

Flint Hills Wildland Fire Update

April 4, 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/>



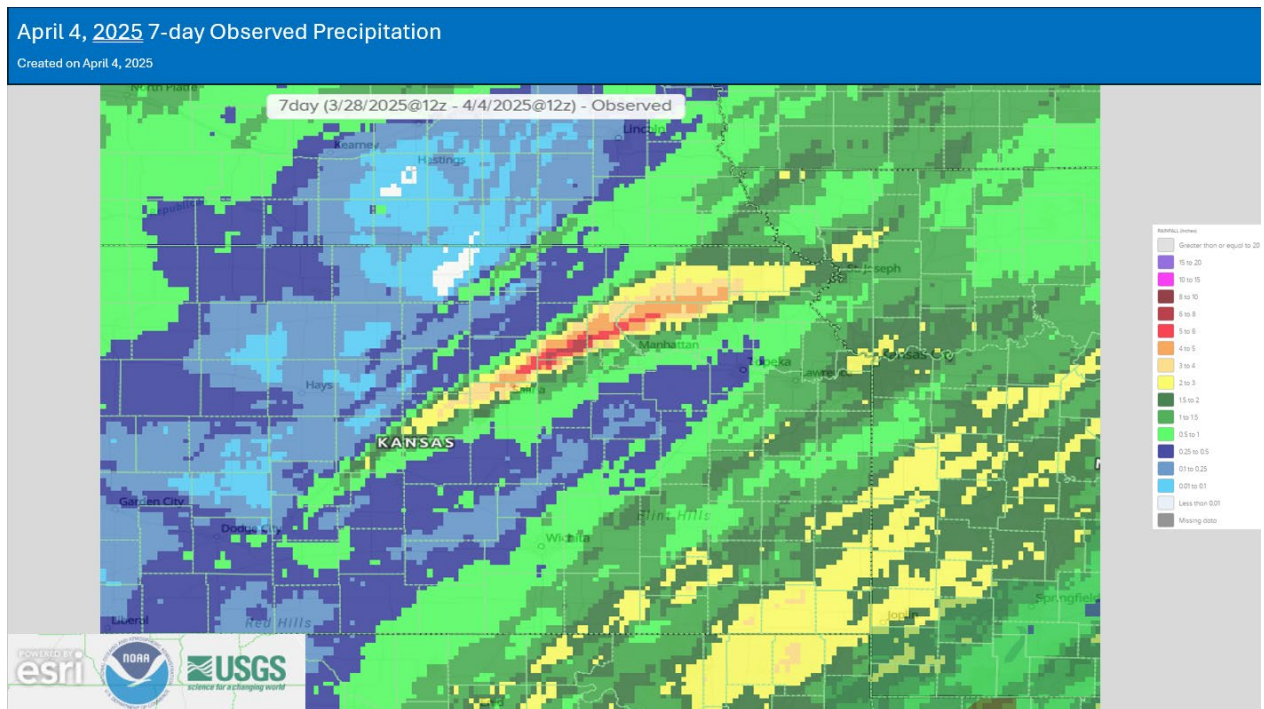
This website was developed as part of the development of the Kansas Flint Hills Smoke Management Plan. Kansas State University hosts the webpage, and it includes important information for ranchers and others who might be interested in the Flint Hills. It provides training, regulations, policies, publications,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

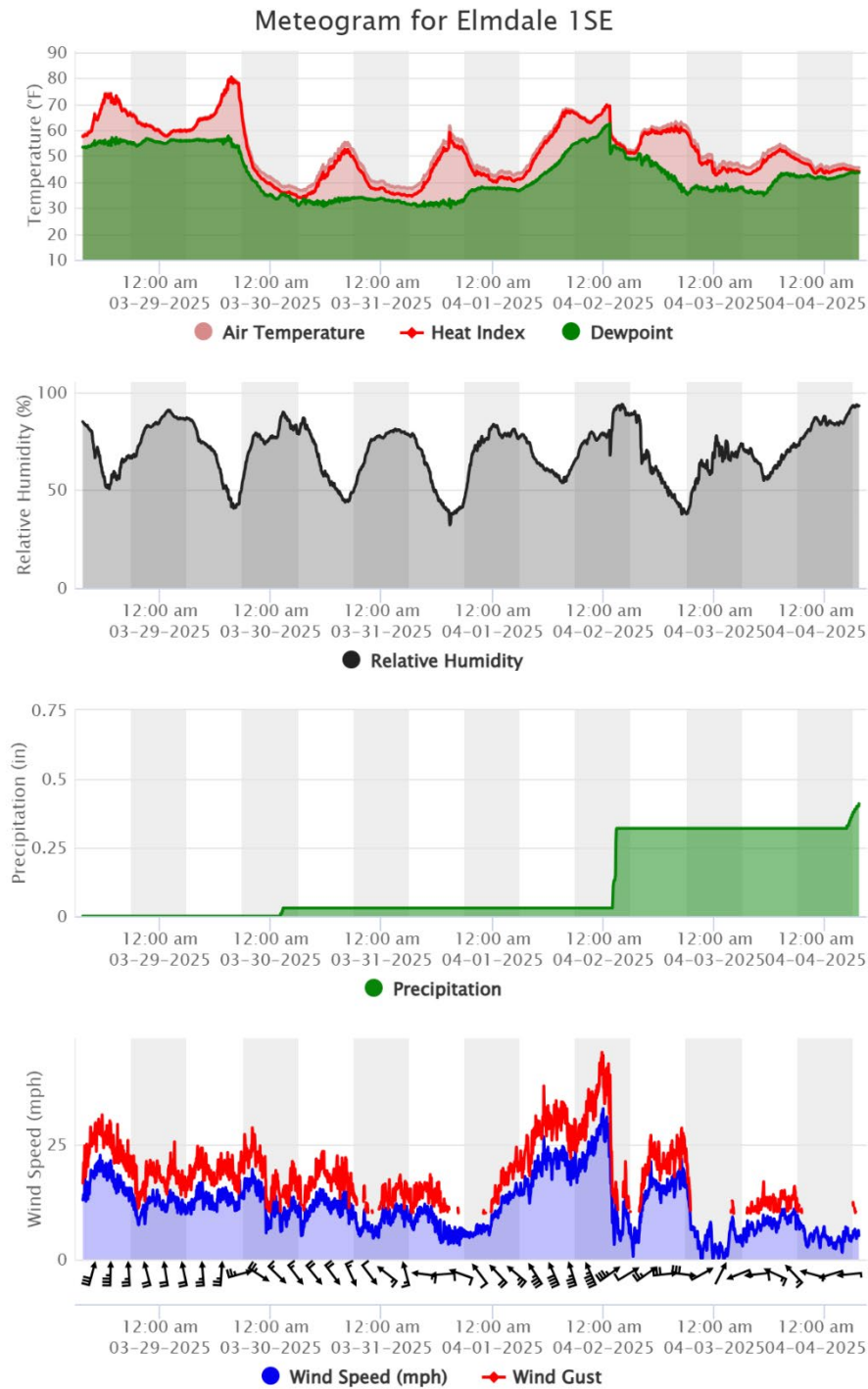
Temperatures in the mid to upper-70s and very strong south to south-southwest winds were observed last Friday (March 28) across the region with wind gusts up to 45 mph. Very warm overnight temperatures in the lower 60s and continued breezy south to southeast winds and temperatures again climbing into the mid to upper 70s were the rule on Saturday (March 29). Variable cloudiness with light precipitation proceeded another frontal boundary that brought NW winds of 15-25 mph and temperatures in the low 50s on Sunday (March 30). Early cloudy skies gave way to fair skies on Monday (March 31) with temperatures climbing into the mid-50s with light north to northeast winds (5-15 mph). Tuesday (April 1) saw increasing winds from the southeast throughout the day (15-25 mph and gusty) and temperatures reaching the mid-60s. A round of thunderstorms occurred early on Wednesday (April 2) morning and winds shifted to the west at 5-15 mph, increasing to 10-20 mph and gusty by early afternoon. Temperatures were mainly in the upper 60s to around 70°. Cooler temperatures under cloudy skies returned on Thursday (April 3) with highs in the mid-50s. Winds were light from the north early before switching to the east by late morning at 5-10 mph. Most areas of Eastern Kansas received precipitation (.25 inch – 1.00 inch) over the last week. A band of heavy rain fell from Salina to north of Manhattan where radar estimated localized areas of 5 – 6 inches fell.

Precipitation



NOAA/NWS Observed Total Precip. for March 28-April 4, 2025.

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7-day (March 28-April 4, 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 28 – April 4, 2025, there were no air quality exceedances that were potentially influenced by prescribed fire within the Flint Hills.

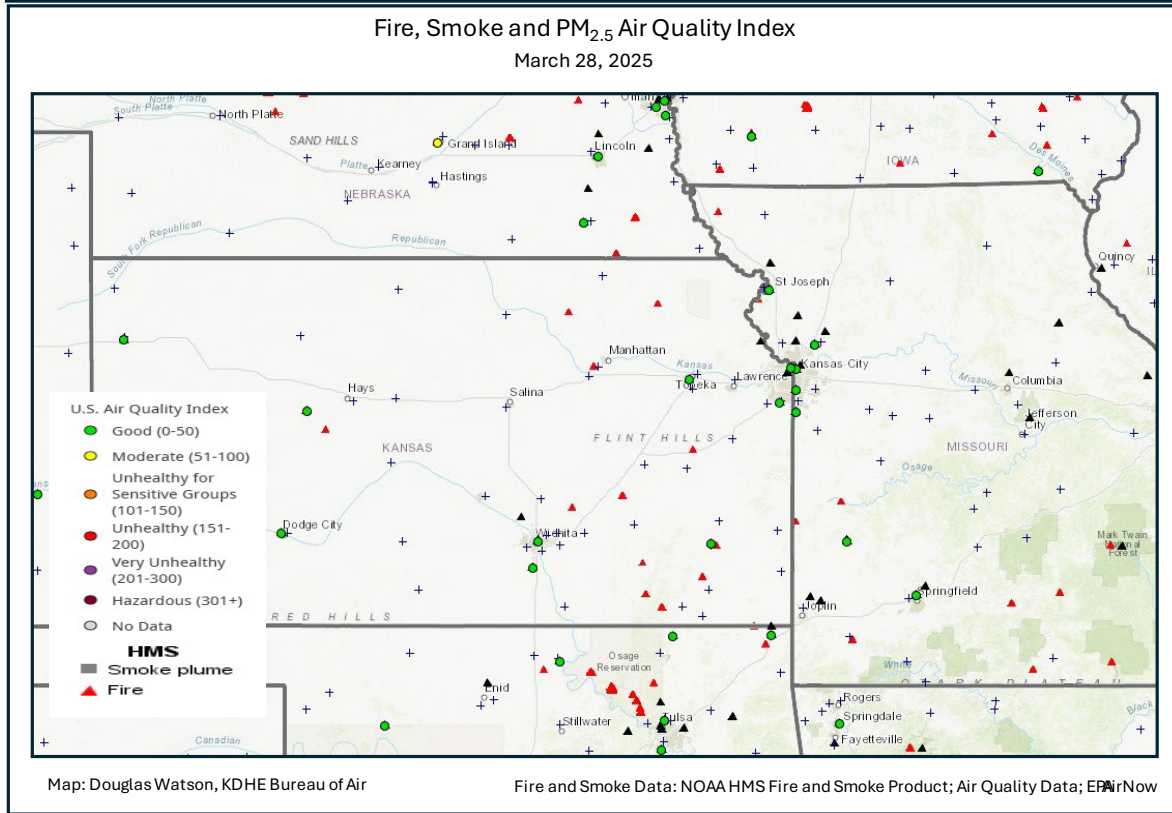
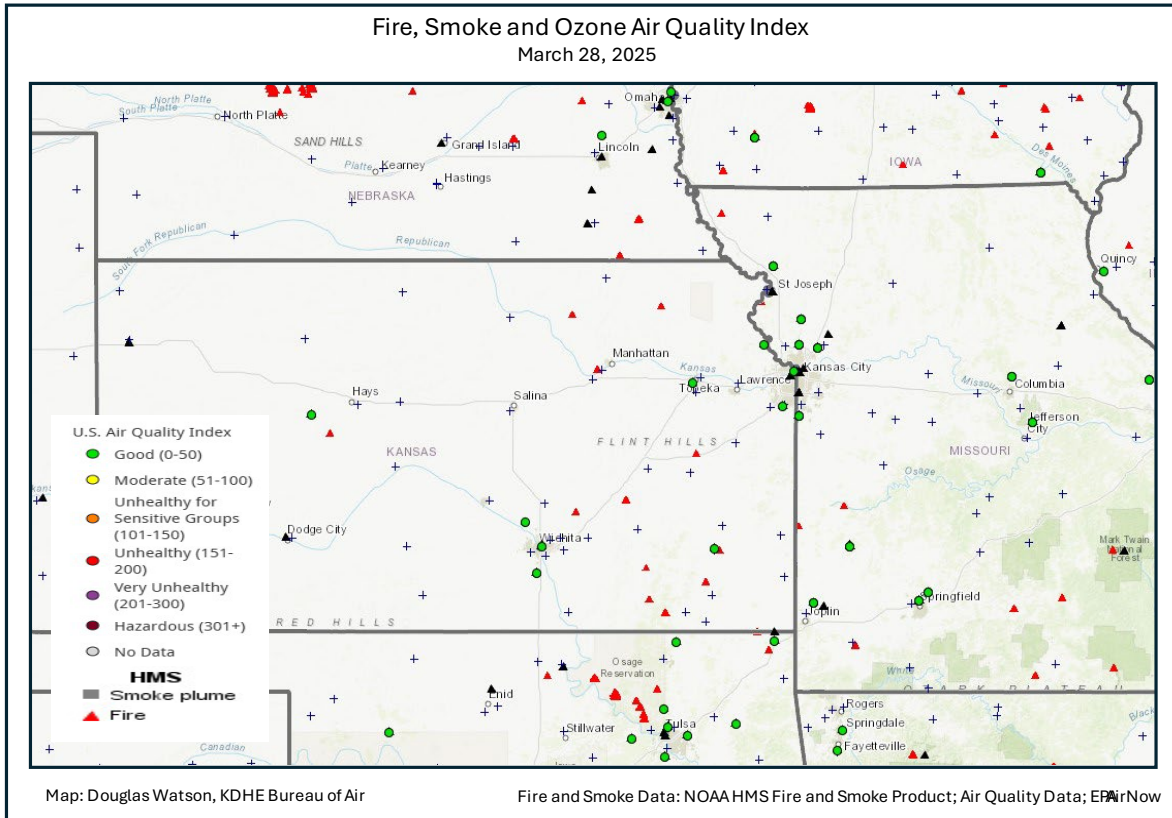
Ozone: Preliminary data indicates no exceedances of the NAAQS daily 8-hour average maximum of 70 ppb.

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

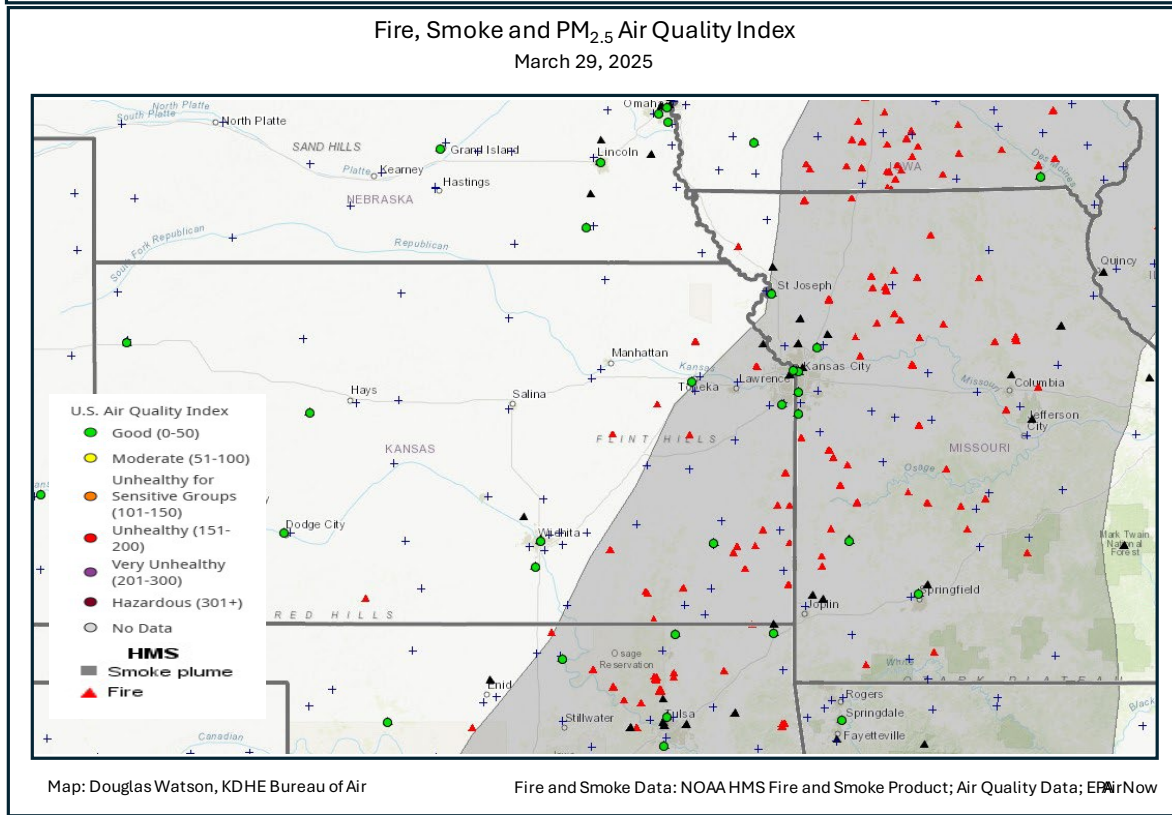
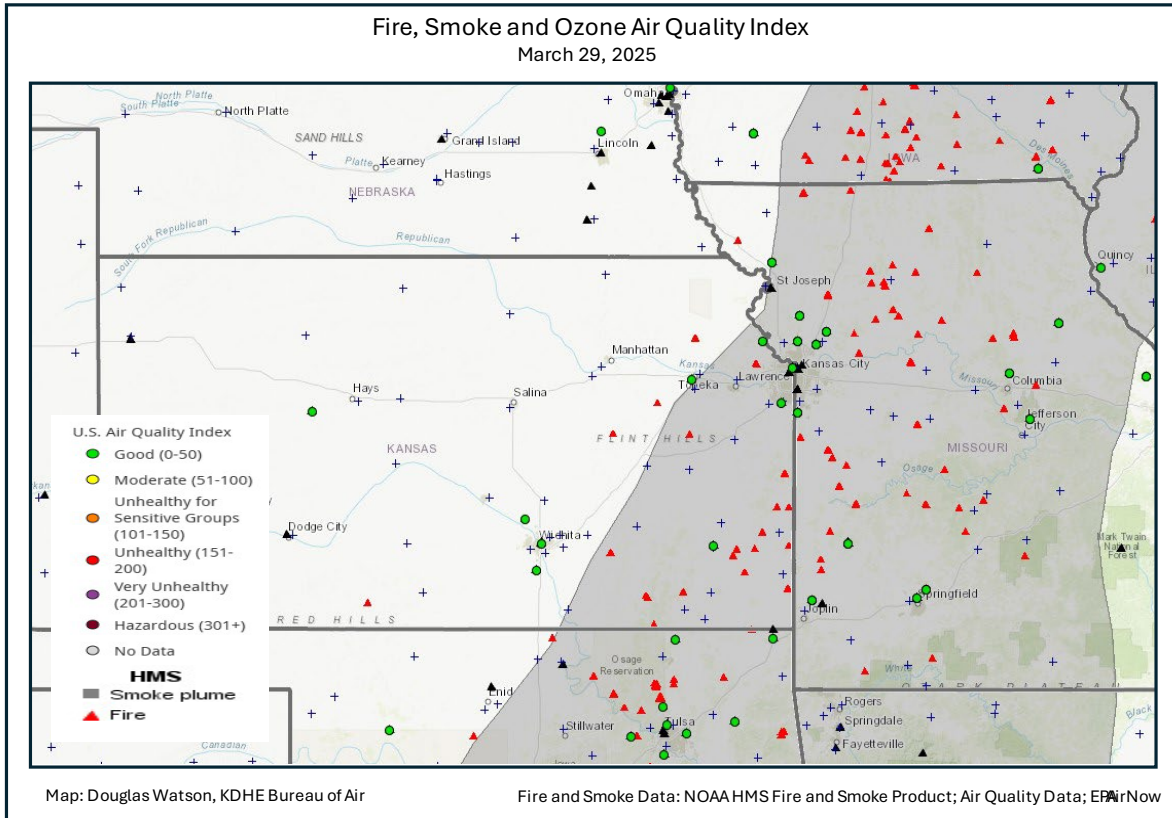
Prescribed fire activity was limited on Friday (March 28) across Kansas with a few fires scattered over eastern Oklahoma and no smoke plumes were observed over the area. One large smoke plume was visible on Saturday (March 29) extending across eastern Oklahoma, southeast Kansas, northern Arkansas, much of Missouri and into southern Iowa. Prescribed fire activity was light and scattered across the region. Prescribed fire activity was again limited across the area on Sunday (March 30), with two large smoke plumes observed over southern and eastern Kansas, much of Oklahoma and extending into eastern Colorado. On Monday (March 31), prescribed fire activity began to increase significantly as winds began to lighten up and blew from the north-northeast. Some elevated PM AQI values were noted in the Wichita and parts of northern Oklahoma. On Tuesday (April 1), winds switched to a southeasterly direction and increased throughout the day. As a result, prescribed fires were scattered across the area, including the Flint Hills. PM AQI values remained elevated as the smoke from Monday's fires were transported westward, then northwestward as winds blew from the southeast. Prescribed fire activity was again light as observed on Wednesday (April 2) as a line of thunderstorms moved through the area and winds increased from the west. With cloudy skies and light northeast-east winds, prescribed fire activity continued light across all states in the Midwest on Thursday (April 3). No smoke plumes were visible because of cloud cover.

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.

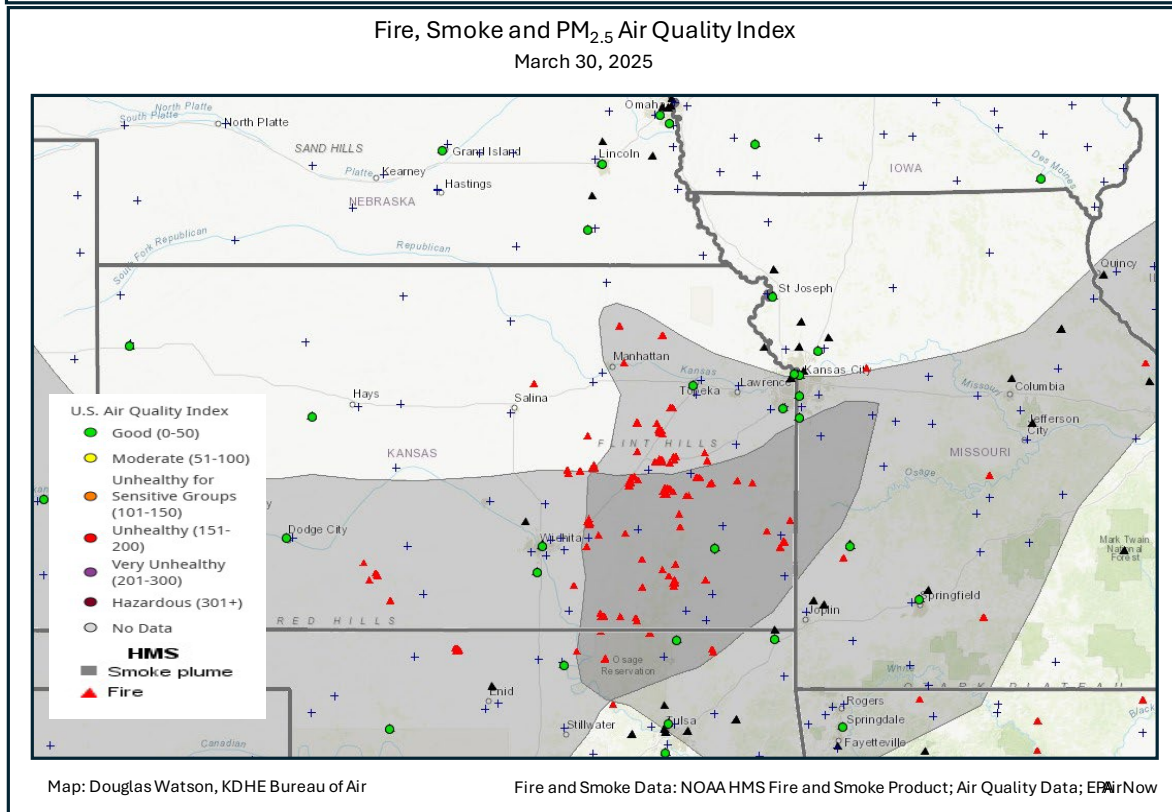
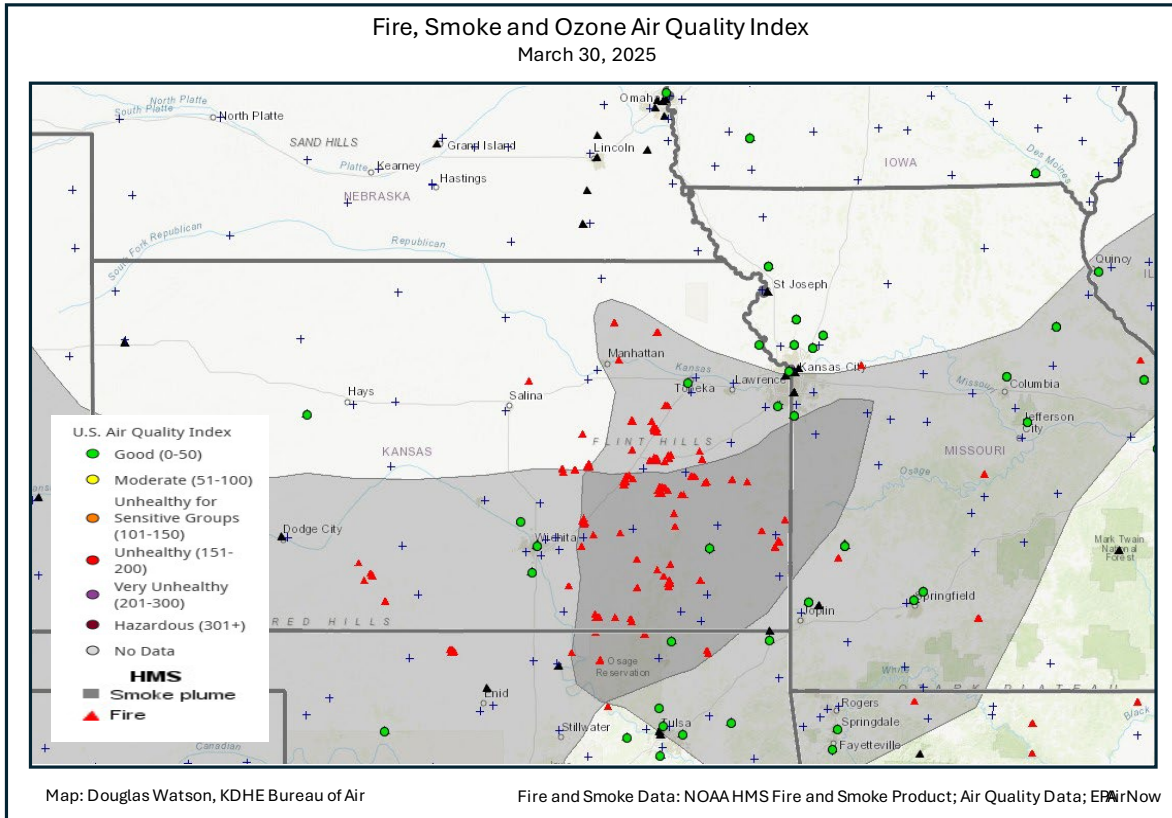
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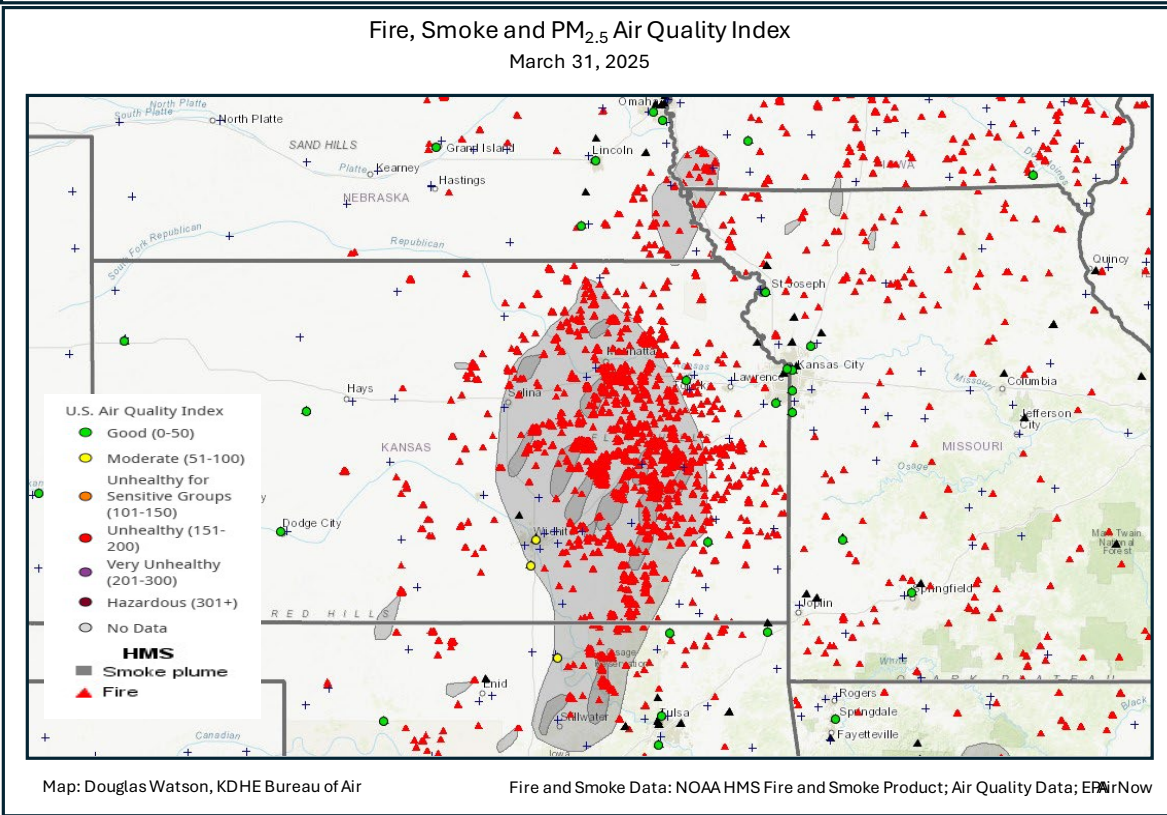
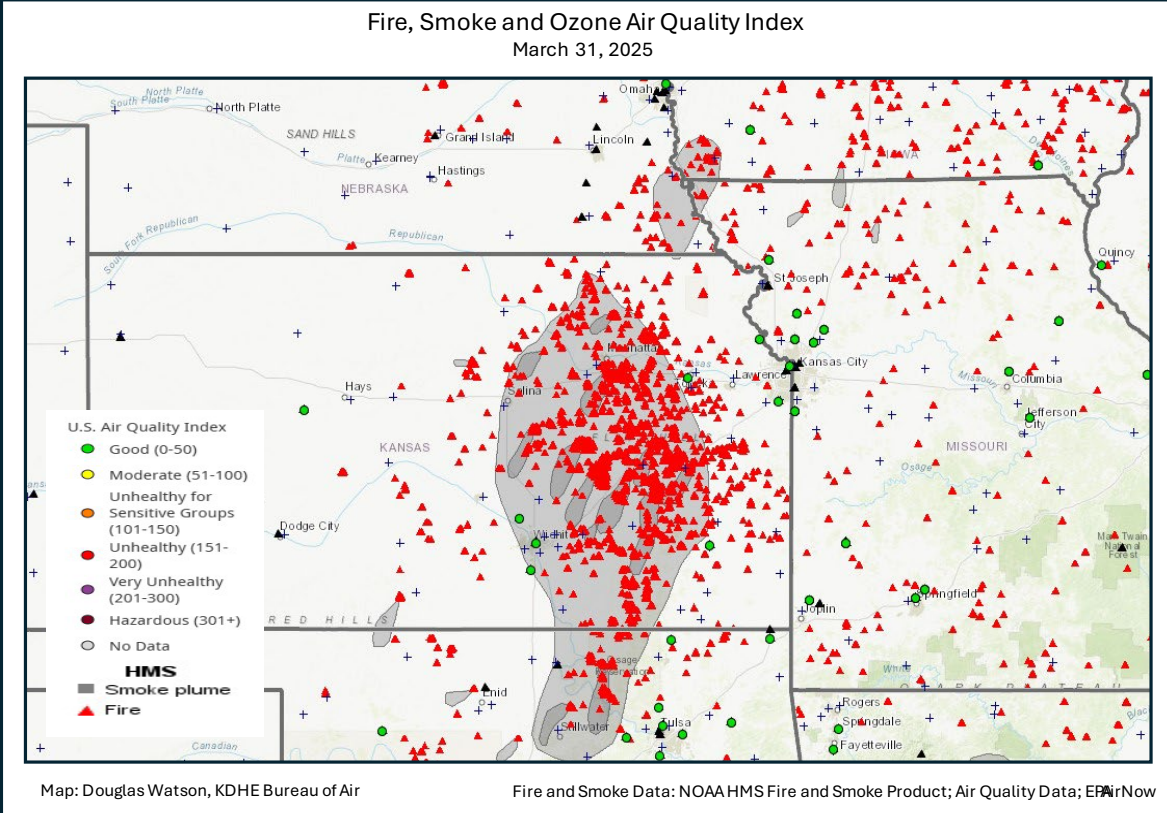
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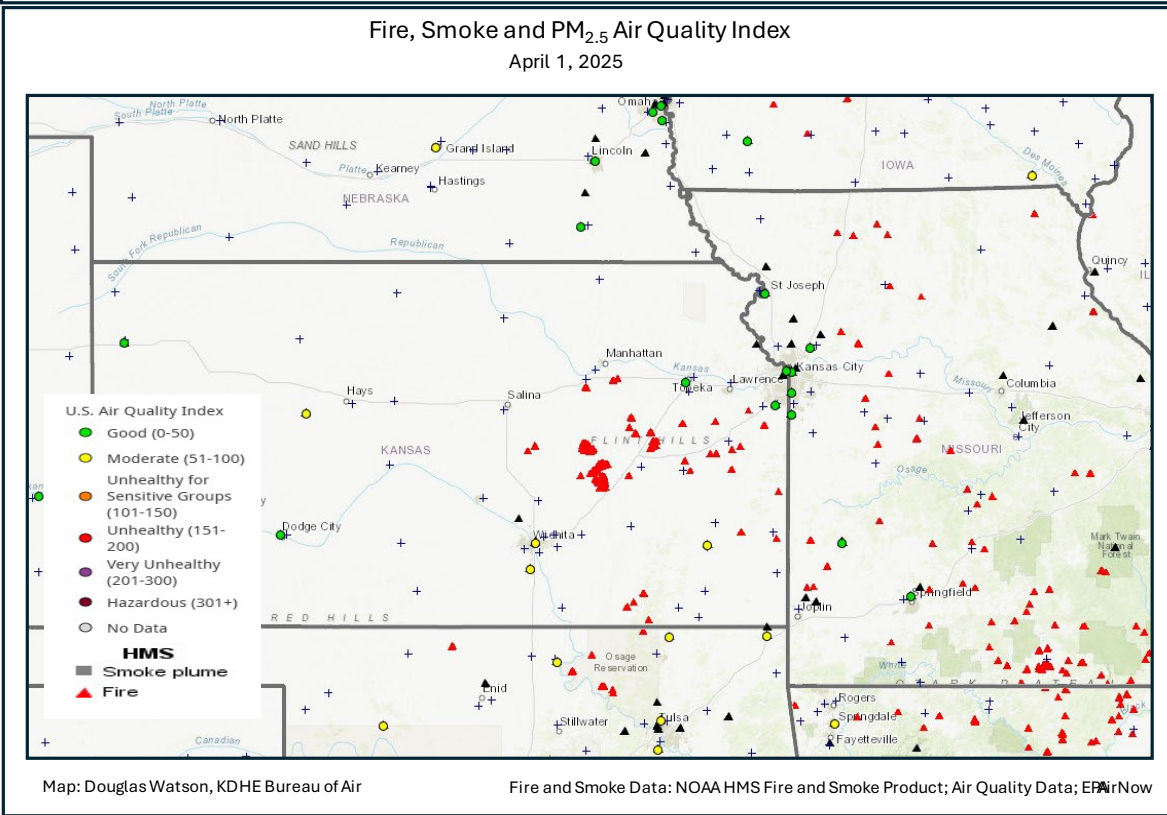
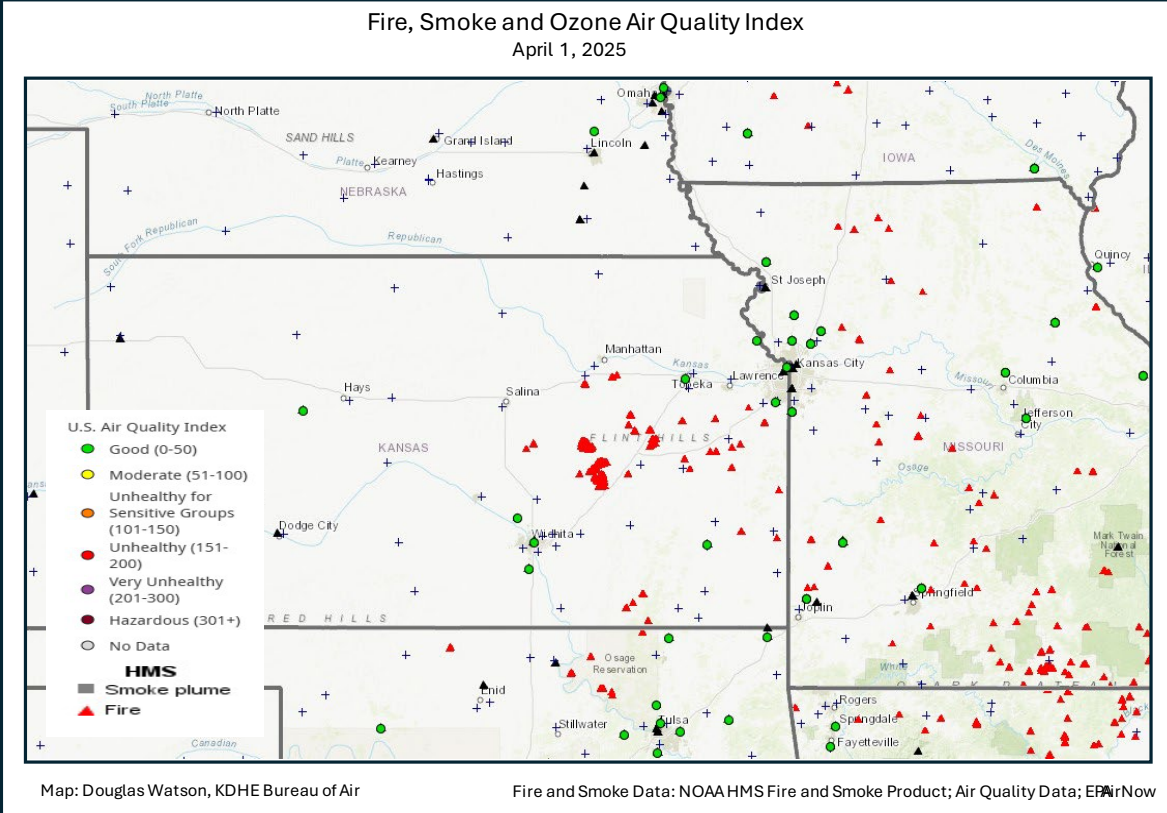
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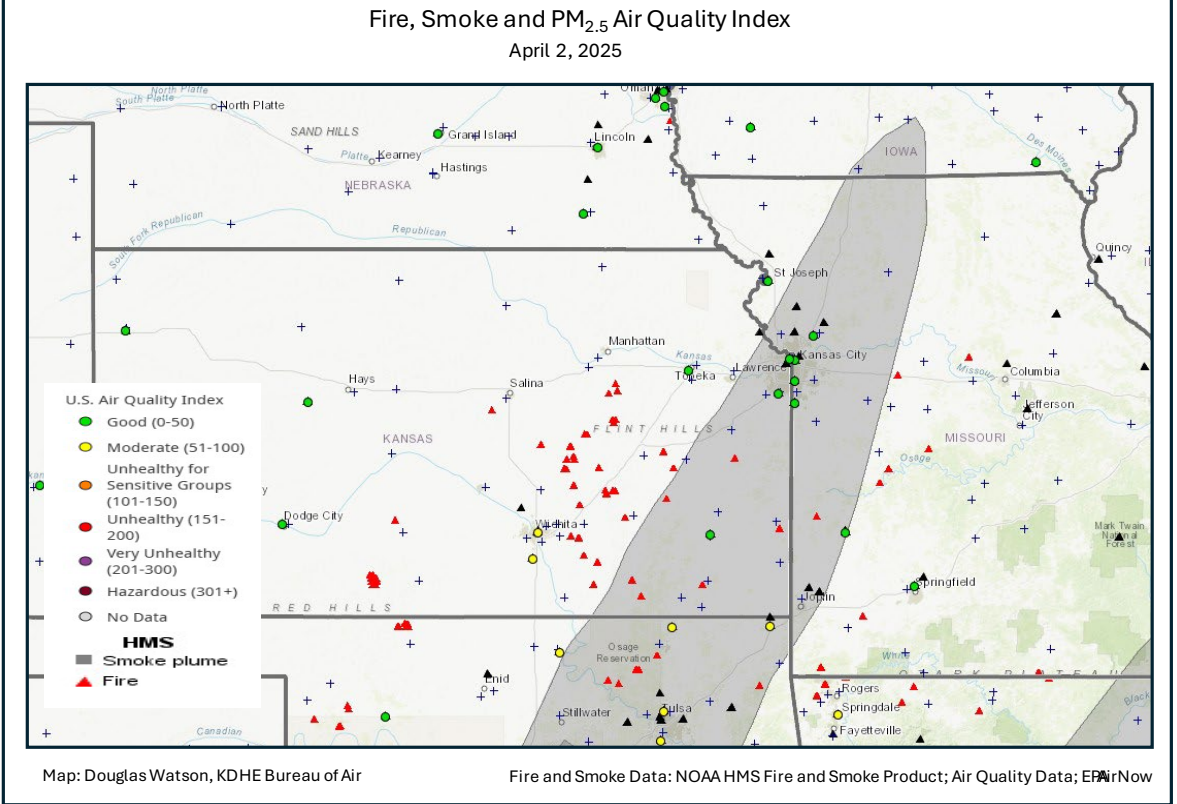
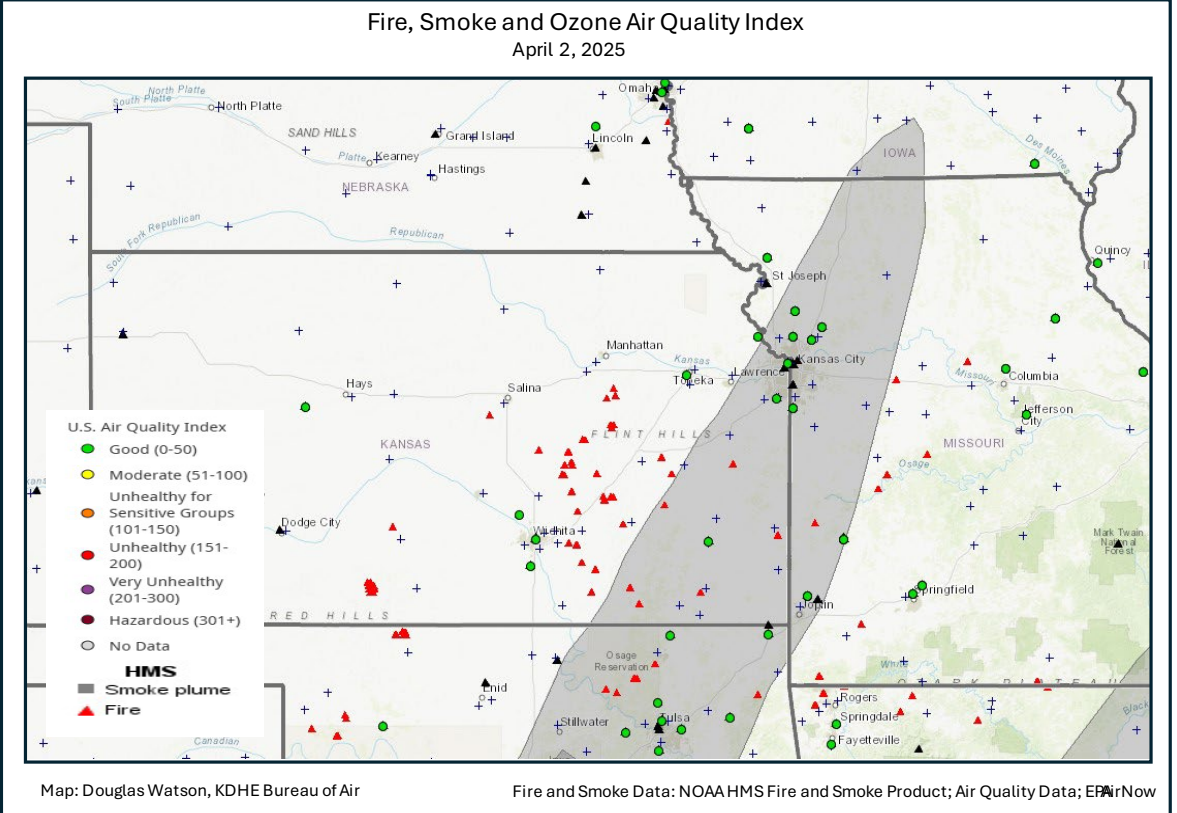
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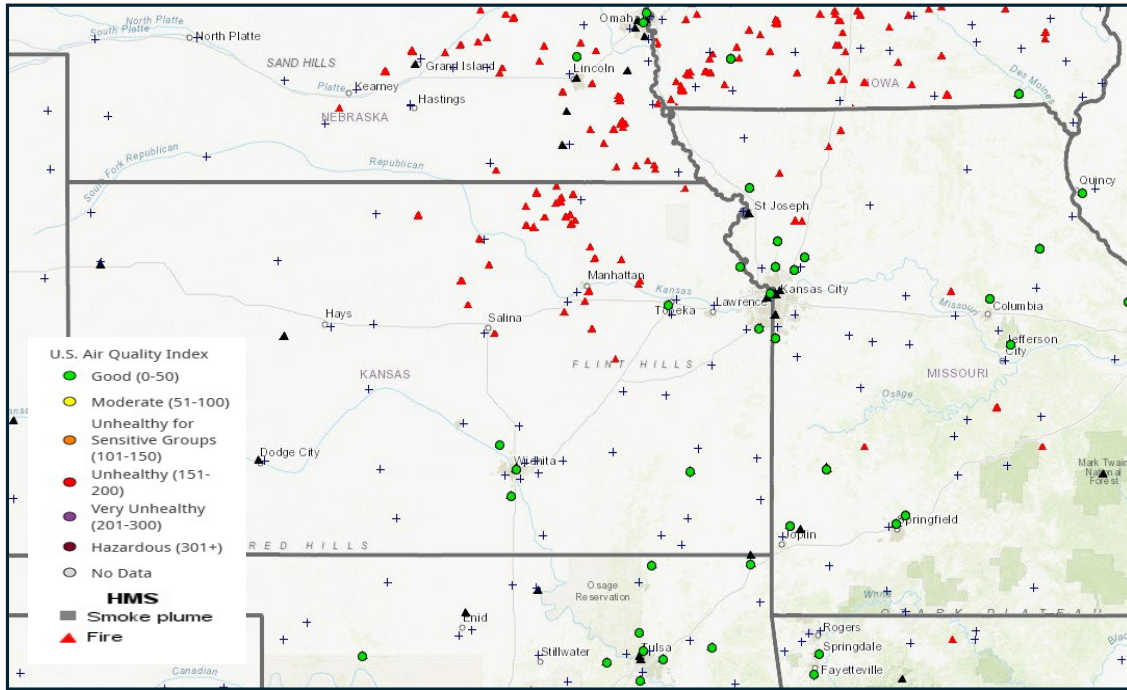
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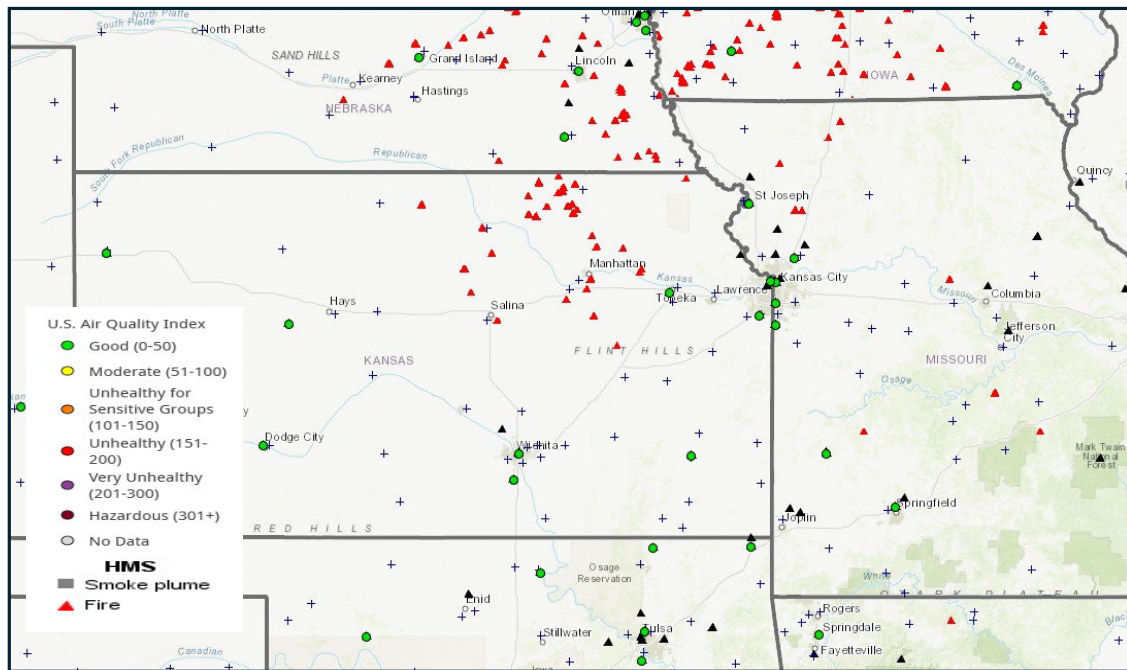
Fire, Smoke and Ozone Air Quality Index April 3, 2025



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_{2.5} Air Quality Index April 3, 2025

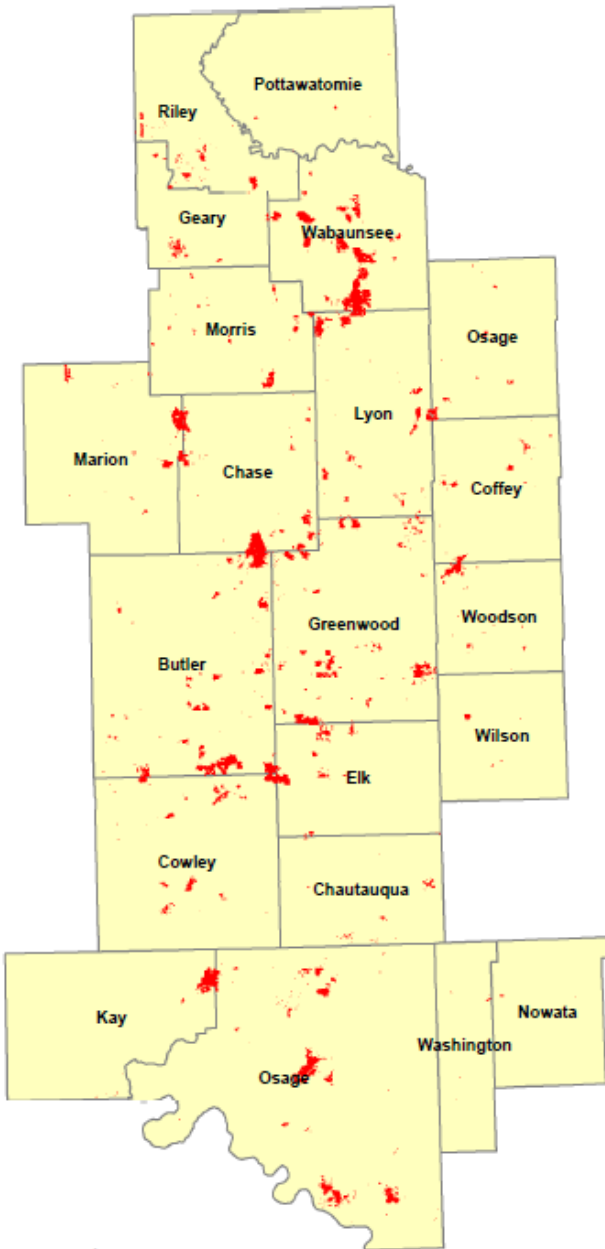


Map: Douglas Watson, KDHE Bureau of Air

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



Flint Hills Acreage Burned (March 5 – March 30, 2025)



<u>Counties</u>	<u>Acres Burned</u>	
Butler	31,429	
Chase	15,429	
Chautauqua	2,116	
Coffey	3,877	
Cowley	9,946	
Elk	8,155	
Geary	3,537	
Greenwood	24,325	
Lyon	15,181	
Marion	8,124	
Morris	5,931	
Osage (KS)	2,656	
Pottawatomie	340	
Riley	5,992	
Wabaunsee	32,587	
Wilson	880	
Woodson	4,340	
Nowata (OK)	170	
Osage (OK)	26,240	
Washington (OK)	247	
Kay (OK)	6,425	
Total	207,927	
* Denotes county was partly or completely covered by clouds during latest analysis.		



Upcoming Look at Fires and Smoke

Cloudy skies and rain showers will be the rule on Friday across the Flint Hills. Winds will remain out of the northeast at 10-15 mph with gust to 25 mph. These conditions will limit any prescribed fires today.

North winds at 15-25 mph with gust to 30 mph are expected through the day Saturday with rain showers again possible. Again, prescribed fire activity and associated smoke will be very limited.

Clearing skies and cold conditions are likely on Sunday morning with temperature around freezing. Sunny skies in the afternoon and highs in the low to mid-50s could lead to an increase in prescribed fire. Amount of fire will depend on how much rain occurs on Friday and Saturday and how quickly the grasses dry out.

Monday may see a significant increase in fire activity across the area with sunny skies and lighter variable winds at 5-10 mph. This activity would lead to increased smoke plumes throughout the Flint Hills, but smoke would remain fairly stagnant near the fire source with those light winds. Highs in the low 60s.

Warmer temperatures begin to return on Tuesday and Wednesday. Winds increase slightly on Tuesday from the south-southeast at 10-15 mph. High will be in the mid-60s on Tuesday, mid-70s by Wednesday. Prescribed fire activity could be active both days even with increasing winds.

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](https://ksfire.org). Conditions are most favorable when each parameter has a colored boxplot displayed.

For more information, contact:

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