

# Flint Hills Prescribed Fire Update

April 7, 2017

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

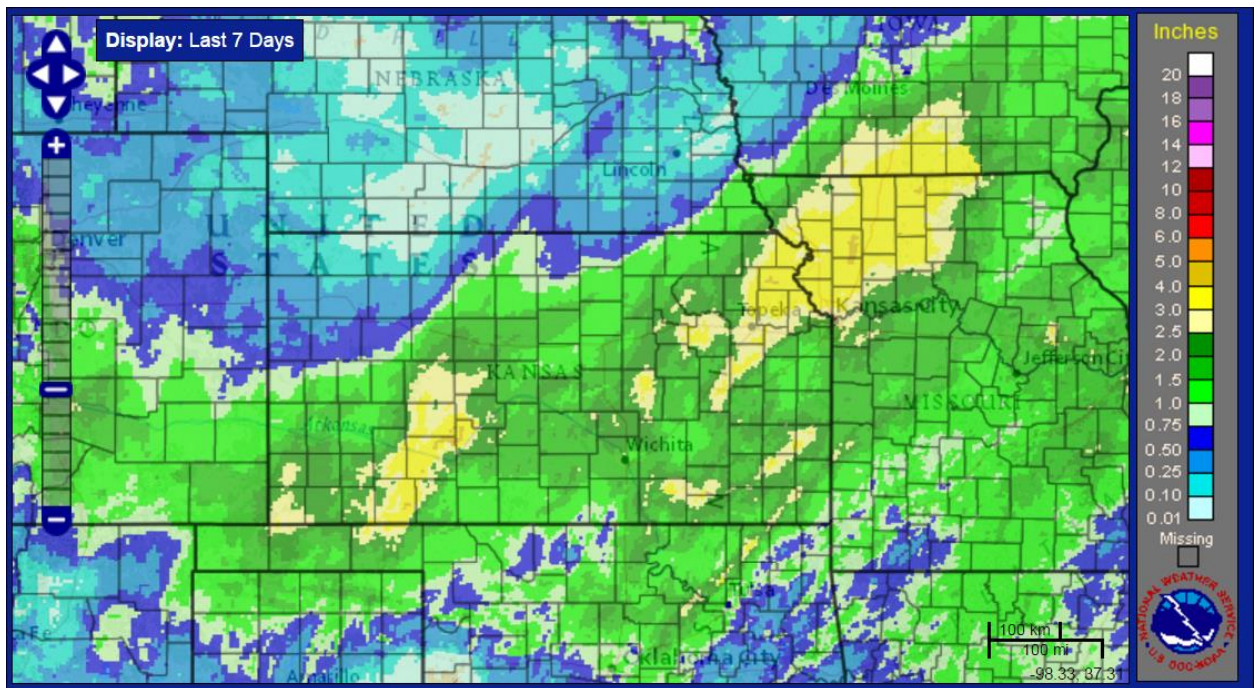




## Meteorology

Periods of rain kept coming for at least parts of the Flint Hills into the day on Wednesday (April 5) before dry conditions returned. The first full day of sun in weeks occurred yesterday (April 6). Temperatures remained largely on the cool side during the periods of rain, but were otherwise seasonal. Total precipitation amounts in the past week ranged from 1-4 inches across the Flint Hills, adding to the prior week's 2-5+ inches. The ground and near-ground surfaces remain very wet, but grasses were quick to dry on Thursday with sun and a breeze.

## Precipitation

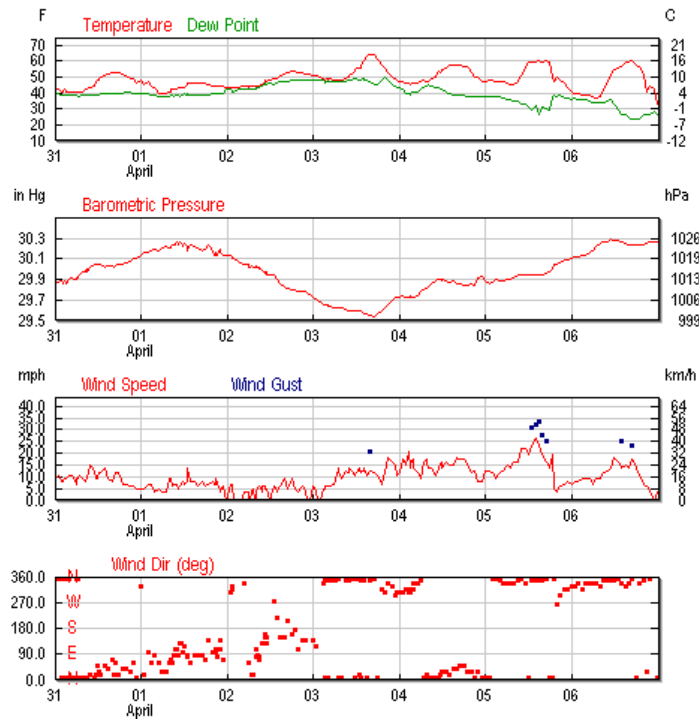


NOAA/NWS Observed Total Precipitation for March 31-April 6, 2017.

# Flint Hills Prescribed Fire Update

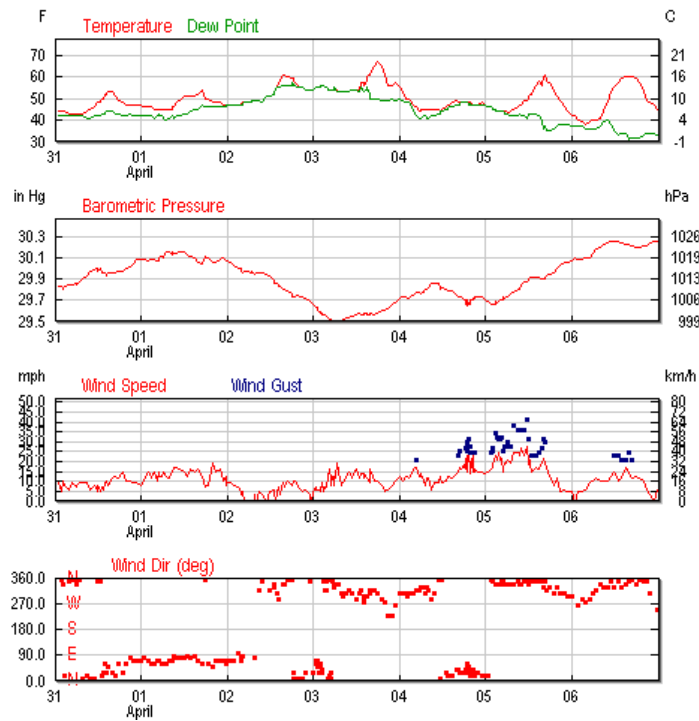


## Lincoln, NE



Mar 31-Apr 6, 2017 Observed Weather from KLNK. Graphic: Weather Underground, Inc.

## Emporia, KS



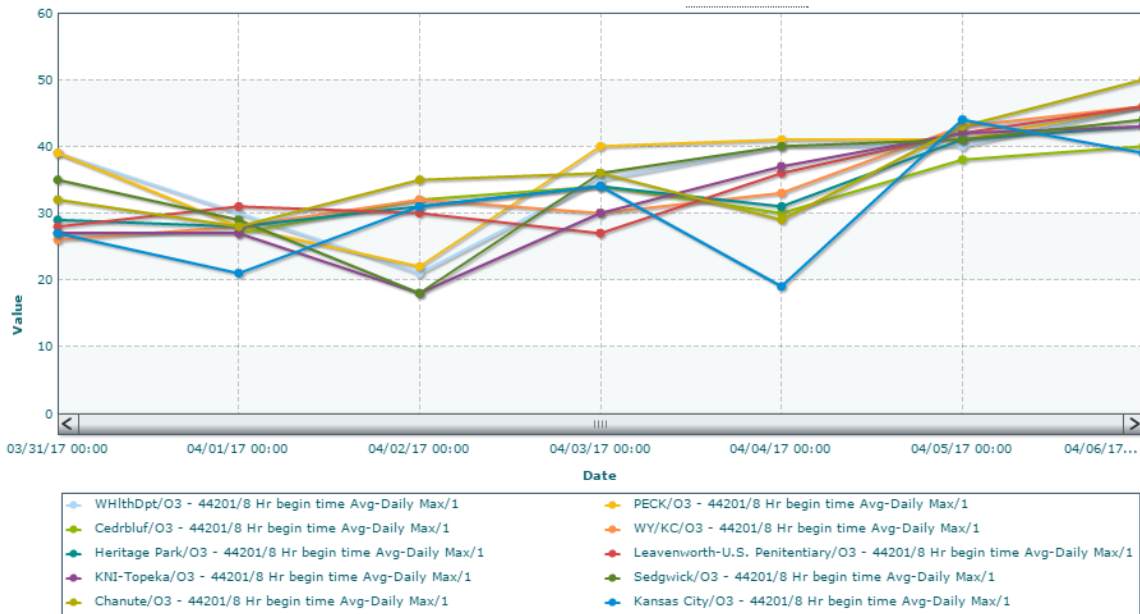
Mar 31-Apr 6, 2017 Observed Weather from KEMP. Graphic: Weather Underground, Inc.



## Air Quality Data

Air quality data for all sites in the region remained below exceedance levels during the past week, March 31-April 6, 2017.

### Kansas Daily 8-hour Maximum Ozone (ppb)



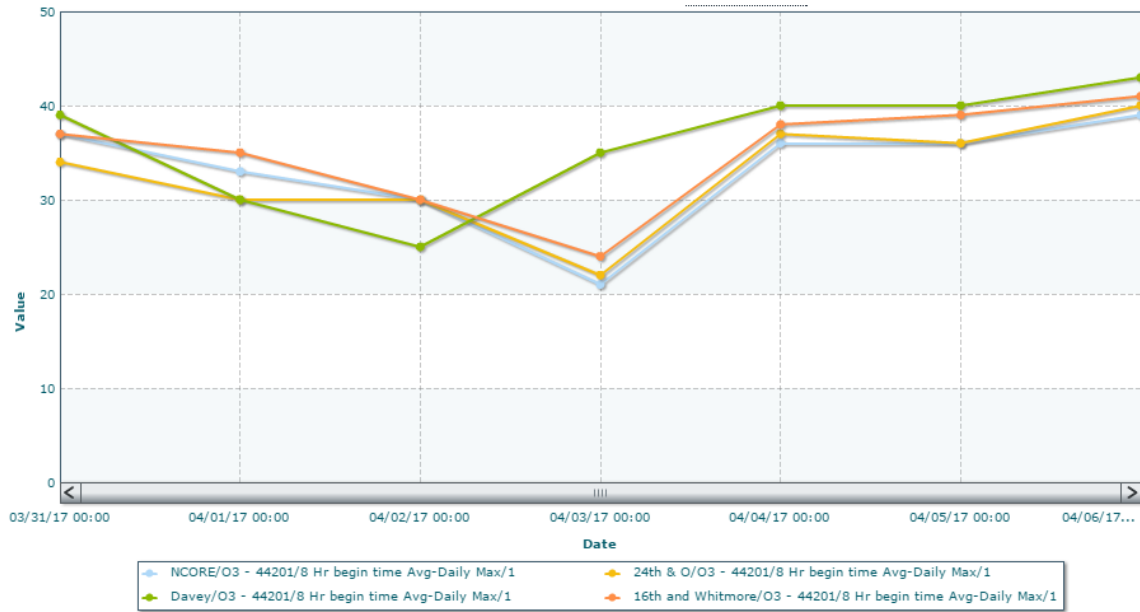
### Kansas Daily PM<sub>2.5</sub> (µg/m<sup>3</sup>)



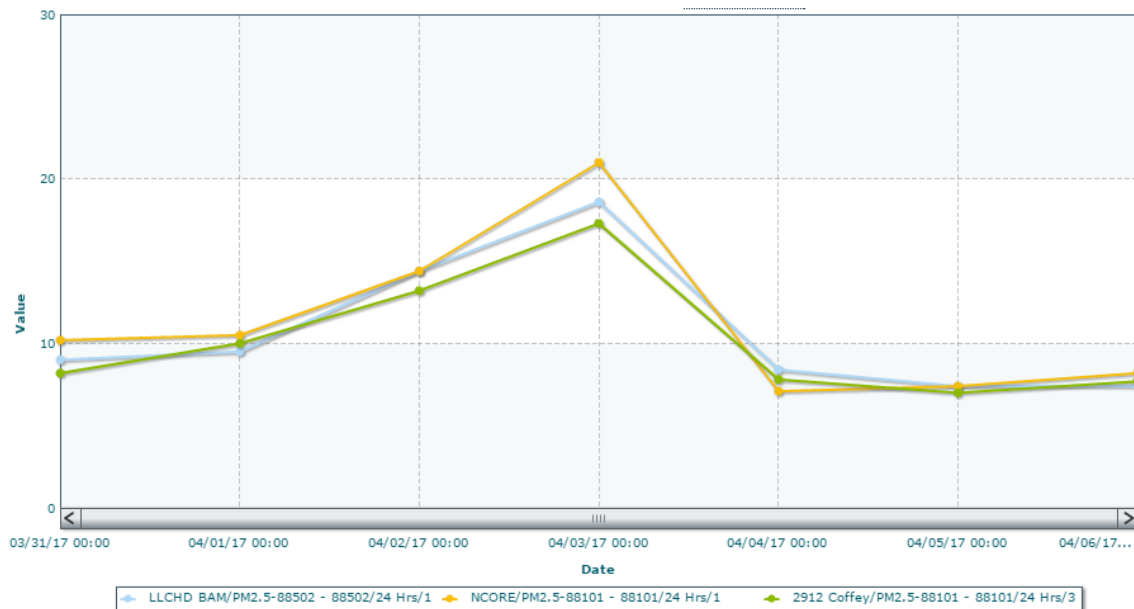
# Flint Hills Prescribed Fire Update



## Nebraska Daily 8-hour Maximum Ozone (ppb)



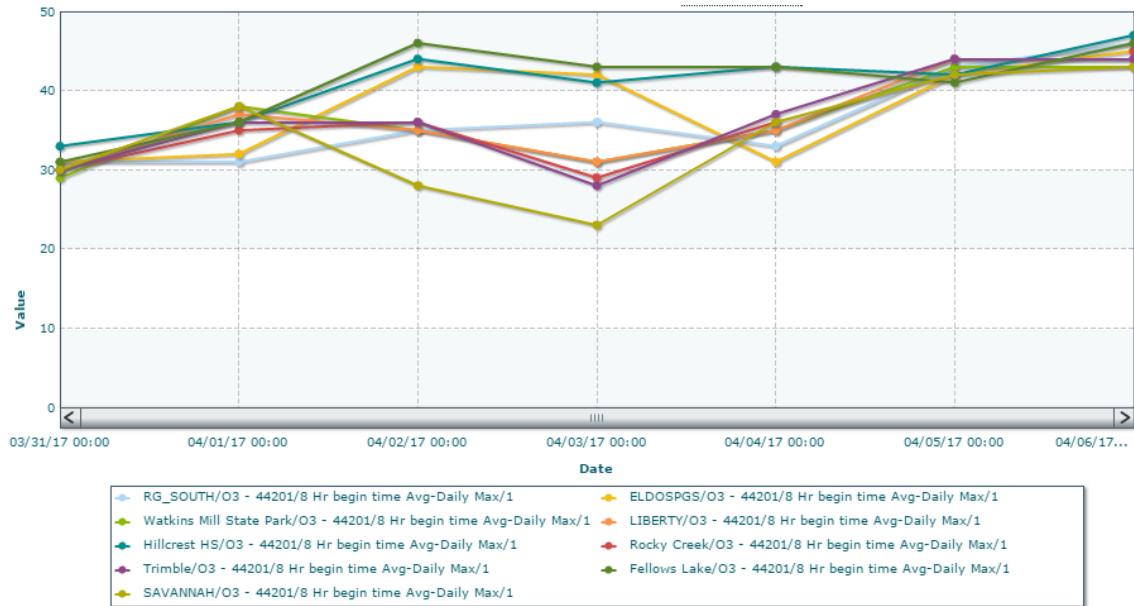
## Nebraska Daily PM<sub>2.5</sub> (µg/m<sup>3</sup>)



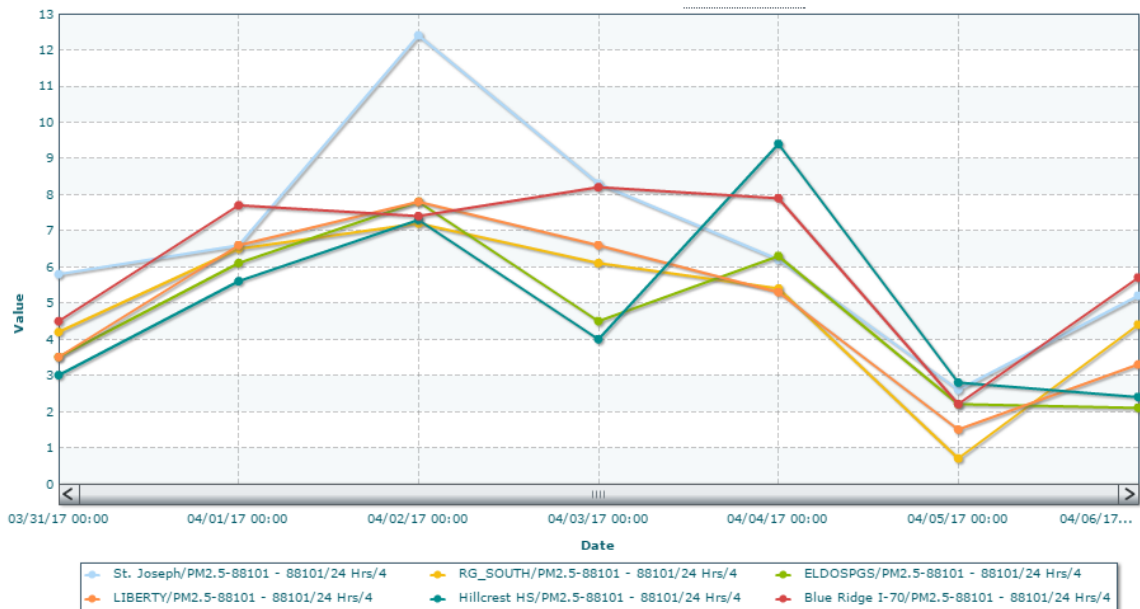
# Flint Hills Prescribed Fire Update



## Missouri Daily 8-hour Maximum Ozone (ppb)



## Missouri Daily PM<sub>2.5</sub> (µg/m<sup>3</sup>)





## Fires and Smoke

A few breaks in the rain over the southern and central Flint Hills allowed for some prescribed burning on Friday (March 31) and Monday (April 3). The remainder of days through Wednesday (April 5) remained wet and kept prescribed burning to a minimum across the entire region. The sun and manageable north winds occurred yesterday (April 6) and despite recent heavy rains allowed for a significant number of prescribed burns across the Flint Hills and throughout the region. Smoke plumes were largely observed heading northwest to southeast across the area.

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

## KSFIRE.ORG

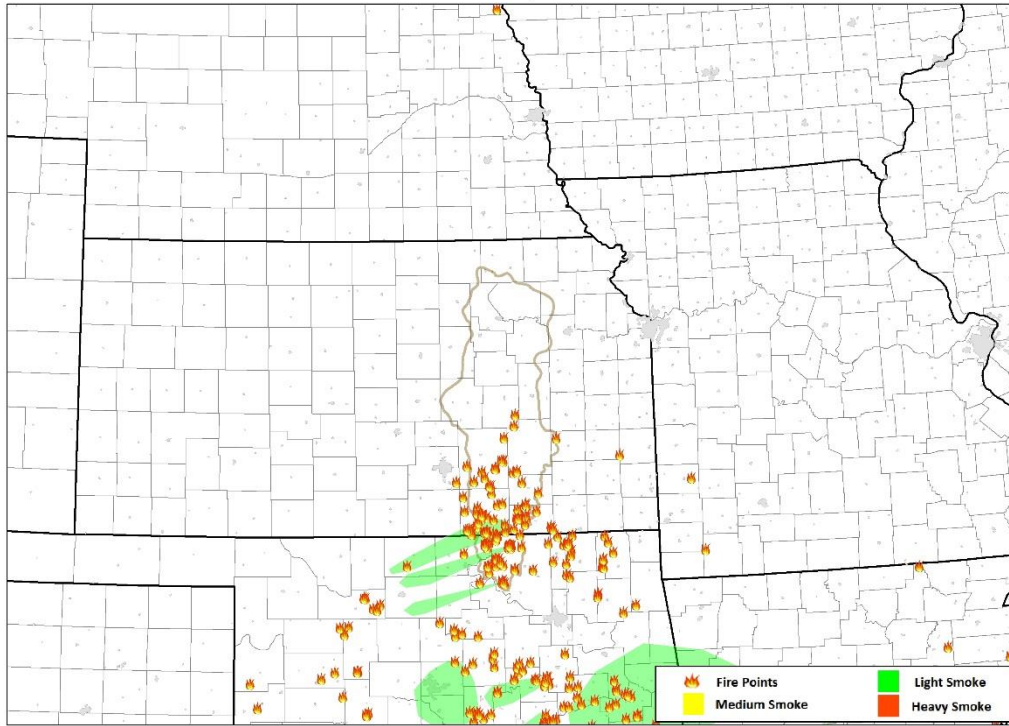


This website was developed as part of the development of the Kansas Flint Hills Smoke Management Plan. Kansas State University hosts the webpage and it includes important information for ranchers and others who might be interested in the Flint Hills. It provides training, regulations, policies, publications,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

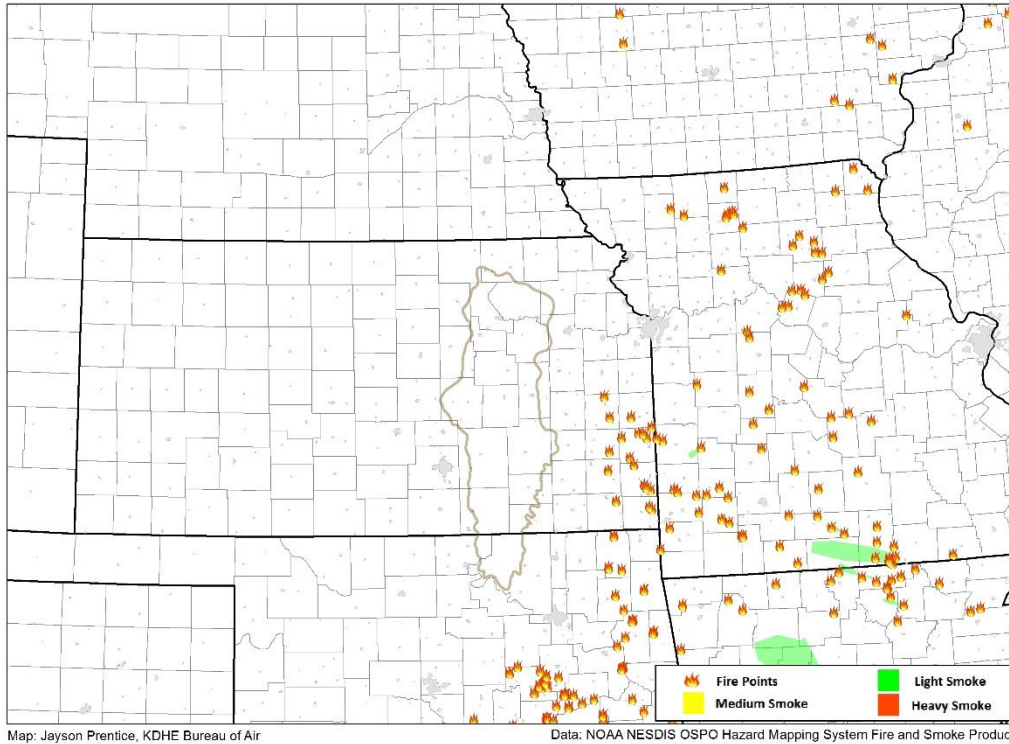
# Flint Hills Prescribed Fire Update



## HMS Fire & Smoke Analysis March 31, 2017



## HMS Fire & Smoke Analysis April 01, 2017

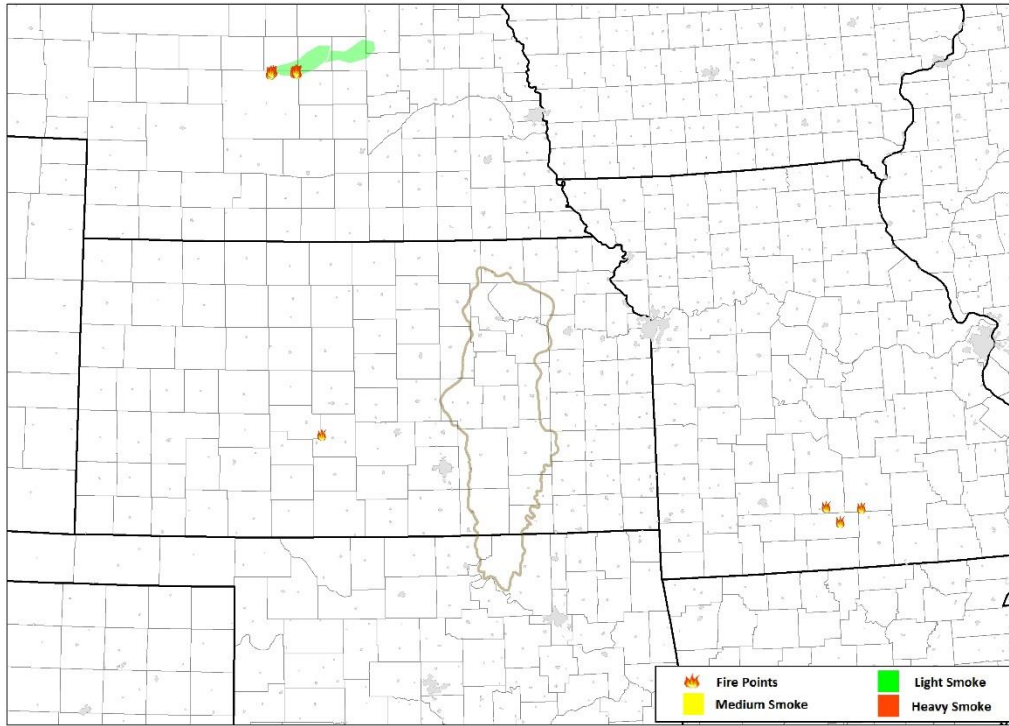




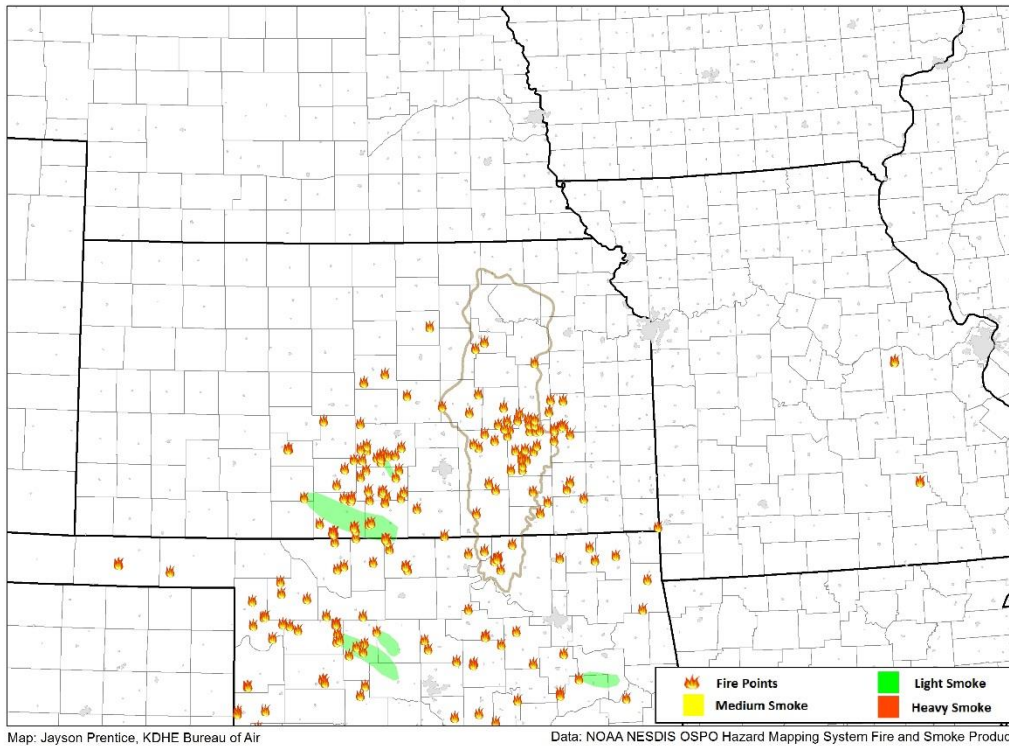
# Flint Hills Prescribed Fire Update



## HMS Fire & Smoke Analysis April 02, 2017



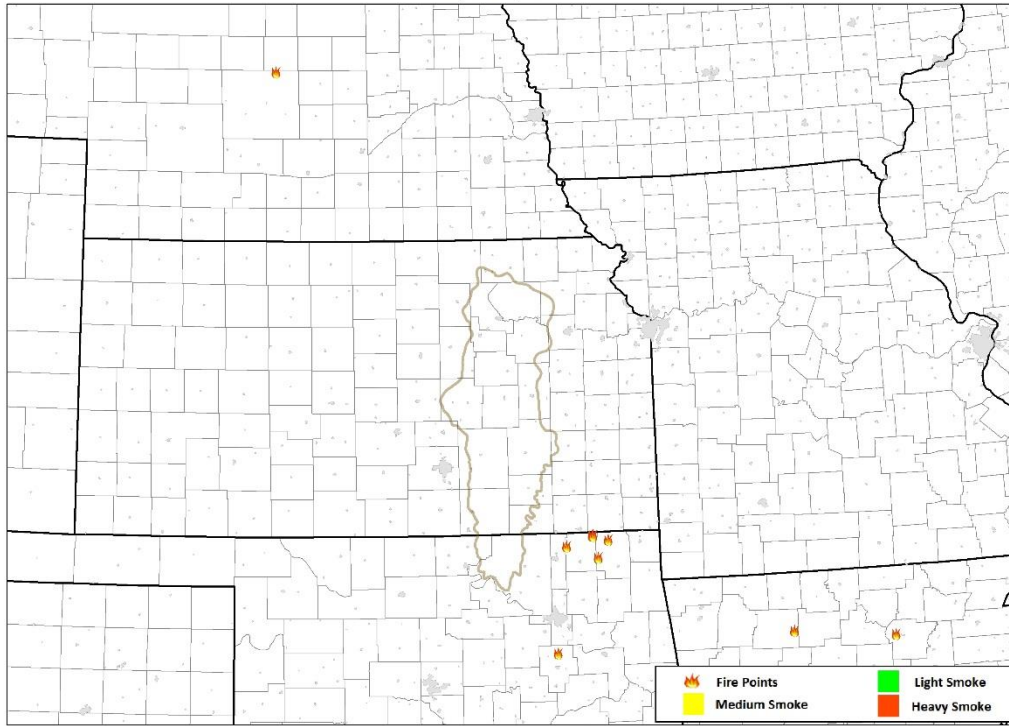
## HMS Fire & Smoke Analysis April 03, 2017



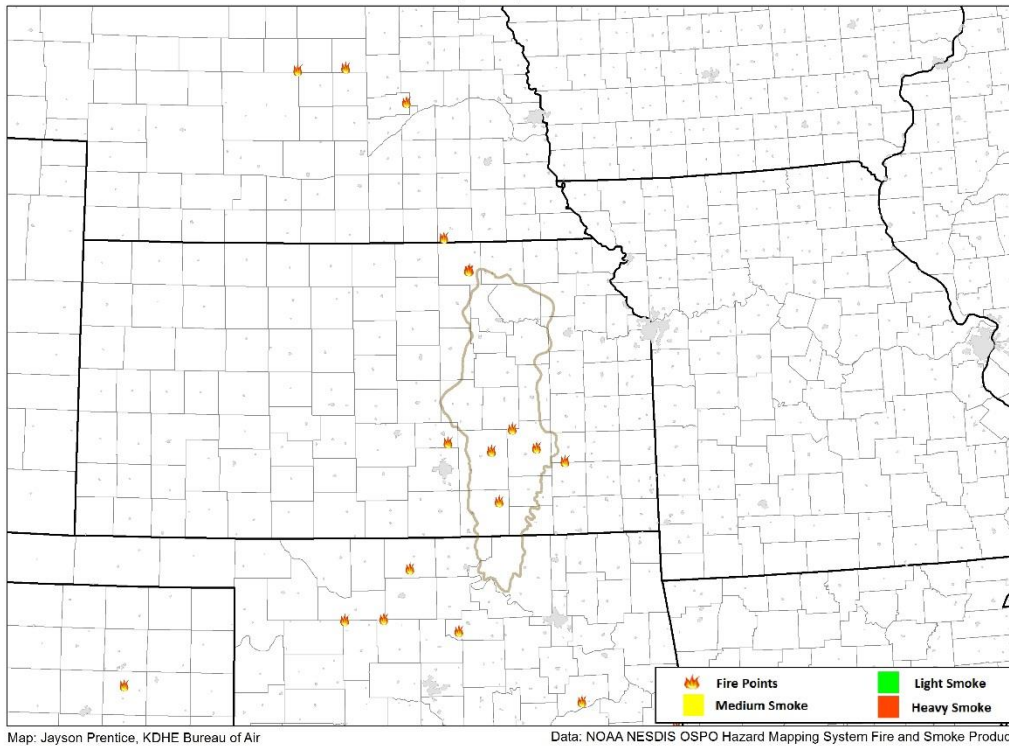
# Flint Hills Prescribed Fire Update



## HMS Fire & Smoke Analysis April 04, 2017



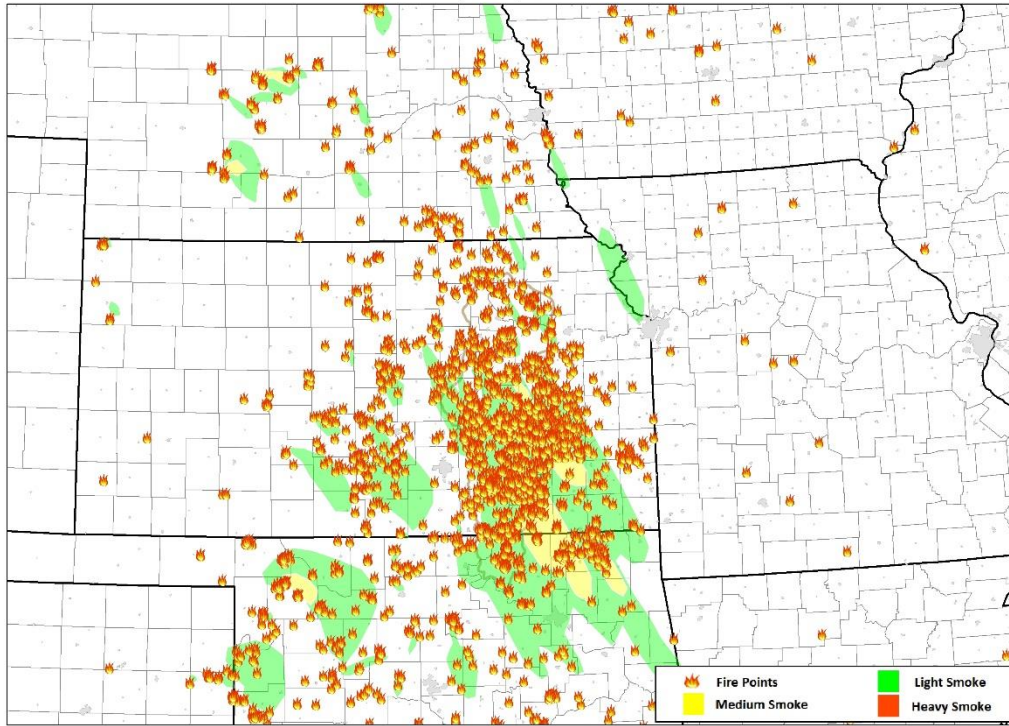
## HMS Fire & Smoke Analysis April 05, 2017



# Flint Hills Prescribed Fire Update



## HMS Fire & Smoke Analysis April 06, 2017



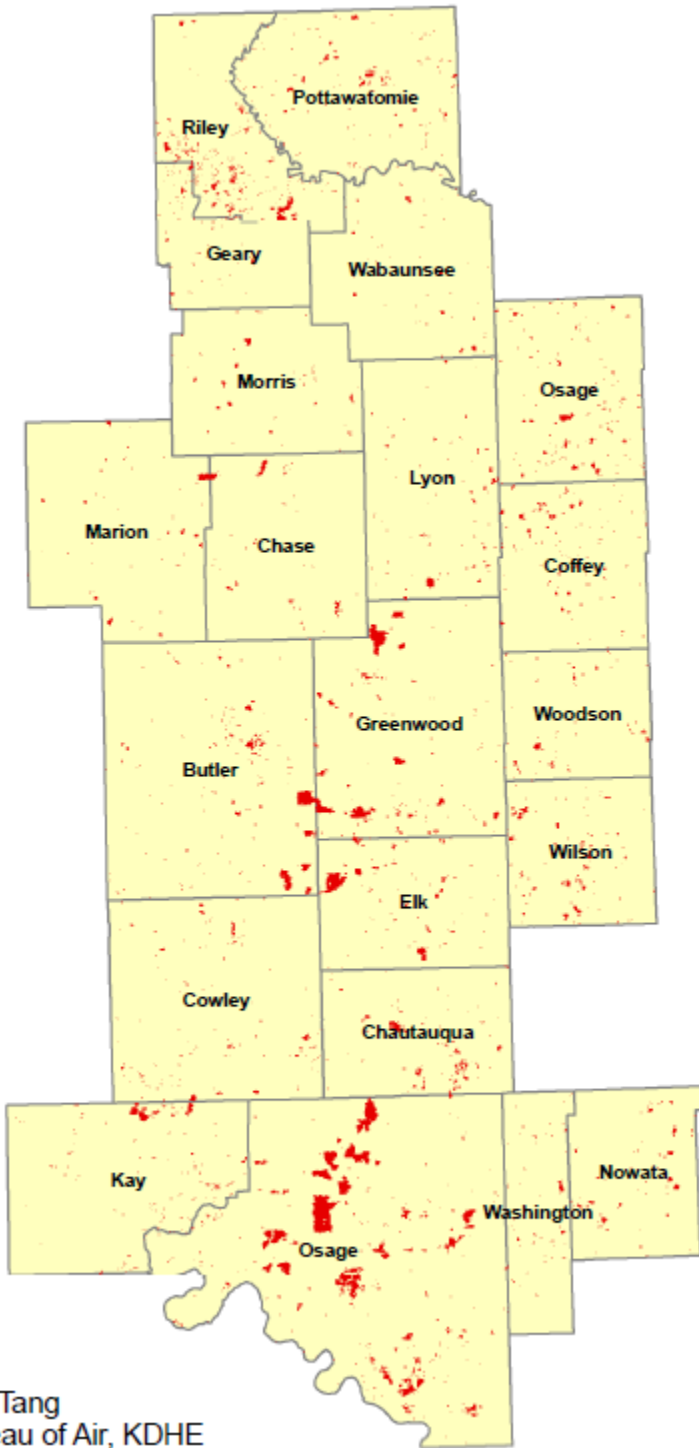
Map: Jayson Prentice, KDHE Bureau of Air

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

Flint Hills Prescribed Fire Update



**Flint Hills Acreage Burned (February 15 – March 23, 2017)**



Yao Tang  
Bureau of Air, KDHE

<u>Counties</u>	<u>Acres Burned</u>	
<b>Butler</b>	13,884	*
<b>Chase</b>	3,707	*
<b>Chautauqua</b>	6,131	
<b>Coffey</b>	5,081	*
<b>Cowley</b>	5,267	*
<b>Elk</b>	9,946	
<b>Geary</b>	2,394	*
<b>Greenwood</b>	18,842	
<b>Lyon</b>	4,263	*
<b>Marion</b>	3,645	*
<b>Morris</b>	3,027	*
<b>Osage (KS)</b>	7,135	*
<b>Pottawatomie</b>	6,487	*
<b>Riley</b>	11,336	*
<b>Wabaunsee</b>	2,594	*
<b>Wilson</b>	6,039	
<b>Woodson</b>	3,120	
<b>Nowata (OK)</b>	4,124	
<b>Osage (OK)</b>	62,658	
<b>Washington (OK)</b>	2,054	
<b>Kay (OK)</b>	6,904	*
<b>Total</b>	<b>188,638</b>	
* Denotes county was partly or completely covered by clouds during analysis.		

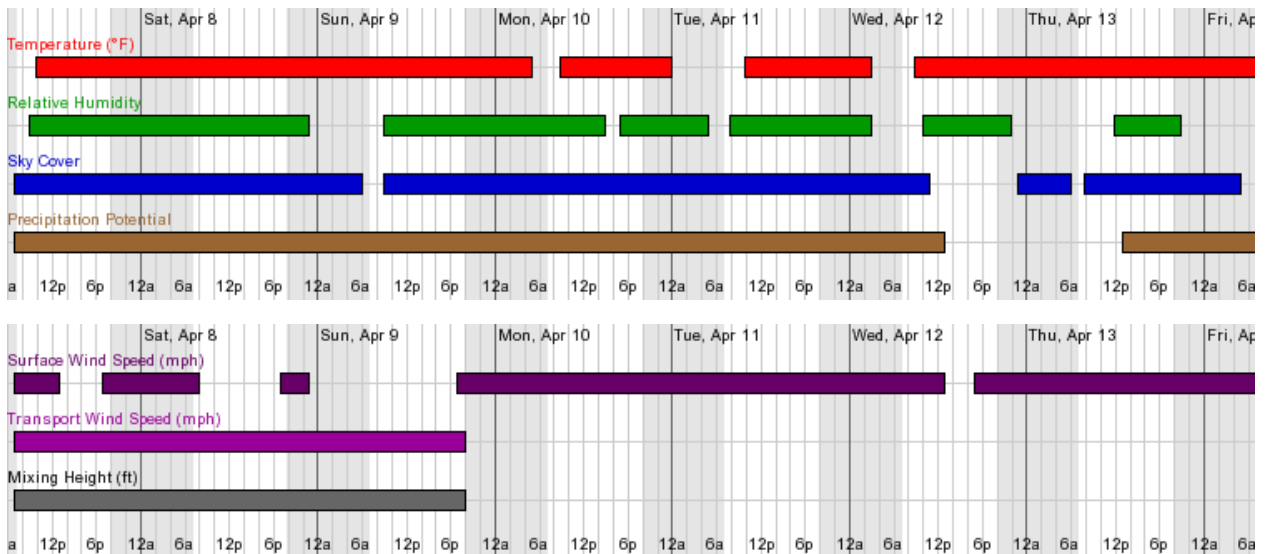


## Upcoming Look at Fires and Smoke

A strong warm-up this weekend will lead to temperatures near the 80-degree mark on Saturday and Sunday. Otherwise, largely seasonal temperatures are forecast in the next 7 days. There is a small chance of rain, scattered thunderstorms, on Sunday over the Flint Hills but the best potential is to the east. The next round of more widespread rain appears to be Wednesday into Thursday of next week.

Winds will be breezy at times today (Friday), Saturday, and Sunday with wind gusts up to 30-35 mph each day. Sustained wind speeds are forecast in the 15-25 mph range each day as well, out of the south-southwest. Despite the winds, it appears an active week of burning is possible with only Wednesday and Thursday potentially being too wet.

### 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: 9am April 7, 2017.