern Kansas, parts of Missouri, far Southeast Nebraska and far Southwest Iowa. No smoke plumes were visible on Saturday (March 15) across the area although there were scattered fires, with most of these continuing wildfires in Oklahoma. Prescribed fire activity increased across the area on Sunday (March 16), with light smoke located over most of Oklahoma, Central and Eastern Kansas, Western Missouri and extending northward into Southeast Nebraska and Iowa. That led to only one monitor in the Tulsa area having an elevated (moderate) PM<sub>2.5</sub> AQI value. On Monday (March 17), sunny and windy conditions prevailed and led to fewer fires in the area. Some fires were still occurring over far southern Oklahoma and some elevated ozone values were noted in Oklahoma. On Tuesday (March 18), windy conditions continued and limited prescribed fires but there was a large wildfire in the Texas panhandle and its associated smoke plume could be seen moving northeast into Kansas. As a result of the very warm temperatures and very windy conditions, elevated moderate AQI values were also seen across Oklahoma and Kansas. Almost no fire activity was observed on Wednesday (March 19) as a strong cold front pushed across the region and brought much colder temperatures, snowfall to some areas and strong northerly winds. With clear skies and lighter winds, prescribed fire activity was limited again across all states in the Midwest on Thursday (March 20). PM and Ozone AQI values remained good across the area.

*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.*

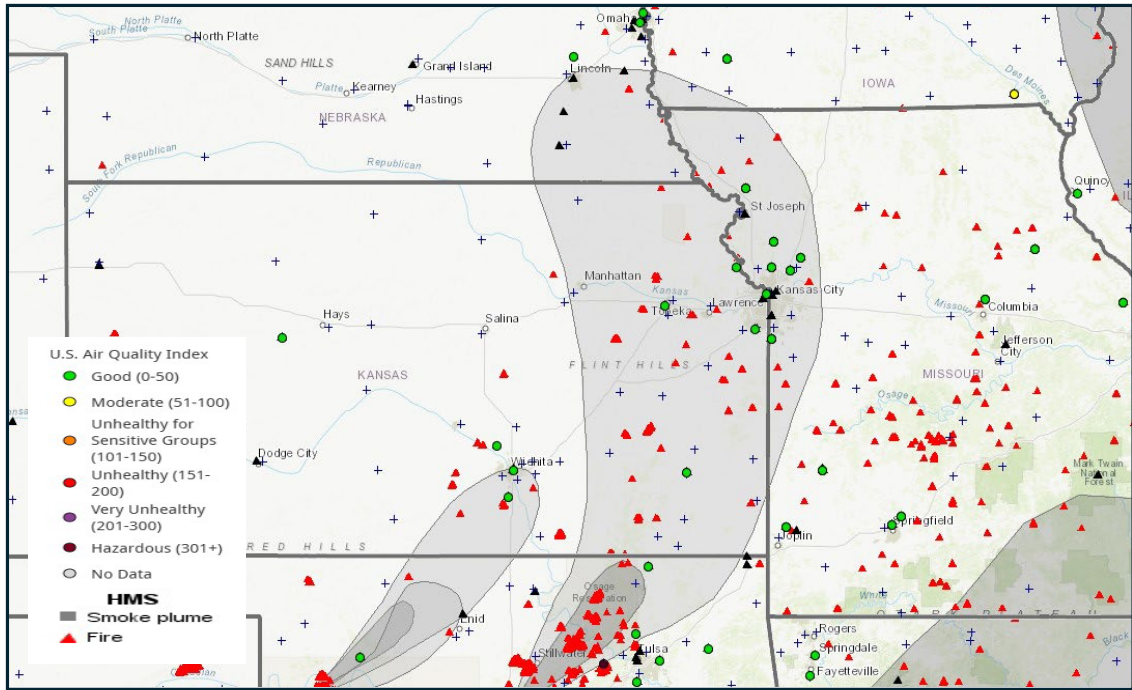
Friday, March 21, 2025 • 4



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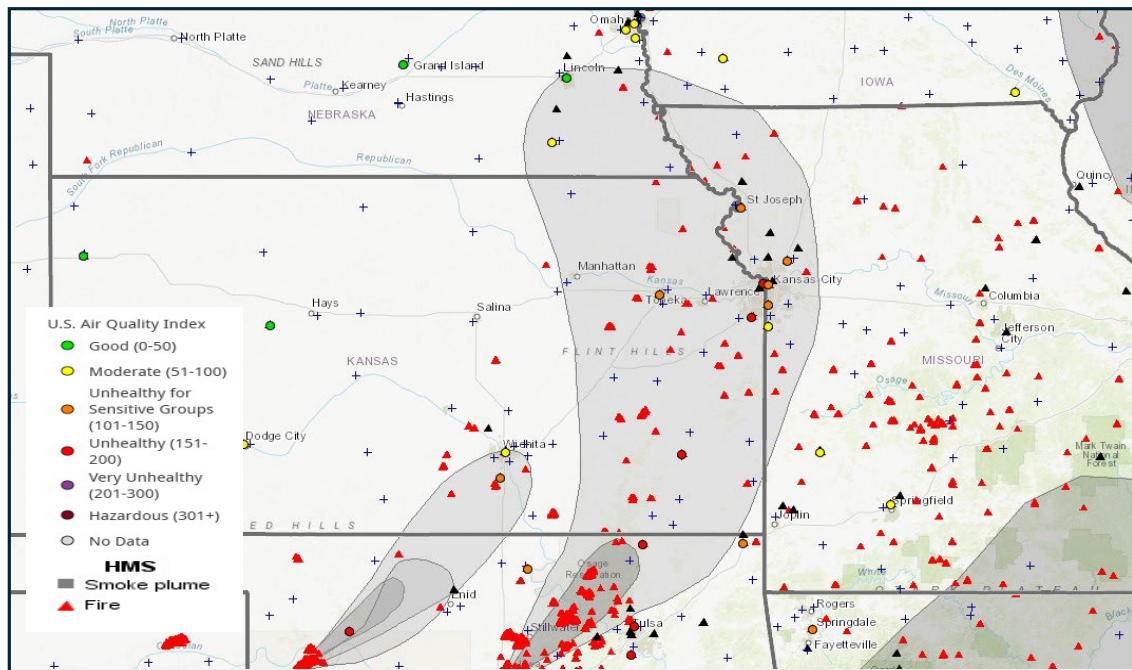
## Fire, Smoke and Ozone Air Quality Index March 14, 2025



Map: Douglas Watson, KDHE Bureau of Air

Fire and Smoke Data: NOAA HMS Fire and Smoke Product; Air Quality Data: EPA AirNow

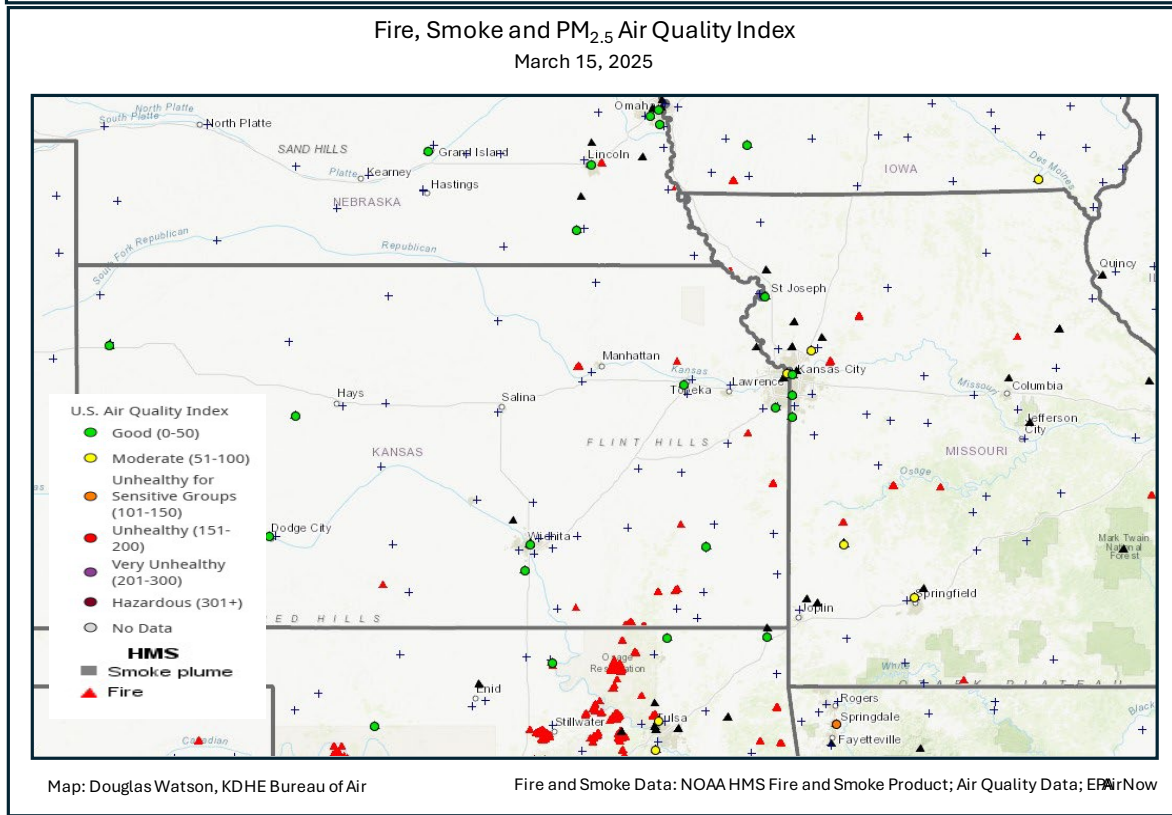
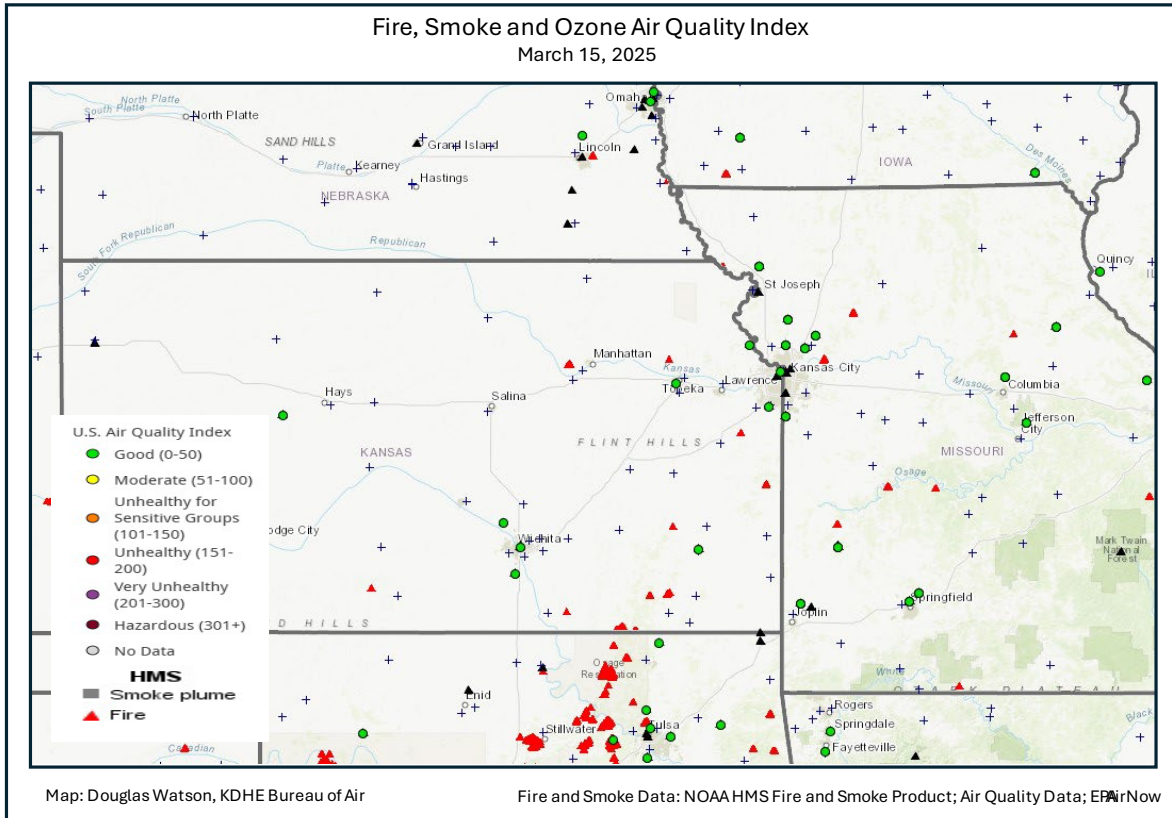
## Fire, Smoke and PM<sub>2.5</sub> Air Quality Index March 14, 2025



Map: Douglas Watson, KDHE Bureau of Air

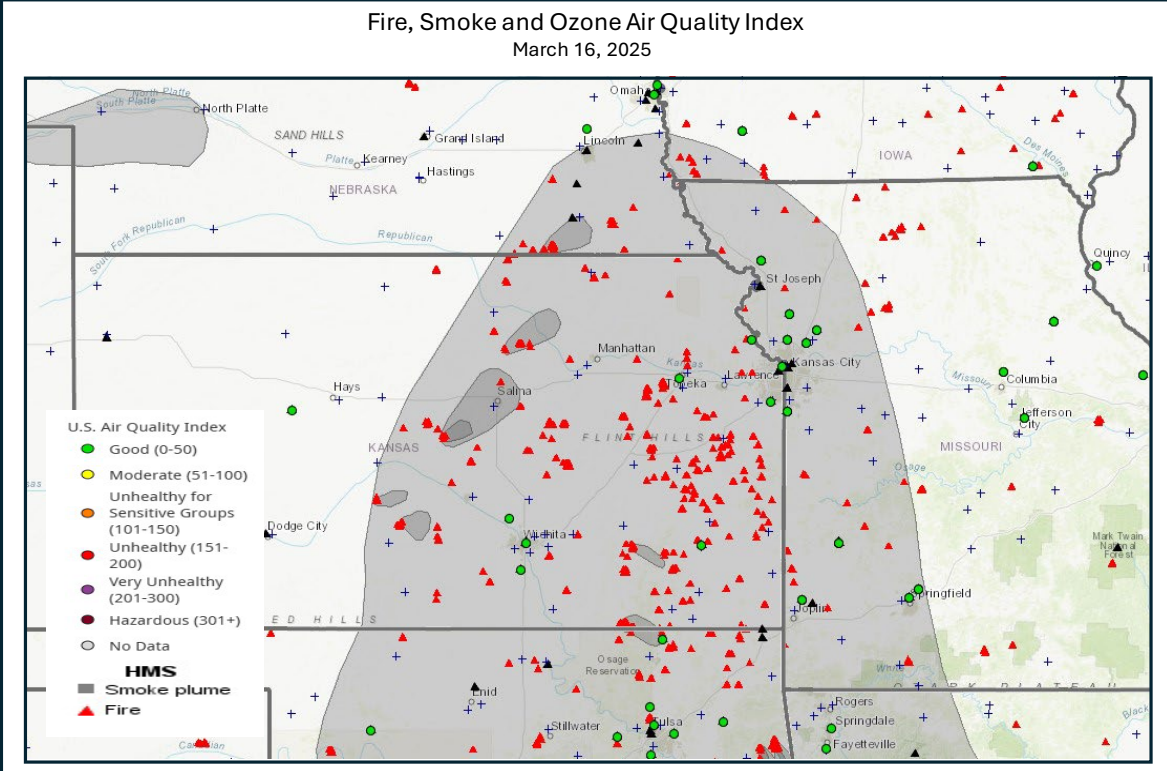
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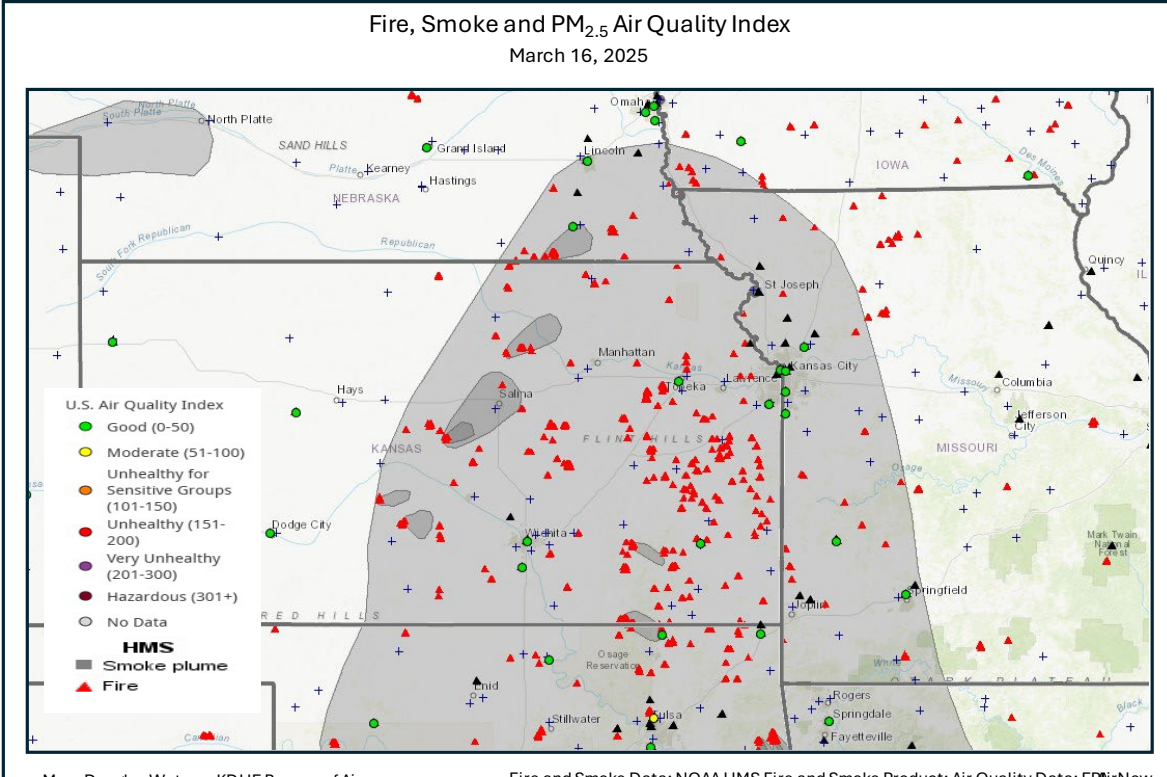


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Fire and Smoke Data: NOAA HMS Fire and Smoke Product; Air Quality Data: EPA Air Now



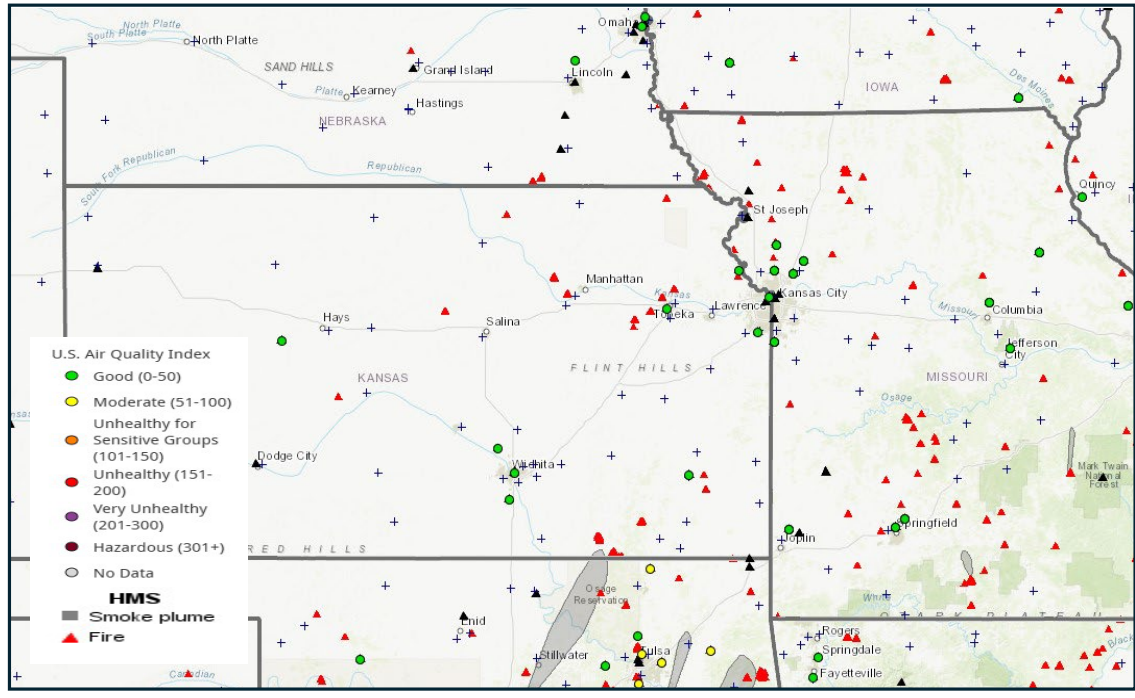
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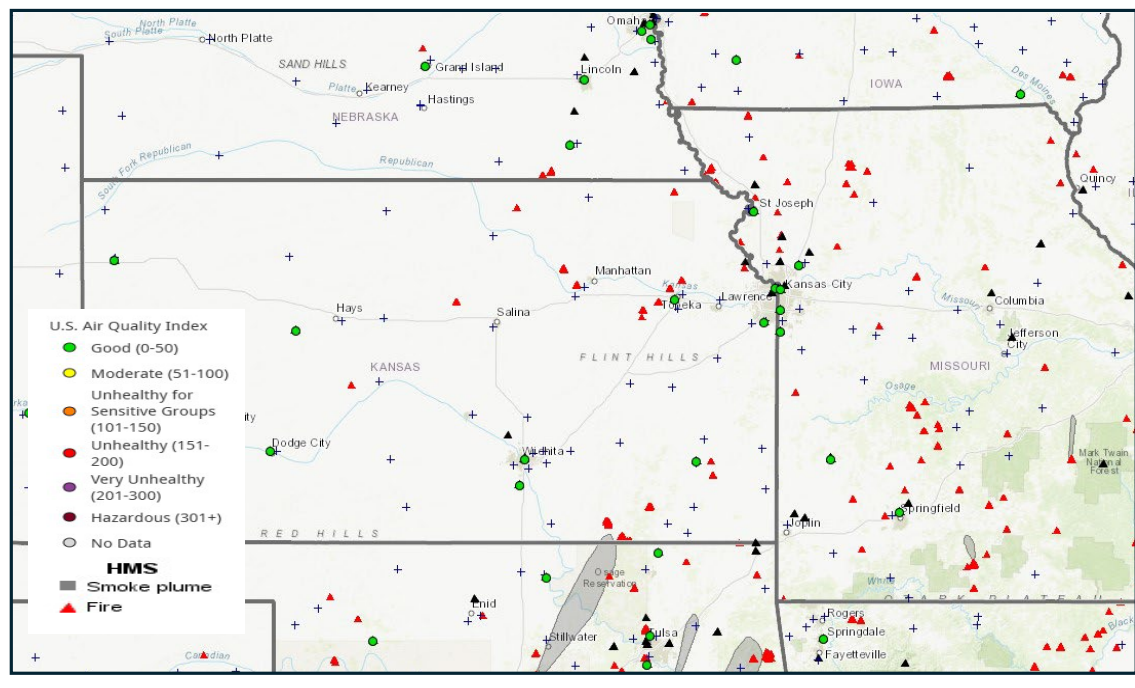
## Fire, Smoke and Ozone Air Quality Index March 17, 2025



Map: Douglas Watson, KDHE Bureau of Air

Fire and Smoke Data: NOAA HMS Fire and Smoke Product; Air Quality Data: EPA Air Now

## Fire, Smoke and PM<sub>2.5</sub> Air Quality Index March 17, 2025

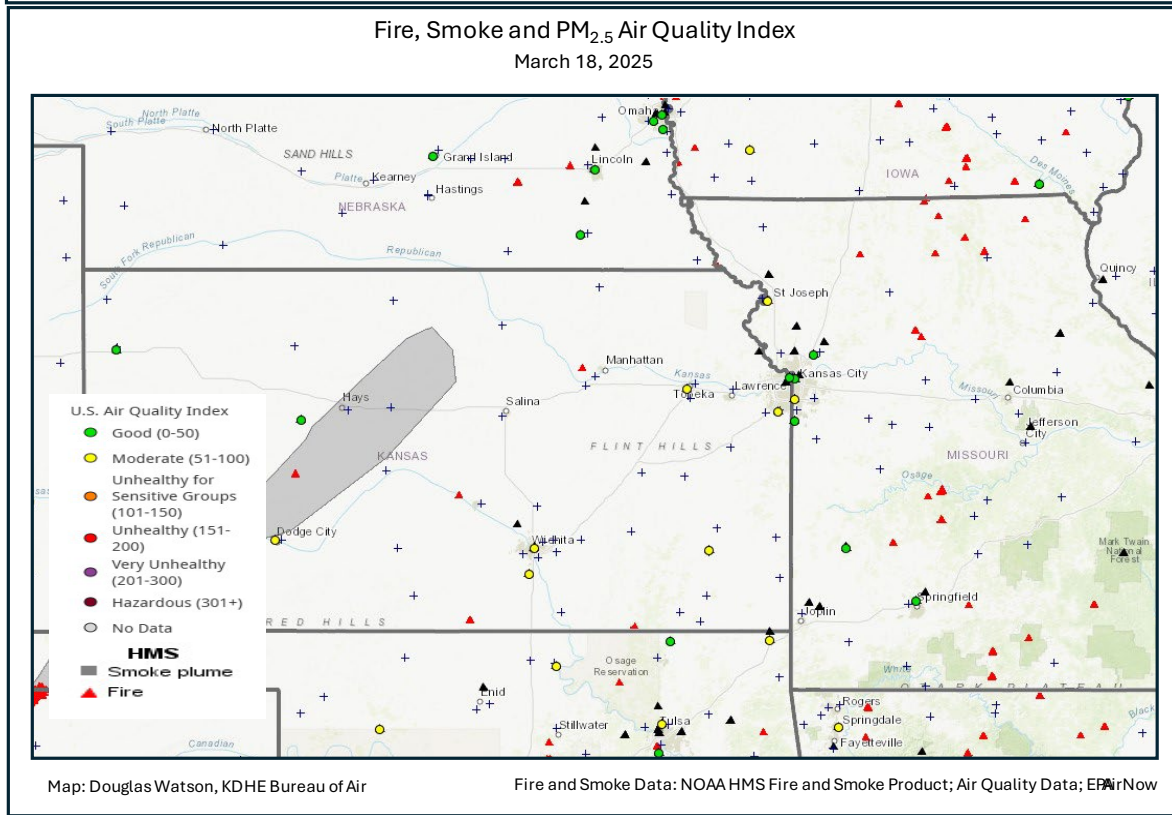
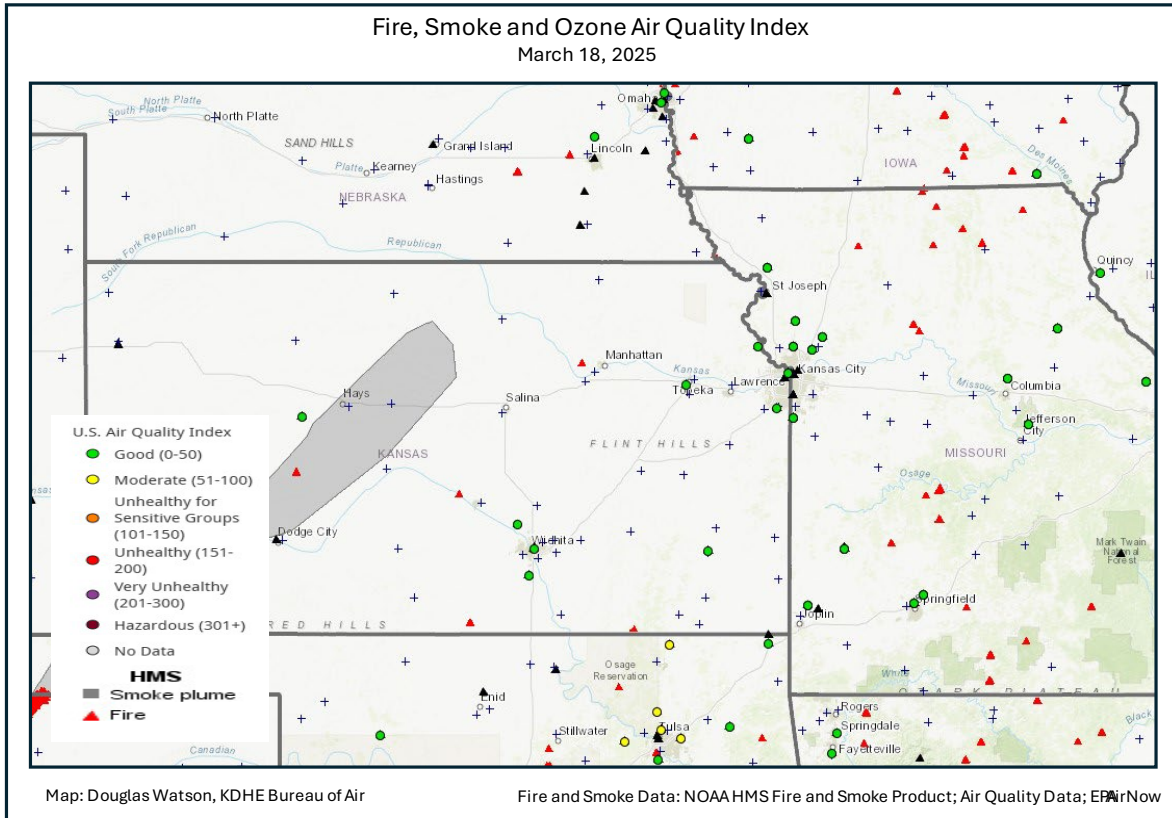


Map: Douglas Watson, KDHE Bureau of Air

Fire and Smoke Data: NOAA HMS Fire and Smoke Product; Air Quality Data: EPA Air Now



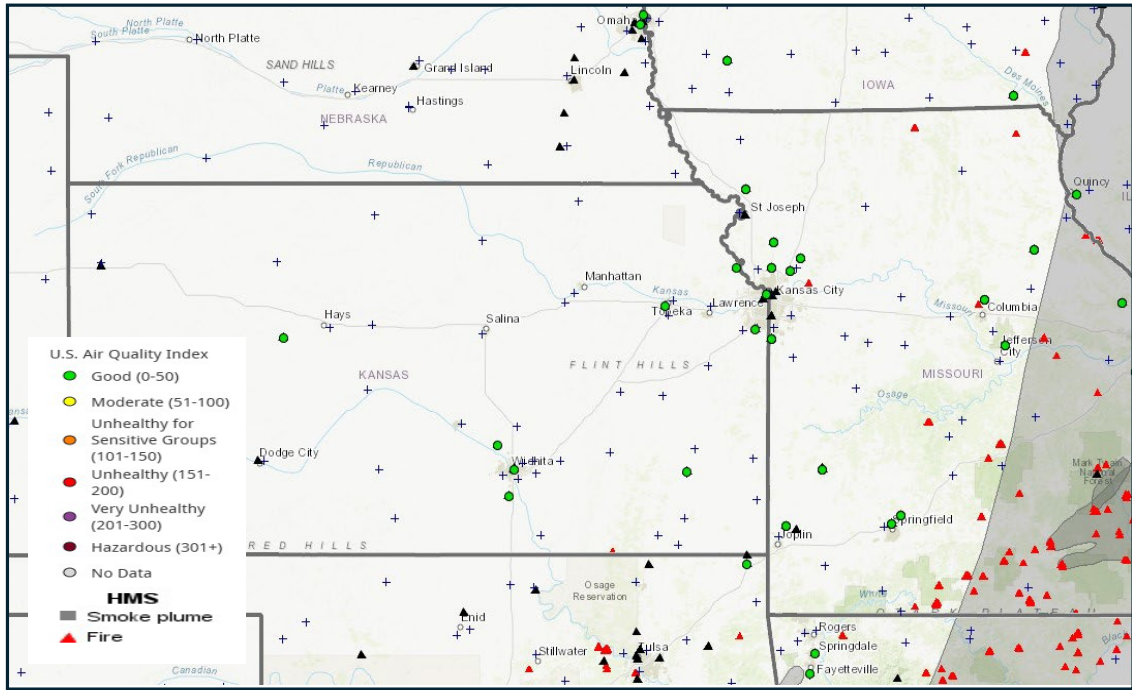
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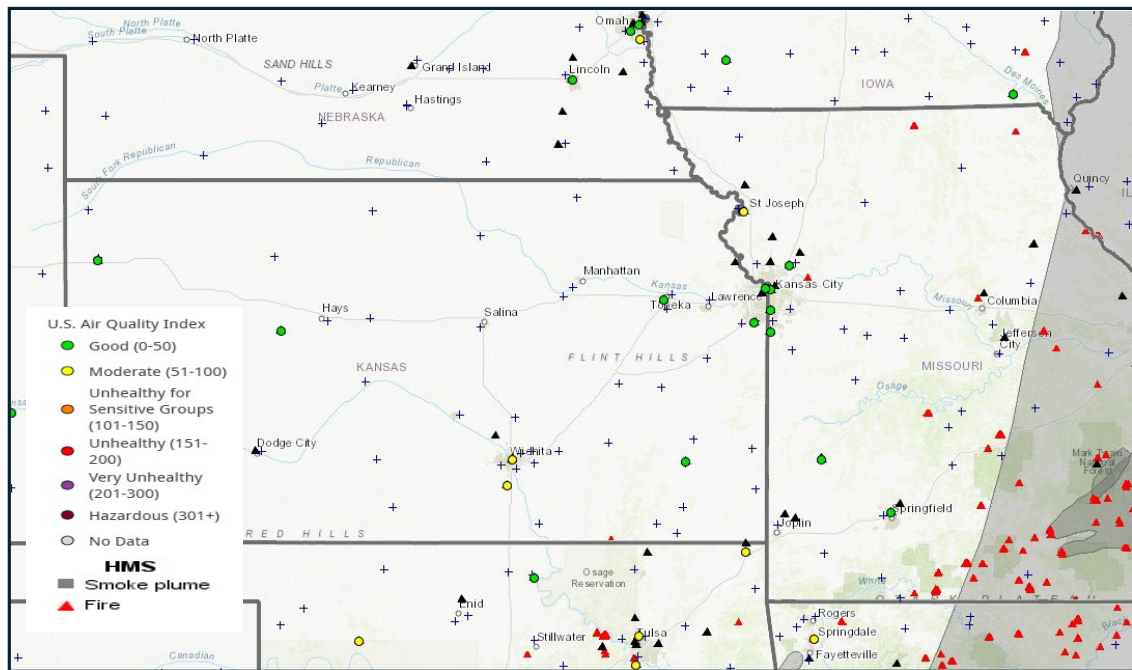
## Fire, Smoke and Ozone Air Quality Index March 19, 2025



Map: Douglas Watson, KDHE Bureau of Air

Fire and Smoke Data: NOAA HMS Fire and Smoke Product; Air Quality Data: EPA AirNow

## Fire, Smoke and PM<sub>2.5</sub> Air Quality Index March 19, 2025

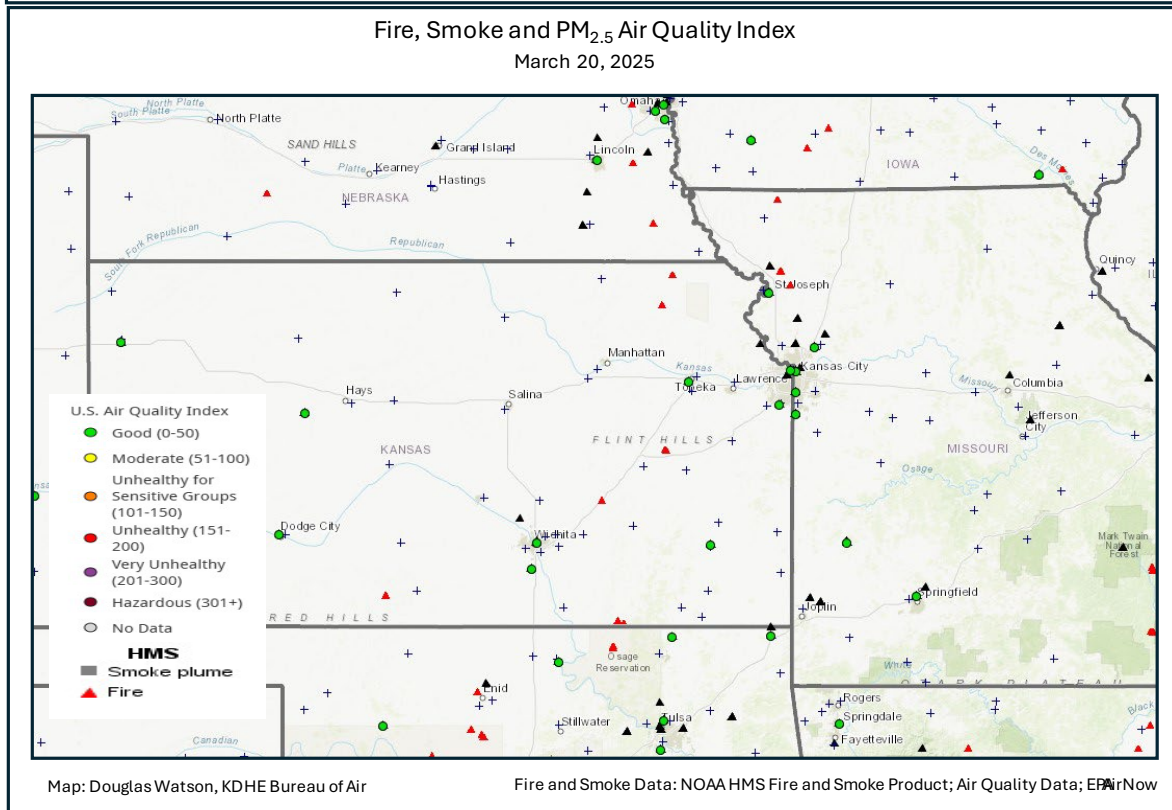
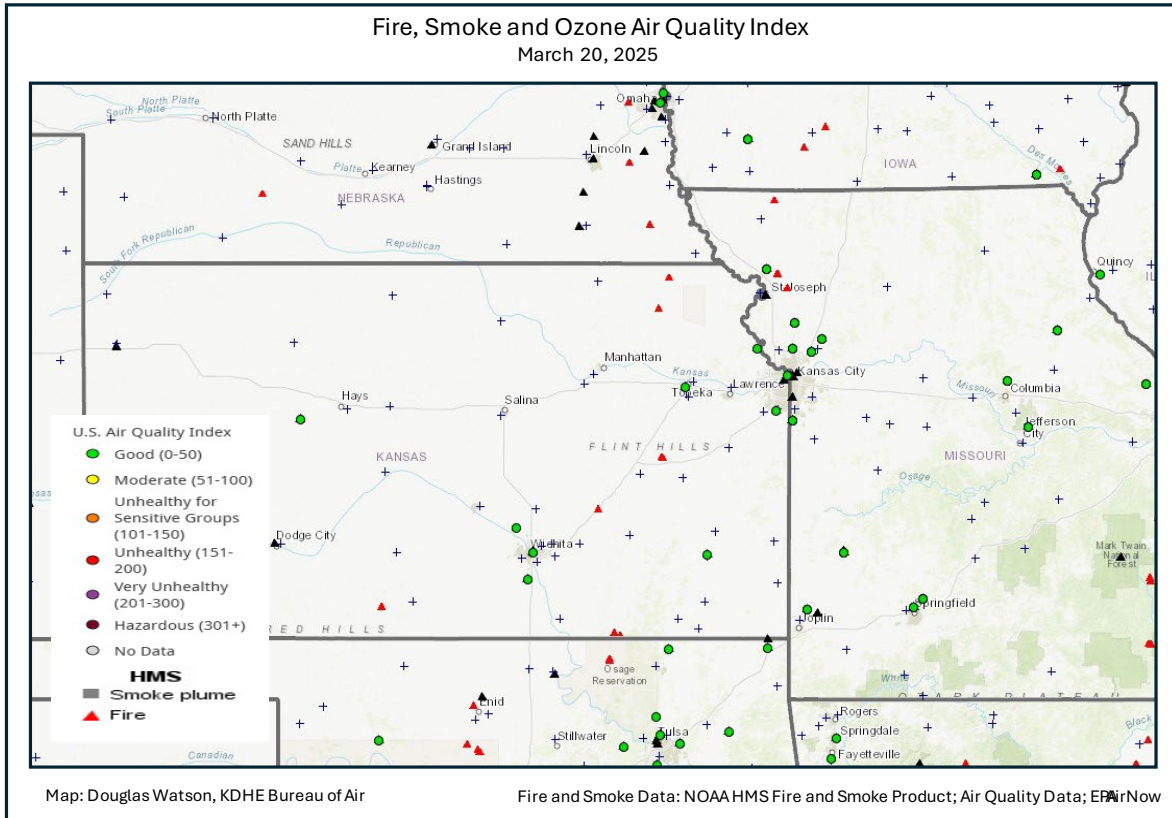


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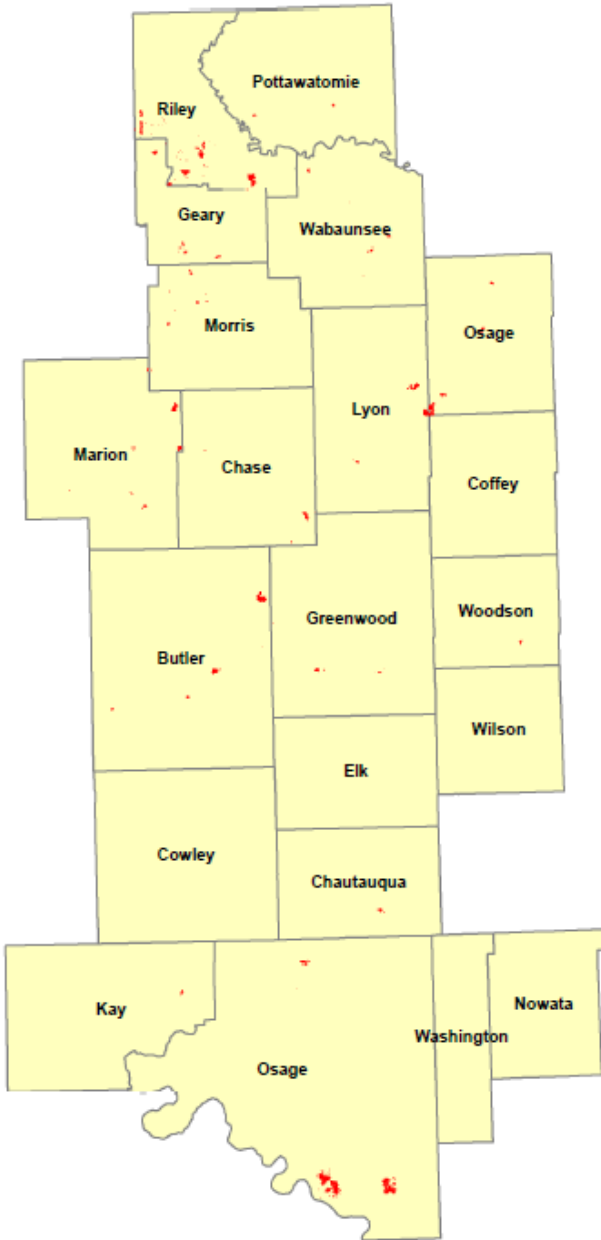
# Flint Hills Wildland Fire Update







Flint Hills Acreage Burned (March 5 – March 13, 2025)



<u>Counties</u>	<u>Acres Burned</u>	
Butler	2317	
Chase	710	
Chautauqua	278	
Coffey	77	
Cowley	0	
Elk	0	
Geary	1,050	
Greenwood	448	
Lyon	1,745	
Marion	1,838	
Morris	726	
Osage (KS)	1,961	
Pottawatomie	278	
Riley	5,174	
Wabaunsee	710	
Wilson	0	
Woodson	201	
Nowata (OK)	0	
Osage (OK)	8,818	
Washington (OK)	0	
Kay (OK)	247	
<b>Total</b>	<b>26,578</b>	
* Denotes county was partly or completely covered by clouds during latest analysis.		



## Upcoming Look at Fires and Smoke

A strong cold front with little precipitation will move across most of the Flint Hills today (Friday) with very windy conditions ahead of the front. Winds will be from the southwest early today at 15-25 mph with gusts near 35 mph. Strong winds will switch to the northwest late morning to early afternoon. This will lead to extreme wildfire danger across the area. Saturday will see mild temperatures in the upper-60s but breezy conditions will pick up Saturday afternoon with south winds 10-20 mph with gusts to 30 mph will probably limit the number of prescribed fires in Kansas. A chance of rain and thunderstorms will exist overnight. Another front passes through the region on Sunday morning which will switch winds back to the northwest and will gust at 25-35 mph. Low relative humidity may lead to a higher fire danger. Warm temperatures and lighter winds are expected to return to large portions of the forecast area Monday and Tuesday. Highs should reach the lower 70s. This may lead to an increase in prescribed fire activity. Wednesday should continue to see pleasant temperatures and light south winds throughout the day. Prescribed fires will once again be possible throughout the day. A slight chance of precipitation will occur Wednesday night and Thursday morning but highs will climb into the mid-70s with increasing winds from the south.

### **Ideal Weather Conditions for Prescribed Burning**

**\*\*\*\*This Graphic is Currently Unavailable from the NWS\*\*\*\***

*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.*

For more information, contact:

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