

Flint Hills Prescribed Fire Update

May 1, 2020

The following information on the Flint Hills prescribed fires will be sent weekly to keep stakeholders up to date on fires and related smoke.





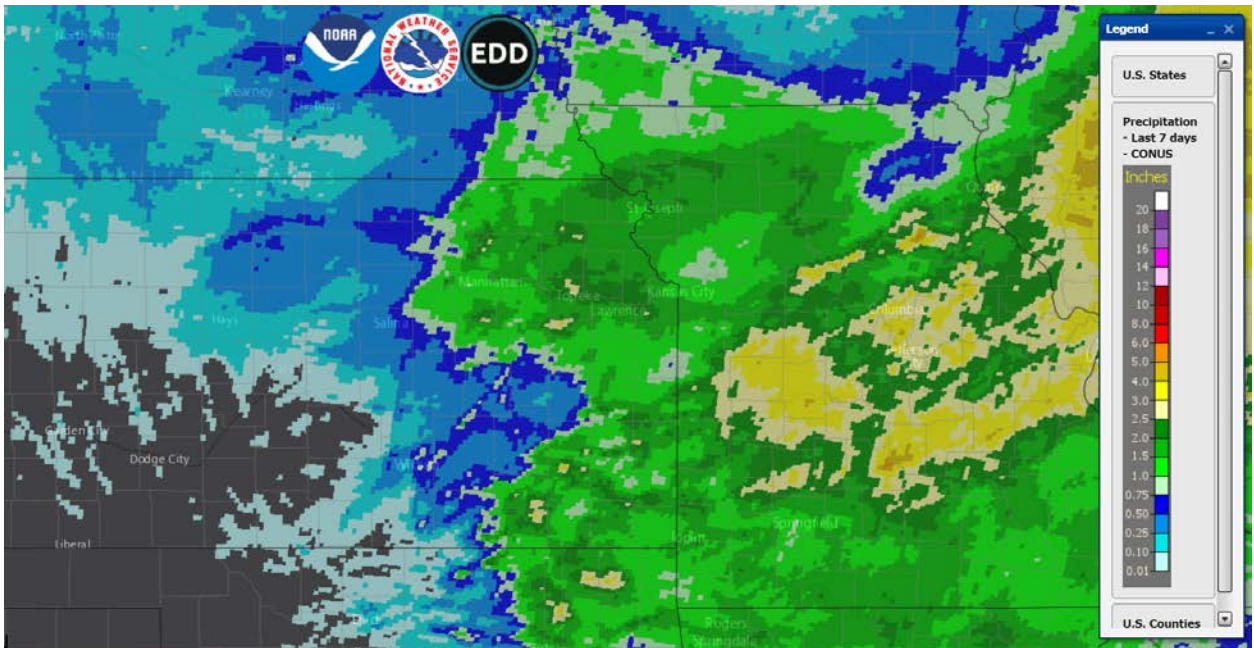
Meteorology

Normal to above normal temperatures were seen throughout the last week within the Flint Hills. Last Friday (April 24) was the coolest day with highs only in the 60s to low 70s with cloudy skies and scattered showers and thunderstorms. Temperatures steadily rose over the weekend with highs on Monday (April 27) and Tuesday (April 28) reaching into the mid 70s to lower 80s. Showers or thunderstorms occurred each day in some part(s) of the Flint Hills each day up until Wednesday (April 29).

Temperatures were a bit cooler on Wednesday behind a cold front, but still seasonable with highs in the 60s. Back on the warming trend to end the work week with highs on Thursday (April 30) in the 70s and forecast highs today (May 1) in the 80s for most.

Winds began out of the south last Friday before switching to the north and becoming breezy with gusts near 35 mph. The north winds continued Saturday, gusting to 25 mph initially, but then calmed by the afternoon. Sunday saw south winds at 15 mph or less across the region; Monday continued south winds but saw gusts near 35 mph ahead of the next storm system. Tuesday brought the next cold front which meant another wind shift back to the north with gusts up to 35 mph. Wednesday was the windiest day of the week with northwest winds gusting up to 40-50 mph across the Flint Hills. Thursday winds gradually shifted back to the southeast and remained 5-15 mph.

Precipitation



NOAA/NWS Observed Total Precipitation for April 24-30, 2020.



Air Quality Data

Air quality data for the period of April 24-30, 2020:

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

Preliminary data shows an ozone exceedance in Kansas City, KS on April 26, 2020. However, the data for this day and surrounding days does not appear to pass initial quality assurance and may not be validated due to monitor abnormalities.

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

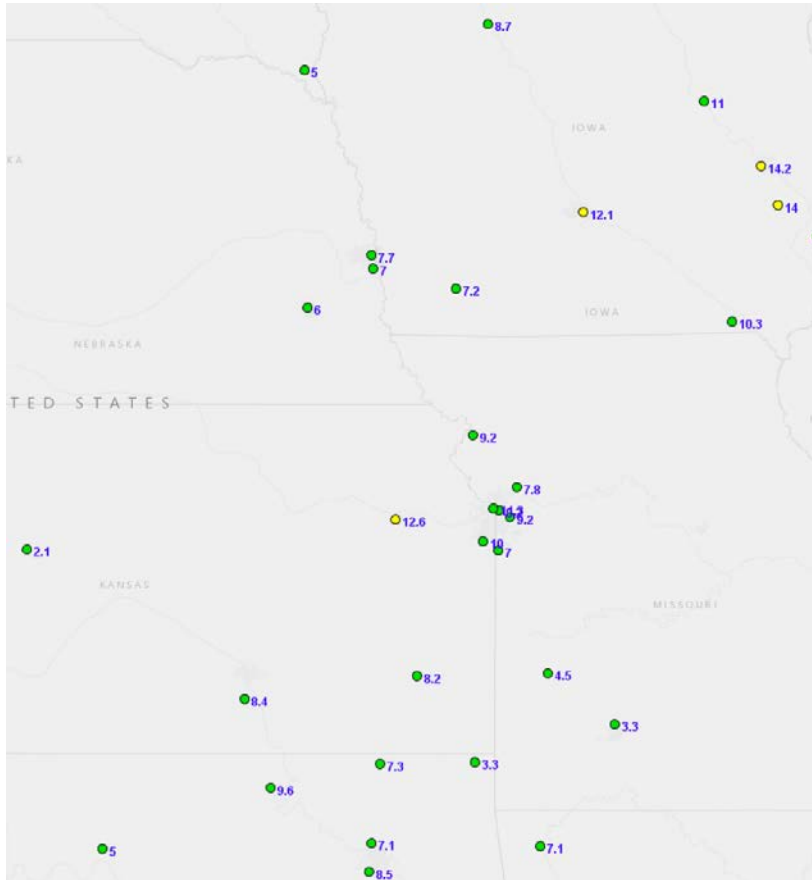
Air quality images on the following pages for each day show preliminary data, courtesy Air Now Tech.

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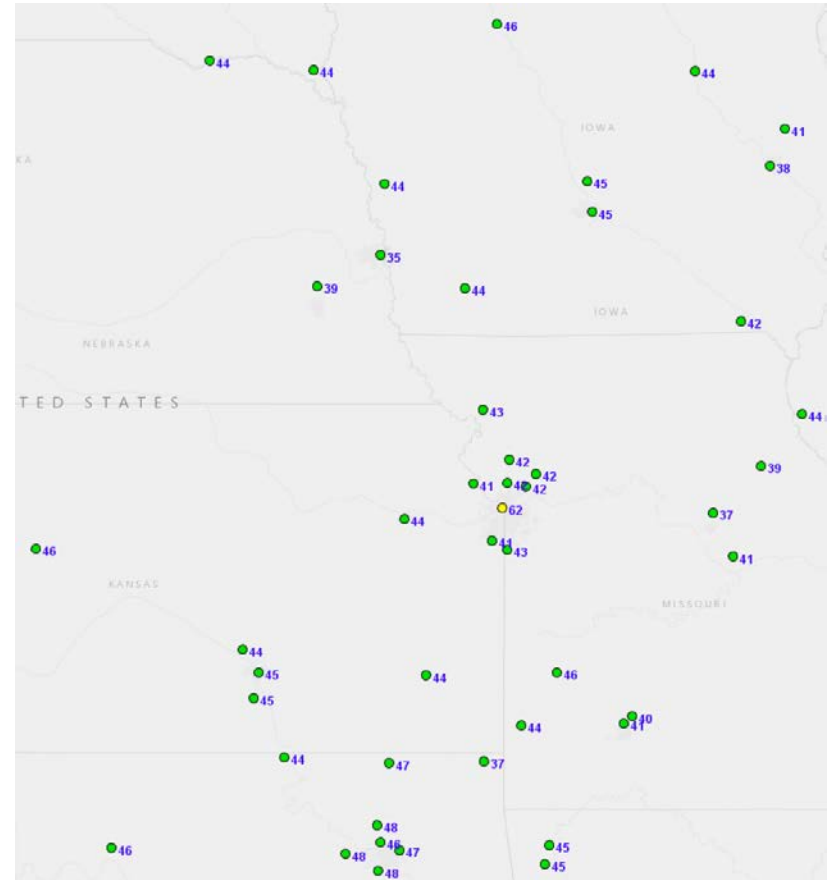


Saturday, April 25, 2020

PM2.5 (24-hour average)



Ozone (8-hour average maximum)

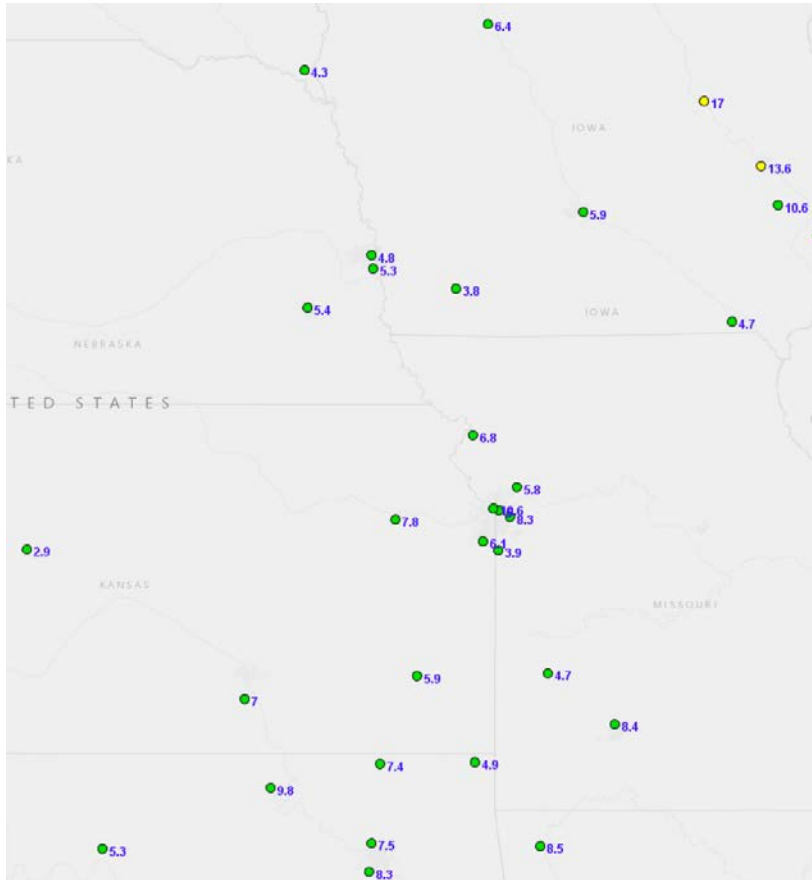


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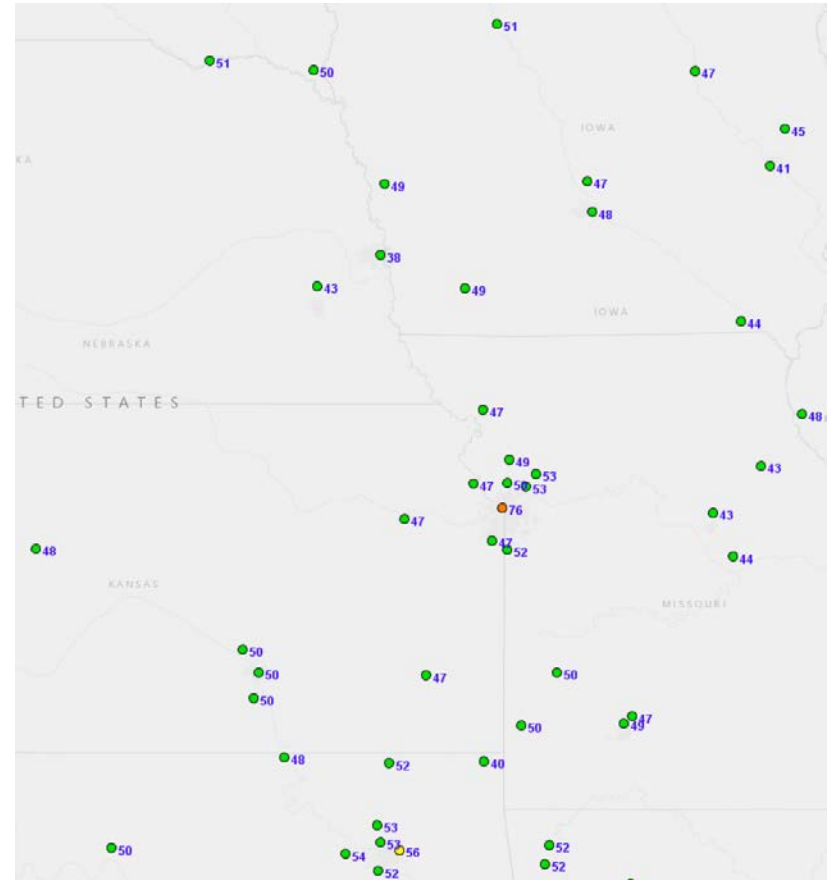


Sunday, April 26, 2020

PM2.5 (24-hour average)



Ozone (8-hour average maximum)

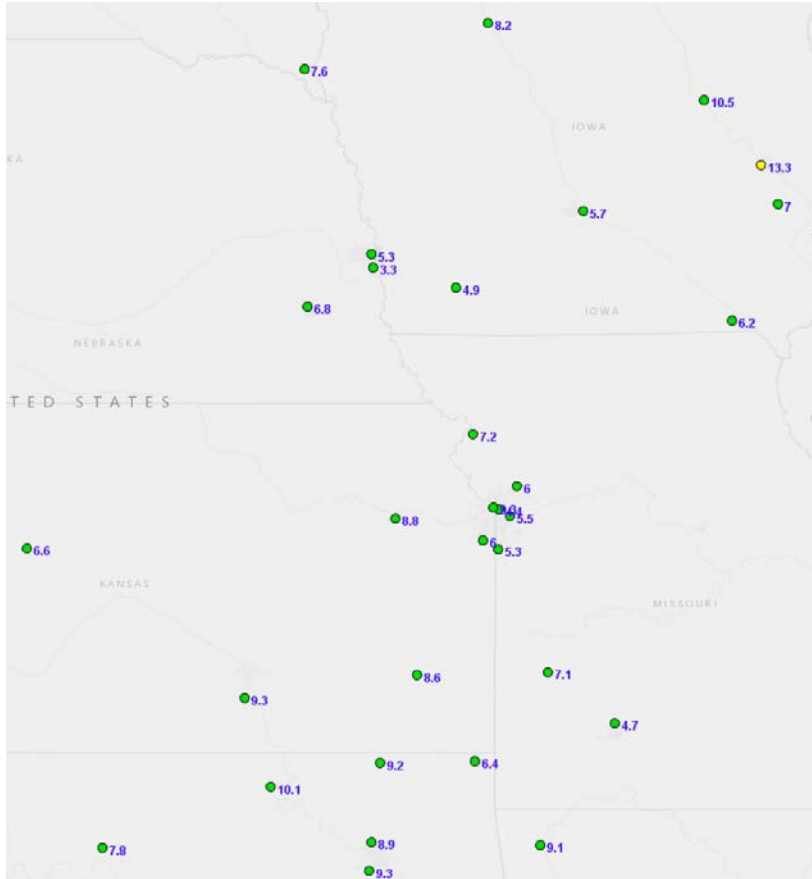


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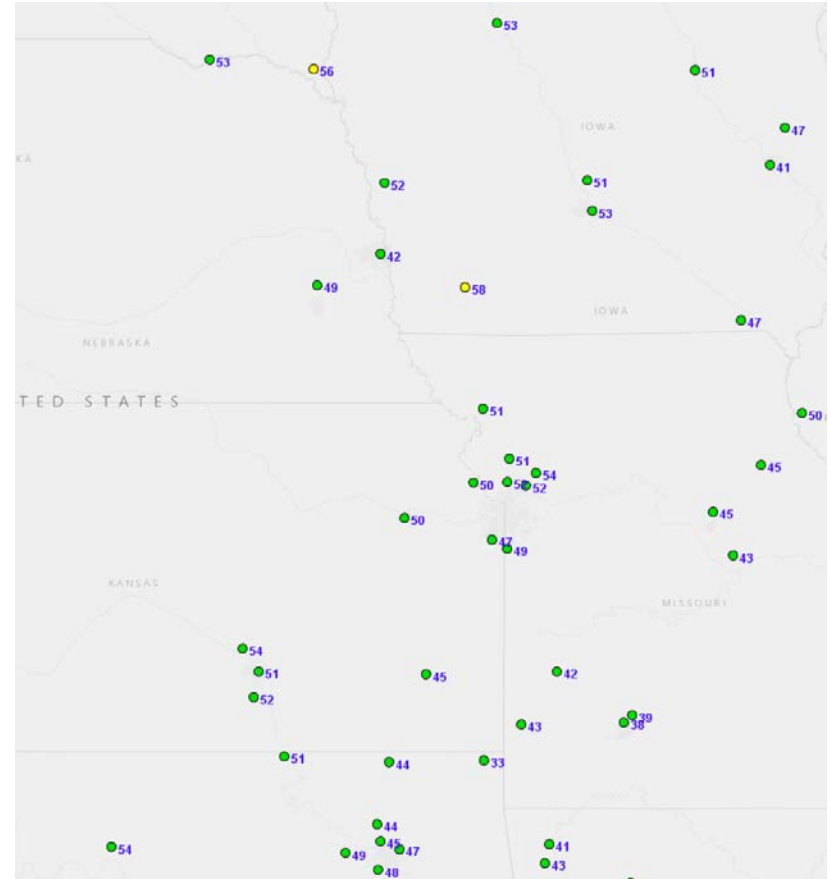


Monday, April 27, 2020

PM2.5 (24-hour average)



Ozone (8-hour average maximum)

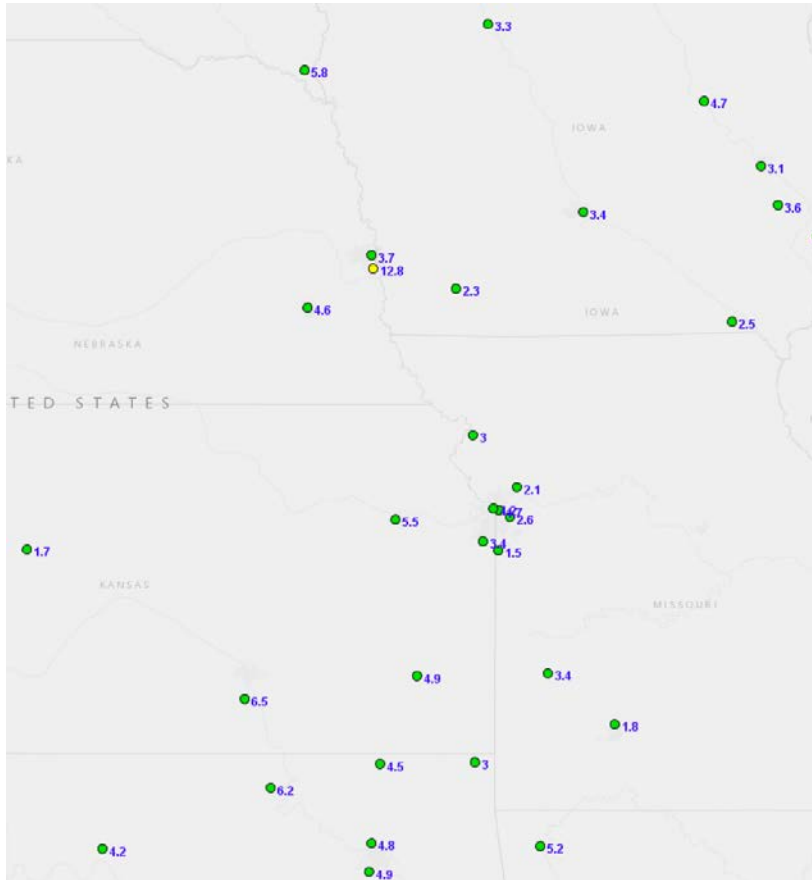


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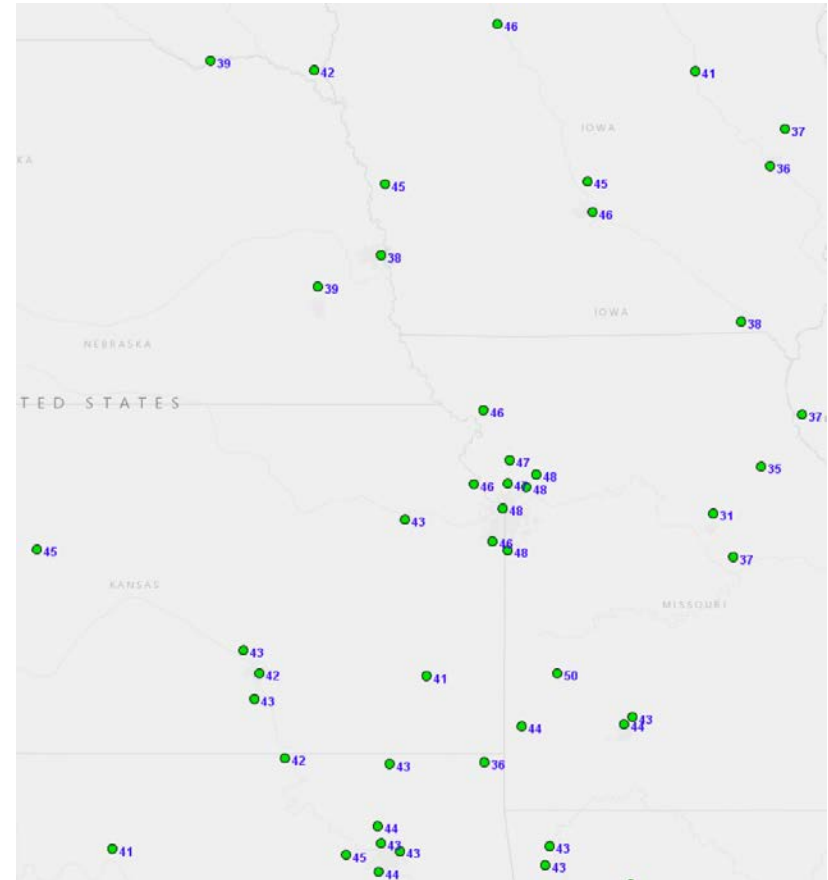


Wednesday, April 29, 2020

PM2.5 (24-hour average)



Ozone (8-hour average maximum)

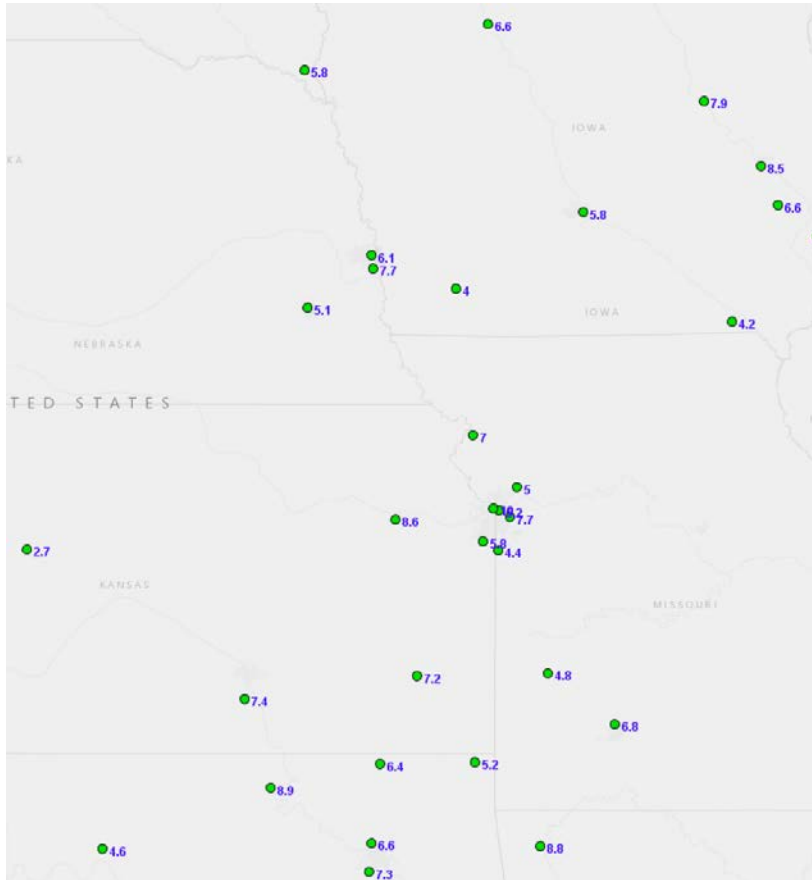


Flint Hills Prescribed Fire Update

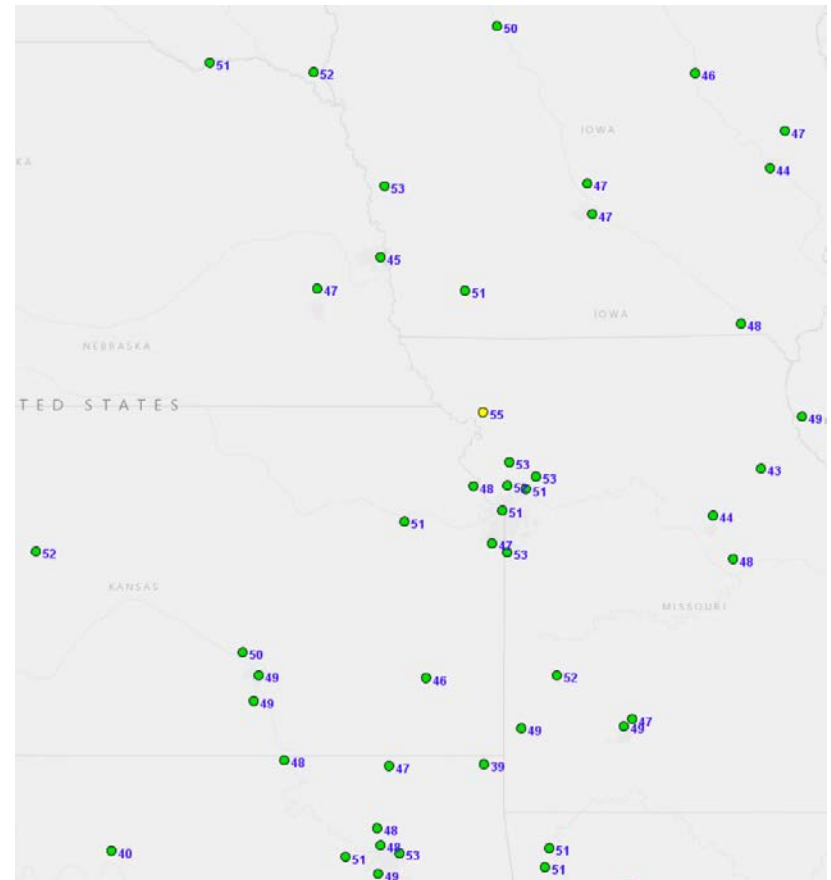


Thursday, April 30, 2020

PM2.5 (24-hour average)



Ozone (8-hour average maximum)





Fires and Smoke

The combination of periodic showers and thunderstorms, breezy conditions, and otherwise strong green-up across the Flint Hills region led to minimal prescribed burning activity throughout the week. Even days when lighter winds and clear skies occurred prescribed fire activity was well below levels seen in prior weeks. The precipitation this past week with warm temperatures has likely increased the pace for green growth throughout the region, and thus expect prescribed fire activity to continue to wane.

Localized impacts due to smoke were the primary concern over the prior week and some of those impacts were observed at the Topeka, KS monitor on Saturday (April 25) where a nearby fire caused brief increase in particulate matter. Expect these localized impacts to continue whenever a fire does occur, however due to the decrease in overall activity any regional air quality impacts will likely be negligible or non-existent.

This will be the final routine weekly update for 2020, however a final 2020 summary will be provided in the coming week(s) after final burn acreage analysis is completed.

KSFIRE.ORG

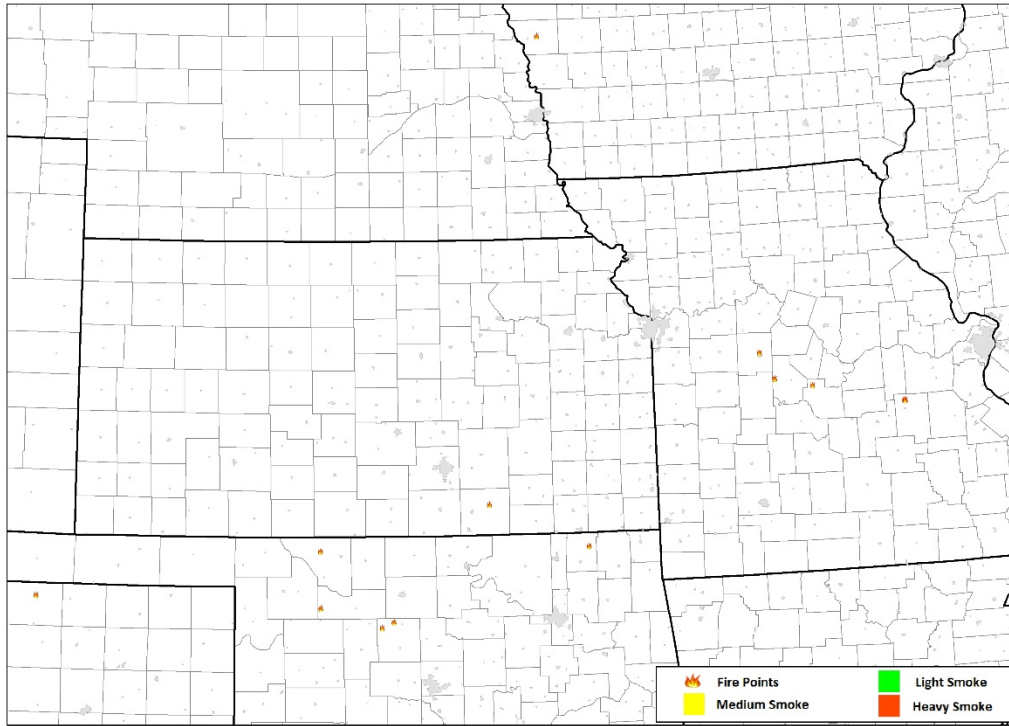


This website was developed as part of the development of the Kansas Flint Hills Smoke Management Plan. Kansas State University hosts the webpage and it includes important information for ranchers and others who might be interested in the Flint Hills. It provides training, regulations, policies, publications,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

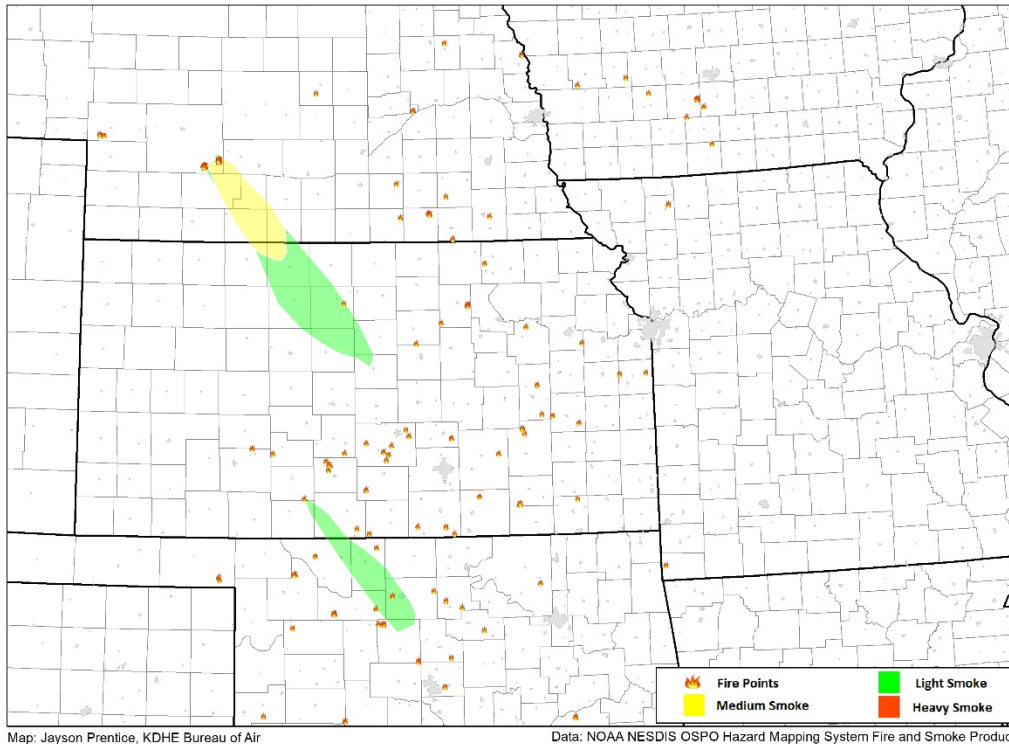
Flint Hills Prescribed Fire Update



HMS Fire & Smoke Analysis April 24, 2020



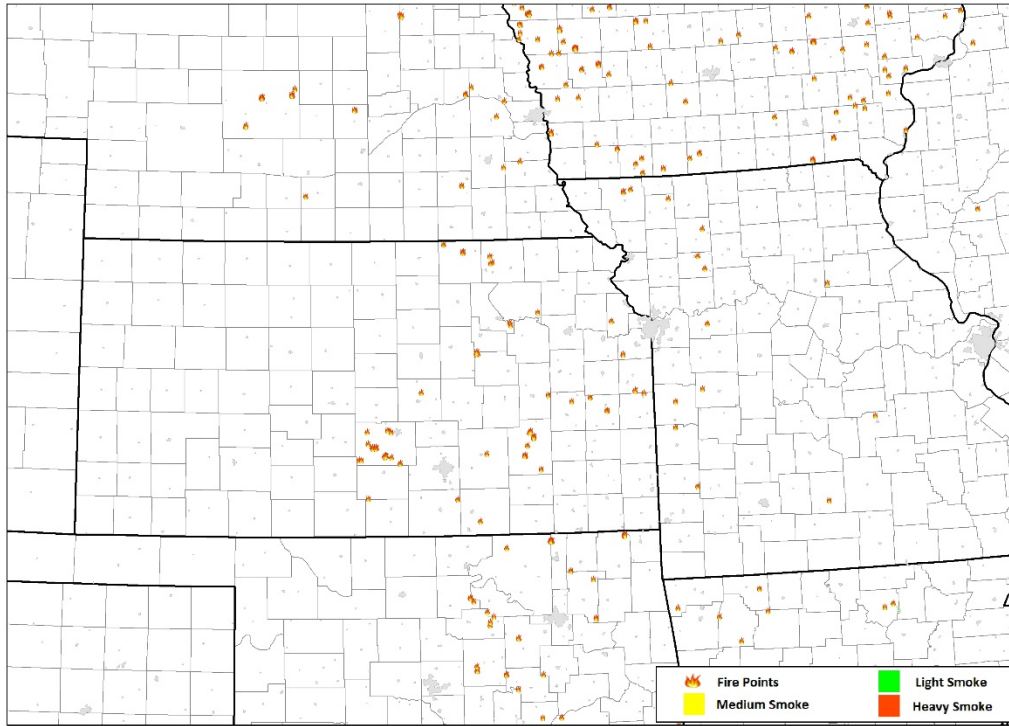
HMS Fire & Smoke Analysis April 25, 2020



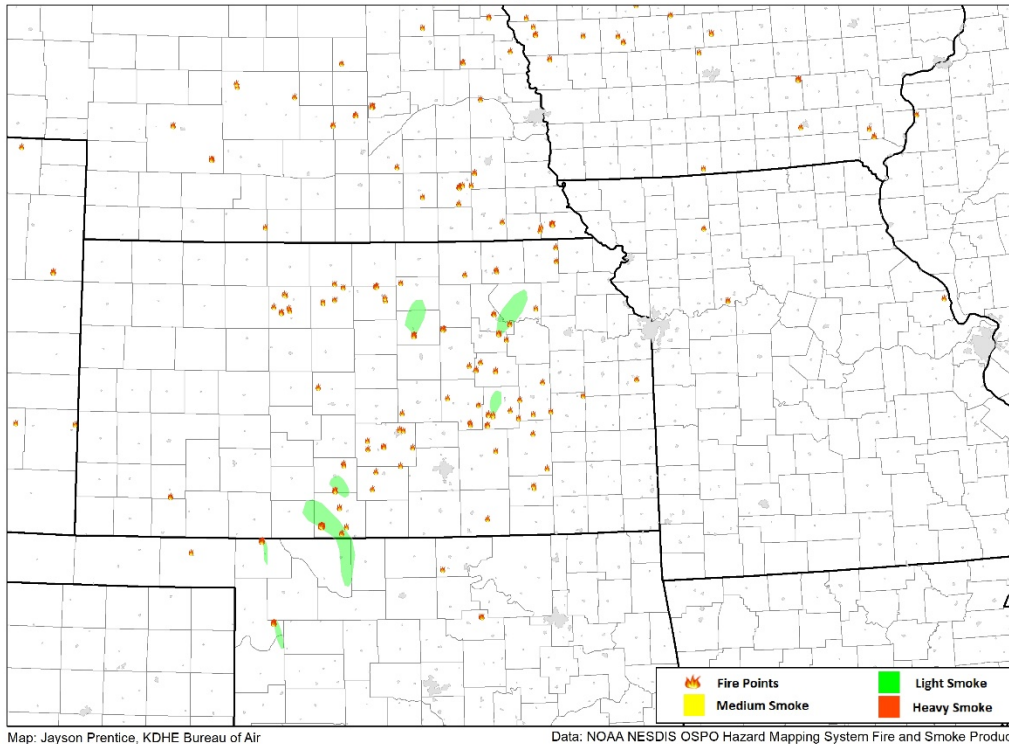
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HMS Fire & Smoke Analysis April 26, 2020



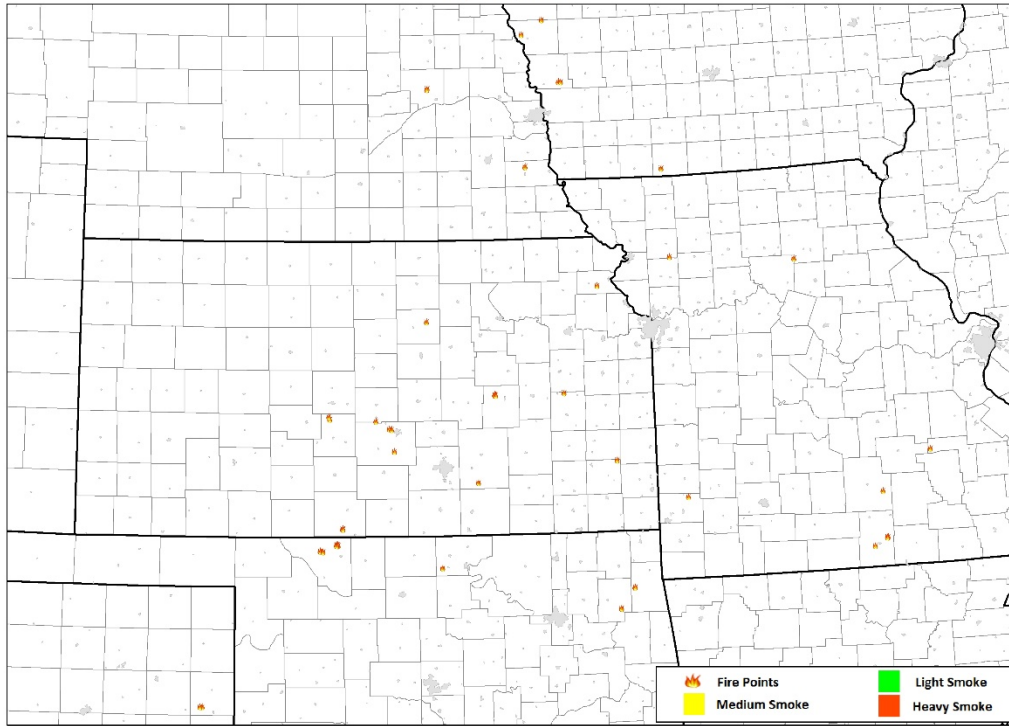
HMS Fire & Smoke Analysis April 27, 2020



Flint Hills Prescribed Fire Update



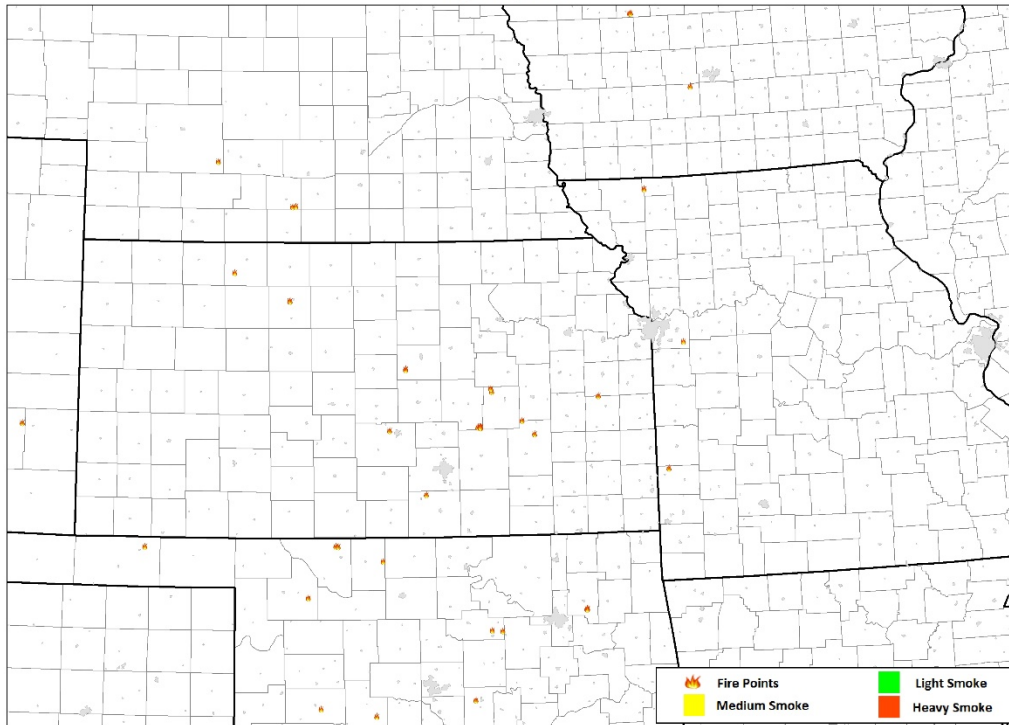
HMS Fire & Smoke Analysis April 28, 2020



Map: Jayson Prentice, KDHE Bureau of Air

Data: NOAA NESDIS OSPO Hazard Mapping System Fire and Smoke Product

HMS Fire & Smoke Analysis April 29, 2020



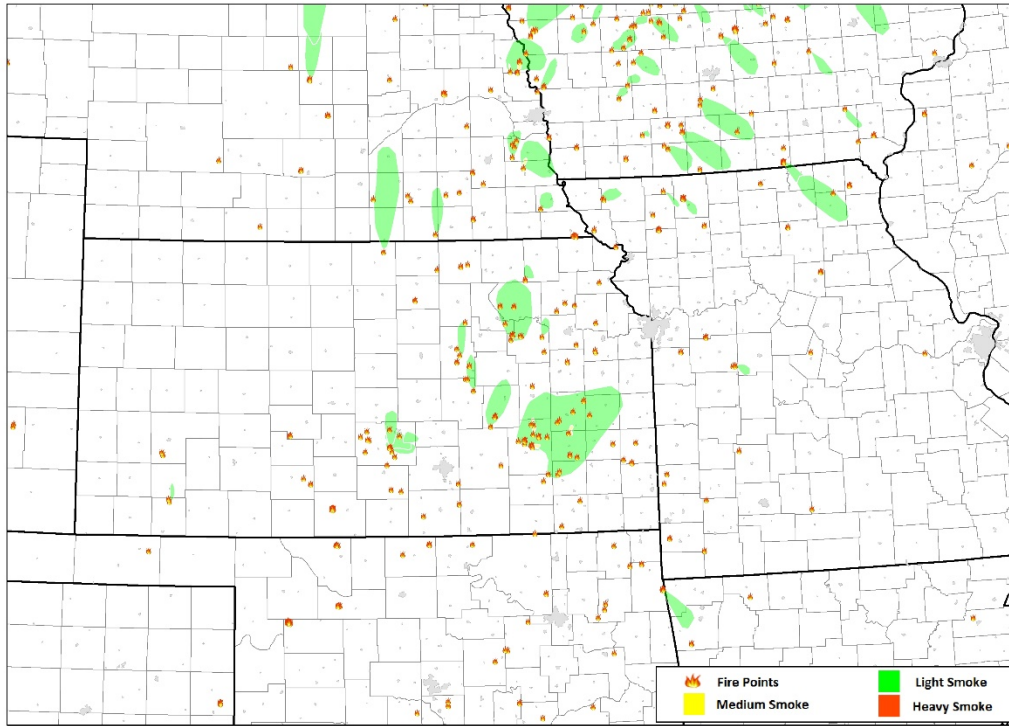
Map: Jayson Prentice, KDHE Bureau of Air

Data: NOAA NESDIS OSPO Hazard Mapping System Fire and Smoke Product

Flint Hills Prescribed Fire Update



HMS Fire & Smoke Analysis April 30, 2020

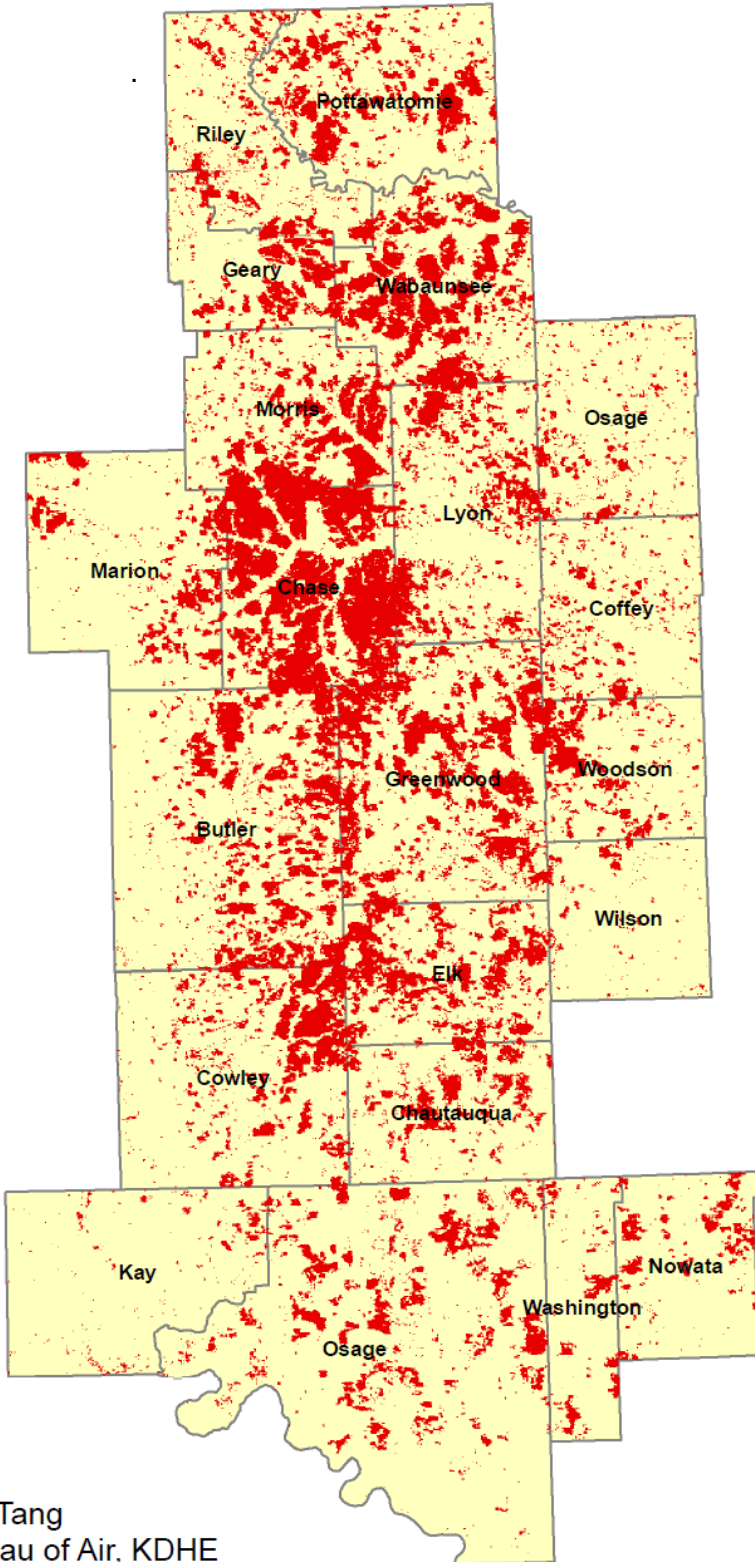


Map: Jayson Prentice, KDHE Bureau of Air

Data: NOAA NESDIS OSPO Hazard Mapping System Fire and Smoke Product



Flint Hills Acreage Burned (February 2 – April 15, 2020)



<u>Counties</u>	<u>Acres Burned</u>	
Butler	208,515	
Chase	316,887	
Chautauqua	67,924	
Coffey	43,182	
Cowley	128,914	*
Elk	130,350	
Geary	63,569	
Greenwood	241,689	
Lyon	121,655	
Marion	73,484	
Morris	133,563	
Osage (KS)	39,970	
Pottawatomie	121,377	
Riley	59,924	*
Wabaunsee	196,205	
Wilson	14,873	
Woodson	60,820	
Nowata (OK)	37,576	
Osage (OK)	162,289	*
Washington (OK)	24,418	
Kay (OK)	15,877	*
Total	2,263,061	
* Denotes county was partly or completely covered by clouds during latest analysis.		

Yao Tang
Bureau of Air, KDHE



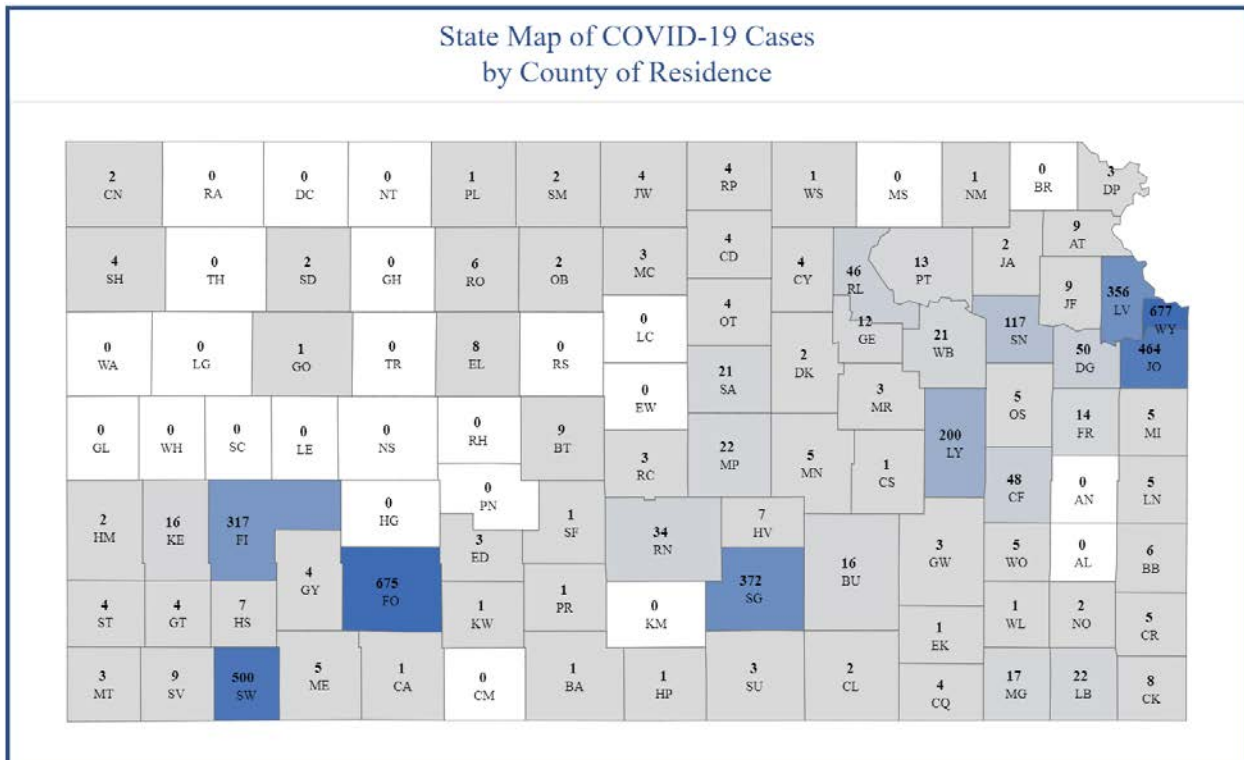
Kansas Coronavirus Disease 2019 (COVID-19)

On March 28, 2020 the Kansas Department of Health and Environment alongside Kansas Department of Agriculture released a statement encouraging all land owners and managers voluntarily reduce the number of acres that they intend to burn this spring. With resources of the county emergency response staff already being taxed with COVID-19 response, it is important to minimize responses that would come with prescribed fire activity. The full release is available [here](#).

As of April 30, 2020 at 9am the following information was available from the Kansas Department of Health and Environment regarding COVID-19 cases in Kansas. For most information and the most up to date data please see the [KDHE Coronavirus Response webpage](#).

Cases*	Hospitalizations	Statewide Deaths	Negative Tests
4,238	523	129	27,388

* A case is defined as a person who tested positive by molecular testing for the novel coronavirus (SARS-CoV-2), which causes Coronavirus Disease 2019 (COVID-19).
 Case counts are preliminary and subject to verification.
 Last updated: 04/30/2020 at 9:00 AM

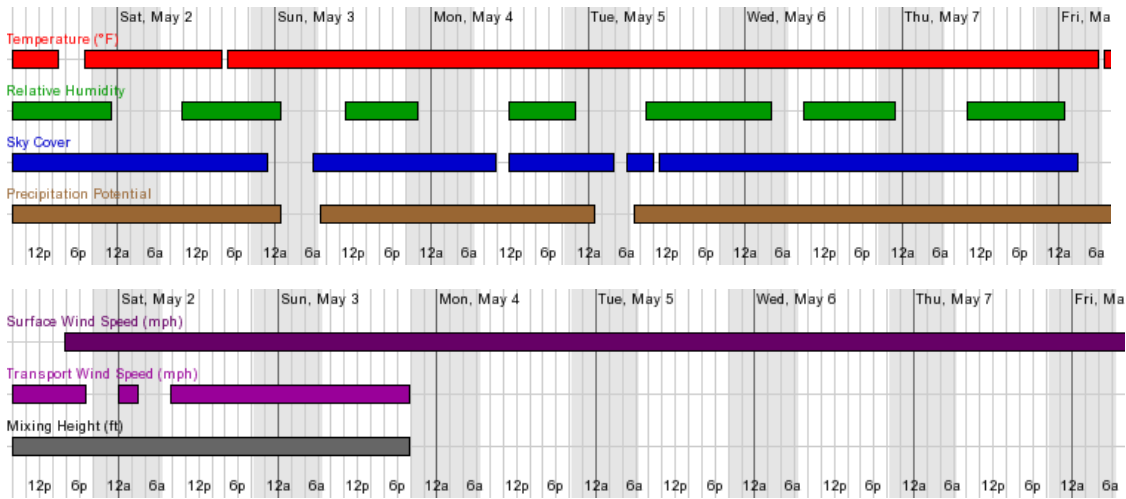




Upcoming Look at Fires and Smoke

A bit of a breeze is forecast today across parts of the Flint Hills with winds up to 25 mph under warm temperatures. Transport winds become nearly calm this evening which means any smoke will likely linger, meaning strong local smoke impacts for Saturday morning. Surface wind speeds appear favorable for the remainder of the next week under warm temperatures. The potential for precipitation appears Saturday night into early Sunday, and again Monday night into early Tuesday. The potential for more rain on late Thursday or Friday of next week may also appear in the forecast 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. Conditions are most favorable when each parameter has a colored boxplot displayed.

Note: Forecast for mixing height and transport winds are only out to 2 days.
Forecast valid: 8am May 1, 2020.

For more information, contact:

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