

Flint Hills Prescribed Fire Update

March 9, 2018

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

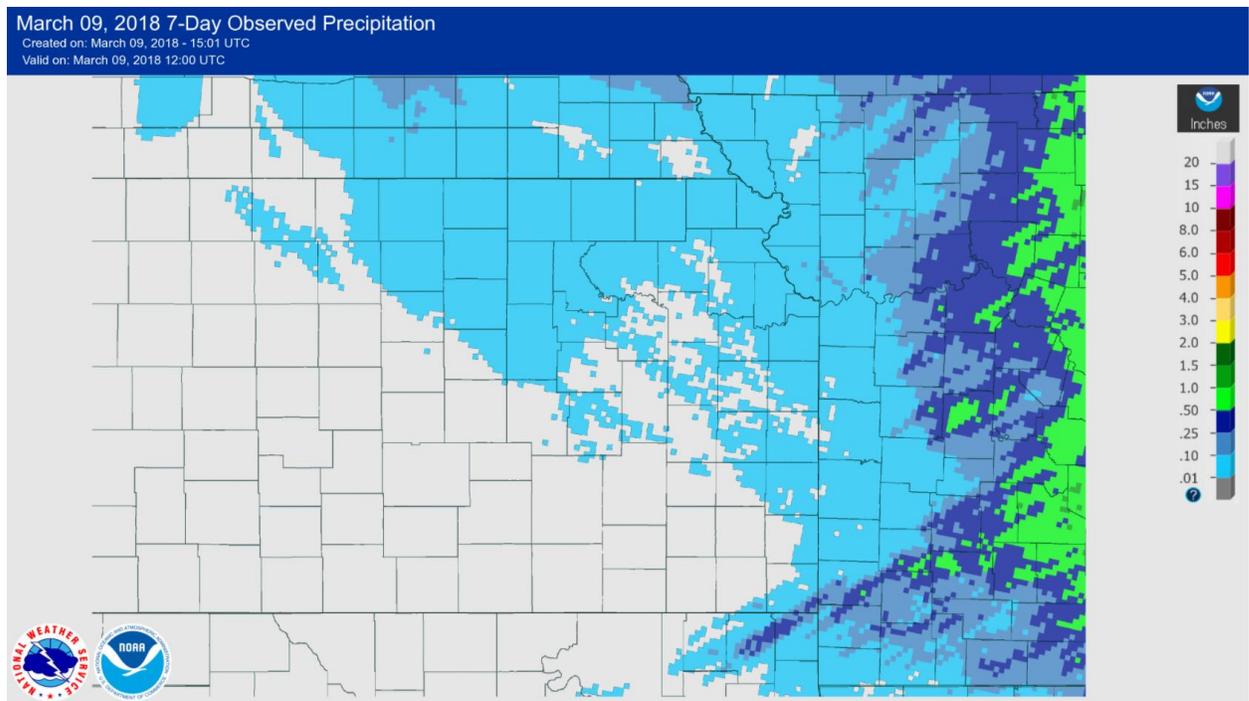




Meteorology

Light precipitation skirted by the Flint Hills on a couple of occasions over the past week. Seasonable to above normal temperatures were observed Friday-Sunday (March 2-4) alongside breezy south-southeast winds. A cold front and storm system then gave way to cooler temperatures and strong northwest winds for Monday and Tuesday (March 5-6). Temperatures have begun to bounce back towards normal for Wednesday and Thursday (March 7-8) with a return of a light southeast wind on Thursday.

Precipitation

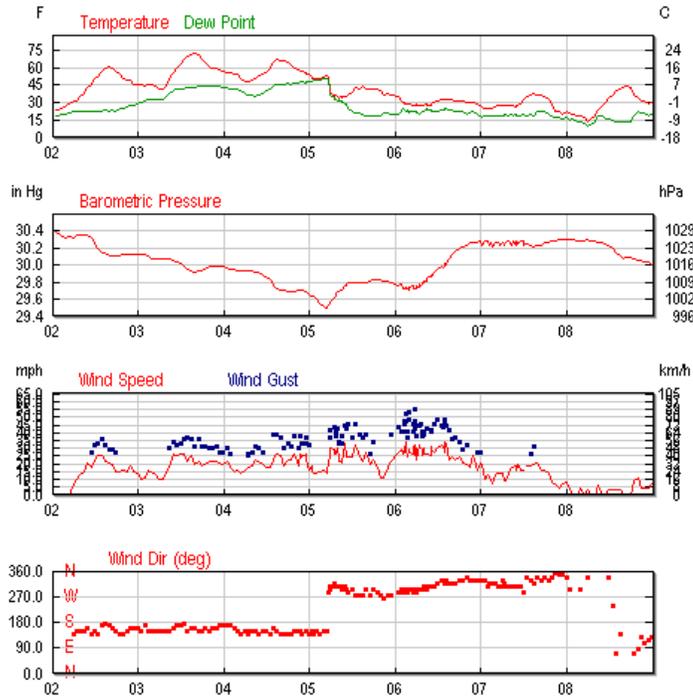


NOAA/NWS Observed Total Precipitation for March 2-8, 2018.

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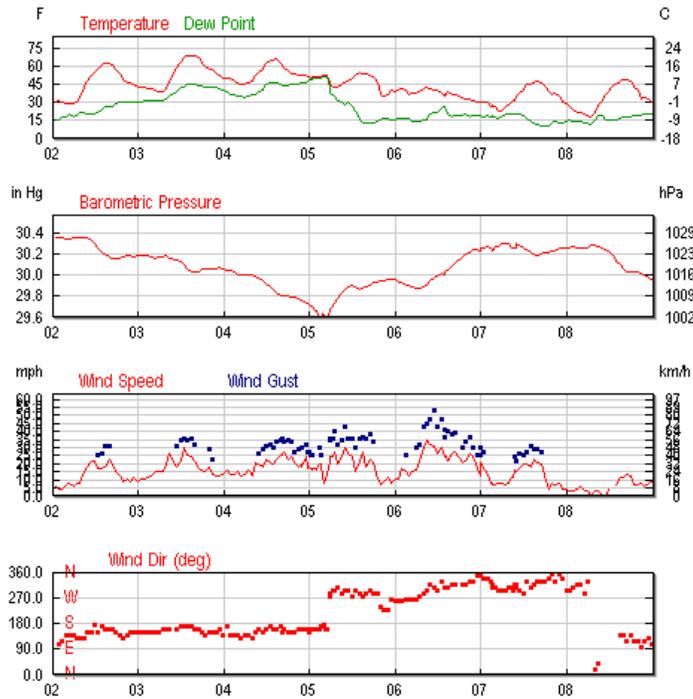


Lincoln, NE



March 2-8, 2018 Observed Weather from KLNK. Graphic: Weather Underground, Inc.

Emporia, KS



March 2-8, 2018 Observed Weather from KEMP. Graphic: Weather Underground, Inc.



Air Quality Data

Air quality data for the period of March 2-8, 2018:

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

PM2.5: Preliminary data indicates no exceedances of the NAAQS 24-hour daily average 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.

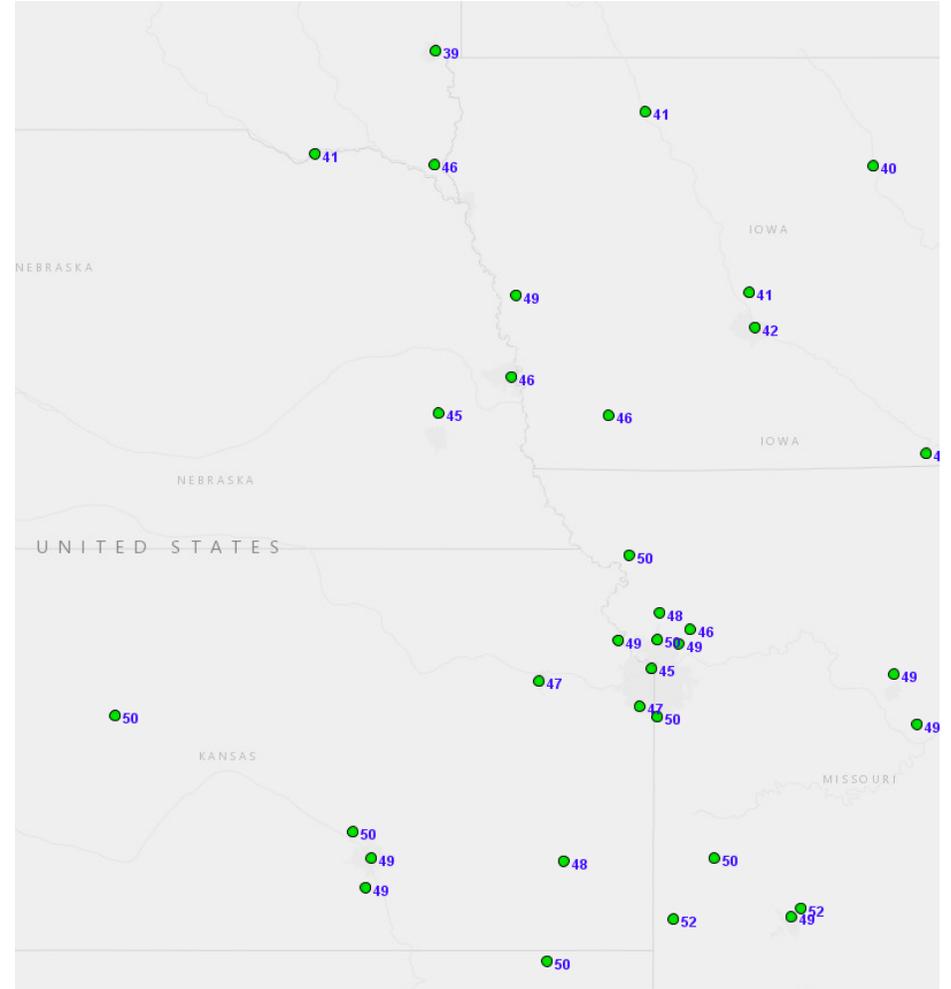
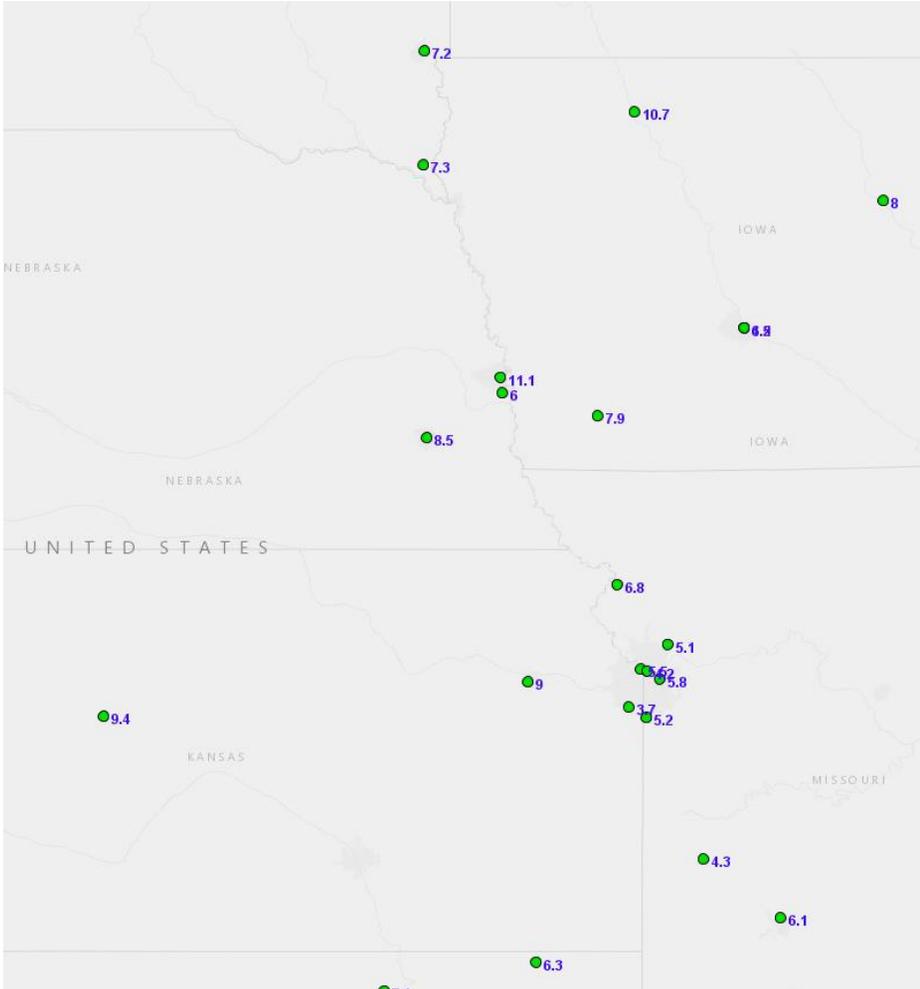
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Saturday, March 3, 2018

PM2.5 (24-hour average)

Ozone (8-hour average maximum)



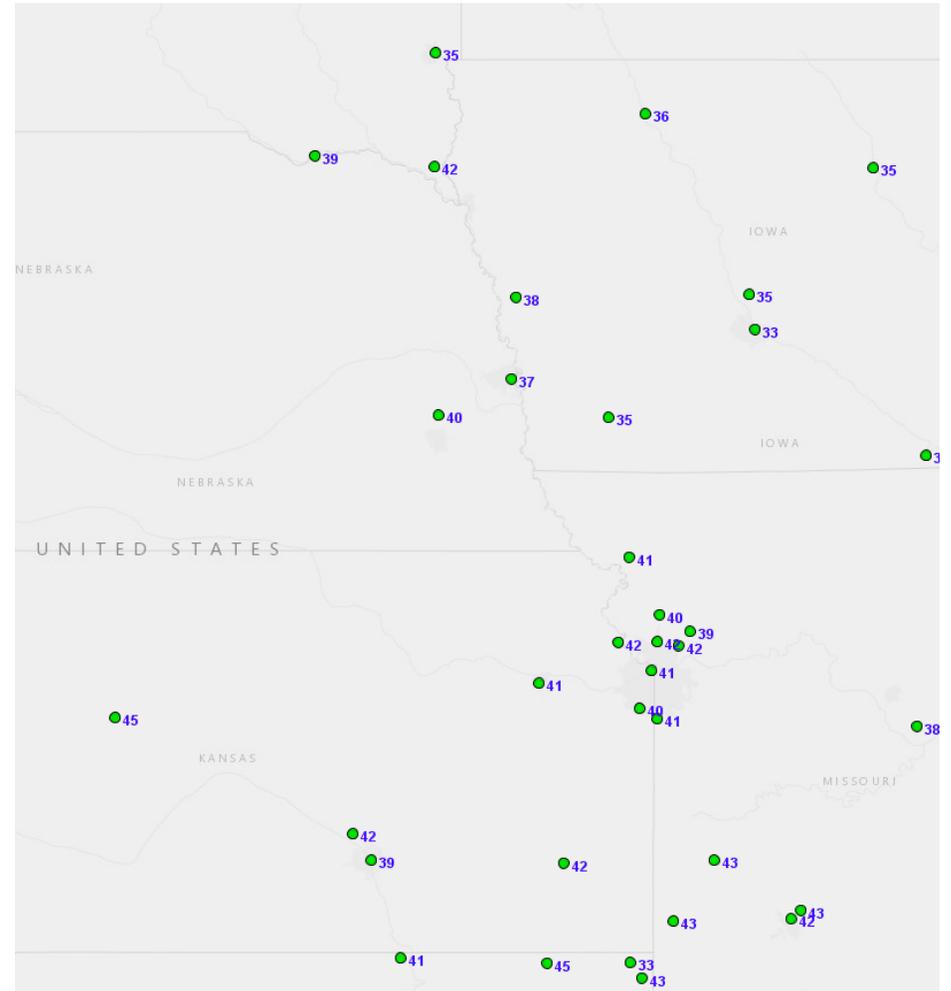
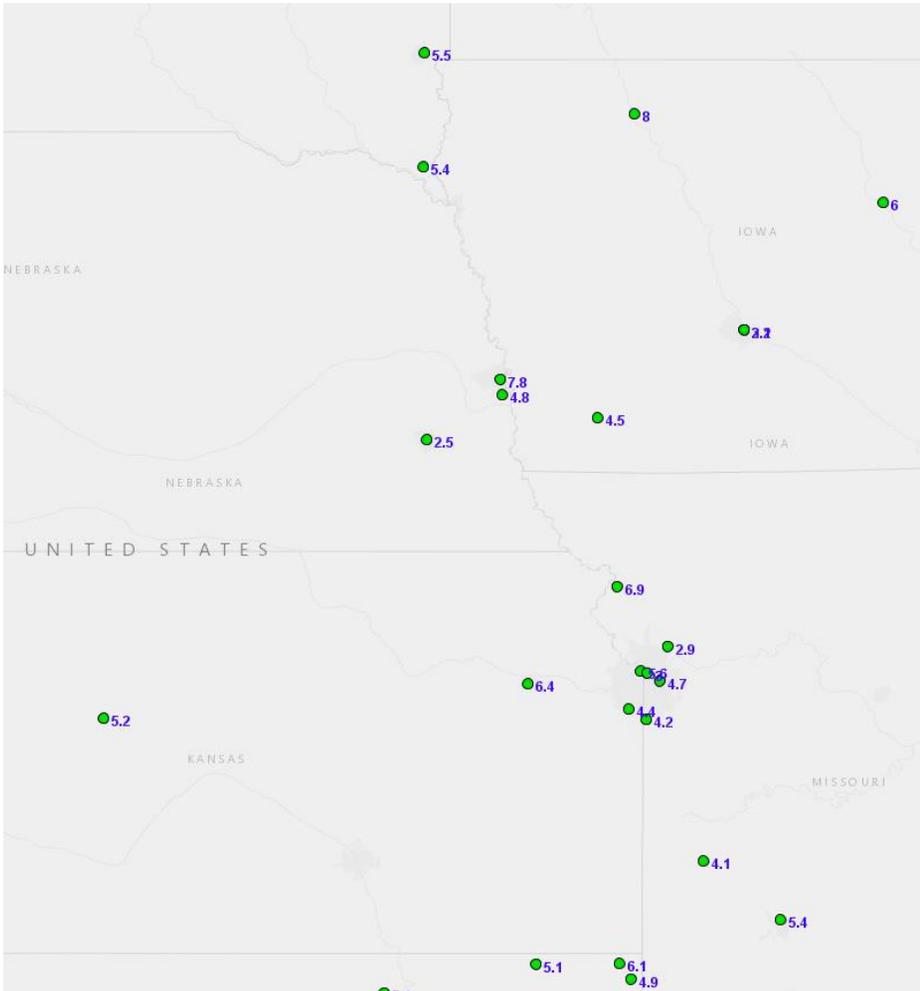
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Monday, March 5, 2018

PM2.5 (24-hour average)

Ozone (8-hour average maximum)



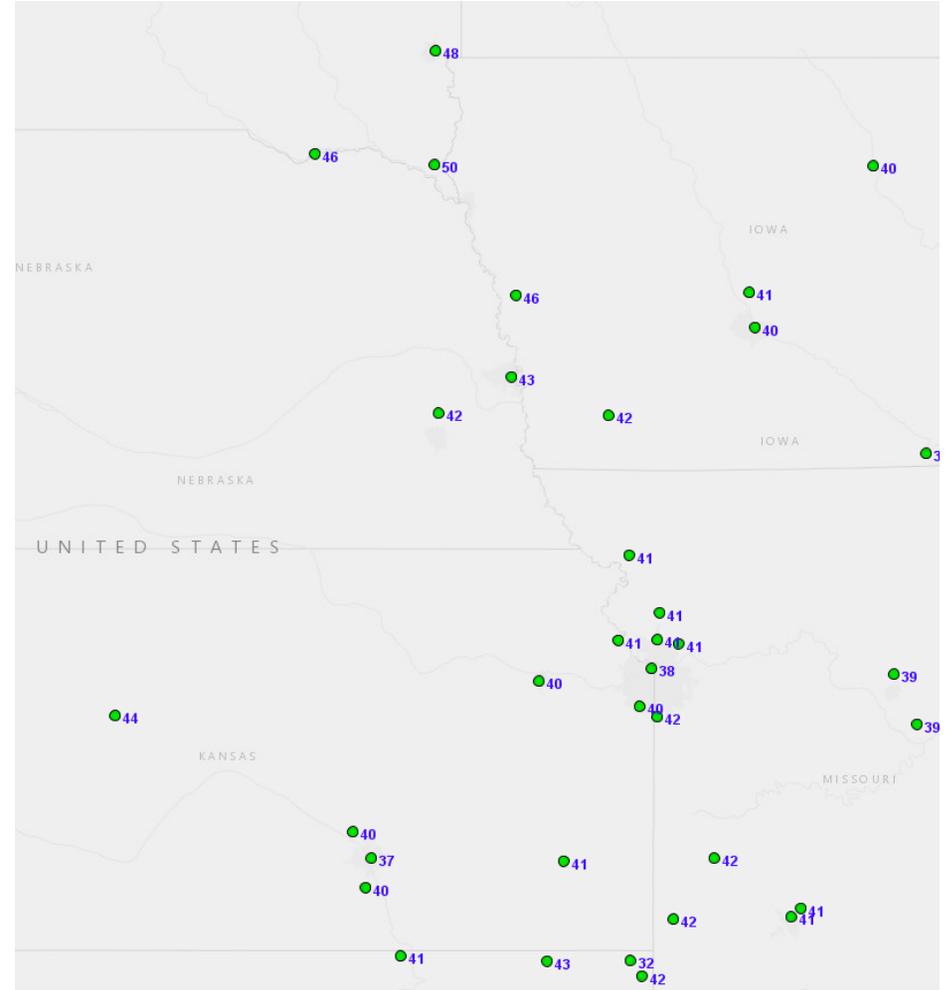
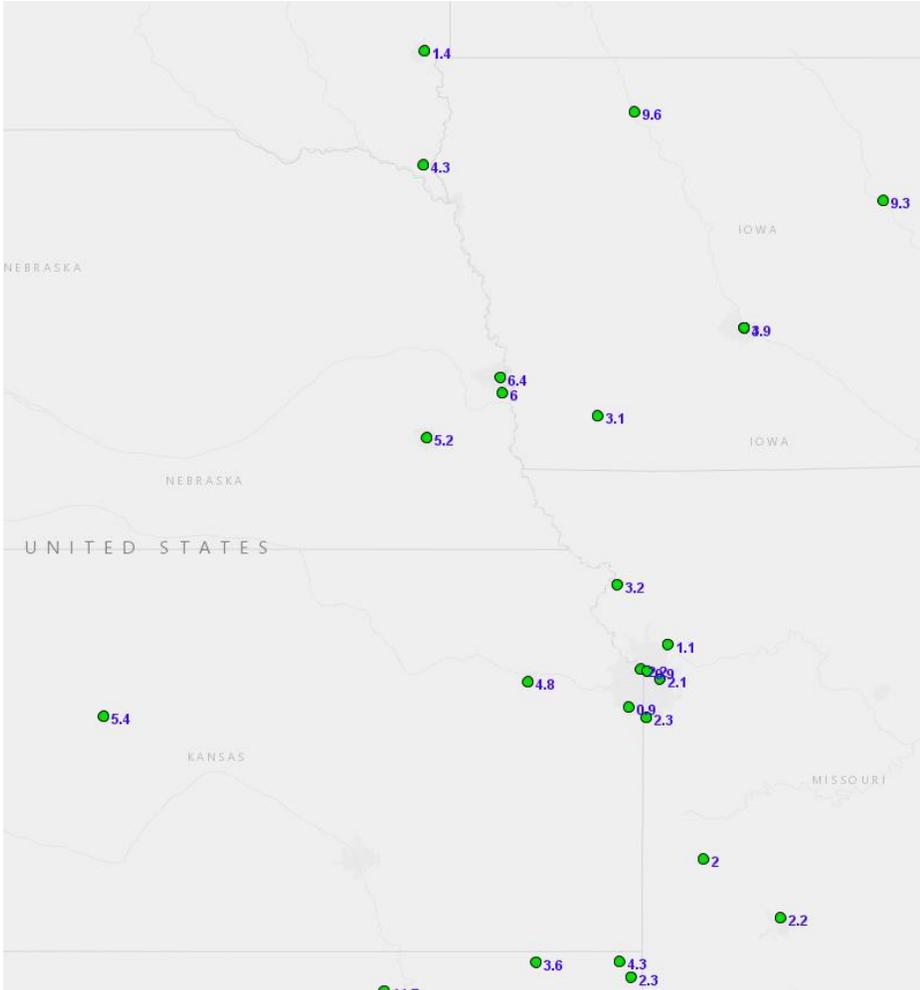
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Tuesday, March 6, 2018

PM2.5 (24-hour average)

Ozone (8-hour average maximum)



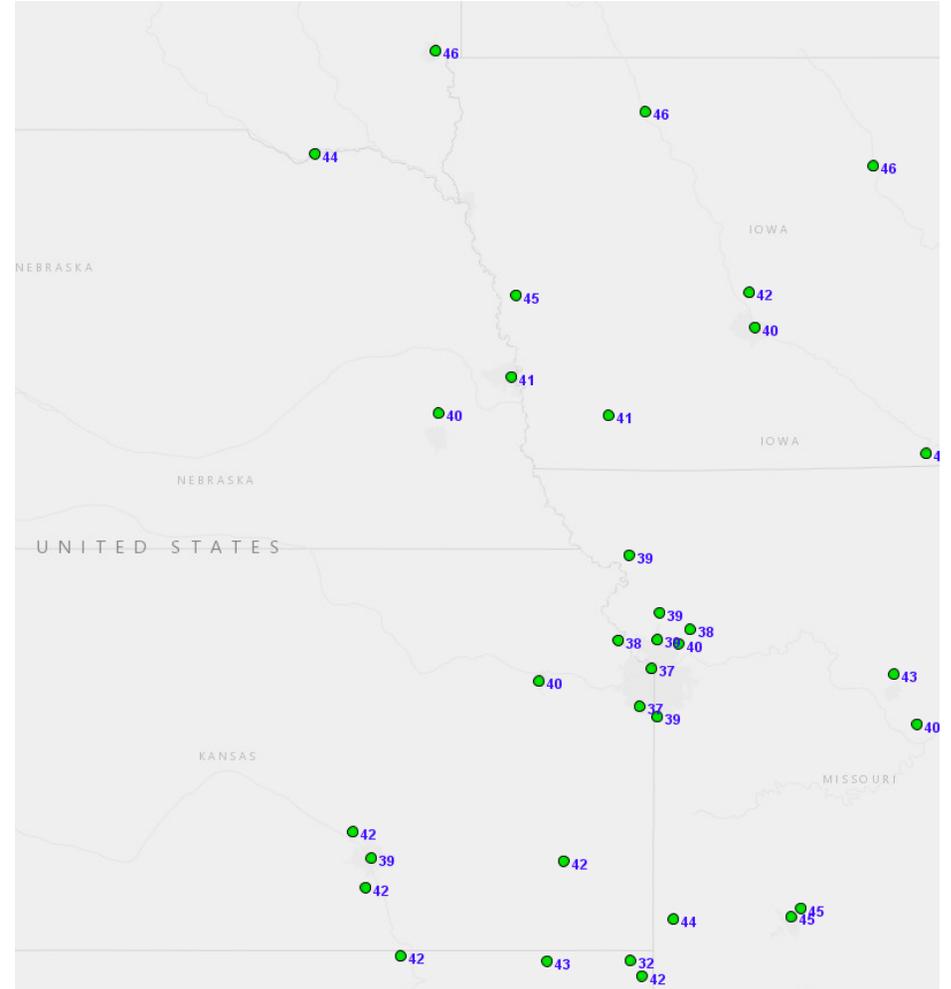
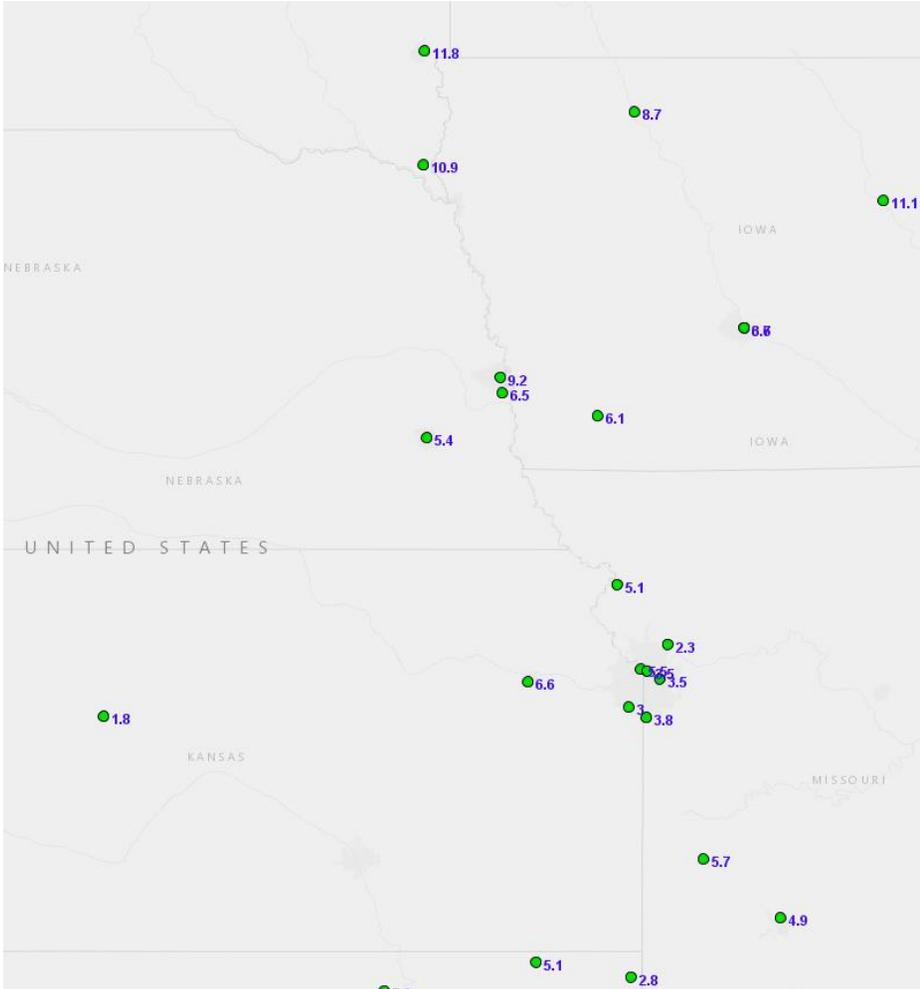
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Wednesday, March 7, 2018

PM2.5 (24-hour average)

Ozone (8-hour average maximum)



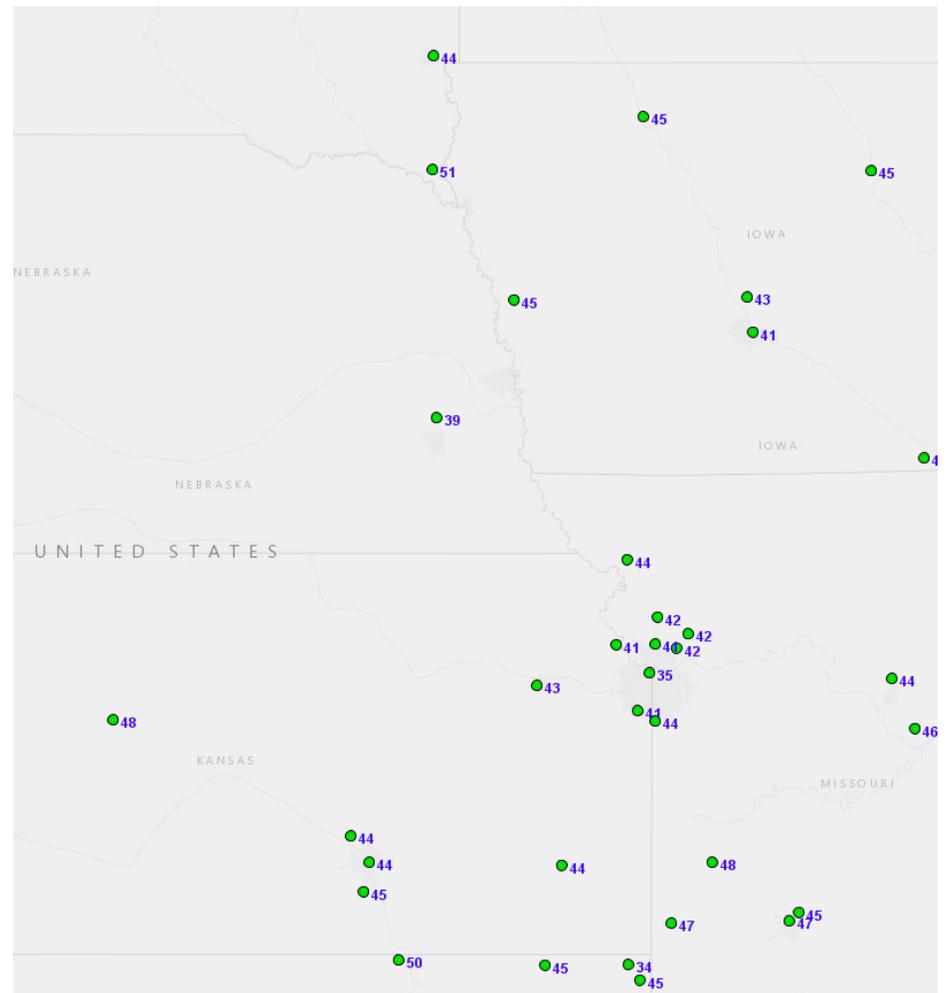
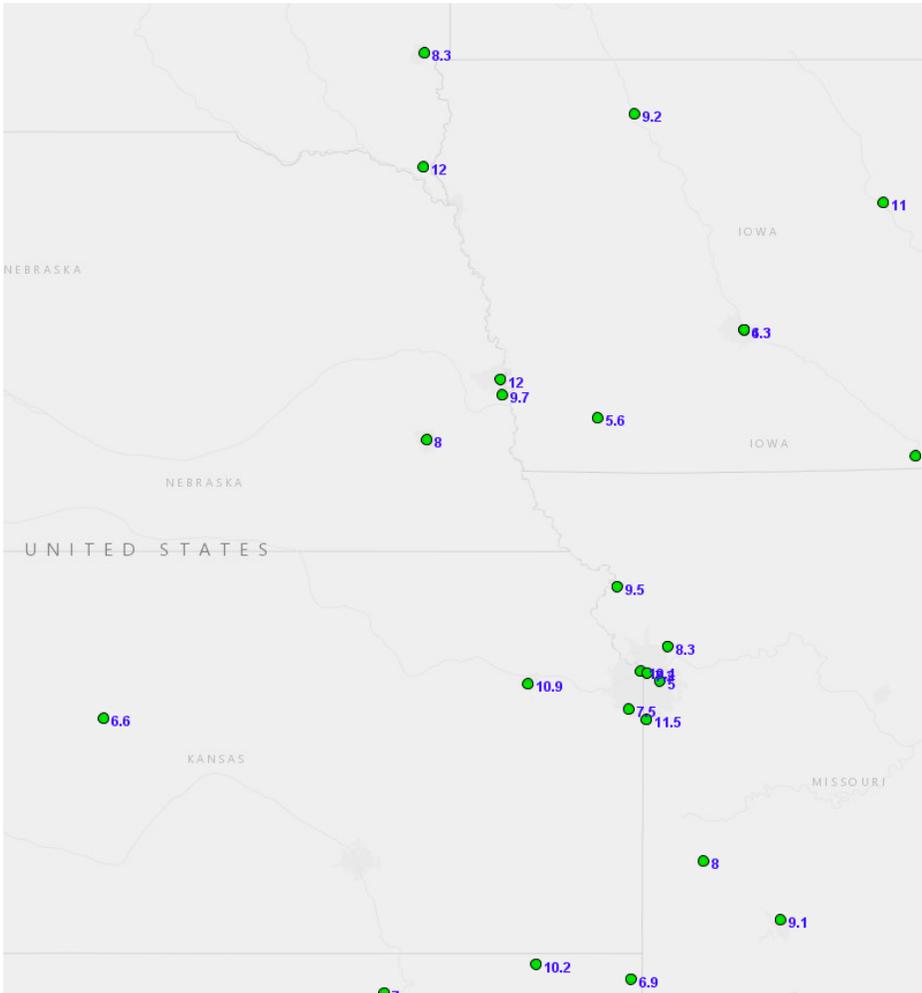
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Thursday, March 8, 2018

PM2.5 (24-hour average)

Ozone (8-hour average maximum)





Fires and Smoke

A few prescribed burns were conducted within the Flint Hills region on Friday and Saturday (March 2-3), but more numerous burning occurred over far southeast Kansas and across Missouri into Arkansas during this period. Rainfall and cloud cover kept burning to a minimum on Sunday (March 4). Wildfire concerns become prevalent across Kansas beginning in far western Kansas on Sunday and continued through Wednesday (March 4-7) with numerous wildfires under strong northwest winds.

Winds calmed for Thursday (March 8) which opened the opportunity for prescribed burning for many areas. Multiple counties however are still dealing with burn bans due to the dry conditions and recent wildfire events.

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

KSFIRE.ORG

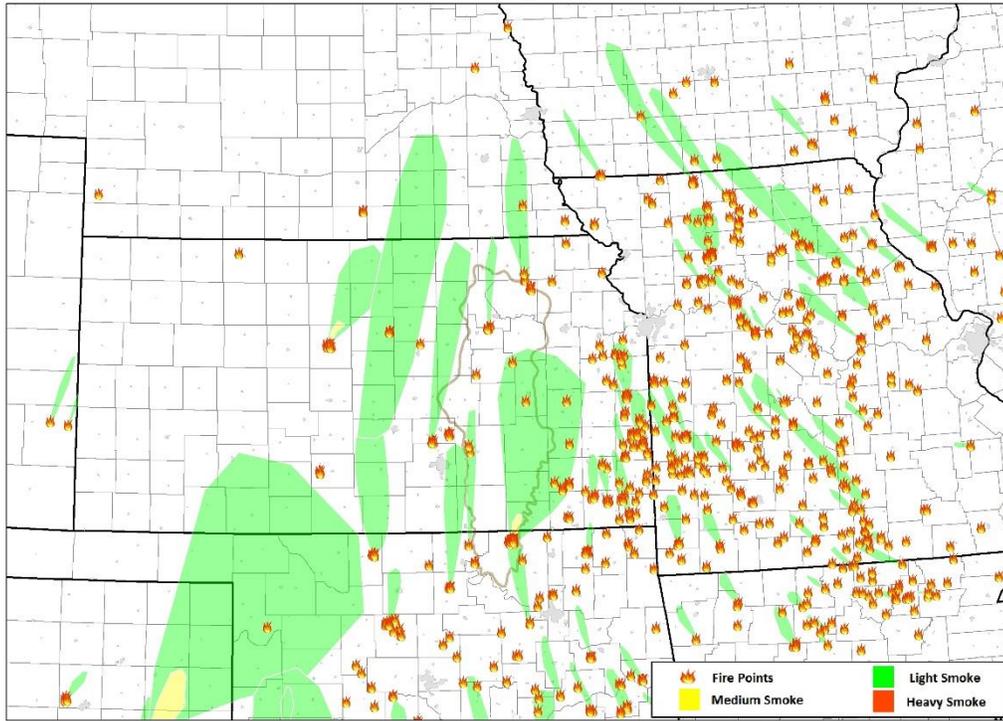


This website was developed as part of the development of the Kansas Flint Hills Smoke Management Plan. Kansas State University hosts the webpage and it includes important information for ranchers and others who might be interested in the Flint Hills. It provides training, regulations, policies, publications,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

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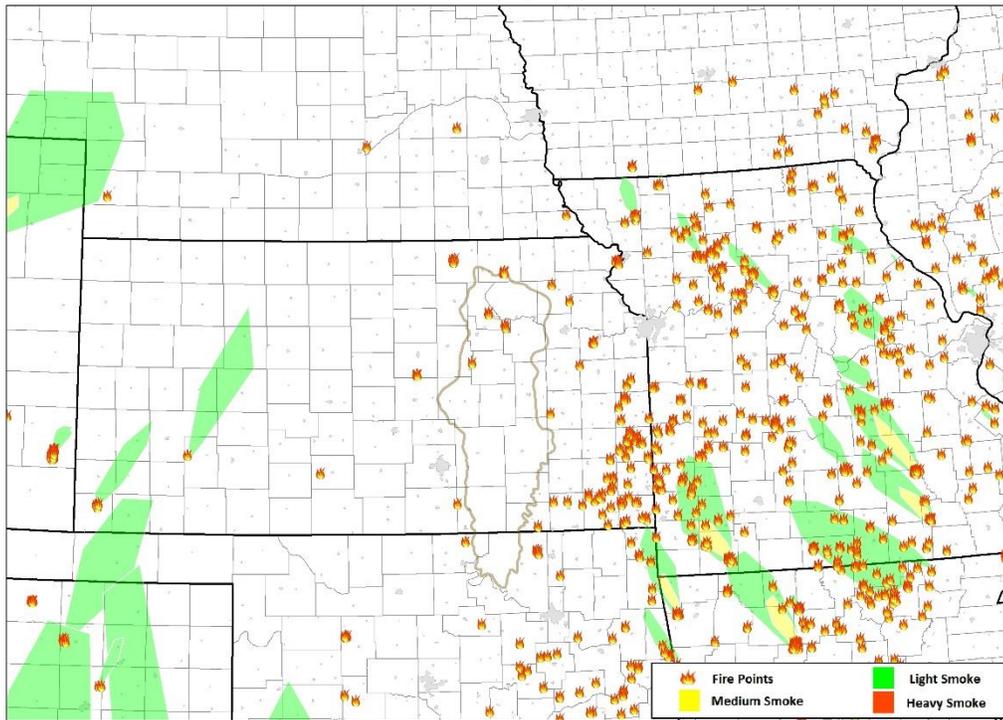
HMS Fire & Smoke Analysis March 02, 2018



Map: Jayson Prentice, KDHE Bureau of Air

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

HMS Fire & Smoke Analysis March 03, 2018



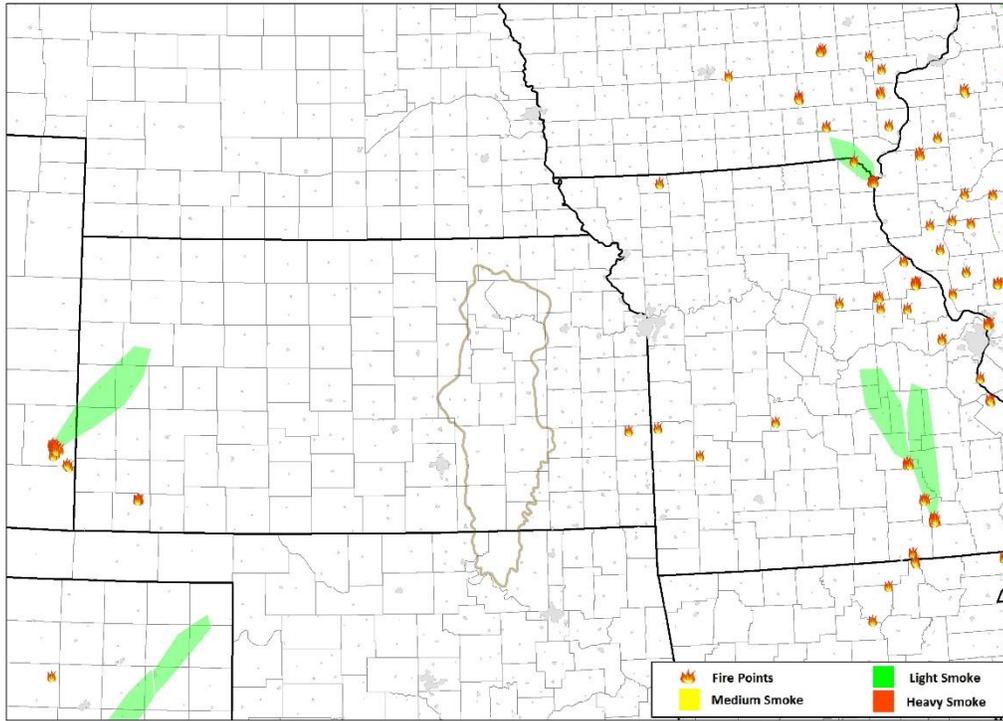
Map: Jayson Prentice, KDHE Bureau of Air

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

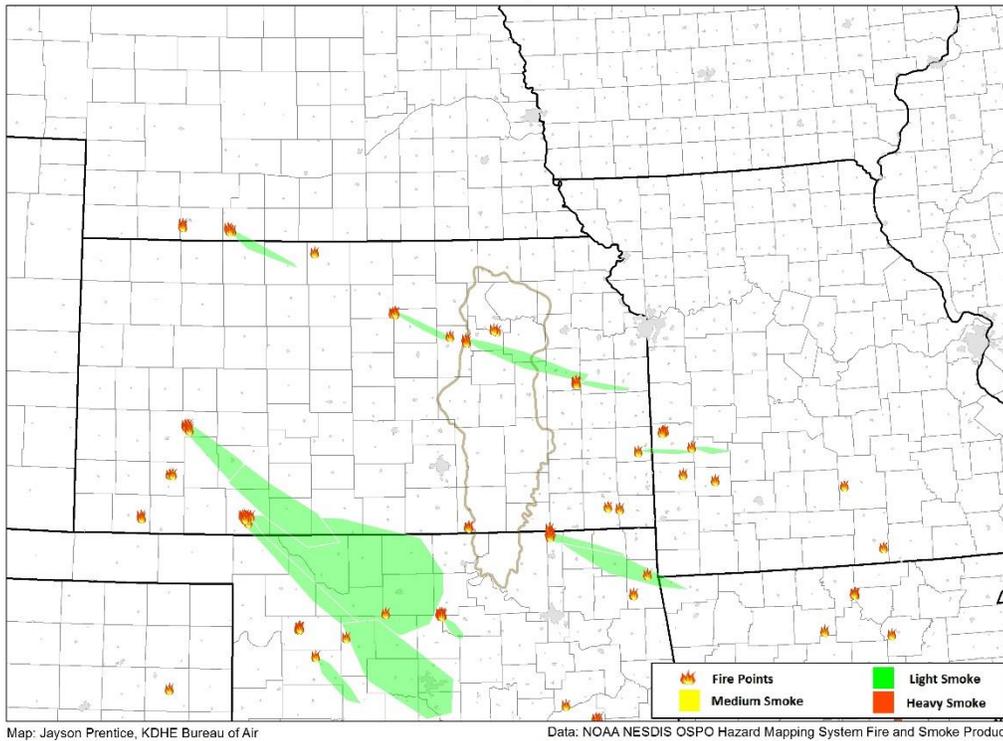
Flint Hills Prescribed Fire Update



HMS Fire & Smoke Analysis March 04, 2018



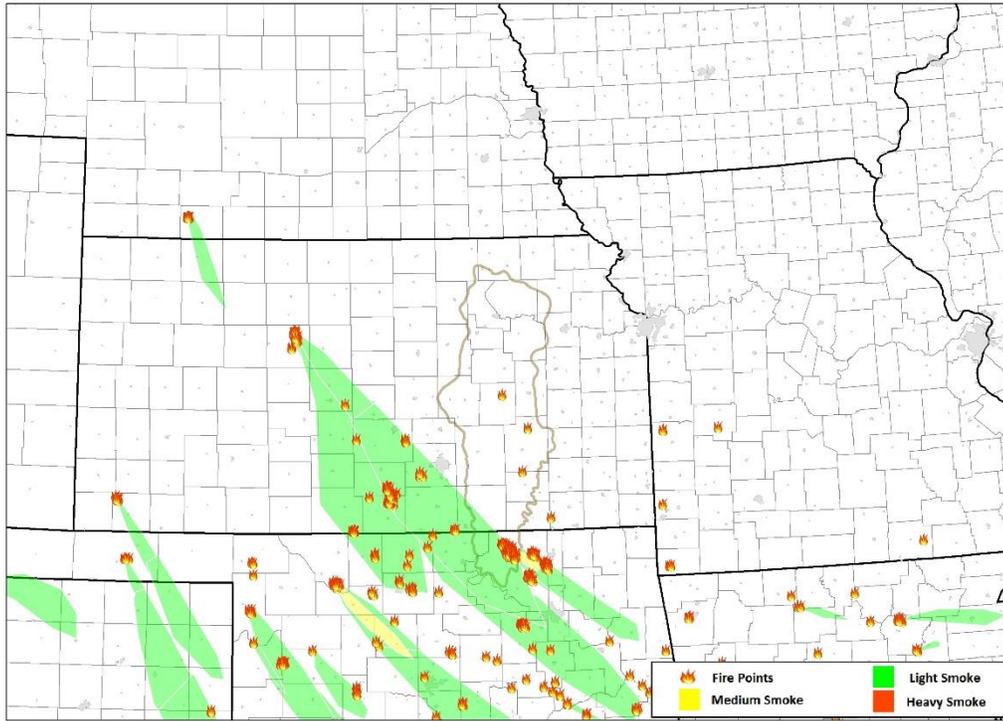
HMS Fire & Smoke Analysis March 05, 2018



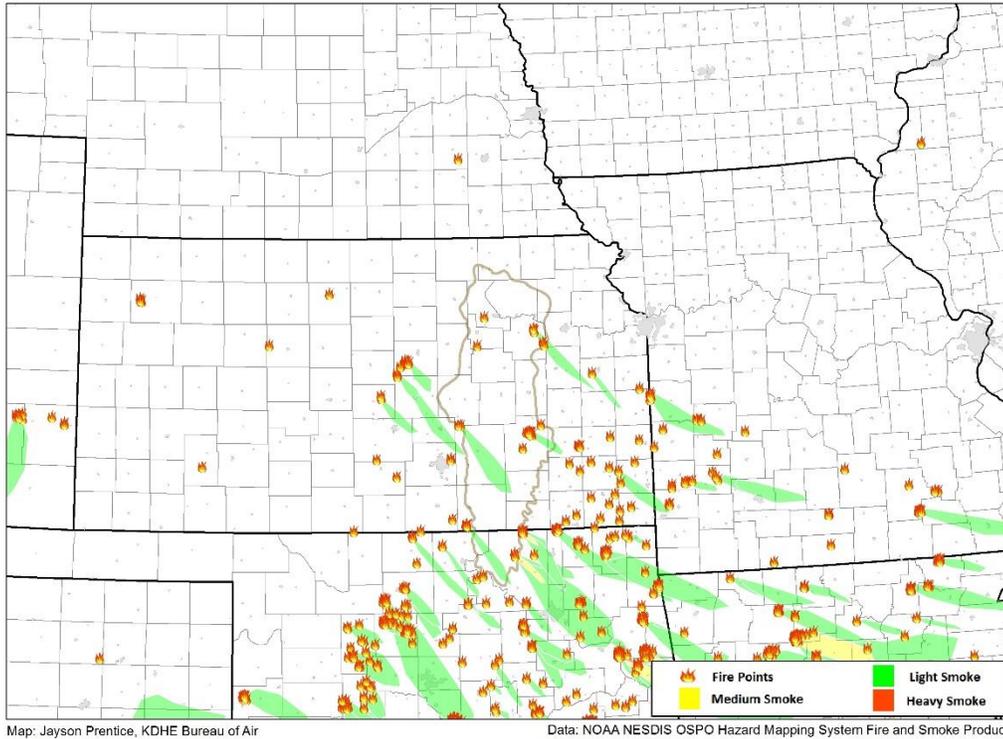
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HMS Fire & Smoke Analysis March 6, 2018



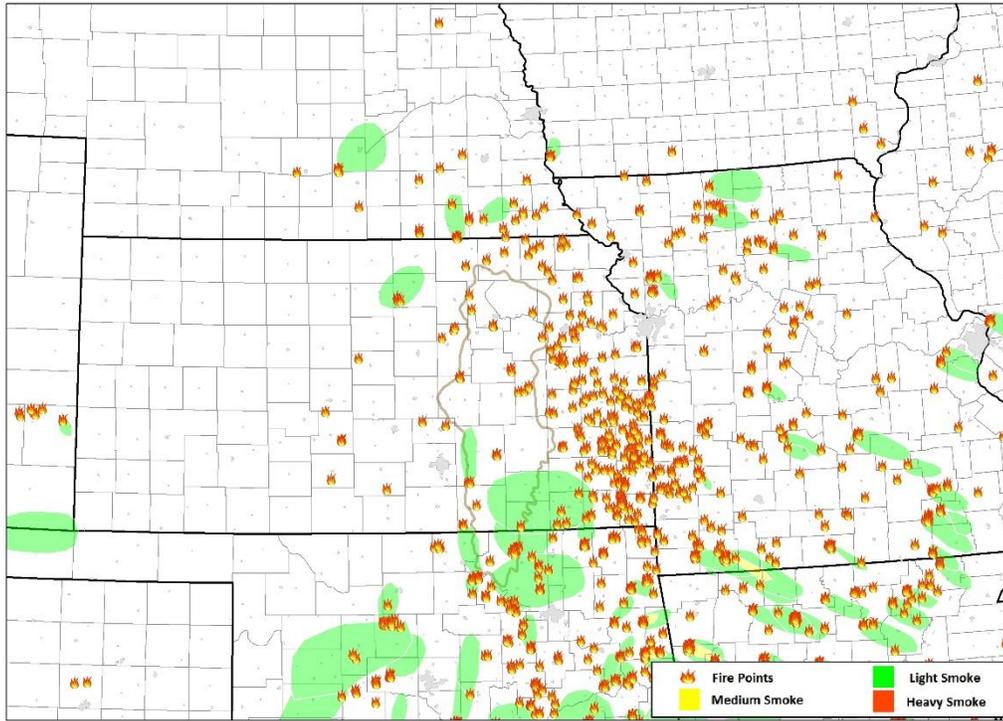
HMS Fire & Smoke Analysis March 07, 2018



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HMS Fire & Smoke Analysis March 08, 2018

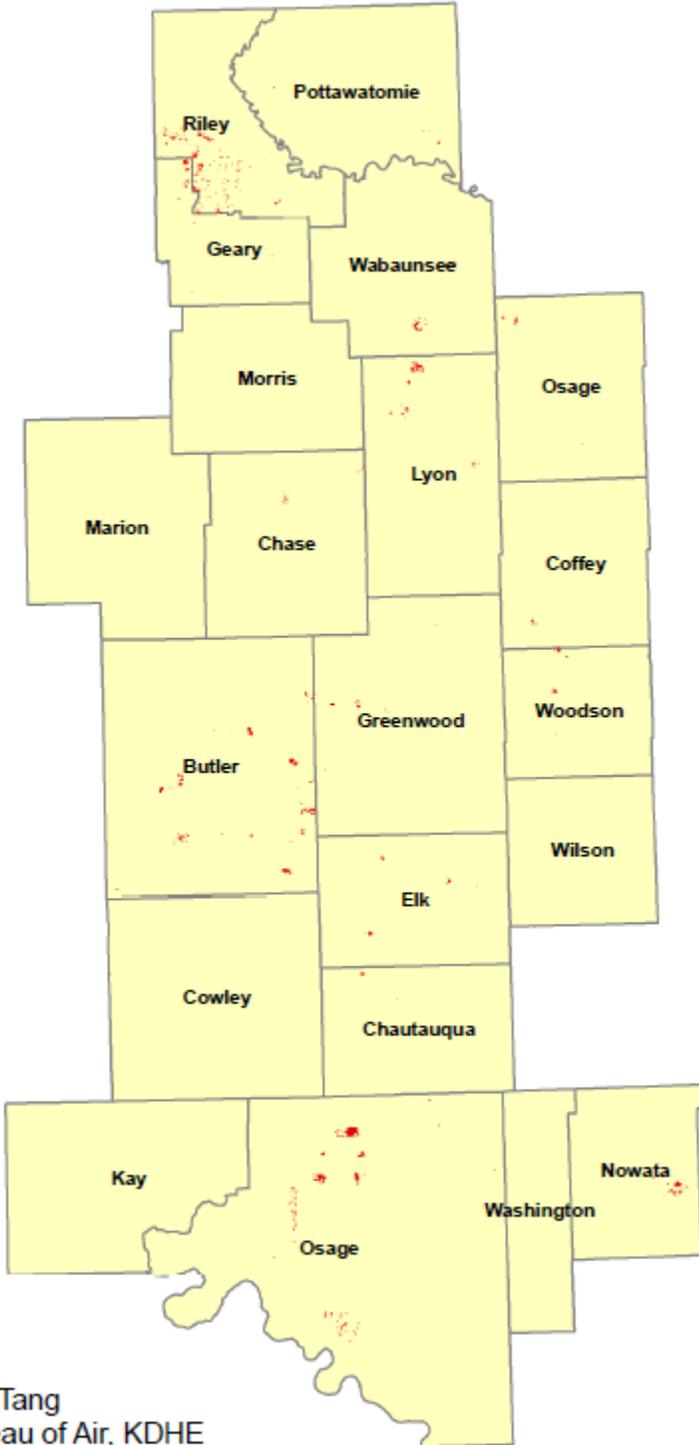


Map: Jayson Prentice, KDHE Bureau of Air

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



Flint Hills Acreage Burned (February 17 – March 2, 2018)



<u>Counties</u>	<u>Acres Burned</u>
Butler	3,676
Chase	293
Chautauqua	154
Coffey	185
Cowley	62
Elk	541
Geary	973
Greenwood	479
Lyon	1,576
Marion	0
Morris	0
Osage (KS)	355
Pottawatomie	185
Riley	4,170
Wabaunsee	772
Wilson	0
Woodson	525
Nowata (OK)	1,035
Osage (OK)	5,436
Washington (OK)	0
Kay (OK)	15
Total	20,432
* Denotes county was partly or completely covered by clouds during latest analysis.	

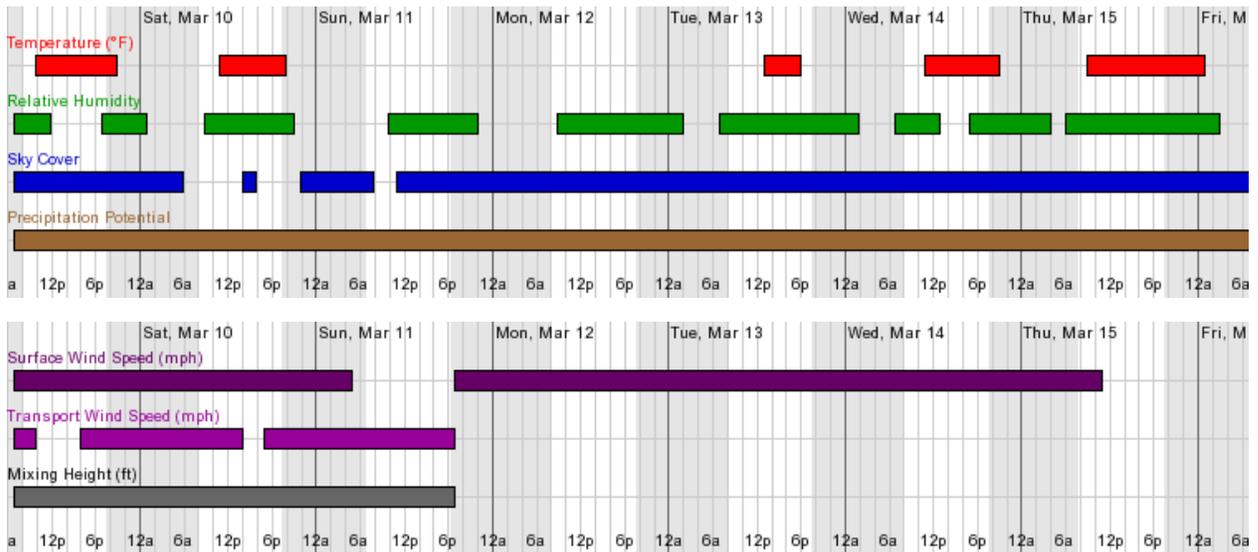
Yao Tang
Bureau of Air, KDHE



Upcoming Look at Fires and Smoke

Light winds and warm temperatures today will provide an opportunity for prescribed burning throughout the Flint Hills and surrounding areas, the only downfall may be relative humidity values that dip down below 30% during the afternoon. Cloud cover returns to the area on Saturday alongside small chances for precipitation. Colder temperatures and breezy winds will inhibit burning on Sunday with the colder temperatures sticking around into Monday as well. Tuesday and Wednesday both provide additional opportunities for burning as temperatures warm and winds remain relatively light. Breezy south winds return by Thursday though which will likely put a stop to burning activities with an increased wildfire danger.

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 March 9, 2018.