

Flint Hills Prescribed Fire Update

May 11, 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.

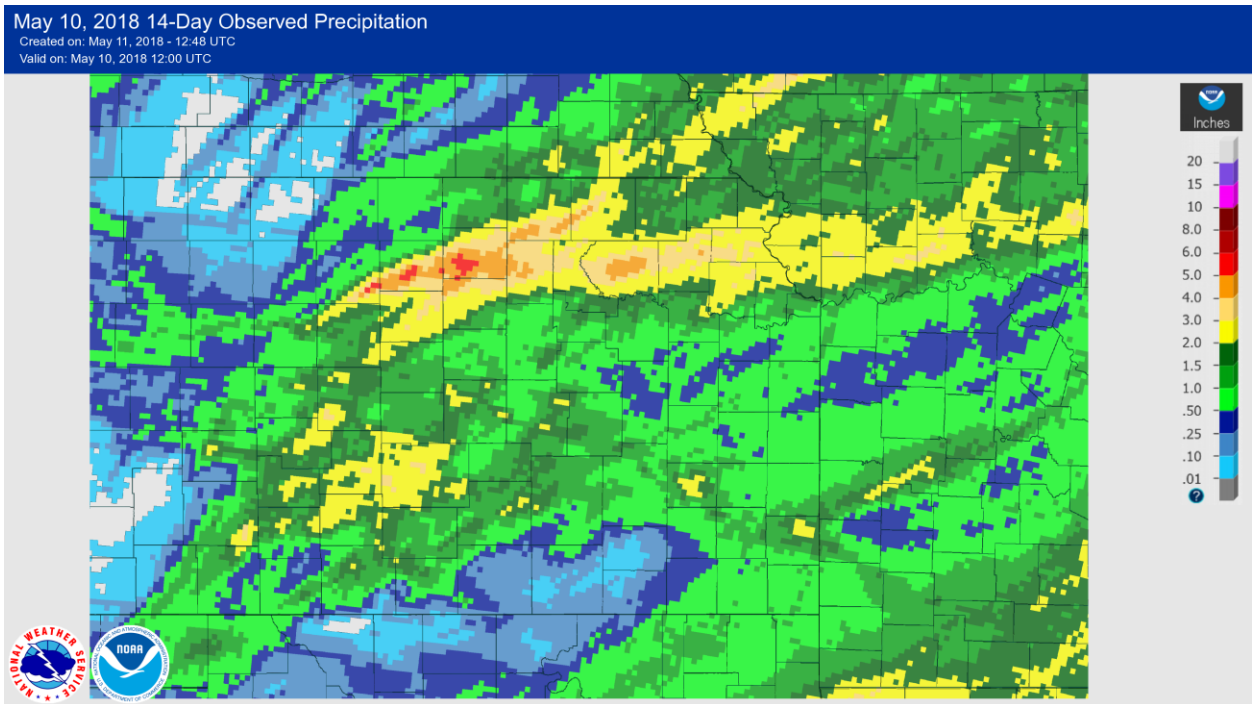




Meteorology

The prior two weeks have been filled with primarily seasonable temperatures and bouts of showers and thunderstorms. Precipitation across the Flint Hills has varied from near a quarter-inch to upwards of four inches within thunderstorms. High temperatures varied from the 70s to near 90 degrees with lows in the 40s to end April, and now in the 60s for most. The recent rain and warm temperatures has allowed for a quick “green-up” for the entire Flint Hills region.

Precipitation

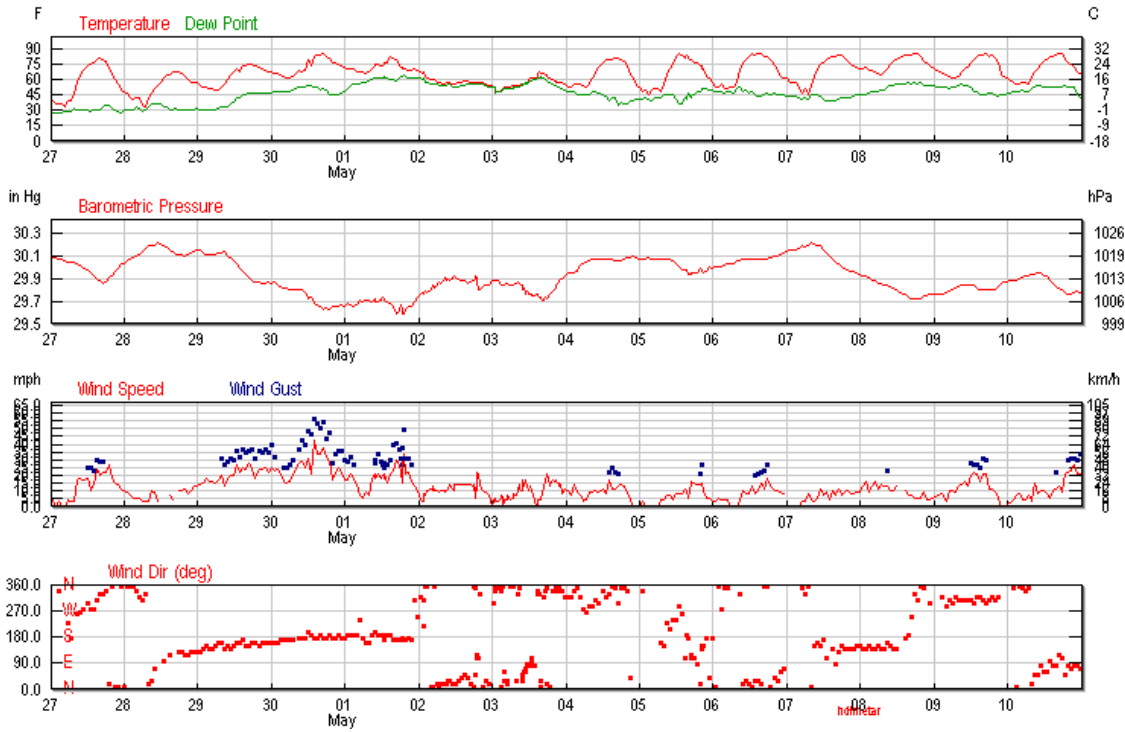


NOAA/NWS Observed Total Precipitation for April 27 – May 10, 2018.

Flint Hills Prescribed Fire Update

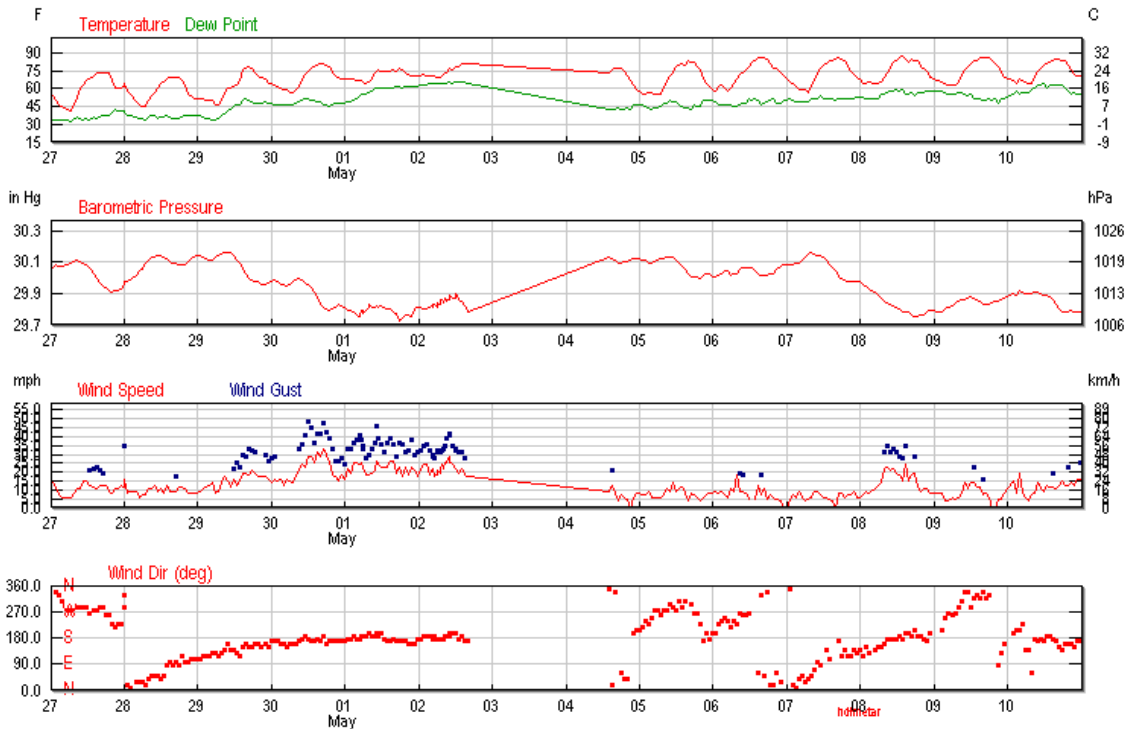


Lincoln, NE



April 27 – May 10, 2018 Observed Weather from KLNK. Graphic: Weather Underground, Inc.

Emporia, KS



April 27 – May 10, 2018 Observed Weather from KEMP. Graphic: Weather Underground, Inc.



Air Quality Data

Air quality data for the period of April 27 – May 10, 2018:

Ozone: Preliminary data indicates three exceedances of the NAAQS daily 8-hour average maximum of 70 ppb. Two exceedances occurring on May 8, 2018; one at the Omaha NCore site and the other at the Iowa DNR Pisgah Forestry Office. Another exceedance occurring on May 10, 2018 at the Watkins Mills monitor northeast of the Kansas City Metro.

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.

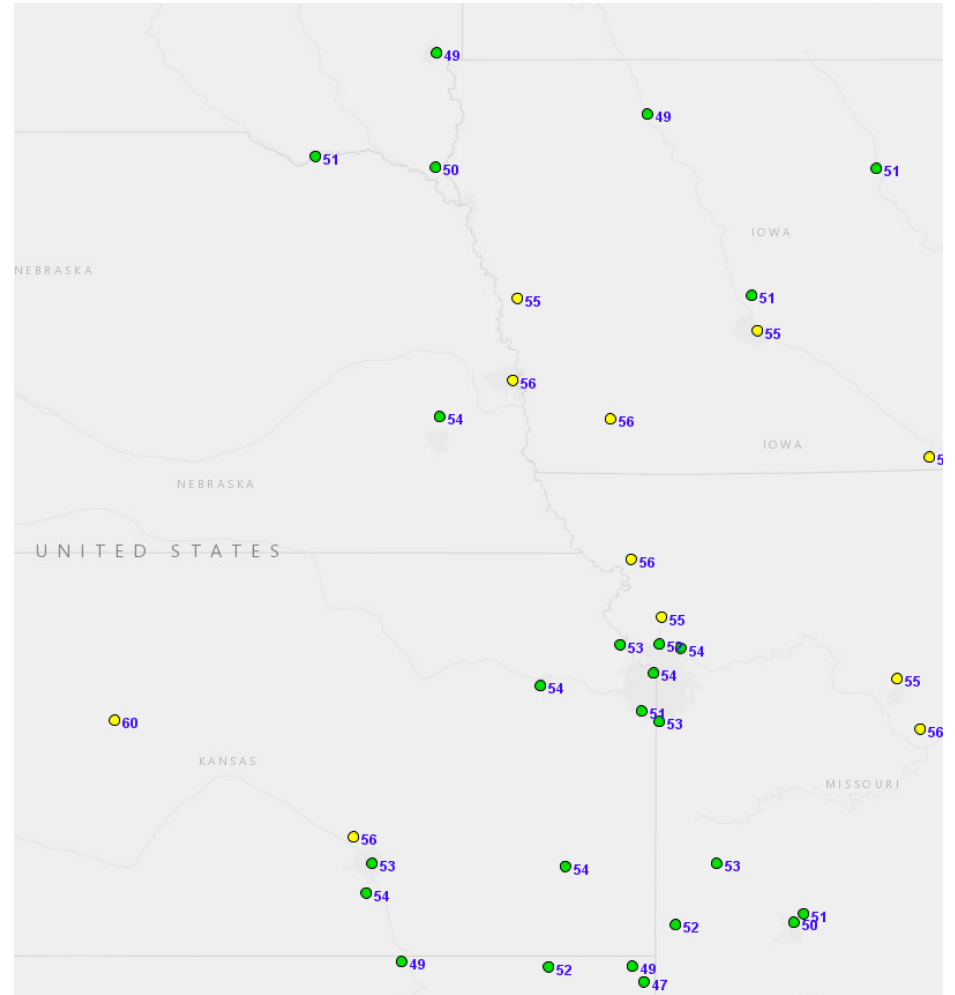
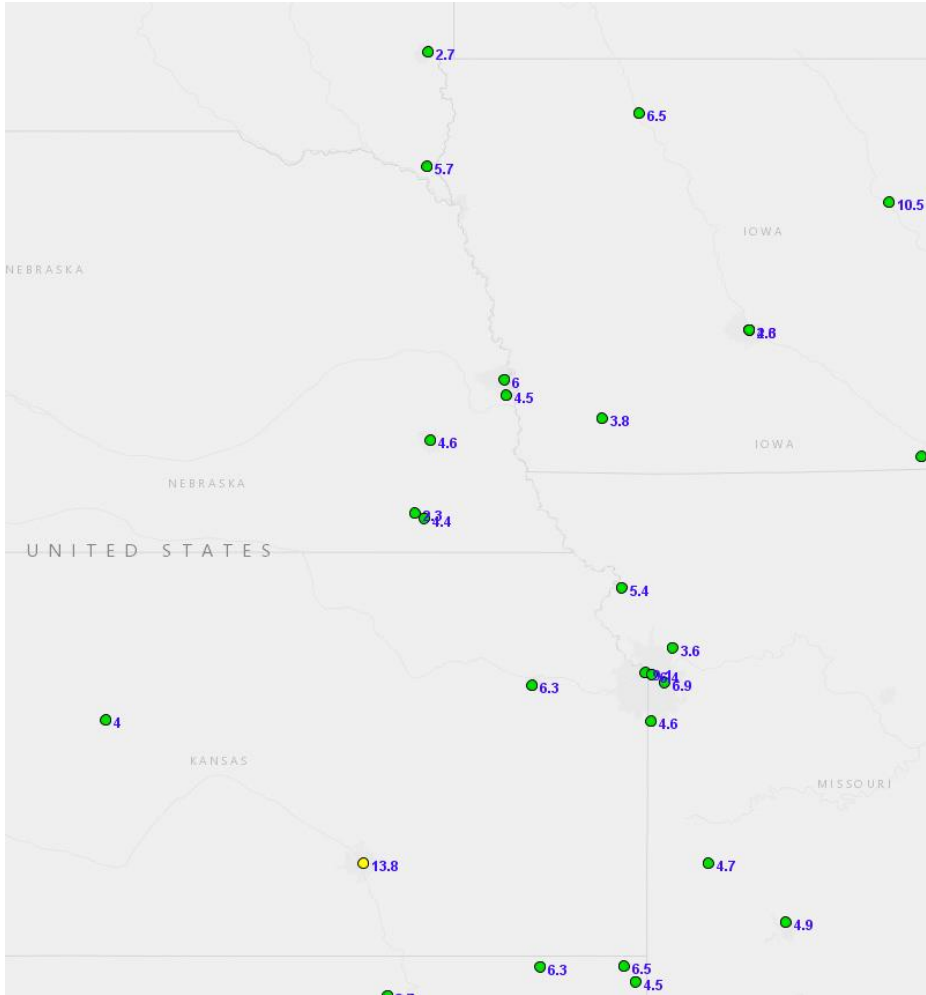
Flint Hills Prescribed Fire Update



Friday, April 27, 2018

PM2.5 (24-hour average)

Ozone (8-hour average maximum)



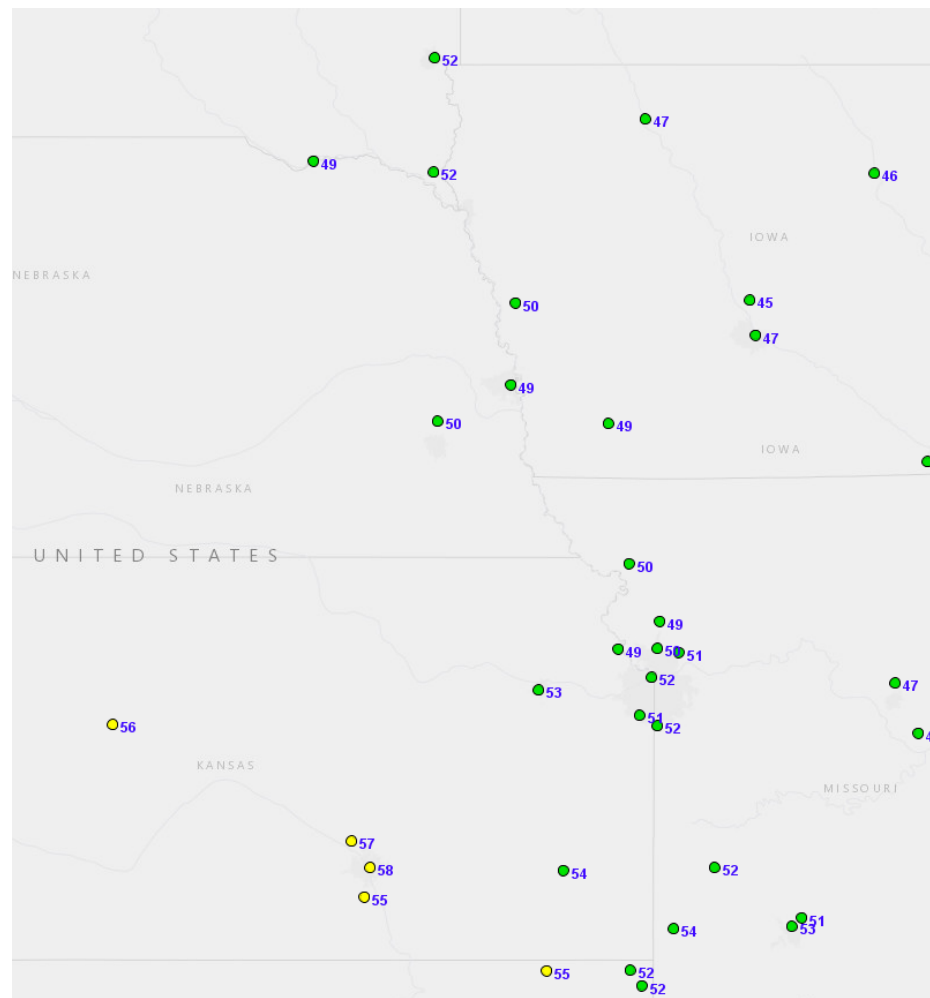
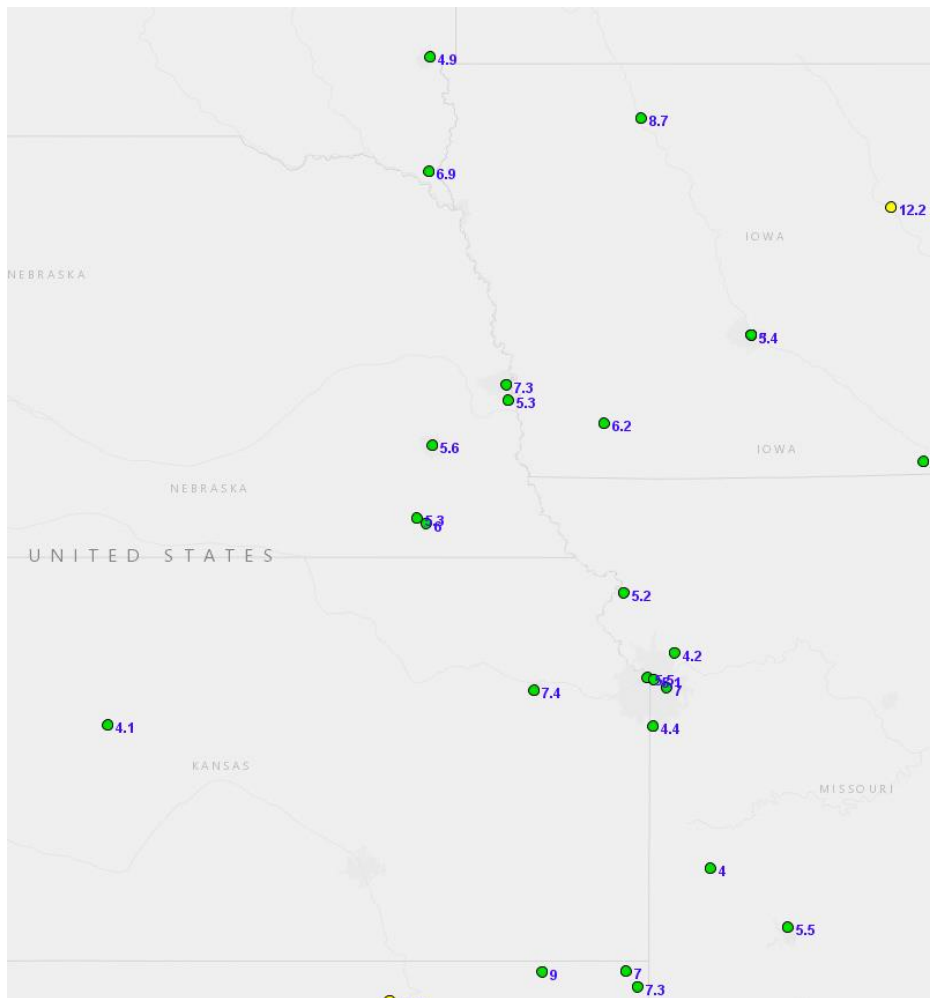
Flint Hills Prescribed Fire Update



Saturday, April 28, 2018

PM2.5 (24-hour average)

Ozone (8-hour average maximum)



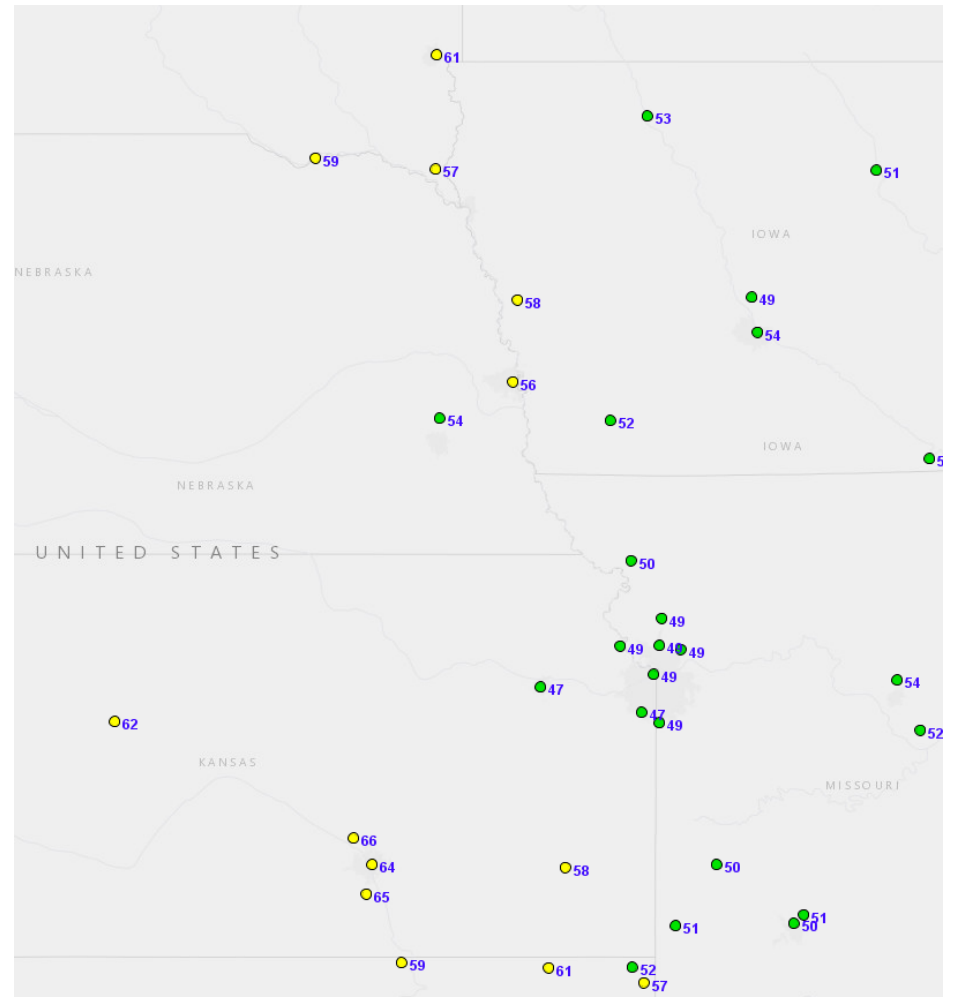
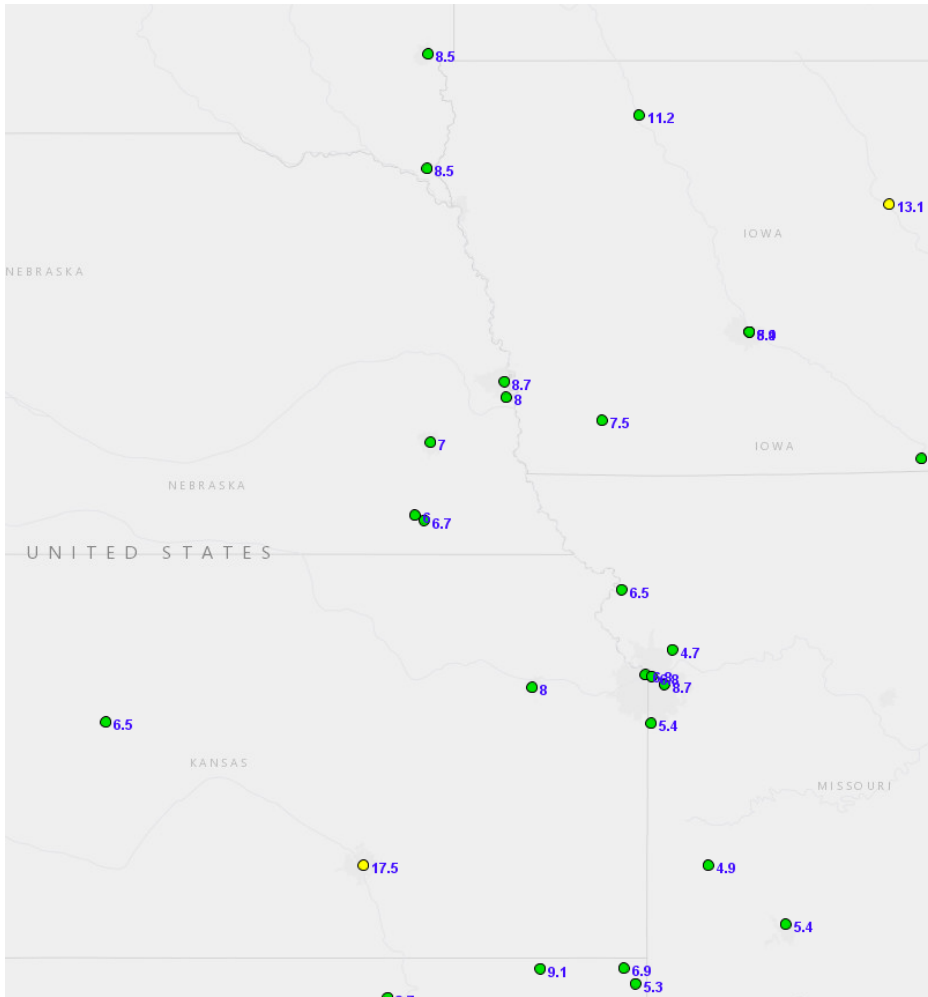
Flint Hills Prescribed Fire Update



Sunday, April 29, 2018

PM2.5 (24-hour average)

Ozone (8-hour average maximum)



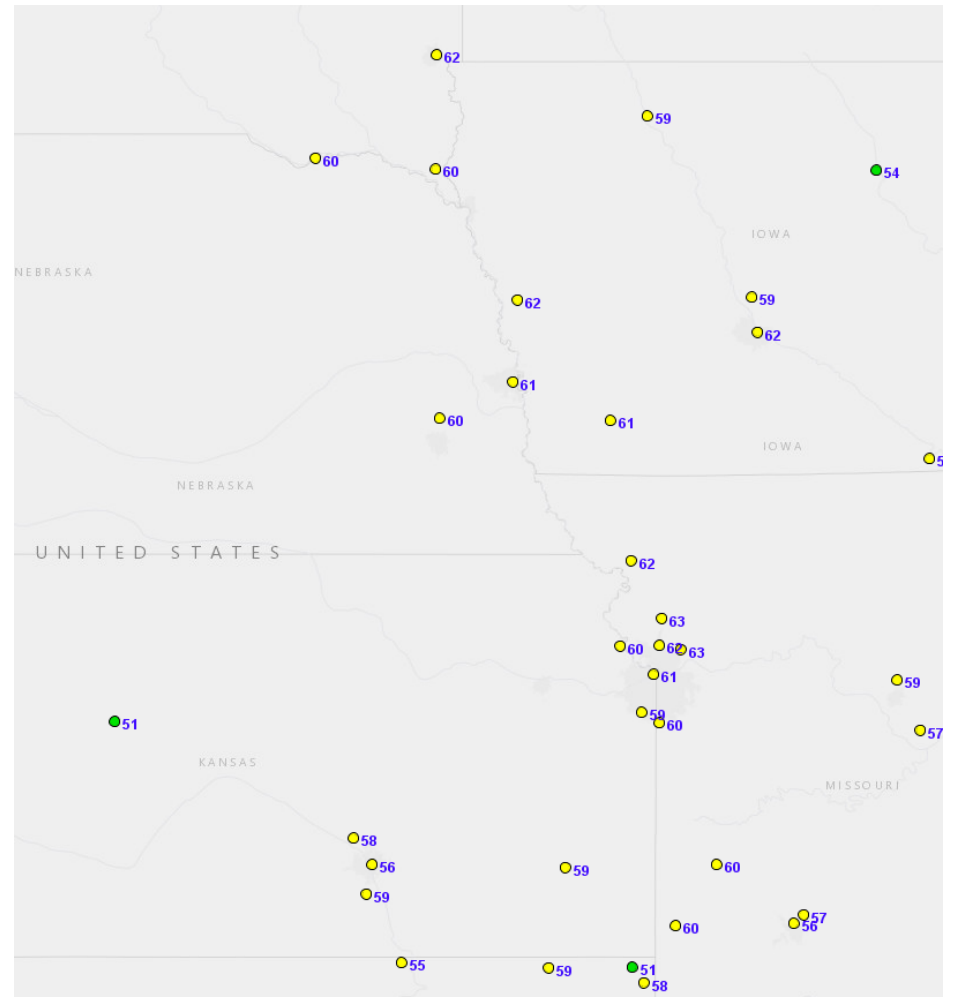
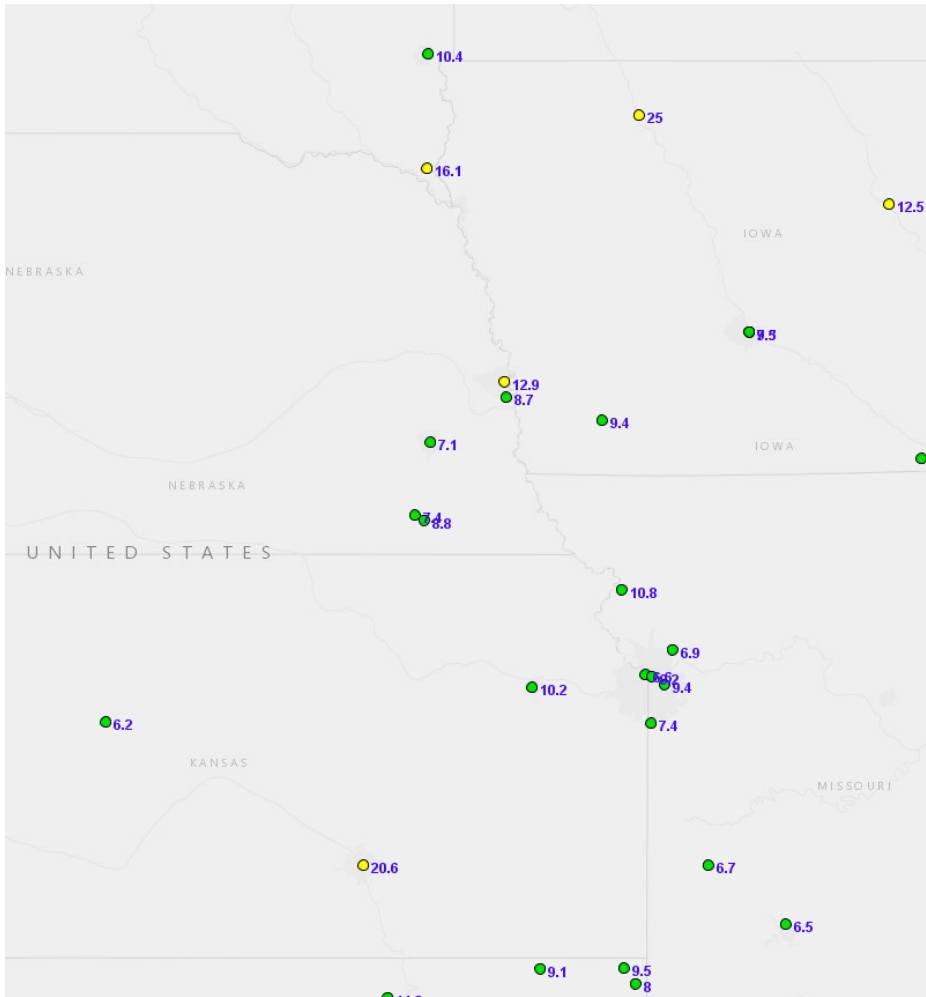
Flint Hills Prescribed Fire Update



Monday, April 30, 2018

PM2.5 (24-hour average)

Ozone (8-hour average maximum)



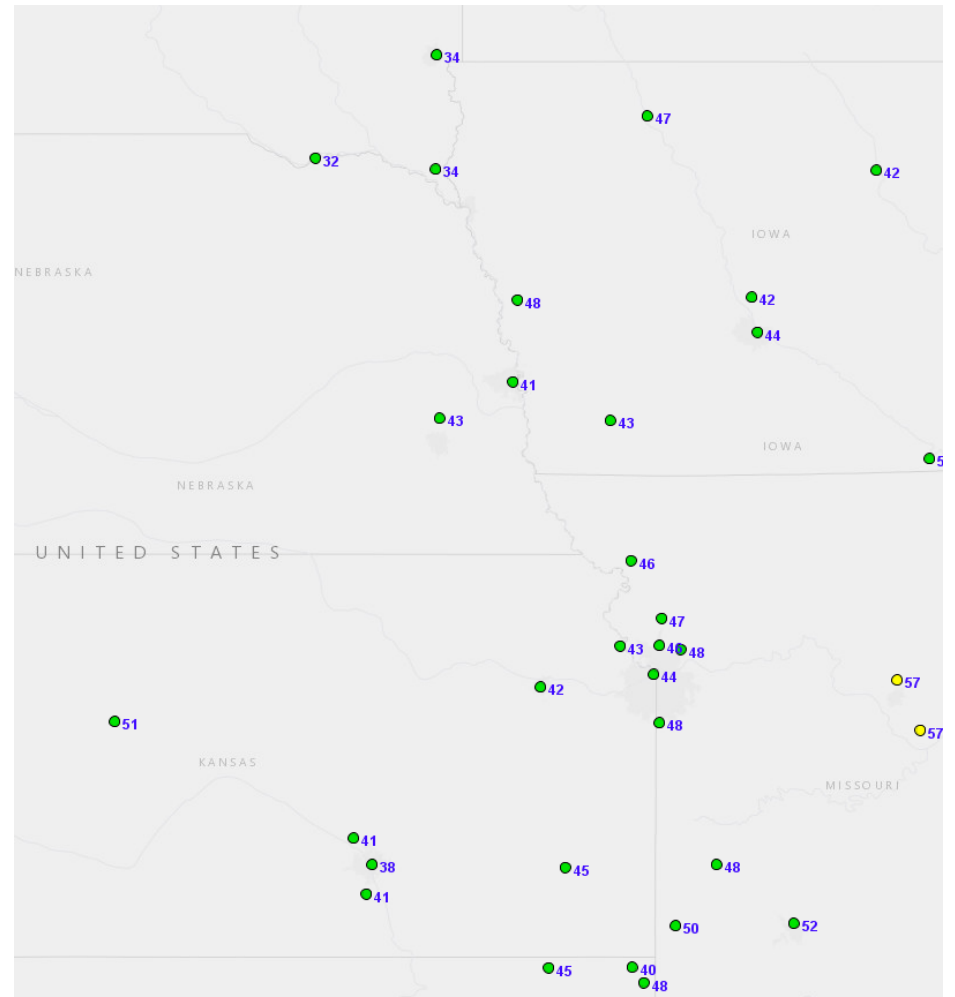
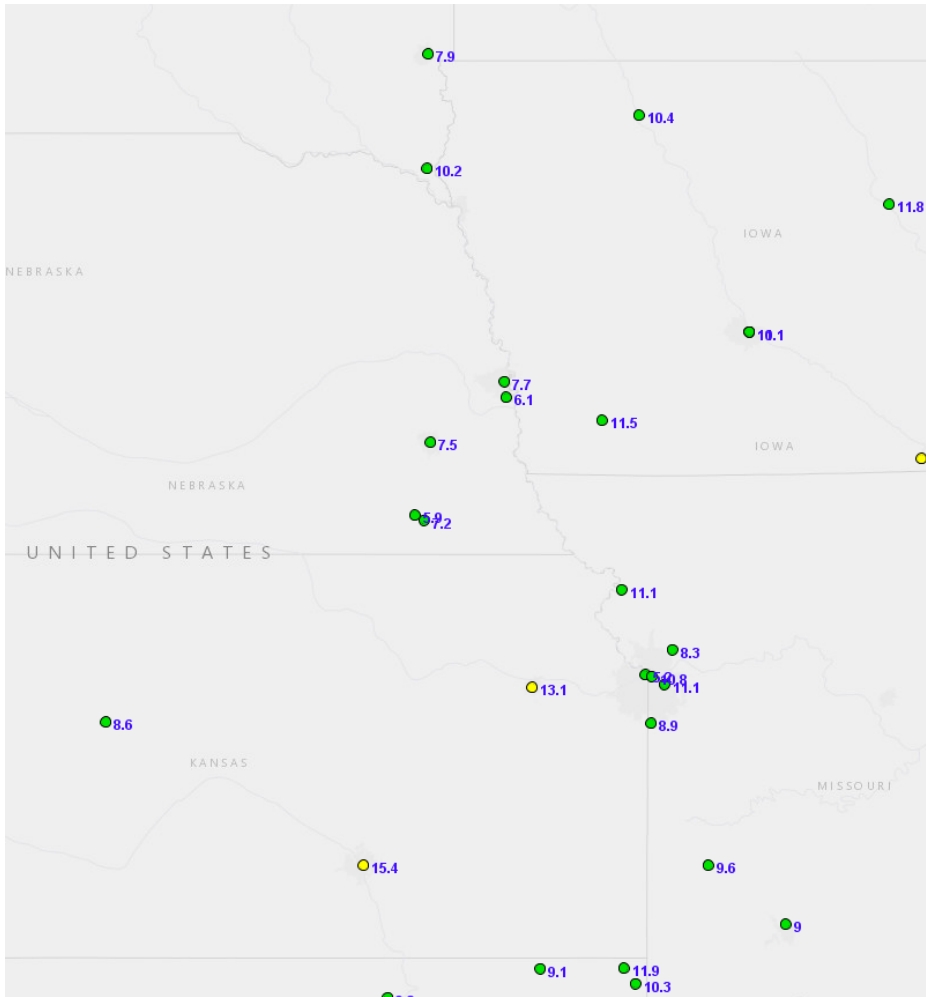
Flint Hills Prescribed Fire Update



Tuesday, May 1, 2018

PM2.5 (24-hour average)

Ozone (8-hour average maximum)



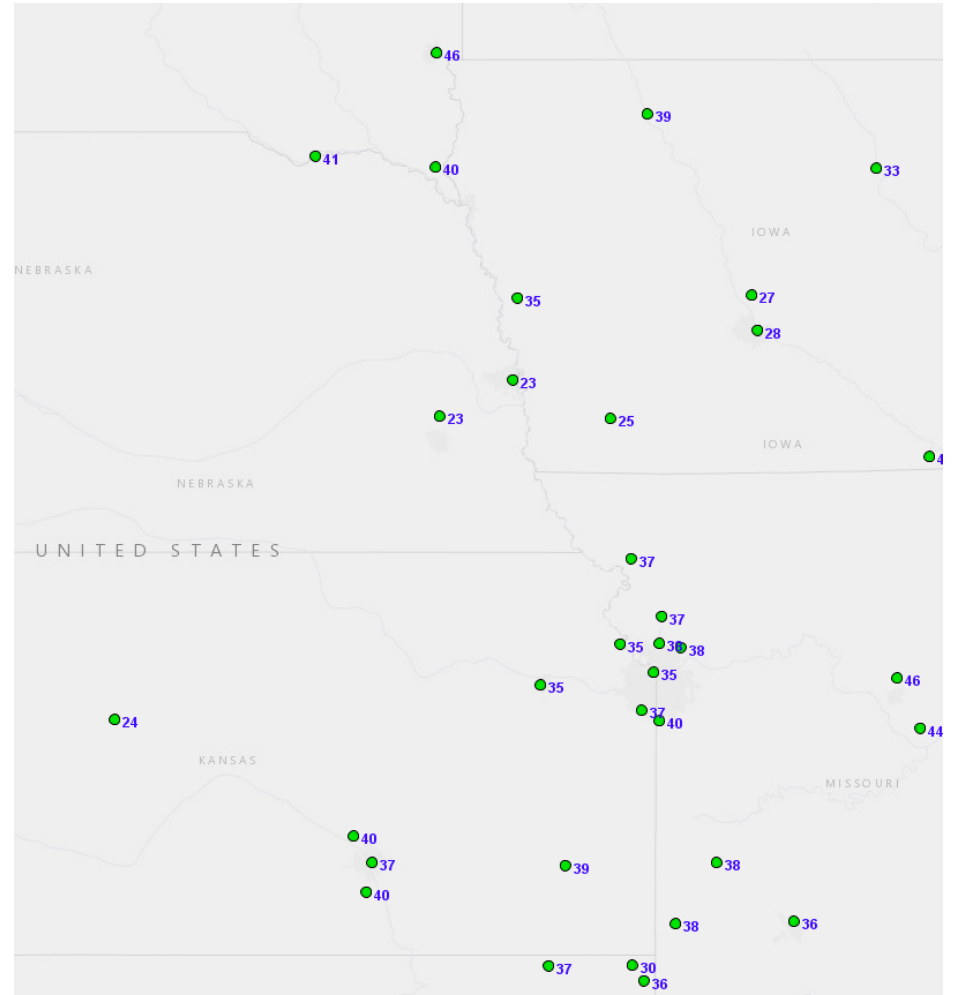
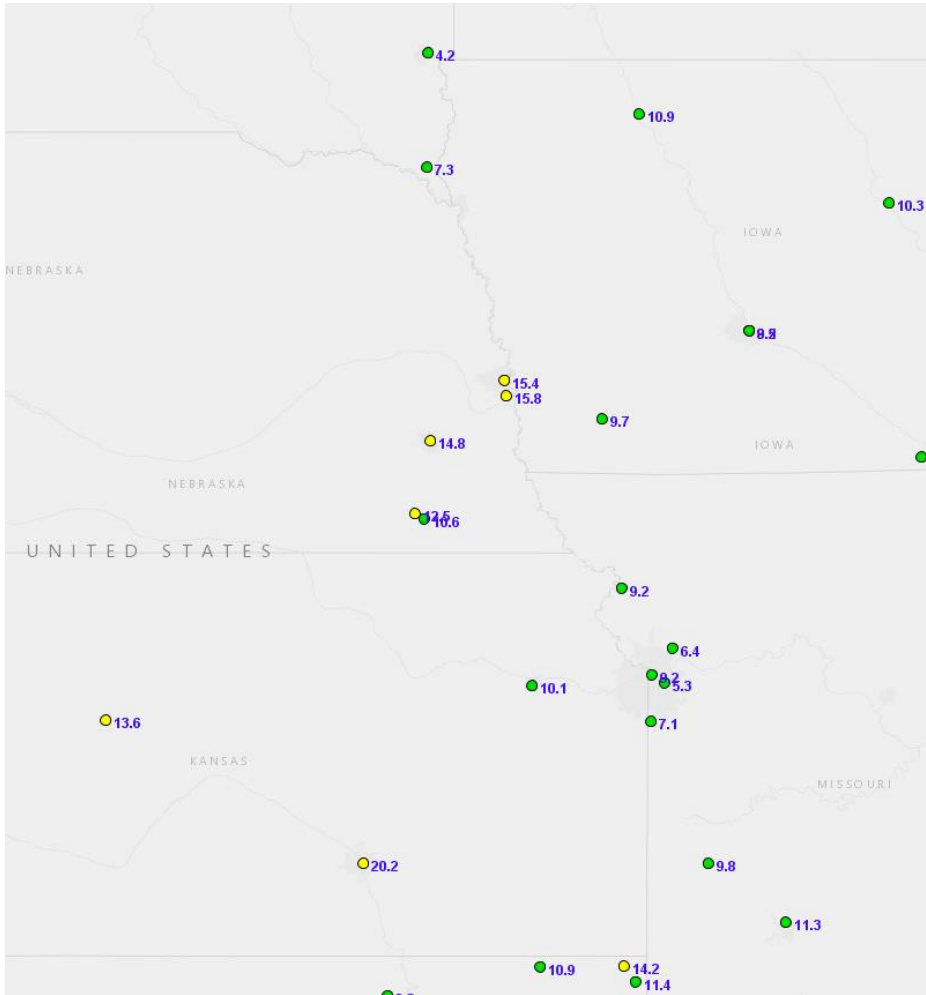
Flint Hills Prescribed Fire Update



Wednesday, May 2, 2018

PM2.5 (24-hour average)

Ozone (8-hour average maximum)



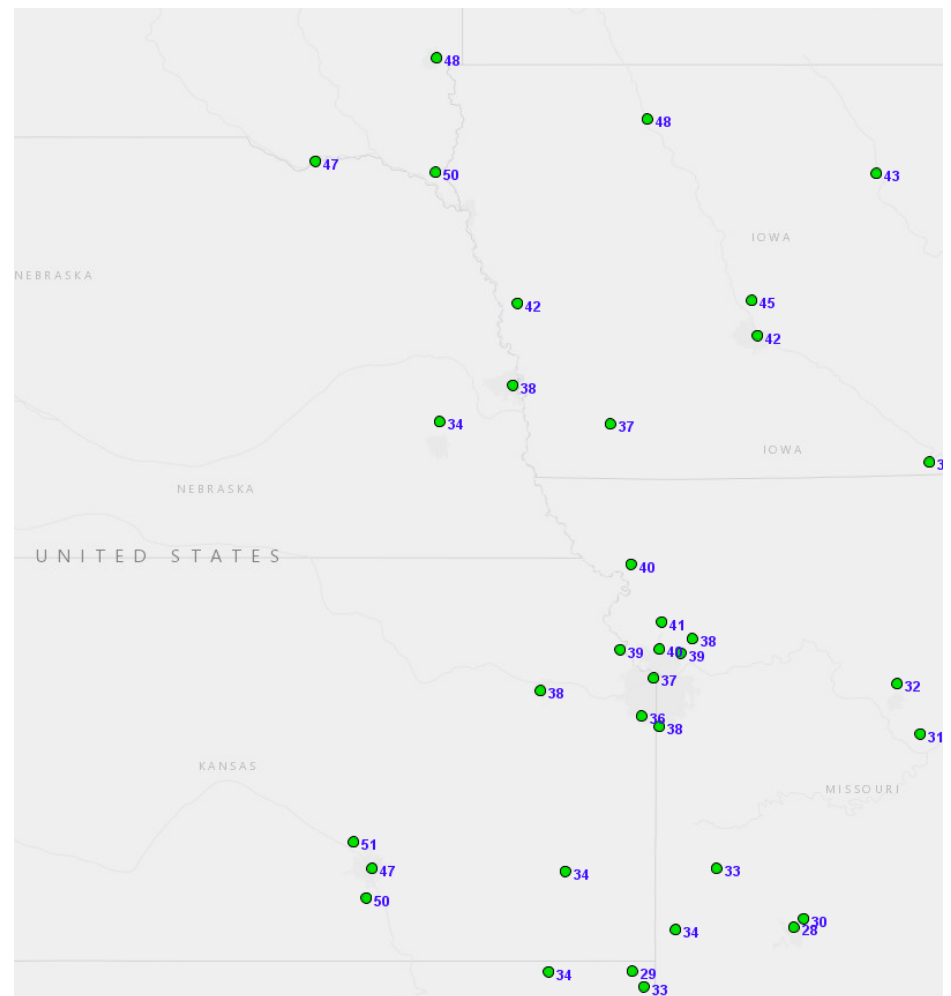
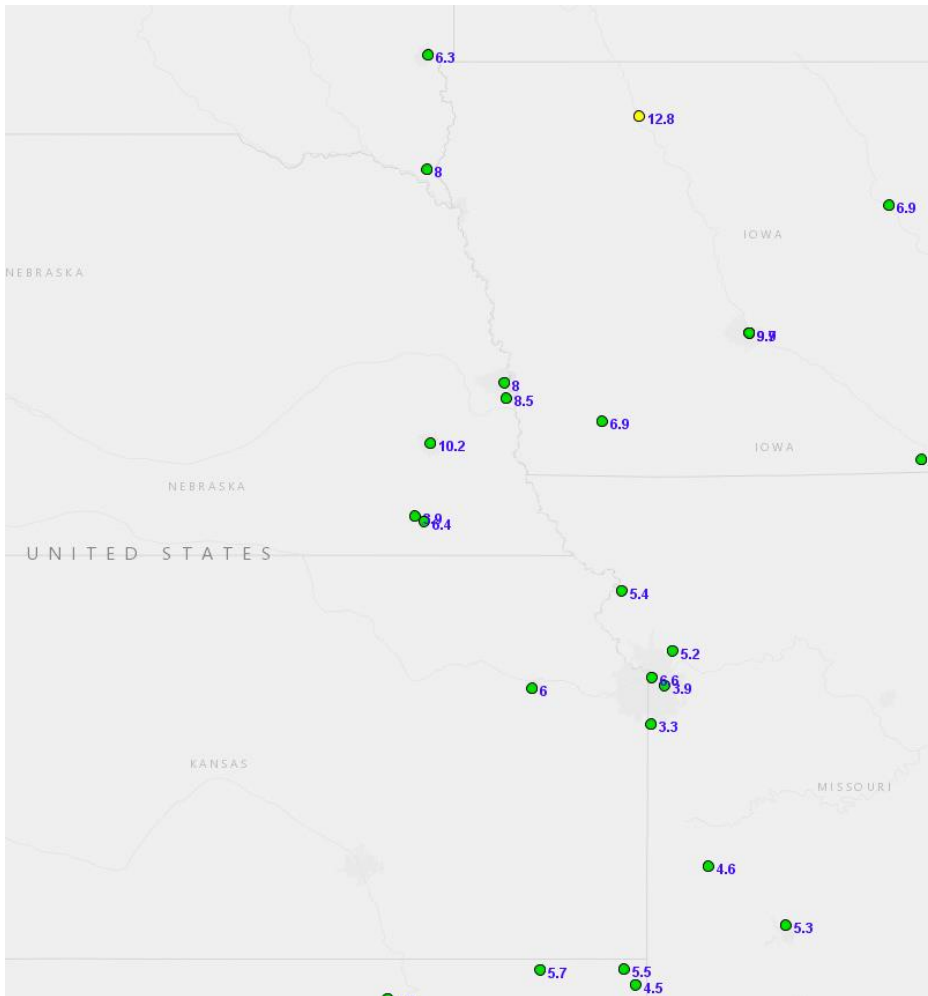
Flint Hills Prescribed Fire Update



Thursday, May 3, 2018

PM2.5 (24-hour average)

Ozone (8-hour average maximum)



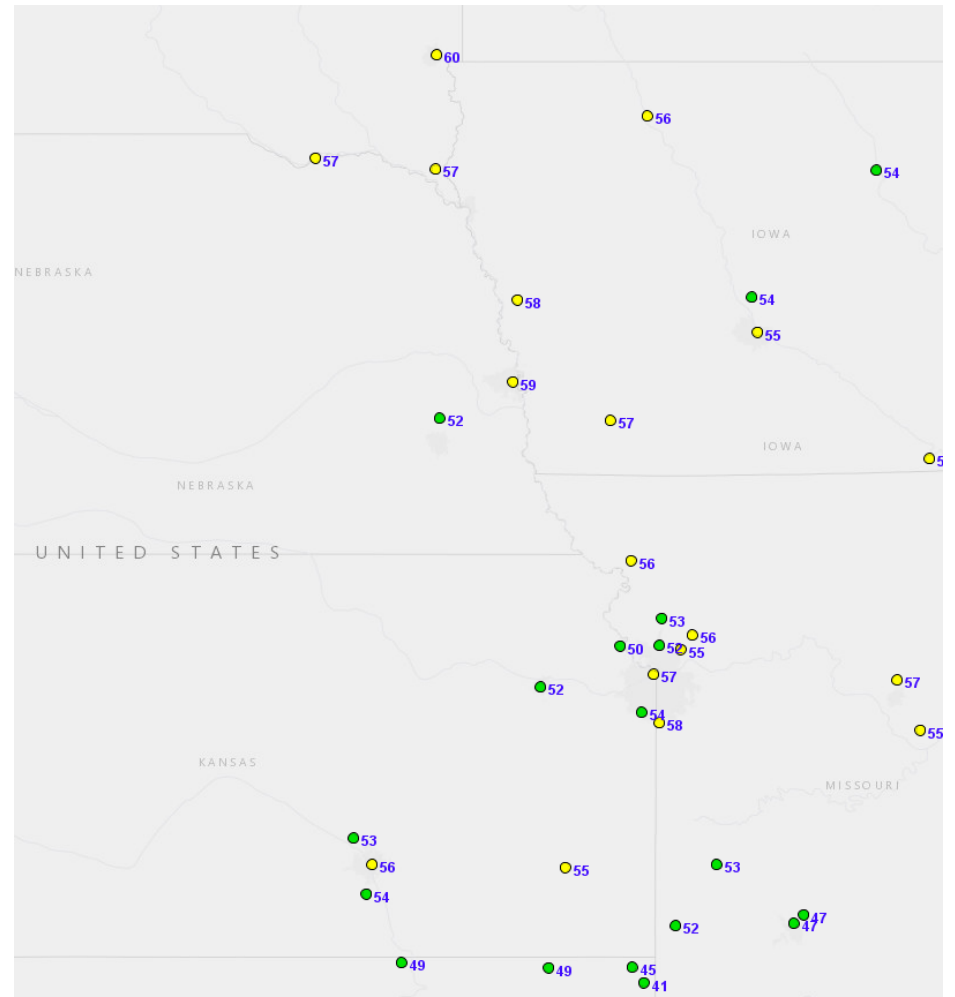
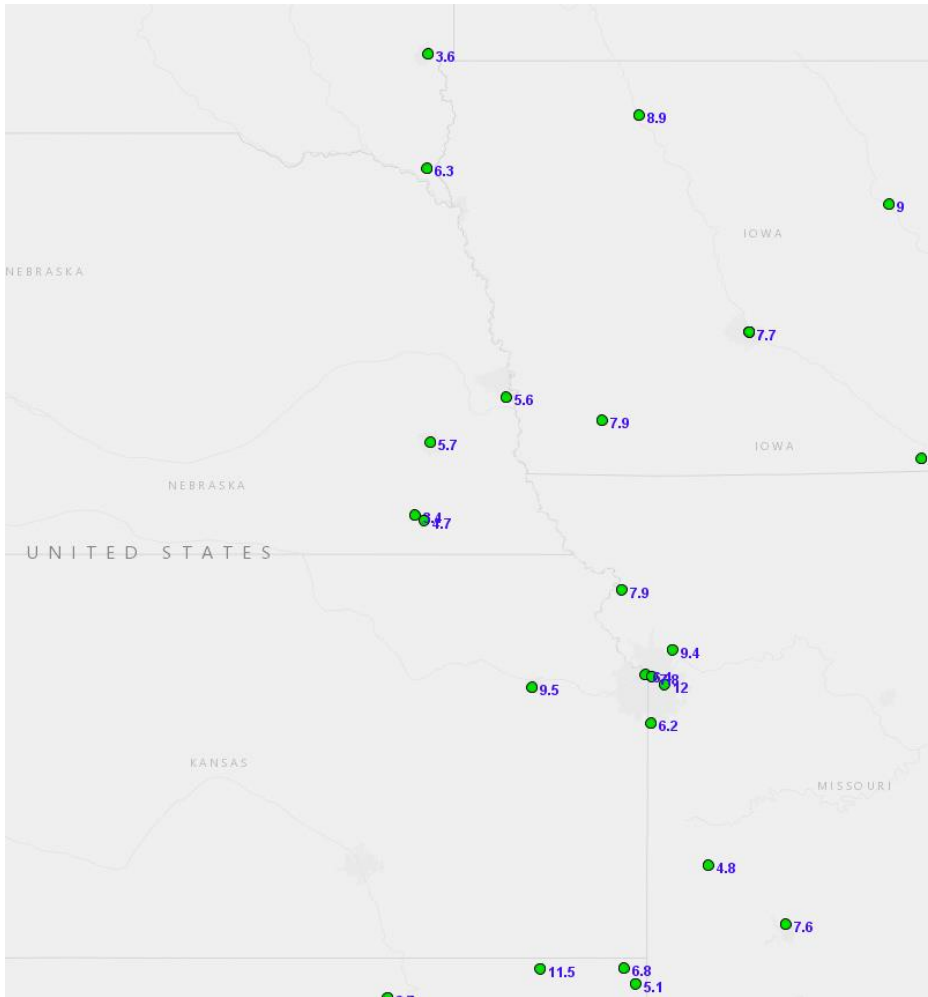
Flint Hills Prescribed Fire Update



Friday, May 4, 2018

PM2.5 (24-hour average)

Ozone (8-hour average maximum)



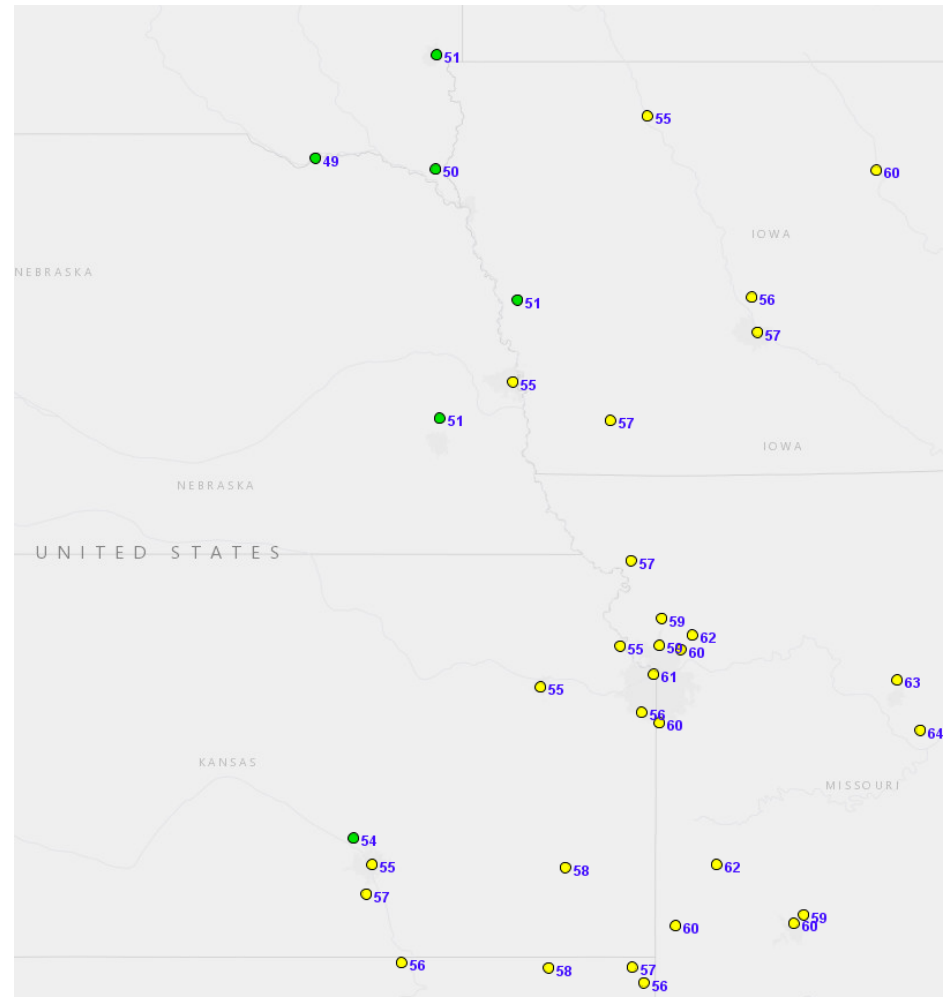
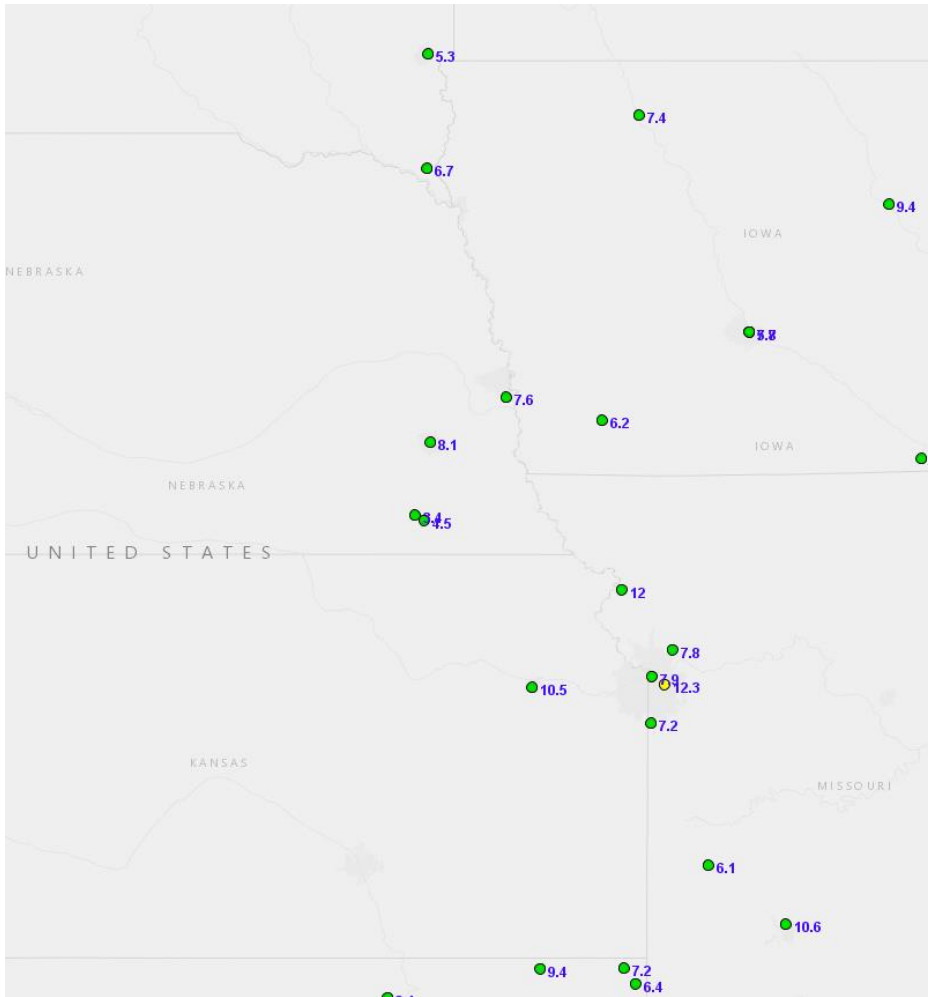
Flint Hills Prescribed Fire Update



Saturday, May 5, 2018

PM2.5 (24-hour average)

Ozone (8-hour average maximum)



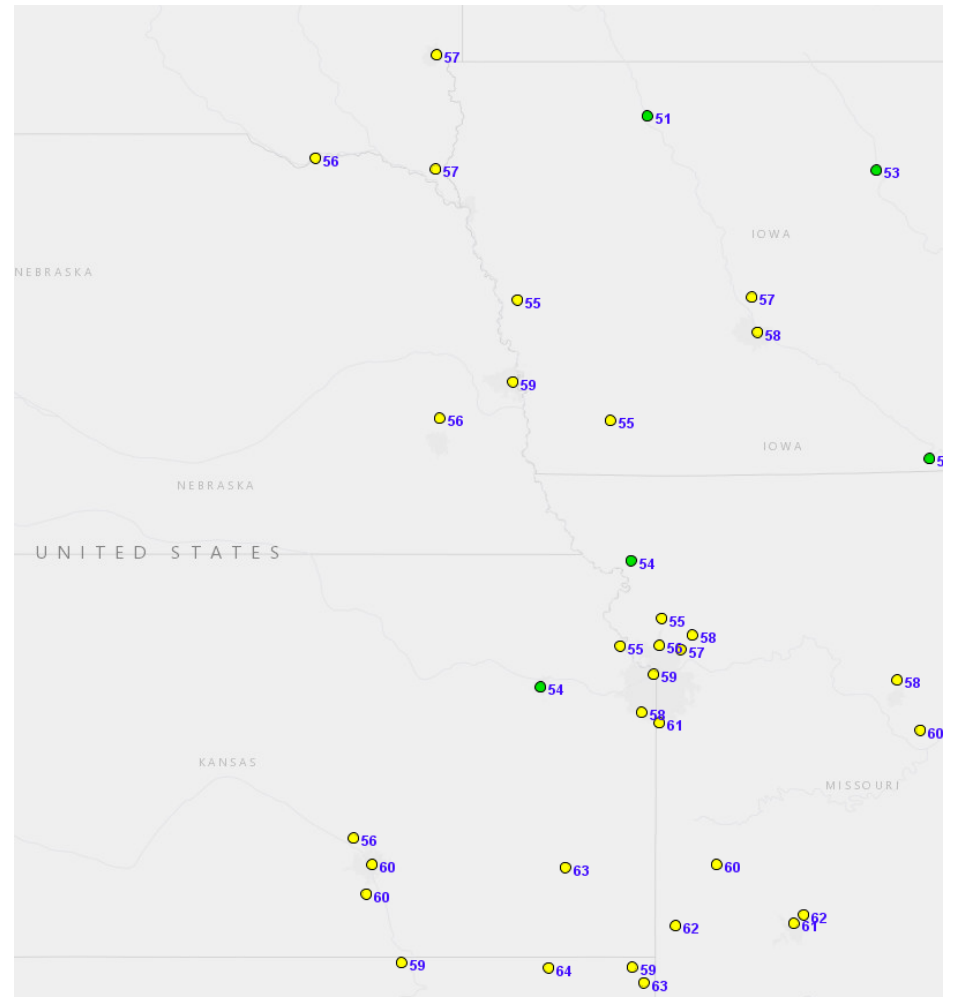
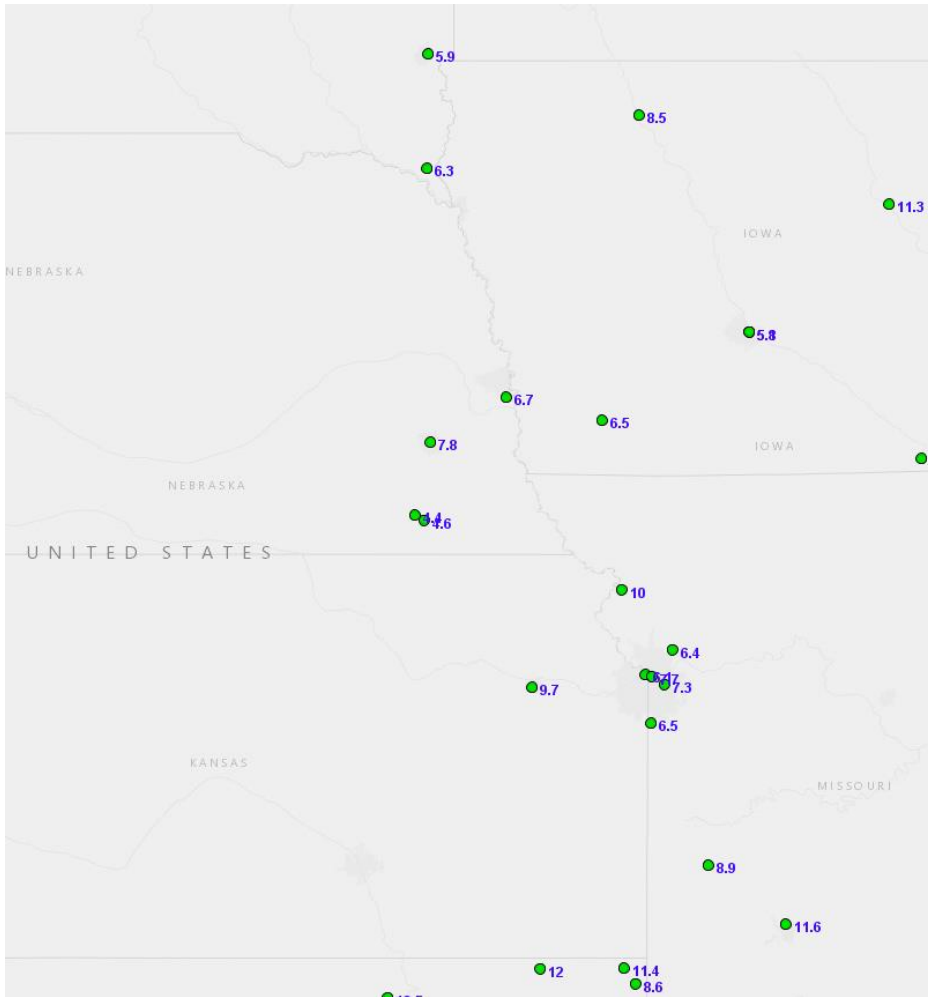
Flint Hills Prescribed Fire Update



Sunday, May 6, 2018

PM2.5 (24-hour average)

Ozone (8-hour average maximum)



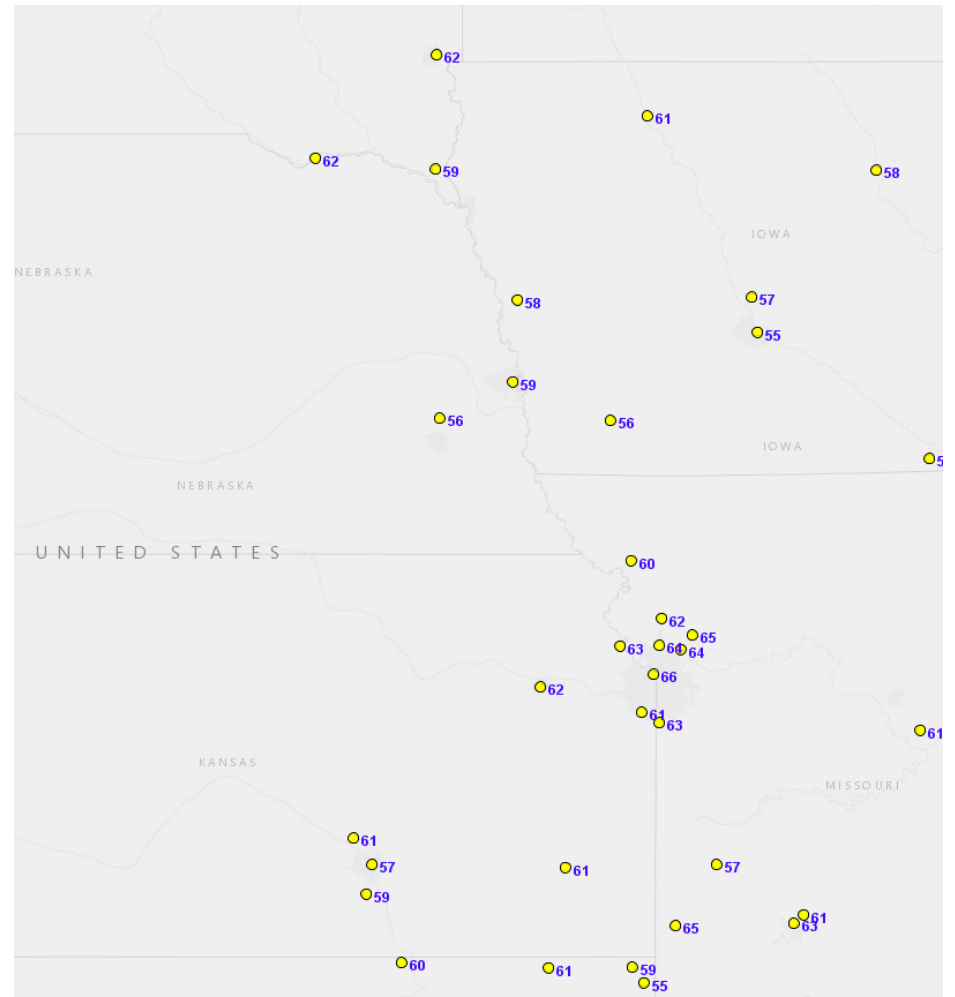
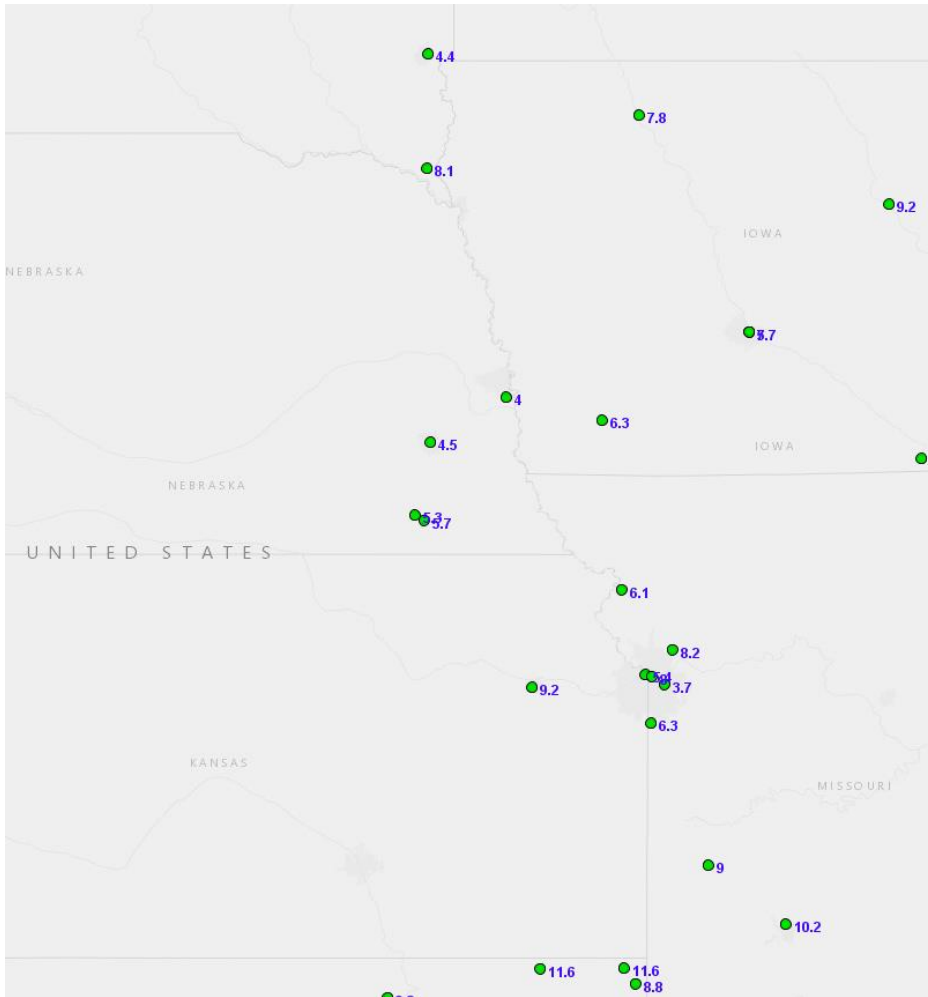
Flint Hills Prescribed Fire Update



Monday, May 7, 2018

PM2.5 (24-hour average)

Ozone (8-hour average maximum)



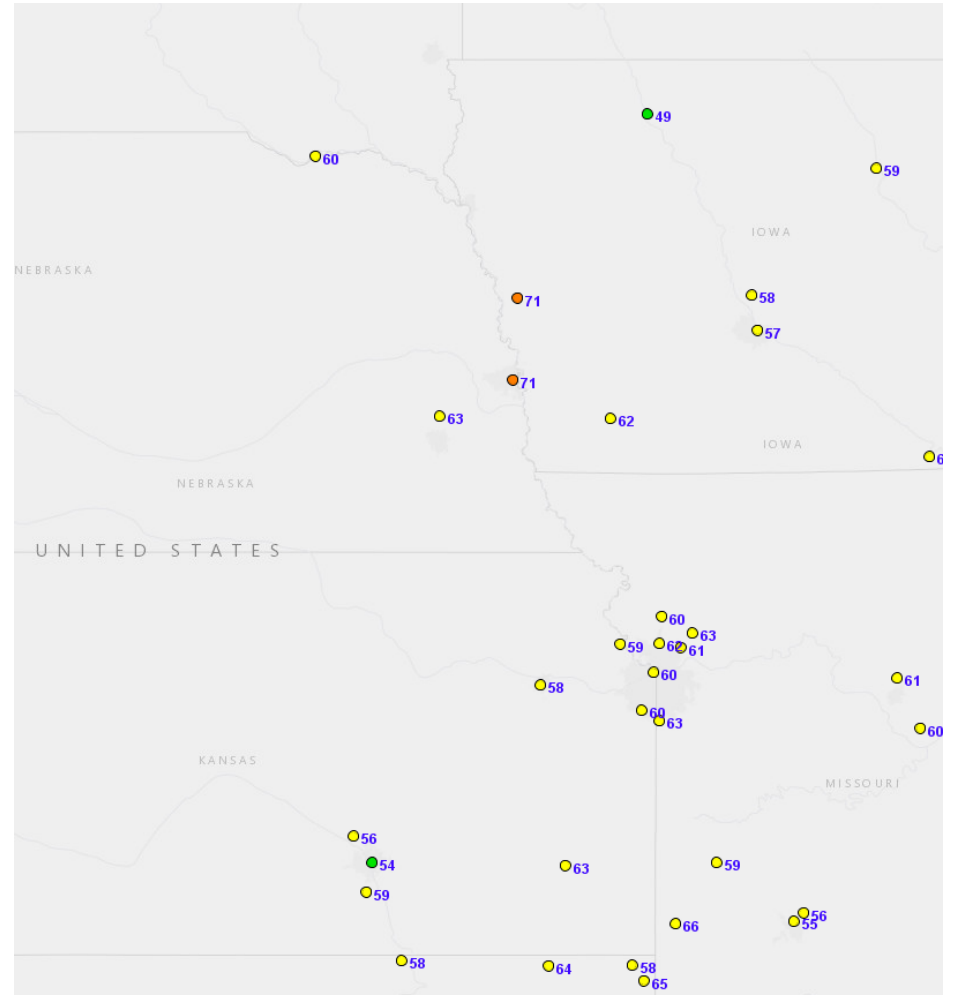
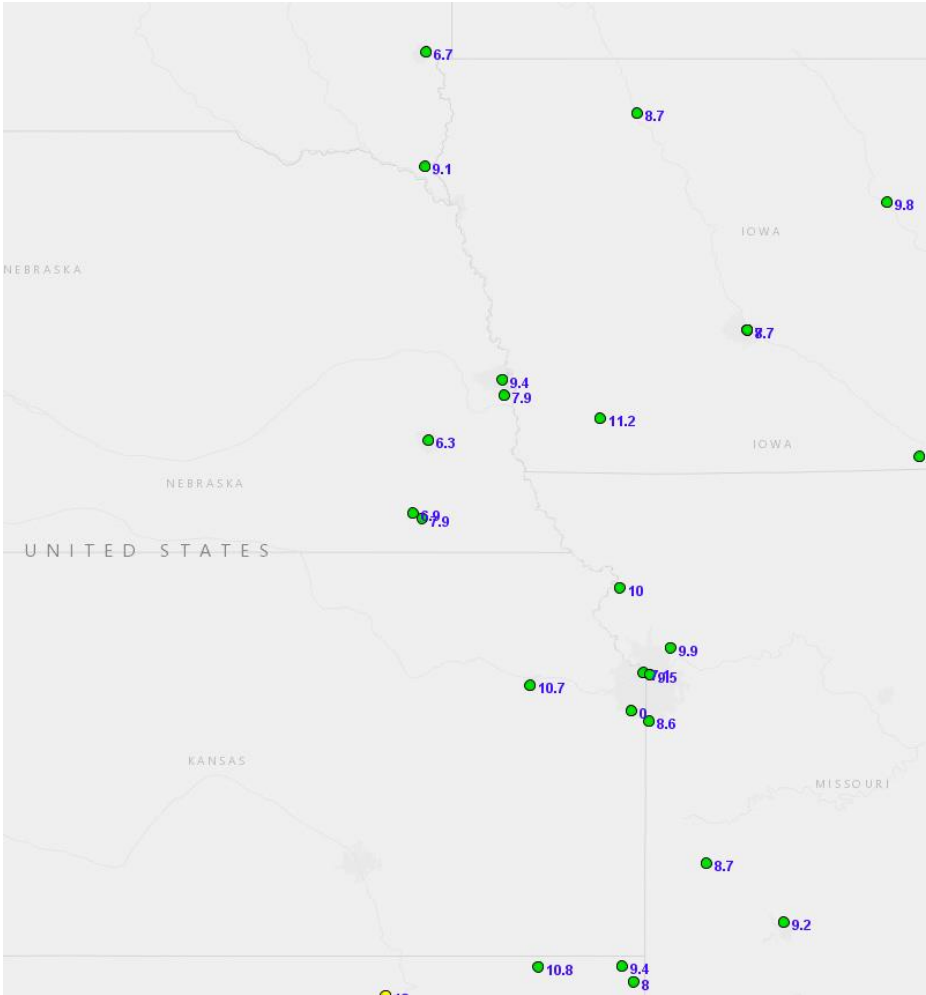
Flint Hills Prescribed Fire Update



Tuesday, May 8, 2018

PM2.5 (24-hour average)

Ozone (8-hour average maximum)



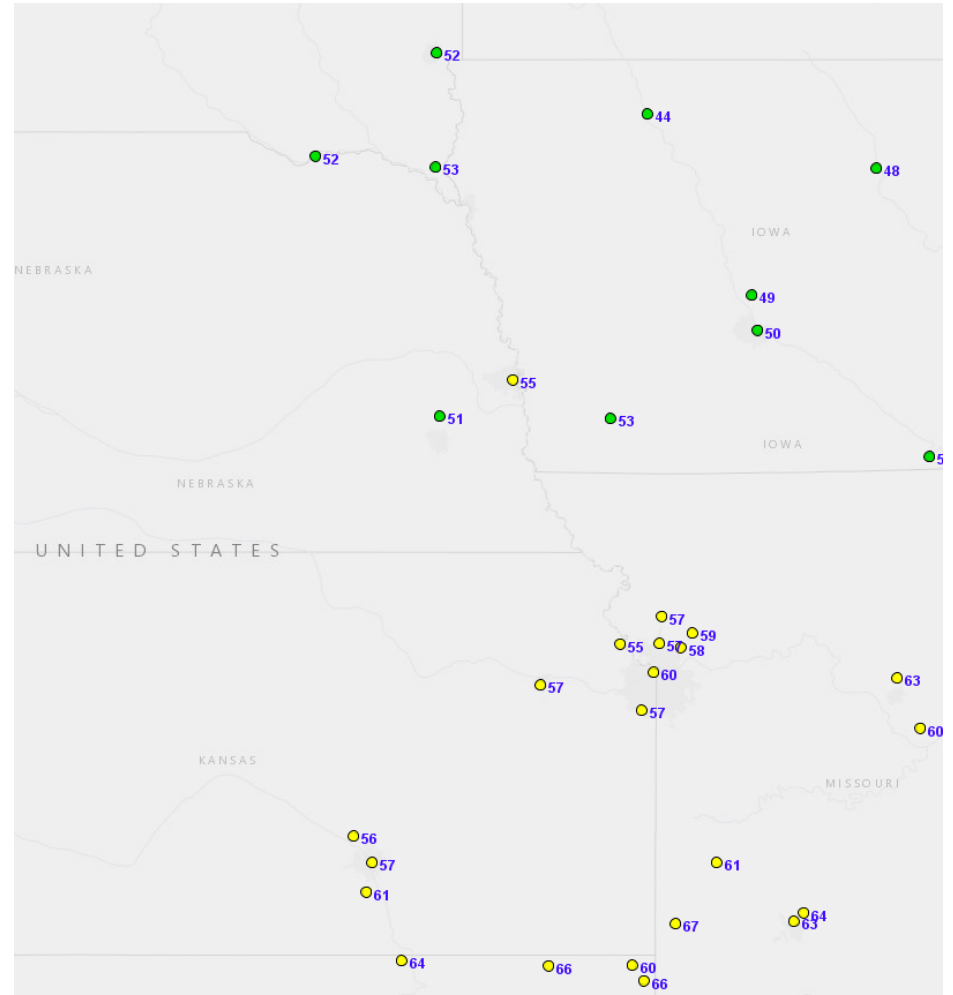
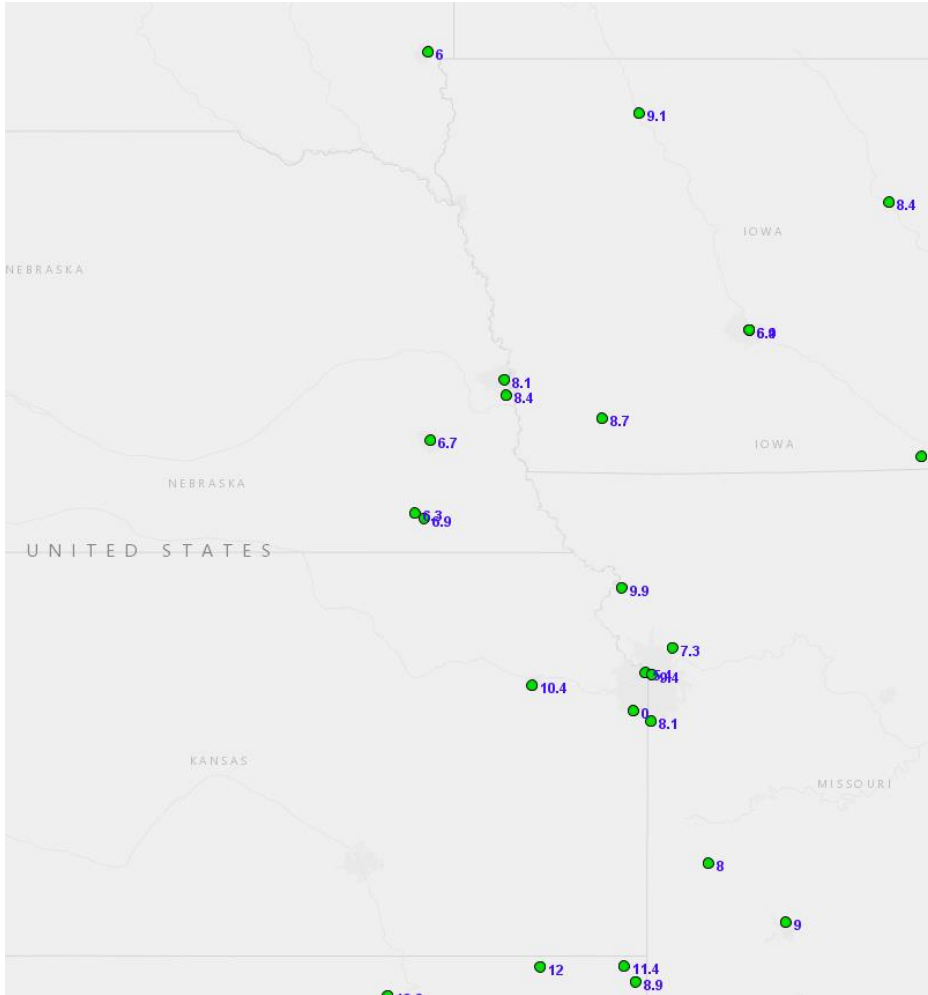
Flint Hills Prescribed Fire Update



Wednesday, May 9, 2018

PM2.5 (24-hour average)

Ozone (8-hour average maximum)

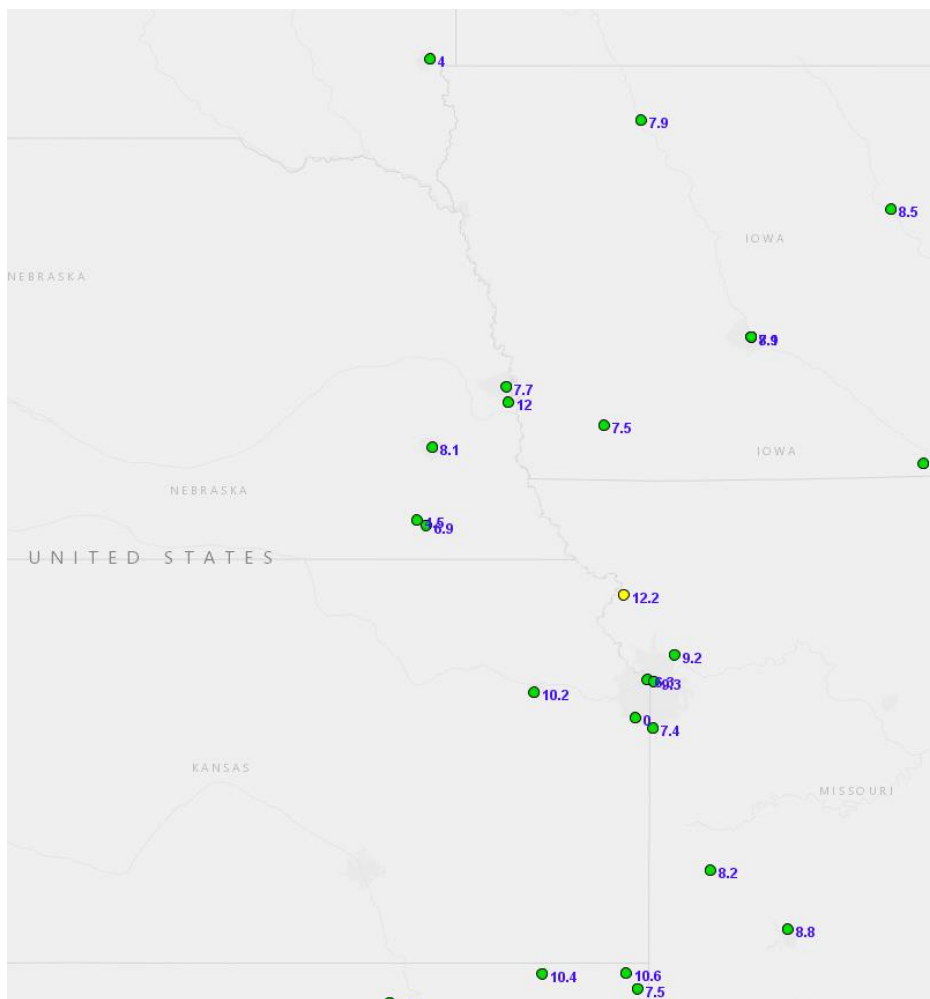


Flint Hills Prescribed Fire Update

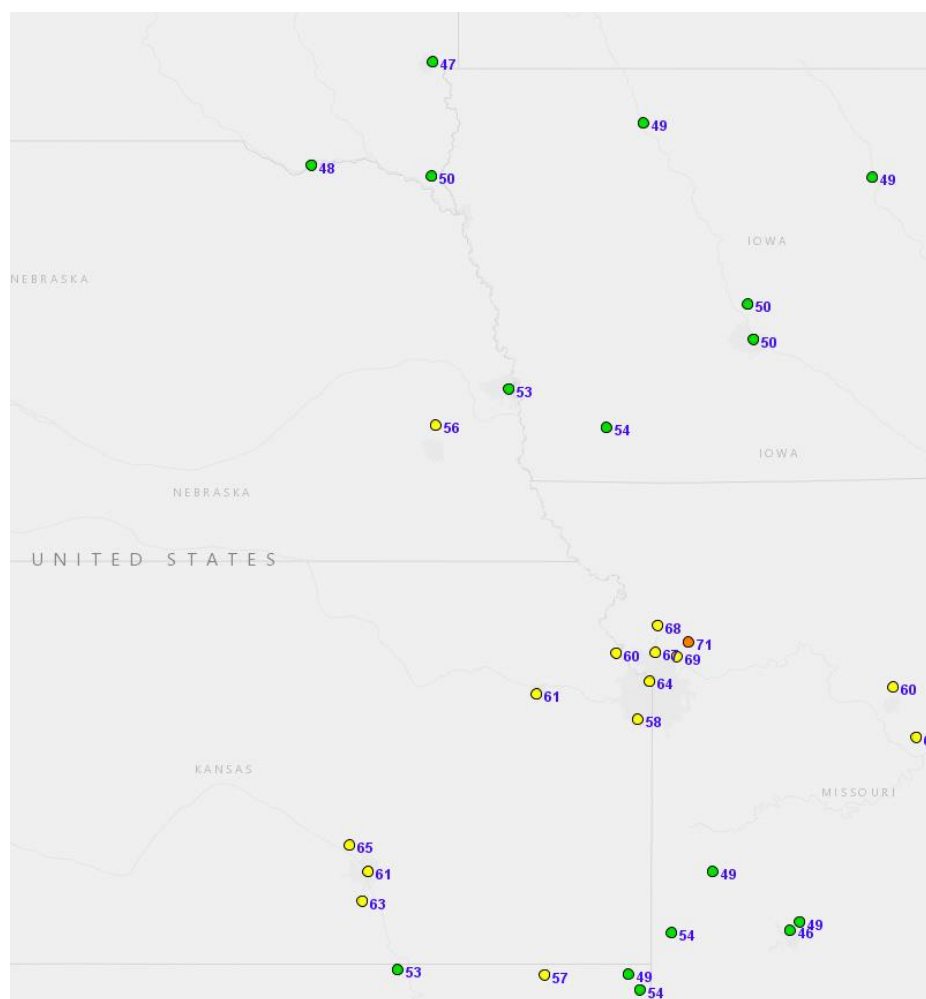


Thursday, May 10, 2018

PM2.5 (24-hour average)



Ozone (8-hour average maximum)



Friday, May 11, 2018 • 18



Fires and Smoke

Ample fires occurring on Friday and Saturday (April 27-28) across the region under varying light winds. A handful of fires occurring on Sunday (April 29) as winds began to increase across the region. Minimal fires were observed April 30 to May 3 due to wet conditions and breezy winds. Another window for burning existed during the May 4-7 period across the region as temperatures warmed, winds remained relatively light, and grasses had dried after prior rainfall. Warm temperatures and ample transport winds allowed for ideal dispersion of smoke.

Only a handful of fires have been observed over the May 8-10 period across the region – likely contributed to the considerable “green-up” that has occurred across the region.

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

KSFIRE.ORG

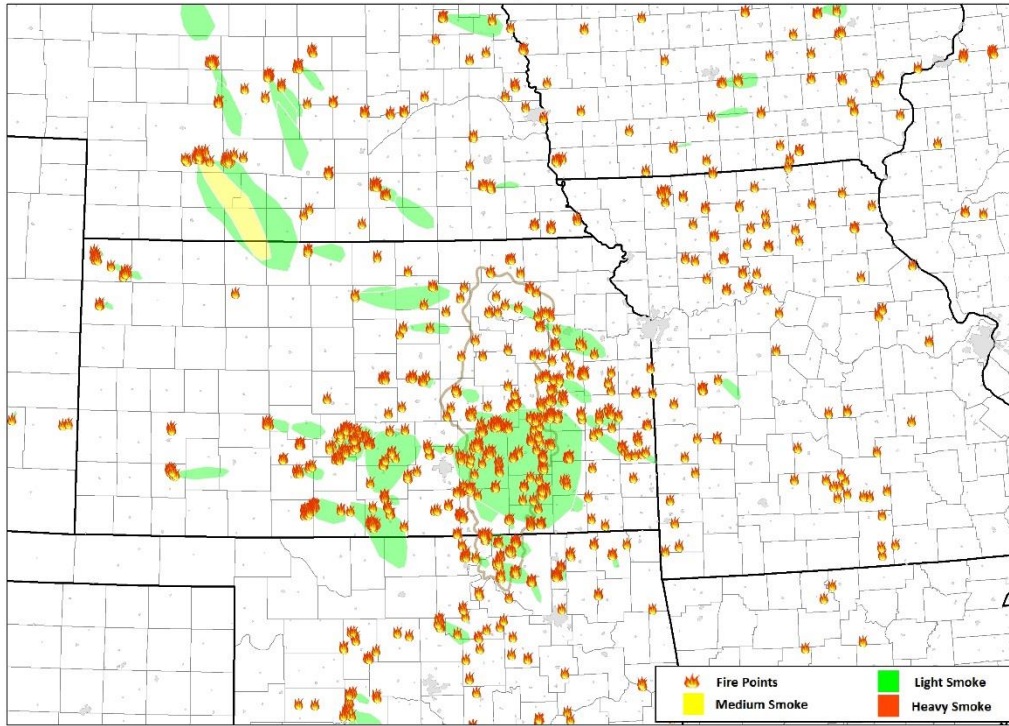


This website was developed as part of the development of the Kansas Flint Hills Smoke Management Plan. Kansas State University hosts the webpage and it includes important information for ranchers and others who might be interested in the Flint Hills. It provides training, regulations, policies, publications,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



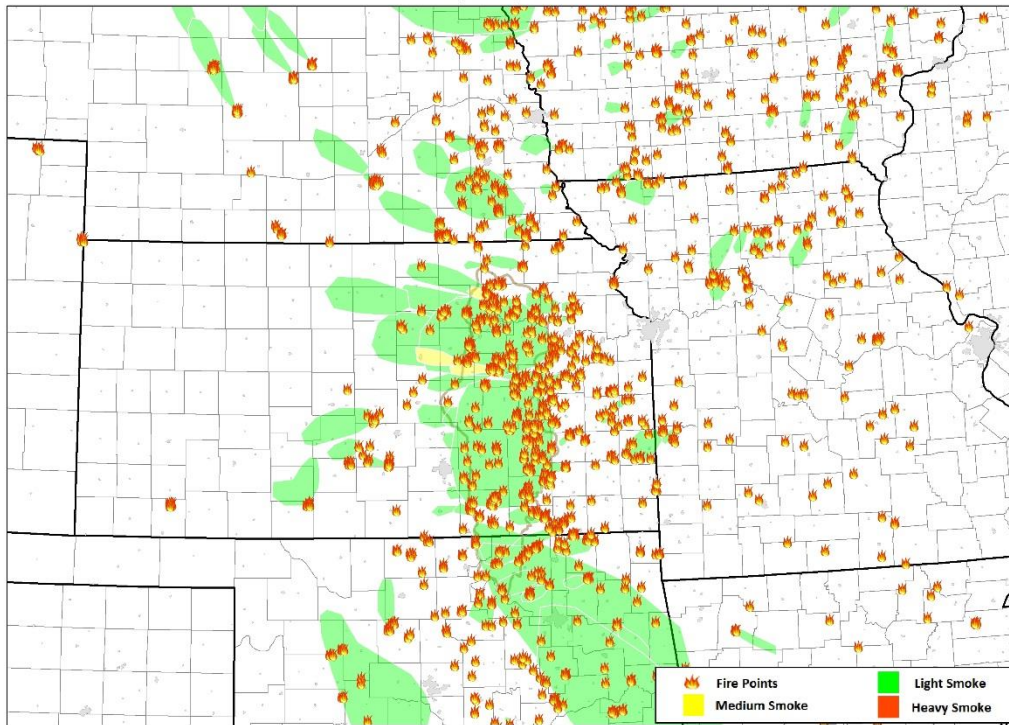
HMS Fire & Smoke Analysis April 27, 2018



Map: Jayson Prentice, KDHE Bureau of Air

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

HMS Fire & Smoke Analysis April 28, 2018



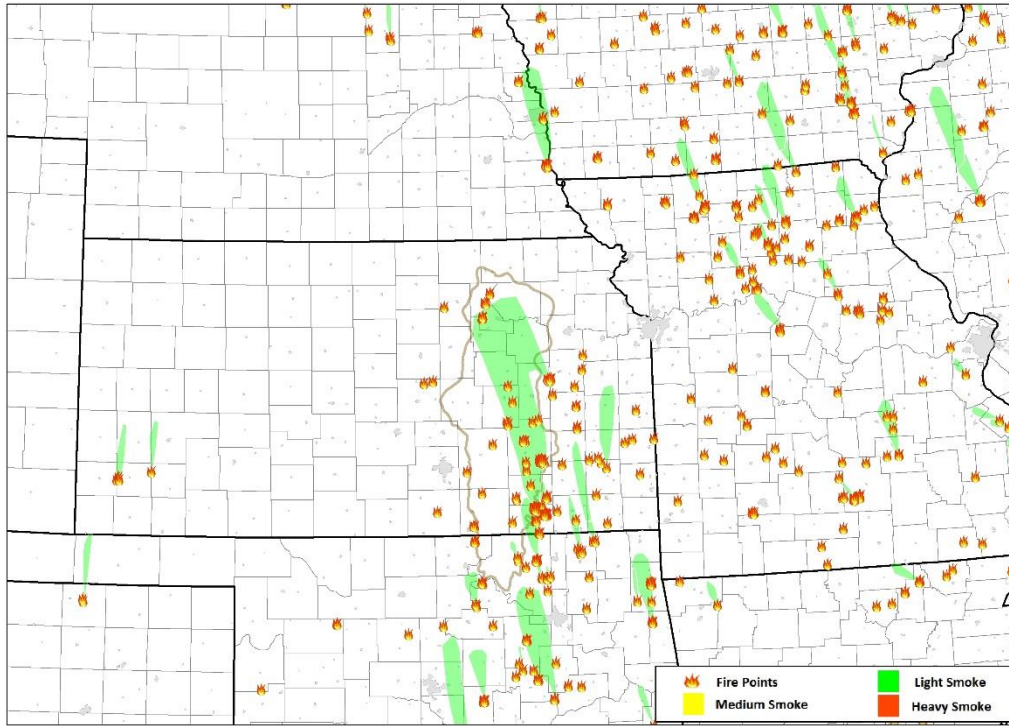
Map: Jayson Prentice, KDHE Bureau of Air

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

Flint Hills Prescribed Fire Update



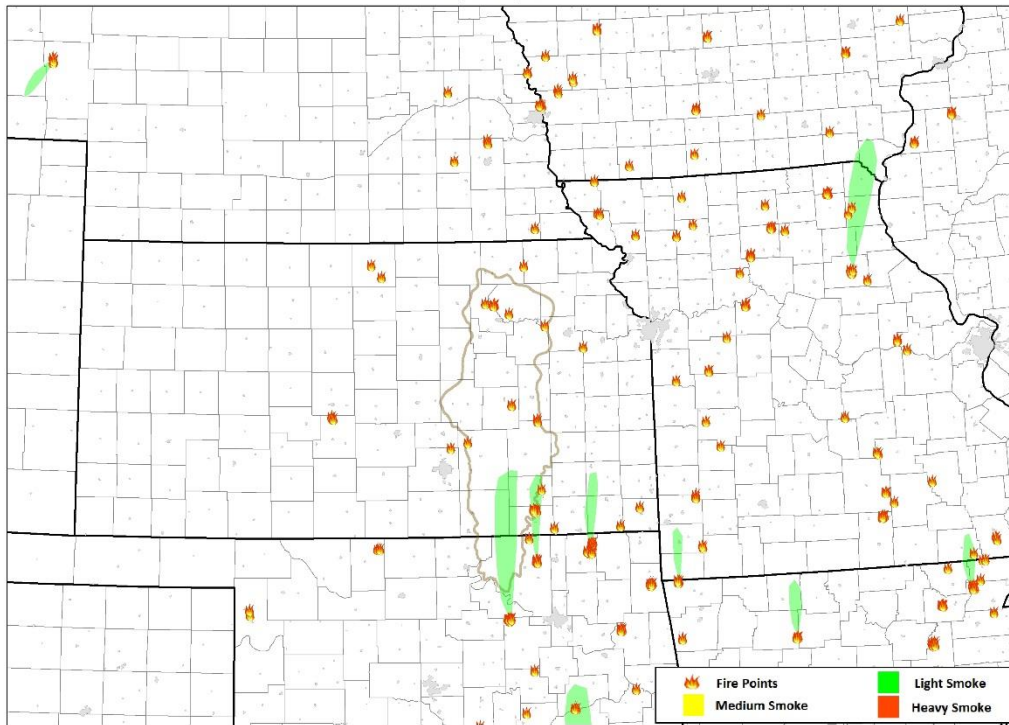
HMS Fire & Smoke Analysis April 29, 2018



Map: Jayson Prentice, KDHE Bureau of Air

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

HMS Fire & Smoke Analysis April 30, 2018



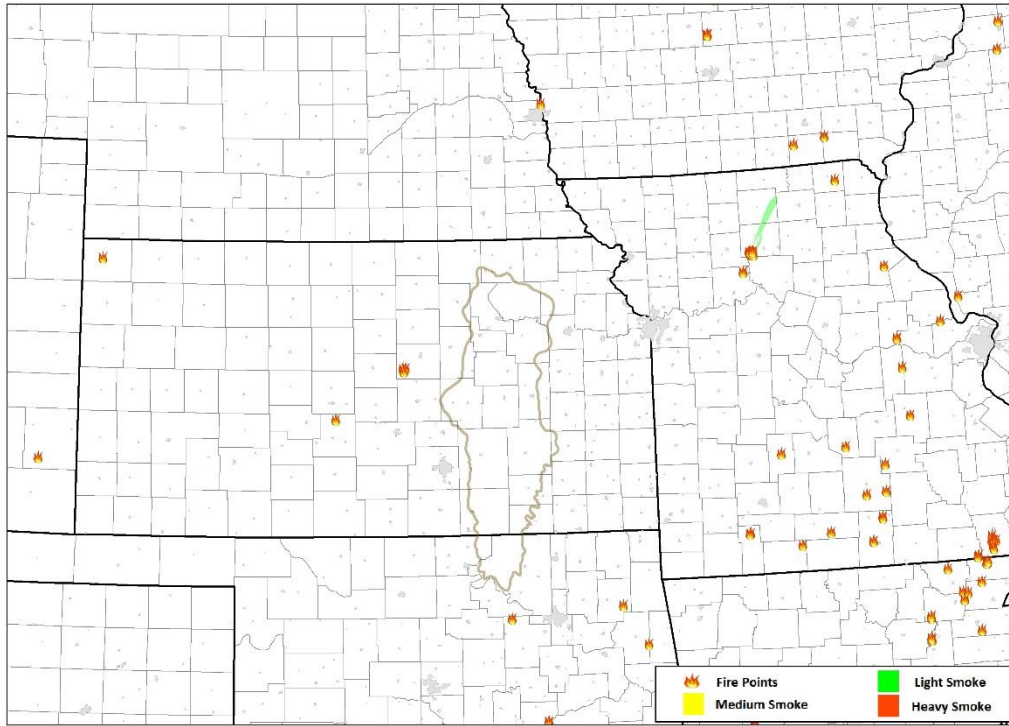
Map: Jayson Prentice, KDHE Bureau of Air

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

Flint Hills Prescribed Fire Update



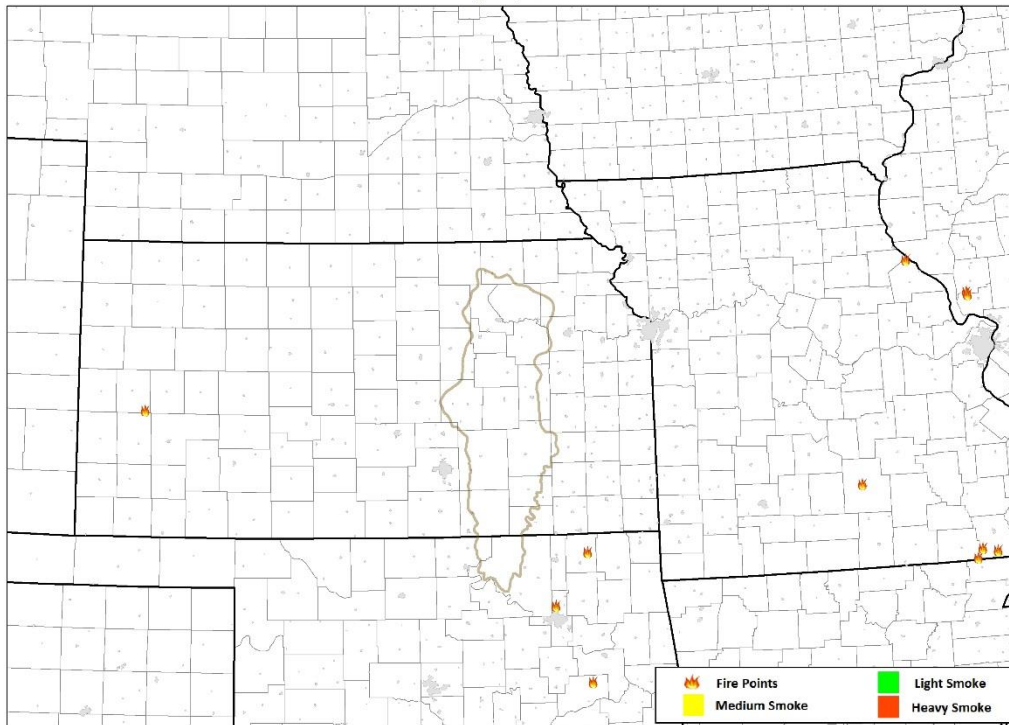
HMS Fire & Smoke Analysis May 01, 2018



Map: Jayson Prentice, KDHE Bureau of Air

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

HMS Fire & Smoke Analysis May 02, 2018



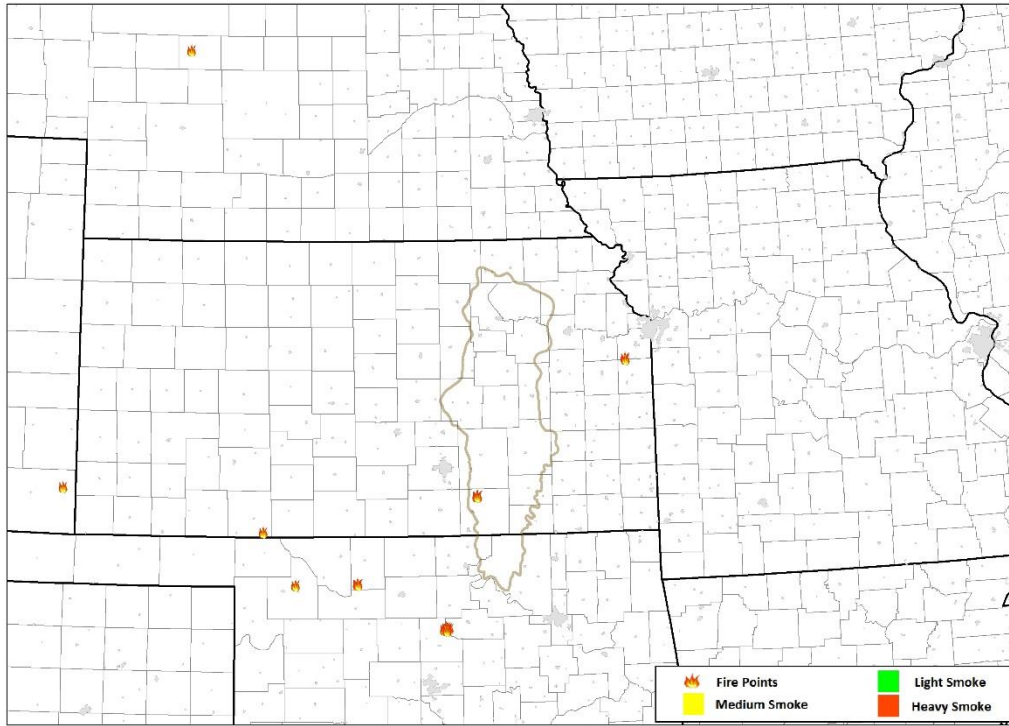
Map: Jayson Prentice, KDHE Bureau of Air

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

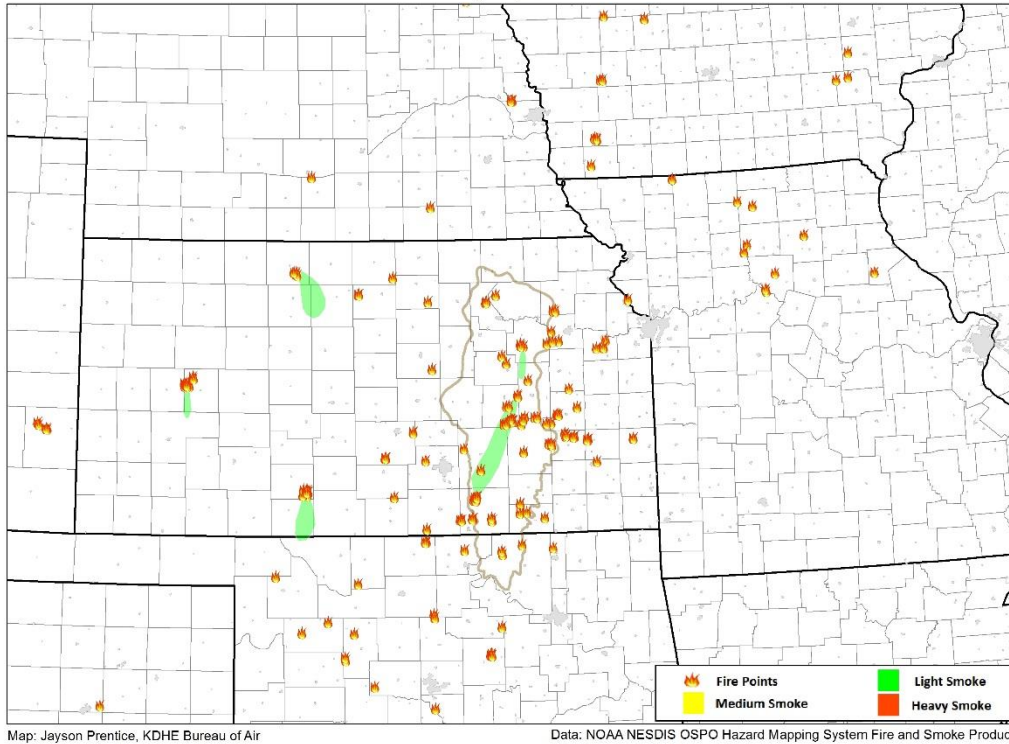
Flint Hills Prescribed Fire Update



HMS Fire & Smoke Analysis May 03, 2018



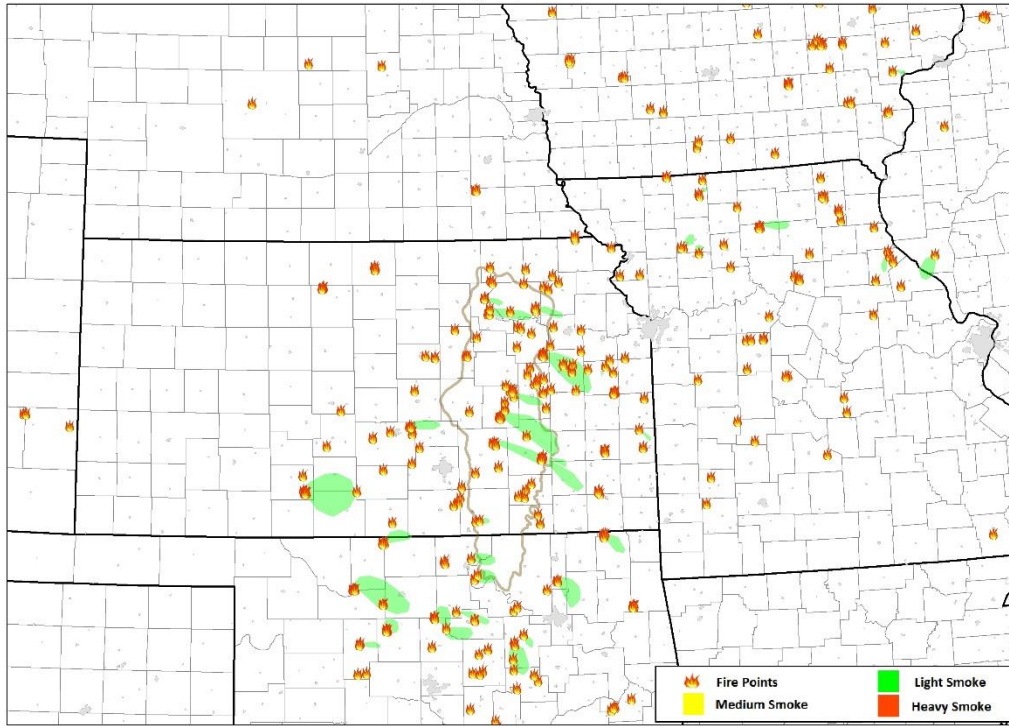
HMS Fire & Smoke Analysis May 04, 2018



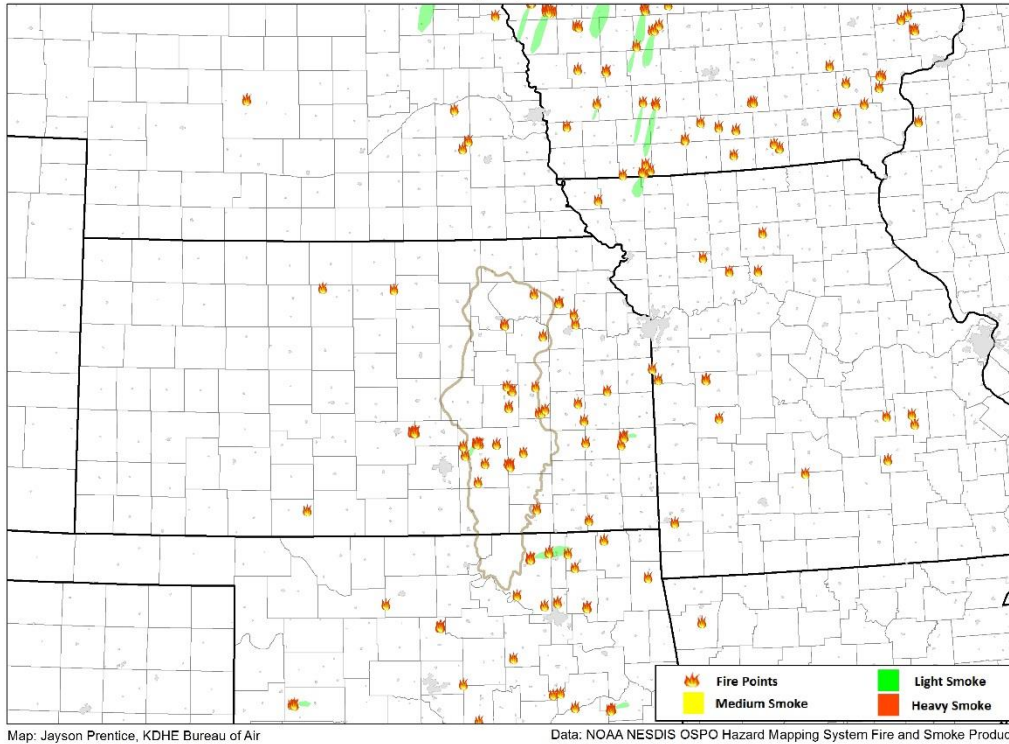
Flint Hills Prescribed Fire Update



HMS Fire & Smoke Analysis May 05, 2018



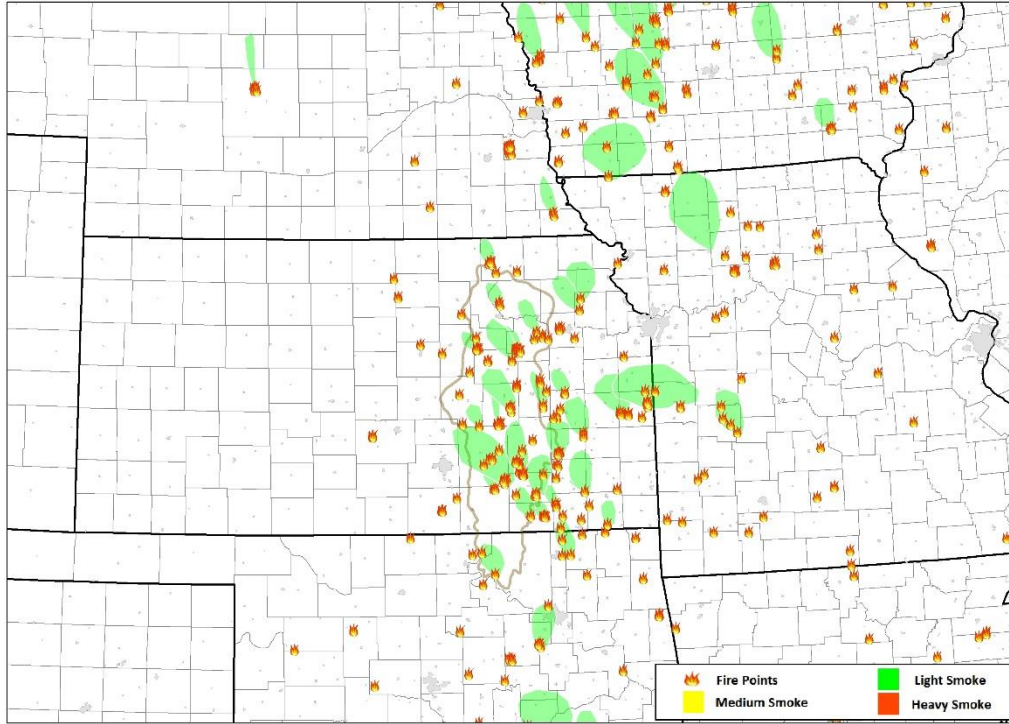
HMS Fire & Smoke Analysis May 06, 2018



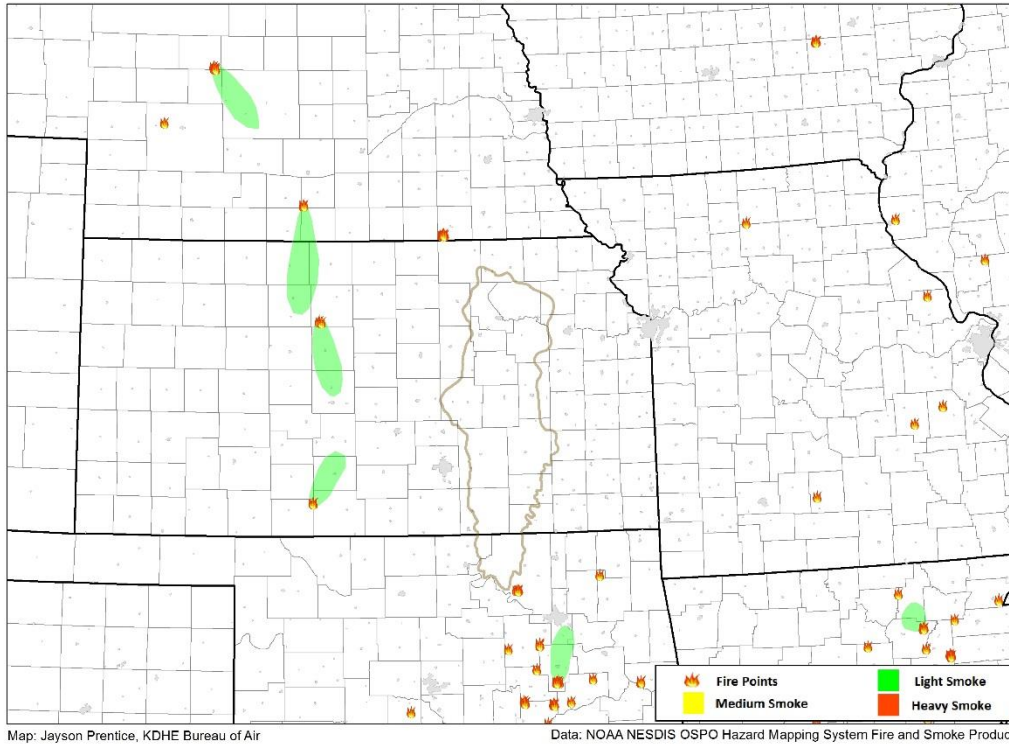
Flint Hills Prescribed Fire Update



HMS Fire & Smoke Analysis May 07, 2018



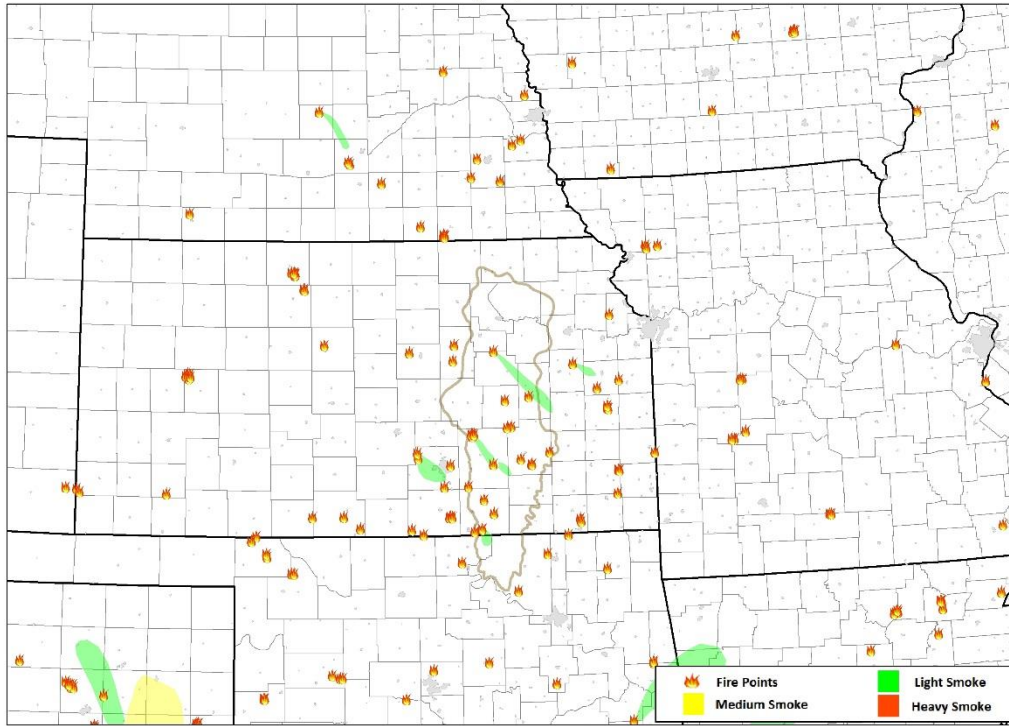
HMS Fire & Smoke Analysis May 08, 2018



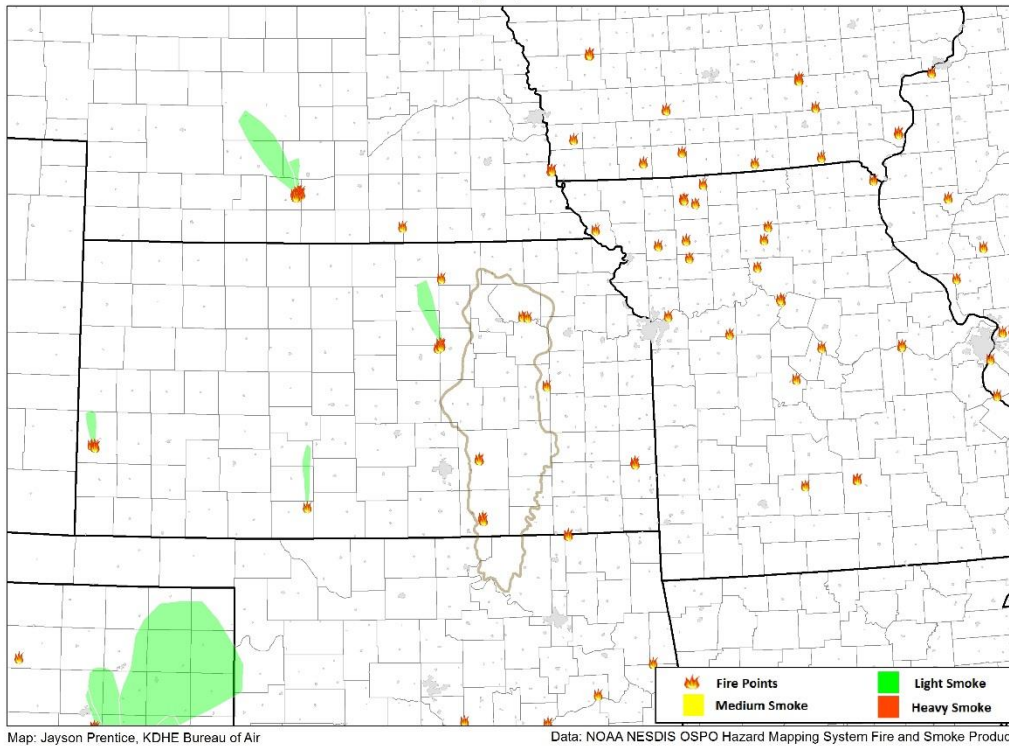
Flint Hills Prescribed Fire Update



HMS Fire & Smoke Analysis May 09, 2018

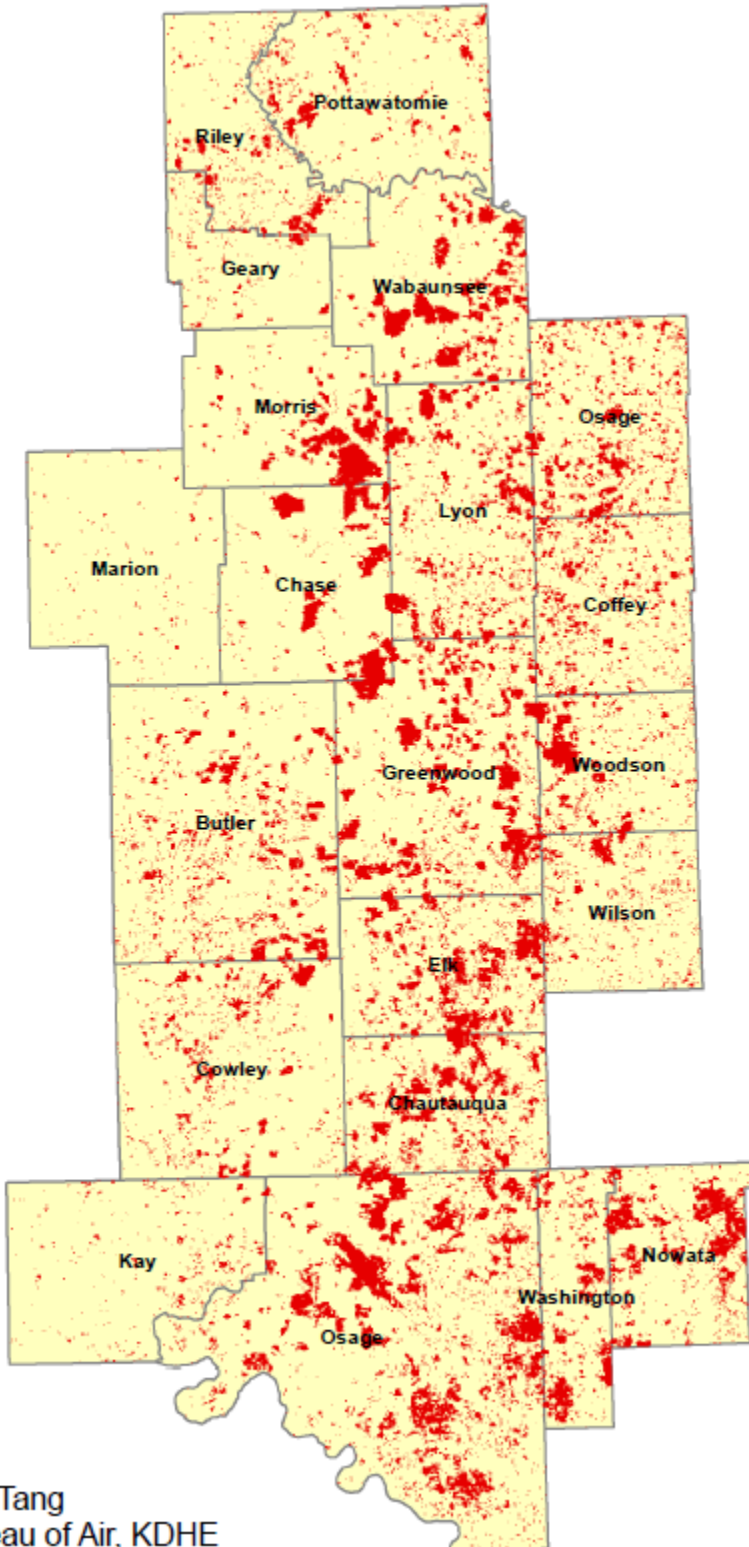


HMS Fire & Smoke Analysis May 10, 2018





Flint Hills Acreage Burned (February 17 – April 27, 2018)



Yao Tang
Bureau of Air, KDHE

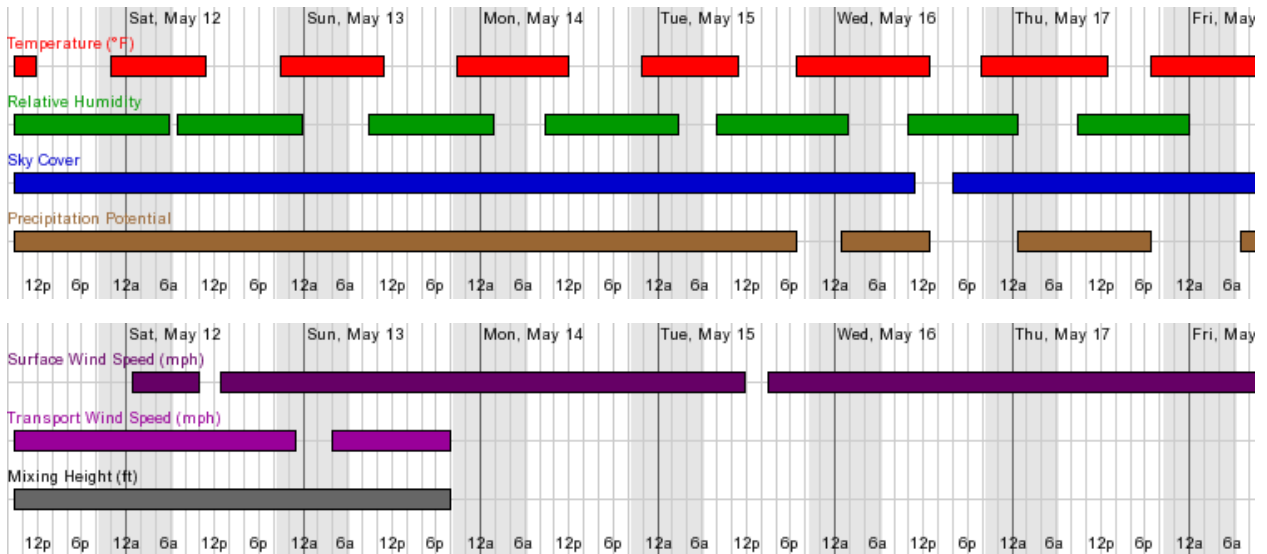
<u>Counties</u>	<u>Acres Burned</u>
Butler	87,369
Chase	62,689
Chautauqua	82,998
Coffey	48,248
Cowley	50,549
Elk	86,473
Geary	10,378
Greenwood	138,335
Lyon	82,659
Marion	5,745
Morris	57,314
Osage (KS)	68,558
Pottawatomie	35,877
Riley	29,499
Wabaunsee	81,623
Wilson	31,460
Woodson	46,225
Nowata (OK)	71,353
Osage (OK)	245,195
Washington (OK)	44,742
Kay (OK)	16,155
Total	1,383,444
* Denotes county was partly or completely covered by clouds during latest analysis.	



Upcoming Look at Fires and Smoke

Warm temperatures, primarily sunny to partly cloudy skies, and only occasional breezy conditions are anticipated over the next week. Relative humidity values will likely be on the higher-end of ideal, and at least small precipitation chances exist at several times throughout the next week as well. Still, despite the weather the climatologically best period for prescribed burning has moved on as grasses have greened tremendously. Look for minimal prescribed burning over the next week.

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 May 11, 2018.