

2025 Ozone Season Summary for the Kansas City Region

Summary

The Air Quality Maintenance Area for the Greater Kansas City Region includes Wyandotte and Johnson Counties in Kansas; and Clay, Platte and Jackson Counties in Missouri. From March 1 – June 15, 2025, there were one Ozone Action Day issued on June 19th and exceedances of the ozone National Ambient Air Quality Standards (NAAQS) occurred on June 1 at KCK (72 ppb), June 10 at KCK (71 ppb) and Liberty (72 ppb) and on July 9 at Rocky Creek (88 ppb). **Table 1** shows the number of each forecast by type, and daily air quality conditions recorded by monitors.

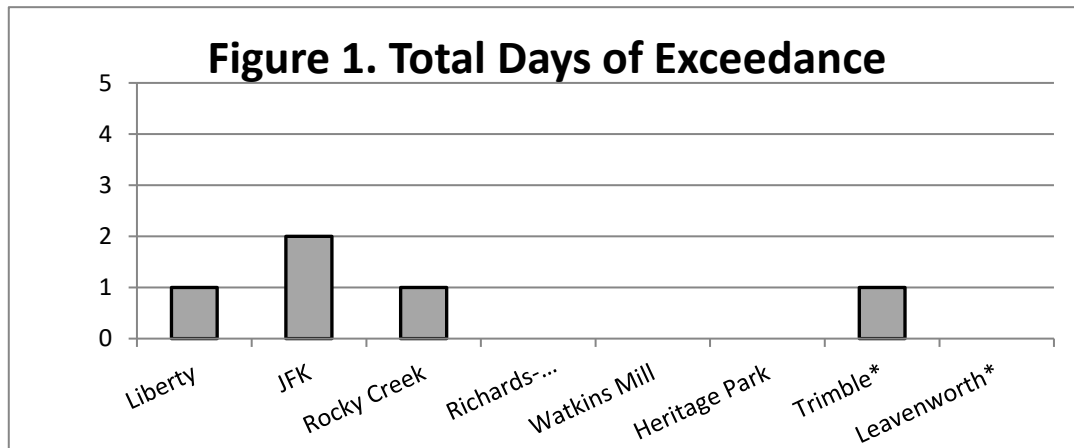
Table 1. Forecast and Monitor Results

	Green	Yellow	Orange	Red
Actual	123	37	2	1
Forecasted	116	46	1	0

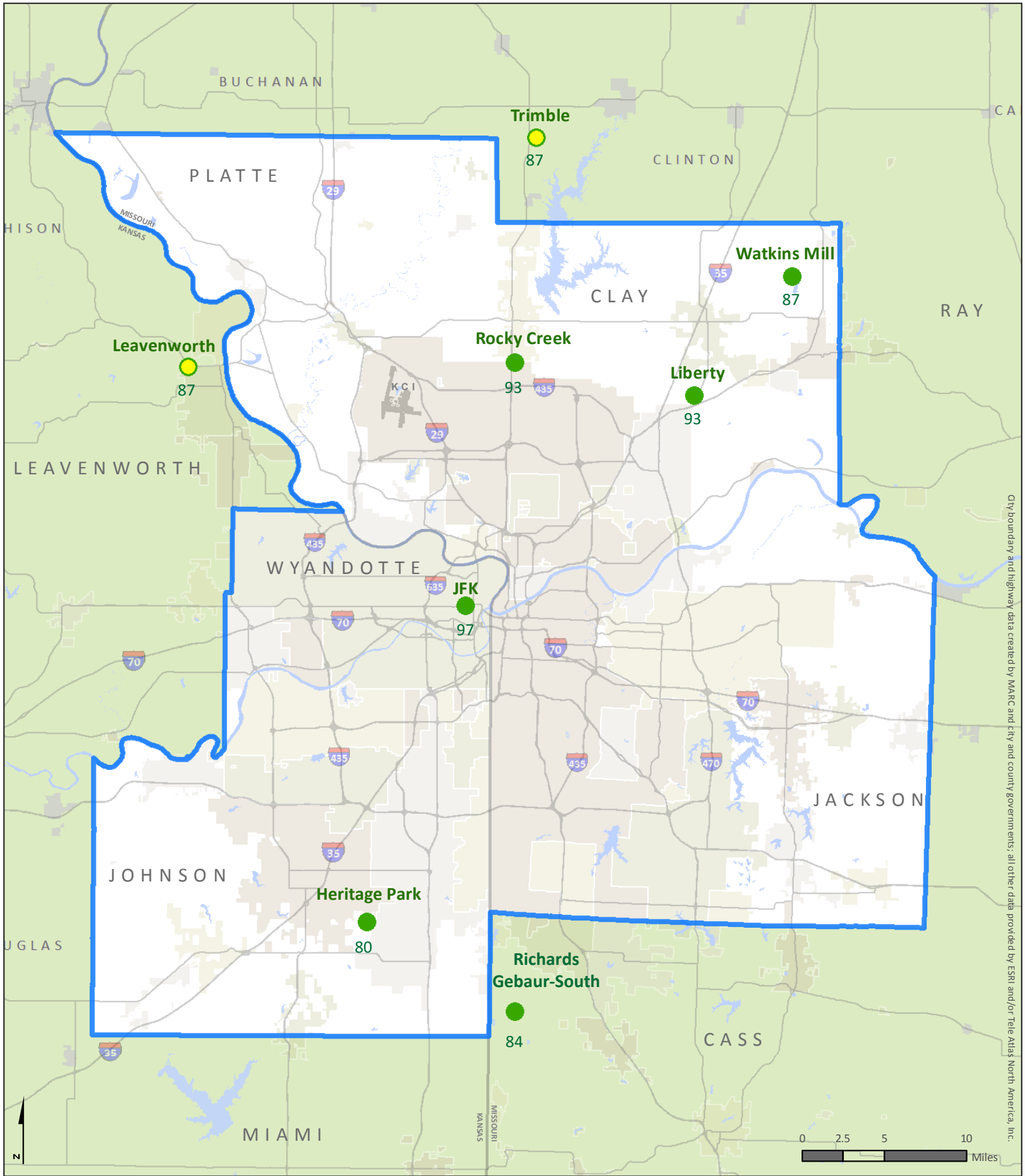
2025 Monitor Map

Ozone measurements defining the air quality for the Greater Kansas City Air Quality Maintenance area are made at six monitors. Two additional nearby monitors at Trimble and Leavenworth provide useful forecasting information, and two distant monitors at Chanute and El Dorado offer some forecasting guidance on how pollution is moving into and out of our region. **Map 1** on the next page shows the location of nearby monitors.

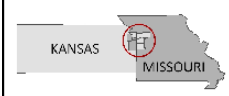
It can be helpful to review the number of days on which various locations exceeded the National Ambient Air Quality Standard (NAAQS) on **Figure 1**. This helps to identify any particularly affected areas and to see the general pervasiveness of poor air quality around the region.



Air Quality Monitoring Stations



City boundary and highway data created by MARC and city and county governments; all other data provided by ESRI and/or Tele Atlas North America, Inc.



- in area monitor
- out of area monitor

 Air Quality Maintenance Area

Number = 3-yr Average of Annual AQI

Note: Monitor stations not shown above - El Dorado Springs & Chanute



About the Ozone National Ambient Air Quality Standard

The current national standard for ground-level ozone is 70 ppb averaged over eight hours. To promote public awareness, EPA has created the Air Quality Index (AQI); a tool that associates colors and health messages with ranges of various air pollutant concentrations. **Table 2** shows the ozone concentrations associated with each AQI color.

Table 2. Air Quality Index under the 2015 Ozone Standard

Category	AQI Value	2015 8-hour ozone (ppb)
Good (Green)	0 – 50	0 – 54
Moderate (Yellow)	51 – 100	55 – 70
Unhealthy for Sensitive Groups (Orange)	101 – 150	71 – 85
Unhealthy (Red)	151 – 200	86 – 105
Very Unhealthy (Purple)	201 – 300	106 – 200
Hazardous (Maroon)	301 – 500	> 200

Kansas City Ozone Design Values, 2017 – 2025

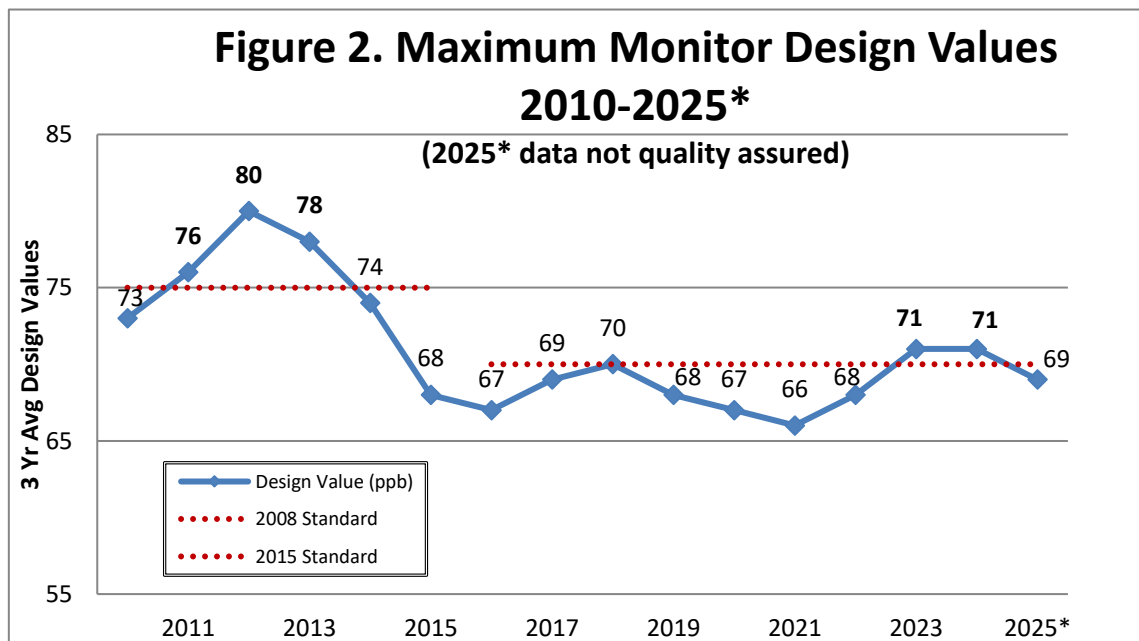
An individual daily 8-hr exceedance of the eight-hour ozone standard at a monitored location does not necessarily result in a violating monitor. Compliance with the eight-hour ozone standard is based on the *three-year average of the fourth-highest ozone reading* from each monitor. Given the nature of its importance, this critical value – called the “Design Value,” was also shown in terms of AQI on **Map 1** alongside the region’s ozone monitors.

Under the current eight-hour ozone standard, *violations* only occur when the three-year average based design value for any individual regional monitor is 71 ppb or higher. **Table 3** displays the critical fourth-highest eight-hour readings of the 2025 season. If a monitor reaches their critical value, it causes a violation of the overall design value once averaged with the previous two years. **Figure 2** shows the trendline of design values of the fourth-high eight-hour readings, from 2010 to 2025.

**Table 3. 2025 Fourth-High Values That Would Trigger a Violation
(70-ppb is the current standard)**

Missouri	8-Hr Value (ppb)	Kansas	8-Hr Value (ppb)
<i>Design Value Level</i>	70	<i>NAAQS Level</i>	70
Liberty	68	JFK (KCK)	69
Watkins Mill	74	Heritage Park	81
Rocky Creek	71	Leavenworth	79
Richards Gebauer	78		
Trimble	74		

*Bold text indicates the tentative monitor that exceeded the 2025 critical value.



Appendix A provides greater detail on specific dates when area monitors recorded eight-hour peak values and the ozone levels experienced at each site. For reference of recent historical trends, **Appendix B** contains both the fourth-high eight-hour readings as well as the design values for years from 2019 – 2025. **Appendix C** summarizes the SkyCasts and highest daily eight-hour monitor ozone readings for the entire 2025 ozone season. It includes all days that were forecasted to be a yellow or Ozone Action day or had a maximum eight-hour ozone reading greater than or equal to 55 ppb. *Green SkyCast days with maximum eight-hour ozone values less than 55ppb—days that were accurately forecasted to be green—will not be listed.*

Appendix A. Eight-Hour Ozone Exceedances March 1 – August 10, 2025

Daily Maximum 8-Hour Value (ppb)*								
Date	Liberty	JFK	Rocky Creek	Richards-Gebauer	Watkins Mill	Heritage Park	Trimble**	Leavenworth**
June 1	61	72	62	60	59	61	61	56
June 10	72	71	70	61	70	63	64	58
July 9	64	63	88	58	57	53	75	56

*The 2025 eight-hour monitored ozone readings have not been quality assured and may contain errors. Readings in **bold red** represent design values above the 70-ppb standard.

The Trimble and Leavenworth monitors are outside the maintenance area boundary but are used to verify SkyCast ozone forecasts due to their proximity to the boundary. Readings in **bold red show exceedances of the ozone NAAQS.

Appendix B. Fourth-High Readings and Design Values, 2019-2025

Fourth-High Eight-Hour Values

Design Values

<i>Missouri</i>	19	20	21	22	23	24	25*		19-21	20-22	21-23	22-24	23-25*
Liberty	63	65	64	69	74	71	61		64	66	69	71	68
Watkins Mill	63	65	65	66	71	68	61		64	65	67	68	66
Rocky Creek	62	65	71	69	74	68	64		66	68	71	70	68
Richards Gebauer	64	58	63	63	73	62	62		61	61	66	66	65
Trimble	62	63	63	65	76	63	61		62	63	68	68	66
<i>Kansas</i>													
JFK (KCK)	58	63	70	64	77	67	64		63	65	70	69	69
Heritage Park	54	55	64	63	73	61	62		57	60	66	65	64
Leavenworth	61	59	63	61	74	62	65		61	61	66	65	66

*The 2025 eight-hour monitored ozone readings have not been quality assured and may contain errors. Readings in **bold red** represent design values above the 70-ppb standard.

Appendix C. Summary of SkyCasts and Daily Maximum Eight-hour Ozone Values March 1 – August 10, 2025

Date	Daily Max 8-Hr Value (ppb)*	Monitor(s) Recording Max Value	SkyCast	Date	Daily Max 8-Hr Value (ppb)*	Monitor(s) Recording Max Value	SkyCast
March				5/13	58	Rocky Creek	Yellow
3/11	58	Rocky Creek, Richards Gebauer	Green	5/14	55	Rocky Creek	Yellow
3/12	62	Heritage Park	Green	5/15	58	Rocky Creek, JFK	Yellow
3/13	62	Rocky Creek	Yellow	5/16	55	JFK	Green
April				5/30	59	Rocky Creek, JFK	Yellow
4/9	61	Rocky Creek, JFK Richards Gebauer	Green	5/31	55	JFK	Yellow
4/11	48	Richards Gebauer	Yellow	June			
4/12	67	Heritage Park	Green	6/1	72	JFK	Yellow
4/13	62	Rocky Creek, JFK	Yellow	6/2	62	Rocky Creek	Yellow
4/16	61	Rocky Creek	Green	6/5	52	Rocky Creek, JFK	Yellow
4/22	57	Rocky Creek	Green	6/6	55	Richards Gebauer	Green
May				6/9	55	JFK	Green
5/5	58	Richards Gebauer	Green	6/10	72	Liberty	Yellow
5/6	50	JFK	Yellow	6/11	66	Liberty	Yellow
5/8	57	Rocky Creek	Green	6/12	55	Rocky Creek	Yellow
5/9	57	Richards Gebauer	Green	6/13	45	Heritage Park	Yellow
5/10	63	Richards Gebauer	Yellow	6/14	45	Richards Gebauer	Yellow
5/11	64	JFK	Yellow	6/15	49	Richards Gebauer	Yellow
5/12	55	JFK	Yellow	6/16	59	Liberty	Yellow

*The 2025 eight-hour monitored ozone readings have not been quality assured and may contain errors. Readings in **bold** represent eight-hour peak concentrations above the 70 ppb standard.

**Appendix C. Summary of SkyCasts and Daily Maximum Eight-hour Ozone Values
March 1 – August 10, 2025**

Date	Daily Max 8-Hr Value (ppb)*	Monitor(s) Recording Max Value	SkyCast	Date	Daily Max 8-Hr Value (ppb)*	Monitor(s) Recording Max Value	SkyCast
6/19	63	Rocky Creek	Orange	7/16	57	Liberty	Yellow
6/27	54	Rocky Creek	Yellow	7/18	42	Rocky Creek	Yellow
6/28	50	Rocky Creek	Yellow	7/19	40	Rocky Creek	Yellow
6/29	39	Rocky Creek	Yellow	7/20	34	Richards Gebauer	Yellow
July				7/21	36	Rocky Creek	Yellow
7/1	62	Richards Gebauer	Green	7/22	57	Rocky Creek	Yellow
7/2	60	Rocky Creek	Yellow	7/23	42	Rocky Creek	Yellow
7/3	57	Rocky Creek	Yellow	7/26	48	Rocky Creek, Liberty	Yellow
7/6	43	Richards Gebauer	Yellow	7/27	44	Watkins Mill, Liberty	Yellow
7/7	44	Rocky Creek	Yellow	7/28	52	Rocky Creek	Yellow
7/8	45	Heritage Park	Green	7/29	52	Liberty	Yellow
7/9	88	Rocky Creek	Yellow	August			
7/10	53	Rocky Creek	Yellow	8/4	59	JFK	Green
7/11	44	Rocky Creek	Yellow	8/5	55	JFK	Yellow
7/14	55	JFK	Yellow	8/8	51	Rocky Creek	Yellow
7/15	59	Rocky Creek	Yellow				

*The 2025 eight-hour monitored ozone readings have not been quality assured and may contain errors. Readings in **bold** represent eight-hour peak concentrations above the 70 ppb standard.