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MID-AMERICA REGIONAL COUNCIL

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 no Ozone Action Days issued, but exceedances of the ozone National Ambient Air Quality Standards (NAAQS) occurred on June 1 at KCK (72 ppb) and on June 10 at KCK (71 ppb) and Liberty (72 ppb) regional monitors. **Table 1** shows the number of each forecast by type, and daily air quality conditions recorded by monitors.

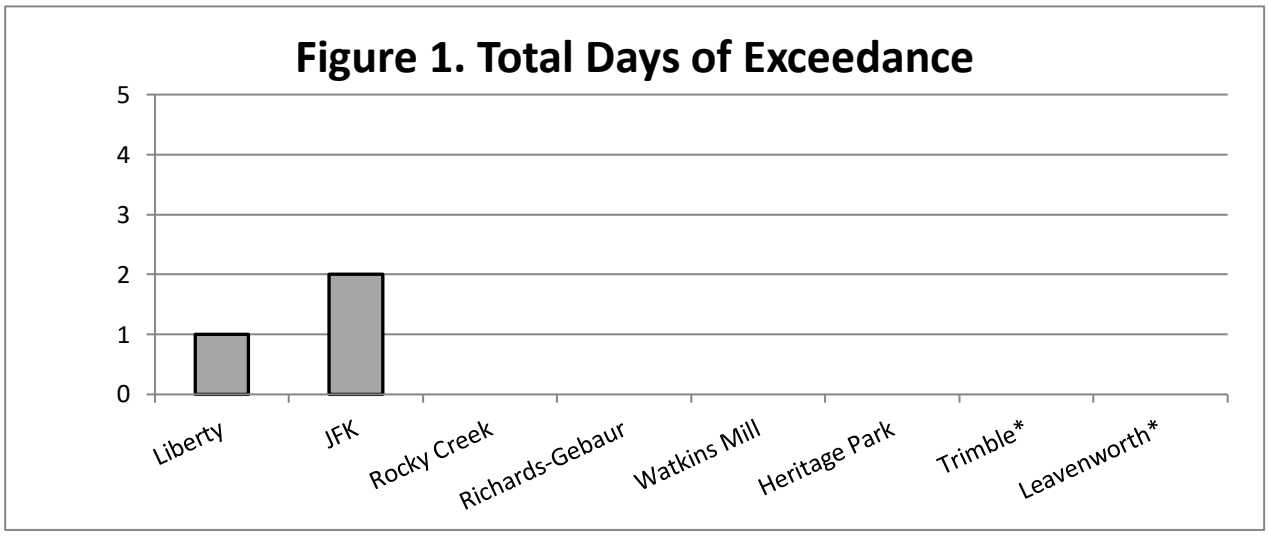
Table 1. Forecast and Monitor Results

	Green	Yellow	Orange	Red
Actual	80	25	2	0
Forecasted	86	21	0	0

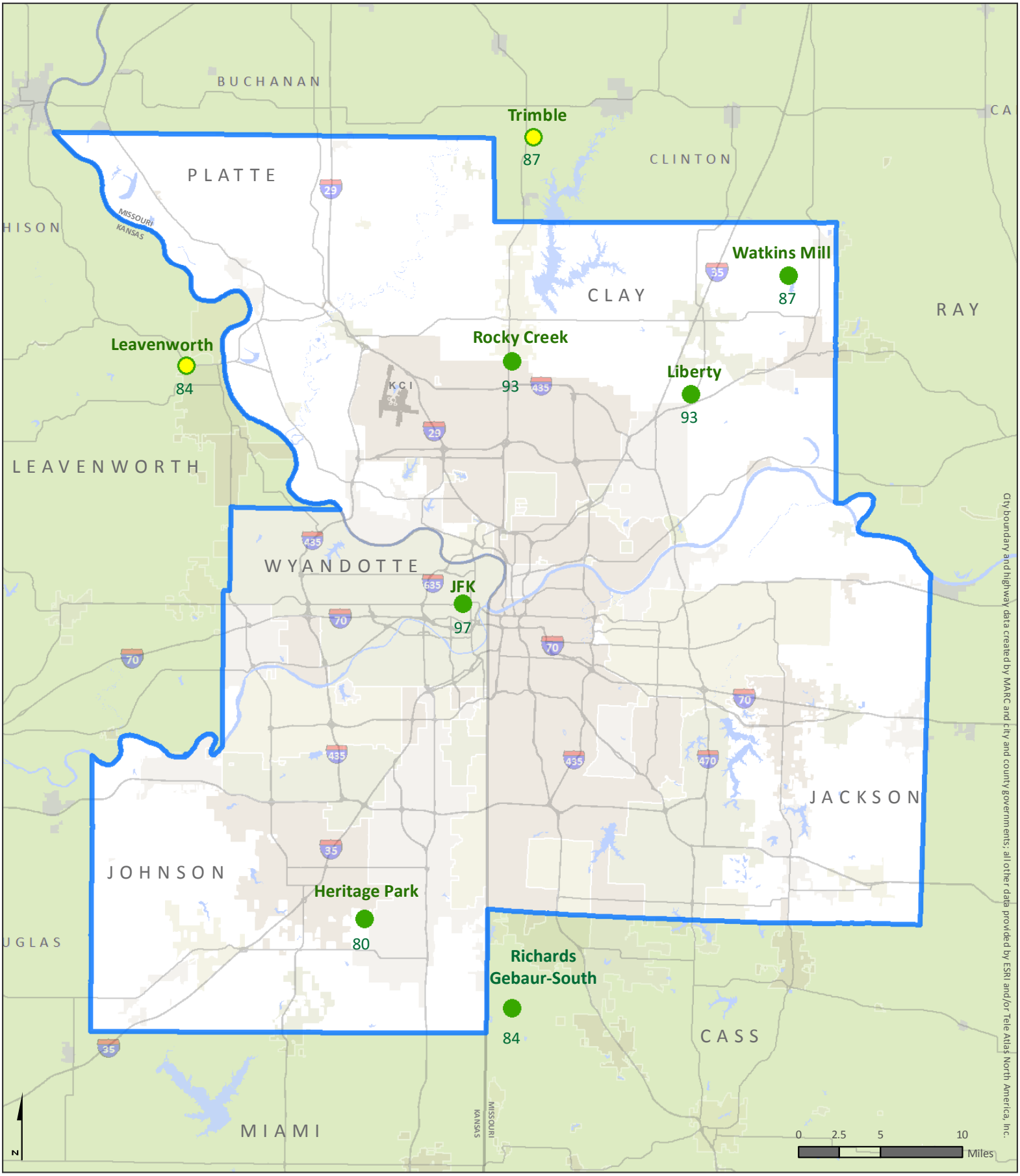
2025 Monitor Map

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



KANSAS MISSOURI

- in area monitor
- out of area monitor

Number = 3-yr Average of Annual AQI

Air Quality Maintenance Area

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

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GEOGRAPHIC INFORMATION SYSTEMS

June 15, 2025

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

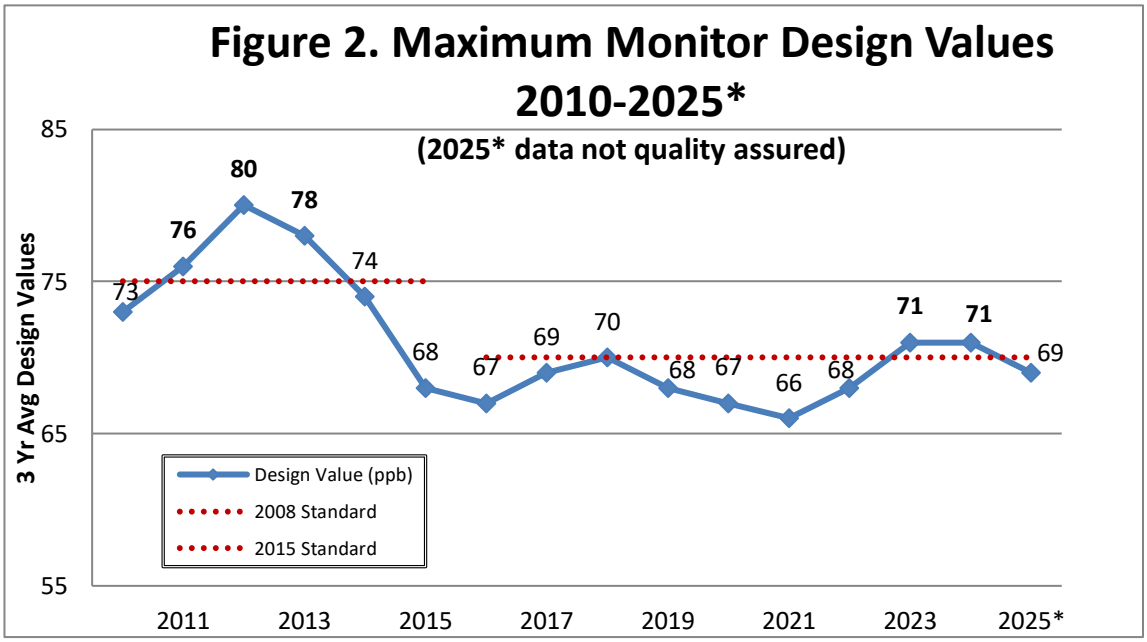
An individual daily 8-hr exceedance of the eight-hour ozone standard at a monitored location does not necessarily result in a violating monitor. Compliance with the eight-hour ozone standard is based on the *three-year average of the fourth-highest ozone reading* from each monitor. Given the nature of 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)
Design Value Level	*70*		*NAAQS Level*	*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 – October 31, 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

*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**	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	63		66	68	**71**	70	68
Richards Gebauer	64	58	63	63	**73**	62	61		61	61	66	66	65
Trimble	62	63	63	65	**76**	63	61		62	63	68	68	66
Kansas													
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	63		61	61	66	65	65

*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 – June 15, 2025

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