

Flint Hills Prescribed Fire Update

March 31, 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.

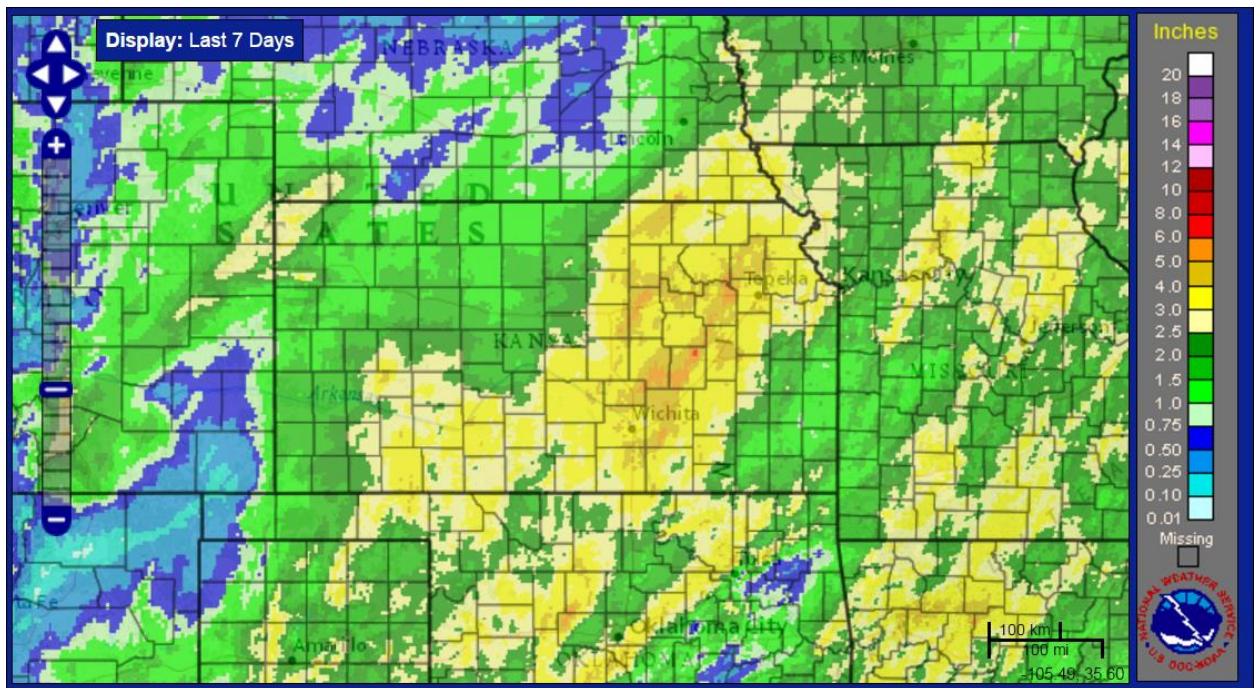




Meteorology

A wet week over the Flint Hills and surrounding areas with several rounds of rain showers and thunderstorms last Friday (March 24) through Wednesday (March 29). Total precipitation amounts of 3-5 inches were observed across the Flint Hills with some localized amounts even higher. Temperatures remained seasonably cool and the only day with more than a few peaks of sun was Wednesday (March 29). Winds have remained relatively light and high humidity combined with recent rain has left grasses very wet.

Precipitation

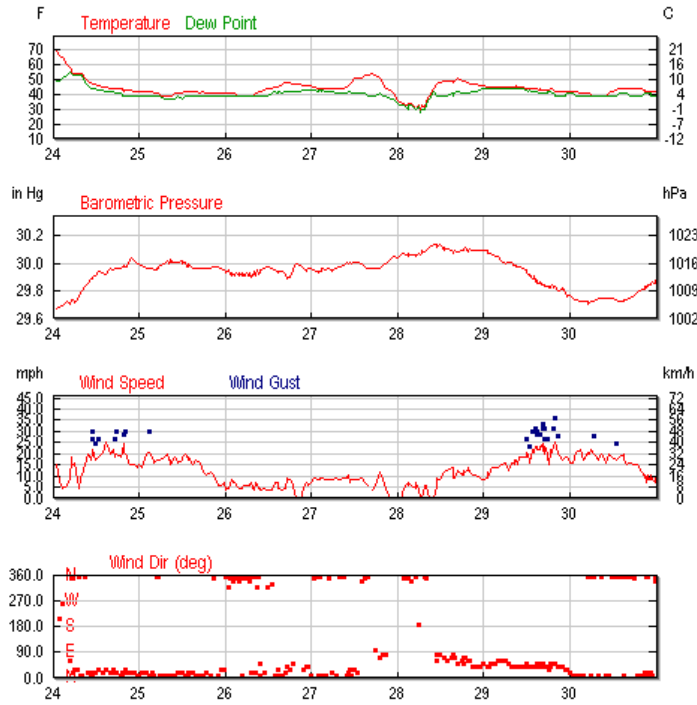


NOAA/NWS Observed Total Precipitation for March 24-30, 2017.

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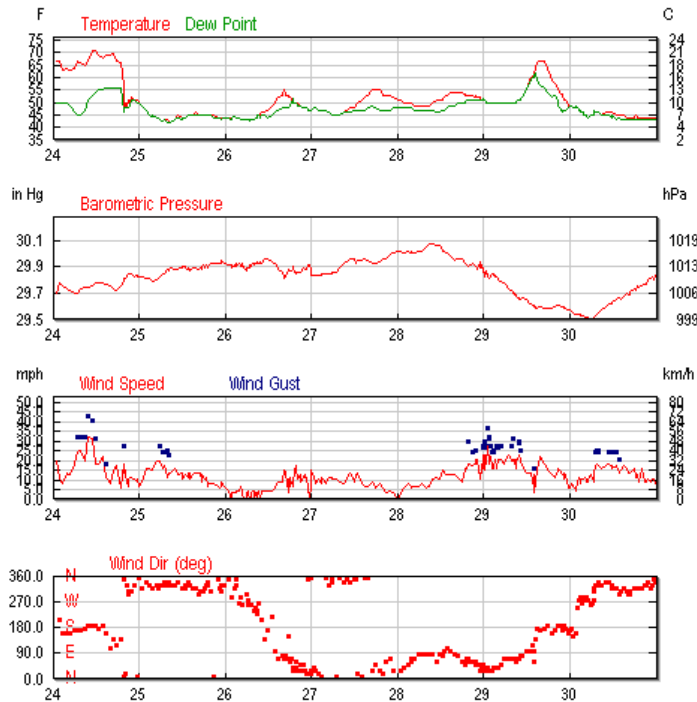


Lincoln, NE



Mar 24-30, 2017 Observed Weather from KLNK. Graphic: Weather Underground, Inc.

Emporia, KS



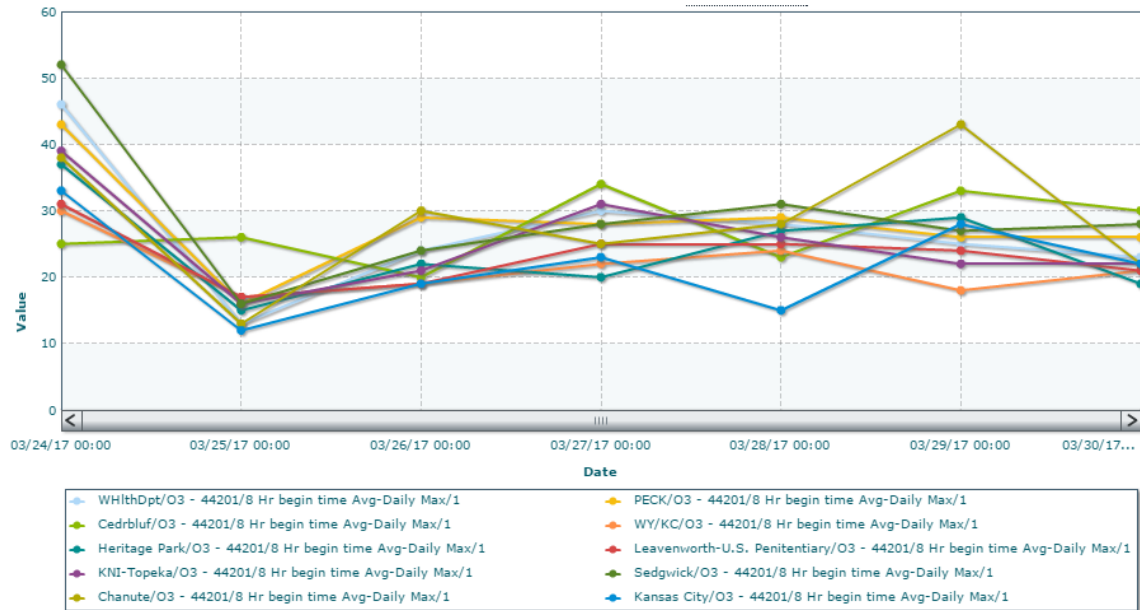
Mar 24-30, 2017 Observed Weather from KEMP. Graphic: Weather Underground, Inc.



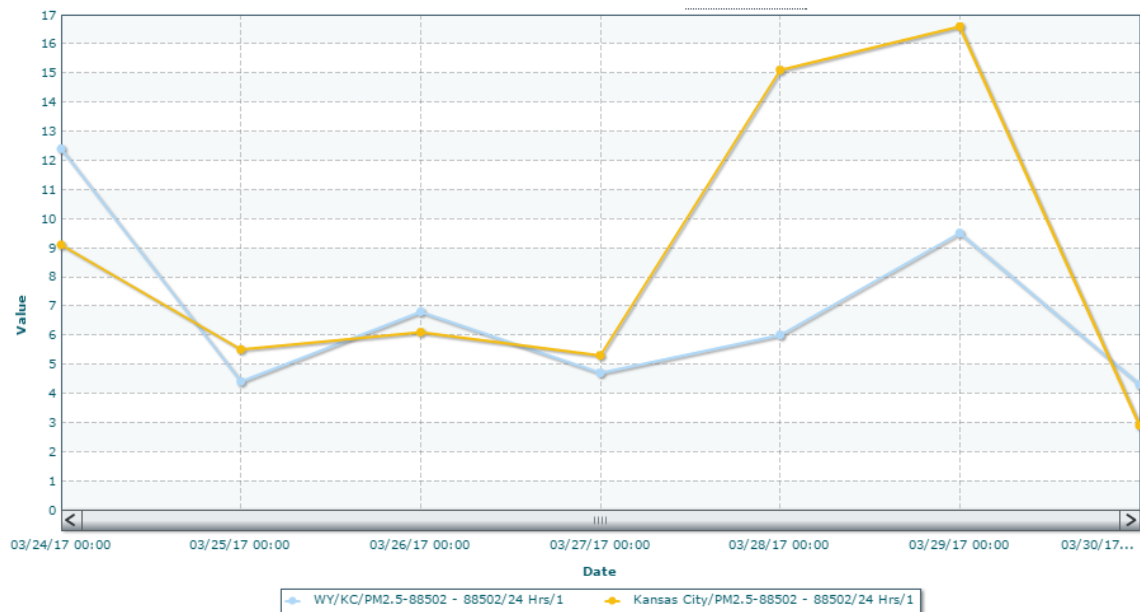
Air Quality Data

Air quality data for all sites in the region remained below exceedance levels during the past week, March 24-30, 2017.

Kansas Daily 8-hour Maximum Ozone (ppb)



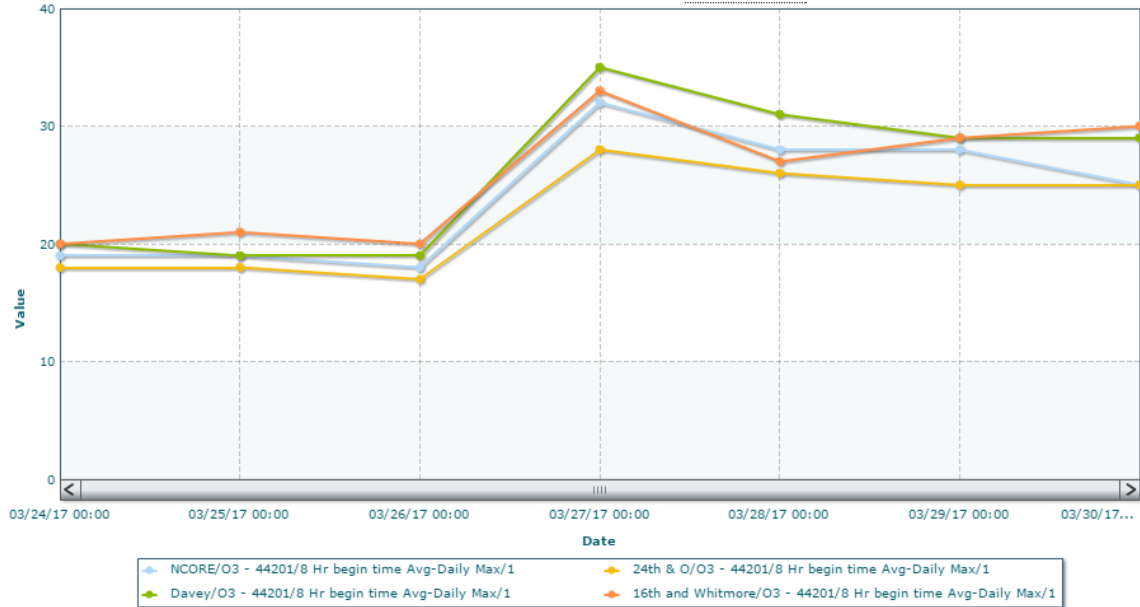
Kansas Daily PM_{2.5} (µg/m³)



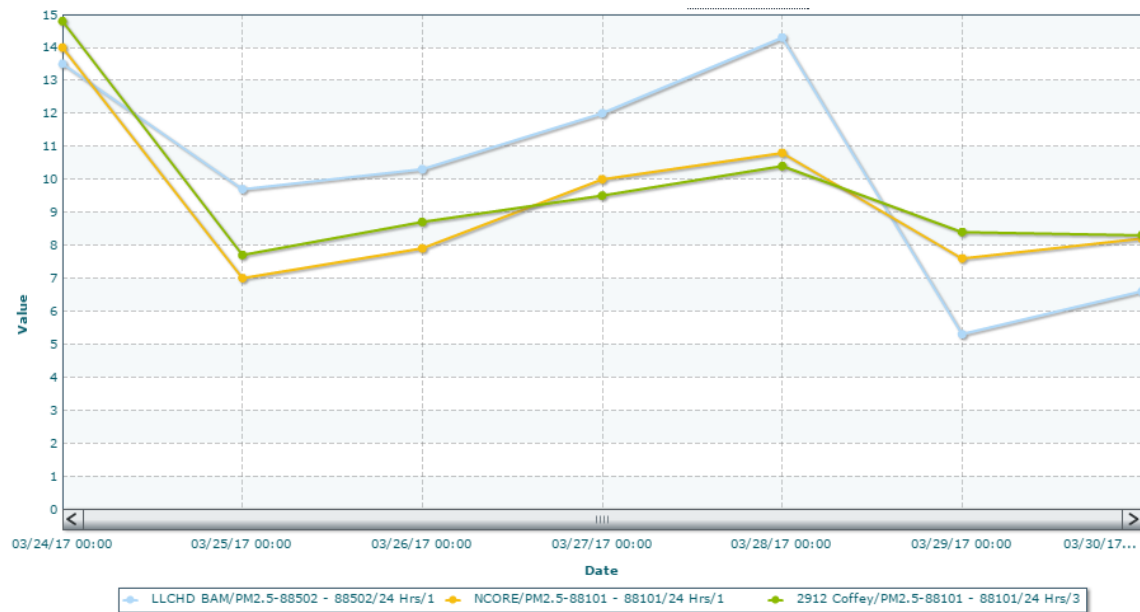
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Nebraska Daily 8-hour Maximum Ozone (ppb)



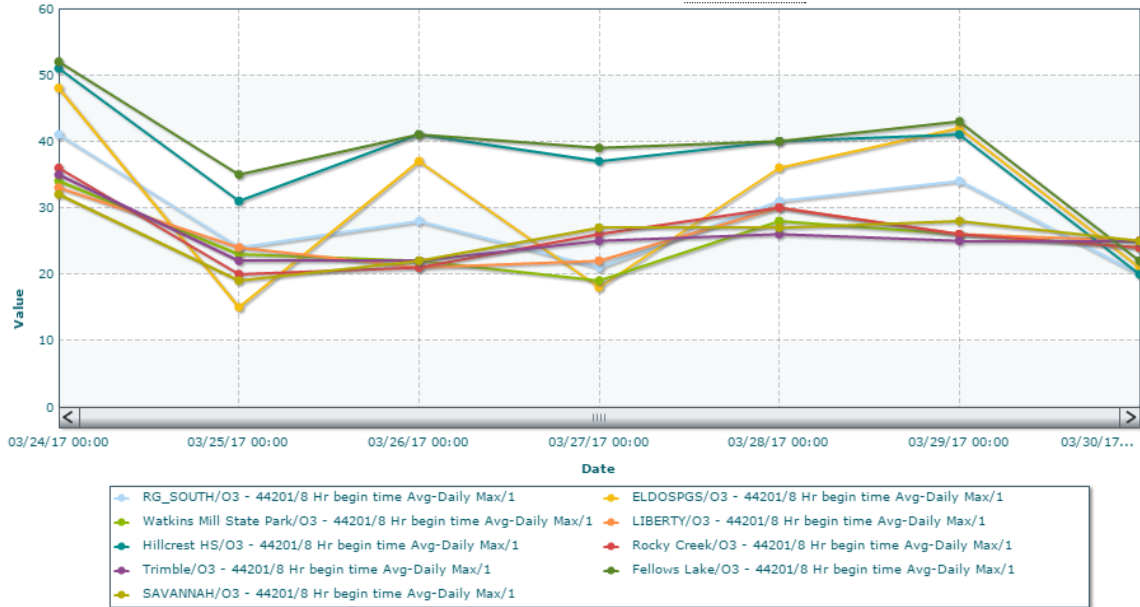
Nebraska Daily PM_{2.5} (µg/m³)



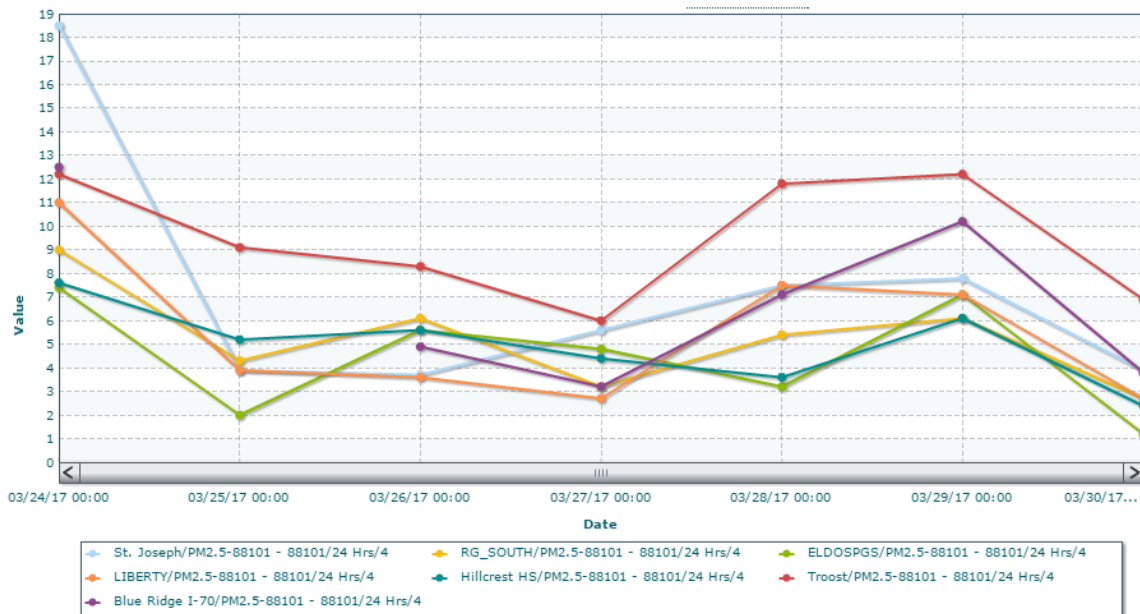
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Missouri Daily 8-hour Maximum Ozone (ppb)



Missouri Daily PM_{2.5} (µg/m³)





Fires and Smoke

Light smoke was analyzed aloft (above the surface) last Friday (March 24) over much of central Kansas and Oklahoma. Periods of rain showers and thunderstorms kept burning to a minimum for nearly the entire past week. With the southeast portions of Kansas and northeast Oklahoma missing out on rain last weekend there was some burning on Sunday (March 26) and Tuesday (March 28) ahead of their rainfall arriving mid-week.

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

KSFIRE.ORG

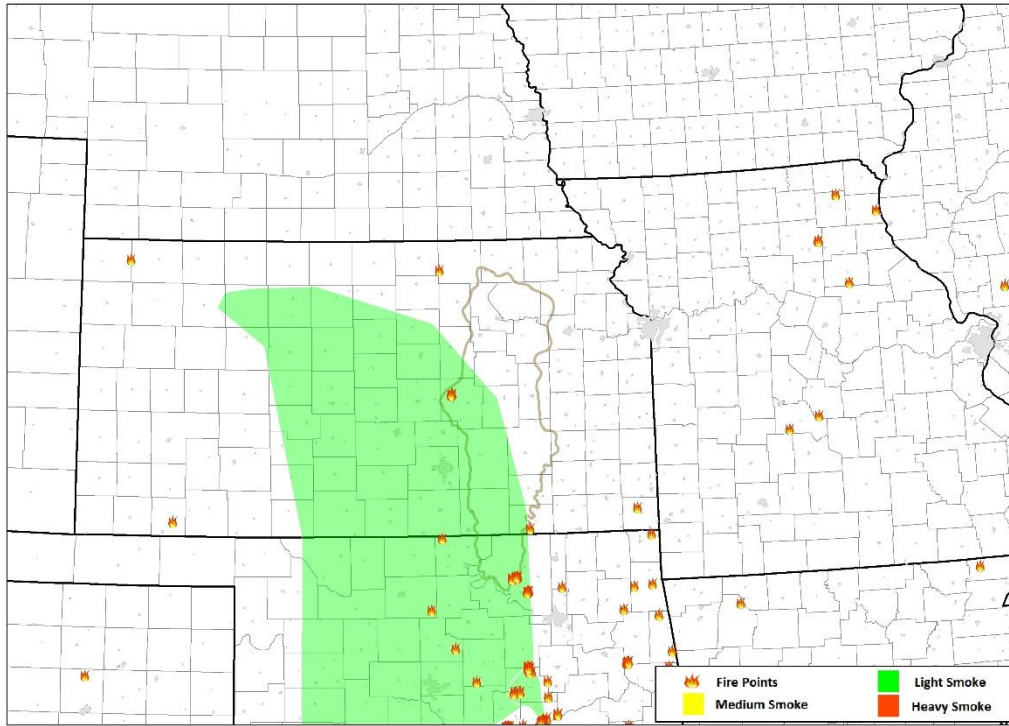


This website was developed as part of the development of the Kansas Flint Hills Smoke Management Plan. Kansas State University hosts the webpage and it includes important information for ranchers and others who might be interested in the Flint Hills. It provides training, regulations, policies, publications, 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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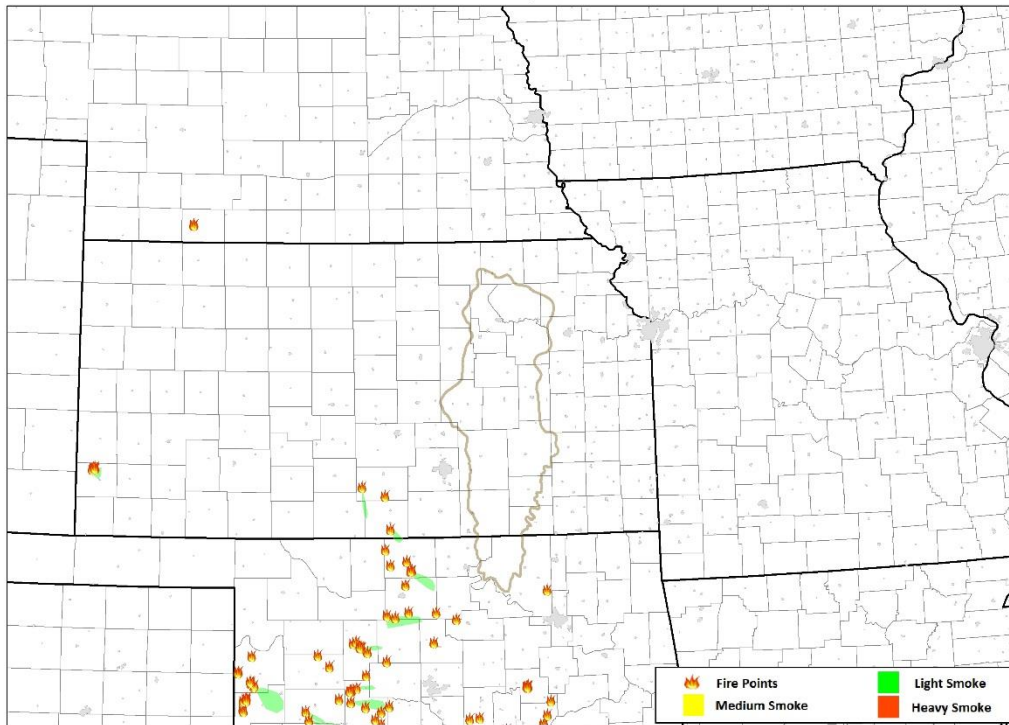
HMS Fire & Smoke Analysis March 24, 2017



Map: Jayson Prentice, KDHE Bureau of Air

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

HMS Fire & Smoke Analysis March 25, 2017



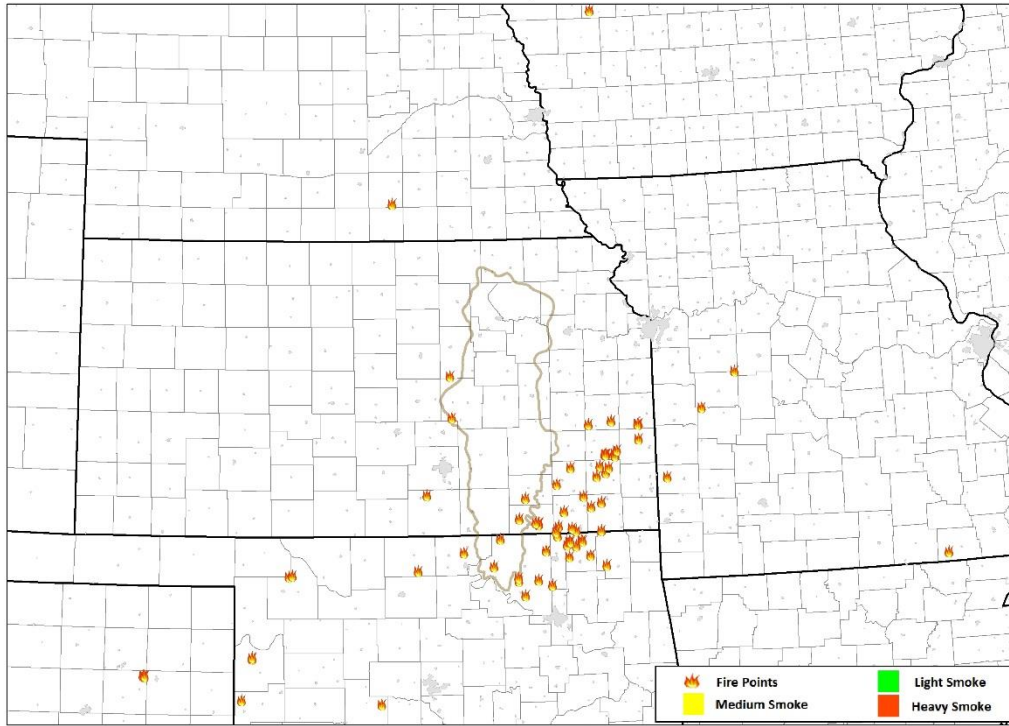
Map: Jayson Prentice, KDHE Bureau of Air

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

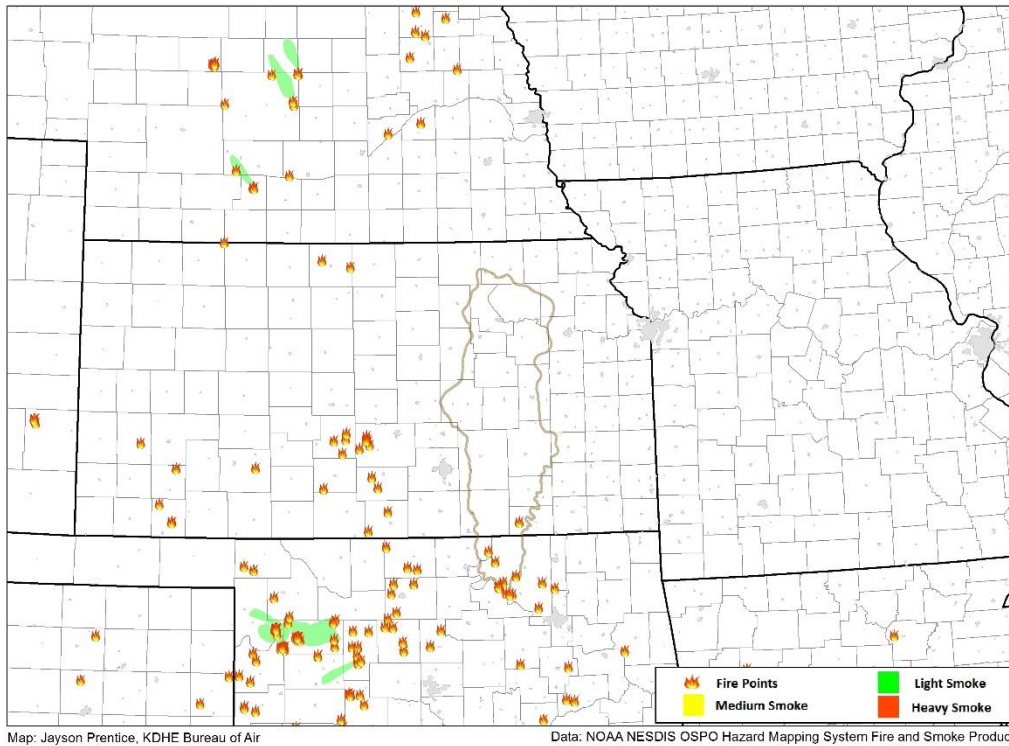
Flint Hills Prescribed Fire Update



HMS Fire & Smoke Analysis March 26, 2017



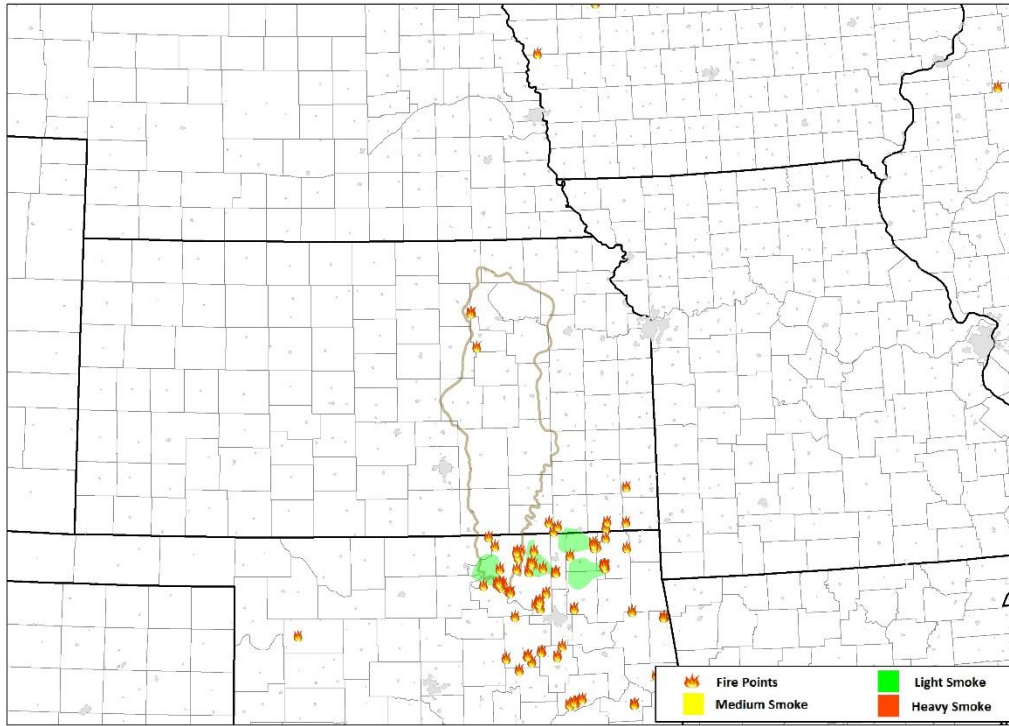
HMS Fire & Smoke Analysis March 27, 2017



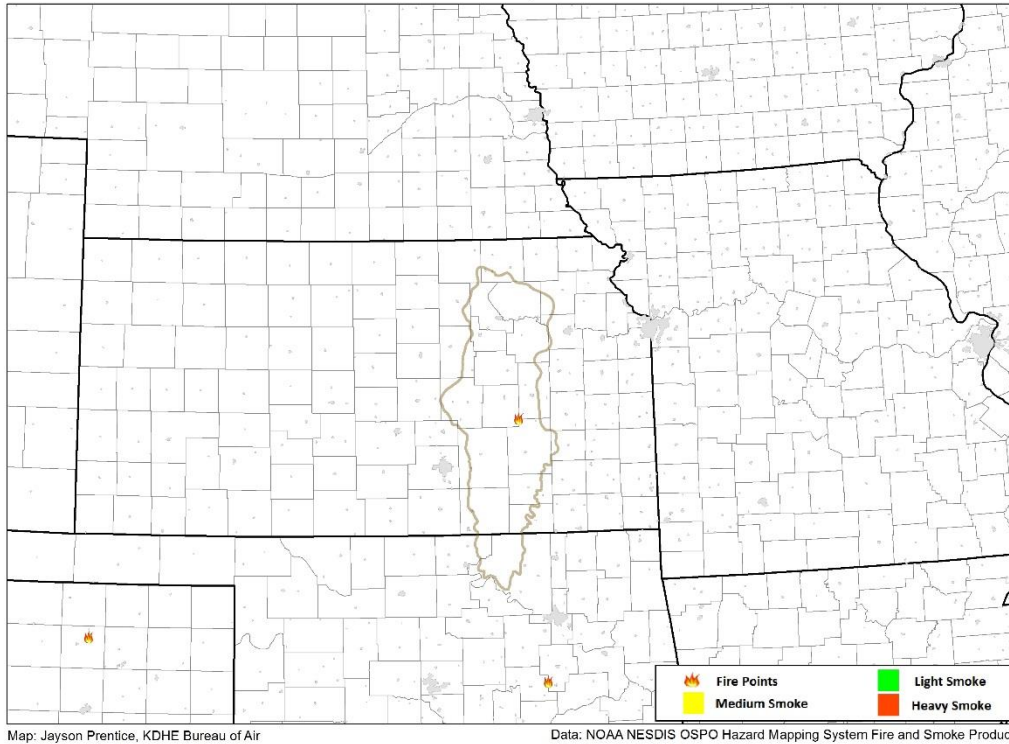
Flint Hills Prescribed Fire Update



HMS Fire & Smoke Analysis March 28, 2017



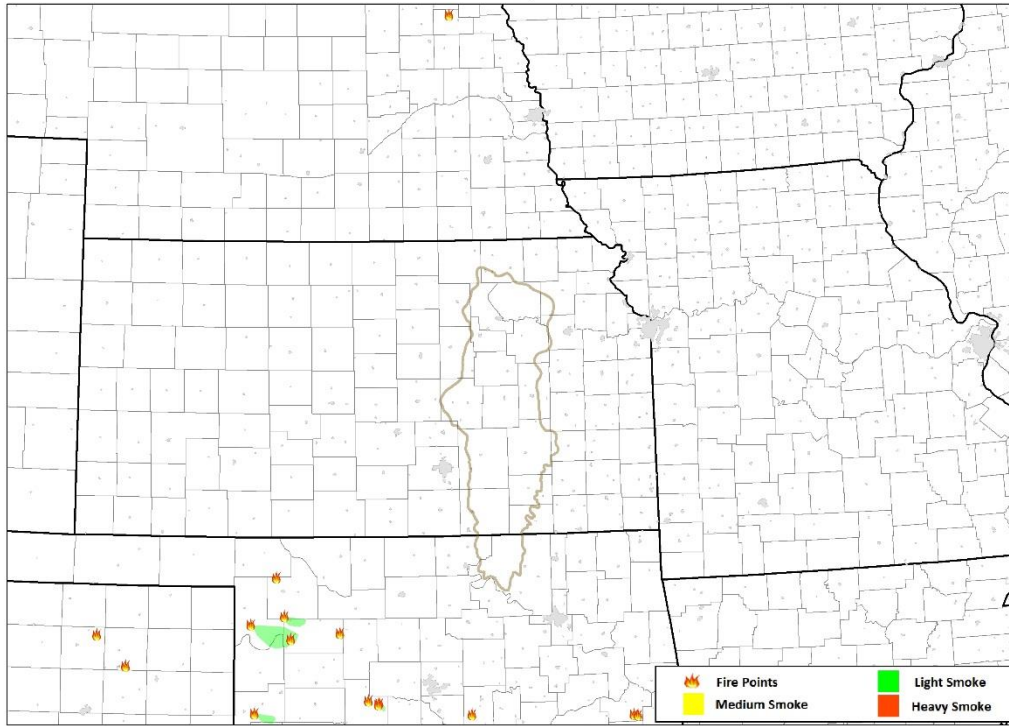
HMS Fire & Smoke Analysis March 29, 2017



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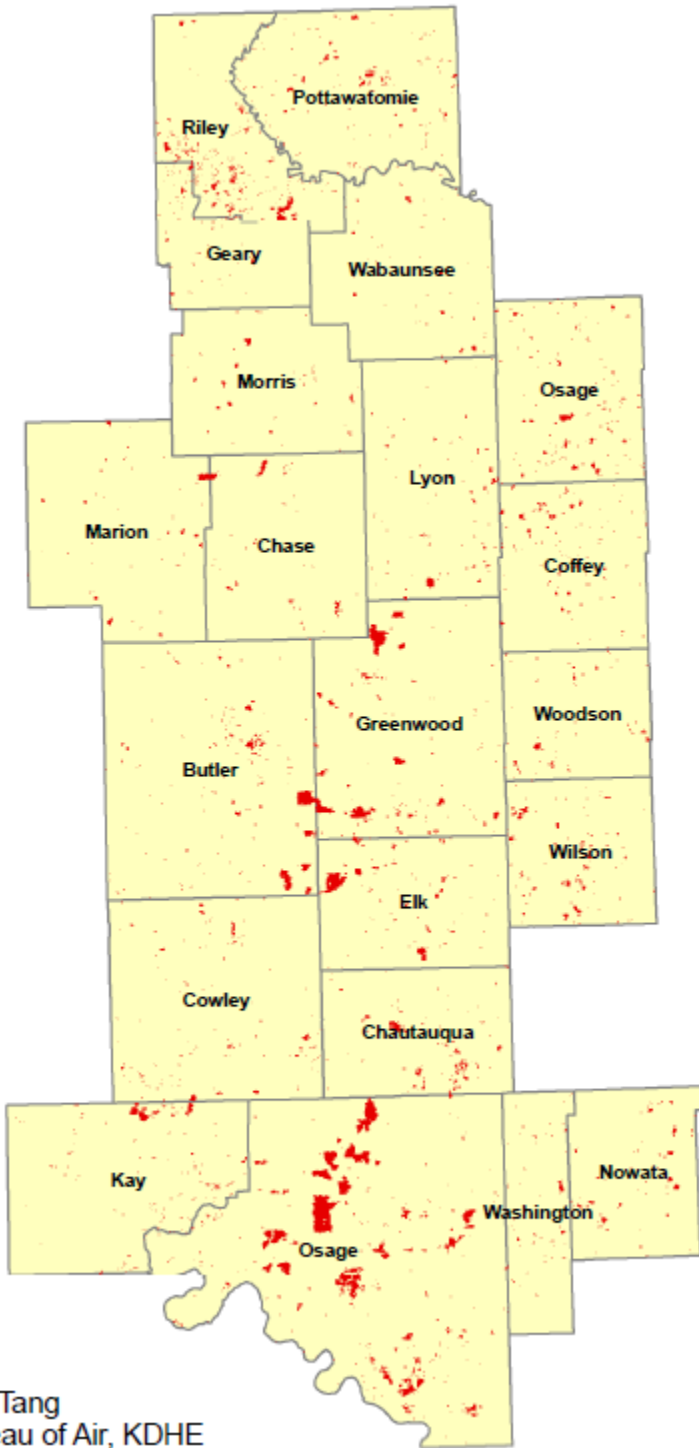


HMS Fire & Smoke Analysis March 30, 2017





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



Yao Tang
Bureau of Air, KDHE

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

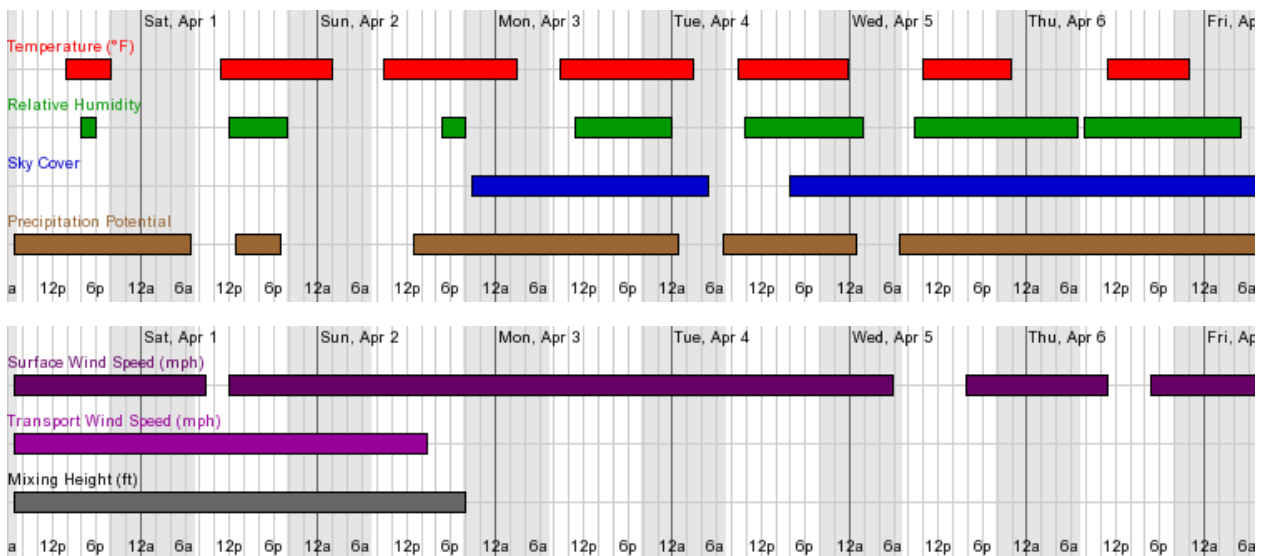


Upcoming Look at Fires and Smoke

Mostly cloudy, cool, and wet conditions will likely inhibit any burning today (March 31). Periods of showers and thunderstorms on Saturday and Sunday (April 1-2) will likely mean very few fires over the weekend. Reasonable burning conditions return for Monday (April 3) however, it will be questionable if grasses are dry enough. Chances for rain return Monday night through Tuesday (April 4).

Wednesday (April 5) and beyond next week finally appear dry with temperatures near 60 and lighter winds. We will likely see a significant increase in burning activity once fuels (grasses) dry after ~10 days of wet conditions. If the weather forecast into next weekend remains dry look for the significant increase to occur.

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: 9am March 31, 2017.