

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 – October 31, 2025, there was one Ozone Action Day issued on **June 19** and six days that exceeded the ozone National Ambient Air Quality Standards (NAAQS): **June 1** at KCK (72 ppb); **June 10** at KCK (71 ppb) and Liberty (72 ppb); **June 16** at Rocky Creek (79 ppb); **July 9** at Rocky Creek (88 ppb); **September 10** at Rocky Creek (81 ppb) and Liberty (71 ppb); and **September 16** at Rocky Creek (79 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

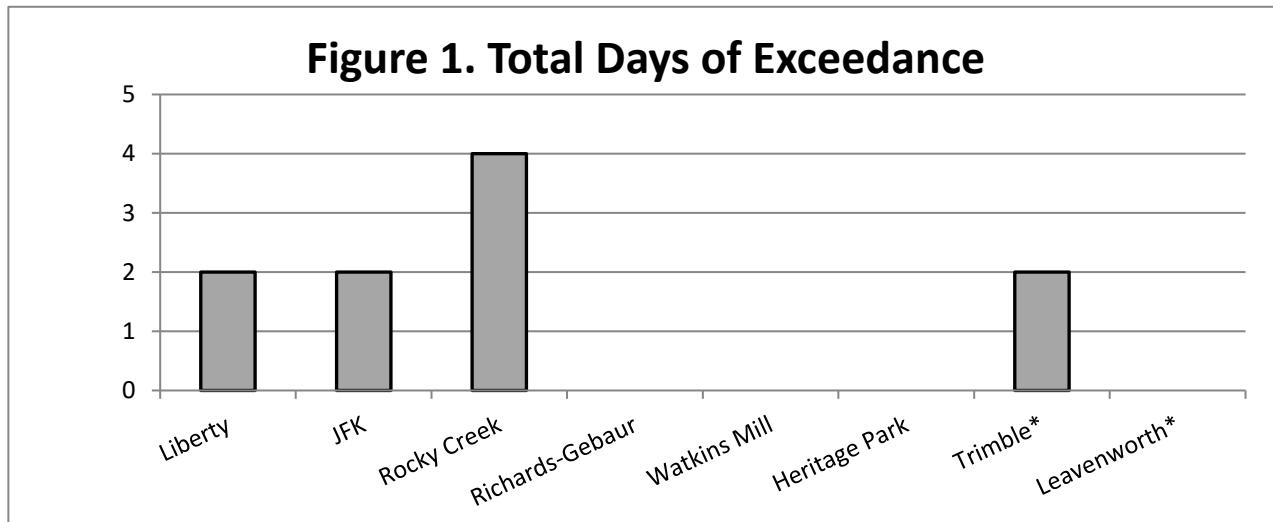
	Green	Yellow	Orange	Red
Actual	180	59	5	1
Forecasted	172	72	1	0

2025 Monitor Map

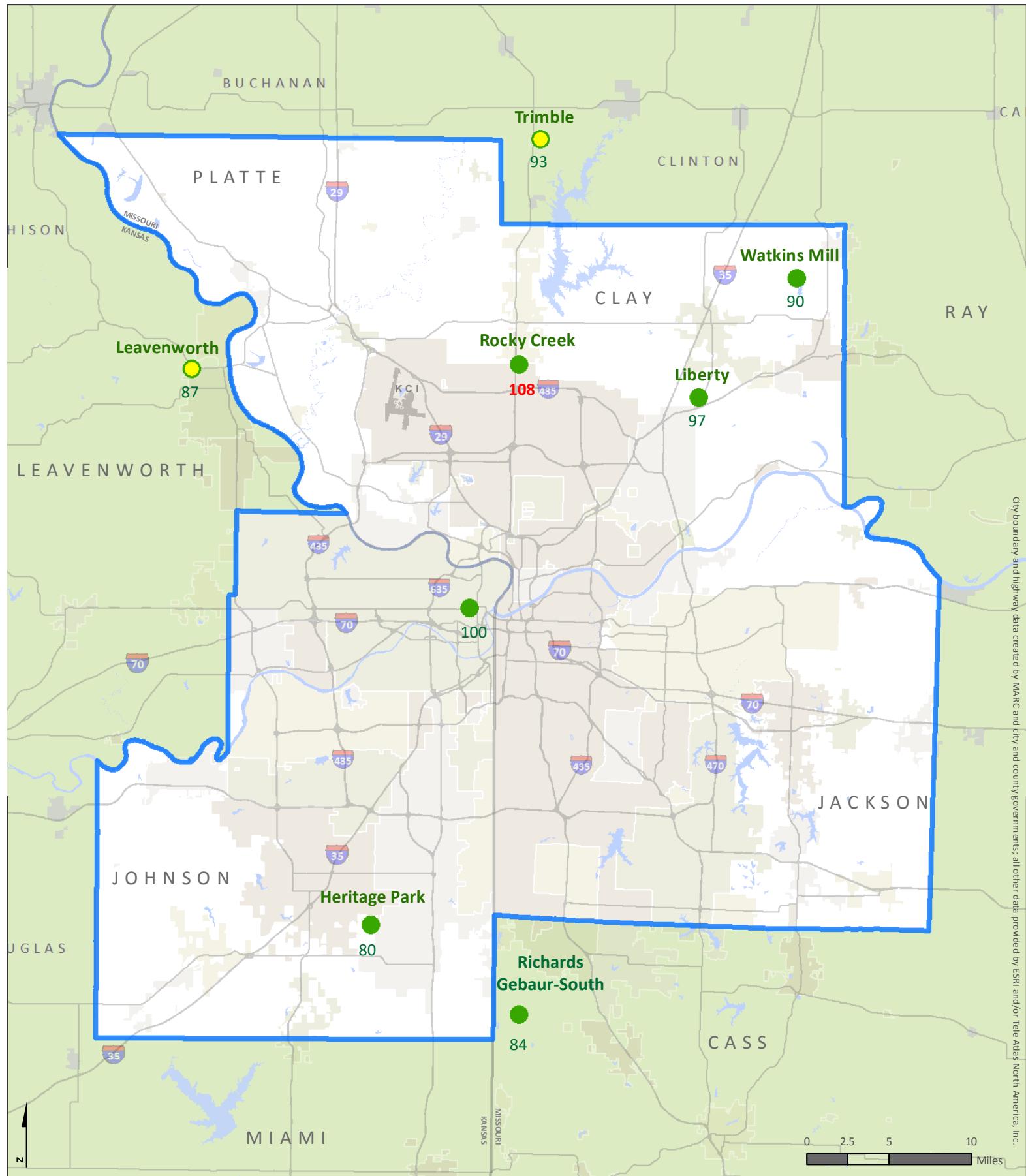
Ozone measurements defining the air quality for the Greater Kansas City Air Quality Maintenance area are made at six monitors. Two additional nearby monitors at Trimble and Leavenworth provide useful nearby forecasting information, and two distant monitors at Chanute and El Dorado offer some forecasting 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) shown on **Figure 1**. This helps to identify any particularly affected areas and to see the general pervasiveness of poor air quality around the region.

Figure 1. Total Days of Exceedance



Air Quality Monitoring Stations



● 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, 2010 – 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.

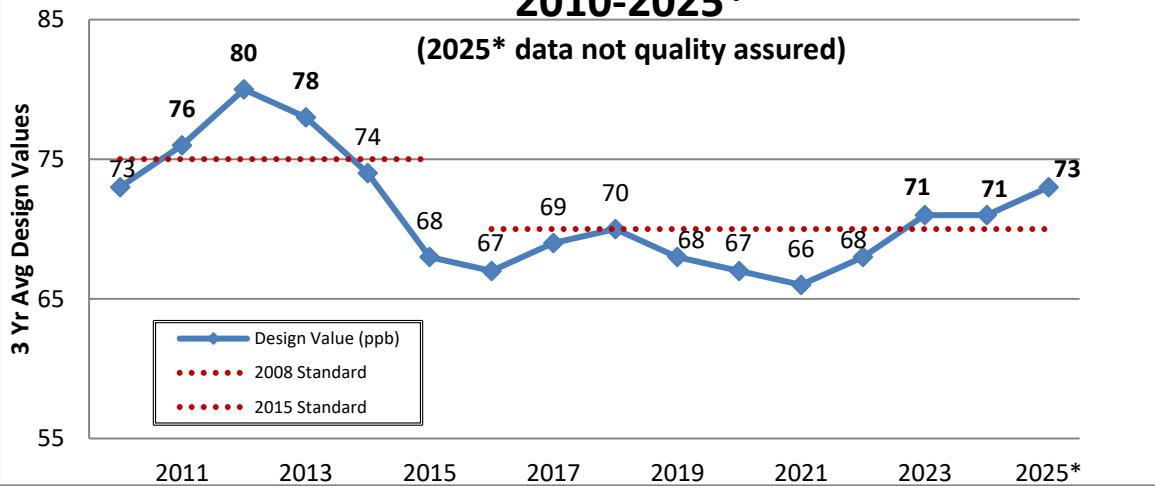
Under the current eight-hour ozone standard, *violations* only occur when the three-year average based design value for any individual regional monitor is 71 ppb or higher. **Table 3** displays the critical fourth-highest eight-hour readings of the 2025 season. If a monitor reaches their critical value, 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. As of the end of the 2025 season, it appears that the Rocky Creek monitor is in violation with the NAAQS.

**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)
		Design Value Level	NAAQS Level
	70		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.

**Figure 2. Maximum Monitor Design Values
2010-2025***



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 yellow or an “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 55 ppb—days that were accurately forecasted to be green—will not be listed.*

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

Date	Daily Maximum 8-Hour Value (ppb)*							
	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
June 16	59	n/a	79	48	50	47	61	47
July 9	64	63	88	58	57	53	75	56
September 10	71	66	81	50	67	45	75	49
September 16	61	70	79	56	52	57	63	55

*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

Missouri	19	20	21	22	23	24	25*	19-21	20-22	21-23	22-24	23-25*
Liberty	63	65	64	69	74	71	64	64	66	69	71	69
Watkins Mill	63	65	65	66	71	68	62	64	65	67	68	67
Rocky Creek	62	65	71	69	74	68	79	66	68	71	70	73
Richards												
Gebauer	64	58	63	63	73	62	62	61	61	66	66	65
Trimble	62	63	63	65	76	63	67	62	63	68	68	68

Kansas

JFK (KCK)	58	63	70	64	77	67	66	63	65	70	69	70
Heritage Park	54	55	64	63	73	59	62	57	60	66	65	64
Leavenworth	61	59	63	61	74	60	65	61	61	66	60	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	79	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.

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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	8/12	45	JFK, Richards Gebauer	Yellow
6/27	54	Rocky Creek	Yellow	8/13	54	Heritage Park	Yellow
6/28	50	Rocky Creek	Yellow	8/14	53	Rocky Creek	Yellow
6/29	39	Rocky Creek	Yellow	8/15	61	Rocky Creek	Yellow
July				8/19	62	JFK	Yellow
7/1	62	Richards Gebauer	Green	8/20	44	JFK	Yellow
7/2	60	Rocky Creek	Yellow	8/22	56	JFK	Yellow
7/3	57	Rocky Creek	Yellow	8/29	56	Rocky Creek	Yellow
7/6	43	Richards Gebauer	Yellow	September			
7/7	44	Rocky Creek	Yellow	9/10	81	Rocky Creek	Yellow
7/8	45	Heritage Park	Green	9/11	69	Rocky Creek	Yellow
7/9	88	Rocky Creek	Yellow	9/12	65	Rocky Creek	Yellow
7/10	53	Rocky Creek	Yellow	9/13	58	Watkins Mill, Liberty	Yellow
7/11	44	Rocky Creek	Yellow	9/14	57	Rocky Creek	Yellow
7/14	55	JFK	Yellow	9/15	67	Rocky Creek	Yellow
7/15	59	Rocky Creek	Yellow	9/16	79	Rocky Creek	Yellow
7/16	57	Liberty	Yellow	9/17	62	Liberty	Green
7/18	42	Rocky Creek	Yellow	9/20	56	Rocky Creek	Green
7/19	40	Rocky Creek	Yellow	9/22	58	Rocky Creek	Yellow
7/20	34	Richards Gebauer	Yellow	9/26	60	Rocky Creek	Yellow
7/21	36	Rocky Creek	Yellow	9/27	59	Liberty	Yellow
7/22	57	Rocky Creek	Yellow	9/28	63	Liberty	Yellow
7/23	42	Rocky Creek	Yellow	9/29	65	Rocky Creek	Yellow
7/26	48	Rocky Creek, Liberty	Yellow	9/30	57	Rocky Creek	Yellow
7/27	44	Watkins Mill, Liberty	Yellow	October			
7/28	52	Rocky Creek	Yellow	10/1	64	Rocky Creek	Yellow
7/29	52	Liberty	Yellow	10/2	58	JFK	Yellow
August				10/3	56	Rocky Creek	Yellow
8/4	59	JFK	Green	10/15	59	Rocky Creek	Yellow
8/5	55	JFK	Yellow	10/16	59	Rocky Creek	Yellow
8/8	51	Rocky Creek	Yellow	10/17	63	Rocky Creek, JFK	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.