

Flint Hills Prescribed Fire Update

March 10, 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.

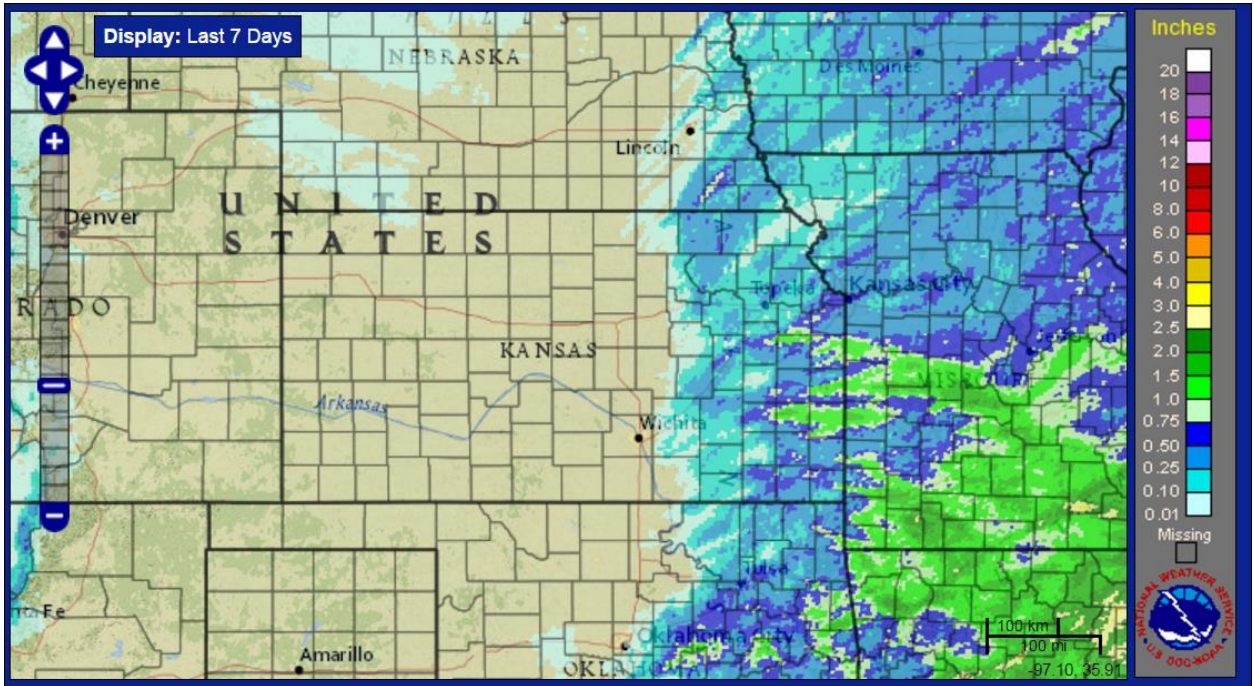




Meteorology

Warm and windy conditions occurred across the Flint Hills Friday through Monday (Mar 3-6) before a cold front brought thunderstorms to the area Monday evening. Slightly cooler temperatures but still breezy conditions were seen Tuesday and Wednesday (Mar 7-8). Winds decreased for Thursday as another cold front approached the area and brought a few thunderstorms to the southeast portion of the Flint Hills.

Precipitation

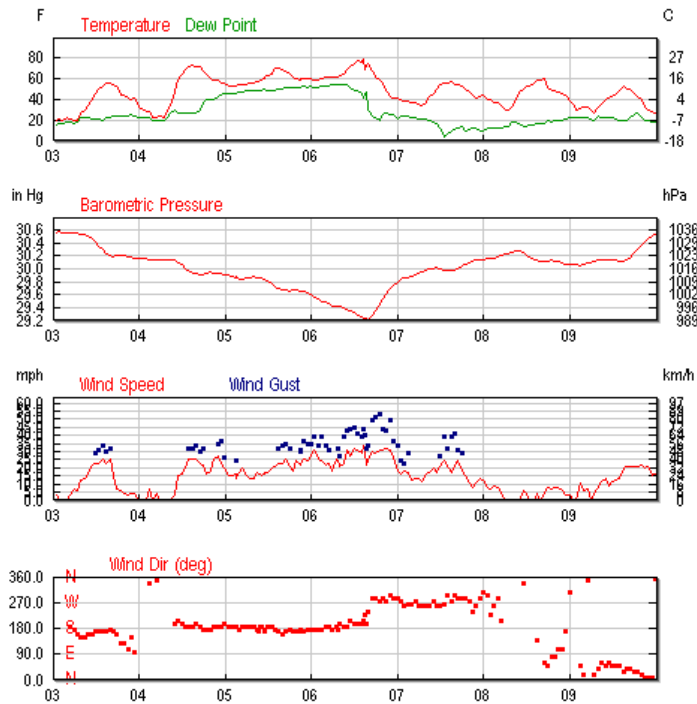


NOAA/NWS Observed Total Precipitation for March 3-9, 2017.

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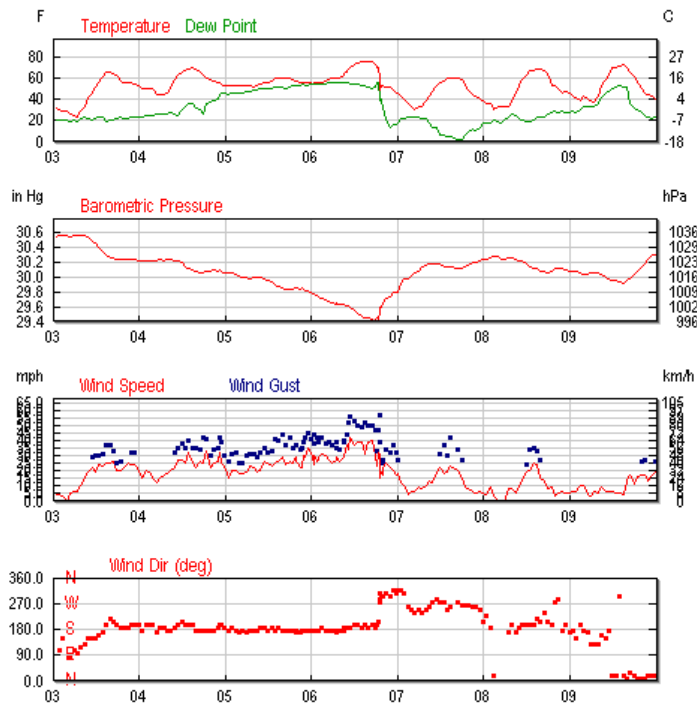


Lincoln, NE



Mar 3-9, 2017 Observed Weather from KLNK. Graphic: Weather Underground, Inc.

Emporia, KS



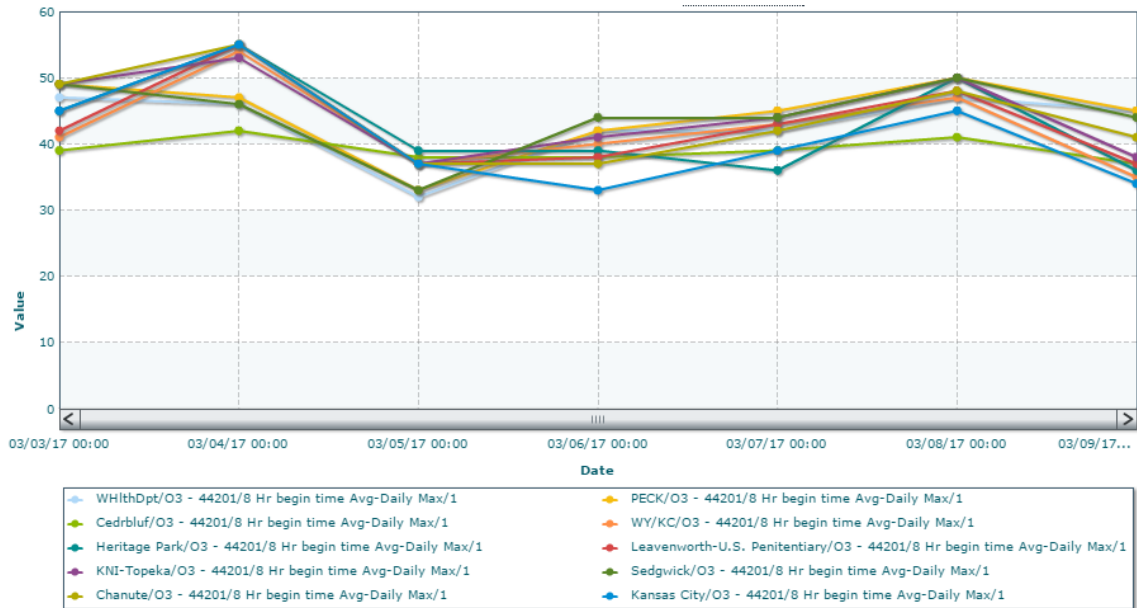
Mar 3-9, 2017 Observed Weather from KEMP. Graphic: Weather Underground, Inc.



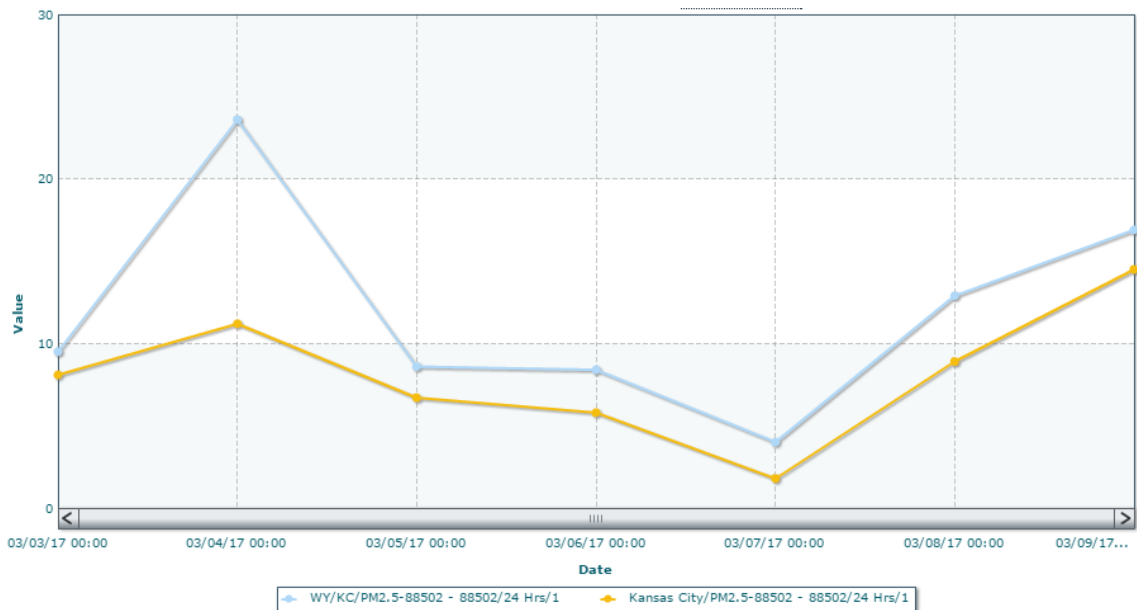
Air Quality Data

Air quality data for all sites in the region remained below exceedance levels during the past week, March 3-9, 2017.

Kansas Daily 8-hour Maximum Ozone (ppb)



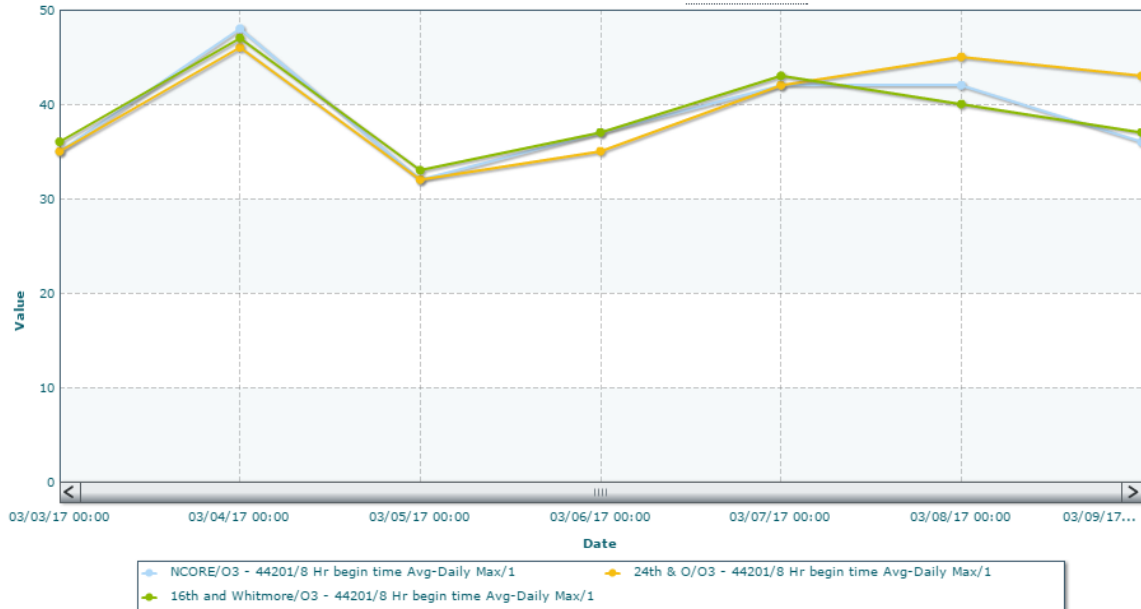
Kansas Daily PM_{2.5} (µg/m³)



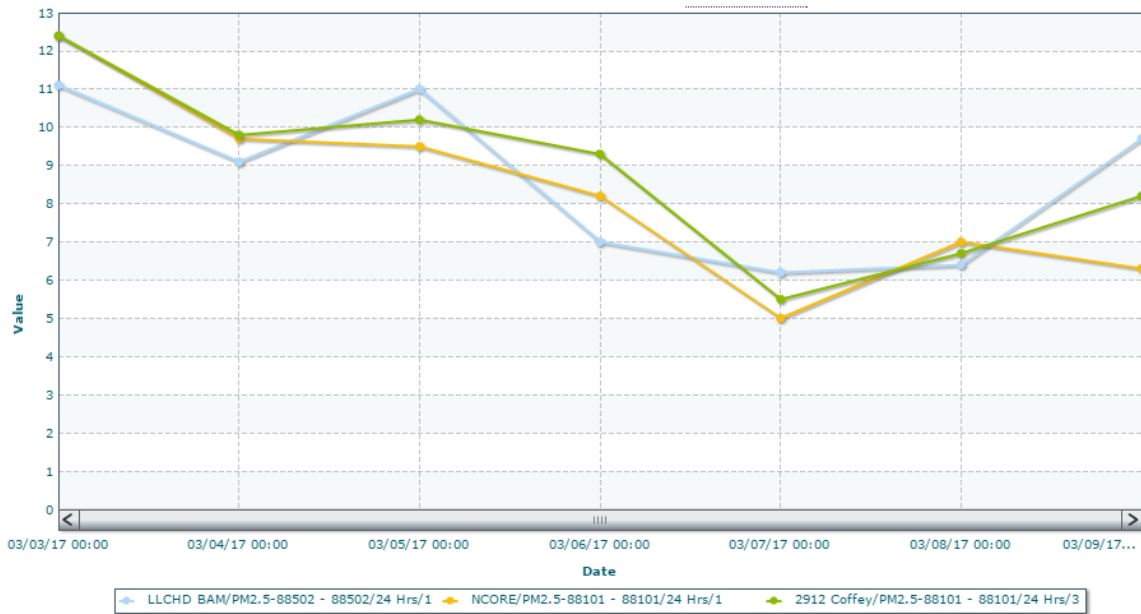
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Nebraska Daily 8-hour Maximum Ozone (ppb)



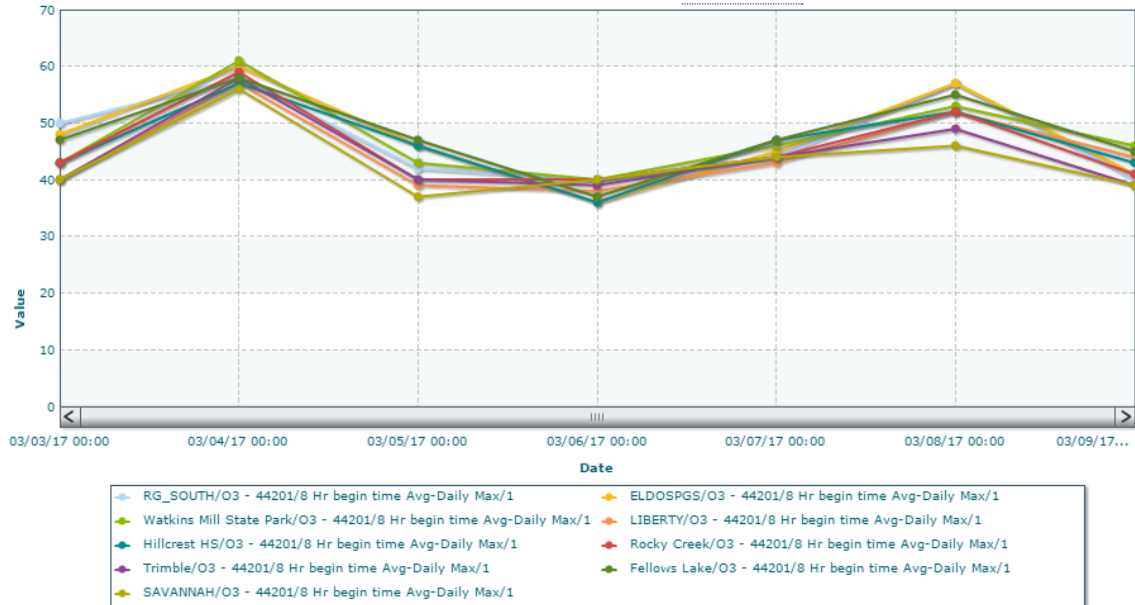
Nebraska Daily PM_{2.5} (µg/m³)



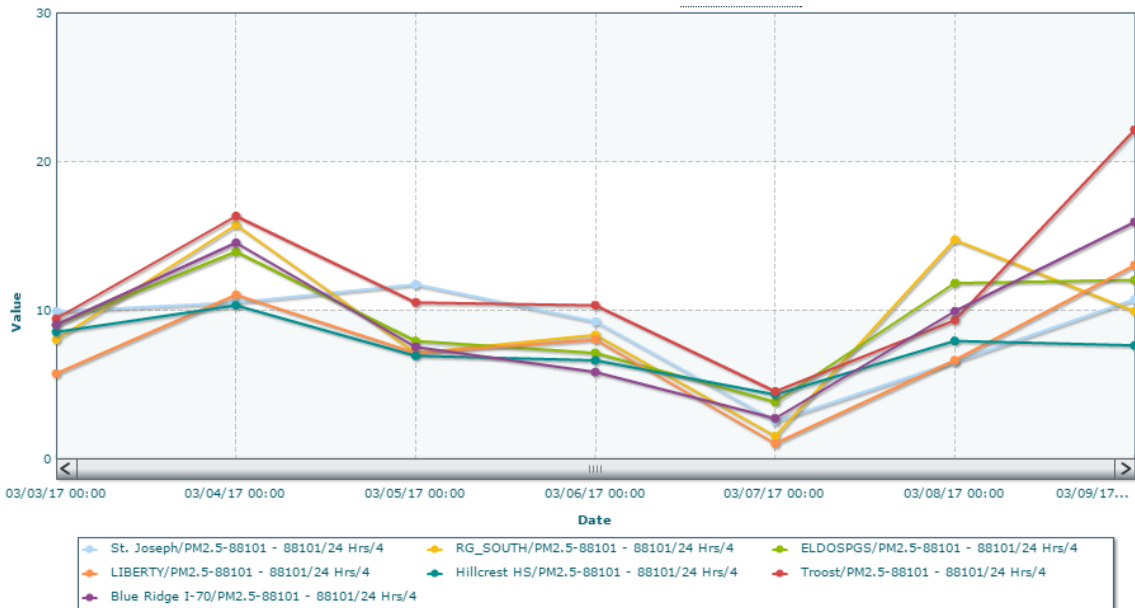
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Missouri Daily 8-hour Maximum Ozone (ppb)



Missouri Daily PM_{2.5} (µg/m³)





Fires and Smoke

Breezy to windy conditions kept burning rather limited for most of the week. Saturday, March 4 saw numerous fires to the east of the Flint Hills over Missouri and Iowa where winds were lighter. Multiple wildfires and their large smoke plumes highlight the analysis for Monday, March 6. The smoke plume from the complex of fires over southwest Kansas, northwest Oklahoma, and the Texas panhandle moved swiftly northeast during the day, but was then swept southeastward along a cold front. The smoke plume from Monday can be seen on the Tuesday, March 7 analysis over Missouri and Arkansas alongside additional smoke as wildfires continued to burn.

Smoke lingered over the southern Flint Hills and Oklahoma on Wednesday, March 8 associated with wildfires. Multiple fires can be seen north and northeast of the Flint Hills too. Sporadic fires occurred on Thursday, March 9 with lighter winds although analyzed smoke plumes indicate these fires were likely small.

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

KSFIRE.ORG

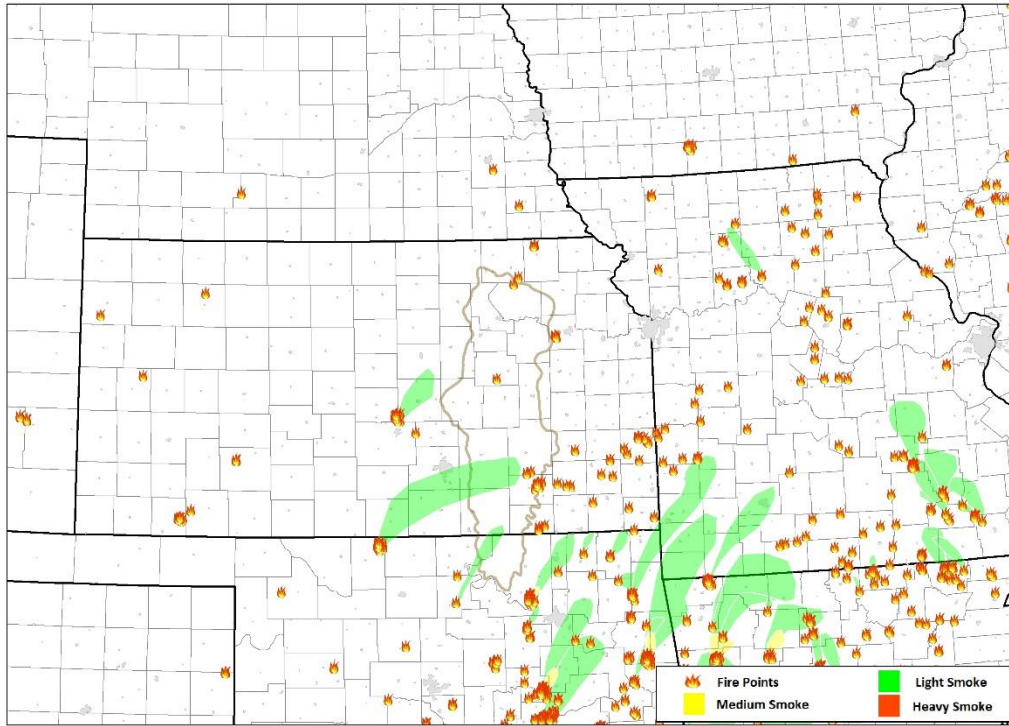


This website was developed as part of the development of the Kansas Flint Hills Smoke Management Plan. Kansas State University hosts the webpage and it includes important information for ranchers and others who might be interested in the Flint Hills. It provides training, regulations, policies, publications,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

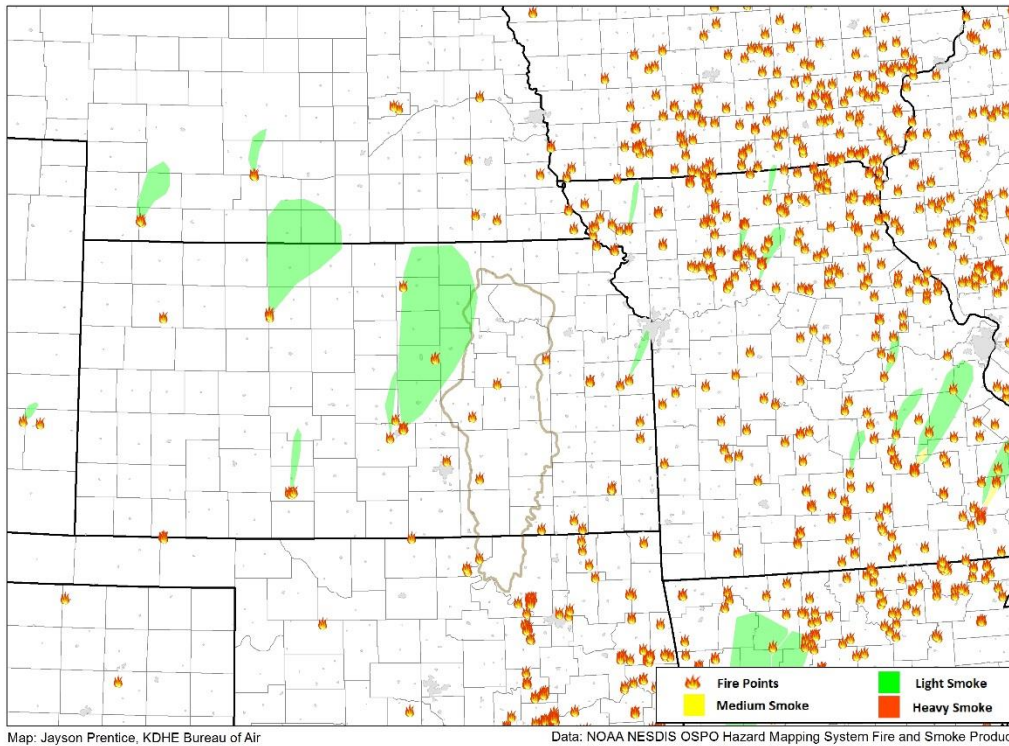
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HMS Fire & Smoke Analysis March 03, 2017



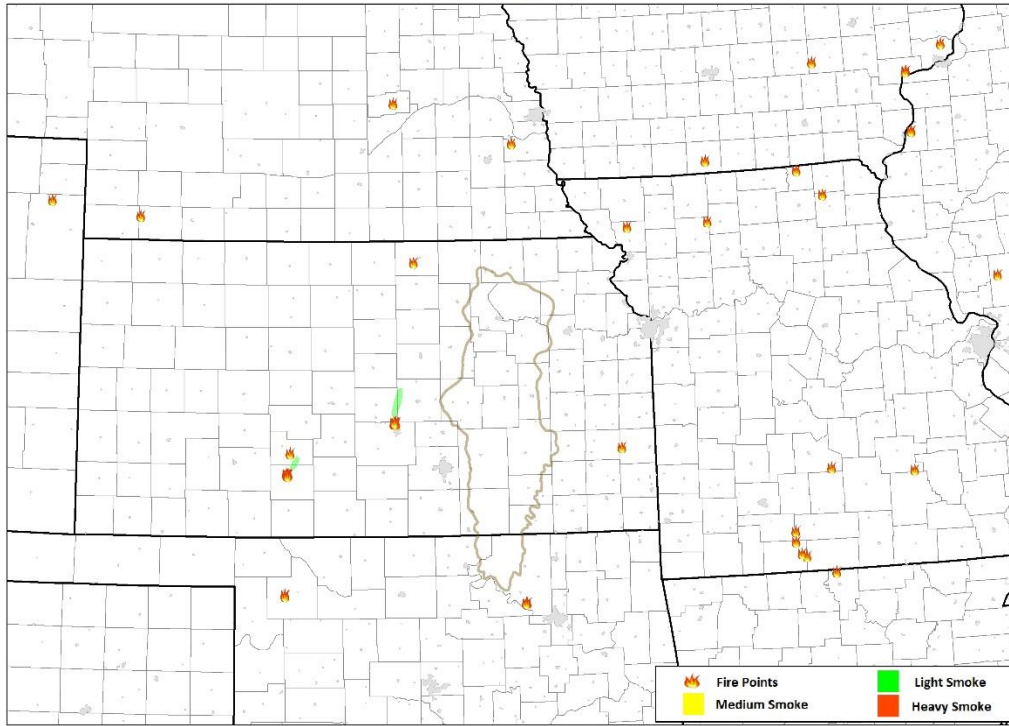
HMS Fire & Smoke Analysis March 04, 2017



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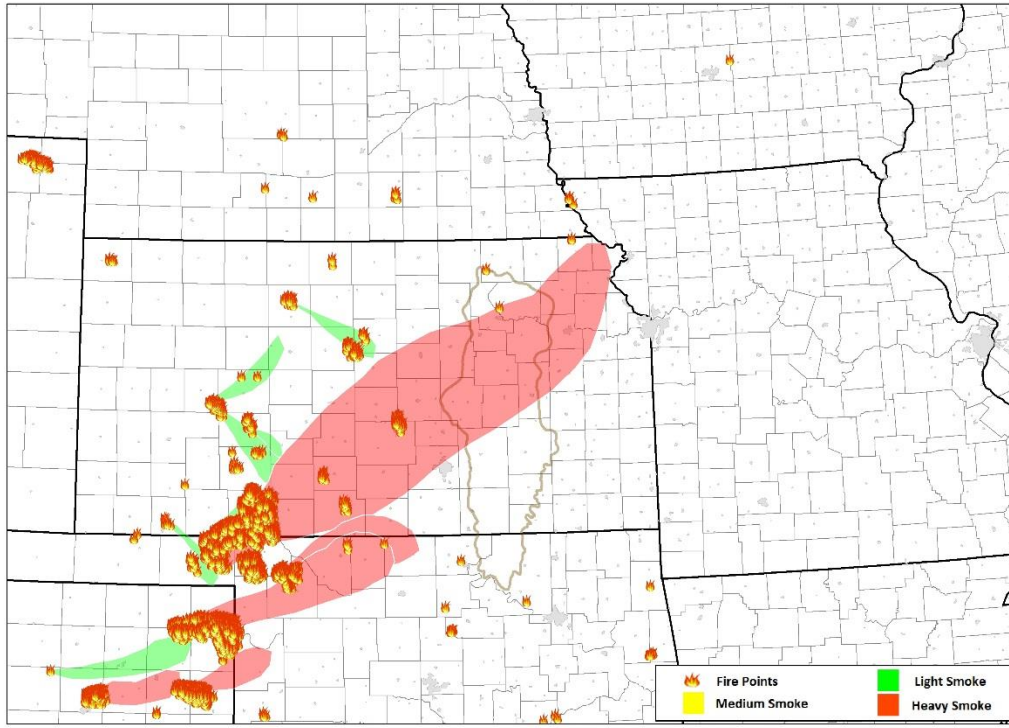
HMS Fire & Smoke Analysis March 05, 2017



Map: Jayson Prentice, KDHE Bureau of Air

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

HMS Fire & Smoke Analysis March 06, 2017



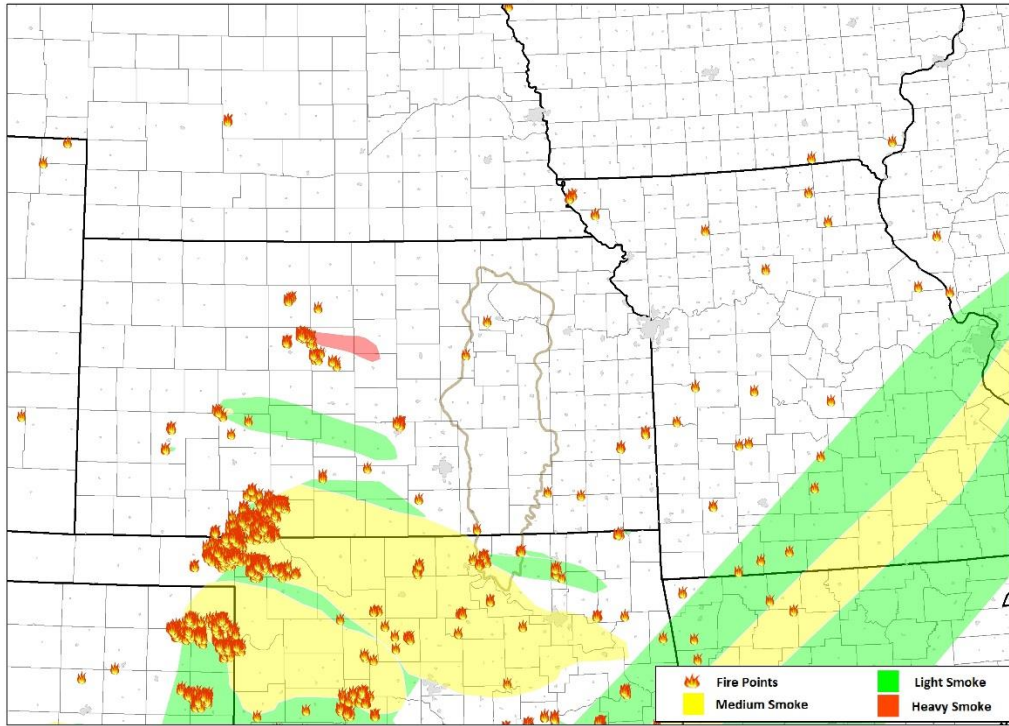
Map: Jayson Prentice, KDHE Bureau of Air

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

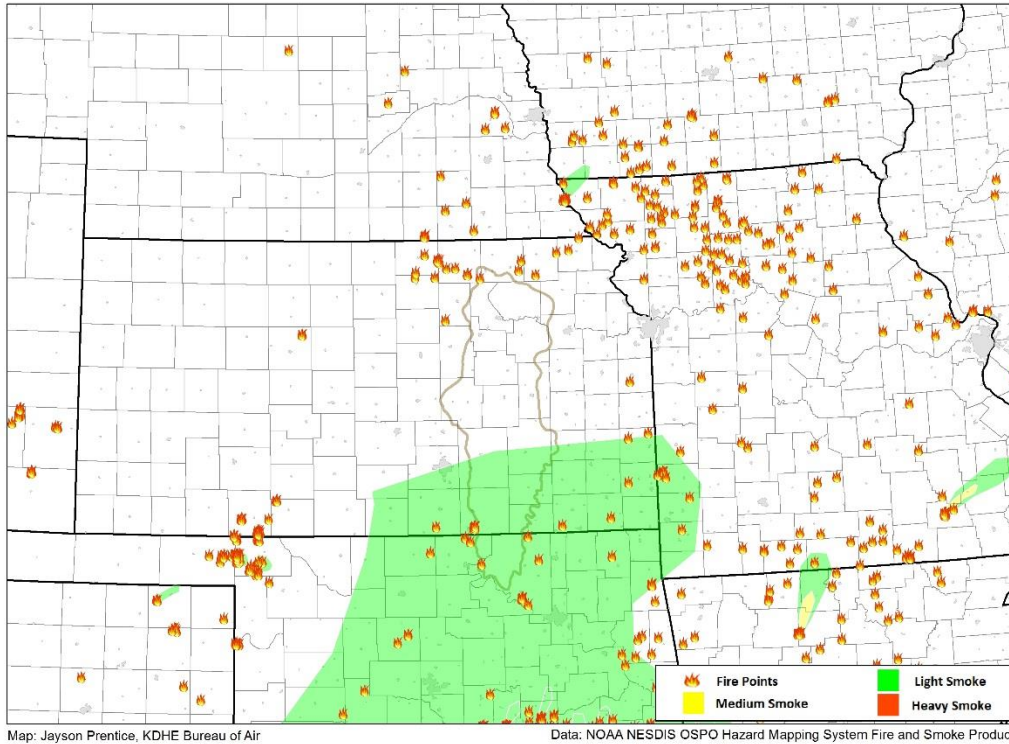
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HMS Fire & Smoke Analysis March 07, 2017



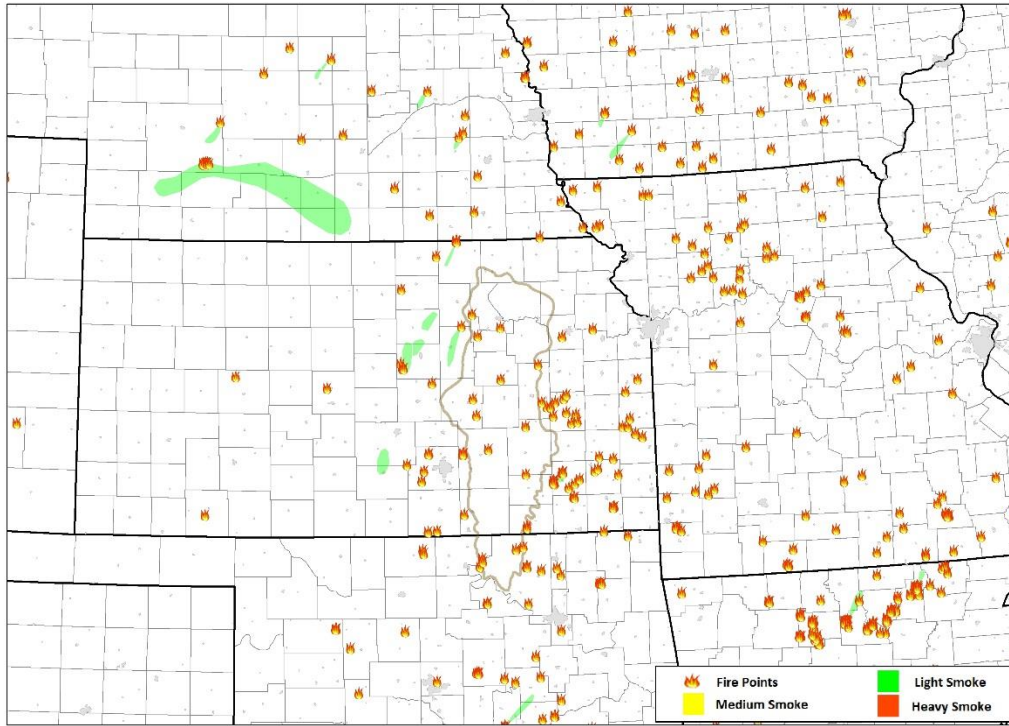
HMS Fire & Smoke Analysis March 08, 2017



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HMS Fire & Smoke Analysis March 09, 2017

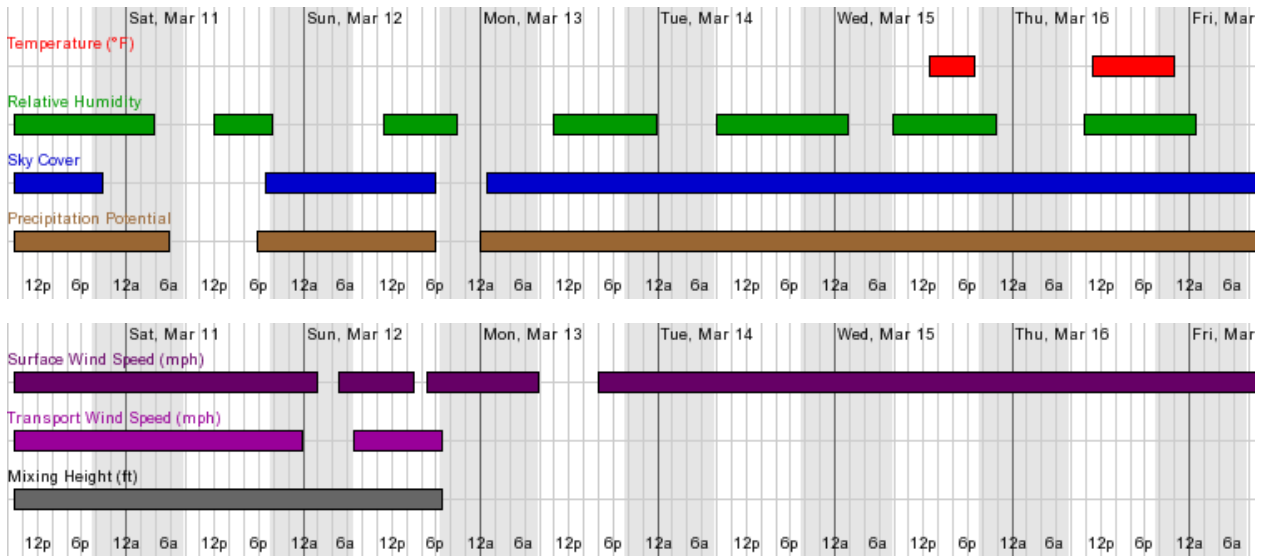




Upcoming Look at Fires and Smoke

Cold temperatures, high humidity, and potential for rain/snow will inhibit burning this weekend. Breezy conditions are forecast for Monday alongside cool temperatures. Wind speeds will become more conducive to burning by Tuesday; however, temperatures will remain on the cold side. It appears the next prolonged opportunity for burning would arrive for late next week as temperatures return to the 50s and 60s and winds look to remain light.

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 rangeland 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 10, 2017.