

Flint Hills Prescribed Fire Update

May 5, 2017

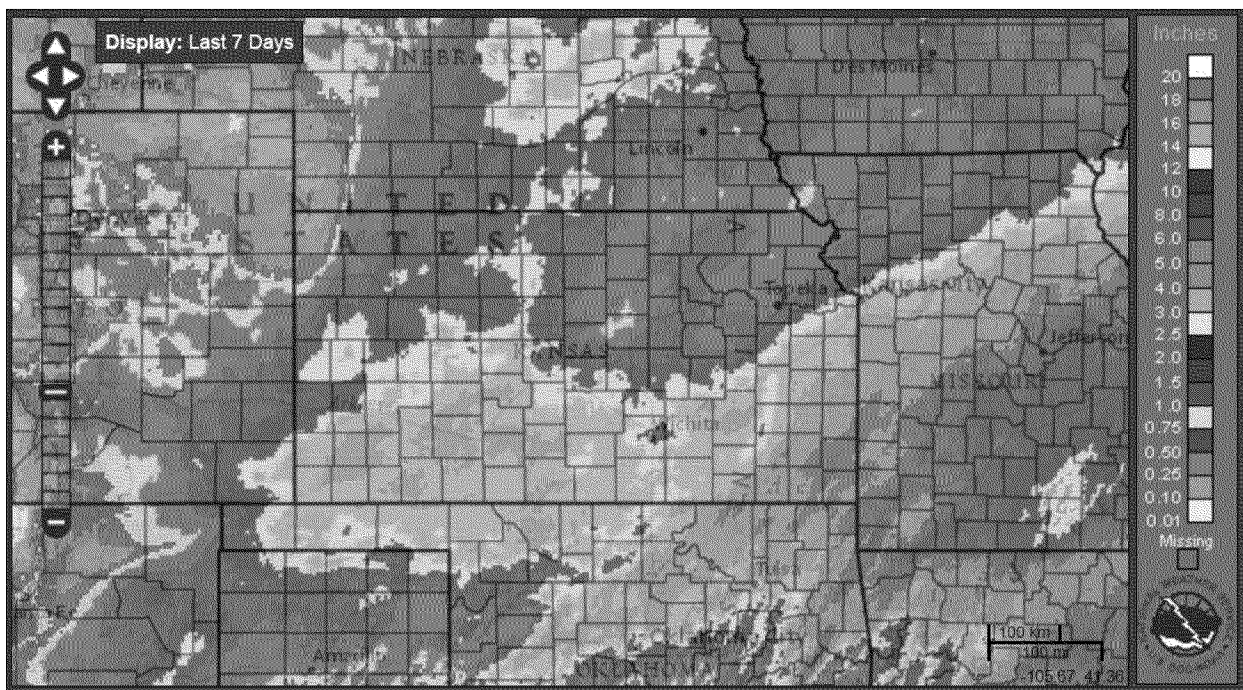
The following information on the Flint Hills prescribed fires will be sent weekly to keep stakeholders up to date on fires and related smoke.



Meteorology

Multiple rounds of rain fell throughout the past week, including some heavy rains over the southern Flint Hills and especially east of the Flint Hills. Rainfall totals over the past week ranged from an inch to more than 6 inches in the Flint Hills. Between the rounds of rain, there were cool and breezy conditions with temperatures in the 40s and 50s, and wind speeds often gusting above 30 mph. Dry conditions finally took hold by late Wednesday (May 3), and warmth returned to the area yesterday (Thursday, May 4) with temperatures back up near 70 degrees.

Precipitation

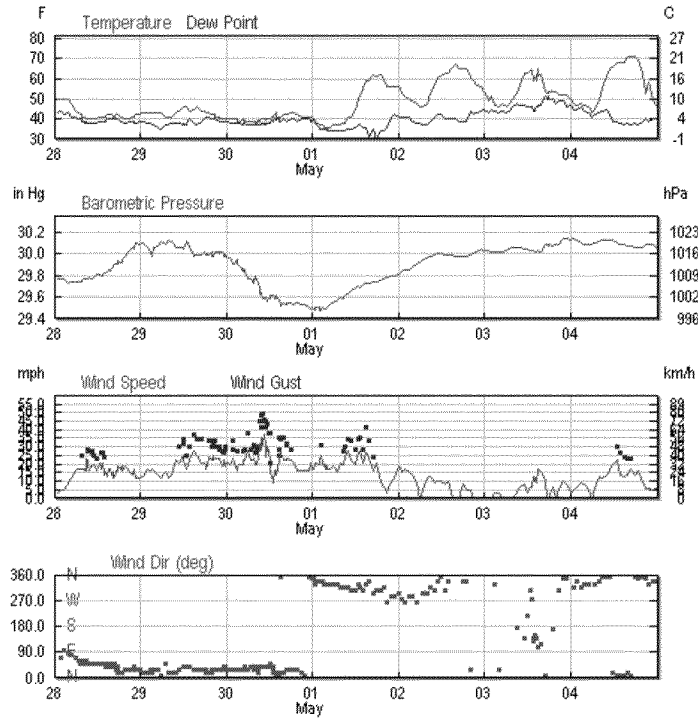


NOAA/NWS Observed Total Precipitation for April 28 – May 4, 2017.

Flint Hills Prescribed Fire Update

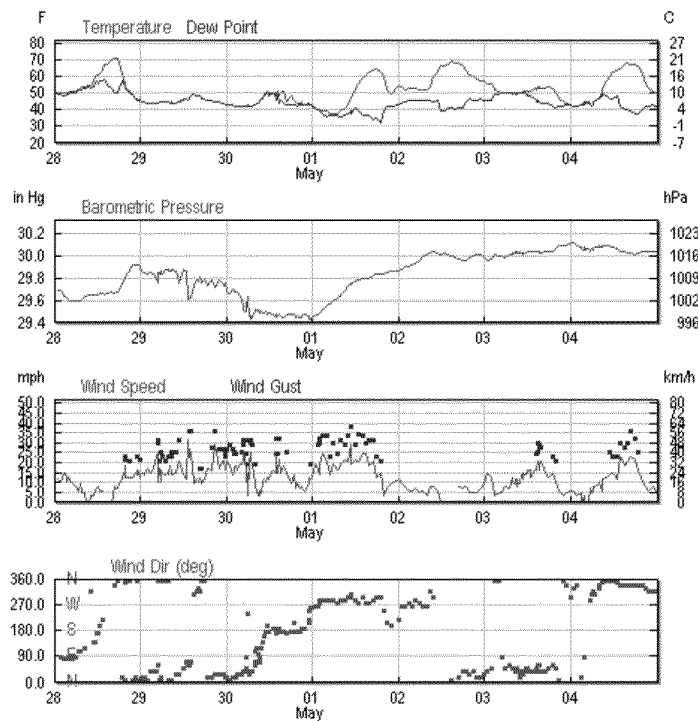
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Lincoln, NE



Apr 28 – May 4, 2017 Observed Weather from KLNK. Graphic: Weather Underground, Inc.

Emporia, KS



Apr 28 – May 4, 2017 Observed Weather from KEMP. Graphic: Weather Underground, Inc.

Friday, May 05, 2017 □ 3



Air Quality Data

Air quality data for the week of April 28 – May 4, 2017:

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.

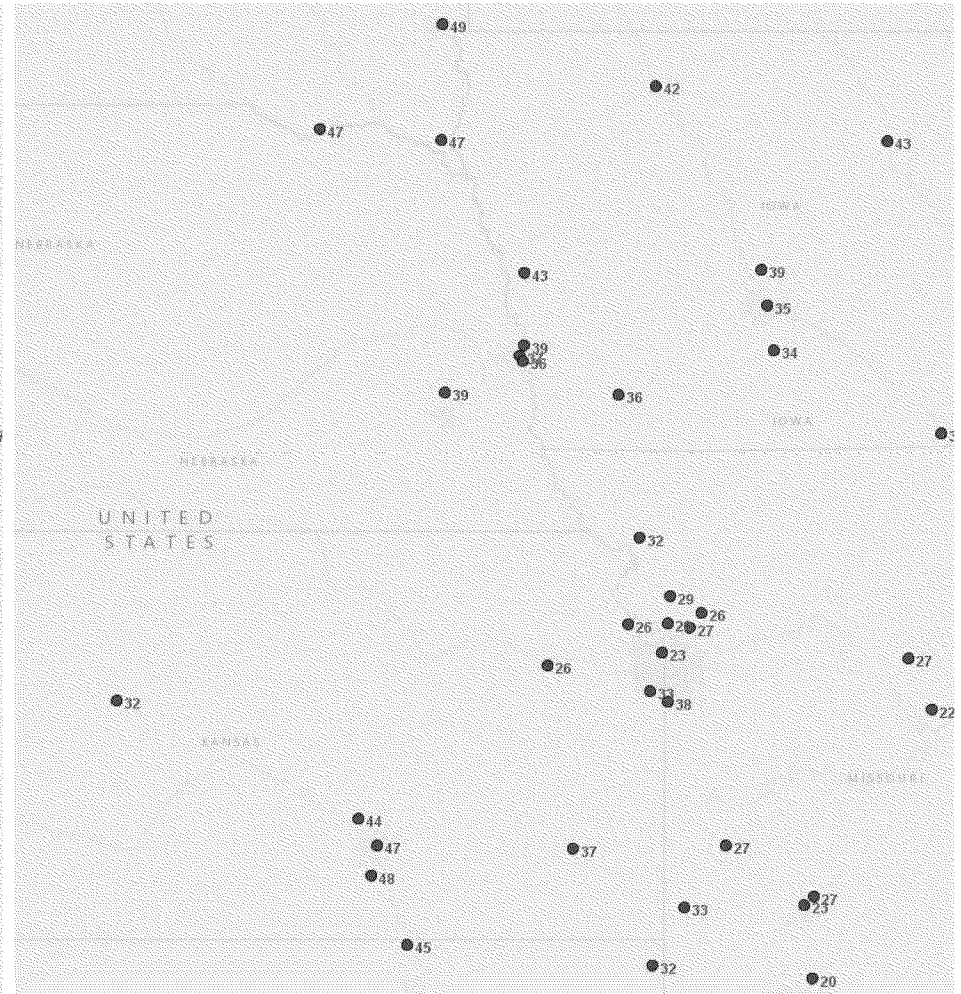
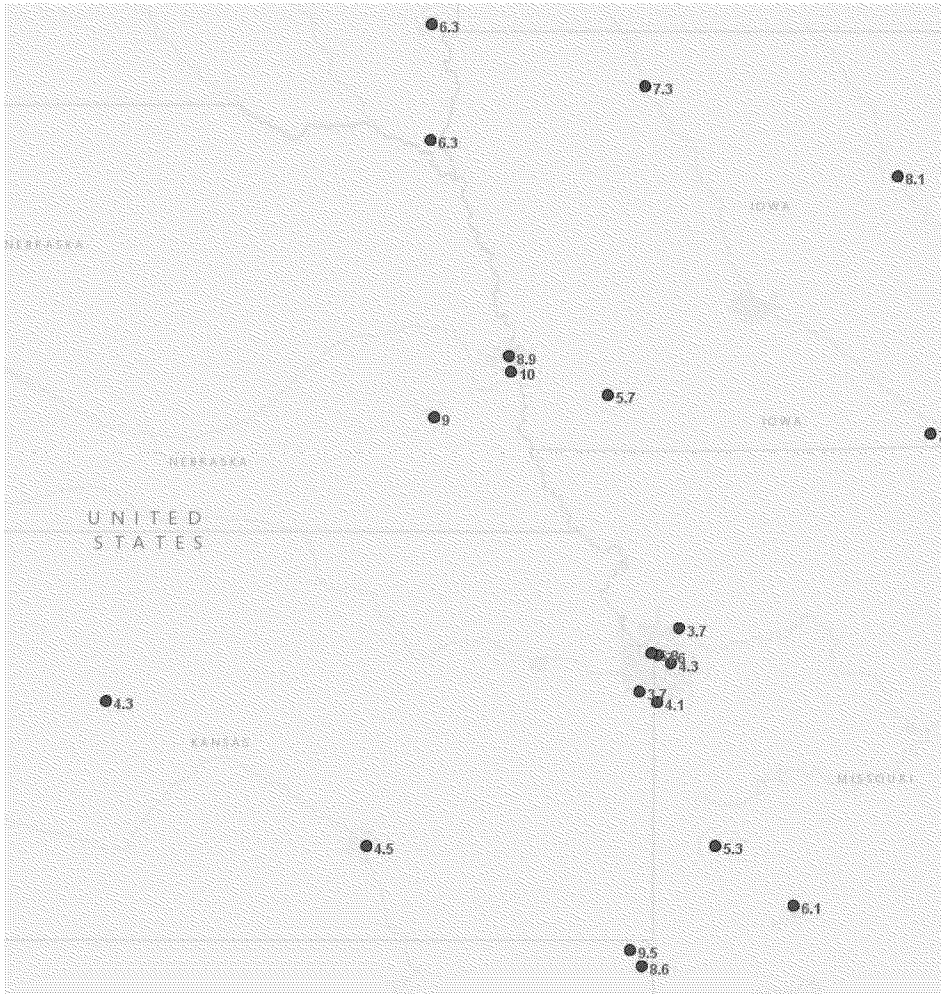
Flint Hills Prescribed Fire Update



Friday, April 28, 2017

PM2.5 (24-hour average)

Ozone (8-hour average maximum)



Friday, May 05, 2017 □ 5

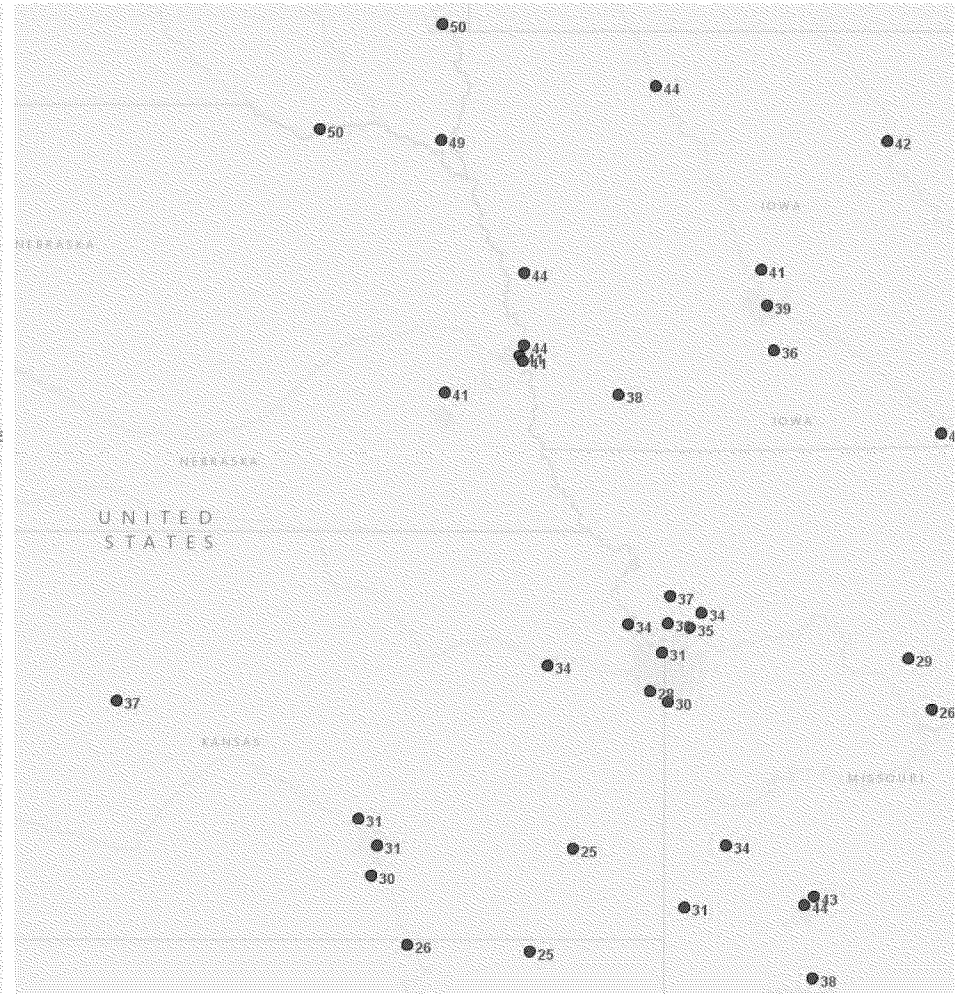
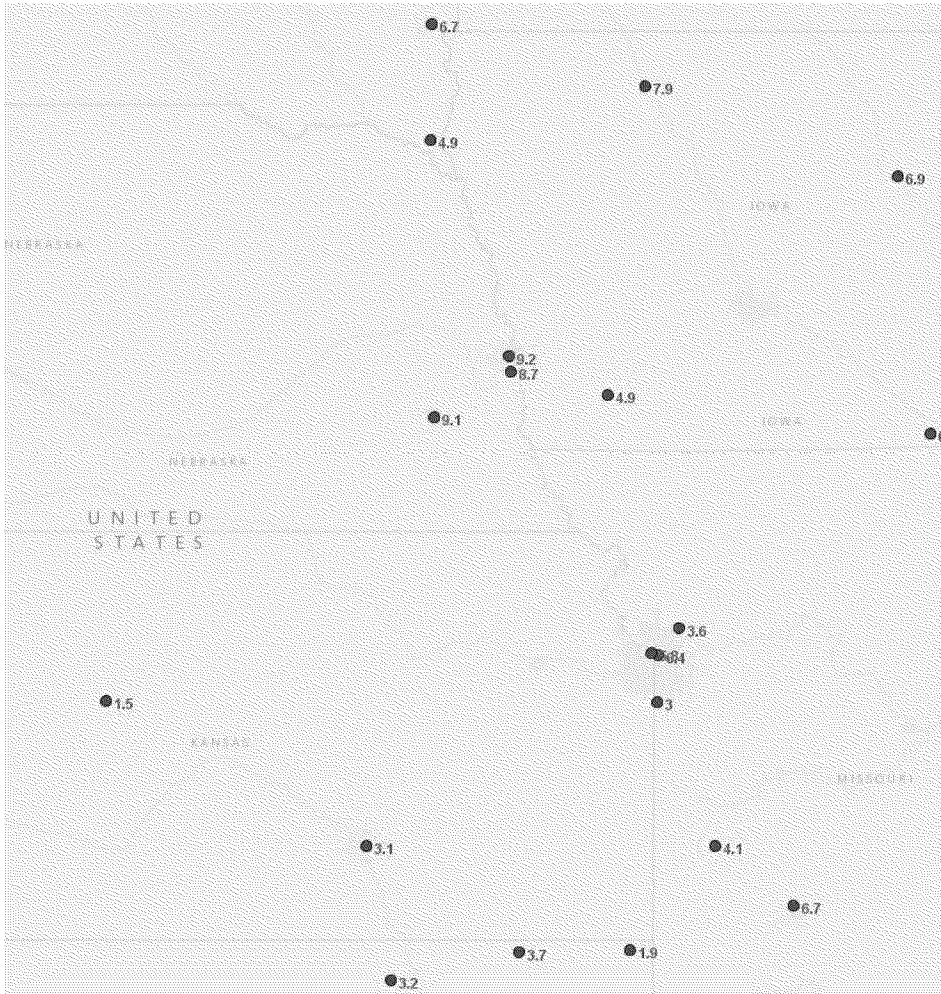
Flint Hills Prescribed Fire Update



Saturday, April 29, 2017

PM2.5 (24-hour average)

Ozone (8-hour average maximum)



Friday, May 05, 2017 □ 6

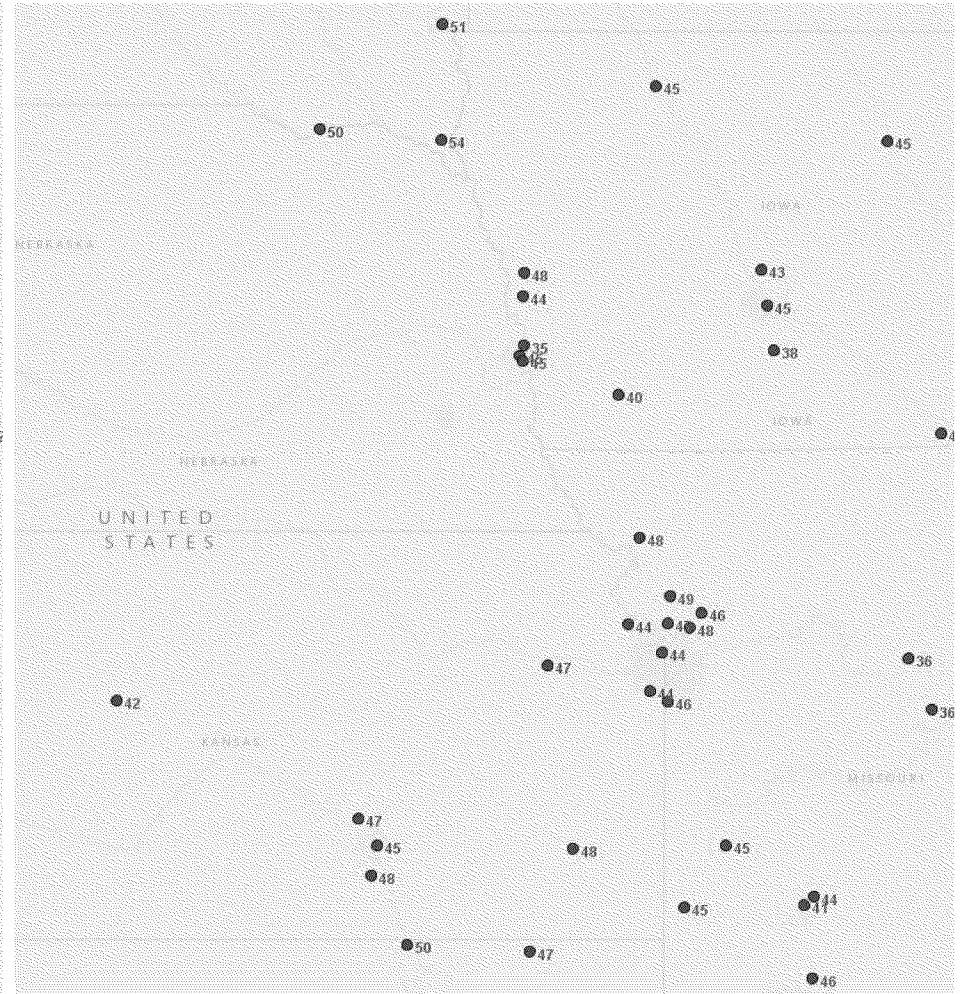
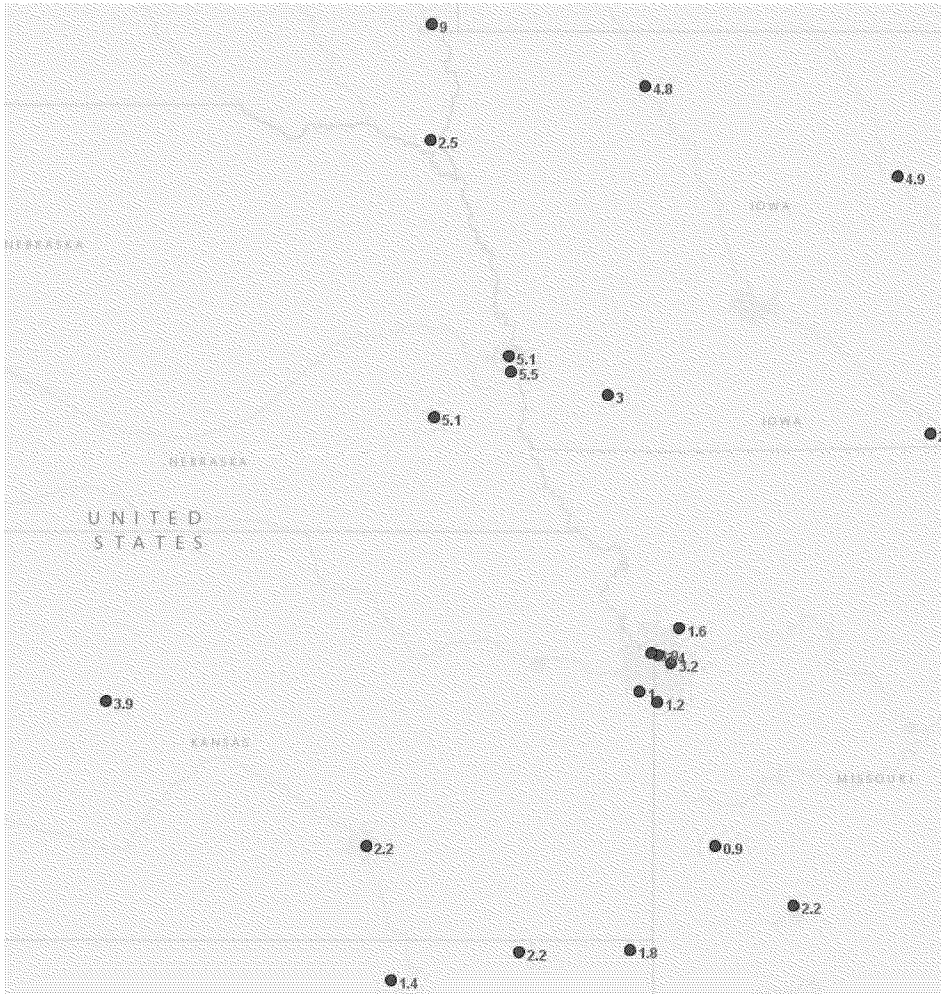
Flint Hills Prescribed Fire Update



Monday, May 1, 2017

PM2.5 (24-hour average)

Ozone (8-hour average maximum)



Friday, May 05, 2017 □ 8

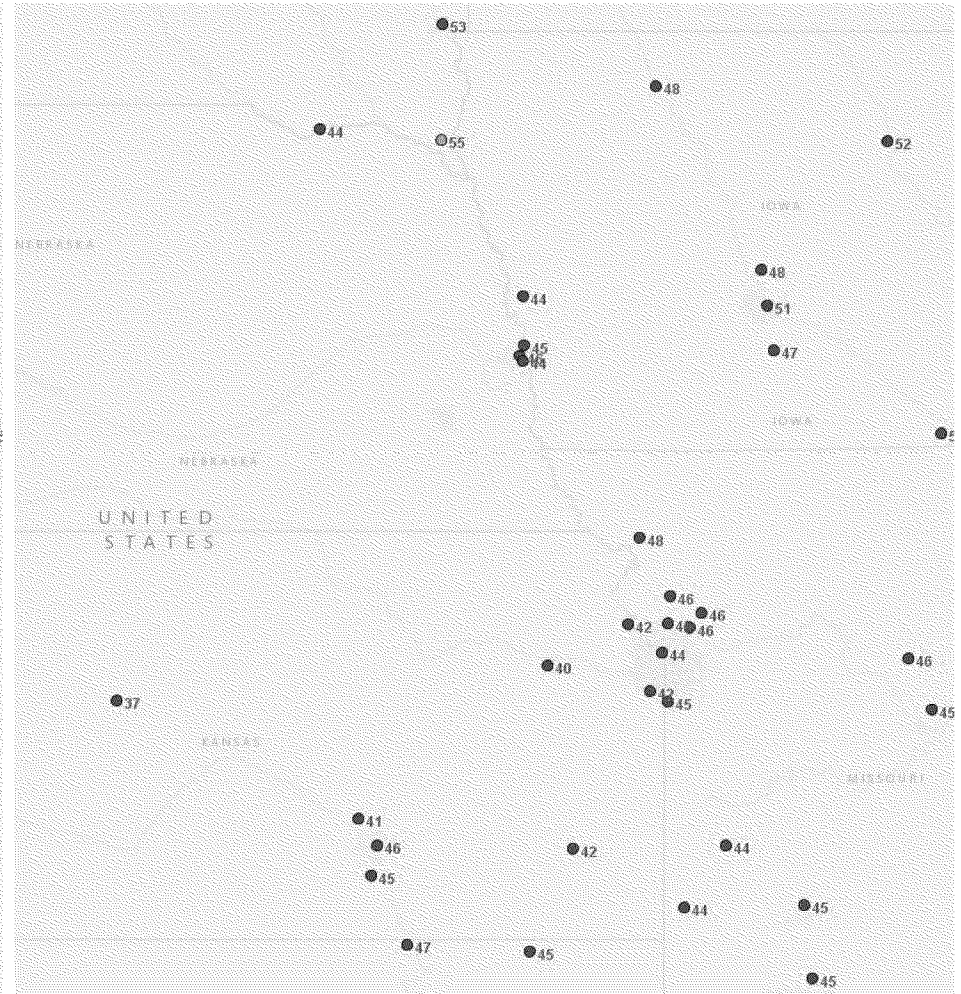
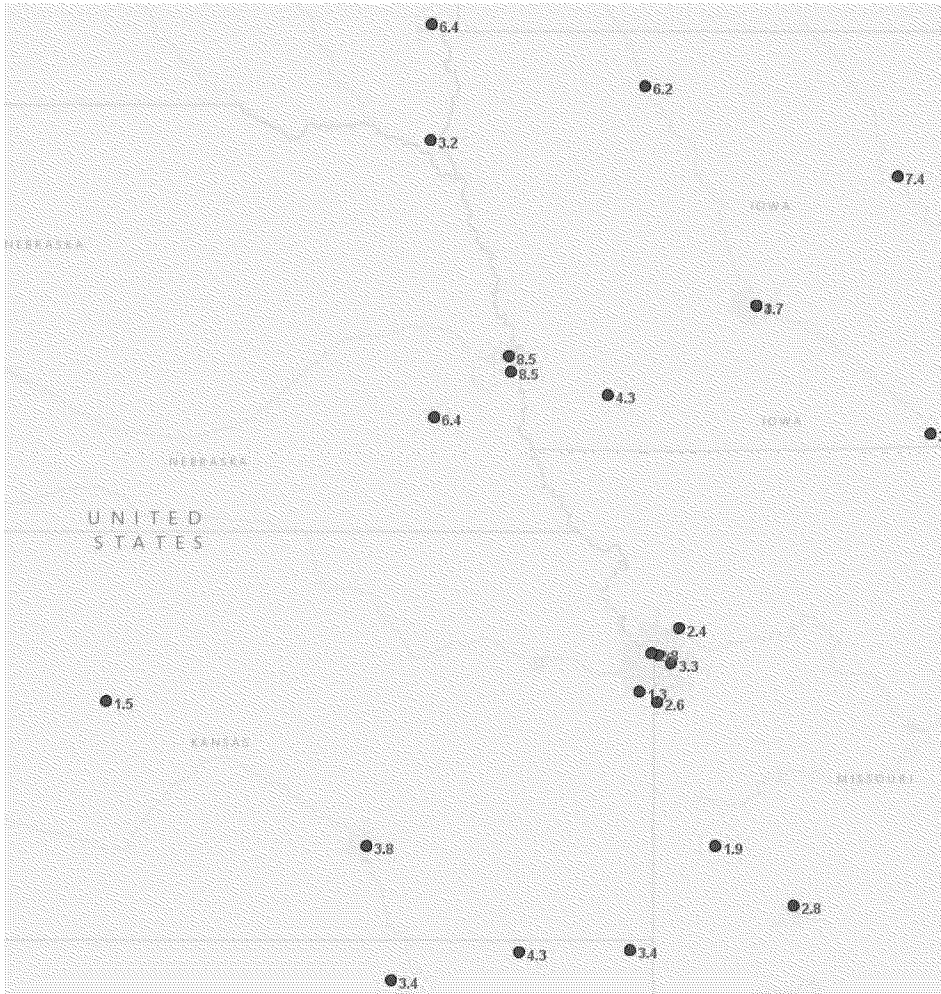
Flint Hills Prescribed Fire Update



Tuesday, May 2, 2017

PM2.5 (24-hour average)

Ozone (8-hour average maximum)



Friday, May 05, 2017 □ 9

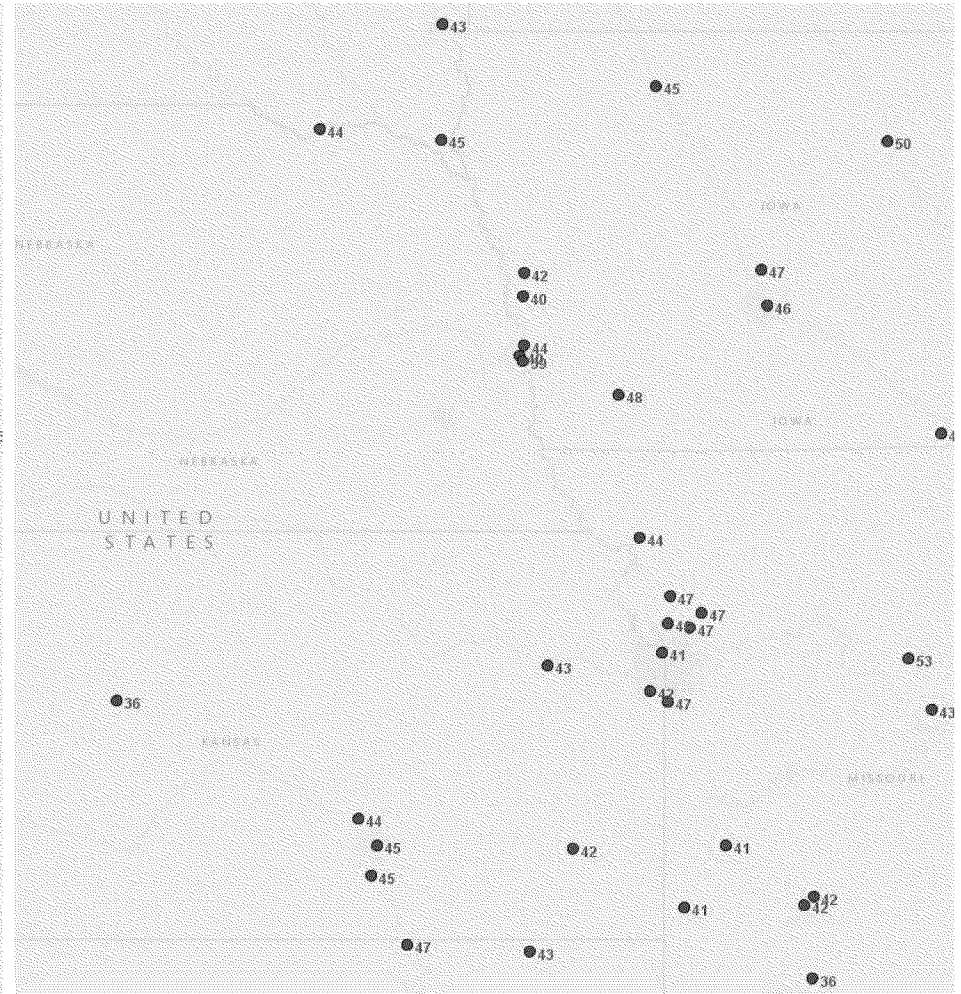
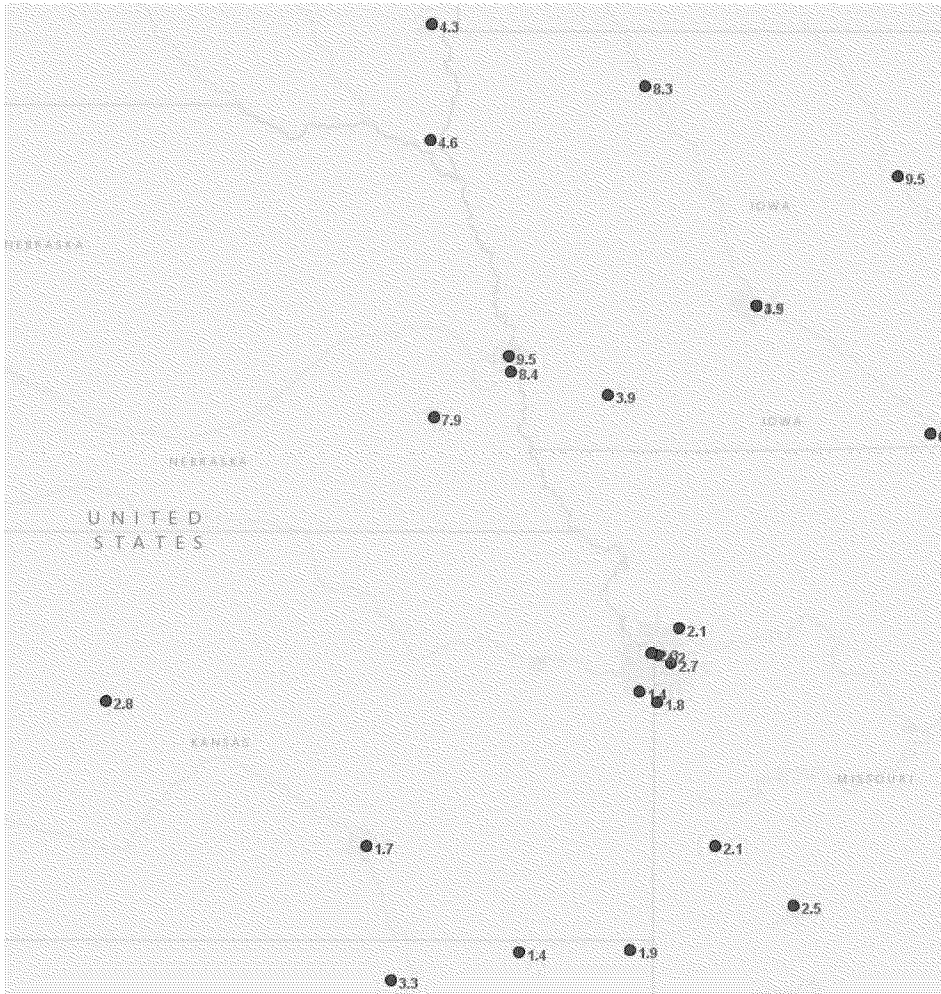
Flint Hills Prescribed Fire Update



Wednesday, May 3, 2017

PM2.5 (24-hour average)

Ozone (8-hour average maximum)



Friday, May 05, 2017 □ 10

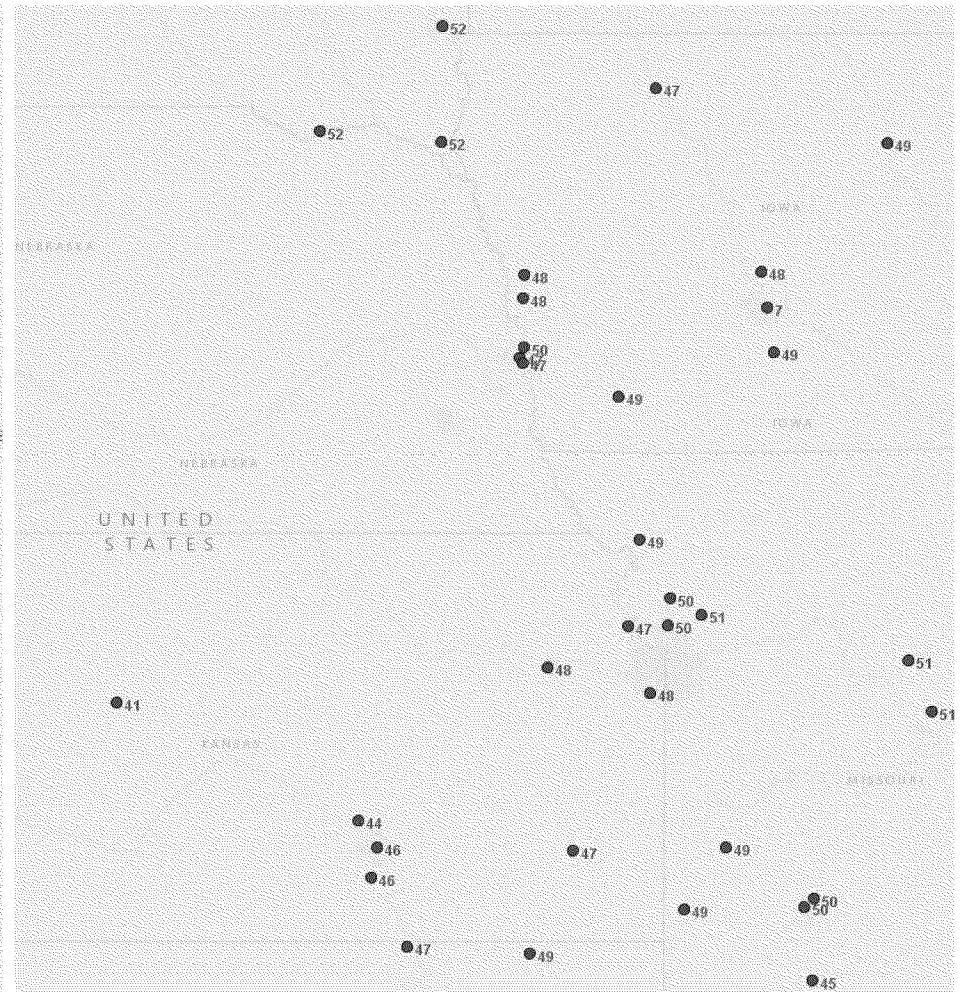
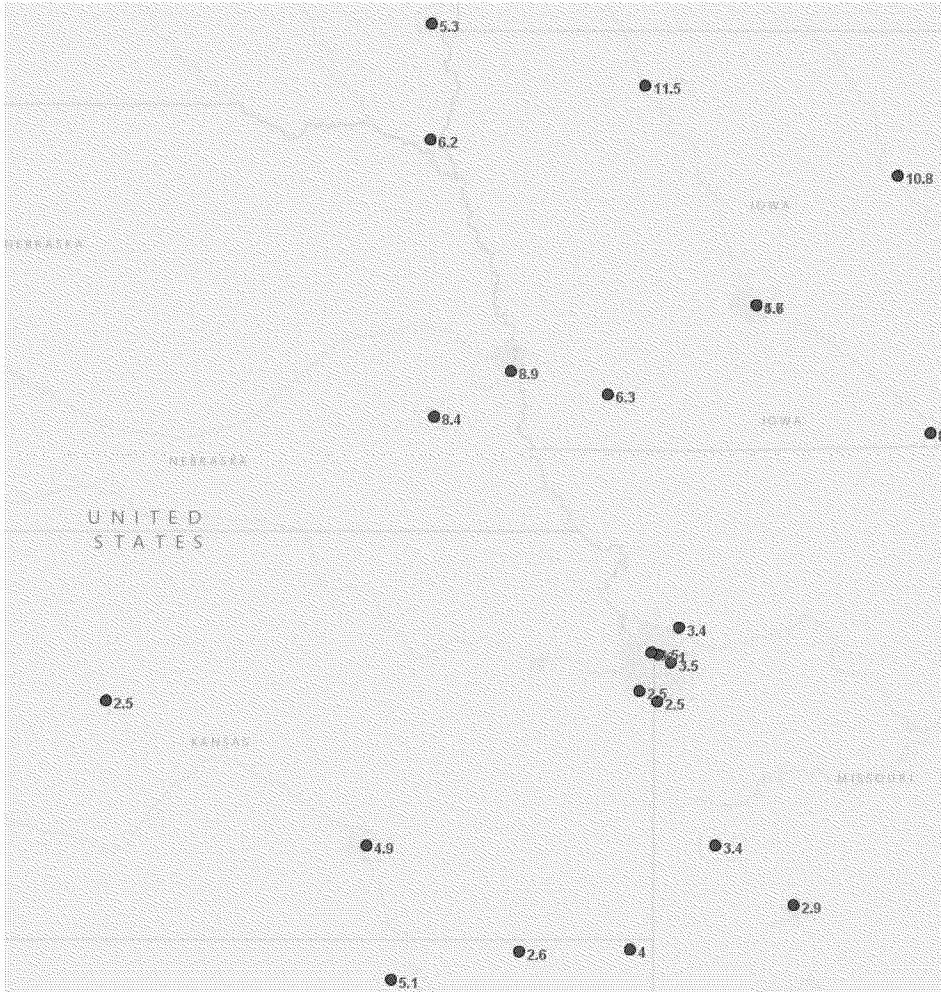
Flint Hills Prescribed Fire Update



Thursday, May 4, 2017

PM2.5 (24-hour average)

Ozone (8-hour average maximum)



Friday, May 05, 2017 □ 11



Fires and Smoke

A mere handful of prescribed fires within the Flint Hills were seen last Friday (April 28) and Monday (May 1). A few other prescribed fires occurred outside of the Flint Hills throughout the week. An area of smoke was analyzed along the Missouri River valley on Tuesday (May 2), primarily aloft, that was likely from prescribed burning in North Dakota and southern Manitoba, Canada.

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

KSFIRE.ORG



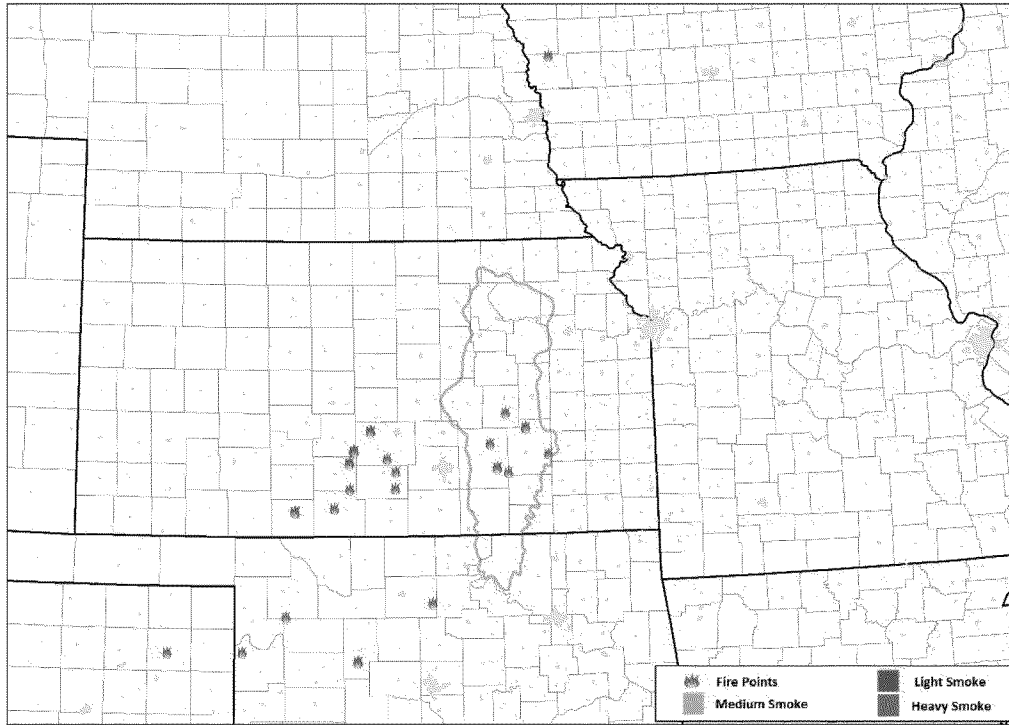
This website was developed as part of the development of the Kansas Flint Hills Smoke Management Plan. Kansas State University hosts the webpage and it includes important information for ranchers and others who might be interested in the Flint Hills. It provides training, regulations, policies, publications,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

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HMS Fire & Smoke Analysis

April 28, 2017

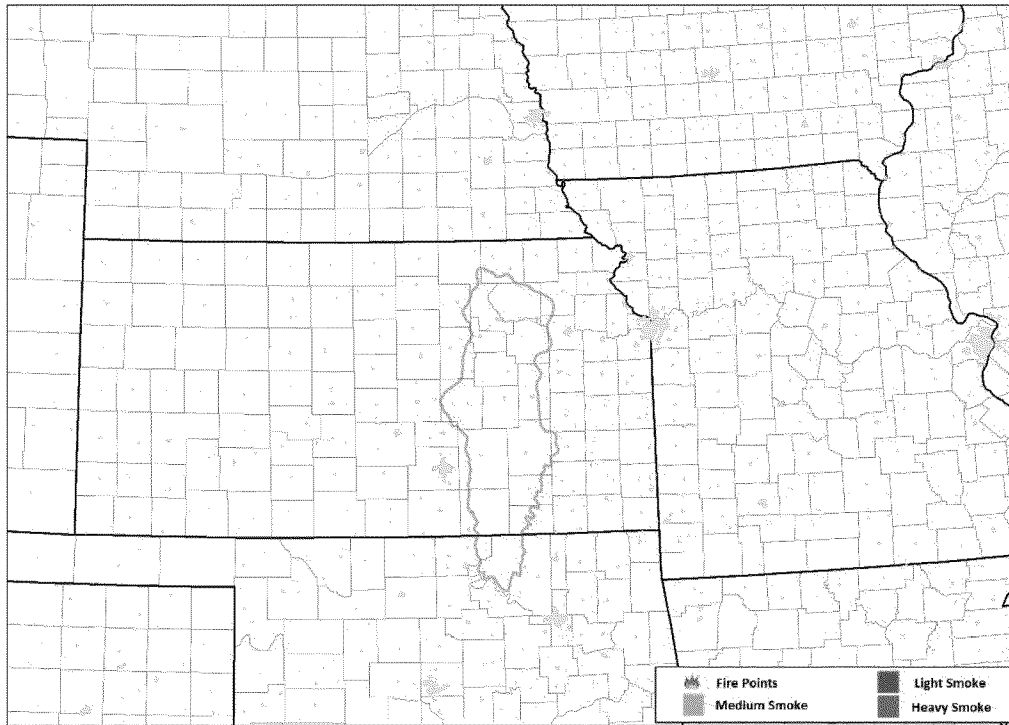


Map: Jayson Prentice, KDHE Bureau of Air

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

HMS Fire & Smoke Analysis

April 29, 2017



Map: Jayson Prentice, KDHE Bureau of Air

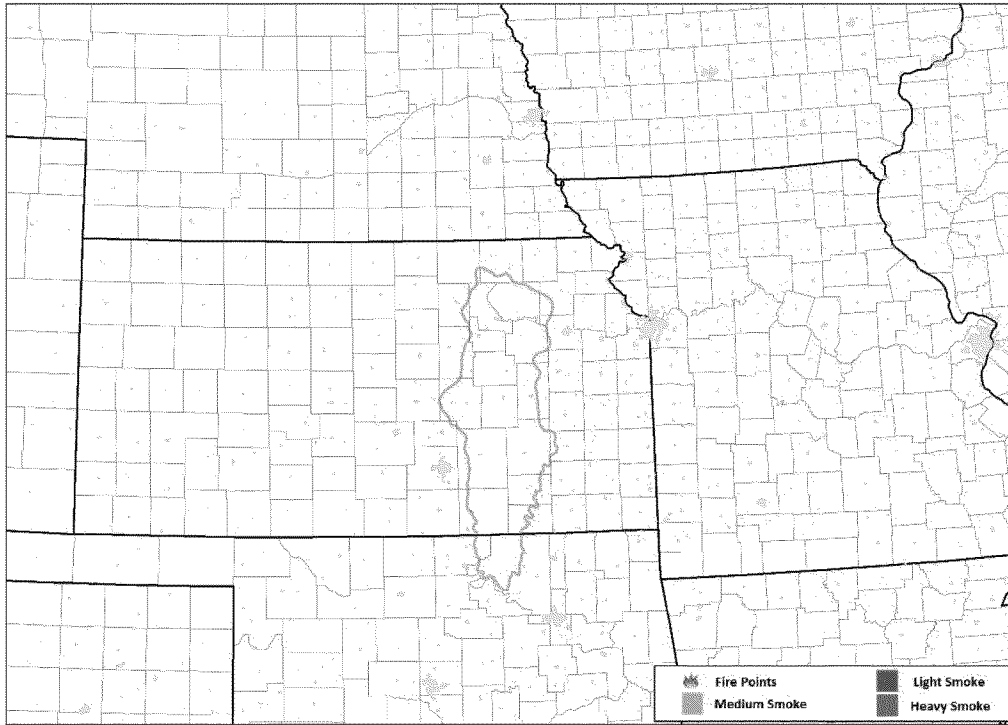
Data: NOAA NESDIS OSPO Hazard Mapping System Fire and Smoke Product

Friday, May 05, 2017 □ 13

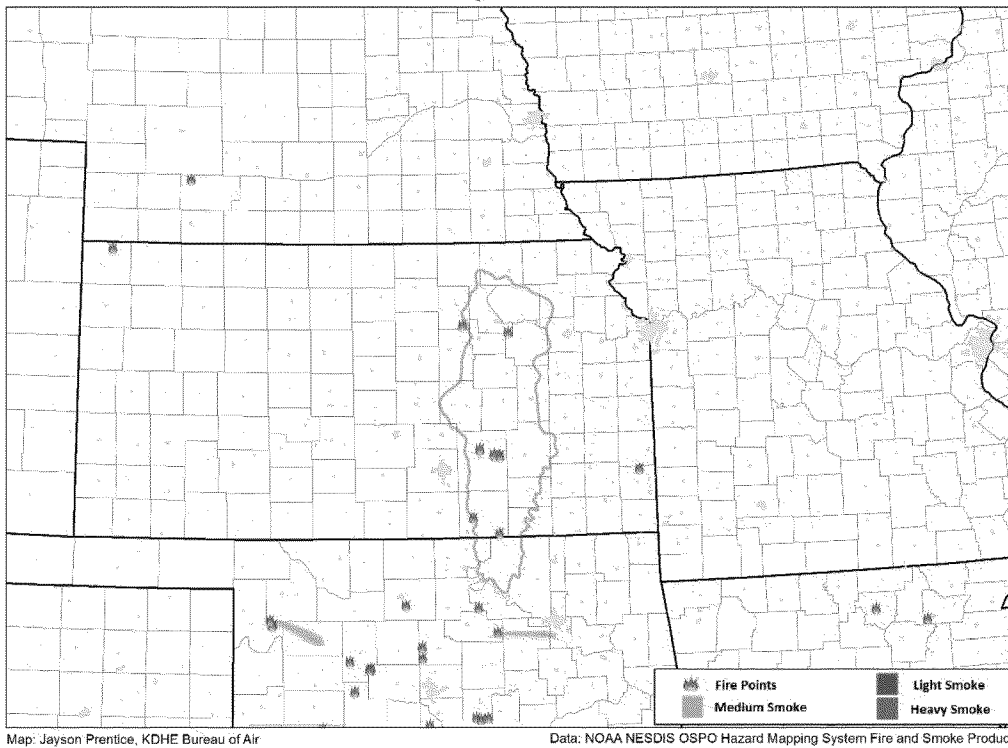
Flint Hills Prescribed Fire Update

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HMS Fire & Smoke Analysis April 30, 2017



HMS Fire & Smoke Analysis May 01, 2017

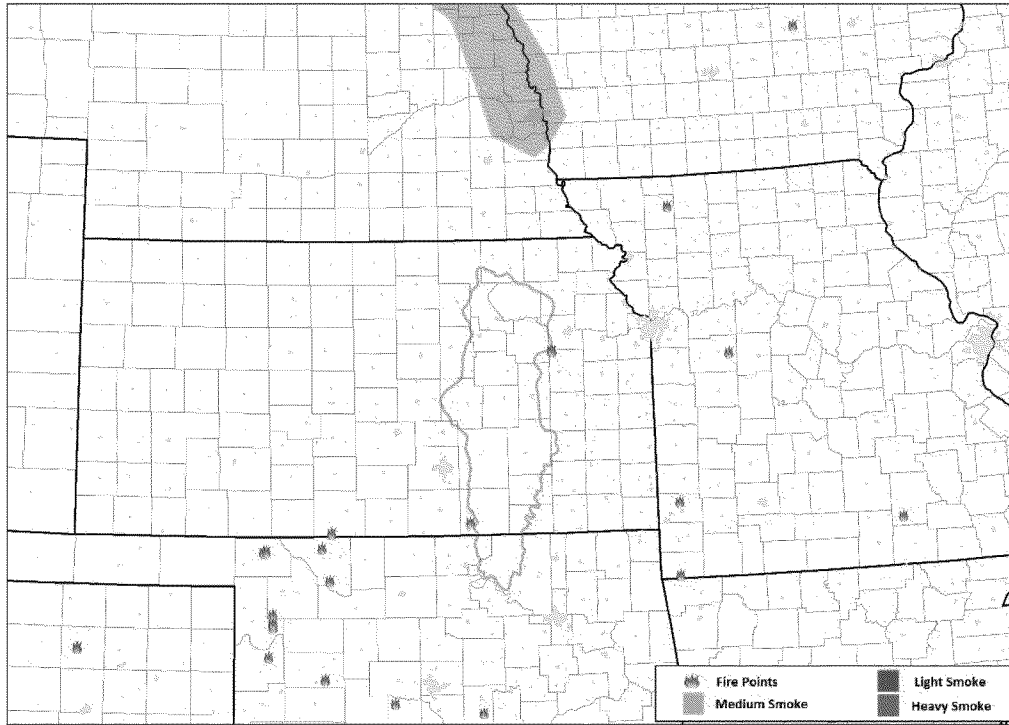


Friday, May 05, 2017 □ 14

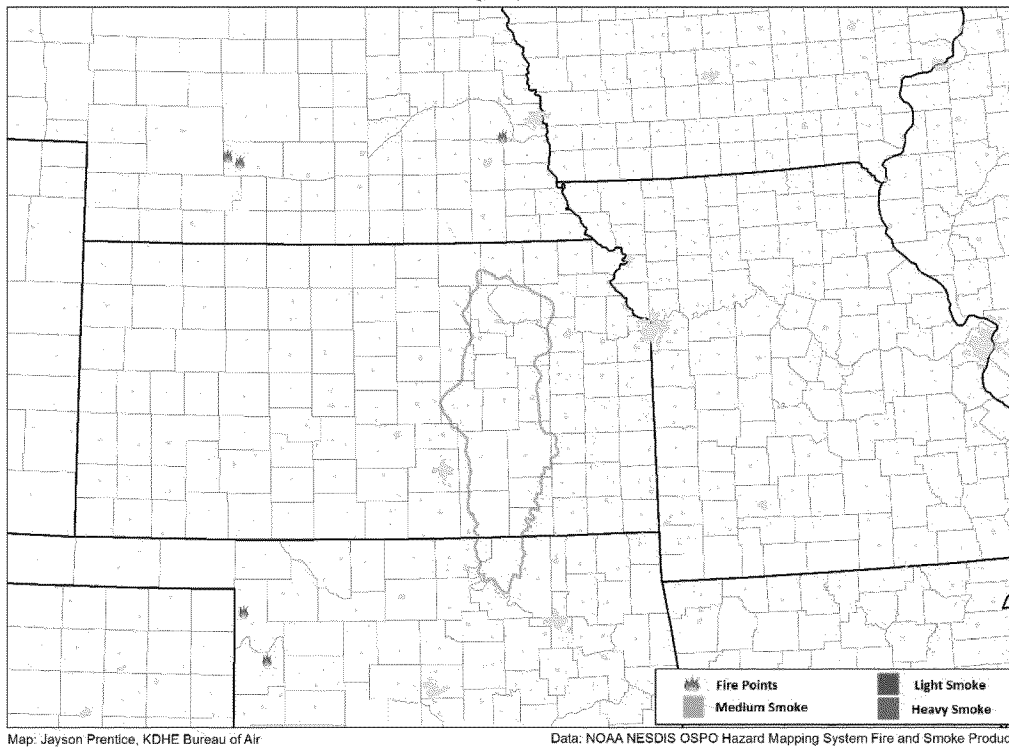
Flint Hills Prescribed Fire Update

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HMS Fire & Smoke Analysis May 02, 2017



HMS Fire & Smoke Analysis May 03, 2017

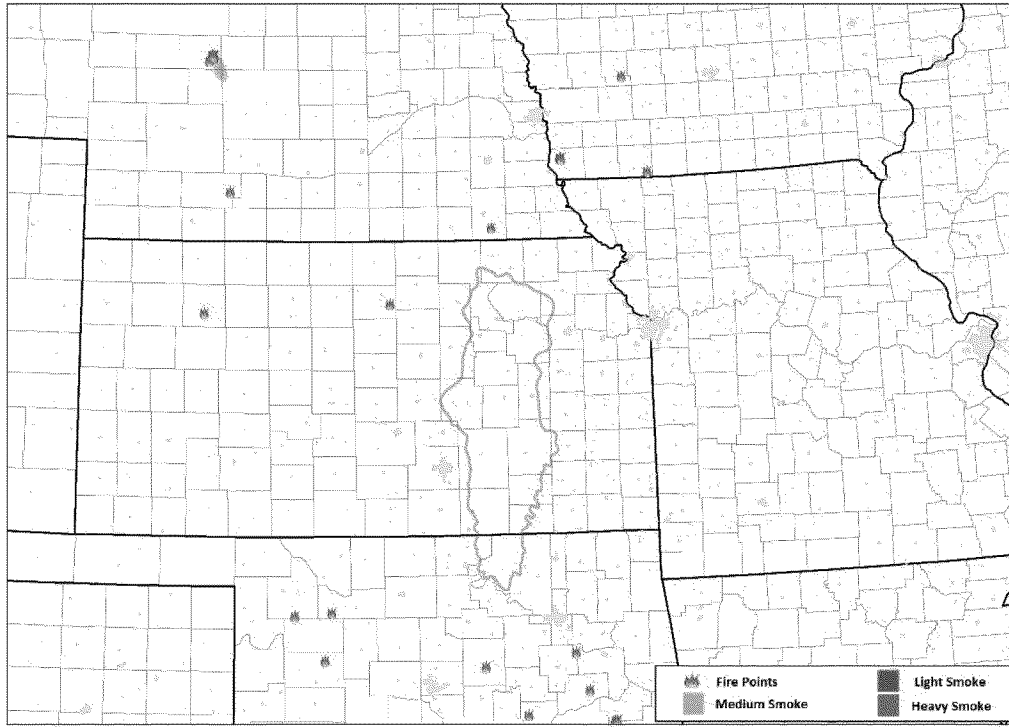


Friday, May 05, 2017 □ 15

Flint Hills Prescribed Fire Update

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HMS Fire & Smoke Analysis May 04, 2017



Map: Jayson Prentice, KDHE Bureau of Air

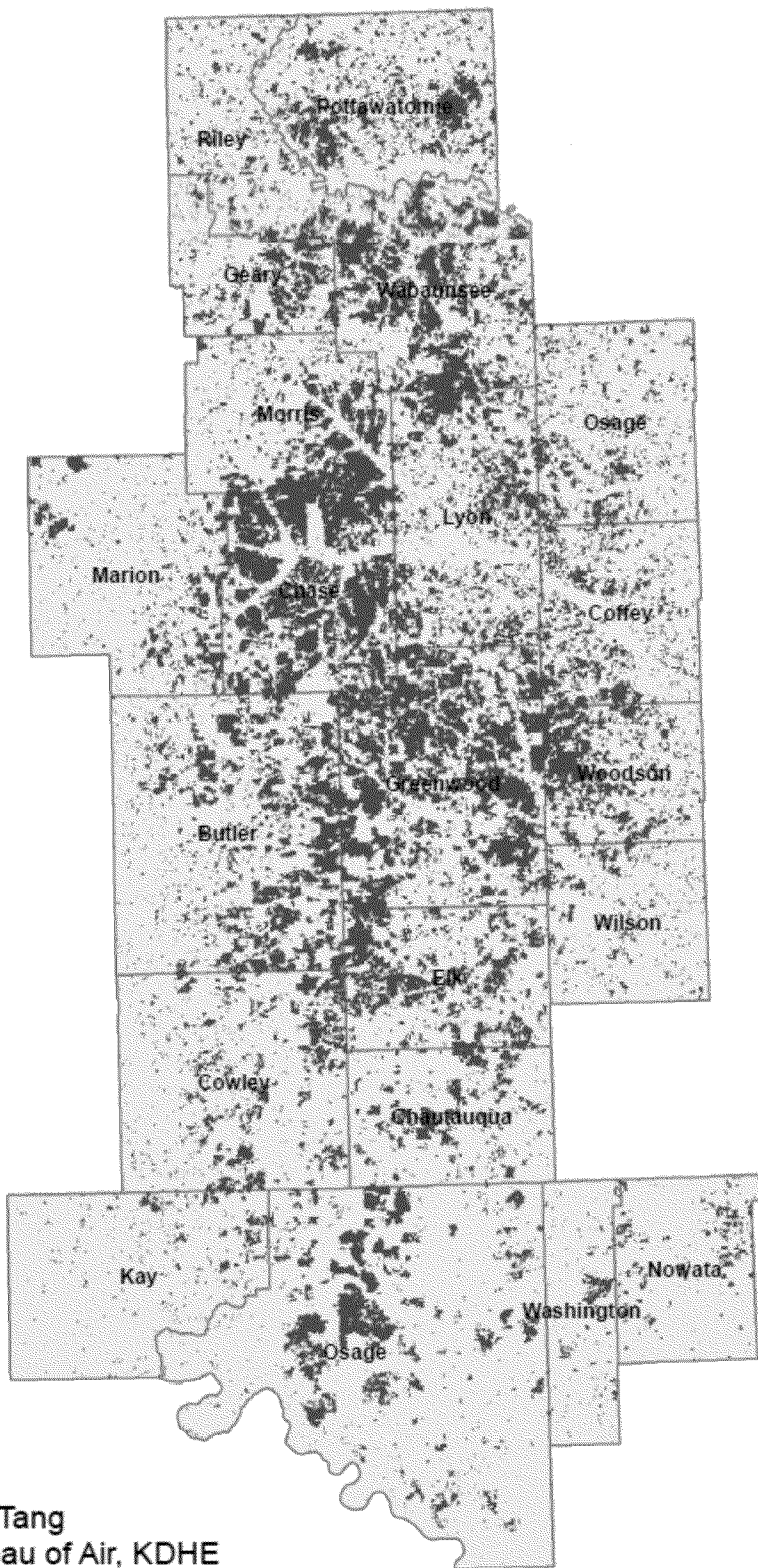
Data: NOAA NESDIS OSPO Hazard Mapping System Fire and Smoke Product

Friday, May 05, 2017 □ 16

Flint Hills Prescribed Fire Update



Flint Hills Acreage Burned (February 15 – May 1, 2017)



<u>Counties</u>	<u>Acres Burned</u>	
Butler	219,202	
Chase	273,088	
Chautauqua	59,276	
Coffey	84,203	*
Cowley	99,786	
Elk	126,520	
Geary	62,133	
Greenwood	351,035	
Lyon	151,617	
Marion	68,156	
Morris	118,721	
Osage (KS)	67,152	*
Pottawatomie	125,331	
Riley	63,677	
Wabaunsee	194,908	
Wilson	31,074	
Woodson	100,620	
Nowata (OK)	24,835	
Osage (OK)	173,317	
Washington (OK)	14,811	
Kay (OK)	27,676	
Total	2,437,138	
* Denotes county was partly or completely covered by clouds during analysis.		

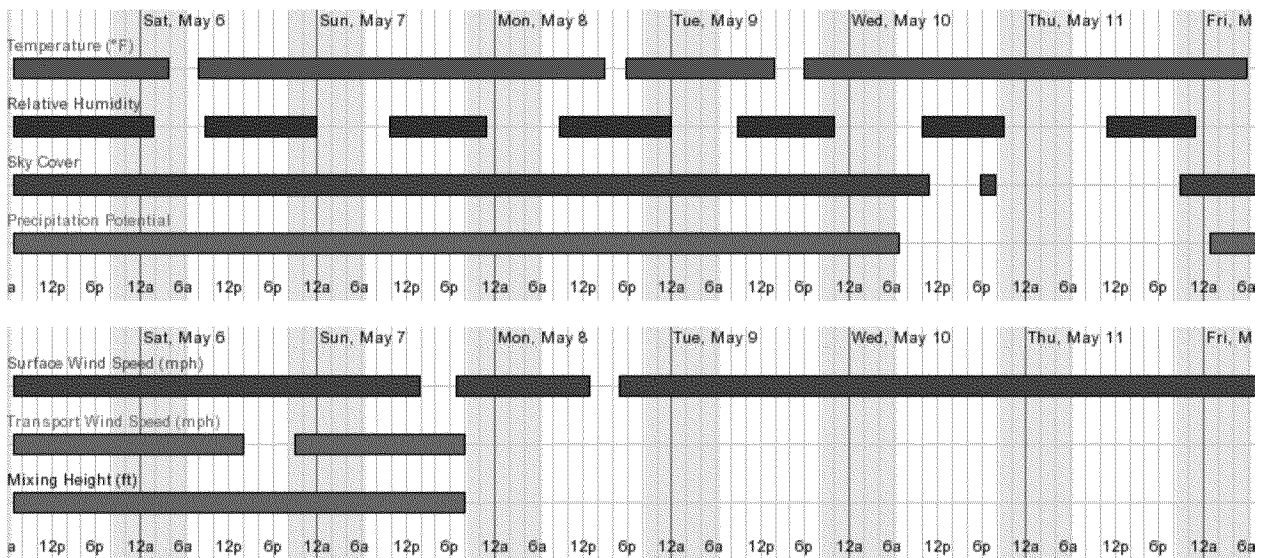
Yao Tang
Bureau of Air, KDHE



Upcoming Look at Fires and Smoke

Intensive ‘green-up’ has already occurred across the Flint Hills and will likely preclude any additional significant prescribed burning this spring. Temperatures and humidity will be ideal throughout the week ahead. There appears to be a good chance for a round of rain on Wednesday and Thursday. Breezy conditions are expected for Sunday and Monday afternoon. A high pressure moving overhead will drop transport wind speeds below the ideal threshold on Saturday afternoon.

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 5, 2017.