



Air Quality Analysis for Ozone

The following information is for the ambient air monitors operated by the state. This information is reported to the U.S. Environmental Protection Agency's Air Quality System database. The monitoring information provided in the chart below includes the preliminary design values for the ozone National Ambient Air Quality Standard, or NAAQS.

In March 2008, EPA strengthened the ozone NAAQS by setting it at a level of 0.075 parts per million (ppm) measured over 8 hours. In April 2012, EPA finalized nonattainment areas for the 2008 ozone NAAQS. In Missouri, only the St. Louis area was designated as nonattainment with a boundary encompassing St. Louis City and St. Louis, St. Charles, Jefferson, and Franklin Counties. Missouri then developed plans to bring the St. Louis nonattainment area into compliance. In September 2018, EPA formally redesignated the St. Louis area back to attainment of the 2008 ozone NAAQS.

In October 2015 (effective in December 2015), EPA further strengthened the ozone NAAQS by setting it at a level of 0.070 ppm measured over 8 hours. Based on 2015 to 2017 monitoring data, only the West Alton site in the St. Louis area exceeds the standard. On April 30, 2018, EPA designated the City of St. Louis, St. Charles County, St. Louis County, and a portion of Franklin County (Boles Township) in Missouri as nonattainment for the 2015 ozone NAAQS. Jefferson County and the remainder of Franklin County were not included in the nonattainment area for the 2015 ozone NAAQS at that time. Then, in July 2021, as a result of federal litigation, EPA revised the designation for Jefferson County. This action changed Jefferson County from attainment to nonattainment and added it back into the St. Louis nonattainment area. All of Franklin County, with the exception of Boles Township, remains in attainment for the 2015 ozone NAAQS.

For more information, see [Ozone Pollutants and Sources](#) on the Missouri Department of Natural Resources website.



Eight-hour Ozone Design Values^a

Annual summary through April 2, 2023

Site	County	Fourth Highest Eight-Hour Ozone Averages					Critical Values	Exceedances > 70 ppb (2015 Std)	Design Values		
		Parts per billion (ppb) Year-to-date							Year-to-date		
		2019	2020	2021	2022	2023 ^{cd}	CV - 70	2023 ^c	19-21	20-22	21-23 ^c
St. Louis											
Arnold West	Jefferson	66	65	73	67	51	73	0	68	68	63
Blair Street*	St. Louis City	63	65	68	68	48	77	0	65	67	61
Foley West	Lincoln	64	65	60	68	51	85	0	63	64	59
Maryland Heights	St. Louis	69	74	65	67	51	81	0	69	68	61
Orchard Farm	St. Charles	69	65	65	67	48	81	0	66	65	60
Pacific	St. Louis	64	65	65	61	51	87	0	64	63	59
West Alton	St. Charles	67	71	67	71	51	75	0	68	69	63
Ste. Genevieve											
Bonne Terre	Ste. Genevieve	60	61	65	63	51	85	0	62	63	59
Southeast											
Farrar	Perry	61	59	67	67	52	79	0	62	64	62
Kansas City											
Liberty	Clay	63	65	66	39	49	108	0	64	56	51
RG South	Cass	64	58	63	63	49	87	0	61	61	58
Rocky Creek	Clay	62	65	71	69	51	73	0	66	68	63
Trimble	Clinton	62	63	63	65	50	85	0	62	63	59
Watkins Mill	Clay	63	65	65	66	50	82	0	64	65	60
Springfield											
Fellows Lake	Greene	60	53	60	66	54	87	0	57	59	60
Hillcrest H.S.	Greene	59	56	63	66	51	84	0	59	61	60
Outstate											
Alba	Jasper	61	56	64	64	51	85	0	60	61	59
El Dorado Springs	Cedar	57	57	59	66	50	88	0	57	60	58
Finger Lakes	Boone	58	57	58	57	51	98	0	57	57	55
Mark Twain*	Monroe	56	56	55	53	49	105	0	55	54	52
New Bloomfield	Callaway	58	58	61	59	50	93	0	59	59	56
Savannah	Andrew	60	61	61	61	51	91	0	60	61	57

0

^aQuality assured data through Dec. 31, 2021.

^cYear-to-date preliminary data. Numbers may change as more data is collected over the year. Do not cite or quote.

^dFourth highest concentration measured year-to-date. Concentrations may change as more data is collected over the year.

*Year-round ozone monitoring. Blair Street is a National (Ncore) multipollutant site and a Photochemical Assessment Monitoring Station (PAMS).

West Alton meets data completeness criteria with the EPA approval to allow counting 62 missing days when calculating the 2019 data completeness.

Design values in red and bold are violations of 2015 standard.

Fourth highest eight-hour averages in purple and bold are exceedances of the 2015 standard.



Four Highest Eight-hour Ozone Values

Through April 2, 2023

2023^c

Year-to-date in parts per billion (ppb)

<i>St. Louis</i>	1 st High	2 nd High	3 rd High	4 th High	CV - 70
Arnold West	57	53	51	51	73
Blair Street*	56	49	48	48	77
Foley West	57	52	51	51	85
Maryland Heights	57	52	52	51	81
Orchard Farm	56	51	50	48	81
Pacific	55	54	52	51	87
West Alton	60	53	53	51	75

Ste. Genevieve

Bonne Terre	59	53	52	51	85
-------------	----	----	----	----	----

Southeast

Farrar	59	54	54	52	79
--------	----	----	----	----	----

Kansas City

Liberty	58	55	52	49	108
RG South	55	55	51	49	87
Rocky Creek	58	56	53	51	73
Trimble	57	54	54	50	85
Watkins Mill	59	56	54	50	82

Springfield

Fellows Lake	56	56	55	54	87
Hillcrest H.S.	54	53	52	51	84

Outstate

Alba	55	54	53	51	85
El Dorado Springs	56	52	51	50	88
Finger Lakes	52	52	51	51	98
Mark Twain*	49	49	49	49	105
New Bloomfield	53	52	51	50	93
Savannah	57	51	51	51	91

CV - 70:

The critical value (CV) is the current year's fourth-highest value, which, if monitored, could yield a violation of the ozone standard for the most current three year period. (CV = 213 ppb – last year's fourth-highest value – previous year's fourth-highest value).

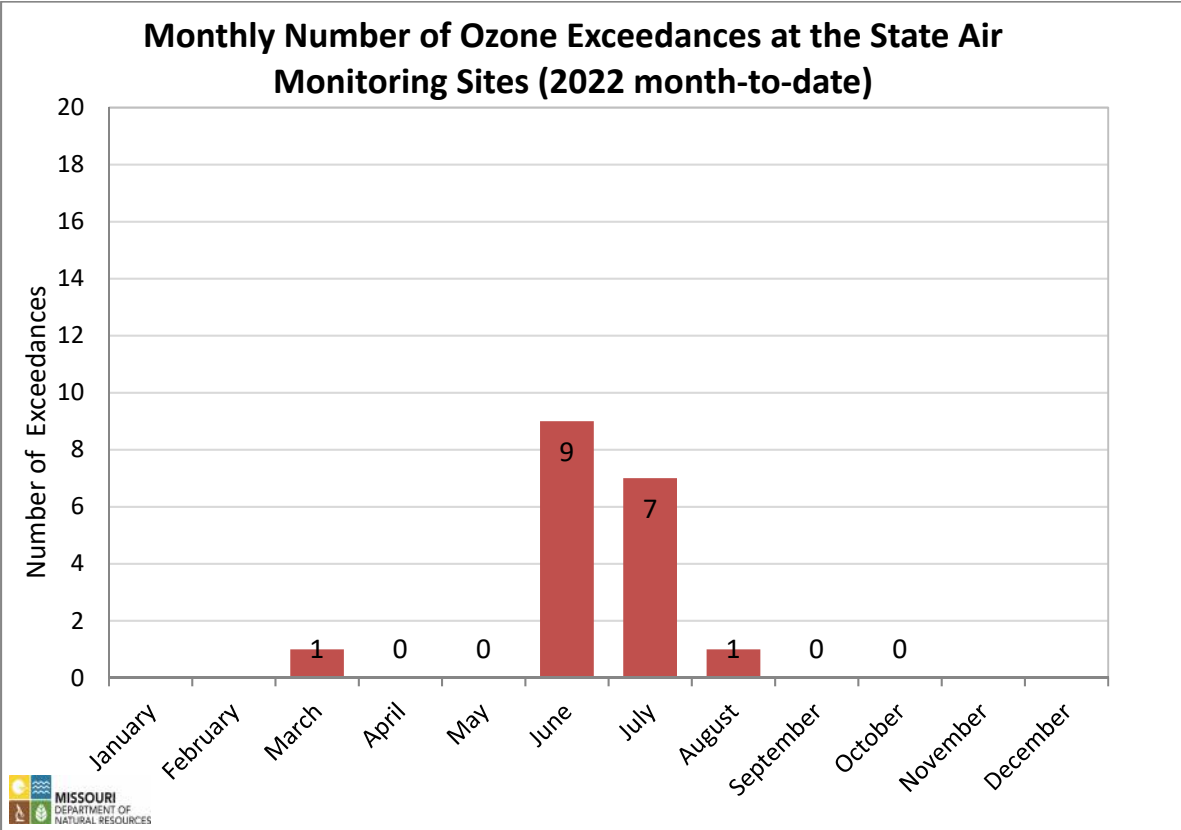
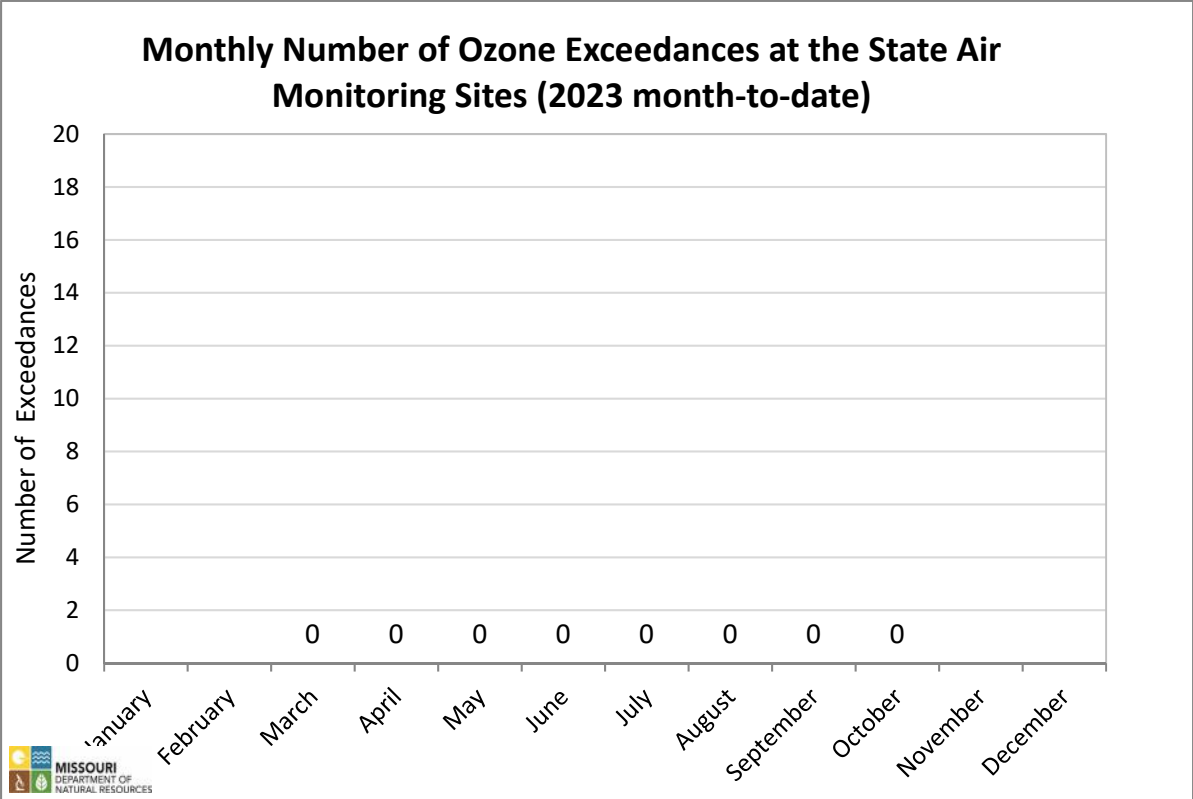
^cYear-to-date preliminary data. Do not cite or quote.

*Year-round ozone monitoring. Blair Street is an Ncore and a PAMS site.

Averages in red and bold recorded from the primary monitor and exceed the 2015 standard.

Averages in green recorded from the secondary monitor, primary monitor inoperative at that time.

Averages in green and bold recorded from the secondary monitor and exceed the 2015 standard.





Daily 2023 Maximum Average Eight-Hour Concentration of Ground-Level Ozone in Parts per Million [^]

Ozone Season is from March 1 to October 31

	Area's Maximum	Site's Maximum	1-Mar	2-Mar	3-Mar	4-Mar	5-Mar	6-Mar	7-Mar	8-Mar
<i>St. Louis</i>										
	0.060									
Arnold West		0.057	0.045	0.033	0.033	0.043	0.047	0.050	0.039	0.036
Blair Street*		0.056	0.040	0.028	0.032	0.038	0.045	0.049	0.034	0.030
Foley West		0.057	0.044	0.038	0.033	0.044	0.046	0.048	0.042	0.035
Maryland Heights		0.057	0.043	0.035	0.033	0.042	0.048	0.049	0.040	0.035
Orchard Farm		0.056	0.042	0.036	0.033	0.039	0.046	0.048	0.040	0.036
Pacific		0.055	0.044	0.031	0.034	0.039	0.047	0.051	0.038	0.035
West Alton		0.060	0.043	0.038	0.036	0.042	0.048	0.051	0.042	0.037
<i>Ste. Genevieve</i>										
	0.059									
Bonne Terre		0.059	0.049	0.034	0.037	0.043	0.048	0.051	0.038	0.037
<i>Southeast</i>										
	0.059									
Farrar		0.059	0.048	0.036	0.038	0.044	0.049	0.051	0.041	0.040
<i>Kansas City</i>										
	0.059									
Liberty		0.058	0.044	0.033	0.037	0.043	0.055	0.039	0.039	0.031
RG South		0.055	0.039	0.030	0.039	0.043	0.055	0.041	0.037	0.031
Rocky Creek		0.058	0.045	0.034	0.036	0.046	0.056	0.040	0.040	0.033
Trimble		0.057	0.045	0.033	0.040	0.045	0.054	0.039	0.039	0.031
Watkins Mill		0.059	0.044	0.034	0.038	0.045	0.056	0.039	0.040	0.032
<i>Springfield</i>										
	0.056									
Fellows Lake		0.056	0.043	0.039	0.036	0.044	0.046	0.052	0.039	0.036
Hillcrest H.S.		0.054	0.042	0.037	0.035	0.042	0.044	0.051	0.037	0.034
<i>Outstate</i>										
	0.057									
Alba		0.055	0.040	0.035	0.033	0.042	0.053	0.051	0.035	0.032
El Dorado Springs		0.056	0.044	0.036	0.035	0.045	0.049	0.047	0.036	0.031
Finger Lakes		0.052	0.040	0.036	0.032	0.042	0.045	0.042	0.041	0.035
Mark Twain*		0.049	0.041	0.035	0.028	0.043	0.041	0.040	0.041	0.036
New Bloomfield		0.053	0.041	0.035	0.034	0.043	0.046	0.046	0.039	0.035
Savannah		0.057	0.043	0.033	0.044	0.043	0.051	0.040	0.039	0.030

[^]All the 2023 data have not been quality assured and the values are preliminary. Do not cite or quote.

*Year-round ozone monitoring. Blair Street is an Ncore and a PAMS site.

Averages in red or bold recorded from the primary monitor and exceed the 2015 standard.

Averages in green recorded from the secondary monitor, primary monitor inoperative at that time.

Averages in green and bold recorded from the secondary monitor and exceed the standard.

The 'm' code is a placeholder for missing data on the primary and secondary monitors.

Cont.

Daily 2023 Maximum Average Eight-Hour Concentration of Ground-Level Ozone in Parts per Million

Ozone Season is from March 1 to October 31

	9-Mar	10-Mar	11-Mar	12-Mar	13-Mar	14-Mar	15-Mar	16-Mar	17-Mar	18-Mar	19-Mar
<u>St. Louis</u>											
Arnold West	0.031	0.038	0.037	0.036	0.036	0.042	0.045	0.043	0.044	0.038	0.044
Blair Street*	0.029	0.038	0.032	0.037	0.037	0.038	0.047	0.038	0.044	0.039	0.043
Foley West	0.029	0.040	0.035	0.039	0.039	0.044	0.046	0.043	0.046	0.040	0.045
Maryland Heights	0.030	0.038	0.035	0.037	0.037	0.043	0.045	0.041	0.044	0.039	0.043
Orchard Farm	0.029	0.039	0.035	0.038	0.038	0.042	0.043	0.039	0.043	0.037	0.041
Pacific	0.031	0.038	0.037	0.038	0.038	0.044	0.047	0.043	0.045	0.038	0.043
West Alton	0.031	0.041	0.037	0.039	0.039	0.041	0.046	0.040	0.044	0.039	0.043
<u>Ste. Genevieve</u>											
Bonne Terre	0.033	0.041	0.038	0.036	0.040	0.043	0.047	0.044	0.046	0.041	0.045
<u>Southeast</u>											
Farrar	0.033	0.041	0.039	0.036	0.039	0.044	0.047	0.043	0.046	0.041	0.044
<u>Kansas City</u>											
Liberty	0.030	0.037	0.029	0.038	0.039	0.042	0.047	0.042	0.044	0.040	0.044
RG South	0.031	0.034	0.028	0.038	0.037	0.043	0.045	0.039	0.041	0.039	0.043
Rocky Creek	0.032	0.039	0.030	0.039	0.039	0.041	0.049	0.044	0.044	0.041	0.045
Trimble	0.031	0.037	0.031	0.038	0.039	0.043	0.049	0.043	0.044	0.040	0.045
Watkins Mill	0.030	0.036	0.031	0.039	0.039	0.043	0.048	0.042	0.045	0.040	0.045
<u>Springfield</u>											
Fellows Lake	0.032	0.035	0.035	0.035	0.040	0.045	0.048	0.041	0.046	0.045	0.046
Hillcrest H.S.	0.030	0.034	0.033	0.034	0.038	0.041	0.047	0.039	0.045	0.043	0.044
<u>Outstate</u>											
Alba	0.024	0.034	0.029	0.036	0.038	0.045	0.048	0.042	0.044	0.042	0.045
El Dorado Springs	0.029	0.036	0.030	0.039	0.038	0.043	0.047	0.041	0.045	0.043	0.046
Finger Lakes	0.031	0.036	0.033	0.038	0.039	0.043	0.045	0.042	0.045	0.038	0.043
Mark Twain*	0.030	0.039	0.033	0.039	0.038	0.042	0.044	0.040	0.045	0.037	0.042
New Bloomfield	0.030	0.037	0.032	0.038	0.039	0.041	0.047	0.042	0.045	0.040	0.043
Savannah	0.031	0.036	0.029	0.039	0.039	0.042	0.048	0.043	0.044	0.040	0.046

Cont.

Daily 2023 Maximum Average Eight-Hour Concentration of Ground-Level Ozone in Parts per Million

Ozone Season is from March 1 to October 31

	20-Mar	21-Mar	22-Mar	23-Mar	24-Mar	25-Mar	26-Mar	27-Mar	28-Mar	29-Mar	30-Mar
<u>St. Louis</u>											
Arnold West	0.050	0.041	0.032	0.026	0.030	0.046	0.047	0.051	0.042	0.053	0.057
Blair Street*	0.048	0.038	0.030	0.025	0.026	0.043	0.048	0.048	0.039	0.046	0.056
Foley West	0.051	0.042	0.033	0.029	0.034	0.048	0.048	0.051	0.043	0.051	0.057
Maryland Heights	0.052	0.042	0.033	0.028	0.032	0.045	0.048	0.051	0.042	0.052	0.057
Orchard Farm	0.048	0.039	0.031	0.030	0.034	0.043	0.047	0.05	0.041	0.051	0.056
Pacific	0.054	0.041	0.033	0.027	0.031	0.044	0.049	0.051	0.042	0.051	0.055
West Alton	0.050	0.041	0.033	0.032	0.036	0.046	0.049	0.053	0.045	0.053	0.060
<u>Ste. Genevieve</u>											
Bonne Terre	0.050	0.043	0.038	0.032	0.030	0.046	0.047	0.051	0.045	0.051	0.059
<u>Southeast</u>											
Farrar	0.048	0.045	0.039	0.032	0.032	0.047	0.050	0.049	0.044	0.054	0.059
<u>Kansas City</u>											
Liberty	0.047	0.040	0.022	0.039	0.042	0.048	0.039	0.049	0.047	0.052	0.047
RG South	0.045	0.039	0.022	0.034	0.038	0.048	0.036	0.049	0.046	0.051	0.043
Rocky Creek	0.047	0.042	0.023	0.041	0.044	0.049	0.040	0.051	0.049	0.053	0.047
Trimble	0.048	0.041	0.025	0.040	0.042	0.048	0.040	0.049	0.049	0.054	0.048
Watkins Mill	0.049	0.045	0.024	0.039	0.043	0.049	0.039	0.049	0.048	0.054	0.047
<u>Springfield</u>											
Fellows Lake	0.056	0.041	0.036	0.031	0.034	0.051	0.051	0.048	0.048	0.054	0.053
Hillcrest H.S.	0.054	0.038	0.033	0.029	0.033	0.050	0.049	0.047	0.046	0.052	0.049
<u>Outstate</u>											
Alba	0.051	0.041	0.036	0.033	0.031	0.050	0.040	0.048	0.046	0.055	0.047
El Dorado Springs	0.050	0.040	0.035	0.032	0.034	0.050	0.040	0.049	0.047	0.056	0.045
Finger Lakes	0.051	0.042	0.030	0.031	0.036	0.048	0.042	0.05	0.041	0.052	0.052
Mark Twain*	0.049	0.038	0.028	0.031	0.036	0.047	0.042	0.049	0.043	0.048	0.049
New Bloomfield	0.050	0.042	0.030	0.026	0.030	0.047	0.042	0.049	0.041	0.050	0.053
Savannah	0.049	0.041	0.031	0.042	0.045	0.051	0.042	0.051	0.050	0.046	0.047

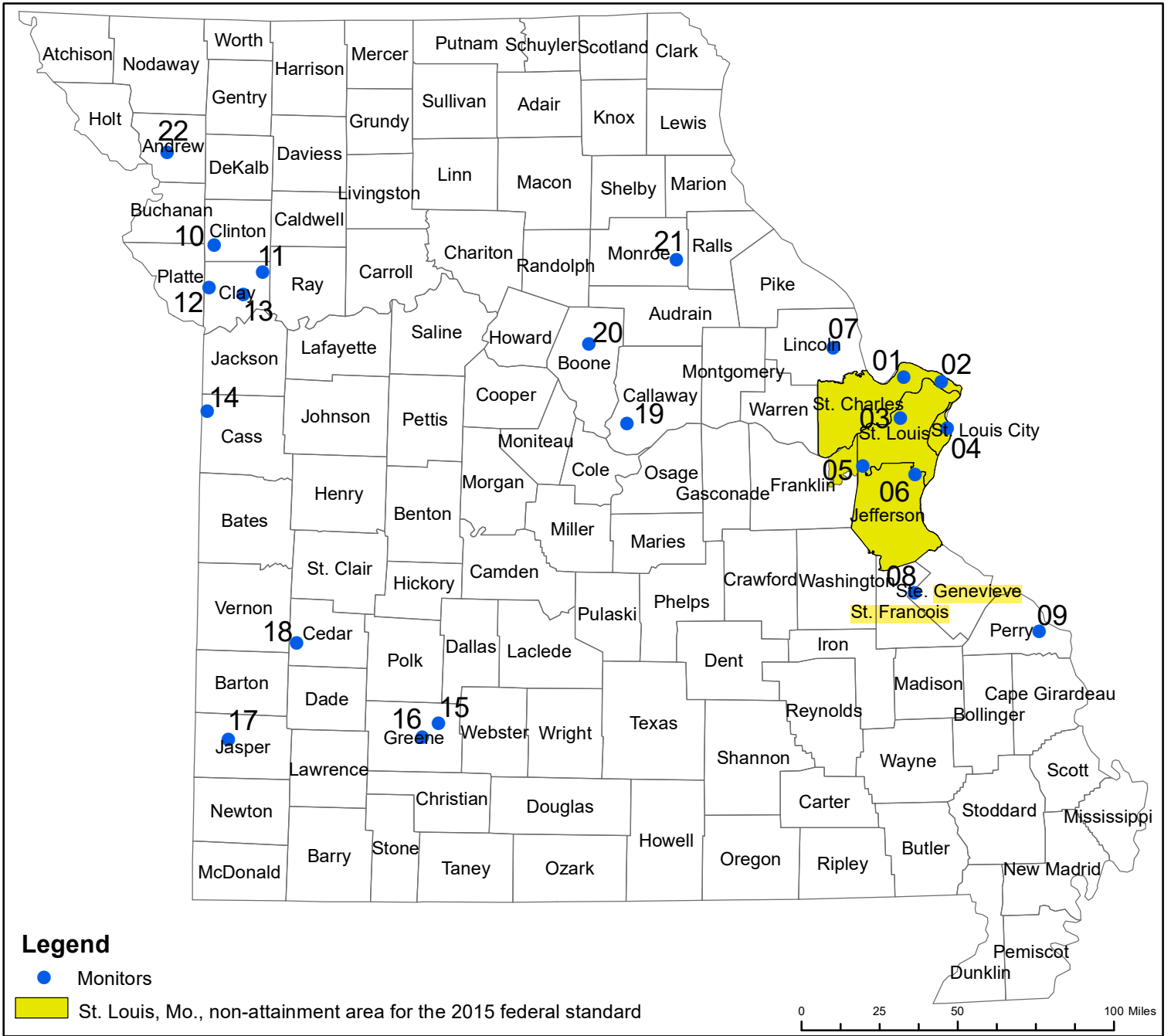
Cont.

Daily 2023 Maximum Average Eight-Hour Concentration of Ground-Level Ozone in Parts per Million

Ozone Season is from March 1 to October 31

	31-Mar	1-Apr	2-Apr	3-Apr	4-Apr	5-Apr	6-Apr	7-Apr	8-Apr	9-Apr	10-Apr
<u>St. Louis</u>											
Arnold West	0.051	0.047	0.051								
Blair Street*	0.047	0.045	0.048								
Foley West	0.048	0.047	0.052								
Maryland Heights	0.050	0.046	0.051								
Orchard Farm	0.047	0.044	0.048								
Pacific	0.047	0.046	0.052								
West Alton	0.050	0.047	0.050								
<u>Ste. Genevieve</u>											
Bonne Terre	0.053	0.049	0.052								
<u>Southeast</u>											
Farrar	0.054	0.051	0.052								
<u>Kansas City</u>											
Liberty	0.047	0.049	0.058								
RG South	0.048	0.047	0.055								
Rocky Creek	0.047	0.050	0.058								
Trimble	0.046	0.050	0.057								
Watkins Mill	0.047	0.050	0.059								
<u>Springfield</u>											
Fellows Lake	0.056	0.050	0.055								
Hillcrest H.S.	0.053	0.048	0.050								
<u>Outstate</u>											
Alba	0.054	0.049	0.051								
El Dorado Springs	0.052	0.049	0.051								
Finger Lakes	0.047	0.047	0.051								
Mark Twain*	0.043	0.046	0.049								
New Bloomfield	0.052	0.047	0.051								
Savannah	0.047	0.051	0.057								

Missouri Ozone (O3) Monitoring Network, 2023



St. Louis Area

- 01 Orchard Farm
- 02 West Alton
- 03 Maryland Heights
- 04 Blair Street**
- 05 Pacific
- 06 Arnold West
- 07 Foley West

Ste. Genevieve Area

- 08 Bonne Terre

Southeast Area

- 09 Farrar

Kansas City Area

- 10 Trimble
- 11 Watkins Mill State Park
- 12 Rocky Creek
- 13 Liberty
- 14 Richards Gebaur-South

Springfield Area

- 15 Fellows Lake
- 16 Hillcrest High School

Outstate Area

- 17 Alba
- 18 El Dorado Springs
- 19 New Bloomfield
- 20 Finger Lakes State Park
- 21 Mark Twain State Park**
- 22 Savannah

