

Flint Hills Prescribed Fire Update

2019 Summary
May 13, 2019

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





Acreage Burned Analysis

Analysis was conducted during the period of March 15, 2019 to May 5, 2019 to determine the approximate total of acres burned. The analysis conducted does not differentiate between prescribed fire and wildfire, although in 2019 wildfire acres are estimated to be very low. Prior years period of analysis dates differ, however always encompasses the clear majority of the Spring burning period within the Flint Hills.

If you have questions, or for more information, contact:

Jayson Prentice

Chief, Technical Resources & Projects Unit
 Monitoring & Planning Section, Bureau of Air
 Kansas Department of Health & Environment
 785-291-3782
 Jayson.Prentice@ks.gov

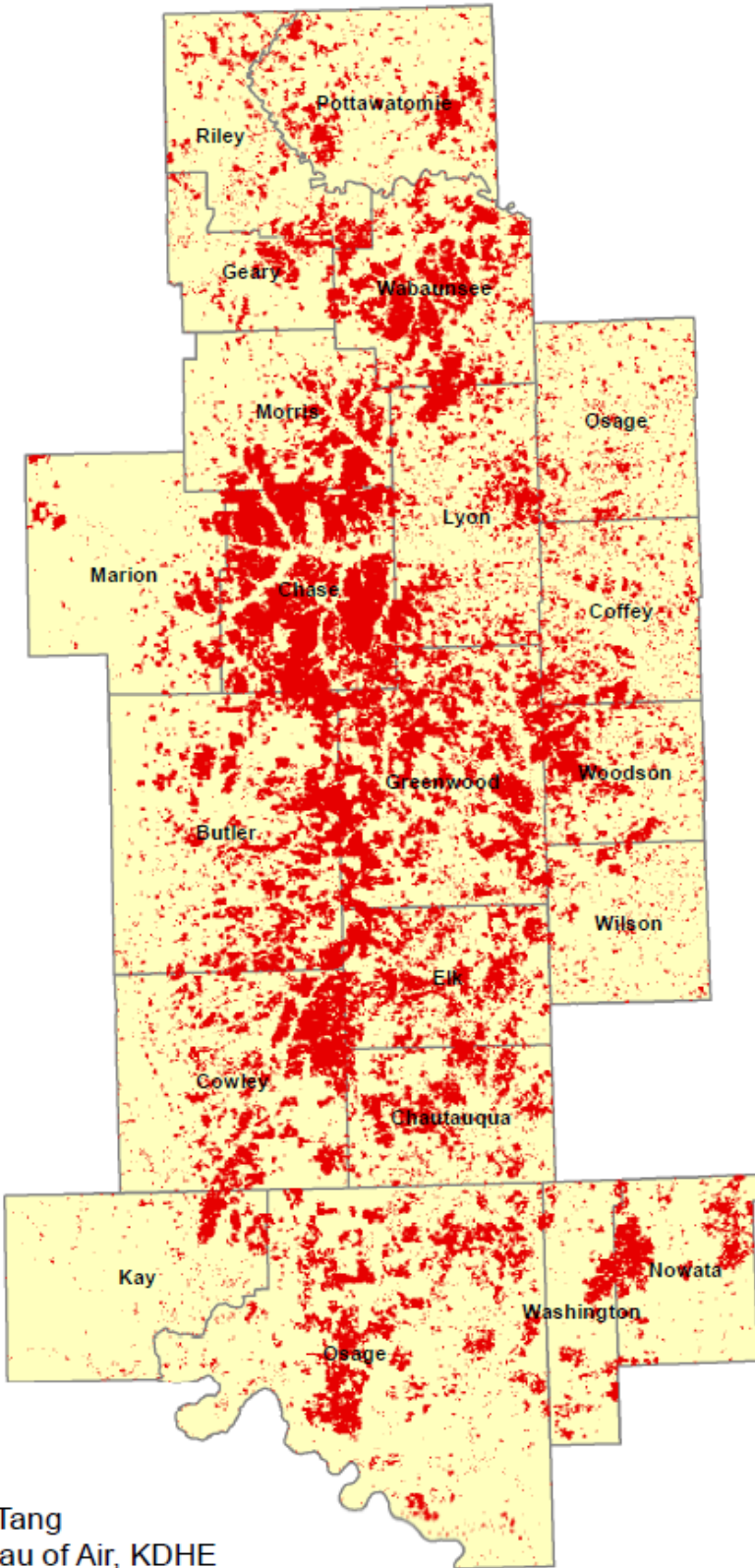
Flint Hills Total Acres Burned by Year (Spring burning period)

Year	Acres Burned
2000	2,802,963
2001	1,939,859
2002	1,429,438
2003	2,835,778
2004	1,837,021
2005	3,483,101
2006	1,992,477
2007	1,066,809
2008	2,825,876
2009	3,195,053
2010	2,392,693
2011	2,473,423
2012	706,016
2013	217,377
2014	2,529,468
2015	1,870,018
2016	2,736,791
2017	2,441,355
2018	1,453,748
2019	2,627,737

Flint Hills Prescribed Fire Update



Flint Hills Acreage Burned (March 15 – May 5, 2019)



<u>Counties</u>	<u>Acres Burned</u>	
Butler	240,021	*
Chase	332,950	*
Chautauqua	110,366	*
Coffey	75,029	
Cowley	186,383	*
Elk	157,594	*
Geary	39,013	*
Greenwood	311,482	*
Lyon	135,138	
Marion	52,526	*
Morris	110,860	*
Osage (KS)	50,055	
Pottawatomie	83,245	*
Riley	57,407	*
Wabaunsee	189,363	*
Wilson	31,136	
Woodson	83,647	
Nowata (OK)	66,967	*
Osage (OK)	241,457	*
Washington (OK)	37,298	*
Kay (OK)	35,800	*
Total	2,627,737	
* Denotes county was partly or completely covered by clouds during latest analysis.		

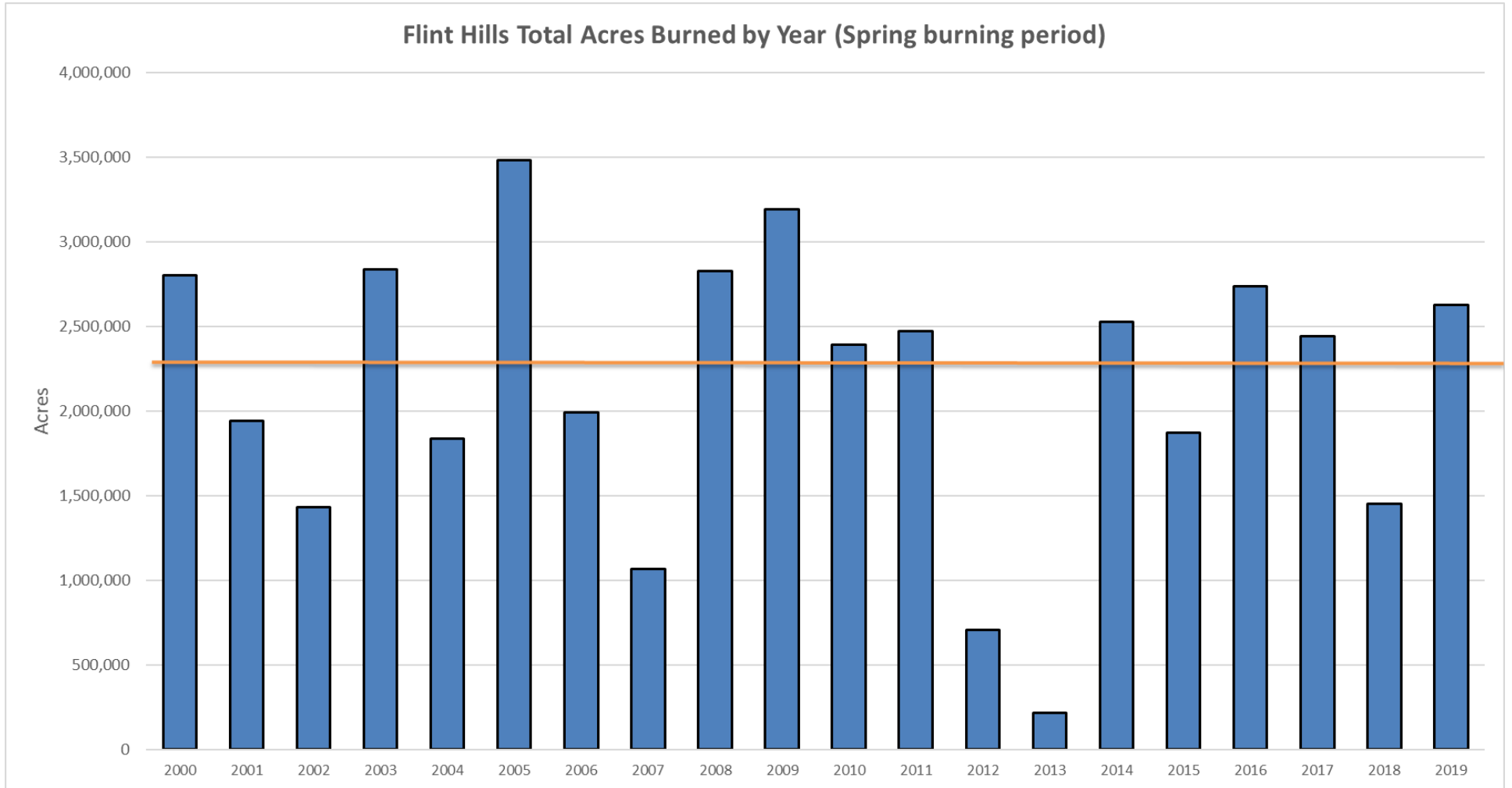
Yao Tang
Bureau of Air, KDHE

Flint Hills Prescribed Fire Update



Year:	2011	2012	2013	2014	2015	2016	2017	2018	2019	Average
County										
Butler	213,883	45,004	13,097	166,442	94,349	245,921	220,221	93,964	240,021	179,678
Chase	255,240	28,912	5,174	288,529	218,860	318,679	273,258	72,449	332,950	220,044
Chautauqua	79,226	12,819	3,985	113,499	71,321	94,473	59,353	87,214	110,366	72,305
Coffey	77,612	26,162	11,166	77,298	81,978	76,450	84,697	50,565	75,029	69,918
Cowley	134,002	18,193	3,907	92,804	61,036	158,984	99,786	52,758	186,383	110,645
Elk	124,363	35,027	8,680	167,647	92,990	171,757	126,613	89,809	157,594	113,923
Geary	56,120	52,418	6,039	47,769	15,583	51,492	62,195	10,965	39,013	46,295
Greenwood	258,973	29,993	18,873	250,042	247,741	284,624	351,467	148,328	311,482	231,425
Lyon	160,604	43,336	14,471	143,075	156,975	174,213	151,865	86,242	135,138	136,690
Marion	45,632	8,324	3,228	44,402	28,124	75,647	68,357	7,043	52,526	39,999
Morris	114,117	16,155	2,162	107,600	64,433	149,780	118,721	61,376	110,860	95,246
Osage (KS)	----	42,657	10,008	77,901	66,070	64,974	67,229	72,928	50,055	56,478
Pottawatomie	108,853	124,480	5,961	120,882	63,229	89,114	125,671	39,182	83,245	95,382
Riley	89,490	85,561	36,201	84,032	50,039	64,110	63,723	32,325	57,407	76,412
Wabaunsee	203,319	64,047	23,552	240,173	102,349	199,804	194,954	83,832	189,363	171,315
Wilson	----	7,985	8,417	33,236	22,688	23,136	31,090	31,970	31,136	23,707
Woodson	73,855	19,599	12,124	82,271	82,596	79,276	100,759	47,878	83,647	68,777
Nowata (OK)	----	4,880	4,834	68,217	64,773	48,186	25,051	73,036	66,967	44,493
Osage (OK)	265,387	36,155	22,147	275,278	206,504	301,258	173,703	248,824	241,457	225,158
Washington (OK)	----	4,309	3,351	48,371	45,669	32,387	14,904	45,515	37,298	28,976
Kay (OK)	----	----	----	----	32,711	32,526	27,738	17,545	35,800	29,264
Total Acres	2,473,423	706,016	217,377	2,529,468	1,870,018	2,736,791	2,441,355	1,453,748	2,627,737	2,136,130

Flint Hills Prescribed Fire Update





Air Quality Data

Air quality data for the period of March 15 – May 5, 2019:

Ozone: Preliminary data indicates the following exceedances of the NAAQS daily 8-hour average maximum of 70 ppb which may have been influence by prescribed burning.

April 8, 2019 at the monitor located in/near Chanute, Kansas - 76 ppb

April 8, 2019 at the monitor located in/near Mannford, Oklahoma - 71 ppb

April 9, 2019 at the monitor located in/near Joplin, Missouri - 73 ppb

April 9, 2019 at the monitor located in/near Union, Oklahoma - 75 ppb

PM_{2.5}: Preliminary data indicates no exceedance of the NAAQS daily 24-hour average maximum of 35 $\mu\text{g}/\text{m}^3$ which may have been influence by prescribed burning.

March 22, 2019 at the monitor located in/near Ponca City, Oklahoma - 37.7 $\mu\text{g}/\text{m}^3$

April 9, 2019 at the monitor located in/near Union, Oklahoma - 42.4 $\mu\text{g}/\text{m}^3$