# Flint Hills Wildland Fire Update

2021 Summary June 3, 2021



# Acreage Burned Analysis

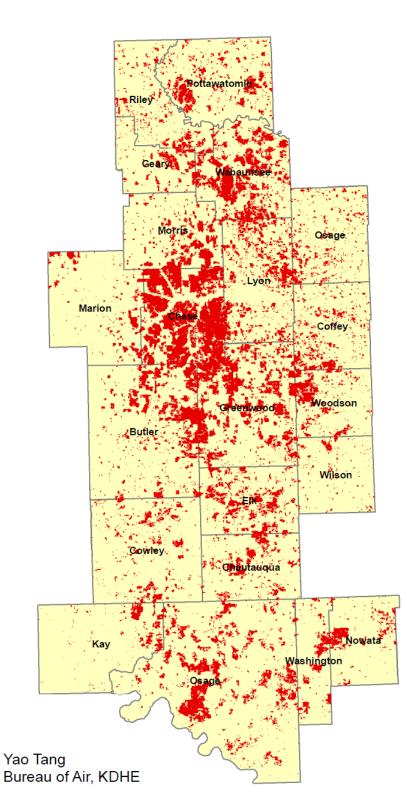
Analysis was conducted during the period of February 23, 2021 to April 30, 2021 to determine the approximate total of acres burned. The analysis conducted does not differentiate between prescribed fire and wildfire. While prior year periods of analysis differ in date range the analysis always encompasses the clear majority of the Spring burning period within the Flint Hills.

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

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### Flint Hills Acreage Burned (February 23 – April 30, 2021)



| <b>Counties</b>                           | Acres Burned |  |  |  |  |  |
|---|--------------|--|--|--|--|--|
| Butler                                    | 145,393      |  |  |  |  |  |
| Chase                                     | 314,833      |  |  |  |  |  |
| Chautauqua                                | 56,171       |  |  |  |  |  |
| Coffey                                    | 55,028       |  |  |  |  |  |
| Cowley                                    | 57,422       |  |  |  |  |  |
| Elk                                       | 84,975       |  |  |  |  |  |
| Geary                                     | 34,889       |  |  |  |  |  |
| Greenwood                                 | 219,155      |  |  |  |  |  |
| Lyon                                      | 115,879      |  |  |  |  |  |
| Marion                                    | 40,711       |  |  |  |  |  |
| Morris                                    | 78,288       |  |  |  |  |  |
| Osage (KS)                                | 45,144       |  |  |  |  |  |
| Pottawatomie                              | 77,361       |  |  |  |  |  |
| Riley                                     | 41,561       |  |  |  |  |  |
| Wabaunsee                                 | 169,966      |  |  |  |  |  |
| Wilson                                    | 16,093       |  |  |  |  |  |
| Woodson                                   | 53,762       |  |  |  |  |  |
| Nowata (OK)                               | 33,344       |  |  |  |  |  |
| Osage (OK)                                | 197,565      |  |  |  |  |  |
| Washington (OK)                           | 31,877       |  |  |  |  |  |
| Kay (OK)                                  | 29,808       |  |  |  |  |  |
|   |              |  |  |  |  |  |
| Total                                     | 1,899,225    |  |  |  |  |  |
| * Denotes county was partly or completely |              |  |  |  |  |  |

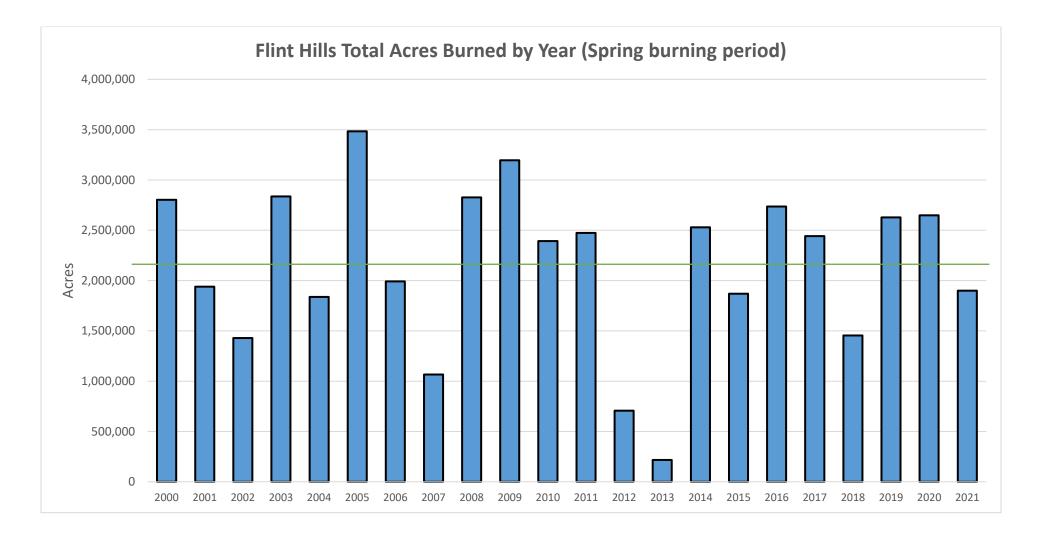
\* Denotes county was partly or completely covered by clouds during latest analysis.

| 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    |  |  |  |  |  |
| 2020    | 2,649,203    |  |  |  |  |  |
| 2021    | 1,899,225    |  |  |  |  |  |
| Average | 2,154,792    |  |  |  |  |  |

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



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| Year:           | 2011                | 2012                | 2013               | 2014      | 2015                 | 2016             | 2017                | 2018      | 2019                 | 2020      | 2021                |
|-----------------|---------------------|---------------------|--------------------|-----------|----------------------|------------------|---------------------|-----------|----------------------|-----------|---------------------|
| County          |                     |                     |                    |           |                      |                  |                     |           |                      |           |                     |
| Butler          | 213,883             | 45,004              | 13,097             | 166,442   | 94,349               | 245,921          | 220,221             | 93,964    | 240,021              | 237,628   | 145,393             |
| Chase           | 255,240             | 28,912              | 5,174              | 288,529   | 218,860              | 318,679          | 273,258             | 72,449    | 332,950              | 343,359   | 314,833             |
| Chautauqua      | 79,226              | 12,819              | 3,985              | 113,499   | 71,321               | 94,473           | 59,353              | 87,214    | 110,366              | 73,515    | 56,171              |
| Coffey          | 77,612              | 26,162              | 11,166             | 77,298    | 81,978               | 76,450           | <mark>84,697</mark> | 50,565    | 75,029               | 61,330    | 55,028              |
| Cowley          | 134,002             | 18,193              | 3,907              | 92,804    | <mark>61,036</mark>  | 158,984          | 99,786              | 52,758    | 186,383              | 149,254   | 57,422              |
| Elk             | 124,363             | 35,027              | 8,680              | 167,647   | 92,990               | 171,757          | 126,613             | 89,809    | 157,594              | 139,926   | <mark>84,975</mark> |
| Geary           | 56,120              | 52,418              | <mark>6,039</mark> | 47,769    | 15,583               | 51,492           | 62,195              | 10,965    | 39,013               | 70,998    | 34,889              |
| Greenwood       | 258,973             | 29,993              | 18,873             | 250,042   | 247,741              | 284,624          | 351,467             | 148,328   | 311,482              | 296,671   | 219,155             |
| Lyon            | 160,604             | 43,336              | 14,471             | 143,075   | 156,975              | 174,213          | 151,865             | 86,242    | 135,138              | 159,231   | 115,879             |
| Marion          | <mark>45,632</mark> | 8,324               | 3,228              | 44,402    | 28,124               | 75,647           | 68,357              | 7,043     | 52,526               | 83,909    | 40,711              |
| Morris          | 114,117             | 16,155              | 2,162              | 107,600   | <mark>64,433</mark>  | 149,780          | 118,721             | 61,376    | 110,860              | 147,293   | 78,288              |
| Osage (KS)      |                     | 42,657              | 10,008             | 77,901    | <mark>6</mark> 6,070 | 64,974           | 67,229              | 72,928    | 50,055               | 61,870    | 45,144              |
| Pottawatomie    | 108,853             | 124,480             | 5,961              | 120,882   | 63,229               | 89,114           | 125,671             | 39,182    | <mark>8</mark> 3,245 | 139,385   | 77,361              |
| Riley           | 89,490              | 85,561              | 36,201             | 84,032    | 50,039               | 64,110           | 63,723              | 32,325    | 57,407               | 74,395    | 41,561              |
| Wabaunsee       | 203,319             | <mark>64,047</mark> | 23,552             | 240,173   | 102,349              | 199,804          | 194,954             | 83,832    | 189,363              | 231,820   | 169,966             |
| Wilson          |                     | 7,985               | 8,417              | 33,236    | 22,688               | 23,136           | 31,090              | 31,970    | 31,136               | 22,997    | 16,093              |
| Woodson         | 73,855              | 19,599              | 12,124             | 82,271    | 82,596               | 79,276           | 100,759             | 47,878    | <mark>83,647</mark>  | 70,890    | 53,762              |
| Nowata (OK)     |                     | 4,880               | 4,834              | 68,217    | 64,773               | 48,186           | 25,051              | 73,036    | 66,967               | 51,970    | 33,344              |
| Osage (OK)      | 265,387             | 36,155              | 22,147             | 275,278   | 206,504              | 301,258          | 173,703             | 248,824   | 241,457              | 181,549   | 197,565             |
| Washington (OK) |                     | 4,309               | 3,351              | 48,371    | 45,669               | 32,387           | 14,904              | 45,515    | 37,298               | 27,182    | 31,877              |
| Kay (OK)        |                     |                     |                    |           | 32,711               | 32,526           | 27,738              | 17,545    | 35,800               | 24,031    | 29,808              |
| Total Acres     | 2,260,676           | 706,016             | 217,377            | 2,529,468 | 1,870,018            | <b>2,736,791</b> | 2,441,355           | 1,453,748 | 2,627,737            | 2,649,203 | 1,899,225           |

# Air Quality Data

Air quality data for the period of February 26 – April 29, 2021:

**Ozone**: Preliminary data indicates the following exceedances of the NAAQS daily 8-hour average maximum of 70 ppb which may have been influenced by wildland fires within the Flint Hills and surrounding region.

April 3, 2021 at the monitor located in/near Copan, OK - 71 ppb

**PM**<sub>2.5</sub>: Preliminary data indicates the following exceedances of the NAAQS daily 24-hour average maximum of 35  $\mu$ g/m<sup>3</sup> which may have been influenced by wildland fires within the Flint Hills and surrounding region.

March 4, 2021 at the monitor located in/near Kansas City, KS - 36.1 µg/m<sup>3</sup> March 5, 2021 at the monitor located in/near Copan, OK -  $40.7 \,\mu g/m^3$ March 8, 2021 at the monitor located in/near Copan, OK - 35.8 µg/m<sup>3</sup> March 8, 2021 at the monitor located in/near Tulsa, OK -  $48.0 \,\mu\text{g/m}^3$ March 8, 2021 at the monitor located in/near Glenpool, OK - 79.6 µg/m<sup>3</sup> March 9, 2021 at the monitor located in/near Miami, OK - 59.1 µg/m<sup>3</sup> March 9, 2021 at the monitor located in/near Glenpool, OK - 35.9 µg/m<sup>3</sup> March 9, 2021 at the monitor located in/near Olathe, KS - 39.9 µg/m<sup>3</sup> March 9, 2021 at the monitor located in/near Kansas City, KS - 36.5 µg/m<sup>3</sup> April 2, 2021 at the monitor located in/near Copan, OK - 35.7 µg/m<sup>3</sup> April 2, 2021 at the monitor located in/near Ponca City, OK - 37.7 µg/m<sup>3</sup> April 3, 2021 at the monitor located in/near Cedar Rapids, IA - 39.2 µg/m<sup>3</sup> April 4, 2021 at the monitor located in/near Cedar Rapids, IA - 38.3 µg/m<sup>3</sup> April 4, 2021 at the monitor located in/near lowa City, IA - 35.9 µg/m<sup>3</sup> April 9, 2021 at the monitor located in/near Ponca City, OK - 37.5 µg/m<sup>3</sup> April 10, 2021 at the monitor located in/near Ponca City, OK - 51.3 µg/m<sup>3</sup> April 11, 2021 at the monitor located in/near Ponca City, OK - 45.6 µg/m<sup>3</sup>