

# Flint Hills Wildland Fire Update

April 11, 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/>

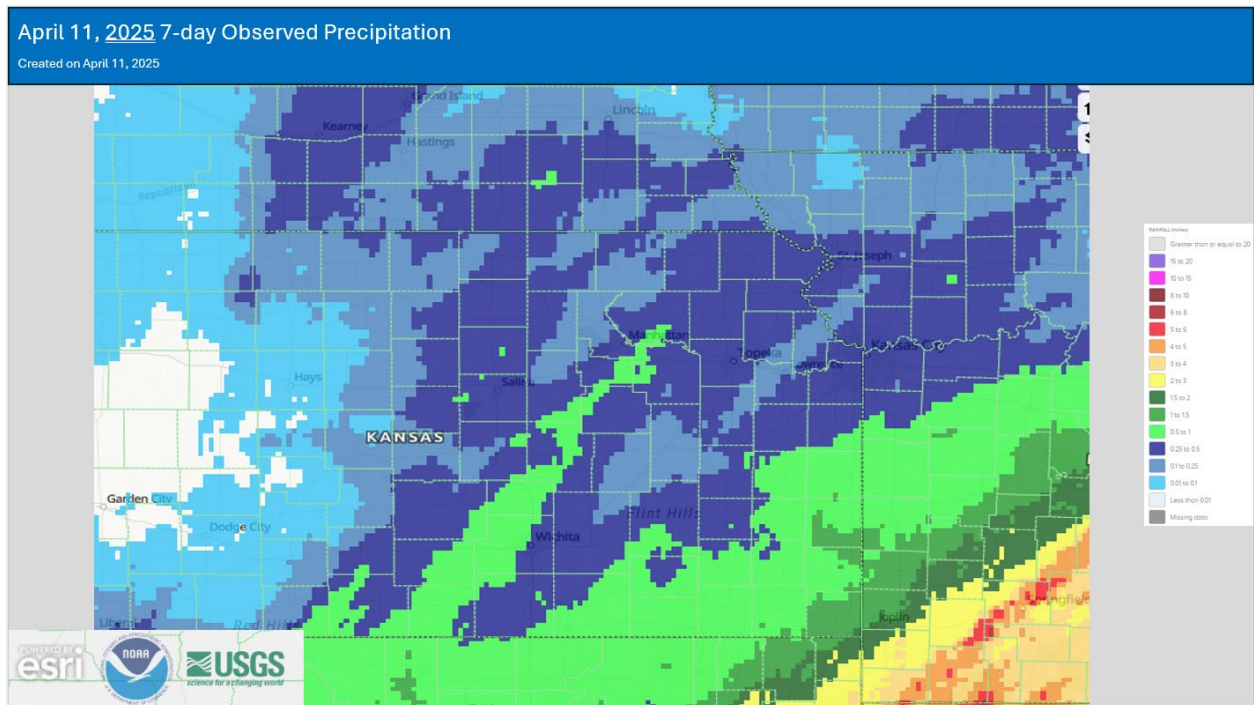
...

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-40s, cloudy skies and light rain were observed last Friday (April 4) across the region. Light winds from the east-northeast (5-10 mph) in the morning increased to 10-20 mph from the north by afternoon. Very chilly temperatures in the low to mid 40s continued Saturday (April 5). Winds were strong from the north at 15-25 mph with gusts to 35 mph. Mostly sunny skies with light north-northeast winds of 5-15 mph and temperatures in the mid-50s were the rule on Sunday (April 6). Sunny skies dominated on Monday (April 7) with temperatures again climbing into the mid-50s with light northwesterly, then north winds (10-20 mph). Tuesday (April 8) saw increasing winds from the southeast throughout the day (10-20 mph) and temperatures reaching the lower-60s. Wednesday (April 9) early morning winds were from the south-southwest at 10-20 mph before shifting to the north-northwest at 10-20 mph by late morning. Temperatures were mainly in the mid-70s. Slightly cooler temperatures under partly cloudy skies returned on Thursday (April 10) with highs in the upper-60s. Winds were light from the northwest early before increasing by late morning at 15-25 mph and gusty. Most areas of eastern Kansas received precipitation (.25 inch – 0.75 inch) over the last week. Far southeastern Kansas received up to 1 inch.

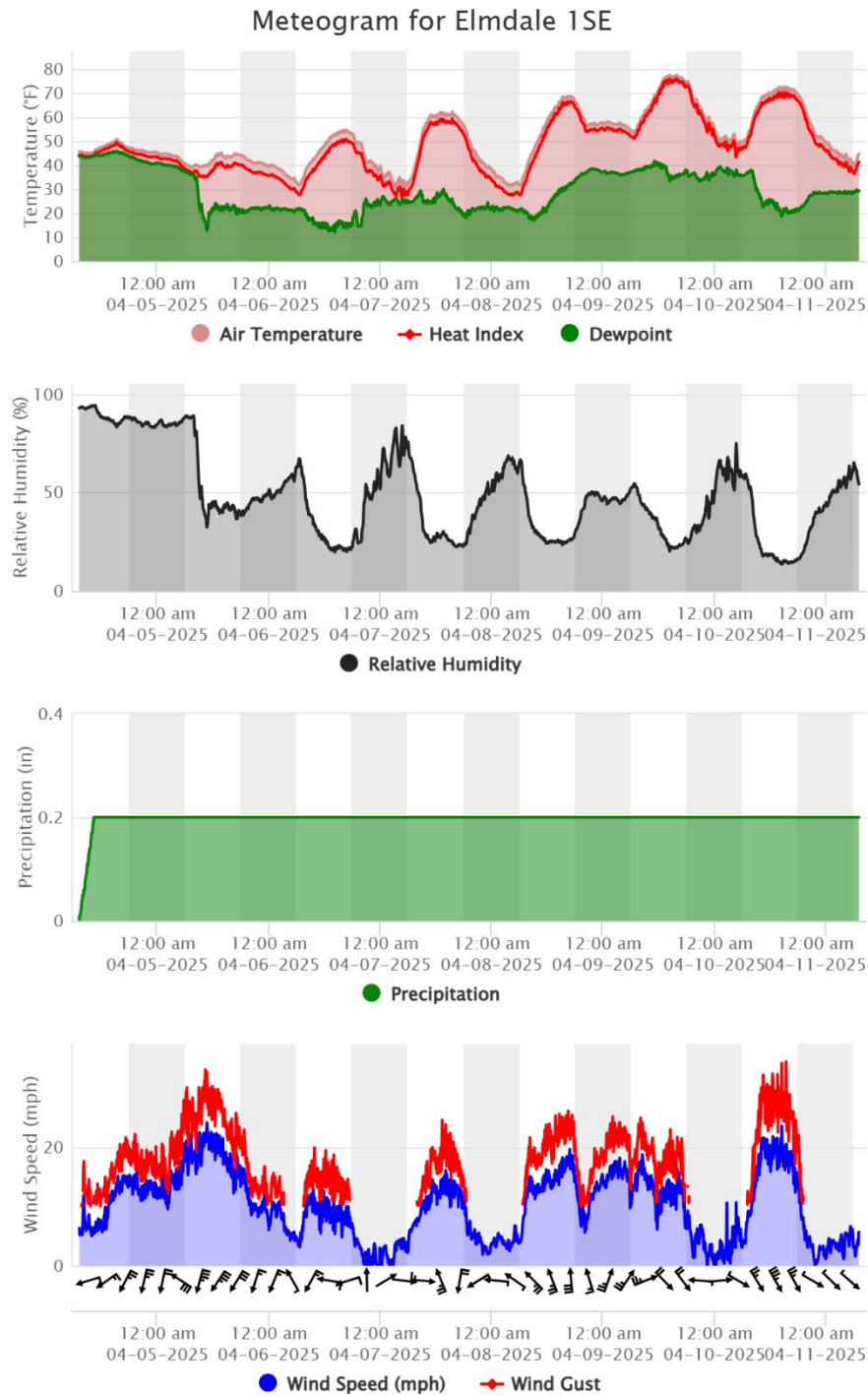
## Precipitation



NOAA/NWS Observed Total Precip. for April 4-April 11, 2025.

## Flint Hills Wildland Fire Update

• • •



7-day (April 4-April 11, 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 April 4 – April 10, 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<sub>2.5</sub>:** Preliminary data indicates no exceedances of the NAAQS daily 24-hour average maximum of 35 µg/m<sup>3</sup>.

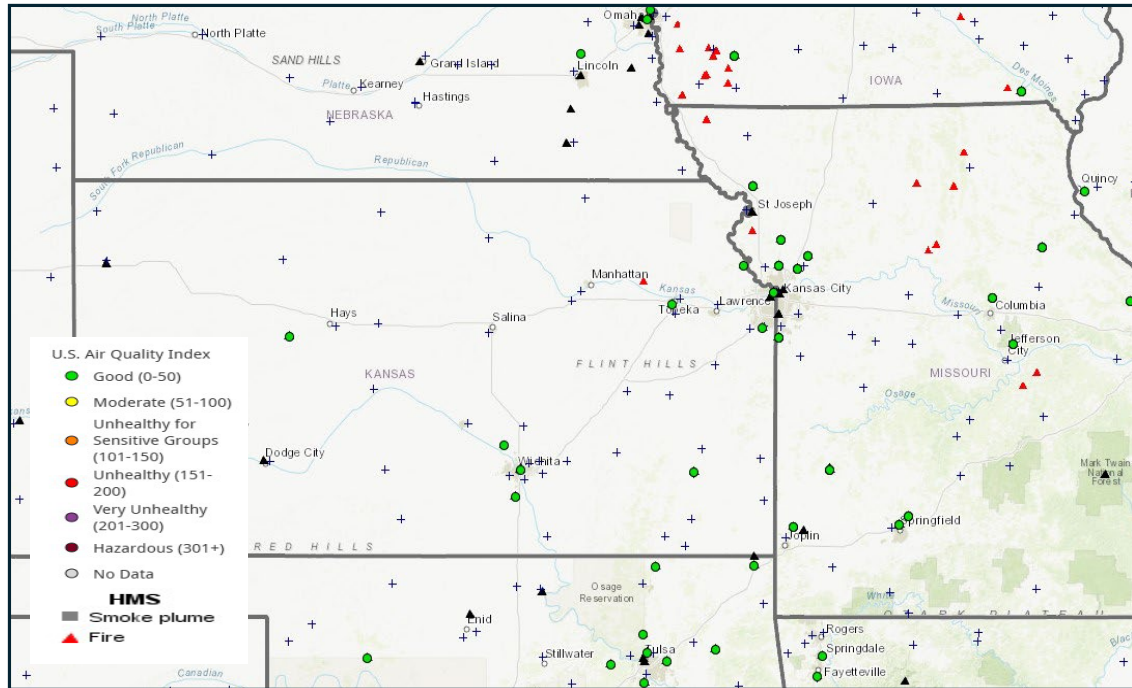
Prescribed fire activity was almost non-existent on Friday (April 4) across Kansas with a few fires scattered over Iowa and Missouri and no smoke plumes were observed over the area. No smoke plumes were visible on Saturday (April 5). Prescribed fire activity was unobserved across the region. Lighter winds led to a tremendous increase in prescribed fire activity across the area on Sunday (April 6), large smoke plumes were observed over northern Oklahoma, all eastern Kansas and extending into eastern Nebraska, northwest Missouri and Iowa. On Monday (April 7), prescribed fire activity continued, especially in the Flint Hills. Elevated PM and Ozone AQI values were noted in most areas, with smoke covering a large area of the Midwest. On Tuesday (April 8), prescribed fires continued across the area, including the Flint Hills. Ozone and PM AQI values remained elevated as the smoke from Monday's and Tuesday's fires were transported westward, then northward. Prescribed fire activity was again observed on Wednesday (April 9), especially in the southern Flint Hills. Light smoke was observed over most of Kansas, eastern Nebraska, Missouri and Iowa. Heavier smoke was noted over southeastern Kansas into northern Oklahoma. With partly cloudy skies and stronger northwest winds, prescribed fire activity was lighter across all states in the Midwest on Thursday (April 10). A small area of more concentrated fires could be seen over the southern Flint Hills in Kansas. Three large distinct light smoke plumes were visible over the area, with more individual plumes visible from the fires in the southern Flint Hills. Moderate PM<sub>2.5</sub> AQI values continued in southcentral and southeast Kansas and northern Oklahoma.

*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

• • •

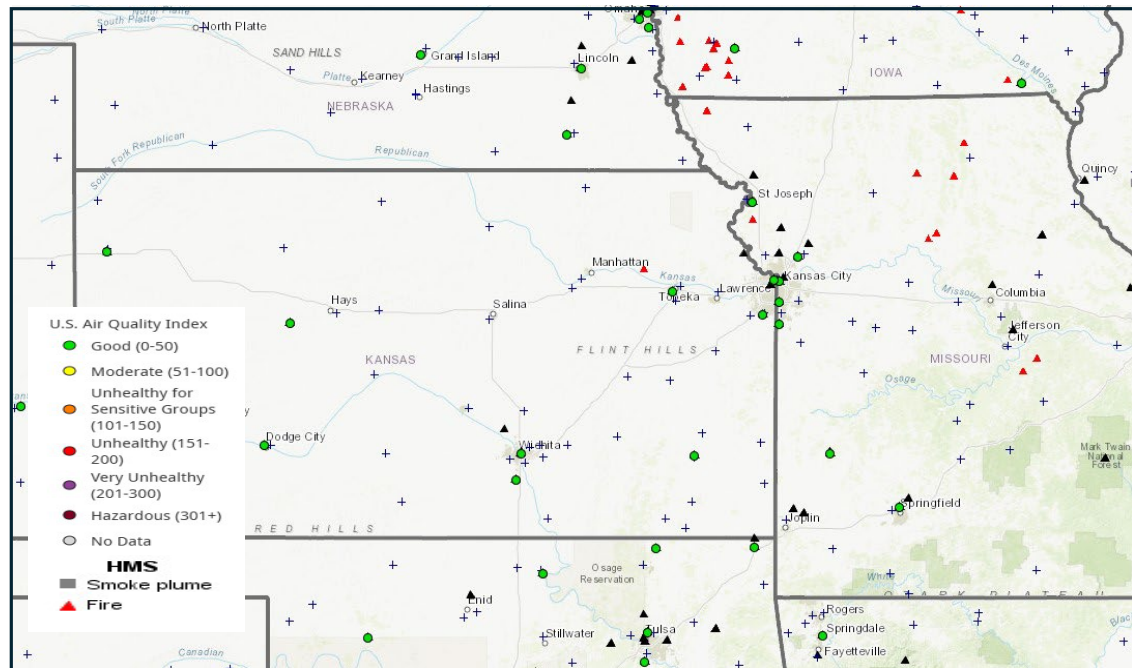
### Fire, Smoke and Ozone Air Quality Index April 4, 2025



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 April 4, 2025



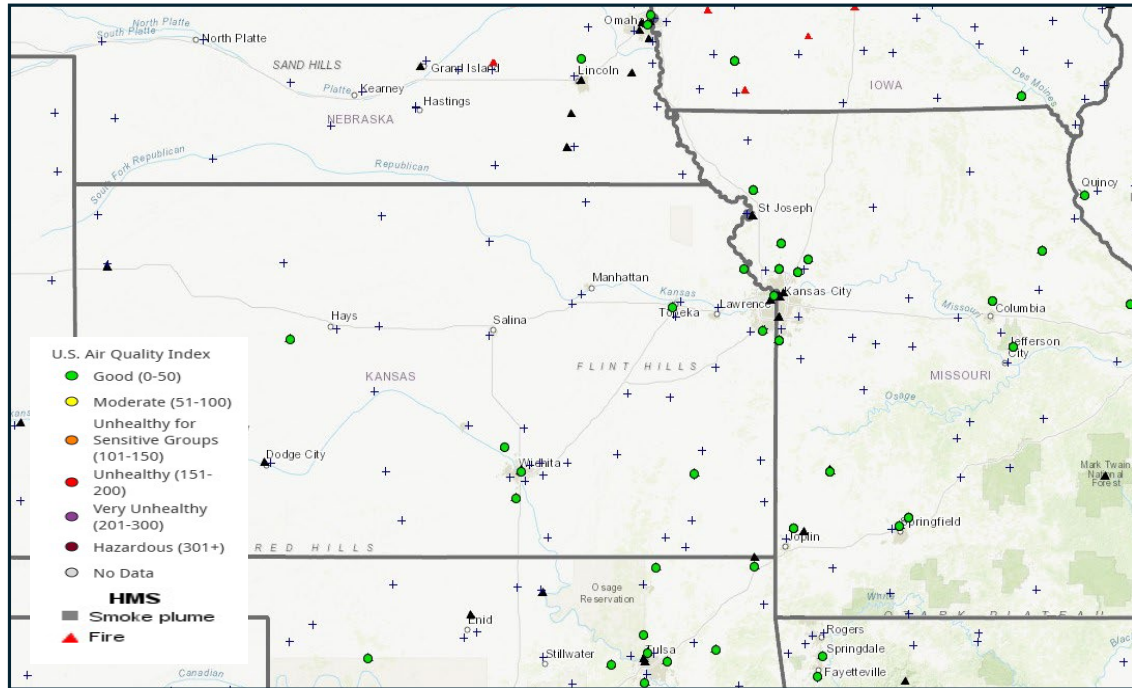
Map: Douglas Watson, KDHE Bureau of Air

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

## Flint Hills Wildland Fire Update

• • •

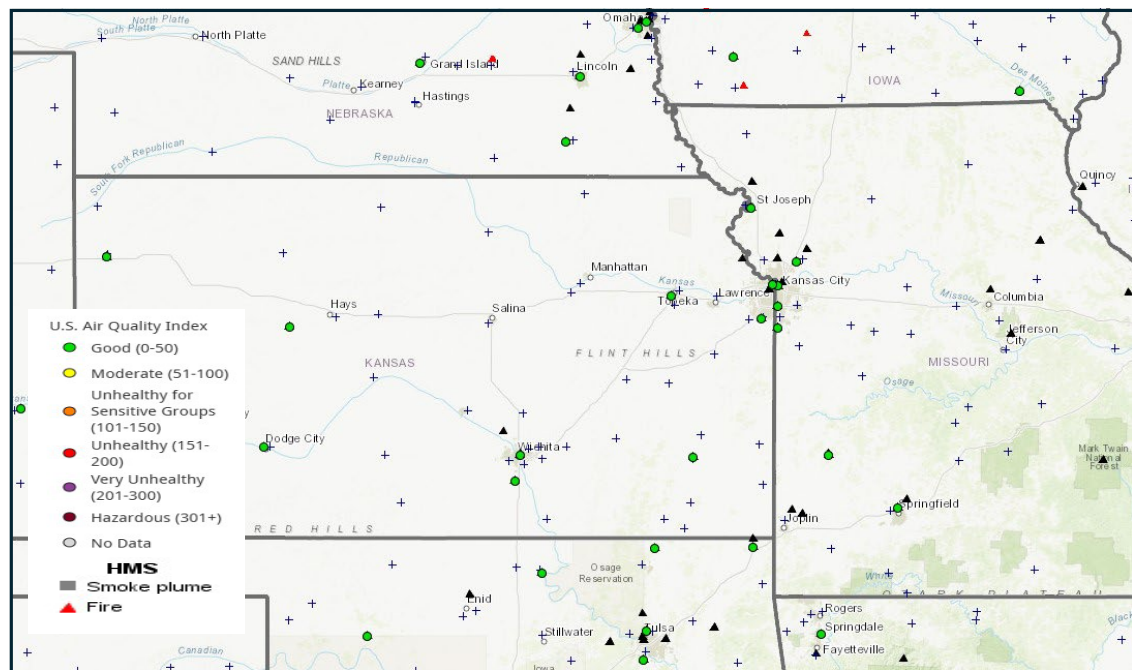
### Fire, Smoke and Ozone Air Quality Index April 5, 2025



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 April 5, 2025



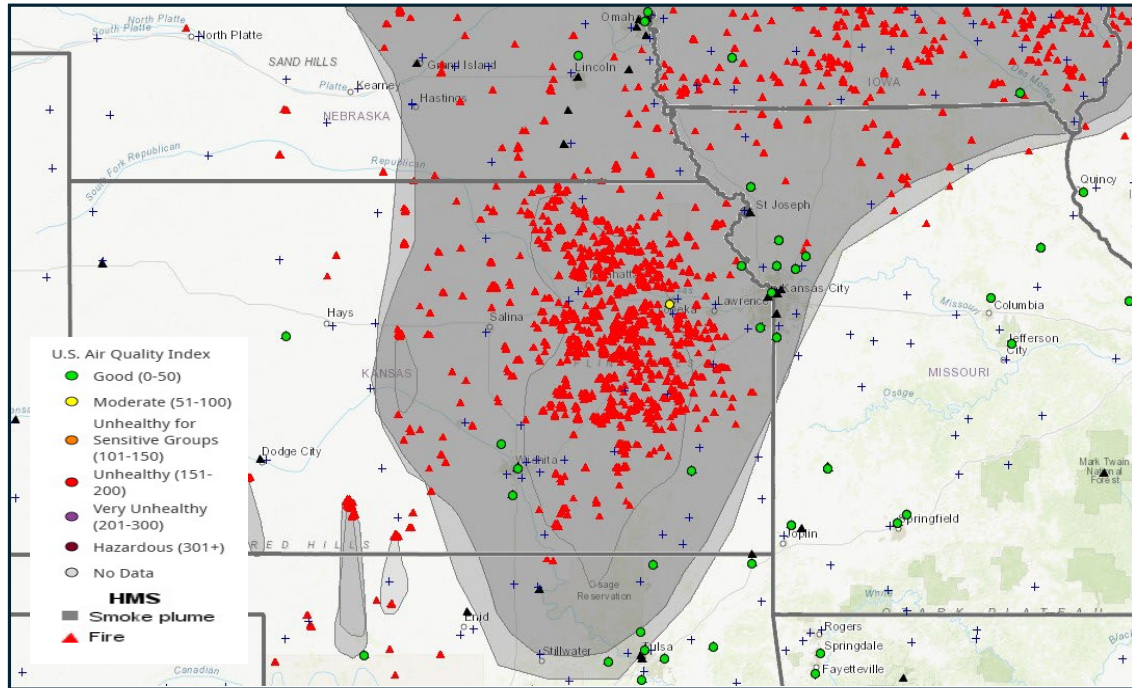
Map: Douglas Watson, KDHE Bureau of Air

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

## Flint Hills Wildland Fire Update

• • •

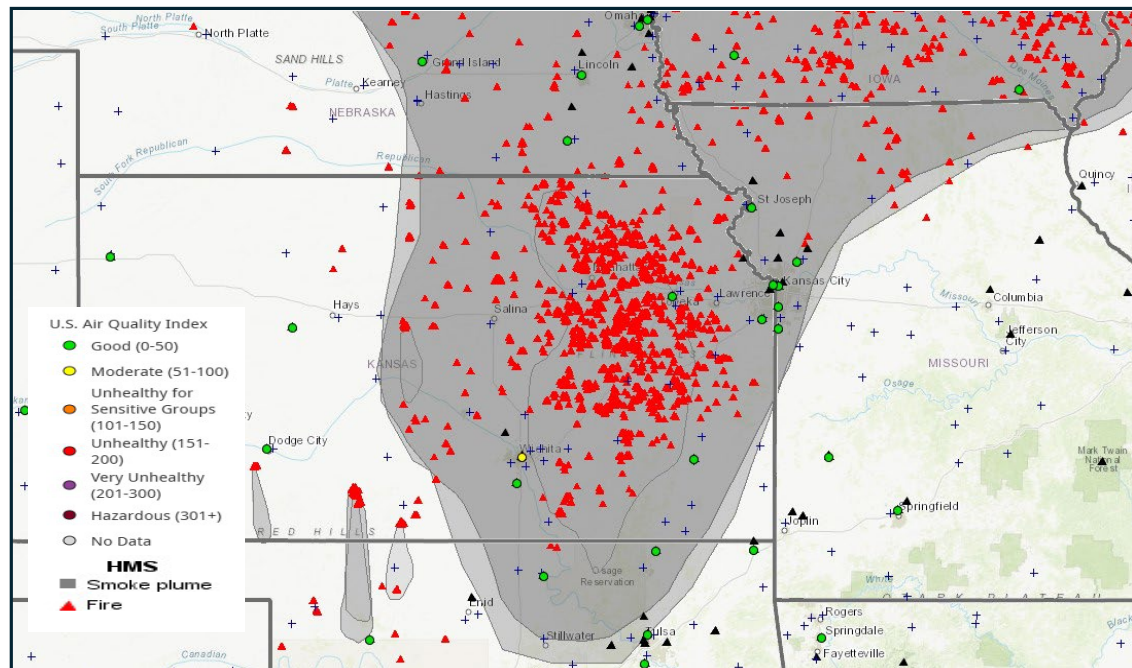
### Fire, Smoke and Ozone Air Quality Index April 6, 2025



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 April 6, 2025



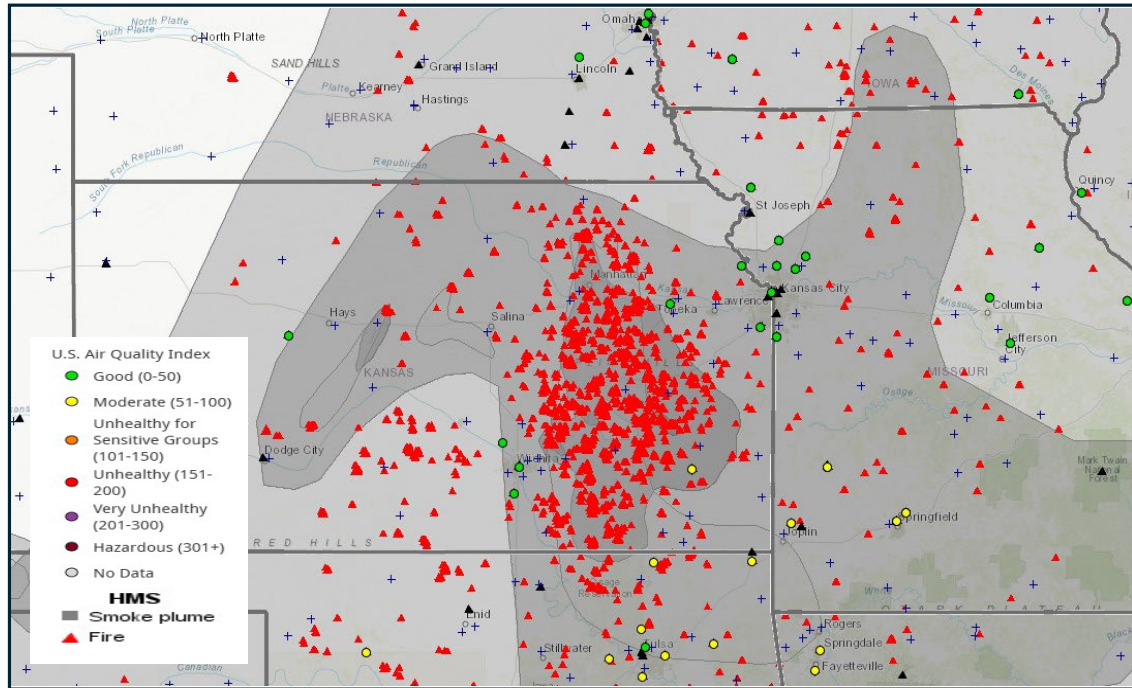
Map: Douglas Watson, KDHE Bureau of Air

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

## Flint Hills Wildland Fire Update

...

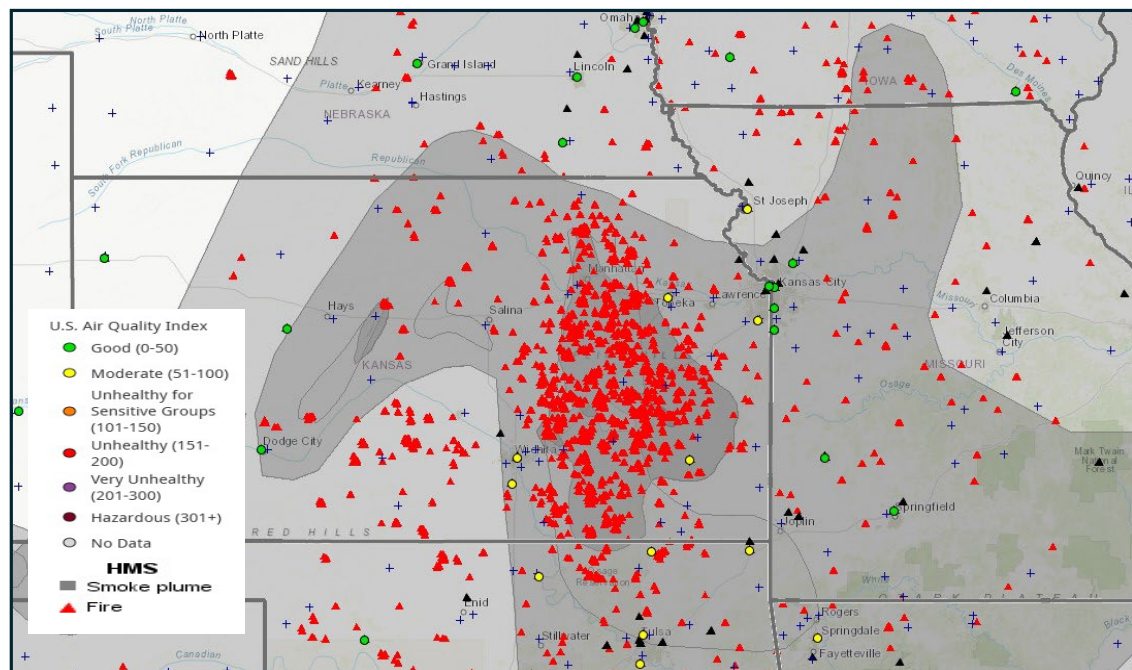
### Fire, Smoke and Ozone Air Quality Index April 7, 2025



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 April 7, 2025



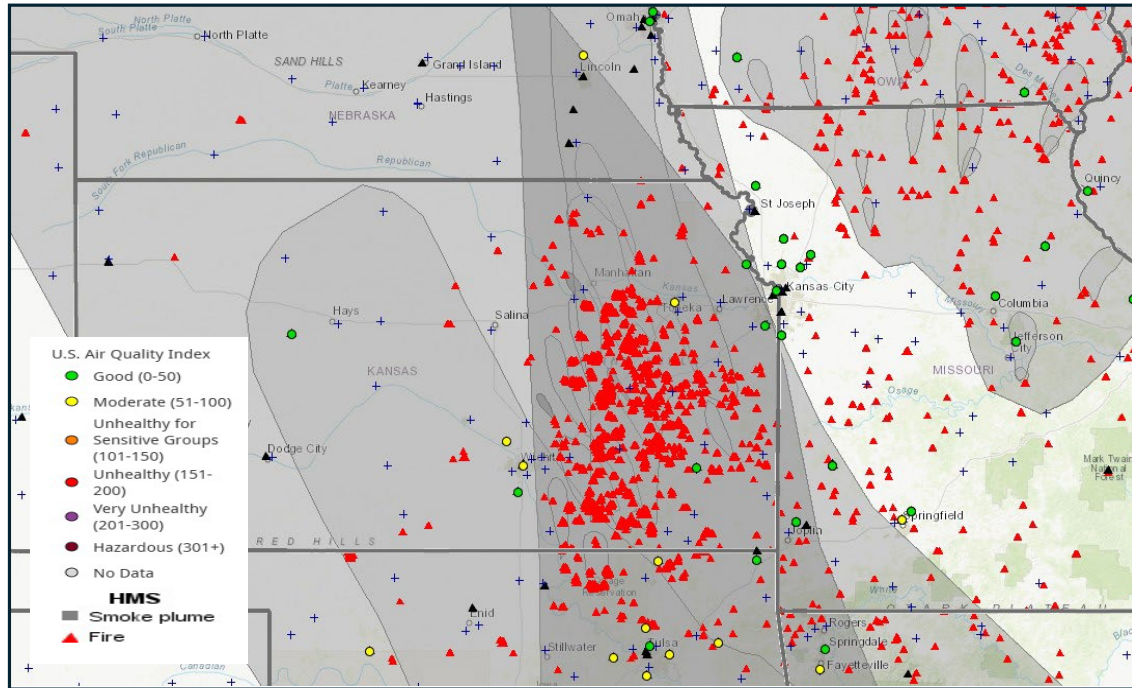
Map: Douglas Watson, KDHE Bureau of Air

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

## Flint Hills Wildland Fire Update

• • •

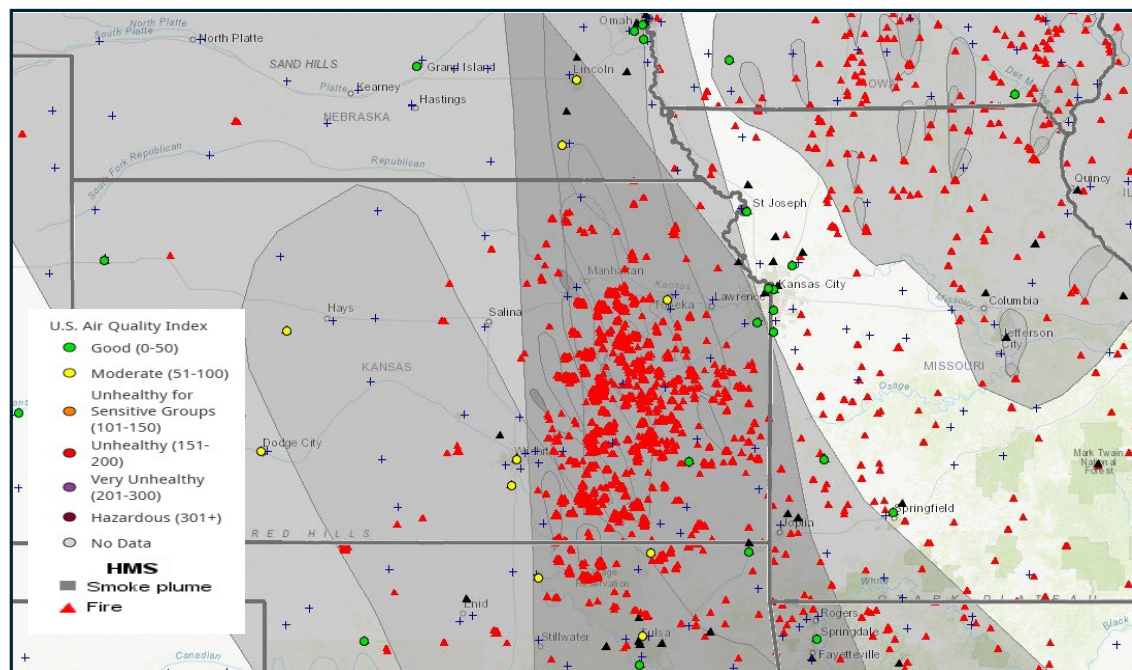
### Fire, Smoke and Ozone Air Quality Index April 8, 2025



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 April 8, 2025



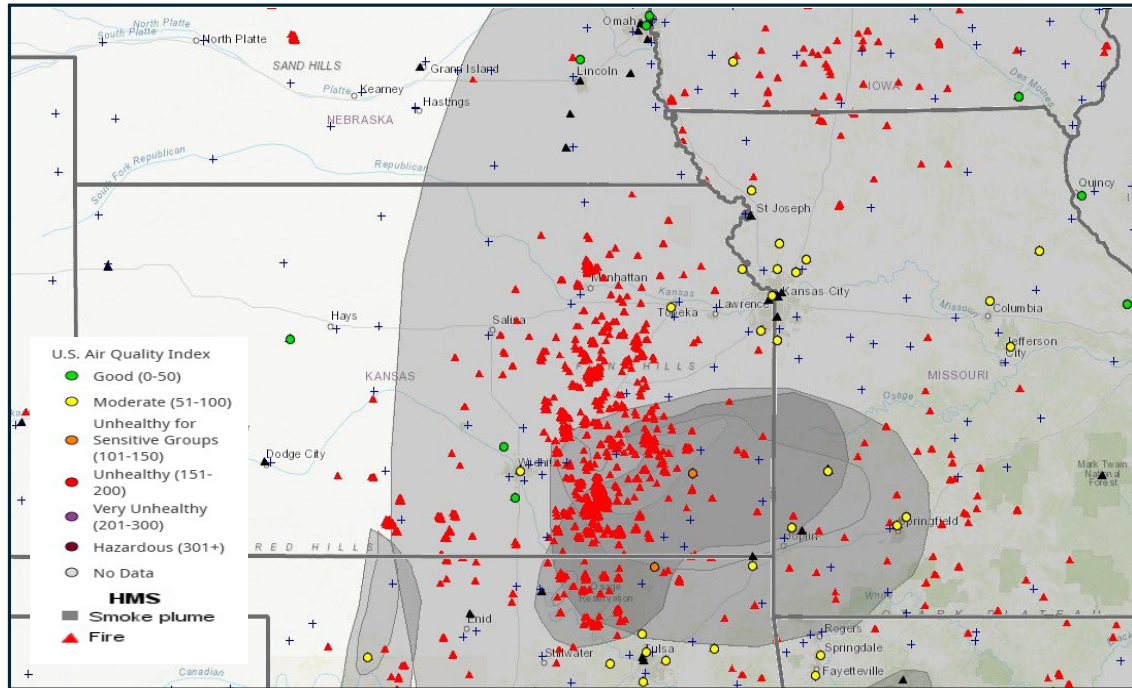
Map: Douglas Watson, KDHE Bureau of Air

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

## Flint Hills Wildland Fire Update

• • •

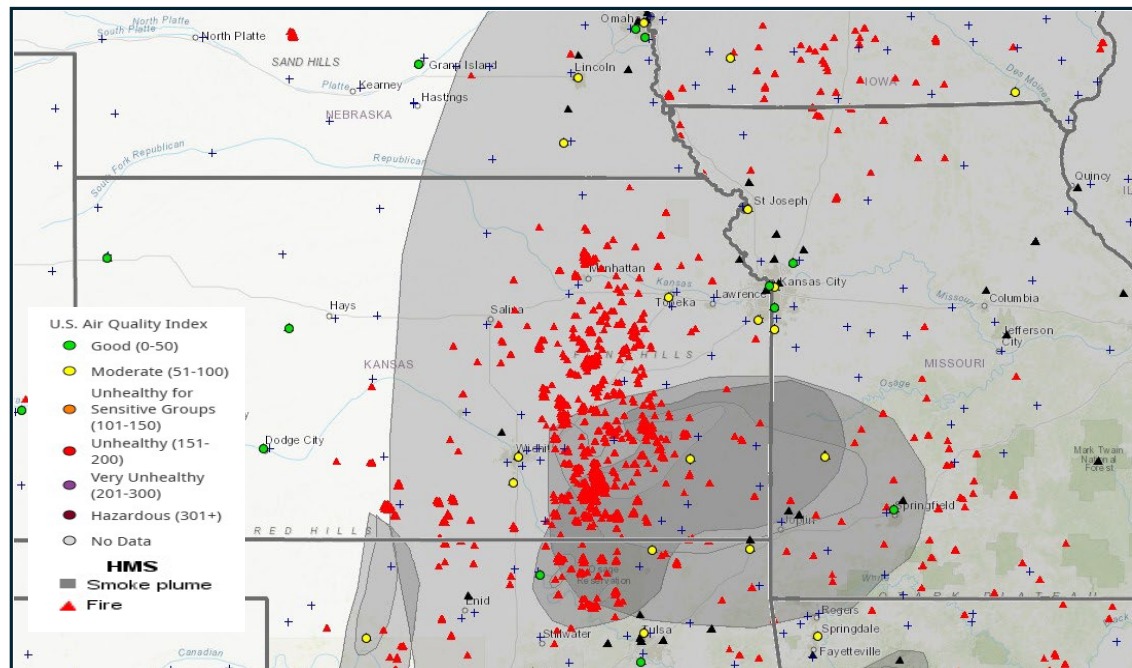
### Fire, Smoke and Ozone Air Quality Index April 9, 2025



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 April 9, 2025



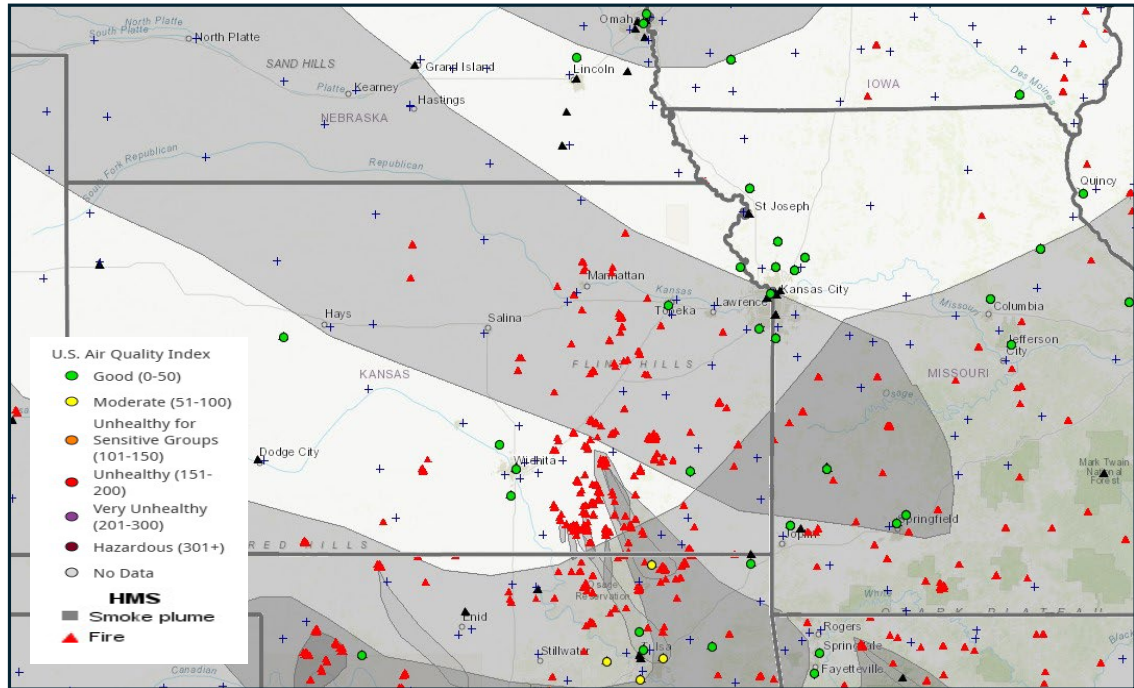
Map: Douglas Watson, KDHE Bureau of Air

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

## Flint Hills Wildland Fire Update

• • •

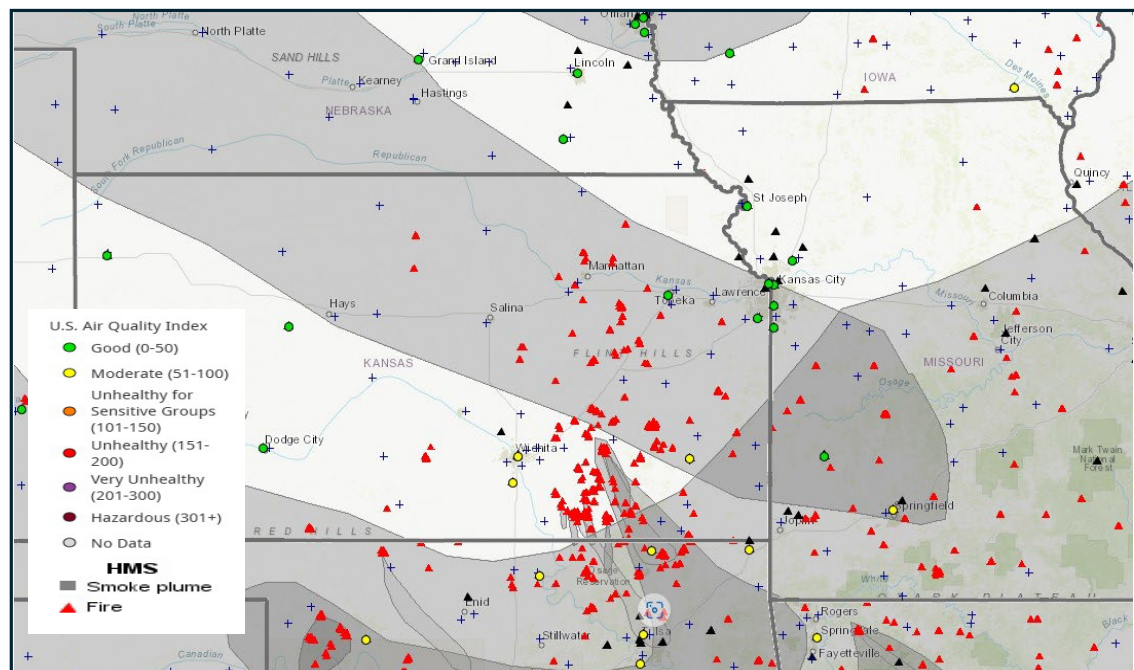
### Fire, Smoke and Ozone Air Quality Index April 10, 2025



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 April 10, 2025



Map: Douglas Watson, KDHE Bureau of Air

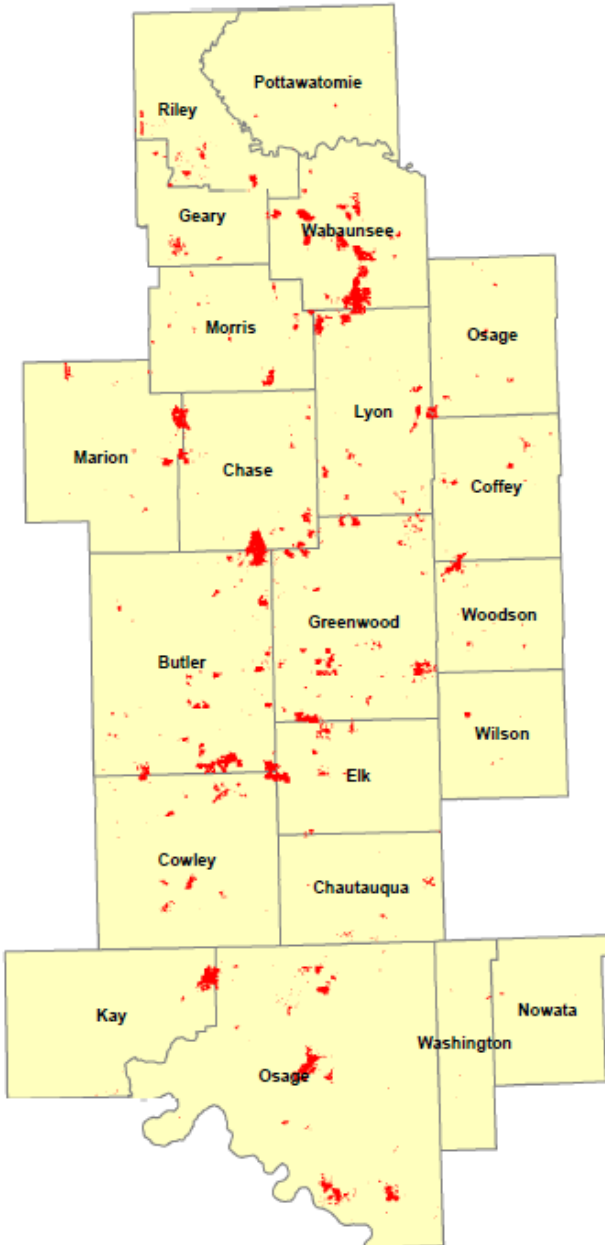
Fire and Smoke Data: NOAA HMS Fire and Smoke Product; Air Quality Data: EPA Air Now

## Flint Hills Wildland Fire Update

...

\*\*\*No updated maps available this week due to maintenance issues at the NOAA website used to download satellite images for the analysis\*\*\*

### 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               |  |
|                                                                                     |                     |  |
| <b>Total</b>                                                                        | <b>207,927</b>      |  |
| * Denotes county was partly or completely covered by clouds during latest analysis. |                     |  |



## Upcoming Look at Fires and Smoke

Sunny skies will be the rule on Friday across the Flint Hills. Winds will remain out of the north at 5-10 mph for most of the day before shifting to the northeast-east in the evening. These conditions will allow for increased prescribed fires activity today.

Winds will shift to the southeast, then south at 15-25 mph with gust to 40 mph through the day Saturday. Highs will be in the upper 70s. Prescribed fire activity may be less with these increasing winds, but any smoke generated from Friday's activity will be pushed back northward into Nebraska.

Sunny skies and very warm temperatures will continue Sunday with afternoon highs in the mid-80s and breezy conditions. Winds will be out of the south-southwest at 15-25 mph with gusts to 30 mph before switching to the west-northwest in the afternoon. These conditions may limit fire activity.

Monday will see much cooler temperatures in the 60s with north winds of 10-20 mph with gusts to 30 mph. This may limit prescribed fire activity in general although there could be scattered fires across the area.

Warmer temperatures begin to return on Tuesday and Wednesday. Winds will be light on Tuesday from the northeast early, then switching back to the south by early evening. Prescribed fire activity could again pick up with light winds on Tuesday. Chances of precipitation, including thunderstorms, increase on Wednesday which may inhibit fire activity. Highs will be in the low-70s on Tuesday, mid-70s by Wednesday.

### 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:

**Douglas Watson**

Director, Bureau of Air

Kansas Department of Health & Environment

785-296-0910

[Douglas.Watson@ks.gov](mailto:Douglas.Watson@ks.gov)