

# Flint Hills Prescribed Fire Update

March 20, 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.



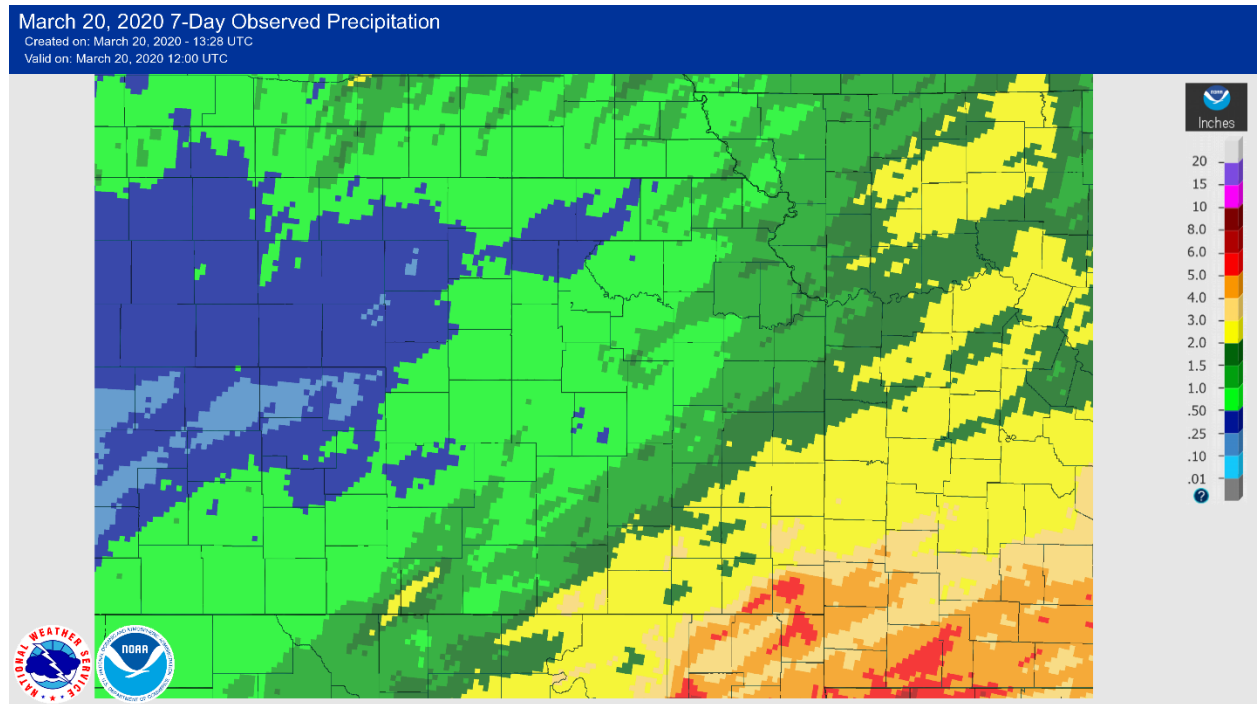


## Meteorology

Temperatures fell to below normal last Friday (March 13) and remained below normal until Wednesday and Thursday (March 18-19) this week. Another strong cold front has dropped temperatures back to below normal today (March 20). Multiple rounds of showers and thunderstorms occurred over the prior week with total rainfall amounts ranging from near a quarter-inch in the northern Flint Hills to upwards of two inches in the southern Flint Hills.

Winds remained north to northeast for much of the past week, only turning southeast and southerly for Wednesday and Thursday as temperatures rose, and skies cleared somewhat. Despite warmer temperatures and lighter winds, Wednesday was wet and inhibited any burning. Thursday dried and warmed quickly, but wind gusts were 35-45 mph in most areas and resulted in fire danger that was high to very high.

## Precipitation



NOAA/NWS Observed Total Precipitation for March 13-19, 2020.



## Air Quality Data

Air quality data for the period of March 13-19, 2020:

**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 exceedance of the NAAQS daily 24-hour average maximum of 35  $\mu\text{g}/\text{m}^3$ .

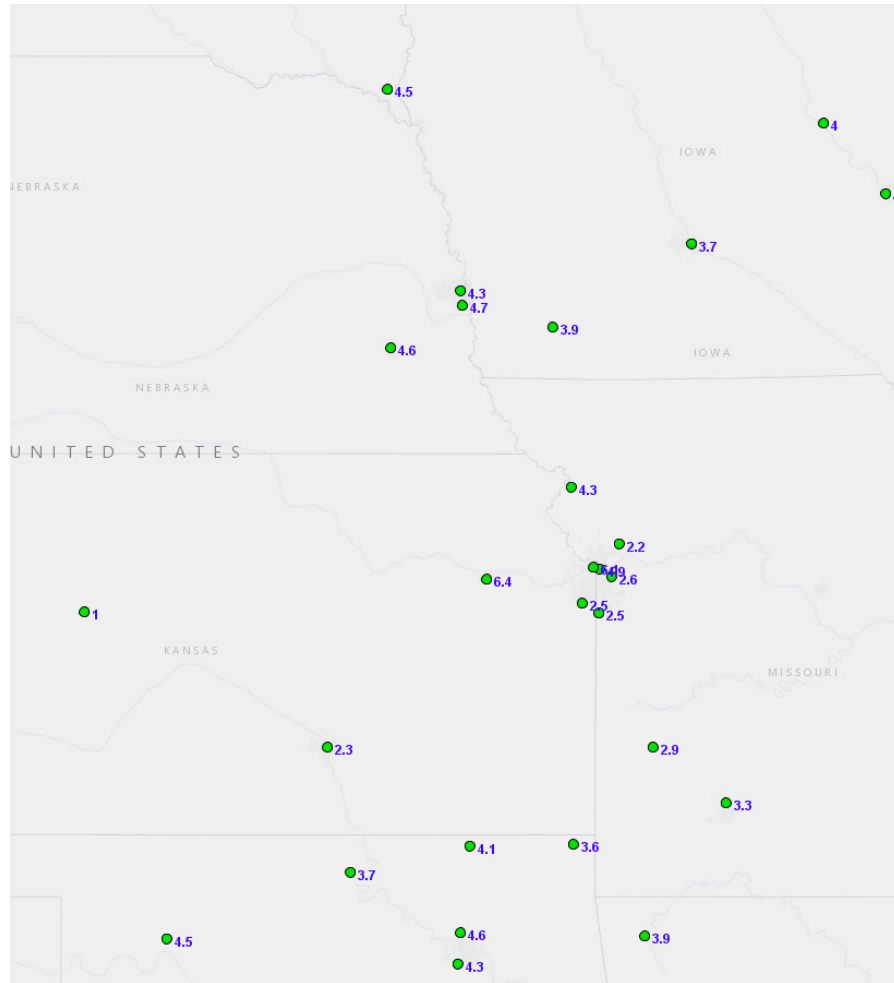
Air quality images on the following pages for each day show preliminary data, courtesy Air Now Tech.

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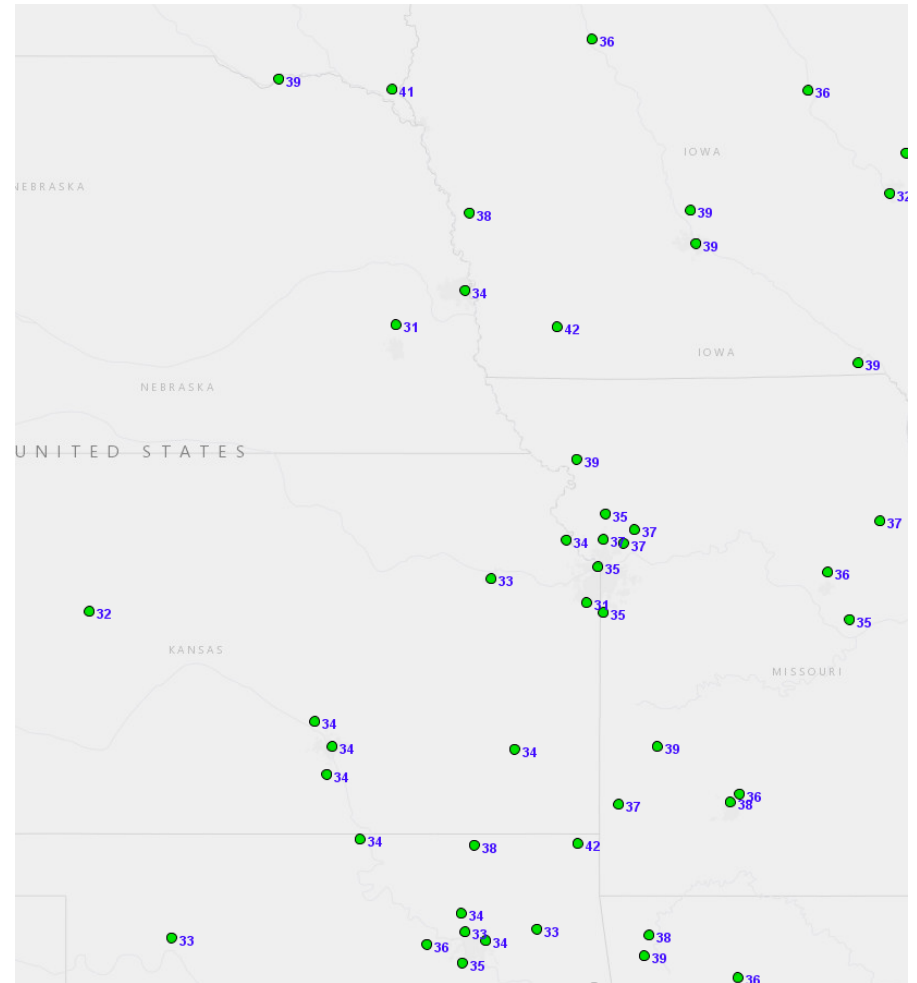


Friday, March 13, 2020

PM2.5 (24-hour average)



Ozone (8-hour average maximum)

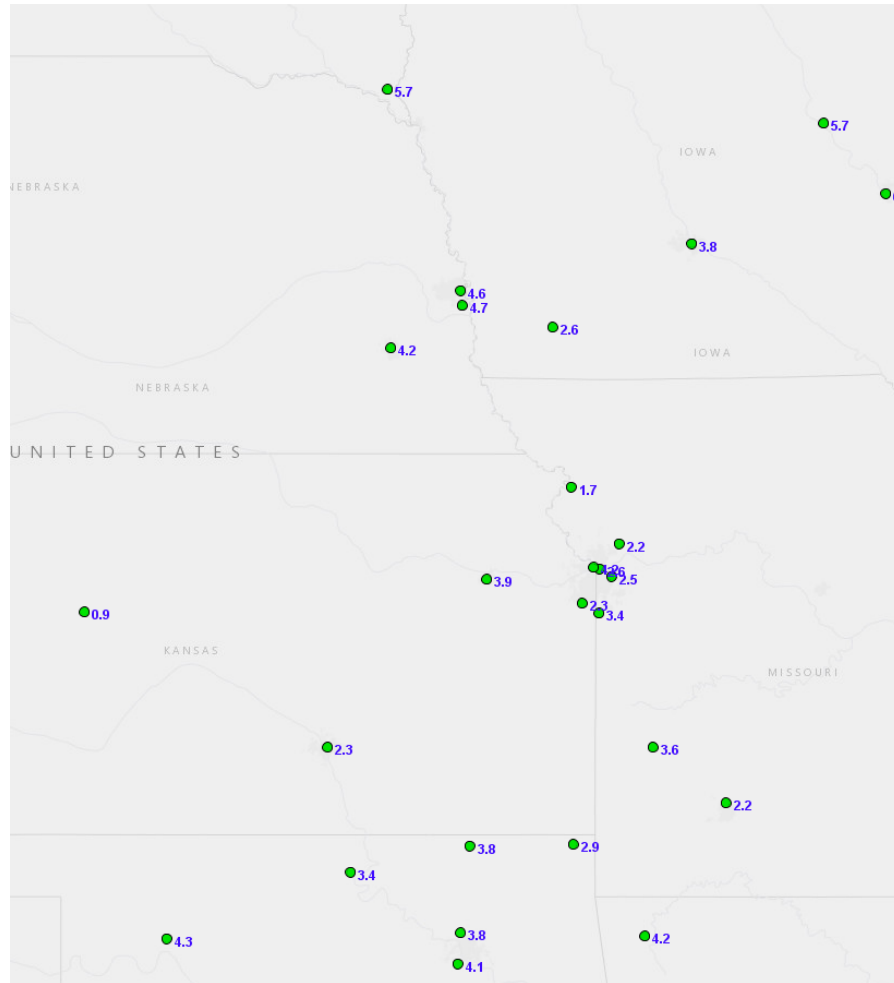


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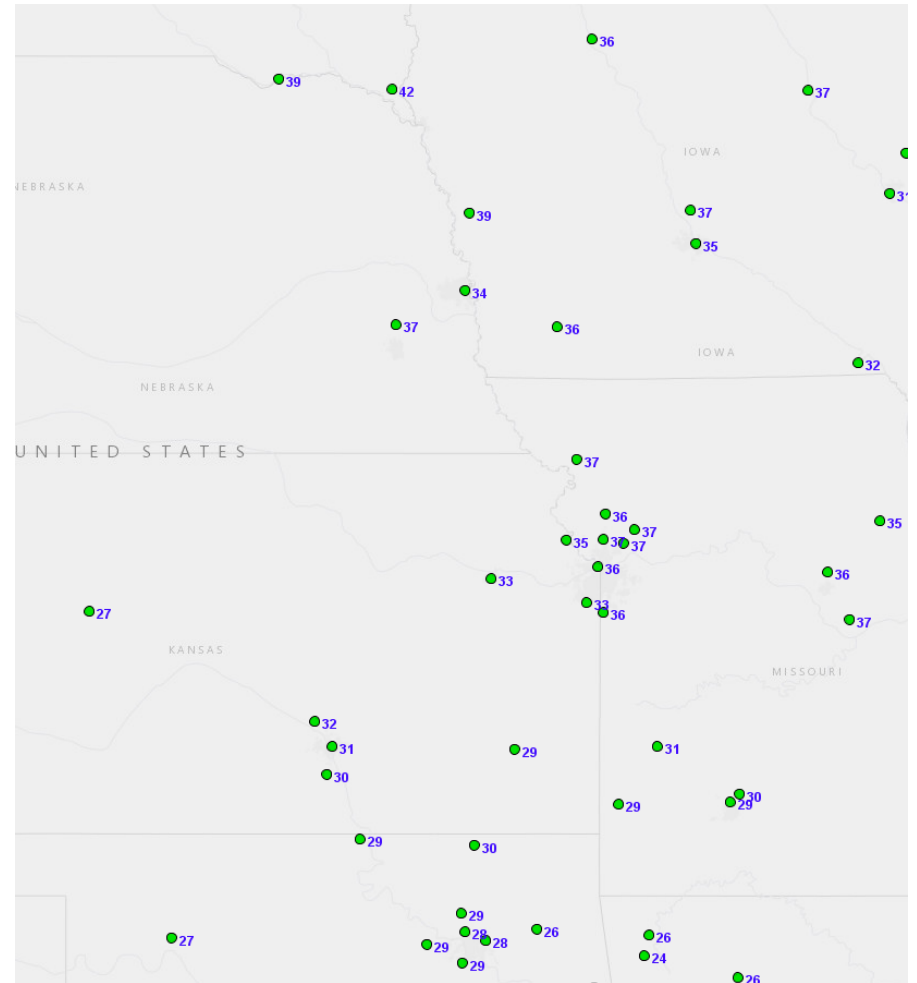


Saturday, March 14, 2020

PM2.5 (24-hour average)



Ozone (8-hour average maximum)

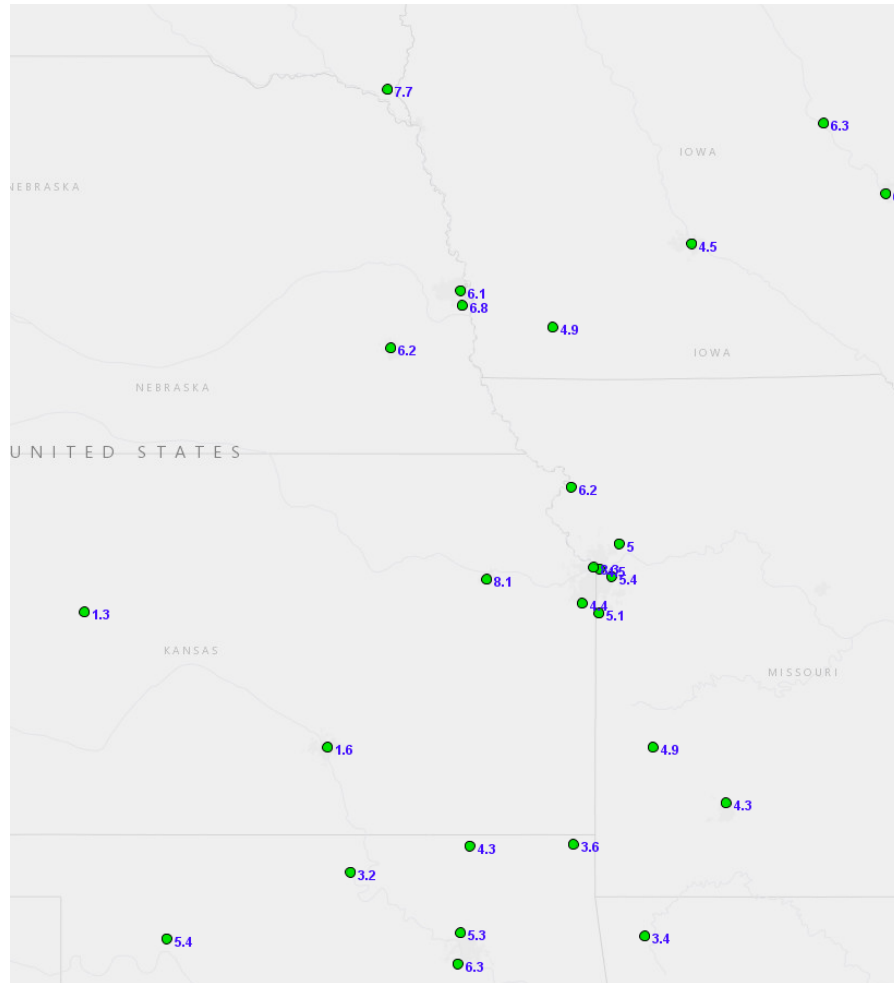


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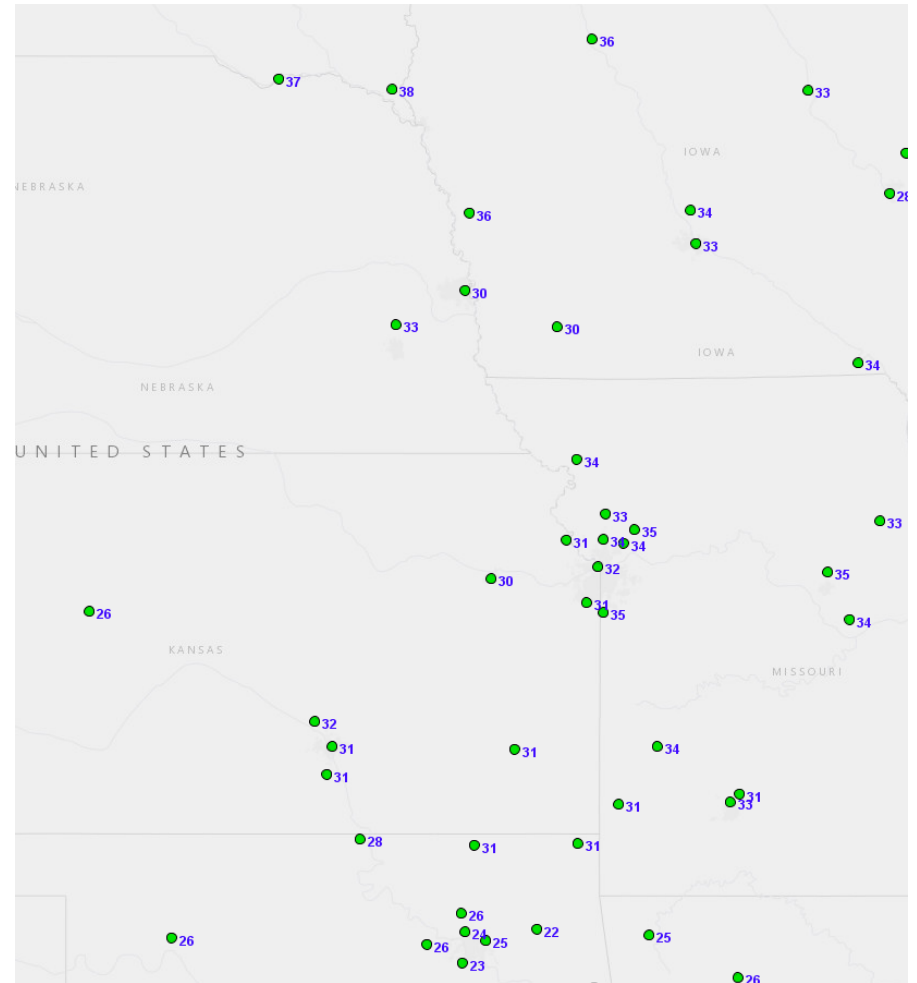


**Sunday, March 15, 2020**

PM2.5 (24-hour average)



Ozone (8-hour average maximum)

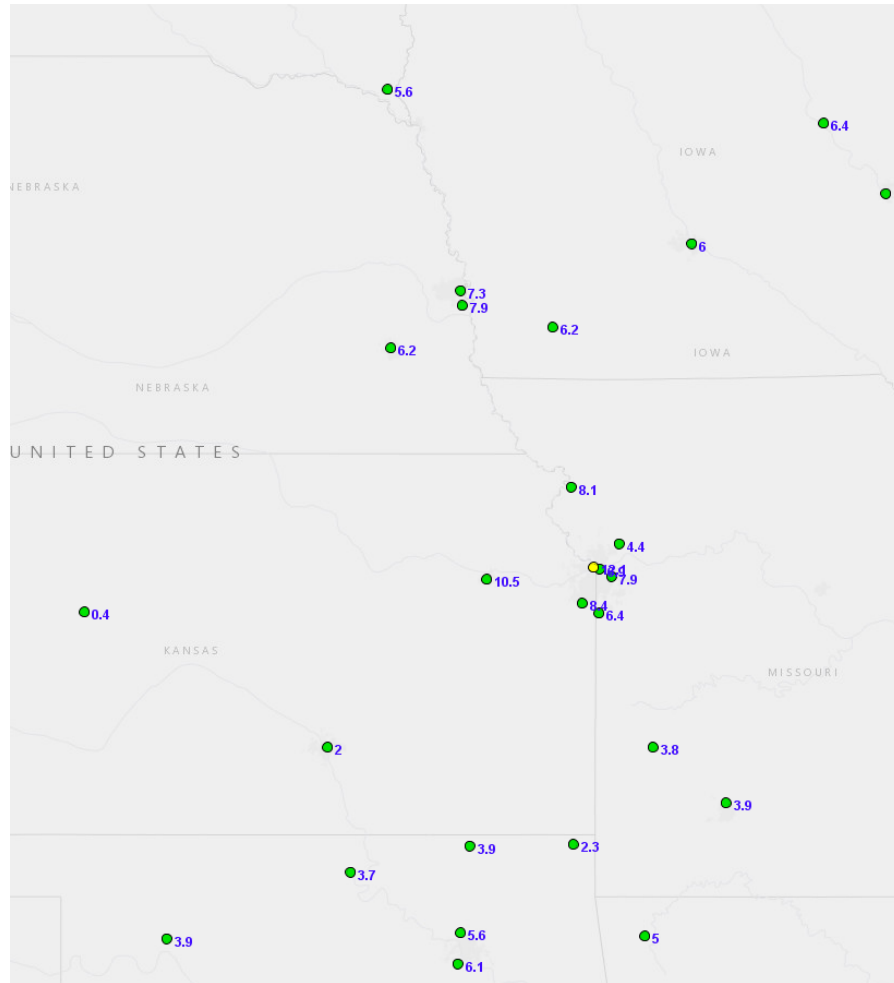


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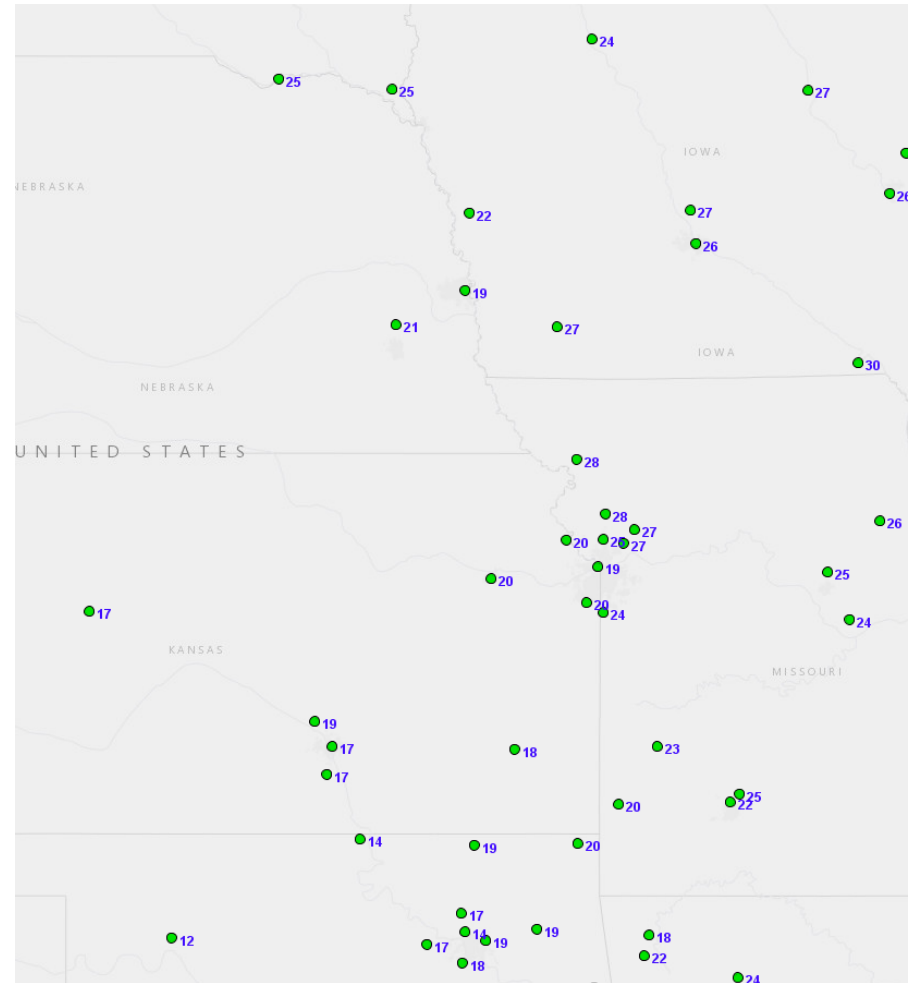


Monday, March 16, 2020

PM2.5 (24-hour average)



Ozone (8-hour average maximum)

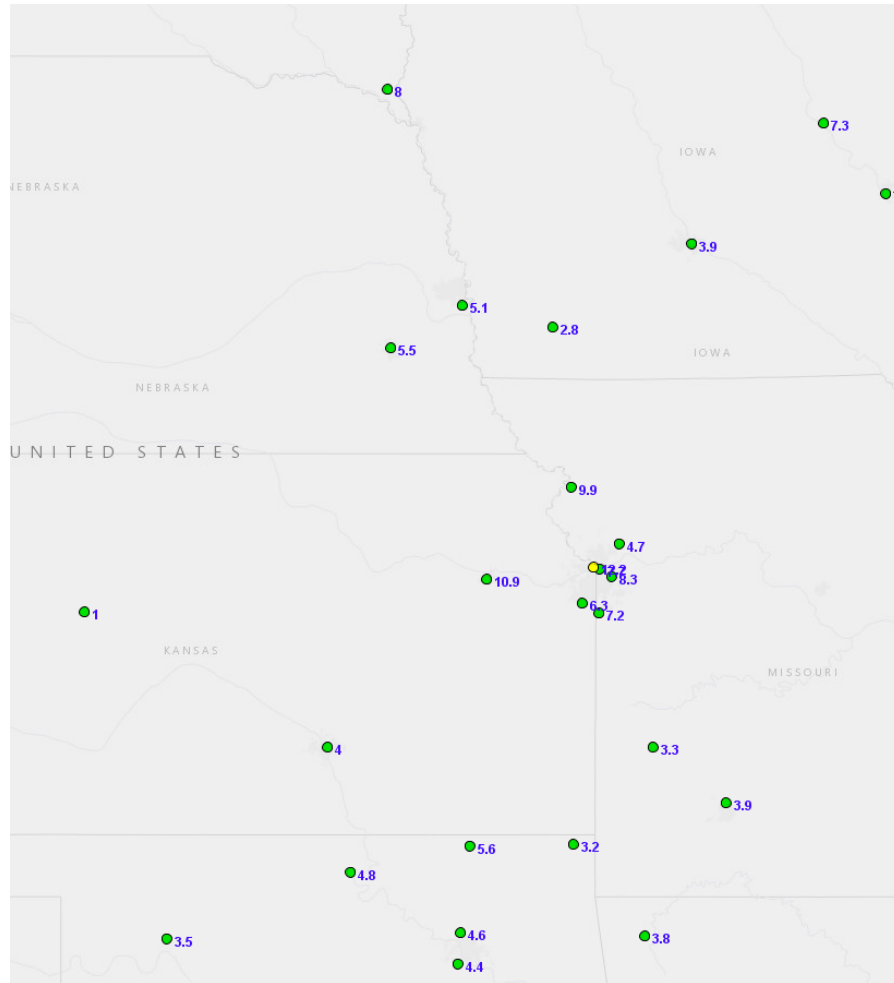


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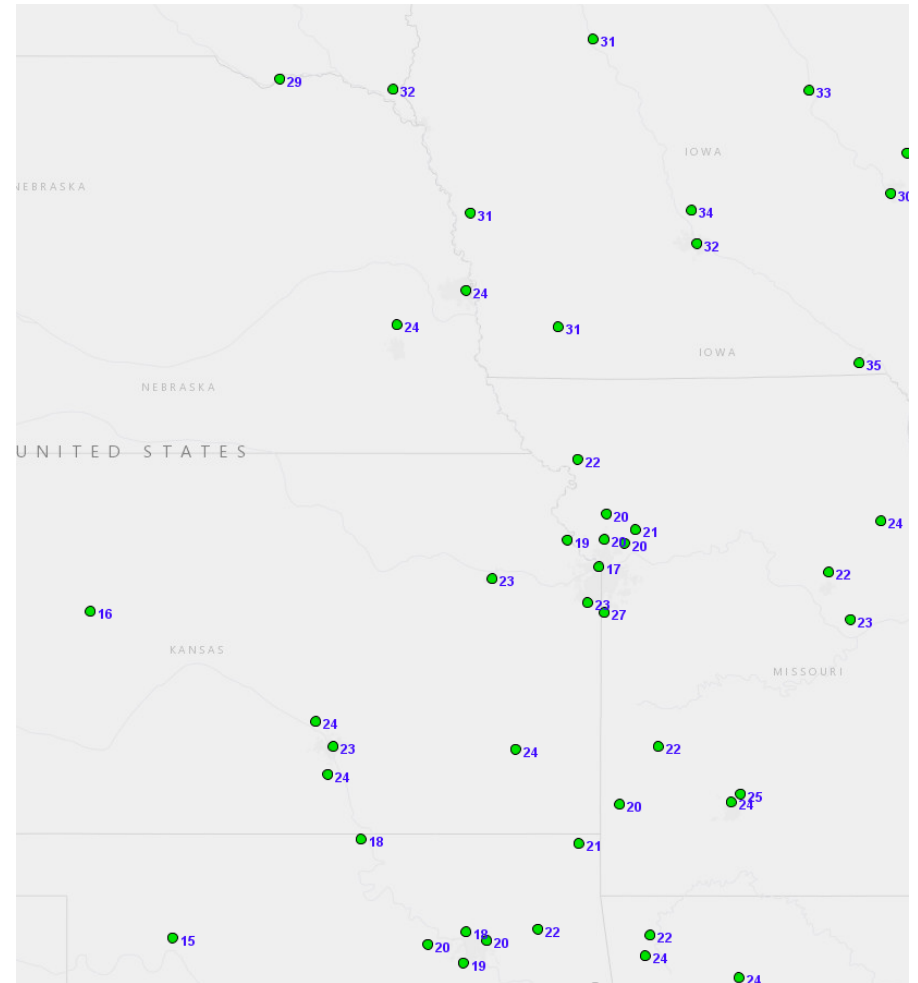


Tuesday, March 17, 2020

PM2.5 (24-hour average)



Ozone (8-hour average maximum)



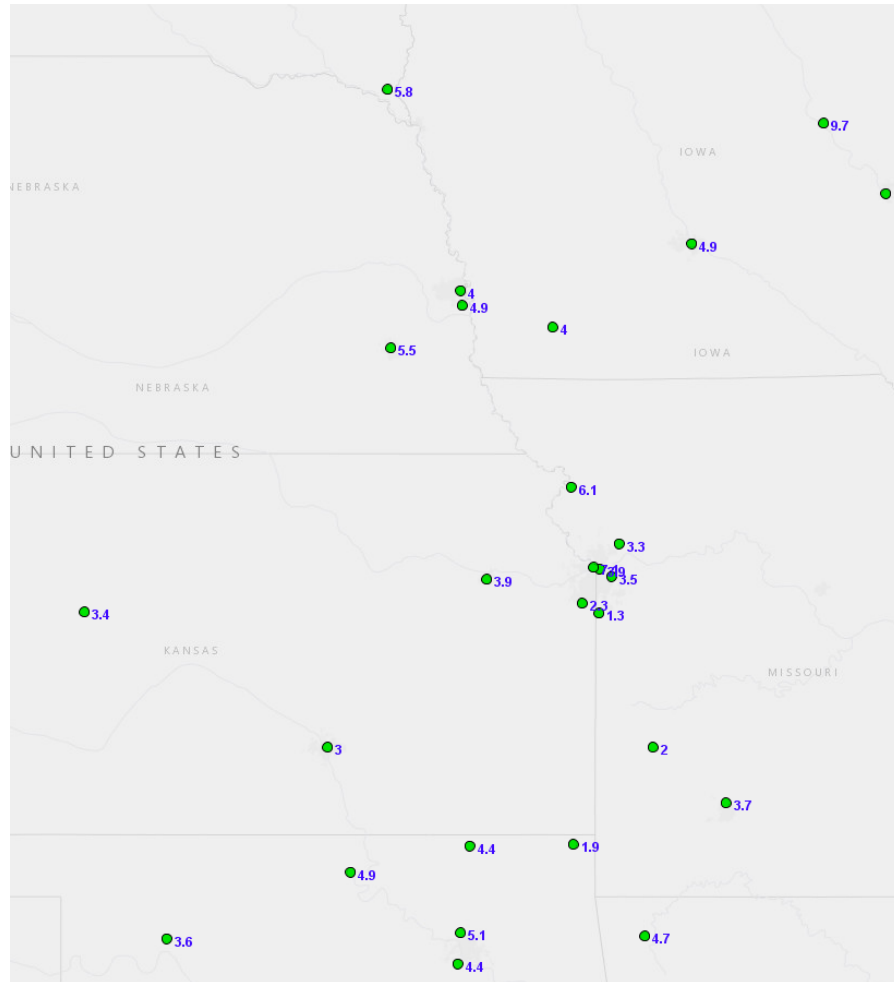


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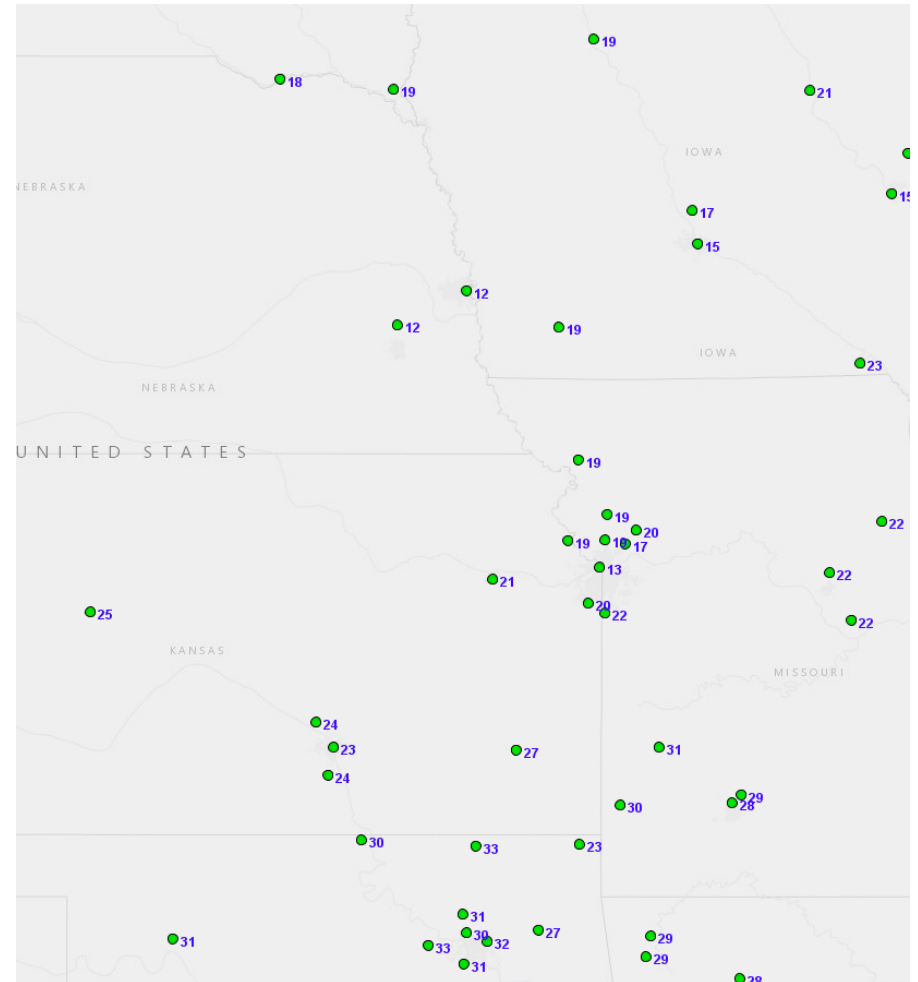


Wednesday, March 18, 2020

PM2.5 (24-hour average)



Ozone (8-hour average maximum)

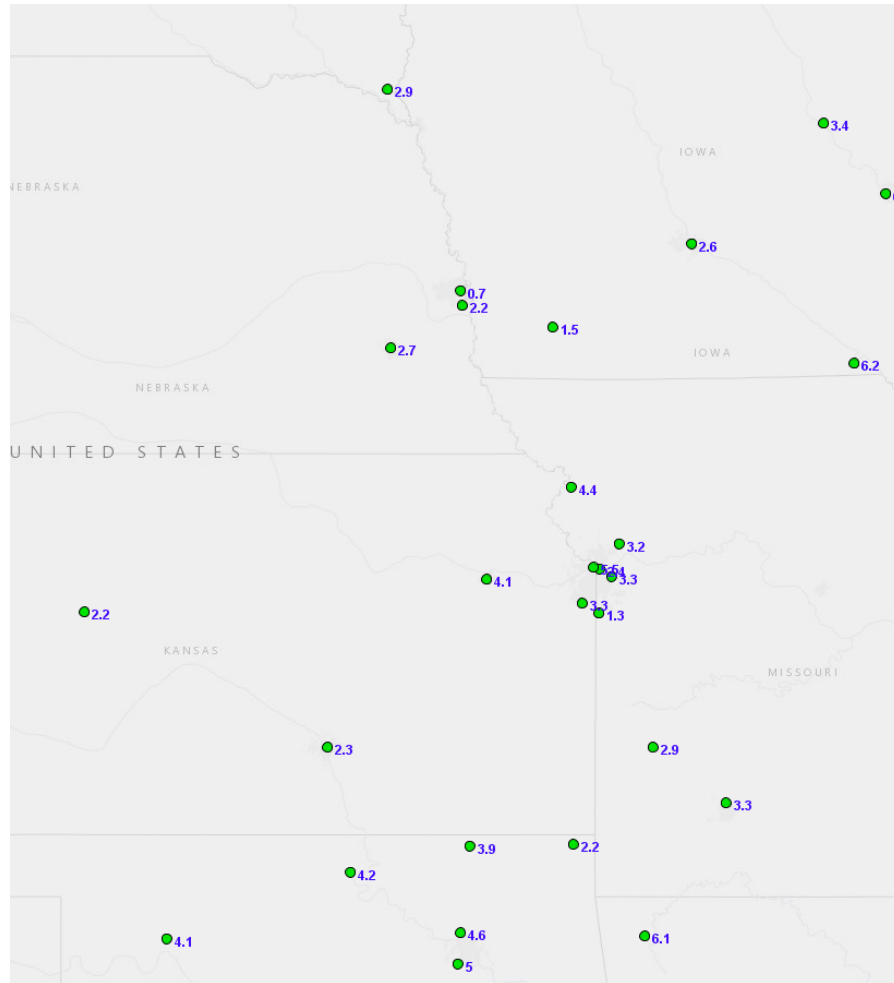


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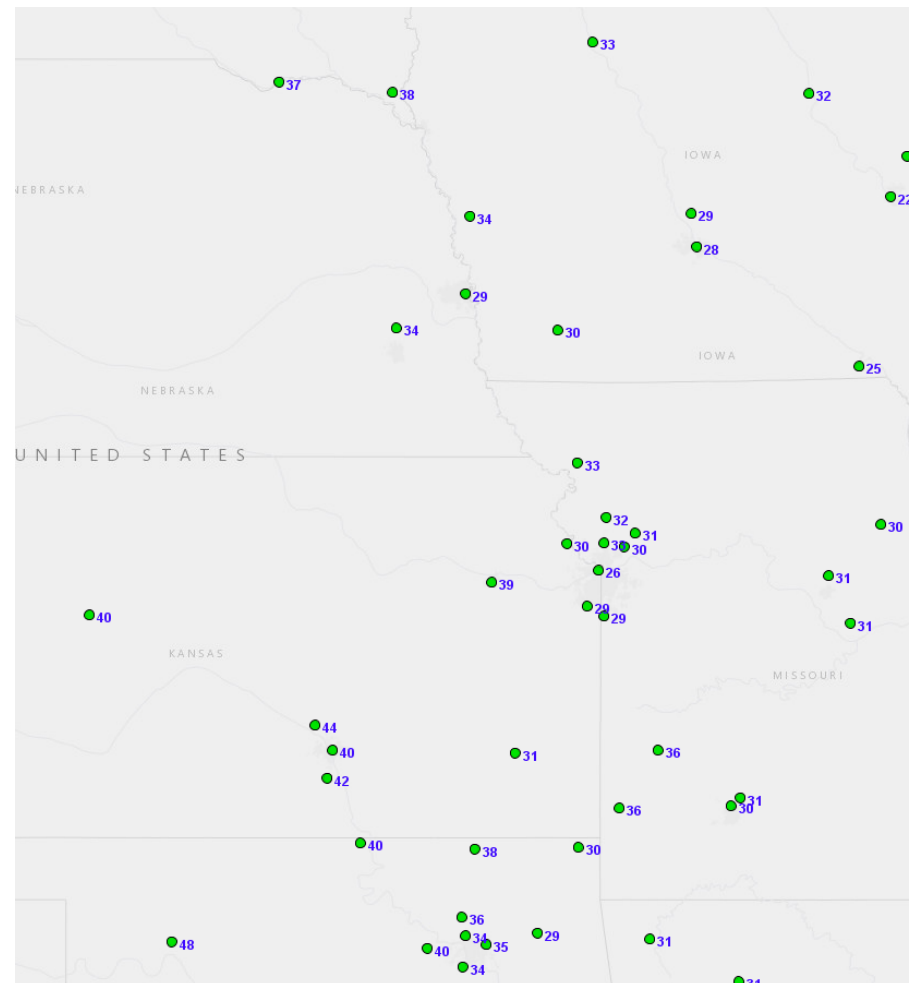


Thursday, March 19, 2020

PM2.5 (24-hour average)



Ozone (8-hour average maximum)





## Fires and Smoke

The combination of wet, breezy, and cloudy conditions throughout the past week limited fire activity tremendously. Only a handful of fires were observed in the Flint Hills with cloudy conditions inhibiting detections if there were others. Anecdotally there was minimal burning that occurred, and continues to occur due to the very wet conditions.

*Daily Fires and Smoke Analysis provided by NOAA Hazard Mapping System Fire and Smoke Product are provided on the following pages.*

## KSFIRE.ORG

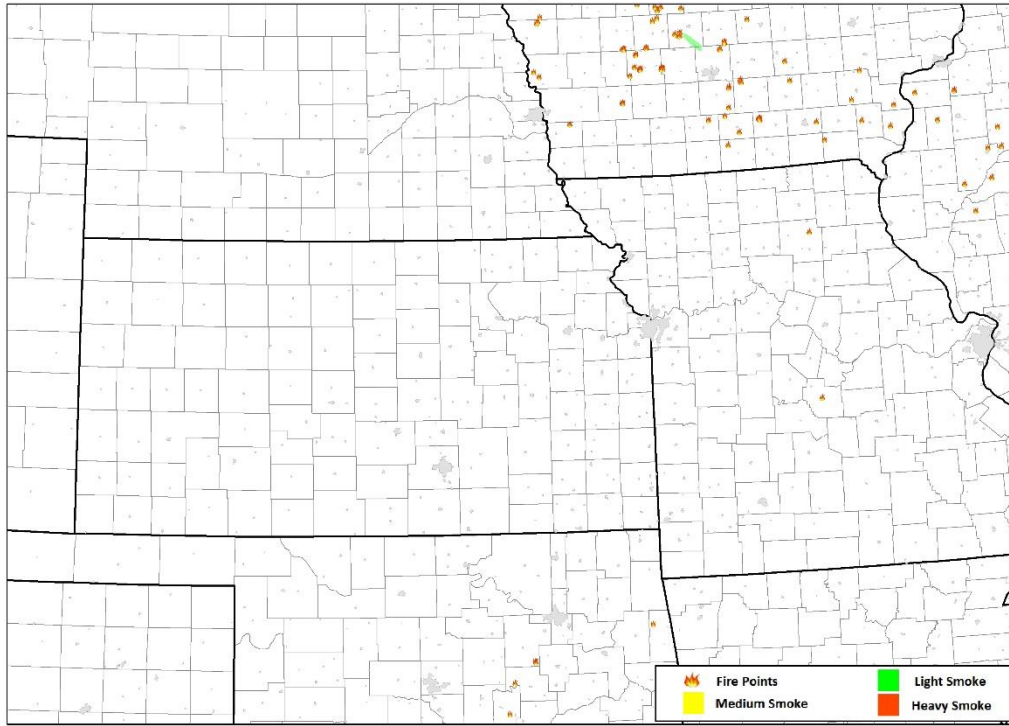


This website was developed as part of the development of the Kansas Flint Hills Smoke Management Plan. Kansas State University hosts the webpage and it includes important information for ranchers and others who might be interested in the Flint Hills. It provides training, regulations, policies, publications,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

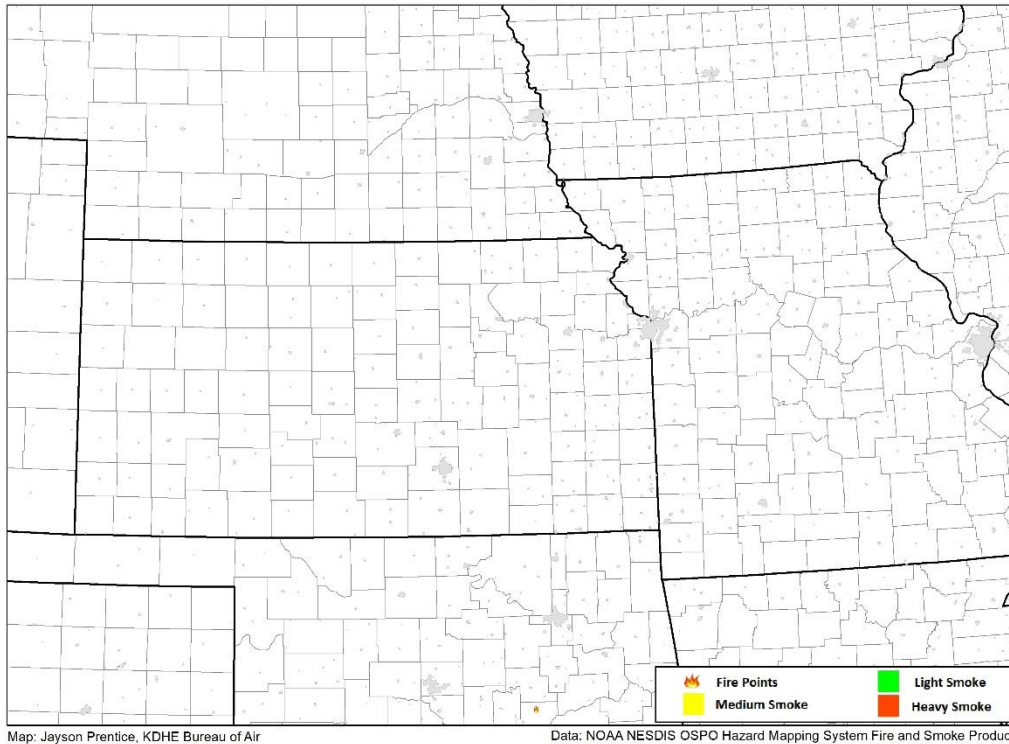
# Flint Hills Prescribed Fire Update



## HMS Fire & Smoke Analysis March 13, 2020



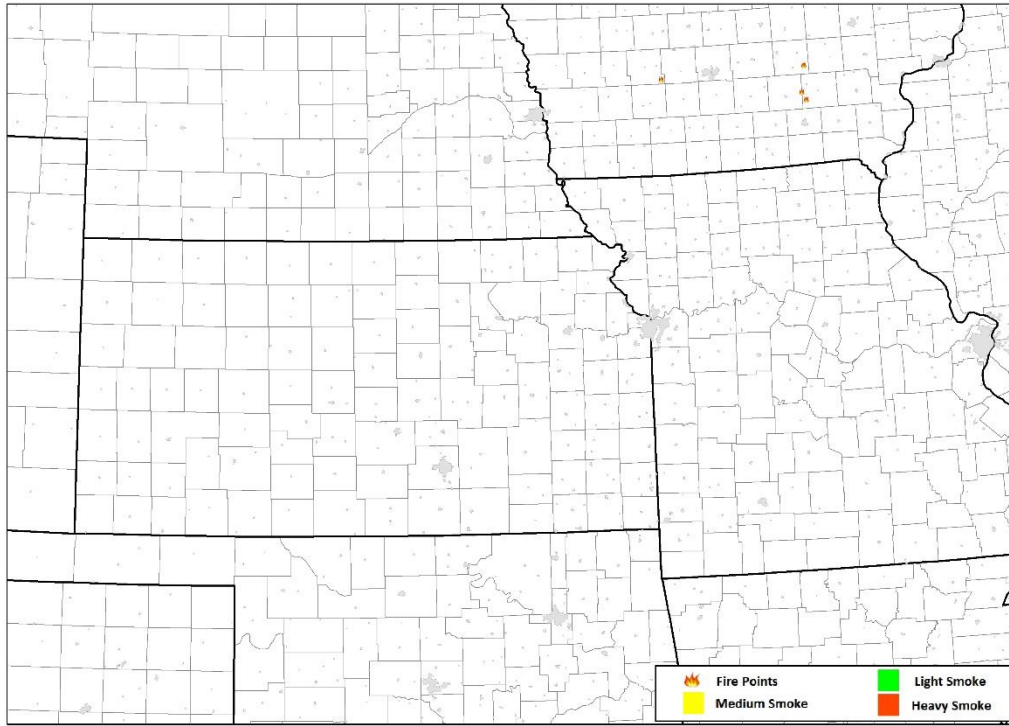
## HMS Fire & Smoke Analysis March 14, 2020



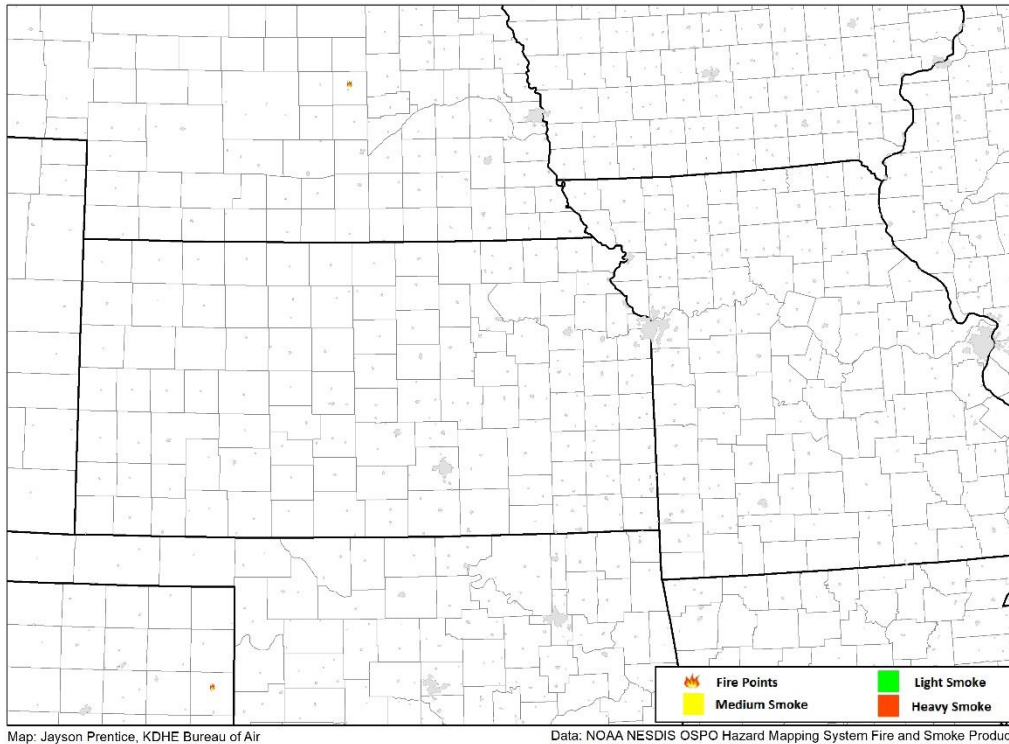
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## HMS Fire & Smoke Analysis March 15, 2020



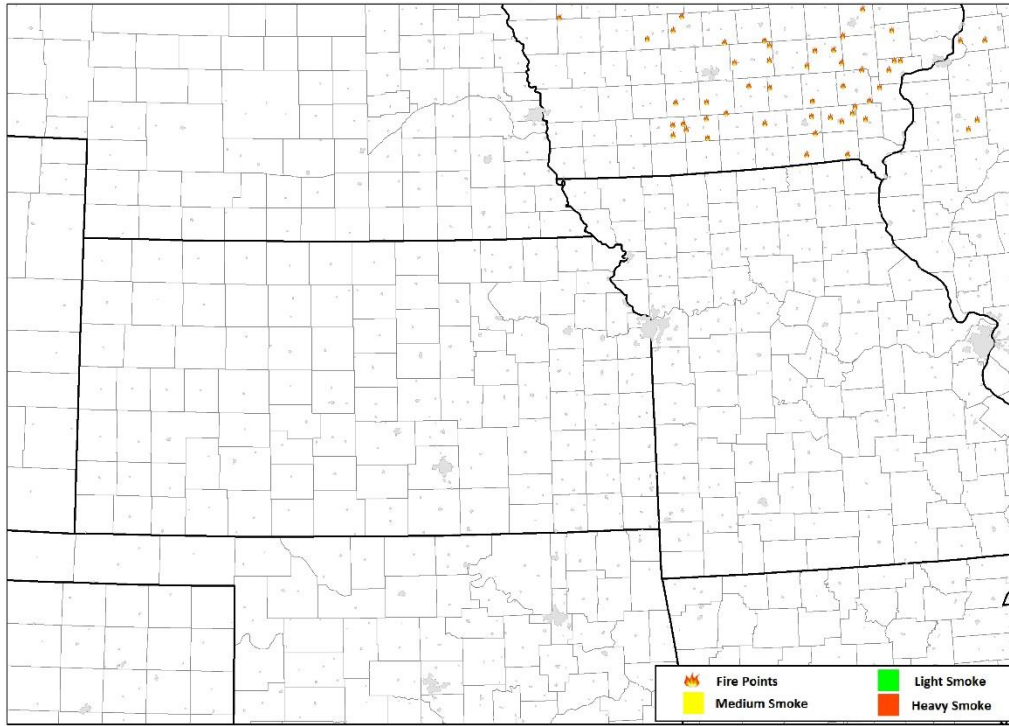
## HMS Fire & Smoke Analysis March 16, 2020



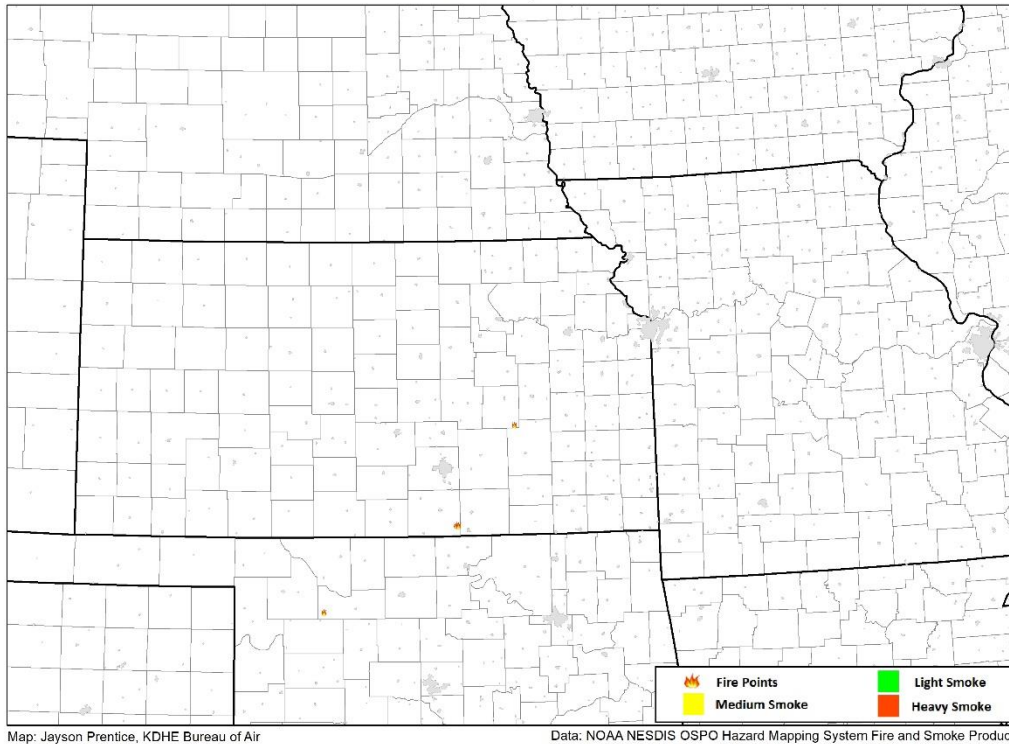
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## HMS Fire & Smoke Analysis March 17, 2020



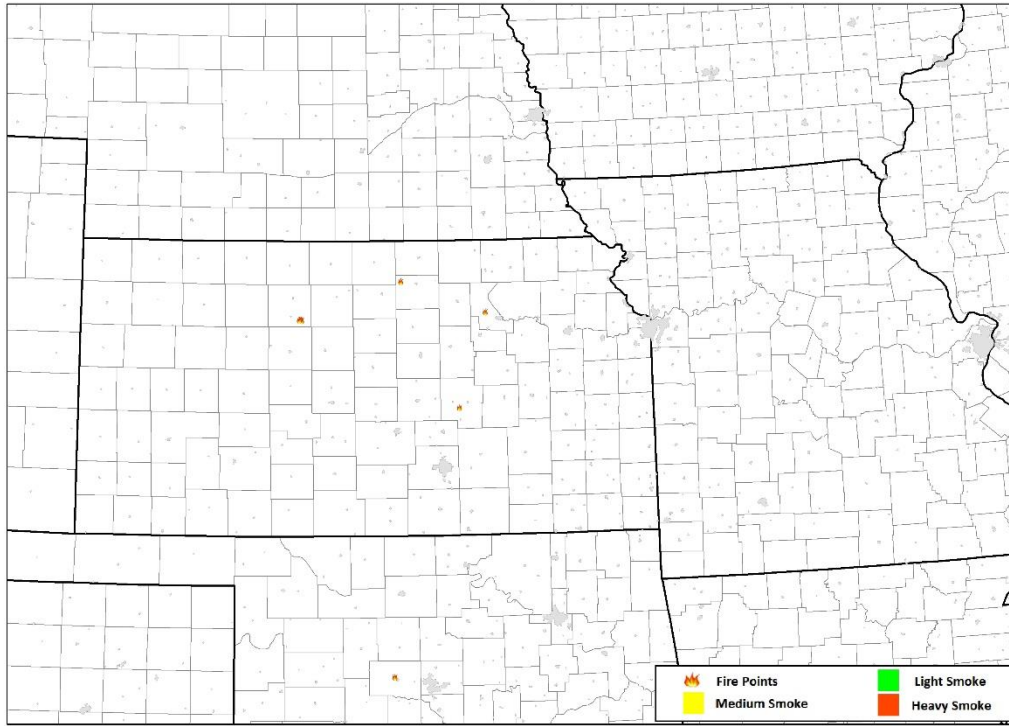
## HMS Fire & Smoke Analysis March 18, 2020



# Flint Hills Prescribed Fire Update



## HMS Fire & Smoke Analysis March 19, 2020



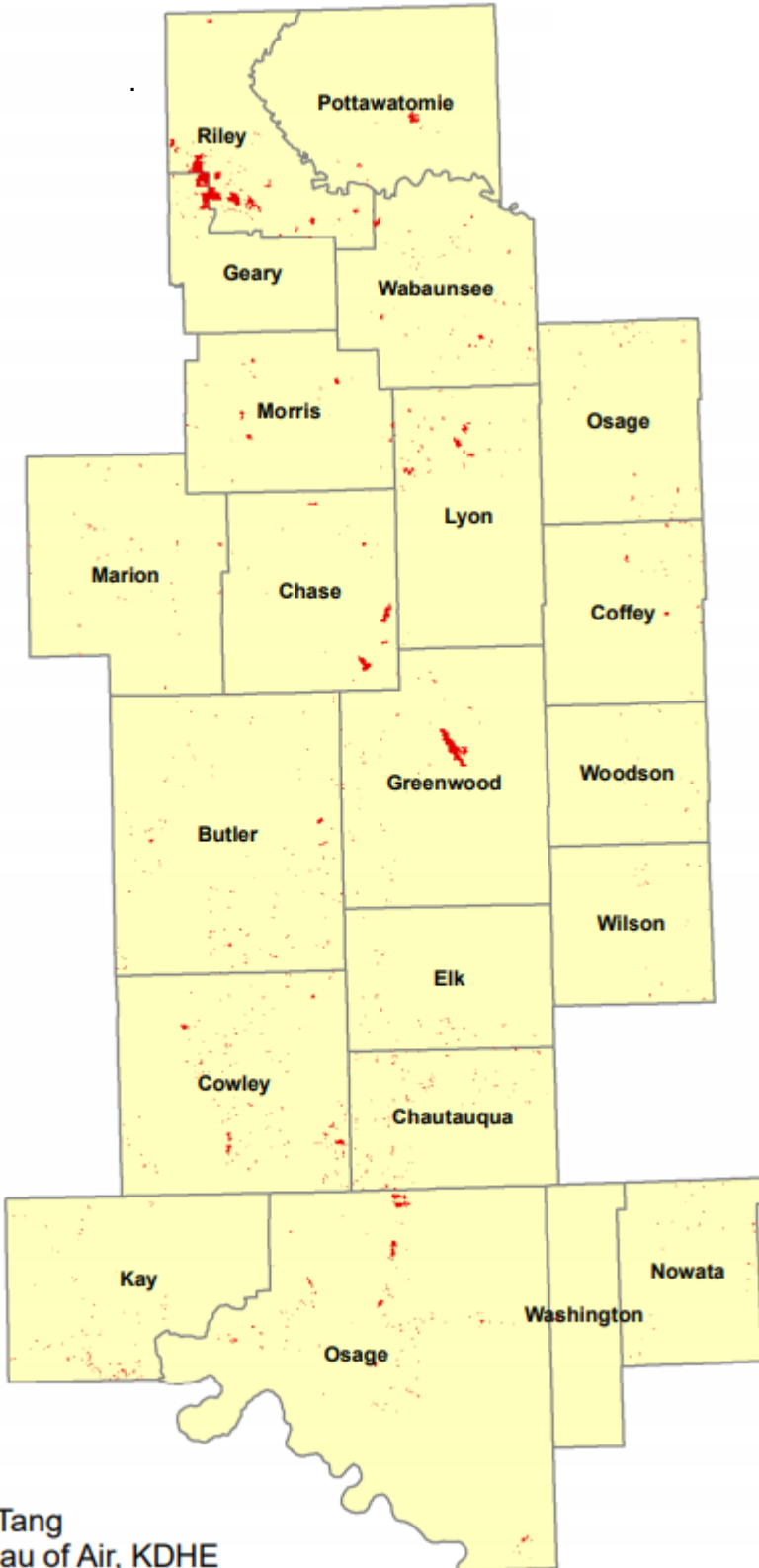
Map: Jayson Prentice, KDHE Bureau of Air

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

## Flint Hills Prescribed Fire Update



### Flint Hills Acreage Burned (February 2 – March 6, 2020)



<u>Counties</u>	<u>Acres Burned</u>
Butler	2,873
Chase	3,382
Chautauqua	2,286
Coffey	973
Cowley	4,680
Elk	710
Geary	3,985
Greenwood	5,637
Lyon	2,949
Marion	1,282
Morris	1,699
Osage (KS)	973
Pottawatomie	1,405
Riley	10,703
Wabaunsee	2,224
Wilson	432
Woodson	340
Nowata (OK)	556
Osage (OK)	5,653
Washington (OK)	247
Kay (OK)	2,023
<b>Total</b>	<b>55,012</b>
<i>* Denotes county was partly or completely covered by clouds during latest analysis.</i>	

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Bureau of Air, KDHE



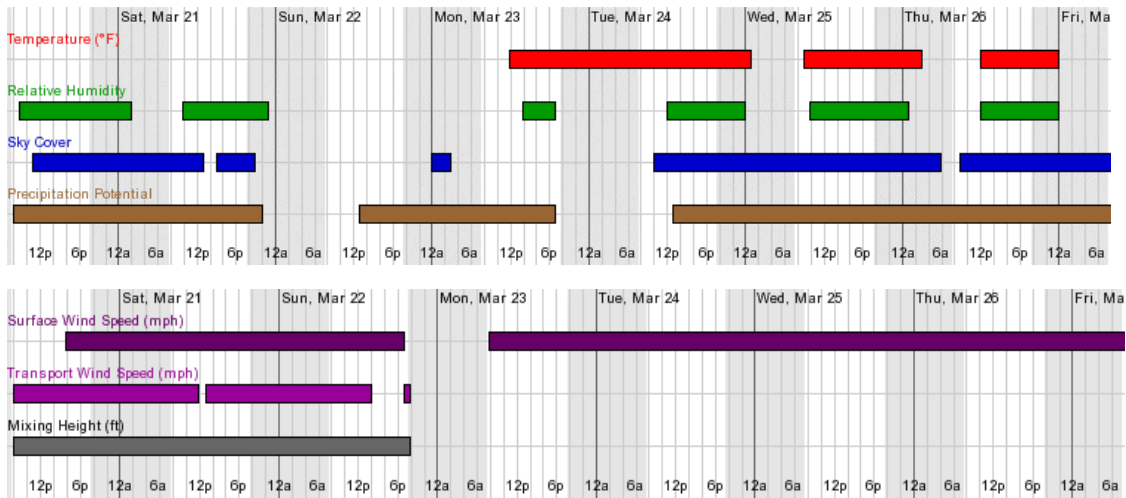


## Upcoming Look at Fires and Smoke

Temperatures will remain well below normal through the weekend with another round of precipitation expected Saturday night into Sunday. Look for minimal burning over the weekend due to colder and wet conditions. Temperatures begin to warm on Monday and will continue to warm for the remainder of next week with high temperatures reaching back above normal. Another round of precipitation is expected Monday night into Tuesday, which may inhibit burning on Monday and Tuesday as conditions continue to dry out and warm up.

Wednesday and Thursday of next week may result in burn opportunities across the Flint Hills and skies with warmer temperatures, reasonable winds, and partly to mostly cloudy skies are forecast at this time.

### 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.*

*Note: Forecast for mixing height and transport winds are only out to 2 days.*

*Forecast valid: 8am March 20, 2020.*

For more information, contact:

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