



IEPA/BOA/IL-2026-001

Illinois Annual Air Quality Report 2024

Executive Summary

This report presents a summary of air quality data collected throughout the State of Illinois during calendar year 2024. Data is presented for the six criteria pollutants (those for which air quality standards have been developed – particulate matter (PM₁₀ and PM_{2.5}), ozone, sulfur dioxide, nitrogen dioxide, carbon monoxide, and lead – along with some heavy metals, volatile organic compounds and toxic compounds. Monitoring was conducted at 60 different site locations collecting data from 128 instruments.

In terms of the Air Quality Index (AQI), air quality during 2024 was either good or moderate 96% of the time throughout Illinois. There were no days in 2024 when at least one monitoring site registered Very Unhealthy AQI (category purple). This compares with two Very Unhealthy days in 2023 attributed to wildfire smoke. There were two days (one for ozone and one for PM_{2.5}) when at least one monitoring site registered Unhealthy AQI (category red). This compares with 10 Unhealthy days in 2023. In 2024, there were 14 days (all for ozone) when AQI in at least one part of Illinois was considered Unhealthy for Sensitive Groups (category orange). This compares with 32 Unhealthy for Sensitive Groups days in 2023.

Section 1: Statewide Summary of Air Quality

OZONE

Monitoring was conducted at 36 locations during the March-October "ozone season" and at least 75 percent data capture was obtained at all 36 sites.

Evanston recorded the highest 1-hour concentration of 0.111 ppm for Illinois Chicago area monitors. This compares with the highest concentration of 0.119 ppm in 2023 at Elgin. The highest 1-hour for Metro-East in 2024 was 0.113 ppm recorded at Wood River, compared with a 2023 high of 0.099 ppm at East St. Louis.

Data are also presented to compare with the current 8-hour standard as of 2016 of 0.070 ppm. The appropriate statistic for comparison with the 8-hour standard is the fourth highest value, which is averaged over a three-year period. There were three sites in Illinois that had a fourth-high value above 0.070 ppm in 2024 compared with 36 sites in 2023. The highest Illinois Chicago area fourth-high value was 0.078 ppm at Zion. The highest level in the Metro-East area was 0.069 ppm at Alton. For the three-year period 2022-2024, 16 sites had a fourth-high average above 0.070 ppm (**Table B5**).

Figure 1 shows for each year the statewide average of each site's highest hourly ozone value for the ten-year period 2015-2024. The graph shows some year-to-year fluctuation with high years occurring during summers with more favorable meteorology for ozone formation and low years in summers less conducive for ozone formation. The statewide average for 2024 was 0.083 ppm compared with 0.095 ppm in 2023 and 0.085 ppm in 2022.

Statewide, the total number of 1-hour excursion days in 2024 was zero compared with zero in 2023 and zero in 2022.

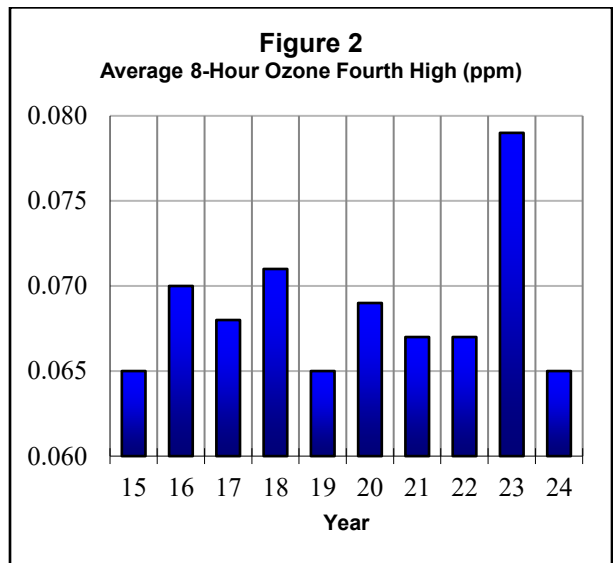
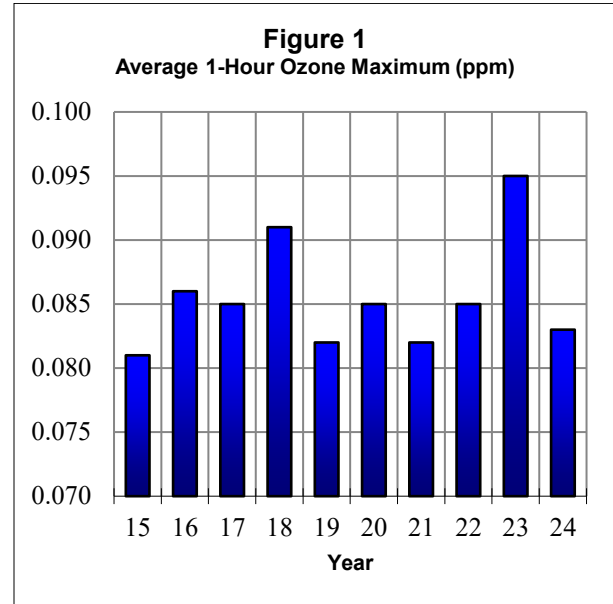


Figure 2 shows for each year the statewide annual average of the fourth highest 8-hour ozone value 2015-2024. The statewide average for 2024 was 0.065 ppm compared with 0.079 ppm in 2023 and 0.067 in 2022.

Section 1: Statewide Summary of Air Quality

PARTICULATE MATTER

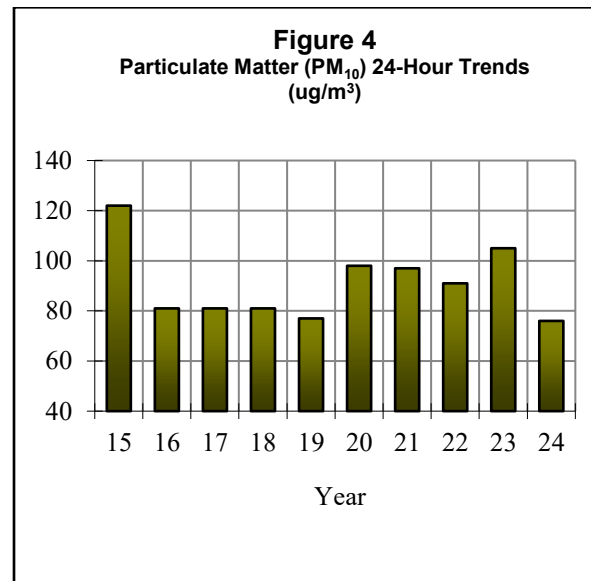
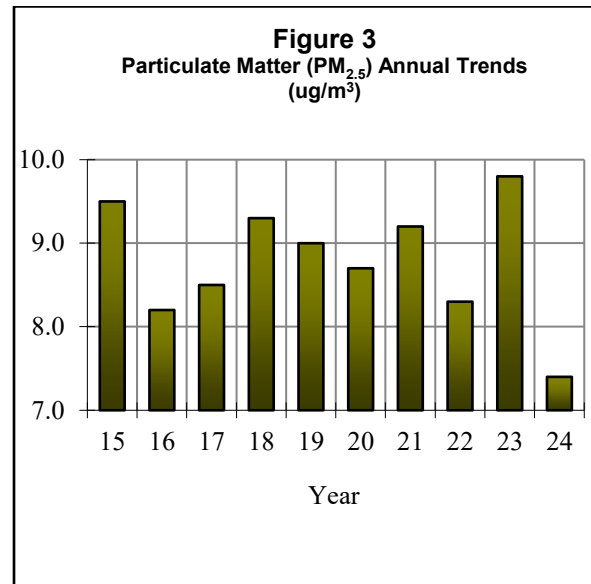
Monitoring was conducted at 34 sites for PM_{2.5}. In 2024, no sites recorded an annual average above 9.0 ug/m³, the level of the annual standard. The statewide average of the annual averages was 7.4 ug/m³ in 2024 compared to 9.8 ug/m³ in 2023.

Figure 3 shows the trend of the statewide annual averages for PM_{2.5} for the period 2015-2024. There was one exceedance of the 24-hour standard of 35 ug/m³ in 2024 compared with 84 exceedances in 2023 and one exceedance in 2022. The statewide peak of 75.7 ug/m³ was recorded in Granite City. In 2024, the statewide 98-percentile 24-hour average was 16.9 ug/m³. This compares with 25.1 ug/m³ in 2023 and 21.1 ug/m³ in 2022.

In 2024 there were four sites monitoring PM₁₀. The statewide annual average was 21 ug/m³ compared with 25 ug/m³ in 2023 and 28 ug/m³ in 2022. The highest annual average was 26 ug/m³ at Chicago Washington High School. The lowest annual average was 12 ug/m³ at Northbrook.

For PM₁₀, the statewide average of the maximum 24-hour averages in 2024 was 76 ug/m³ compared with 105 ug/m³ in 2023 and 91 ug/m³ in 2022. **Figure 4** depicts this information for the period 2015-2024.

There was one exceedance of the 24-hour primary standard of 150 ug/m³ in 2023. The highest 24-hour average was recorded in Lyons Township with a value of 155 ug/m³ compared with a high 24-hour value of 139 ug/m³ in Lyons Township in 2022.

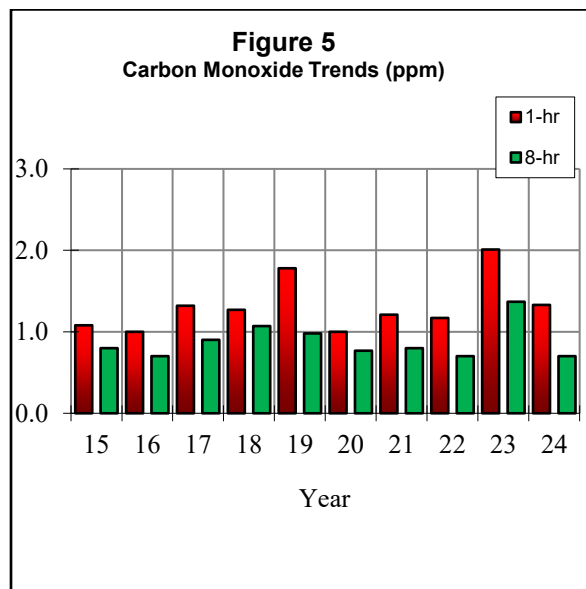


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CARBON MONOXIDE

There were no exceedances of either the 1-hour primary standard of 35 ppm or the 8-hour primary standard of 9 ppm in 2024. The highest 1-hour average was 2.7 ppm recorded at the Lansing-Kingery near-road location. The highest 8-hour average was 1.2 ppm also recorded at the Lansing-Kingery near-road location.

Figure 5 shows the trend for the period 2015-2024 for the statewide average of the 1-hour and 8-hour high CO values. The statewide average of the 1-hour high was 1.33 ppm in 2024 compared with 2.01 ppm in 2023. The statewide average for the 8-hour high was 0.70 ppm in 2024 compared with 1.37 ppm in 2023.



SULFUR DIOXIDE

There were five exceedances of the 1-hour primary standard of 75 ppb in 2024 compared with four exceedances in 2023. The highest 1-hour average was 153 ppb recorded at the Decatur-Primient location compared with 147 ppb at the Decatur-Primient location in 2023. The statewide average of the 1-hour high in 2024 was 36 ppb. This compares with 31 ppb in 2023. There were no sites over the primary 1-hour standard of 75 ppb for the 2022-2024 period (**Table B21**).

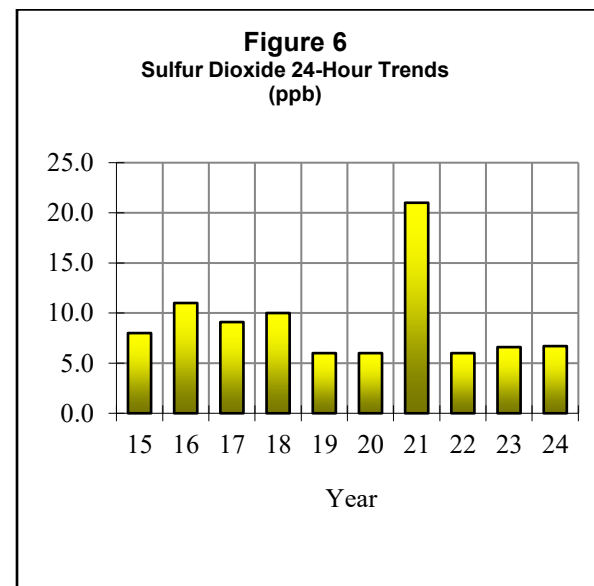


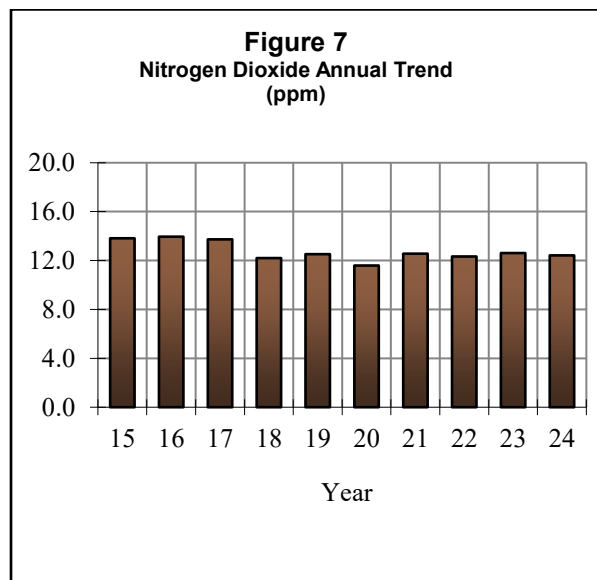
Figure 6 shows the statewide trend for the maximum 24-hour averages for the period 2015-2024. The statewide average for 2024 was 6.7 ppb. This compares with an average of 6.6 ppb in 2023.

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NITROGEN DIOXIDE

There were no violations of the annual primary standard of 53 ppb recorded in Illinois during 2024. The highest annual average of 18.8 ppb was recorded at Schiller Park. The statewide annual average for 2024 was 12.4 ppb compared with 12.6 ppb in 2023 and 12.3 ppb in 2022. There was one violation of the 1-hour primary standard in East St. Louis, likely influenced by Fourth of July fireworks. There were no sites over the 1-hour primary standard of 100 ppb for the 2022-2024 period compared to zero sites for the 2021-2023 period (**Table B25**).

Figure 7 depicts the trend of statewide annual averages from 2015-2024. There have been no violations of the annual standard since 1980.



LEAD

There were no violations of the rolling three-month maximum mean standard (0.15 ug/m^3) for the 2022 to 2024 period (**Table B28**).

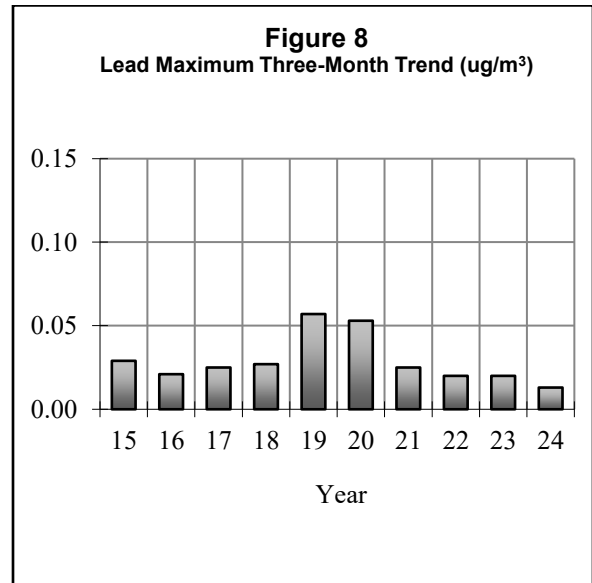


Figure 8 shows the trend of the statewide maximum rolling three-month averages from 2015-2024. All monitoring locations in the State have three-year maximum averages under the national standard for lead. The statewide average for all sites was 0.013 ug/m^3 in 2024 compared to 0.020 ug/m^3 in 2023 and 0.020 ug/m^3 in 2022.

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FILTER ANALYSIS RESULTS

The total suspended particulate samples were analyzed, in addition to lead, for specific metals (**Table B29**, **Table B30**, **Table B31**, and **Table B32**). Several of the metals analyzed (cadmium, chromium, manganese, and nickel) have known toxic properties. There are currently no state or federal ambient air quality standards for these parameters.

The areas with the highest metals concentrations in Illinois are generally the heavily industrialized areas of the Metro-East (Granite City), south Chicago, and near source-oriented monitors. The highest 24-hour average for nickel was 0.027 ug/m³ measured in Granite City. The monitor at Chicago Washington High School recorded the highest cadmium

concentration with a 24-hour average of 0.002 ug/m³. The highest 24-hour chromium average was 0.017 ug/m³ recorded at Chicago Washington High School. The highest 24-hour manganese average was 0.241 ug/m³ recorded in Granite City.

TOXIC COMPOUNDS

Sampling for toxic compounds other than metals was conducted at Northbrook and Schiller Park. Many compounds were below the method detection limits. **Table B33** has a listing of various toxic compound maximums and annual averages.

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Table 1: Summary of National and Illinois Ambient Air Quality Standards

Pollutant	Primary/ Secondary	Averaging Time	Level	Form
Carbon Monoxide	primary	8-hour	9 ppm	Not to be exceeded more than once per year
Carbon Monoxide	primary	1-hour	35 ppm	Not to be exceeded more than once per year
Lead	primary and secondary	Rolling 3-month average	0.15 µg/m ³	Not to be exceeded
Nitrogen Dioxide	primary	1-hour	100 ppb	98th percentile, averaged over 3 years
Nitrogen Dioxide	primary and secondary	Annual	53 ppb	Annual Mean
Ozone	primary and secondary	8-hour	0.070 ppm	Annual fourth-highest daily maximum 8-hr concentration, averaged over 3 years
PM2.5	primary	Annual	9.0 µg/m ³	Annual mean, averaged over 3 years
PM2.5	secondary	Annual	15.0 µg/m ³	Annual mean, averaged over 3 years
PM2.5	primary and secondary	24-hour	35 µg/m ³	98th percentile, averaged over 3 years
PM10	primary and secondary	24-hour	150 µg/m ³	Not to be exceeded more than once per year on average over 3 years
Sulfur Dioxide	primary	1-hour	75 ppb	99th percentile of 1-hour daily maximum concentrations, averaged over 3 years
Sulfur Dioxide	secondary	3-hour	0.5 ppm	Not to be exceeded more than once per year

Table 2: Illinois Air Pollution Episode Levels

Pollutant	Advisory	Yellow Alert	Red Alert	Emergency
Particulate Matter (µg/m ³)	2-hour 420	24-hour 350	24-hour 420	24-hour 500
Sulfur Dioxide (ppm)	2-hour 0.30	4-hour 0.30	4-hour 0.35	4-hour 0.40
Carbon Monoxide (ppm)	2-hour 30	8-hour 15	8-hour 30	8-hour 40
Nitrogen Dioxide (ppm)	2-hour 0.40	1-hour 0.60 or 24-hour 0.15	1-hour 1.20 or 24-hour 0.30	1-hour 1.60 or 24-hour 0.40
Ozone (ppm)	1-hour 0.12	1-hour 0.20	1-hour 0.30	1-hour 0.50

Section 2: Air Quality Index

Air Quality Index

The Air Quality Index (AQI) is the national standard method for reporting air pollution levels to the public. An index such as the AQI is necessary because there are several air pollutants, each with different typical ambient concentrations and each with different levels of harm, and to report actual concentrations for all of them would be confusing. The AQI uses a single number and a short descriptor to define the air quality in an easy-to-remember and easy-to-understand way, taking all the pollutants into account.

The AQI is based on the short-term federal National Ambient Air Quality Standards (NAAQS), for six of the criteria pollutants, namely:

- Ozone (O₃)
- Sulfur dioxide (SO₂)
- Carbon monoxide (CO)
- Particulate matter (PM₁₀)
- Particulate matter (PM_{2.5})
- Nitrogen dioxide (NO₂)

In each case, the short-term primary NAAQS corresponds to 100 on the AQI scale – the top end of the Moderate category. The next concentration above the NAAQS would begin the Unhealthy for Sensitive Groups category at 101 on the AQI scale. **Table 3** lists all the AQI ranges and their descriptor categories and lists each AQI category description.

Unhealthy for Sensitive Groups occurs on occasion for 8-hour ozone, PM_{2.5}, and downwind of certain SO₂ sources. Unhealthy air quality is uncommon in Illinois, and Very Unhealthful air quality is rare. There has never been an occurrence of Hazardous AQI in Illinois.

Calculations for AQI values can be found at AirNow.gov as well as other useful hourly air quality products. The final daily AQI is computed from the follow data sets:

- O₃ the highest 8-hour average with a starting time of 7AM to a starting time of 11PM for that calendar day.
- SO₂ the highest 1-hour average with a max AQI of 200. AQI over 200 uses 24-hour averages for that calendar day.
- CO the highest 8-hour average so for that calendar day
- PM₁₀ 24-hour average for that calendar day
- PM_{2.5} 24-hour average for that calendar day
- NO₂ the highest 1-hour average

Continuous monitors are utilized for all the pollutants, including PM₁₀ and PM_{2.5}.

Once all the sub-indices for the various pollutants have been computed, the highest is chosen. That is the AQI for the area and the pollutant giving rise to it is the "critical pollutant." Thus if, for Anytown, Illinois, the following sub-indices were obtained:

O ₃	= 45
SO ₂	= 23
CO	= 19
PM ₁₀	= 41
PM _{2.5}	= 61

Anytown's AQI for that day would be 61, which is in the Moderate category, and the critical pollutant would be particulates (PM_{2.5}). If data for one of the pollutants used in computing AQI is missing, the AQI is computed using the data available, ignoring the missing data. It occasionally happens that two pollutants have the same sub index; in such cases there are two critical pollutants.

The Illinois EPA issues an AQI forecast for 14 areas, or sectors, in Illinois (**Table 4**). These correspond to metropolitan areas with populations greater than 100,000.

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Table 3: Air Quality Index Categories and Health Concerns

Daily AQI Color	Levels of Concern	Values of Index	Description of Air Quality
Green	Good	0 - 50	Air quality is satisfactory, and air pollution poses little or no risk.
Yellow	Moderate	51 - 100	Air quality is acceptable. However, there may be a risk for some people, particularly those who are unusually sensitive to air pollution.
Orange	Unhealthy for Sensitive Groups	101 -150	Members of sensitive groups may experience health effects. The general public is less likely to be affected.
Red	Unhealthy	151 - 200	Some members of the general public may experience health effects; members of sensitive groups may experience more serious health effects.
Purple	Very Unhealthy	201 - 300	Health alert: The risk of health effects is increased for everyone.
Maroon	Hazardous	301 and higher	Health warning of emergency conditions: everyone is more likely to be affected.

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Table 4: Air Quality Index Sectors in Illinois

Sector/Sub-Sector	Coverage Area
Lake County	Sub-Sector of Chicago Metropolitan Area including Lake County sites and Cary PM2.5
Chicago	Sub-Sector of Chicago Metropolitan Area including all areas within the city limits of Chicago and including monitoring sites at Springfield Pump Station, Kennedy Near Road, South Water Filtration Plant, Taft High School, and ComEd/Lawndale
North and West Suburbs	Sub-Sector of Chicago Metropolitan Area including parts of Cook, Du Page, and McHenry Counties north of I-290 (Eisenhower Expressway) and outside of the Chicago city limits
South and West Suburbs	Sub-Sector of Chicago Metropolitan Area including parts of Cook and Du Page Counties south of I-290 and outside of the Chicago city limits
Will County/Joliet	Sub-Sector of Chicago Metropolitan Area including Will County
Aurora-Elgin	Sub-Sector of Chicago Metropolitan Area including most of Kane County
Rockford	Rockford Metropolitan Area
Rock Island	The Illinois portion of the Quad Cities area
Peoria	Peoria Metropolitan Area
Champaign	Champaign-Urbana Metropolitan Area
Normal	Bloomington-Normal Metropolitan Area
Decatur	Decatur Metropolitan Area
Springfield	Springfield Metropolitan Area
Metro-East St. Louis	A portion of the St. Louis Metropolitan Area approximately 15 miles wide east of the Mississippi River in Illinois Madison, Monroe, and St. Clair Counties

Section 2: Air Quality Index

Illinois EPA AQI forecasts and AQI information can be obtained on EPA's AirNow website at <http://www.airnow.gov>. The AirNow website shows estimated real-time AQI levels for all sectors in Illinois as well as other areas around the country. AQI information can further be obtained via e-mail and/or cell phones through the EnviroFlash program located at <http://illinois.enviroflash.info/signup.cfm>.

The AirNow website and residents subscribed to EnviroFlash program can also receive alerts when high pollution levels are occurring or expected to occur. Additionally, Illinois AQI forecasts and current AQI levels are picked up and reported by various media outlets, weather websites, and electronic application programs.

2024 Illinois AQI Sector Summary

In order to present a more representative AQI, 24-hour calendar day FRM PM_{2.5} and PM₁₀ values from the total network were used to determine the percentages in the AQI pie charts even though these values were not available for issuing the daily AQI. The pie charts show the percent of days each sector was in a particular category.

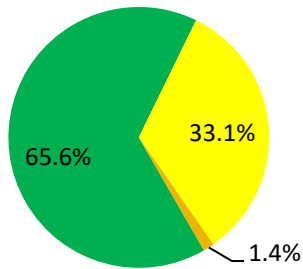
Air quality was in the "Good" and "Moderate" categories most often in 2024. Most sectors had a higher frequency of "Good" than "Moderate" as well as a higher frequency of "Moderate" than "Unhealthy for Sensitive Groups."

In 2024, there were no ozone advisories issued in Illinois. An advisory is declared when ozone levels have reached the level of the former 1-hour standard (0.125 ppm) on a particular day. There were four Air Pollution Action Days issued for the

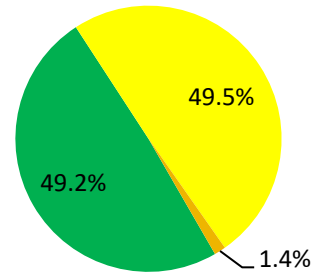
Chicago MSA in 2024. There were no statewide Action Days. This compares with 17 Action Days in 2023 for the Chicago MSA and five statewide Action Days.

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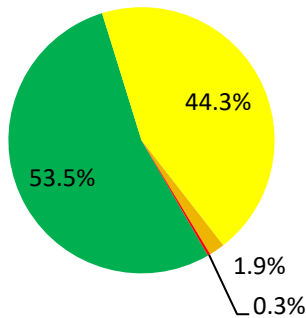
Chicago Sector - Lake County



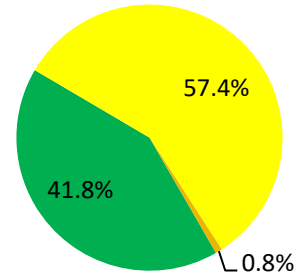
Chicago Sector - Chicago



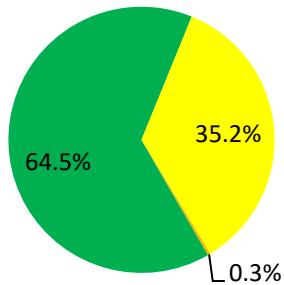
Chicago Sector - North & West Suburbs



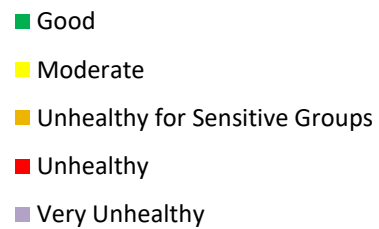
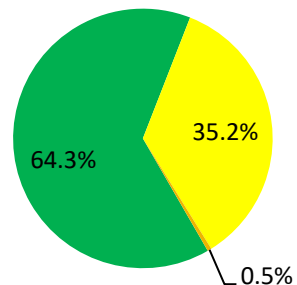
Chicago Sector - South & West Suburbs



Aurora - Elgin

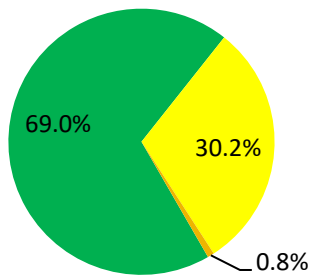


Joliet/Will County

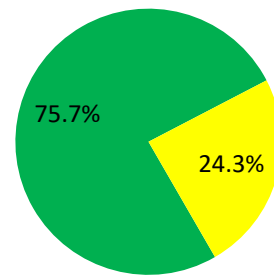


Section 2: Air Quality Index

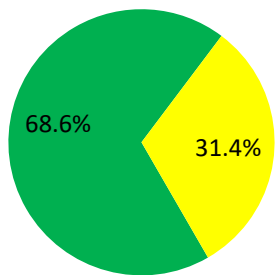
Rockford



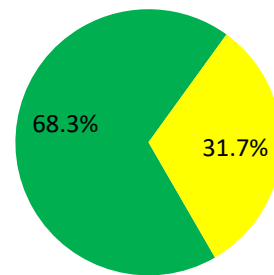
Rock Island



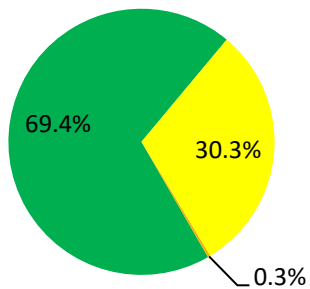
Peoria



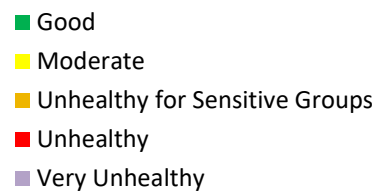
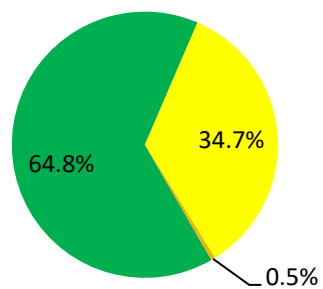
Champaign



Normal

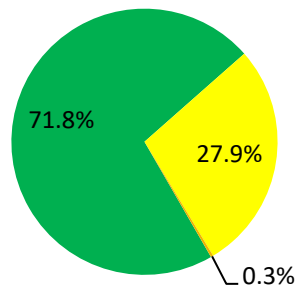


Decatur

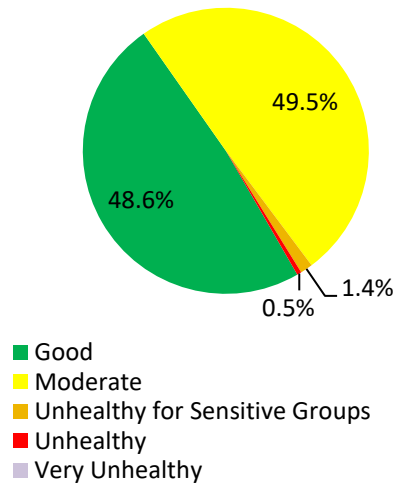


Section 2: Air Quality Index

Springfield



Metro-East (St. Louis)



Appendix A: Air Sampling Network

Description of the Air Sampling Network

The Illinois air monitoring network is composed of instrumentation owned and operated by both the Illinois EPA and by cooperating local agencies. This network has been designed to measure ambient air quality levels throughout the State of Illinois following federal guidelines.

The network contains both continuous and non-continuous instruments. The continuous instruments operate throughout the year, while non-continuous instruments operate intermittently based on USEPA's sampling calendar (3-day, 6-day, or 12-day schedule). This is the official non-continuous sampling schedule used by the Illinois EPA and can be found at <https://www.epa.gov/amtic/sampling-schedule-calendar>.

In accordance with USEPA air quality monitoring requirements as set forth in Title 40 of the Code of Federal Regulations, Part 58 (40 CFR 58), five types of monitoring stations are used to collect ambient air data. These include State and Local Air Monitoring Stations (SLAMS), National Air Monitoring Stations (NAMS), Photochemical Assessment Monitoring Stations (PAMS), Special Purpose Monitoring Stations (SPMS), and National Core Monitoring Stations (NCORE). The types of stations are distinguished from one another on the basis of the general monitoring objectives they are designed to meet.

The SLAMS, NAMS, PAMS, SPMS, and NCORE designations for the sites operated within the State of Illinois are provided in the Illinois Annual Network Plan. An updated air monitoring plan is submitted to USEPA each year for review. This plan can be found at <http://epa.illinois.gov/topics/air-quality/outdoor-air/air-monitoring.html>.

Table A1 is a summary of the distribution of pollutant monitors through the years along with the total number of instruments and the total number of sites. The site directory is listed in **Table A2** and the monitoring directory is listed in **Table A3**.

1. State/Local Air Monitoring Station (SLAMS) Network - The SLAMS network is designed to meet a minimum of four basic monitoring objectives:

- a. To determine the highest concentrations expected to occur in the area covered by the network.
- b. To determine representative concentrations in areas of high population density.
- c. To determine the air quality impact of significant sources or source categories.
- d. To determine general background concentration levels.

2. National Air Monitoring Station (NAMS) Network - The NAMS network is a subset of stations selected from the SLAMS network with emphasis given to urban and multisource areas. The primary objectives of the NAMS network are:

- a. To measure expected maximum concentrations.
- b. To measure concentrations in areas where poor air quality is combined with high population exposure.
- c. To provide data useable for the determination of national trends.
- d. To provide data necessary to allow the development of nationwide control strategies.

3. Photochemical Assessment Monitoring Station (PAMS) Network - The PAMS network is required in serious, severe, and extreme ozone nonattainment areas to obtain detailed data for ozone, precursors (NO_x and VOC), and meteorology. NO_x and VOC sampling is required for the period June - August each year. Ozone sampling occurs during the ozone season, March - October. Network design is

Appendix A: Air Sampling Network

based on four monitoring types. In Illinois, PAMS are required in the Chicago metropolitan area only.

- a. Type 1 sites are located upwind of the nonattainment area and are located to measure background levels of ozone and precursors coming into the area
 - b. Type 2 sites are located slightly downwind of the major source areas of ozone precursors.
 - c. Type 3 sites are located at the area of maximum ozone concentrations.
 - d. Type 4 sites are located at the domain edge of the nonattainment area and measure ozone and precursors leaving the area.
4. **Special Purpose Monitoring Station (SPMS) Network** - Any monitoring site that is not a designated SLAMS or NAMS is considered a special purpose monitoring station. Some of the SPMS network objectives are as follows:
- a. To provide data as a supplement to stations used in developing local control strategies, including enforcement actions.
 - b. To verify the maintenance of ambient standards in areas not covered by the SLAMS/NAMS network.
 - c. To provide data on non-criteria pollutants.
5. **National Core Station (NCore) Network** - NCore is a multi-pollutant network that integrates several advanced measurement systems. In Illinois, Northbrook and Bondville are considered NCore sites. A few of the NCore network objectives are as follows:
- a. Support for development of emission strategies and accountability of emission strategy progress through tracking long-term trends of pollutants and their precursors.
 - b. Support of long-term health assessments that contribute to review of national standards.
 - c. Support to scientific studies ranging across technological, health, and atmospheric process disciplines.
 - d. Support to ecosystem assessments recognizing that national air quality networks benefit ecosystems assessments.

Appendix A: Air Sampling Network

Table A1 - Distribution of Air Monitoring Equipment

Parameter	2024	2023	2022	2021	2020
Particulate Matter Federal Reference Method (PM _{2.5} FRM)	12	21	22	23	25
PM _{2.5} Federal Equivalent Method (PM _{2.5} FEM)	30	21	20	19	17
PM _{10-2.5} (PM Coarse)	1	1	1	1	1
PM _{2.5} Air Quality Index (non-FEM)	3	5	5	7	7
PM _{2.5} Speciation	4	4	4	4	4
Particulate Matter (PM ₁₀)	5	5	5	5	5
Lead (Pb)	5	5	7	7	5
Sulfur Dioxide (SO ₂)	13	13	13	13	14
Nitrogen Dioxide (NO ₂)	8	8	8	8	7
Total Reactive Nitrogen (NO _y)	2	2	2	2	2
Ozone (O ₃)	36	36	37	37	37
Carbon Monoxide (CO)	3	3	3	3	3
Volatile Organic Compounds	2	2	2	2	2
Semi Volatile Organic Compounds	1	1	1	1	1
Semi Non-Methane Organic Compounds	1	1	1	1	1
Carbonyls	2	2	2	2	2
Total Instruments	128	130	133	135	133
Total Sites	60	61	64	64	64

Note, the above table includes colocated monitors but does not include meteorological instrumentation

Appendix A: Air Sampling Network

Statewide Air Monitoring Site Locations - 2024

See the 2024 Site Directory (Table A2)
for additional information.

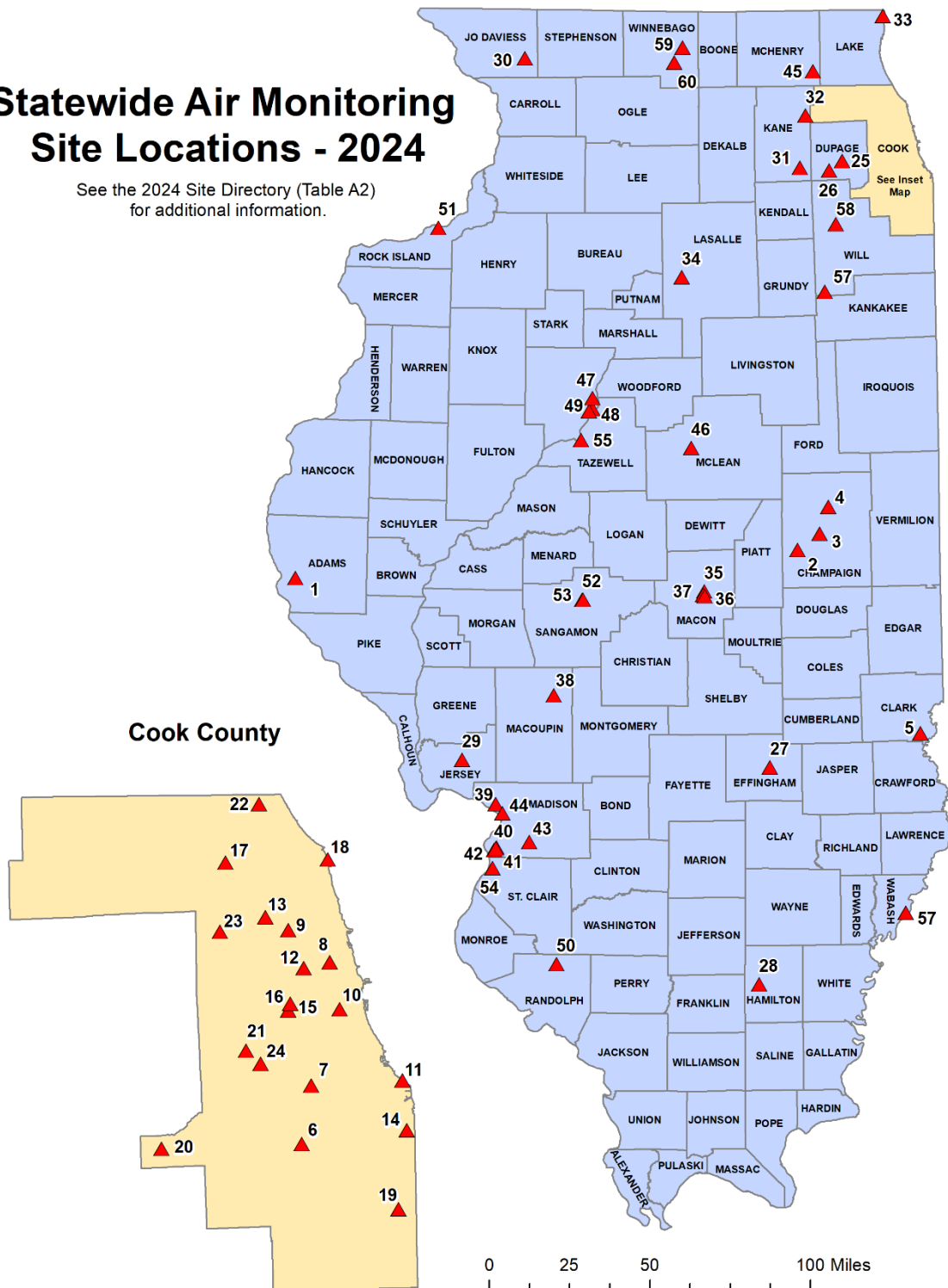


Table A2 Site Directory

Table A2 – Ambient Air Monitoring Site Directory

Site Map ID	AQS ID	County	City	Address	Latitude Longitude	Owner / Operator
1	17-001-0007	Adams	Quincy	John Wood Comm. College 1301 South 48th St.	+39.91540937 -91.33586832	IL EPA
2	17-019-1001	Champaign	Bondville	State Water Survey Township Rd. 500 E.	+40.052780 -88.372510	IL EPA/US EPA
3	17-019-0006	Champaign	Champaign	709 N. Champaign St.	+40.123066 -88.240172	IL EPA
4	17-019-0007	Champaign	Thomasboro	North Thomas St.	+40.244913 -88.188519	IL EPA
5	17-023-0001	Clark	West Union	416 S. State Highway 1 & West Union	+39.210883 -87.668416	Indiana DEP
6	17-031-0001	Cook	Alsip	Village Garage 4500 W. 123rd St.	+41.6709919 -87.7324569	CCDES
7	17-031-0076	Cook	Chicago	Com Ed Maintenance Bldg. 7801 Lawndale	+41.75139998 -87.71348815	CCDES
8	17-031-0219	Cook	Chicago	Kennedy Near-road #2 Kennedy Expy. & W. Webster Ave.	+41.920681 -87.674425	IL EPA
9	17-031-0052	Cook	Chicago	Mayfair Pump Station 4850 Wilson Ave.	+41.96548483 -87.74992806	CCDES
10	17-031-0110	Cook	Chicago	Perez Elementary School 1241 19th St.	+41.855771 -87.657932	CCDES
11	17-031-0032	Cook	Chicago	South Water Filtration Plant 3300 E. Cheltenham Pl.	+41.75583241 -87.54534967	CCDES
12	17-031-0057	Cook	Chicago	Springfield Pump Station 1745 N. Springfield Ave.	+41.912739 -87.722673	CCDES
13	17-031-1003	Cook	Chicago	Taft High School 6545 W. Hurlbut St	+41.98433233 -87.7920017	CCDES
14	17-031-0022	Cook	Chicago	Washington High School 3535 E. 114th St.	+41.68716544 -87.53931548	CCDES
15	17-031-4002	Cook	Cicero	Cook County Trailer 1820 S. 51st Ave	+41.85524313 -87.7524697	CCDES
16	17-031-6005	Cook	Cicero	Liberty School 13th St. & 50th Ave.	+41.86442642 -87.74890238	CCDES
17	17-031-4007	Cook	Des Plaines	Regional Office Building 9511 W. Harrison St	+42.06028469 -87.86322543	IL EPA
18	17-031-7002	Cook	Evanston	Water Pumping Station 531 E. Lincoln	+42.062053 -87.675254	IL EPA
19	17-031-0119	Cook	Lansing	Kingery Near-road #1 Kingery Expy. & Torrence Ave.	+41.578603 -87.557392	IL EPA
20	17-031-1601	Cook	Lemont	Cook County Trailer 729 Houston	+41.66812034 -87.99056969	CCDES
21	17-031-1016	Cook	Lyons Township	Village Hall 50th St & Glencoe	+41.801180 -87.832349	IL EPA
22	17-031-4201	Cook	Northbrook	Northbrook Water Plant 750 Dundee Rd.	+42.13999619 -87.79922692	IL EPA
23	17-031-3103	Cook	Schiller Park	IEPA Trailer 4743 Mannheim Rd.	+41.96519348 -87.87626473	IL EPA

Table A2
Site Directory

Site Map ID	AQS ID	County	City	Address	Latitude Longitude	Owner / Operator
24	17-031-3301	Cook	Summit	Graves Elementary School 60th St. & 74th Ave.	+41.78276601 -87.80537679	CCDES
25	17-043-6001	DuPage	Lisle	Morton Arboretum Route 53	+41.81304939 -88.0728269	IL EPA
26	17-043-4002	DuPage	Naperville	City Hall 400 S. Eagle St.	+41.77107094 -88.15253365	IL EPA
27	17-049-1001	Effingham	Effingham	Central Grade School 10421 N. US Hwy. 45	+39.06715932 -88.54893401	IL EPA
28	17-065-0002	Hamilton	Knight Prairie	Ten Mile Creek DNR Office State Route 14	+38.08215516 -88.6249434	IL EPA
29	17-083-0117	Jerseyville	Jerseyville	1320 Maple Summit Rd.	+39.101439 -90.344494	IL EPA
30	17-085-9991	Jo Daviess	Stockton	10952 E. Parker Rd.	+42.2869 -89.9997	US EPA
31	17-089-0007	Kane	Aurora	Health Department 1240 N. Highland	+41.78471651 -88.32937361	IL EPA
32	17-089-0124	Kane	Elgin	IL Sect. of State Bldg. 595 S. State St.	+42.021314 -88.282985	IL EPA
33	17-097-1007	Lake	Zion	Camp Logan Illinois Beach State Park	+42.4675733 -87.81004705	IL EPA
34	17-099-0007	La Salle	Oglesby	308 Portland Ave.	+41.29301454 -89.04942498	IL EPA
35	17-115-0013	Macon	Decatur	IEPA Trailer 2200 N. 22nd	+39.866933 -88.925452	IL EPA
36	17-115-0217	Macon	Decatur	Tate & Lyle North 899 N. Folk St.	+39.850712 -88.933635	ERM Inc.
37	17-115-0317	Macon	Decatur	Tate & Lyle South 2200 E. El Dorado St.	+39.846856 -88.923323	ERM Inc.
38	17-117-0002	Macoupin	Nilwood	IEPA Trailer Heaton & Dubois	+39.39607533 -89.80973892	IL EPA
39	17-119-0120	Madison	Alton	Horace Mann School 2708 Edwards St.	+38.901316 -90.146211	IL EPA
40	17-119-0010	Madison	Granite City	Air Products 15th & Madison	+38.69443831 -90.15395426	IL EPA
41	17-119-1007	Madison	Granite City	Fire Station #1 23rd & Madison	+38.70453426 -90.13967484	IL EPA
42	17-119-0024	Madison	Granite City	Gateway Medical Center 2100 Madison Ave.	+38.7006315 -90.14476267	IL EPA
43	17-119-0122	Madison	Maryville	8B Schiber Ct.	+38.730263 -89.950053	IL EPA
44	17-119-3007	Madison	Wood River	Water Treatment Plant 54 N. Walcott	+38.86066947 -90.10585111	IL EPA
45	17-111-0001	McHenry	Cary	Cary Grove High School 1st St. & Three Oaks Rd.	+42.22144166 -88.24220734	IL EPA
46	17-113-2003	McLean	Normal	ISU Physical Plant Main & Gregory	+40.51873537 -88.99689571	IL EPA
47	17-143-0037	Peoria	Peoria	City Office Building 613 N.E. Jefferson	+40.697326 -89.584084	IL EPA
48	17-143-0024	Peoria	Peoria	Fire Station #8 MacArthur & Hurlburt	+40.68742038 -89.60694277	IL EPA

Table A2
Site Directory

Site Map ID	AQS ID	County	City	Address	Latitude Longitude	Owner / Operator
49	17-143-1001	Peoria	Peoria Heights	Peoria Heights High School 508 E. Glen Ave.	+40.74550393 -89.58586902	IL EPA
50	17-157-0001	Randolph	Houston	IEPA Trailer Hickory Grove & Fallview	+38.17627761 -89.78845862	IL EPA
51	17-161-3002	Rock Island	Rock Island	Rock Island Arsenal 32 Rodman Ave.	+41.51472697 -90.51735026	IL EPA
52	17-167-0012	Sangamon	Springfield	Agricultural Building State Fair Grounds	+39.83192087 -89.64416359	IL EPA
53	17-167-0014	Sangamon	Springfield	Illinois Building State Fair Grounds	+39.831522 -89.640926	IL EPA
54	17-163-0010	St. Clair	East St. Louis	RAPS Trailer 13th & Tudor	+38.61203448 -90.16047663	IL EPA
55	17-179-0004	Tazewell	Pekin	Fire Station #3 272 Derby	+40.55643203 -89.65402083	IL EPA
56	17-185-0001	Wabash	Mount Carmel	Division St.	+38.397276 -87.773631	Indiana DEP
57	17-197-1011	Will	Braidwood	Com Ed Training Center 36400 S. Essex Rd.	+41.22153707 -88.19096718	IL EPA
55	17-197-1002	Will	Joliet	Pershing Elementary School Midland & Campbell Sts.	+41.52688509 -88.11647381	IL EPA
59	17-201-2001	Winnebago	Loves Park	Maple Elementary School 1405 Maple Ave.	+42.33498222 -89.0377748	IL EPA
60	17-201-0118	Winnebago	Rockford	Fire Department 204 S. 1 st St.	+42.2670002 -89.089170	IL EPA

Table A3
Monitoring Directory

Gray = Active Monitor	Green = Site/Monitor Installed	Red = Site/Monitor Removed	T = Trace level only.	P = PAMS season	2 = 2 nd Collocated monitor
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Table A3 – Ambient Air Monitoring Directory

AQS ID	City	CO	NOy	NO2	Ozone	PM10	PM Coarse	PM2.5 FRM	PM2.5 FEM	PM2.5 AQI	PM2.5 Speciation	SO2	VOC	Toxics	TSP Pb, Metals	Meteorological
17-001-0007	Quincy															
17-019-0006	Champaign 709 N. Champaign															
17-019-0007	Thomasboro															
17-019-1001	Bondville	T										T				
17-023-0001	West Union															
17-031-0001	Alsip															
17-031-0022	Chicago Washington High School					C		2								
17-031-0032	Chicago South Water Filtration															
17-031-0052	Chicago Mayfair Pump Station															
17-031-0057	Chicago Springfield Pump Station															
17-031-0076	Chicago Com Ed Maintenance															
17-031-0110	Chicago Perez Elementary														2	
17-031-0119	Lansing Kingery near-road #1															
17-031-0219	Chicago Kennedy near-road #2															
17-031-1003	Chicago Taft High School															
17-031-1016	Lyons Township					C		2								
17-031-1601	Lemont															
17-031-3103	Schiller Park															
17-031-3301	Summit							2								
17-031-4002	Cicero Cook County Trailer															

Table A3
Monitoring Directory

Gray = Active Monitor		Green = Site/Monitor Installed			Red = Site/Monitor Removed			T = Trace level only.			P = PAMS season			2 = 2 nd Collocated monitor		
AQS ID	City	CO	NOy	NO2	Ozone	PM10	PM Coarse	PM2.5 FRM	PM2.5 FEM	PM2.5 AQI	PM2.5 Speciation	SO2	VOC	Toxics	TSP Pb, Metals	Meteorological
17-031-4007	Des Plaines															
17-031-4201	Northbrook	T		P								T				
17-031-6005	Cicero Liberty School															
17-031-7002	Evanston															
17-043-4002	Naperville															
17-043-6001	Lisle															
17-049-1001	Effingham															
17-065-0002	Knight Prairie															
17-083-0117	Jerseyville															
17-085-9991	Stockton															
17-089-0003	Elgin McKinley School															
17-089-0005	Elgin Larsen Jr. High School															
17-089-0124	Elgin DMV															
17-089-0007	Aurora															
17-097-1007	Zion															
17-099-0007	Oglesby															
17-111-0001	Cary															
17-113-2003	Normal								2							
17-115-0013	Decatur IEPA Trailer															
17-115-0217	Decatur Tate & Lyle North															

Table A3
Monitoring Directory

Gray = Active Monitor		Green = Site/Monitor Installed		Red = Site/Monitor Removed		T = Trace level only.		P = PAMS season		2 = 2 nd Collocated monitor						
AQS ID	City	CO	NOy	NO2	Ozone	PM10	PM Coarse	PM2.5 FRM	PM2.5 FEM	PM2.5 AQI	PM2.5 Speciation	SO2	VOC	Toxics	TSP Pb, Metals	Meteorological
17-115-0317	Decatur Tate & Lyle South															
17-117-0002	Nilwood															
17-119-0120	Alton Horace Mann School															
17-119-0010	Granite City Air Products														2	
17-119-0024	Granite City Gateway Medical Center															
17-119-1007	Granite City Fire Station #1															
17-119-0122	Maryville Maintenance Bldg															
17-119-3007	Wood River															
17-143-0024	Peoria Fire Station #8															
17-143-0037	Peoria City Office Building															
17-143-1001	Peoria Heights															
17-157-0001	Houston															
17-161-3002	Rock Island															
17-163-0010	East St. Louis															
17-167-0012	Springfield Agricultural Building															
17-167-0014	Springfield Illinois Building															
17-179-0004	Pekin															
17-185-0001	Mount Carmel															
17-197-1002	Joliet Pershing Elementary															
17-197-1011	Braidwood															

Table A3
Monitoring Directory

Gray = Active Monitor		Green = Site/Monitor Installed			Red = Site/Monitor Removed		T = Trace level only.		P = PAMS season		2 = 2 nd Collocated monitor					
AQS ID	City	CO	NOy	NO2	Ozone	PM10	PM Coarse	PM2.5 FRM	PM2.5 FEM	PM2.5 AQI	PM2.5 Speciation	SO2	VOC	Toxics	TSP Pb, Metals	Meteorological
17-201-0118	Rockford Fire Department															
17-201-2001	Loves Park															

Air Quality Data Interpretation

In order to provide a uniform procedure for determining whether a sufficient amount of air quality data has been collected by a sensor in a given time period (year, quarter, month, day, etc.) to accurately represent air quality during that time period, a minimum statistical selection criteria was developed.

In order to calculate an annual average for non-continuous parameters, a minimum of 75% of the data that was scheduled to be collected must be available, i.e., 45 samples per year for an every-six-day schedule (total possible of 60 or 61 samples). Additionally, in order to have proper quarterly balance, each site on an every sixth day schedule should have at least 10 samples per calendar quarter. This provides for a 20% balance in each quarter if the minimum required annual sampling is achieved.

PM₁₀ and PM_{2.5} samplers operate on one of three sampling frequencies:

- Every-day sampling (68 samples required each quarter for 75% data capture)
- Every-third-day sampling (23 samples required each quarter for 75% data capture)
- Every-six-day sampling (12 samples required each quarter for 75% data capture).

To calculate an annual PM₁₀ or PM_{2.5} mean, arithmetic means are calculated for each quarter in which valid data is recorded in at least 75% of the possible sampling periods. The annual mean is then the arithmetic average of the four quarterly means.

To determine an annual average for continuous data 75% of the total possible yearly observations are necessary, i.e., a minimum of 6570 hours (75% of the hours available) are needed. In order to provide a balance between the respective quarters, each quarter should have at

least 1300 hours which is 20% of the 75% minimum annual requirement. To calculate

quarterly averages at sites which do not meet the annual criteria, 75% of the total possible observations in a quarter are needed, i.e., a minimum of 1647 hours of 2200 hours available. Monthly averages also require 75% of the total possible observations in a month, i.e., 540 hours as a minimum. Additionally, for short-term running averages (24-hour, 8-hour, and 3-hour) 75% of the data during the particular time period is needed, i.e., 18 hours for a 24-hour average, six hours for an 8-hour average and three hours for a 3-hour average.

For ozone, a valid 8-hour average has at least six valid 1-hour averages within the 8-hour period. The daily maximum 8-hour ozone concentration is based on 17 consecutive moving 8-hour periods in each day, beginning with the 8-hour period from 7:00 a.m. to 3:00 p.m. and ending with the 8-hour period from 11:00 p.m. to 7:00 a.m. The daily maximum value is considered valid if 8-hour averages are available for at least 13 of the 17 consecutive moving 8-hour periods, or if the daily maximum value is greater than the level of the NAAQS. Complete sampling over a three-year period requires an average of 90% valid days with each year having at least 75% valid days.

Data listed as not meeting the minimum statistical selection criteria in this report were so noted after evaluation using the criteria above. Although short term averages (3, 8, 24 hours) have been computed for certain sites not meeting the annual criteria, these averages may not be representative of an entire year's air quality. In certain circumstances where even the 75% criteria is met, the number and/or magnitude of short-term averages may not be directly comparable from one year to the next because of seasonal distributional differences.

Appendix B: Air Quality Data Summary Tables

For summary purposes, the data is expressed in the number of figures to which the raw data is validated. Extra figures may be carried in the averaging technique, but the result is rounded to the appropriate number of figures. For example, the values 9, 9, and 10 are averaged to give 9; whereas the values 9.0, 9.0, and 10.0 are averaged to 9.3. The raw data itself should not be expressed to more significant figures than the sensitivity of the monitoring methodology allows.

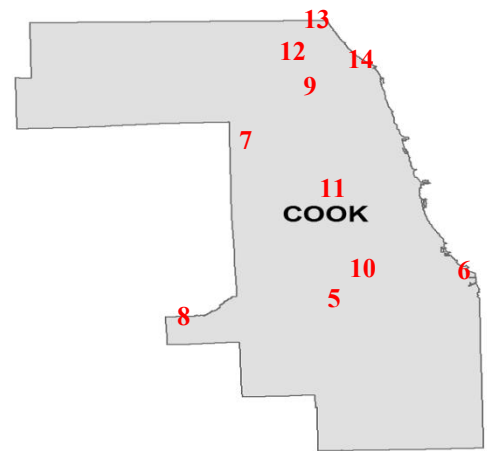
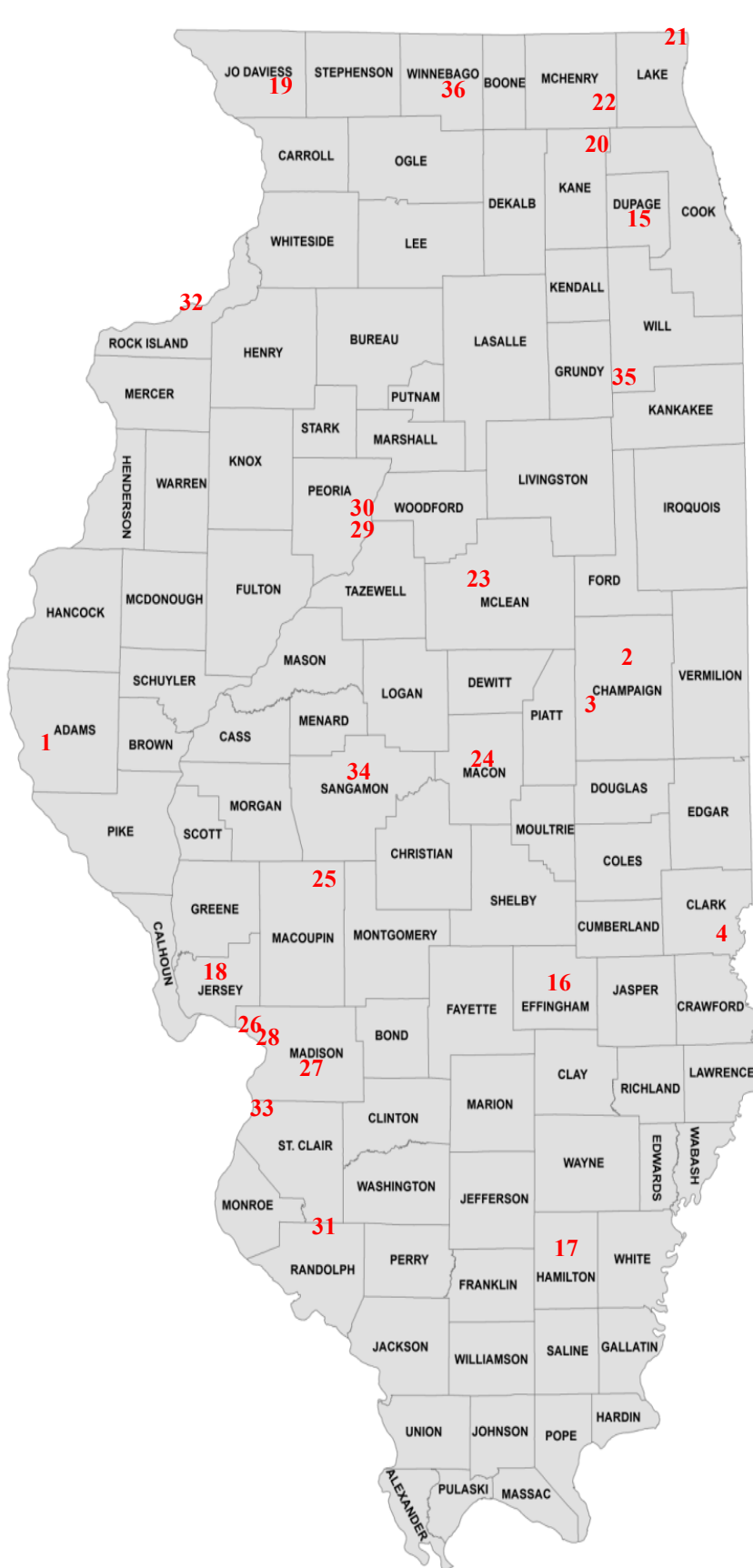
In comparing data to the various air quality standards, the data are implicitly rounded to the number of significant figures specified by that standard. For example, to exceed the 0.15 ug/m³ three-month lead standard, a three-month average value must be 0.155 ug/m³ or higher; to exceed the 9 ppm CO 8-hour standard, an 8-hour average must be 9.5 ppm or higher. Peak averages, though, will be expressed to the number of significant figures appropriate to that monitoring methodology.

The NAAQS for CO has a short-term standard for ambient air concentrations not to be exceeded more than once per year. SO₂ has a 1-hour standard which is the three-year average of each year's 99th percentile values. NO₂ has a 1-hour standard which is the three-year average of each year's 98th percentile values. PM₁₀ has a 24-hour standard which cannot average more than one exceedance over a three-year period (in three years). PM_{2.5} has a 24-hour standard which is a three-year average of each year's 98th percentile values. In the case of ozone, the 8-hour standard is concentration-based and as such is the average of the fourth highest value each year over a three-year period. The standards are promulgated in this manner in order to protect the public from excessive levels of pollution both in terms of acute and chronic health effects.

The following data tables detail and summarize air quality in Illinois. The tables of short-term exceedances list those sites which exceeded any of the

short-term primary standards (24 hours or less). The detailed data tables list averages and peak concentrations for all monitoring sites in Illinois.

Ozone Monitoring Sites



Site ID	Site Name
1. 170010007	Quincy
2. 170190007	Thomasboro
3. 170191001	Bondville
4. 170230001	West Union
5. 170310001	Alsip
6. 170310032	Chicago – South Water Filtration
7. 170313103	Schiller Park
8. 170311601	Lemont
9. 170311003	Chicago – Taft High School
10. 170310076	Chicago – Com Ed Maint. Bldg.
11. 170314002	Cicero
12. 170314007	Des Plaines
13. 170314201	Northbrook
14. 170317002	Evanston
15. 170436001	Lisle
16. 170491001	Effingham
17. 170650002	Knight Prairie
18. 170830117	Jerseyville
19. 170859991	Stockton
20. 170890124	Elgin
21. 170971007	Zion
22. 171110001	Cary
23. 171132003	Normal
24. 171150013	Decatur
25. 171170002	Nilwood
26. 171190120	Alton
27. 171190122	Maryville
28. 171193007	Wood River
29. 171430024	Peoria
30. 171431001	Peoria Heights
31. 171570001	Houston
32. 171613002	Rock Island
33. 171630010	East St. Louis
34. 171670014	Springfield
35. 171971011	Braidwood
36. 172012001	Loves Park

[illegible]

Ozone Exceedances

Table B2 - Exceedances of the 8-Hour Primary Standard of 0.070 ppm

Date	City	Concentration		Date	City	Concentration
6/12/24	Zion	0.082		9/18/24	Loves Park	0.076
	Evanston	0.079			Cary	0.073
6/15/24	Alton	0.078			Elgin	0.072
	Wood River	0.076			Evanston	0.071
	Knight Prairie	0.074			Lemont	0.071
	Normal	0.074			Alton	0.071
	Jerseyville	0.074		9/19/24	Des Plaines	0.075
	East St. Louis	0.074			Chicago - Taft	0.073
	Maryville	0.074			Evanston	0.073
	Nilwood	0.072			Northbrook	0.071
	Springfield - Illinois Bldg	0.072		9/20/24	Maryville	0.072
	Decatur	0.071				
	Effingham	0.071				
6/21/24	Cicero	0.071				
7/11/24	Maryville	0.071				
7/15/24	Zion	0.079				
	Evanston	0.071				
7/31/24	Zion	0.078				
	Evanston	0.077				
	Chicago - Taft	0.075				
	Des Plaines	0.075				
	Northbrook	0.074				
8/08/24	Chicago - SWFP	0.077				
8/24/24	Des Plaines	0.074				
8/26/24	Zion	0.078				
	Evanston	0.076				
	Chicago - Taft	0.073				
8/27/24	Evanston	0.092				
	Wood River	0.086				
	Chicago - SWFP	0.081				
	Alton	0.080				
	Maryville	0.080				
	Zion	0.080				
	East St. Louis	0.074				
	Northbrook	0.072				
	Chicago - Taft	0.071				
9/12/24	Lemont	0.072				
	Loves Park	0.072				
	Stockton	0.071				
9/17/24	Loves Park	0.071				

Total Over 0.070 ppm	51
Total Days Over 0.070 ppm	15

Ozone Exceedances

Table B3 - Number Of Days 8-Hour Greater Than 0.070 ppm

AQS ID	City	2024	2023	2022	AQS ID	City	2024	2023	2022
17-001-0007	Quincy	0	12	0	17-097-1007	Zion	5	14	3
17-019-0007	Thomasboro	0	6	1	17-111-0001	Cary	1	18	3
17-019-1001	Bondville	0	9	1	17-113-2003	Normal	1	11	2
17-023-0001	West Union	0	5	1	17-115-0013	Decatur IEPA Trailer	1	14	2
17-031-0001	Alsip	0	14	4	17-117-0002	Nilwood	1	10	2
17-031-0032	Chicago South Water Filtration	2	15	4	17-119-0120	Alton	3	14	6
17-031-0076	Chicago Com Ed Maintenance	0	13	4	17-119-0122	Maryville	3	14	1
17-031-1003	Chicago Taft High School	4	11	3	17-119-3007	Wood River	3	16	6
17-031-1601	Lemont	2	21	4	17-119-9991	Highland	-	-	3
17-031-3103	Schiller Park	0	10	1	17-143-0024	Peoria Fire Station #8	0	20	0
17-031-4002	Cicero Cook County Trailer	1	14	3	17-143-1001	Peoria Heights	0	21	0
17-031-4007	Des Plaines	3	16	3	17-157-0001	Houston	0	12	2
17-031-4201	Northbrook	3	17	3	17-161-3002	Rock Island	0	16	0
17-031-7002	Evanston	7	15	4	17-163-0010	East St. Louis	2	13	1
17-043-6001	Lisle	0	15	1	17-167-0014	Springfield	1	17	3
17-049-1001	Effingham	1	10	0	17-197-1011	Braidwood	0	15	2
17-065-0002	Knight Prairie	1	9	0	17-201-2001	Loves Park	3	15	0
17-083-0117	Jerseyville	1	16	5					
17-085-9991	Stockton	1	9	0		Total Over 0.070 ppm	51	498	81
17-089-0005	Elgin Larsen Jr. High School	1	21	3		Total Days Over 0.070 ppm	15	42	16

Table B4 Ozone Highs

Table B4 - 2024 Fourth Highest Samples (ppm)

AQS ID	City	Daily 1Hour 1 st High	Daily 1Hour 2 nd High	Daily 1Hour 3 rd High	Daily 1Hour 4 th High	Daily 8Hour 1 st High	Daily 8Hour 2 nd High	Daily 8Hour 3 rd High	Daily 8Hour 4 th High
17-001-0007	Quincy	0.073	0.072	0.067	0.065	0.069	0.066	0.064	0.061
17-019-0007	Thomasboro	0.073	0.068	0.067	0.066	0.066	0.065	0.063	0.062
17-019-1001	Bondville	0.076	0.075	0.074	0.072	0.070	0.070	0.069	0.067
17-023-0001	West Union	0.075	0.073	0.070	0.069	0.067	0.066	0.064	0.063
17-031-0001	Alsip	0.083	0.079	0.078	0.077	0.070	0.069	0.068	0.068
17-031-0032	Chicago South Water Filtration	0.096	0.087	0.076	0.075	0.081	0.077	0.067	0.066
17-031-0076	Chicago Com Ed Maintenance	0.079	0.078	0.075	0.074	0.065	0.064	0.064	0.063
17-031-1003	Chicago Taft High School	0.096	0.092	0.084	0.083	0.075	0.073	0.073	0.071
17-031-1601	Lemont	0.083	0.081	0.081	0.077	0.072	0.071	0.070	0.069
17-031-3103	Schiller Park	0.080	0.079	0.073	0.072	0.068	0.066	0.064	0.064
17-031-4002	Cicero Cook County Trailer	0.078	0.078	0.075	0.075	0.071	0.067	0.066	0.065
17-031-4007	Des Plaines	0.095	0.088	0.086	0.086	0.075	0.075	0.074	0.070
17-031-4201	Northbrook	0.094	0.081	0.080	0.079	0.074	0.072	0.071	0.069
17-031-7002	Evanston	0.111	0.095	0.092	0.088	0.092	0.079	0.077	0.076
17-043-6001	Lisle	0.077	0.076	0.075	0.075	0.069	0.068	0.065	0.062
17-049-1001	Effingham	0.073	0.070	0.069	0.069	0.071	0.067	0.064	0.063
17-065-0002	Knight Prairie	0.079	0.077	0.072	0.070	0.074	0.068	0.068	0.061
17-083-0117	Jerseyville	0.083	0.078	0.074	0.074	0.074	0.069	0.068	0.068
17-085-9991	Stockton	0.079	0.077	0.070	0.068	0.071	0.065	0.064	0.063
17-089-0005	Elgin Larsen Jr. High School	0.081	0.078	0.077	0.077	0.072	0.070	0.068	0.067
17-097-1007	Zion	0.096	0.094	0.093	0.092	0.082	0.080	0.079	0.078
17-111-0001	Cary	0.082	0.075	0.073	0.072	0.073	0.067	0.066	0.065
17-113-2003	Normal	0.079	0.073	0.071	0.071	0.074	0.069	0.065	0.065
17-115-0013	Decatur IEPA Trailer	0.073	0.072	0.071	0.069	0.071	0.068	0.065	0.062
17-117-0002	Nilwood	0.076	0.070	0.069	0.069	0.072	0.063	0.063	0.061

Table B4
Ozone Highs

AQS ID	City	Daily 1Hour 1 st High	Daily 1Hour 2 nd High	Daily 1Hour 3 rd High	Daily 1Hour 4 th High	Daily 8Hour 1 st High	Daily 8Hour 2 nd High	Daily 8Hour 3 rd High	Daily 8Hour 4 th High
17-001-0007	Quincy	0.073	0.072	0.067	0.065	0.069	0.066	0.064	0.061
17-019-0007	Thomasboro	0.073	0.068	0.067	0.066	0.066	0.065	0.063	0.062
17-019-1001	Bondville	0.076	0.075	0.074	0.072	0.070	0.070	0.069	0.067
17-023-0001	West Union	0.075	0.073	0.070	0.069	0.067	0.066	0.064	0.063
17-031-0001	Alsip	0.083	0.079	0.078	0.077	0.070	0.069	0.068	0.068
17-031-0032	Chicago South Water Filtration	0.096	0.087	0.076	0.075	0.081	0.077	0.067	0.066
17-119-0120	Alton	0.106	0.082	0.081	0.079	0.080	0.078	0.071	0.069
17-119-0122	Maryville	0.092	0.085	0.081	0.079	0.080	0.074	0.071	0.066
17-119-3007	Wood River	0.113	0.083	0.083	0.078	0.086	0.076	0.072	0.068
17-119-9991	Highland	-	-	-	-	-	-	-	-
17-143-0024	Peoria Fire Station #8	0.072	0.068	0.067	0.067	0.069	0.063	0.063	0.061
17-143-1001	Peoria Heights	0.074	0.067	0.066	0.066	0.070	0.063	0.063	0.062
17-157-0001	Houston	0.076	0.072	0.067	0.066	0.070	0.065	0.064	0.063
17-161-3002	Rock Island	0.071	0.068	0.068	0.066	0.065	0.063	0.061	0.061
17-163-0010	East St. Louis	0.093	0.076	0.075	0.074	0.074	0.074	0.065	0.064
17-167-0014	Springfield	0.075	0.070	0.069	0.067	0.072	0.063	0.063	0.062
17-197-1011	Braidwood	0.074	0.071	0.066	0.064	0.065	0.063	0.062	0.060
17-201-2001	Loves Park	0.084	0.083	0.078	0.076	0.076	0.072	0.071	0.067
	Statewide Average	0.083	0.078	0.075	0.074	0.073	0.069	0.067	0.065

Table B5

Ozone Design Values

Table B5 - Fourth High 8-Hour Values and 3-Year Design Values

AQS ID	City	2024 Fourth High 8hour	2023 Fourth High 8hour	2022 Fourth High 8hour	2021 Fourth High 8hour	2020 Fourth High 8hour	2022-2024 Design Value	2021-2023 Design Value	2020-2022 Design Value
17-001-0007	Quincy	0.061	0.076	0.056	0.064	0.064	0.064	0.065	0.061
17-019-0007	Thomasboro	0.062	0.075	0.064	0.064	0.069	0.067	0.067	0.065
17-019-1001	Bondville	0.067	0.077	0.068	0.060	0.062	0.070	0.068	0.063
17-023-0001	West Union	0.063	0.075	0.062	0.062	0.060	0.066	0.066	0.061
17-031-0001	Alsip	0.068	0.082	0.073	0.068	0.076	0.074	0.074	0.072
17-031-0032	Chicago South Water Filtration	0.066	0.083	0.072	0.077	0.077	0.073	0.077	0.075
17-031-0076	Chicago Com Ed Maintenance	0.063	0.080	0.074	0.070	0.068	0.072	0.074	0.070
17-031-1003	Chicago Taft High School	0.071	0.073	0.070	0.068	0.077	0.071	0.070	0.071
17-031-1601	Lemont	0.069	0.081	0.071	0.072	0.078	0.073	0.074	0.073
17-031-3103	Schiller Park	0.064	0.081	0.062	0.060	0.068	0.069	0.067	0.063
17-031-4002	Cicero Cook County Trailer	0.065	0.080	0.068	0.067	0.079	0.071	0.071	0.071
17-031-4007	Des Plaines	0.070	0.083	0.070	0.069	0.072	0.074	0.074	0.070
17-031-4201	Northbrook	0.069	0.086	0.070	0.075	0.079	0.075	0.077	0.074
17-031-7002	Evanston	0.076	0.081	0.071	0.078	0.074	0.076	0.076	0.074
17-043-6001	Lisle	0.062	0.082	0.068	0.069	0.073	0.070	0.073	0.070
17-049-1001	Effingham	0.063	0.078	0.067	0.060	0.062	0.069	0.068	0.063
17-065-0002	Knight Prairie	0.061	0.074	0.064	0.066	0.067	0.066	0.068	0.065
17-083-0117	Jerseyville	0.068	0.082	0.072	0.065	0.062	0.074	0.073	0.066
17-085-9991	Stockton	0.063	0.076	0.059	0.064	0.063	0.066	0.066	0.062
17-089-0124	Elgin	0.067	0.084	0.070	0.068	0.073	0.073	0.074	0.070
17-097-1007	Zion	0.078	0.081	0.070	0.077	0.076	0.076	0.076	0.074
17-111-0001	Cary	0.065	0.084	0.070	0.069	0.076	0.073	0.074	0.071
17-113-2003	Normal	0.065	0.077	0.069	0.062	0.070	0.070	0.069	0.067
17-115-0013	Decatur Illinois EPA Trailer	0.062	0.079	0.065	0.064	0.065	0.068	0.069	0.064
17-117-0002	Nilwood	0.061	0.075	0.062	0.062	0.063	0.066	0.066	0.062

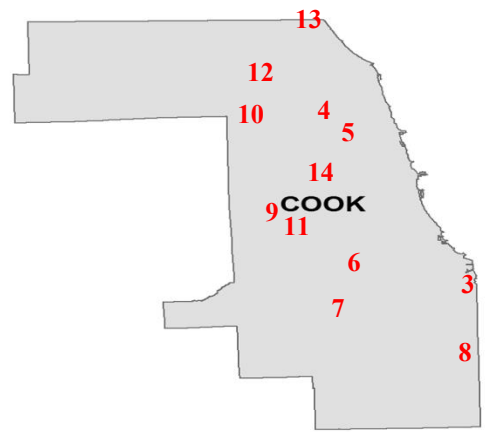
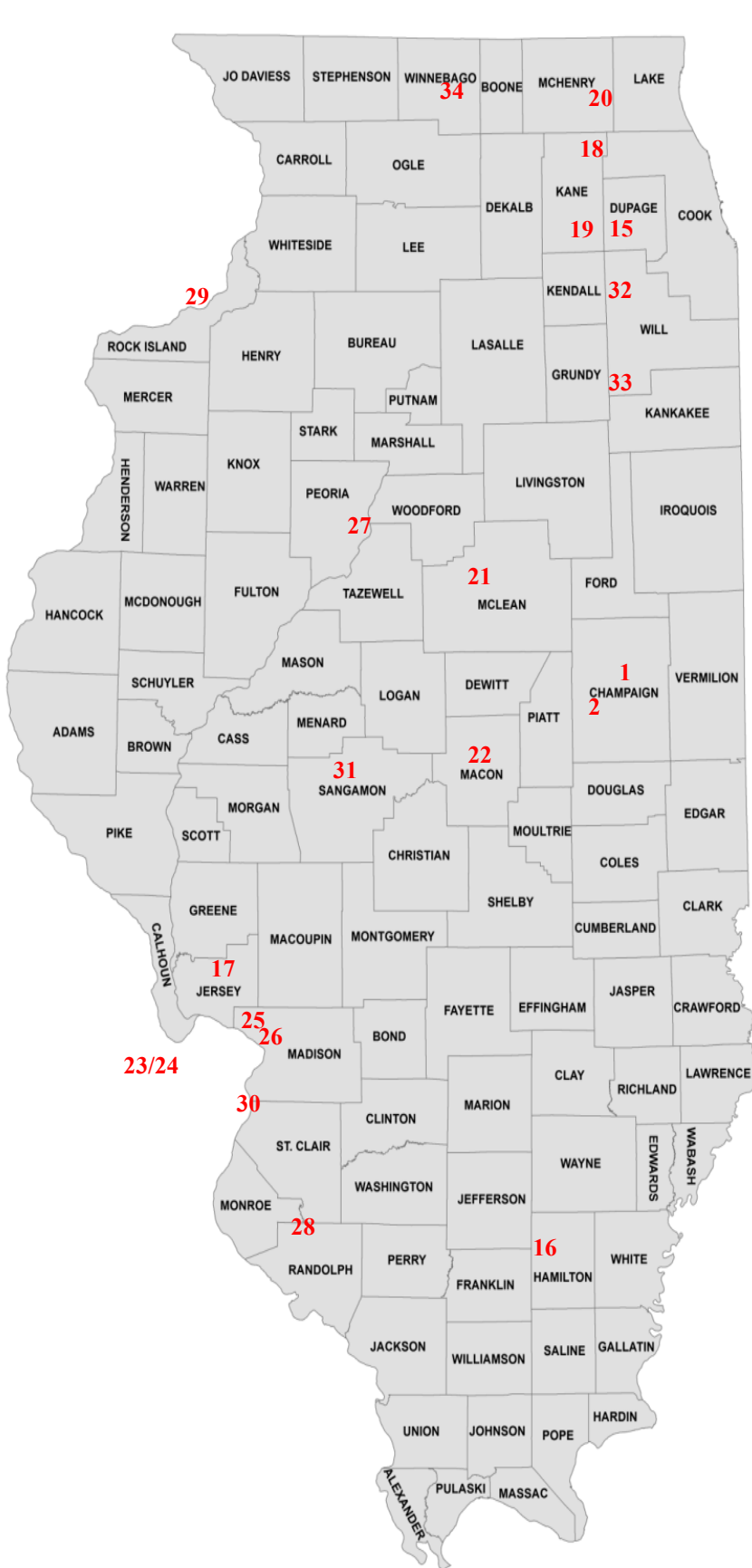
Table B5
Ozone Design Values

AQS ID	City	2024 Fourth High 8hour	2023 Fourth High 8hour	2022 Fourth High 8hour	2021 Fourth High 8hour	2020 Fourth High 8hour	2022-2024 Design Value	2021-2023 Design Value	2020-2022 Design Value
17-119-0120	Alton**	0.069	0.076	0.076	0.070	0.069	0.073	0.074	0.071
17-119-0122	Maryville	0.066	0.078	0.067	0.070	0.067	0.070	0.071	0.068
17-119-3007	Wood River**	0.068	0.074	0.072	0.070	0.069	0.071	0.072	0.070
17-119-9991	Highland	-	-	0.070	0.067	0.066	-	-	0.067
17-143-0024	Peoria Fire Station #8	0.061	0.080	0.059	0.064	0.064	0.066	0.067	0.062
17-143-1001	Peoria Heights	0.062	0.080	0.065	0.062	0.070	0.069	0.069	0.065
17-157-0001	Houston	0.063	0.080	0.068	0.065	0.061	0.070	0.071	0.064
17-161-3002	Rock Island	0.061	0.079	0.061	0.066	0.063	0.067	0.068	0.063
17-163-0010	East St. Louis	0.064	0.077	0.067	0.066	0.065	0.069	0.070	0.066
17-167-0014	Springfield State Fairgrounds	0.062	0.077	0.064	0.057	0.067	0.067	0.066	0.062
17-197-1011	Braidwood	0.060	0.080	0.064	0.065	0.067	0.068	0.069	0.065
17-201-2001	Loves Park	0.067	0.080	0.066	0.067	0.067	0.071	0.071	0.066
	Statewide Average	0.065	0.079	0.067	0.067	0.069	0.070	0.071	0.067

*The design value is the three-year average of the fourth high concentration. Design value greater than 0.070 ppm is a violation of the National Ambient Air Quality Standard.

**Post exceptional event averages.

PM_{2.5} FRM and FEM Monitoring Sites



	Site ID	Site Name
1.	170190006	Champaign
2.	170191001	Bondville
3.	170310022	Chicago – Washington High School
4.	170310052	Chicago – Mayfair Pump Station
5.	170310057	Chicago – Springfield Pump
6.	170310076	Chicago – Com Ed Maint. Bldg.
7.	170310001	Alsip
8.	170310119	Lansing – Kingery near-road
9.	170311016	Lyons Township
10.	170313103	Schiller Park
11.	170313301	Summit
12.	170314007	Des Plaines
13.	170314201	Northbrook
14.	170316005	Cicero
15.	170434002	Naperville
16.	170650002	Knight Prairie
17.	170831001	Jerseyville
18.	170890124	Elgin
19.	170890007	Aurora
20.	171110001	Cary
21.	171132003	Normal
22.	171150013	Decatur
23.	171190024	Granite City – Gateway Medical
24.	171191007	Granite City – 23 rd and Madison
25.	171190120	Alton
26.	171193007	Wood River
27.	171430037	Peoria
28.	171570001	Houston
29.	171613002	Rock Island
30.	171630010	East St. Louis
31.	171670012	Springfield
32.	171971002	Joliet
33.	171971011	Braidwood
34.	172010118	Rockford

[illegible][illegible]

PM_{2.5} 24-Hour Exceedances

Table B7 - 24-Hour Sample Days Greater Than 35 ug/m3

AQS ID	City	2024	2023	2022	AQS ID	City	2024	2023	2022
17-019-0006	Champaign	0	0	0	17-111-0001	Cary	0	6	0
17-019-1001	Bondville	0	3	0	17-113-2003	Normal	0	4	0
17-031-0001	Alsip	0	1	0	17-115-0013	Decatur Illinois EPA Trailer	0	3	0
17-031-0022	Chicago Washington High School	0	1	0	17-119-0024	Granite City Gateway Medical Center	1	0	0
17-031-0052	Chicago Mayfair Pump Station	0	0	0	17-119-1007	Granite City Fire Station #1	0	0	0
17-031-0057	Chicago Springfield Pump Station	0	1	0	17-119-0120	Alton Horace Mann	0	0	0
17-031-0076	Chicago Com Ed Maintenance	0	1	0	17-119-3007	Wood River	0	0	0
17-031-0119	Lansing Kingery near-road #1	0	5	0	17-143-0037	Peoria	0	0	0
17-031-1016	Lyons Township	0	1	0	17-157-0001	Houston	0	1	0
17-031-3103	Schiller Park	0	6	0	17-161-3002	Rock Island	0	5	0
17-031-3301	Summit	0	1	0	17-163-0010	East St. Louis	0	1	0
17-031-4007	Des Plaines	0	5	0	17-167-0012	Springfield Agricultural Building	0	3	1
17-031-4201	Northbrook	0	5	0	17-197-1002	Joliet Pershing Elementary	0	6	0
17-031-6005	Cicero Liberty School	0	1	0	17-197-1011	Braidwood	0	4	0
17-043-4002	Naperville	0	4	0	17-201-0118	Rockford Fire Dept.	0	8	0
17-065-0002	Knight Prairie	0	3	0					
17-083-0117	Jerseyville	0	3	0					
17-089-0007	Aurora	0	1	0		Total Over 35 ug/m3	1	84	1
17-089-0124	Elgin	0	2	0		Total Days Over 35 ug/m3	1	10	1

Table B8

PM_{2.5} Highest 24-Hour Samples

Table B8 - 2024 PM_{2.5} Highest 24-Hour Samples

AQS ID	City	Total Samples	1st	2nd	3rd	4th	5th	6th	7th	8th
17-019-0006	Champaign	306	33.0	17.3	15.9	15.5	15.5	15.0	15.0	14.3
17-019-1001	Bondville	366	15.0	15.0	15.0	14.6	14.1	14.1	13.7	13.6
17-031-0001	Alsip	58	19.4	16.0	15.5	12.9	12.4	12.1	12.0	12.0
17-031-0022	Chicago Washington High School	122	18.6	18.3	16.6	16.6	14.8	14.8	14.6	14.4
17-031-0052	Chicago Mayfair Pump Station	170	21.3	17.6	17.4	17.4	17.1	17.0	16.9	15.9
17-031-0057	Chicago Springfield Pump Station	84	22.1	18.7	16.6	16.1	15.3	14.0	13.9	13.8
17-031-0076	Chicago Com Ed Maintenance	59	18.3	16.7	14.0	13.8	13.5	13.2	12.4	12.1
17-031-0119	Lansing Kingery near-road #1	366	24.1	20.5	19.0	18.1	17.9	17.7	16.9	16.8
17-031-1016	Lyons Township	345	24.7	24.2	23.4	23.3	20.7	19.7	19.4	19.0
17-031-3103	Schiller Park	365	34.1	25.1	23.1	22.1	21.5	20.1	19.8	19.4
17-031-3301	Summit	120	20.7	18.2	17.0	16.8	16.1	15.9	15.1	14.7
17-031-4007	Des Plaines	362	26.1	22.6	21.6	20.2	20.1	18.9	17.8	17.1
17-031-4201	Northbrook	363	23.9	22.6	21.6	21.6	20.8	20.2	19.3	18.5
17-031-6005	Cicero Liberty School	60	17.6	16.8	16.5	15.7	14.2	13.9	13.2	13.0
17-043-4002	Naperville	366	22.2	21.5	21.0	18.8	17.4	17.0	17.0	16.9
17-065-0002	Knight Prairie	366	29.8	22.7	21.4	19.5	17.9	17.8	17.4	16.9
17-083-0117	Jerseyville	333	24.6	19.4	18.7	17.4	17.0	16.1	15.5	15.4
17-089-0007	Aurora	163	16.1	15.2	14.7	14.6	13.9	13.8	13.7	13.7
17-089-0124	Elgin	175	20.8	18.2	17.9	16.5	16.4	15.6	15.3	14.0
17-111-0001	Cary	361	21.2	20.8	18.8	18.7	18.5	18.1	18.0	17.9
17-113-2003	Normal	366	17.6	17.6	17.3	16.8	16.0	15.8	15.3	15.2
17-115-0013	Decatur Illinois EPA Trailer	366	19.3	18.1	17.8	17.7	16.3	16.2	16.1	15.9
17-119-0024	Granite City Gateway Medical Center	119	75.7	17.9	17.8	16.9	16.7	16.0	15.6	15.3
17-119-1007	Granite City Fire Station #1	325	26.2	26.0	22.5	21.5	21.4	20.9	20.2	19.5
17-119-0120	Alton Horace Mann	221	21.6	21.0	19.1	18.9	18.9	18.5	18.5	18.1
17-119-3007	Wood River	366	21.0	19.6	17.4	17.3	16.6	16.5	16.5	16.1
17-143-0037	Peoria	344	29.3	20.5	19.4	19.3	19.1	18.8	17.4	17.3

Table B8
PM_{2.5} Highest 24-Hour Samples

AQS ID	City	Total Samples	1st	2nd	3rd	4th	5th	6th	7th	8th
17-157-0001	Houston	364	19.7	16.9	15.1	15.1	14.6	14.5	14.2	14.2
17-161-3002	Rock Island	366	19.7	19.1	16.9	16.5	16.2	16.1	15.4	15.3
17-163-0010	East St. Louis	366	28.0	23.8	22.4	22.3	21.7	20.8	20.4	20.4
17-167-0012	Springfield Agricultural Building	366	19.9	18.7	18.4	16.7	16.6	16.5	16.4	16.1
17-197-1002	Joliet Pershing Elementary	346	22.5	18.4	18.3	18.3	18.0	17.1	16.3	16.2
17-197-1011	Braidwood	364	19.4	18.8	18.3	18.1	17.8	16.6	16.2	15.9
17-201-0118	Rockford Fire Dept.	358	21.5	18.8	18.6	17.9	17.8	17.5	17.0	16.7

Table B9

PM_{2.5} 24-Hour Design Values

Table B9 - PM_{2.5} 98th Percentile Concentrations and Design Values (ug/m3)

AQS ID	City	2024 98 th Percentile	2023 98 th Percentile	2022 98 th Percentile	2021 98 th Percentile	2020 98 th Percentile	2022-2024 Design Value	2021-2023 Design Value	2020-2022 Design Value
17-019-0006	Champaign	15.0	22.1	15.9	21.0	17.3	18	20	18
17-019-1001	Bondville	13.6	22.4	16.1	19.7	16.1	17	19	17
17-031-0001	Alsip	16.0	26.0	23.7	19.1	14.9	22	23	19
17-031-0022	Chicago Washington High School	16.6	22.8	23.1	21.5	22.3	21	22	22
17-031-0052	Chicago Mayfair Pump Station	17.4	22.0	23.2	22.0	24.0	21	22	23
17-031-0057	Chicago Springfield Pump Station	18.7	24.9	28.3	20.0	22.4	24	24	24
17-031-0076	Chicago Com Ed Maintenance	16.7	24.8	22.3	19.3	14.5	21	22	19
17-031-0119	Lansing Kingery near-road #1	16.8	30.3	20.8	22.5	23.1	23	25	22
17-031-1016	Lyons Township	19.4	24.6	29.5	24.4	19.4	25	26	24
17-031-3103	Schiller Park	19.4	26.1	22.5	22.8	20.0	23	24	22
17-031-3301	Summit	17.0	23.5	23.3	20.7	21.4	21	23	22
17-031-4007	Des Plaines	17.1	30.7	18.5	25.9	18.0	22	25	21
17-031-4201	Northbrook	18.5	29.0	17.8	20.7	15.0	22	23	18
17-031-6005	Cicero Liberty School	16.8	24.0	29.2	17.8	21.9	23	24	23
17-043-4002	Naperville	16.9	27.5	18.8	20.7	20.9	21	22	20
17-065-0002	Knight Prairie	16.9	23.1	18.3	20.1	16.9	19	21	18
17-083-0117	Jerseyville	15.5	21.6	18.3	20.4	16.9	18	20	19
17-089-0007	Aurora	14.6	25.9	18.0	19.4	20.5	20	21	19
17-089-0124	Elgin	16.5	26.0	26.0	27.1	25.7	23	26	26
17-111-0001	Cary	17.9	29.4	19.0	26.5	17.1	22	25	21
17-113-2003	Normal	15.2	27.3	19.6	21.7	18.9	21	23	20
17-115-0013	Decatur Illinois EPA Trailer	15.9	24.9	17.6	23.6	17.6	19	22	20
17-119-0024	Granite City Gateway Medical Center	17.8	22.0	21.1	23.0	23.7	20	22	23
17-119-0120	Alton Horace Mann	18.9	20.3	22.4	20.8	22.4	21	21	22
17-119-1007	Granite City Fire Station #1	20.2	22.2	23.8	19.3	22.3	22	22	22

Table B9
PM_{2.5} 24-Hour Design Values

AQS ID	City	2024 98 th Percentile	2023 98 th Percentile	2022 98 th Percentile	2021 98 th Percentile	2020 98 th Percentile	2022-2024 Design Value	2021-2023 Design Value	2020-2022 Design Value
17-119-3007	Wood River	16.1	19.3	22.4	21.8	26.1	19	21	23
17-143-0037	Peoria City Office Building	17.4	19.8	23.2	22.2	19.6	20	22	22
17-157-0001	Houston	14.2	21.5	17.3	19.1	18.6	18	19	18
17-161-3002	Rock Island	15.3	27.7	21.1	23.7	17.5	21	24	21
17-163-0010	East St. Louis	20.4	24.8	21.2	23.1	22.1	22	23	22
17-167-0012	Springfield Agricultural Building	16.1	22.1	18.2	22.4	17.6	19	21	19
17-197-1002	Joliet Pershing Elementary	16.3	31.2	18.0	23.4	21.0	22	24	21
17-197-1011	Braidwood	15.9	27.8	18.3	21.3	19.1	21	22	20
17-201-0118	Rockford Fire Department	16.7	34.2	21.1	24.1	21.3	24	26	22
	Statewide Average	16.9	25.1	21.1	21.8	19.9	21.0	22.6	20.9

*The design value is the three-year average of the 98th percentile concentration. Design value greater than or equal to 35.5 ug/m³ is a violation of the National Ambient Air Quality Standard.

Table B10
PM_{2.5} Annual Design Values

Table B10 - PM_{2.5} Annual Arithmetic Means and Annual Design Values (ug/m3)

AQS ID	City	2024 Annual Mean	2023 Annual Mean	2022 Annual Mean	2021 Annual Mean	2020 Annual Mean	2022-2024 Annual Design Value	2021-2023 Annual Design Value	2020-2022 Annual Design Value
17-019-0006	Champaign	7.1	8.6	7.4	8.5	7.3	7.7	8.2	7.8
17-019-1001	Bondville	6.2	8.7	7.4	8.2	7.3	7.4	8.1	7.6
17-031-0001	Alsip	6.9	10.6	8.6	9.1	8.6	8.7	9.4	8.7
17-031-0022	Chicago Washington High School	7.6	10.3	9.0	9.4	8.8	9.0	9.6	9.1
17-031-0052	Chicago Mayfair Pump Station	7.7	10.0	8.6	9.5	10.3	8.8	9.4	9.5
17-031-0057	Chicago Springfield Pump Station	7.9	10.5	8.7	9.1	8.3	9.0	9.4	8.7
17-031-0076	Chicago Com Ed Maintenance	7.1	10.4	8.8	8.7	8.3	8.7	9.3	8.6
17-031-0119	Lansing Kingery near-road #1	7.8	11.2	8.6	10.1	10.8	9.2	10.0	9.8
17-031-3103	Schiller Park	8.2	10.4	9.6	10.5	9.9	9.4	10.2	10.0
17-031-3301	Summit	7.6	10.4	9.2	9.8	8.7	9.1	9.8	9.3
17-031-4007	Des Plaines	7.2	10.2	7.5	9.7	8.4	8.3	9.1	8.5
17-031-4201	Northbrook	7.3	9.8	7.0	8.1	7.3	8.0	8.3	7.5
17-031-6005	Cicero Liberty School	7.5	11.1	9.1	8.7	9.3	9.2	9.6	9.1
17-043-4002	Naperville	8.1	10.7	8.0	9.5	9.1	8.9	9.4	8.9
17-065-0002	Knight Prairie	7.8	8.6	7.3	9.3	8.8	7.9	8.4	8.5
17-083-0117	Jerseyville	6.3	8.3	6.9	7.9	7.5	7.2	7.7	7.4
17-089-0007	Aurora	6.8	9.4	9.1	9.6	8.4	8.4	9.4	9.1
17-089-0124	Elgin	7.3	10.2	9.7	9.0	8.8	9.1	9.7	9.2
17-111-0001	Cary	7.6	9.5	7.8	8.6	8.2	8.3	8.6	8.2
17-113-2003	Normal	6.6	10.2	7.9	8.9	8.5	8.2	9.0	8.4
17-115-0013	Decatur IEPA Trailer	7.5	9.7	7.3	9.6	8.6	8.2	8.8	8.5
17-119-0120	Alton Horace Mann	7.8	9.2	8.9	9.3	9.0	8.6	9.1	9.1
17-119-1007	Granite City Fire Station #1	8.9	10.2	9.9	10.0	10.1	9.6	10.0	10.0
17-119-3007	Wood River	7.0	9.0	9.6	9.7	9.2	8.5	9.4	9.5
17-143-0037	Peoria City Office Building	7.3	8.6	8.3	9.6	8.3	8.1	8.9	8.7

Table B10
PM_{2.5} Annual Design Values

AQS ID	City	2024 Annual Mean	2023 Annual Mean	2022 Annual Mean	2021 Annual Mean	2020 Annual Mean	2022-2024 Annual Design Value	2021-2023 Annual Design Value	2020-2022 Annual Design Value
17-157-0001	Houston	6.3	8.0	6.9	8.1	8.3	7.1	7.7	7.8
17-161-3002	Rock Island	6.5	10.1	7.6	8.8	8.1	8.1	8.9	8.2
17-163-0010	East St. Louis	8.7	10.6	9.0	10.0	9.5	9.4	9.9	9.5
17-167-0012	Springfield Agricultural Building	6.9	9.6	8.4	8.7	7.6	8.3	8.9	8.2
17-197-1002	Joliet Pershing Elementary	7.8	10.8	7.9	9.7	9.8	8.8	9.5	9.1
17-197-1011	Braidwood	6.8	9.7	7.5	8.6	8.2	8.0	8.6	8.1
17-201-0118	Rockford Fire Department	7.3	10.5	7.1	9.4	9.1	8.3	9.0	8.5
	Statewide Average	7.4	9.8	8.3	9.2	8.7	8.5	9.1	8.7

*The design value is the three-year average of the annual arithmetic mean concentrations. Design value greater than 9.0 ug/m³ is a violation of the National Ambient Air Quality Standard.

Shaded cells indicate completeness criteria were not met.

PM₁₀ Monitoring Sites



	Site ID	Site Name
1.	170310022	Chicago – Washington High School
2.	170311016	Lyons Township
3.	170314201	Northbrook
4.	171190010	Granite City – 23 rd and Madison

Date	City	Concentration (ug/m3)
None	None	None
Total Over 150 ug/m3	0	
Total Days Over 150 ug/m3	0	

PM₁₀ 24-Hour Highs and Design Values

Table B12 - 2024 PM₁₀ Highest 24-Hour Samples

AQS ID	City	Total Samples	1 st High	2 nd High	3 rd High	4 th High	5 th High	6 th High	7 th High	8 th High
17-031-0022	Chicago Washington High School	326	76	65	59	55	53	53	53	52
17-031-1016	Lyons Township	345	137	98	95	88	87	87	86	81
17-031-4201	Northbrook	58	27	26	24	23	22	20	19	19
17-119-1007	Granite City Fire Station #1	325	63	59	54	54	54	52	51	51
		Statewide Average	76	62	58	55	54	53	52	51

Table B13 - Annual Sample Days Greater Than 150 ug/m³ and 3-year Exceedance Day Average

AQS ID	City	2024	2023	2022	3-year Exceedance Day Average*
17-031-0022	Chicago Washington High School	0	0	0	0.0
17-031-1016	Lyons Township	0	1	0	0.3
17-031-4201	Northbrook	0	0	0	0.0
17-119-1007	Granite City Fire Station #1	0	0	0	0.0
	Total Over 150 ug/m ³	0	1	0	
	Total Days Over 150 ug/m ³	0	1	0	

*The 24-hour PM₁₀ standard is an exceedance-based standard set at 150 ug/m³. The level is not to be exceeded more than once per year on average over three years. Three-year averages more than one are a violation of the National Ambient Air Quality Standard.

PM₁₀ Annual Design Values

Table B14 - PM₁₀ Annual Arithmetic Mean and 3-year Annual Design Value (ug/m3)

AQS ID	City	2024 Annual Mean	2023 Annual Mean	2022 Annual Mean	2021 Annual Mean	2020 Annual Mean	2022-2024 Annual Design Value	2021-2023 Annual Design Value	2020-2022 Annual Design Value
17-031-0022	Chicago Washington High School	26	26	29	29	32	27	28	30
17-031-1016	Lyons Township	25	32	38	42	37	32	37	39
17-031-4201	Northbrook	12	16	16	19	20	15	17	18
17-119-1007	Granite City Fire Station #1	21	27	30	25	32	26	27	29
	Statewide Average	21	25	28	29	30	25	27	29

*The annual PM₁₀ standard was revoked in 2007. Previously the standard was a three-year average of the annual means. Concentrations above 50 ug/m³ were a violation of the former National Ambient Air Quality Standard. Currently only the 24-hour PM₁₀ standard is in place (see Table B10).

Carbon Monoxide Monitoring Sites



	Site ID	Site Name
1.	170191001	Bondville
2.	170310119	Lansing - Kingery near-road
3.	170314201	Northbrook

[illegible]

Carbon Monoxide Highs - 1-Hour and 8-Hour Design Values

Table B16 - 2024 CO Four Highest Daily 1-Hour and 8-Hour Samples (ppm)

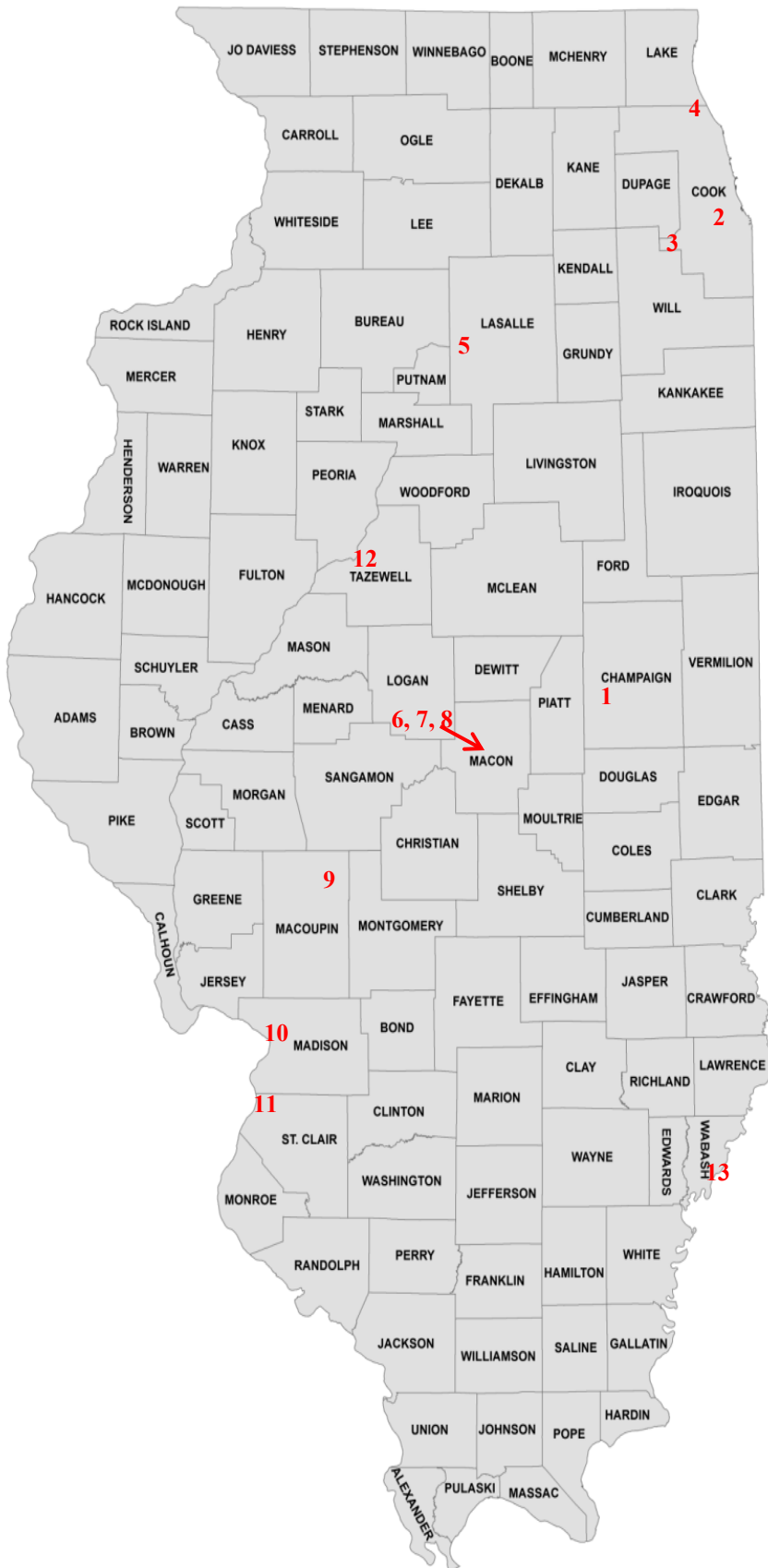
AQS ID	City	Total Hourly Samples	Daily 1Hour 1 st High	Daily 1Hour 2 nd High	Daily 1Hour 3 rd High	Daily 1Hour 4 th High	Daily 8Hour 1 st High	Daily 8Hour 2 nd High	Daily 8Hour 3 rd High	Daily 8Hour 4 th High
17-019-1001	Bondville	7869	0.405	0.393	0.354	0.333	0.3	0.3	0.2	0.2
17-031-0119	Lansing Kingery near-road #1	8639	2.7	2.2	1.9	1.8	1.2	1.1	1.0	1.0
17-031-4201	Northbrook	8023	0.874	0.844	0.752	0.740	0.6	0.6	0.6	0.5
		Statewide Average	1.33	1.15	1.00	0.96	0.70	0.67	0.60	0.57

Table B17 – CO Sample days greater than 1-Hour (35 ppm) and 8-Hour (9 ppm) Design Values

AQS ID	City	2024 1hour Design Value Days	2023 1hour Design Value Days	2022 1hour Design Value Days	2021 1hour Design Value Days	2020 1hour Design Value Days	2024 8hour Design Value Days	2023 8hour Design Value Days	2022 8hour Design Value Days	2021 8hour Design Value Days	2020 8hour Design Value Days
17-019-1001	Bondville	0	0	0	0	0	0	0	0	0	0
17-031-0119	Lansing Kingery near-road #1	0	0	0	0	0	0	0	0	0	0
17-031-4201	Northbrook	0	0	0	0	0	0	0	0	0	0

*The 1-hour and 8-hour carbon monoxide standard is an exceedance-based standard. The 1-hour standard is set at 35 ppm and is not to be exceeded more than once per year. The 8-hour standard is set at 9 ppm and is not to be exceeded more than once per year. More than one exceedance in a year is a violation of the National Ambient Air Quality Standard.

Sulfur Dioxide Monitoring Sites



Site ID	Site Name
1. 170191001	Bondville
2. 170310076	Chicago – Com Ed Maint. Bldg.
3. 170311601	Lemont
4. 170314201	Northbrook
5. 170990007	Oglesby
6. 171150013	Decatur
7. 171150218	Decatur - Primient North
8. 171150318	Decatur - Primient South
9. 171170002	Nilwood
10. 171193007	Wood River
11. 171630010	East St. Louis
12. 171790004	Pekin
13. 171850001	Mount Carmel

Sulfur Dioxide Exceedances

Table B18 - Exceedances of the 1-Hour Primary Standard of 75 ppb

Date	City	Concentration (ppb)
3/11/24	Decatur	145.0
6/23/24	Decatur – Primient South	79.7
8/9/24	Decatur – Primient South	152.5
12/10/24	Decatur – Primient South	89.4
12/20/24	Decatur – Primient South	91.1
Total Over 75 ppb	5	
Total Days Over 75 ppb	5	

Sulfur Dioxide Highs

Table B19 - Days with 1-Hour SO2 Greater Than 75 ppb and

AQS ID	City	Total Hourly Samples	2024 Days Greater Than 75 ppb	2023 Days Greater Than 75 ppb	2022 Days Greater Than 75 ppb
17-019-1001	Bondville	7955	0	0	0
17-031-0076	Chicago Com Ed Maintenance	8253	0	0	0
17-031-1601	Lemont	7963	0	0	0
17-031-4201	Northbrook	8455	0	0	0
17-099-0007	Oglesby	8630	0	0	0
17-115-0013	Decatur Illinois EPA Trailer	8654	1	0	0
17-115-0217	Decatur Primient North	8730	0	2	2
17-115-0317	Decatur Primient South	8741	4	2	2
17-117-0002	Nilwood	8430	0	0	0
17-119-3007	Wood River	8239	0	0	0
17-163-0010	East St. Louis	8585	0	0	0
17-179-0004	Pekin	8495	0	0	0
17-185-0001	Mount Carmel	8359	0	0	1
		Total Over 75 ppb	5	4	5
		Total Days Over 75 ppb	5	4	5

Sulfur Dioxide Highs

Table B20 - 2024 Highest Daily 1-Hour SO2 Samples (ppb)

AQS ID	City	Daily 1Hour 1 st High	Daily 1Hour 2 nd High	Daily 1Hour 3 rd High	Daily 1Hour 4 th High
17-019-1001	Bondville	6.0	4.0	3.5	3.3
17-031-0076	Chicago Com Ed Maintenance	11.6	7.8	7.5	7.2
17-031-1601	Lemont	8.6	6.7	6.6	5.8
17-031-4201	Northbrook	8.0	6.2	5.9	5.8
17-099-0007	Oglesby	21.7	14.7	13.5	12.7
17-115-0013	Decatur Illinois EPA Trailer	145.0	26.3	17.6	16.7
17-115-0217	Decatur Primient North	63.4	55.0	52.9	52.7
17-115-0317	Decatur Primient South	152.5	91.1	89.4	79.7
17-117-0002	Nilwood	7.8	5.5	5.3	4.5
17-119-3007	Wood River	5.8	5.4	5.3	5.0
17-163-0010	East St. Louis	7.4	6.6	6.5	6.5
17-179-0004	Pekin	10.9	5.2	4.1	3.9
17-185-0001	Mount Carmel	22.3	18.0	16.6	16.4
	Statewide Average	36.2	19.4	18.1	16.9

Sulfur Dioxide 1-Hour Design Values

Table B21 - Annual SO₂ 99th Percentile Value (ppb) and SO₂ 3-Year Design Values (ppb)

AQS ID	City	2024 99 th Percentile Value	2023 99 th Percentile Value	2022 99 th Percentile Value	2021 99 th Percentile Value	2020 99 th Percentile Value	2022-2024 Design Value	2021-2023 Design Value	2020-2022 Design Value
17-019-1001	Bondville	3.3	3.7	4.5	3.2	2.6	4	4	3
17-031-0076	Chicago Com Ed Maintenance	7.2	10.6	10.5	9.7	14.4	9	10	12
17-031-1601	Lemont	5.8	6.5	7.1	6.9	4.8	6	7	6
17-031-4201	Northbrook	5.9	6.4	3.6	5.7	6.1	5	5	5
17-099-0007	Oglesby	12.7	15.6	4.5	5.3	7.6	11	8	6
17-115-0013	Decatur Illinois EPA Trailer	16.7	19.0	18.2	16.6	21.6	18	18	19
17-115-0117	Decatur ADM	-	-	-	-	16.3	-	-	-
17-115-0217	Decatur Primient North	52.7	50.3	55.4	42.6	38.8	53	49	46
17-115-0317	Decatur Primient South	79.7	66.1	44.5	51.8	38.5	63	54	45
17-117-0002	Nilwood	4.5	3.1	4.2	3.4	2.9	4	4	4
17-119-3007	Wood River	5.3	13.9	9.1	12.0	7.2	9	12	9
17-163-0010	East St. Louis	6.5	11.2	13.8	12.4	8.3	11	12	12
17-179-0004	Pekin	3.9	4.6	11.0	12.2	14.3	7	9	13
17-185-0001	Mount Carmel	16.4	10.2	24.9	21.0	48.9	17	19	32
	Statewide Average	17.0	17.0	16.3	15.6	16.6	17	16	16

*The design value is the three-year average of the 99th percentile concentration. Design value greater than 75 ppb is a violation of the National Ambient Air Quality Standard.

Nitrogen Dioxide Monitoring Sites



	Site ID	Site Name
1.	170310076	Chicago - Com Ed Maintenance
2.	170310219	Chicago - Kennedy near-road
3.	170310119	Lansing - Kingery near-road
4.	170313103	Schiller Park
5.	170314002	Cicero
6.	170314201	Northbrook (PAMS only)
7.	171170002	Nilwood
8.	171630010	East St. Louis

[illegible]

Nitrogen Dioxide Highs

Table B23 - Days with 1-Hour NO2 Greater Than 100 ppb

AQS ID	City	Total Hourly Samples	2024 Days Greater Than 100 ppb	2023 Days Greater Than 100 ppb	2022 Days Greater Than 100 ppb
17-031-0076	Chicago Com Ed Maintenance	8335	0	0	0
17-031-0119	Lansing Kingery near-road	8739	0	0	0
17-031-0219	Chicago Kennedy near-road	8581	0	0	0
17-031-3103	Schiller Park	8698	0	0	0
17-031-4002	Cicero Cook County Trailer	8283	0	0	0
17-031-4201	Northbrook PAMS only June -Aug	2148	0	0	0
17-117-0002	Nilwood	8646	0	0	0
17-163-0010	East St. Louis	8626	1	0	0
		Total Over 100 ppb	1	0	0
		Total Days Over 100 ppb	1	0	0

Table B24 - 2024 Highest Daily 1-Hour NO2 Samples (ppb)

AQS ID	City	Daily 1Hour 1 st High	Daily 1Hour 2 nd High	Daily 1Hour 3 rd High	Daily 1Hour 4 th High	Daily 1Hour 5 th High	Daily 1Hour 6 th High	Daily 1Hour 7 th High	Daily 1Hour 8 th High
17-031-0076	Chicago Com Ed Maintenance	65.7	56.9	55.7	55.4	53.2	52.9	52.1	51.3
17-031-0119	Lansing Kingery near-road	59.5	55.8	54.7	53.4	52.2	52.2	49.7	49.5
17-031-0219	Chicago Kennedy near-road	59.8	56.2	55.5	52.6	52.2	51.8	51.7	50.5
17-031-3103	Schiller Park	76.2	67.8	66.0	63.3	59.1	57.7	57.2	57.1
17-031-4002	Cicero Cook County Trailer	62.0	56.3	52.6	51.9	51.4	50.5	50.4	50.4
17-031-4201	Northbrook PAMS only June -Aug	66.1	65.5	30.1	27.6	27.3	26.2	25.9	23.9
17-117-0002	Nilwood	23.9	22.5	18.9	18.1	17.9	17.8	14.4	14.4
17-163-0010	East St. Louis	141.3	66.7	61.1	58.0	54.1	50.2	49.5	48.4

Nitrogen Dioxide 1-Hour Design Values

Table B25 - Annual NO₂ 98th Percentile Value (ppb) and 3-Year NO₂ Design Values (ppb)

AQS ID	City	2024 98 th Percentile Value	2023 98 th Percentile Value	2022 98 th Percentile Value	2021 98 th Percentile Value	2020 98 th Percentile Value	2022-2024 Design Value	2021-2023 Design Value	2020-2022 Design Value
17-031-0076	Chicago Com Ed Maintenance	52.1	47.1	50.3	46.9	44.4	50	48	47
17-031-0119	Lansing Kingery near-road	49.5	53.1	51.7	49.0	47.8	51	51	50
17-031-0219	Chicago Kennedy near-road	50.5	52.5	52.7	52.1	49.9	52	52	52
17-031-3103	Schiller Park	57.1	54.1	51.6	54.3	50.2	54	53	52
17-031-4002	Cicero Cook County Trailer	50.4	54.7	55.3	56.6	49.4	53	56	54
17-031-4201	Northbrook PAMS only June -Aug	65.5	46.4	31.4	28.2	-	48	35	30
17-117-0002	Nilwood	14.4	14.8	13.5	13.0	15.5	14	14	14
17-163-0010	East St. Louis	48.4	38.0	38.6	38.8	39.1	42	38	39
	Statewide Average	48.5	45.1	43.1	42.4	42.3	45.5	43.4	42.3

*The design value is the three-year average of the 98th percentile concentration. Design value greater than 100 ppb is a violation of the National Ambient Air Quality Standard.

Nitrogen Dioxide Annual Design Values

Table B26 - NO2 Annual Arithmetic Mean (ppb)

AQS ID	City	2024 Annual Mean	2023 Annual Mean	2022 Annual Mean	2021 Annual Mean	2020 Annual Mean
17-031-0076	Chicago Com Ed Maintenance	11.95	12.48	11.51	11.86	11.33
17-031-0119	Lansing Kingery near-road #1	16.35	16.91	17.09	17.49	16.46
17-031-0219	Chicago Kennedy near-road #2	13.77	15.79	15.56	15.70	14.74
17-031-3103	Schiller Park	18.82	17.01	17.21	17.14	15.19
17-031-4002	Cicero Cook County Trailer	12.87	15.49	14.53	14.77	12.75
17-031-4201	Northbrook PAMS only June -Aug	7.48	7.99	7.39	5.02	-
17-117-0002	Nilwood	1.95	2.13	1.80	2.04	2.12
17-163-0010	East St. Louis	11.22	8.45	8.62	8.90	8.56
	Statewide Average (year-round sites only)	12.42	12.61	12.33	12.56	11.59

*The design value is the highest annual average concentration during the most recent two years. Design value greater than 53 ppb is a violation of the National Ambient Air Quality Standard.

Lead Monitoring Sites



	Site ID	Site Name
1.	170310022	Chicago – Washington High School
2.	170310110	Chicago – Perez Elementary
3.	171190010	Granite City – 15 th and Madison

Lead Highs

Table B27 - 2024 Highest Monthly Means and Max 3-Month Mean

AQS ID	City	Total Sample Days	Month Mean 1 st High	Month Mean 2 nd High	Month Mean 3 rd High	Month Mean 4 th High	Month Mean 5 th High	2024 Maximum 3-Month Mean
17-031-0022	Chicago Washington High School	60	0.018	0.018	0.014	0.014	0.012	0.01
17-031-0110	Chicago Perez Elementary	61	0.017	0.017	0.013	0.012	0.010	0.01
17-119-0010	Granite City Air Products	62	0.026	0.020	0.020	0.019	0.015	0.02
		Statewide Average	0.020	0.018	0.016	0.015	0.012	0.01

Lead Design Values

Table B28 - Annual Max 3-Month Mean and 3-Year Lead Design Value

AQS ID	City	2024 Maximum 3-Month Mean	2023 Maximum 3-Month Mean	2022 Maximum 3-Month Mean	2021 Maximum 3-Month Mean	2020 Maximum 3-Month Mean	2022-2024 Design Value	2021-2023 Design Value	2020-2022 Design Value
17-031-0022	Chicago Washington High School	0.01	0.01	0.01	0.01	0.02	0.01	0.01	0.02
17-031-0110	Chicago Perez Elementary	0.01	0.02	0.01	0.01	0.02	0.02	0.02	0.02
17-119-0010	Granite City Air Products	0.02	0.03	0.04	0.03	0.12	0.04	0.04	0.12
17-119-0121	Alton Olin -Discontinued	-	-	0.02	0.05	-	-	-	0.05
	Statewide Average	0.013	0.020	0.020	0.025	0.053	0.02	0.02	0.05

*The design value is the maximum three-month rolling mean over the latest three-year period.
Design value greater than 0.15 ug/m³ is a violation of the National Ambient Air Quality Standard.

Metals Filter Analysis Data

Table B29 - 2024 Cadmium Highest 24-Hour Samples and Annual Mean

AQS ID	City	Total Samples	24Hour 1 st High	24Hour 2 nd High	2024 Annual Mean
17-031-0022	Chicago Washington High School	60	0.002	0.001	0.000
17-031-0110	Chicago Perez Elementary	57	0.001	0.000	0.000
17-119-0010	Granite City Air Products	60	0.001	0.001	0.000

Table B30 - 2024 Chromium Highest 24-Hour Samples and Annual Mean

AQS ID	City	Total Samples	24Hour 1 st High	24Hour 2 nd High	2024 Annual Mean
17-031-0022	Chicago Washington High School	60	0.017	0.017	0.006
17-031-0110	Chicago Perez Elementary	57	0.011	0.011	0.004
17-119-0010	Granite City Air Products	60	0.015	0.013	0.005

Table B31 - 2024 Manganese Highest 24-Hour Samples and Annual Mean

AQS ID	City	Total Samples	24Hour 1 st High	24Hour 2 nd High	2024 Annual Mean
17-031-0022	Chicago Washington High School	60	0.200	0.196	0.069
17-031-0110	Chicago Perez Elementary	57	0.154	0.079	0.030
17-119-0010	Granite City Air Products	60	0.241	0.215	0.053

Table B32 - 2024 Nickel Highest 24-Hour Samples and Annual Mean

AQS ID	City	Total Samples	24Hour 1 st High	24Hour 2 nd High	2024 Annual Mean
17-031-0022	Chicago Washington High School	60	0.013	0.009	0.003
17-031-0110	Chicago Perez Elementary	57	0.016	0.011	0.002
17-119-0010	Granite City Air Products	60	0.027	0.017	0.004

Toxic Compounds

(values from year-round non-PAMS sampling)

Table B33 - 2024 Highest 24-Hour Samples and Annual Average

AQS ID	City	Compound	24Hour 1 st High	24Hour 2 nd High	24Hour 3 rd High	24Hour 4 th High	2024 Annual Average
17-031-4201	Northbrook	1,3 Butadiene	0.058	0.031	0.026	0.020	0.010
		Dichloromethane	11.600	2.650	2.590	2.300	0.799
		Chloroform	6.430	5.250	3.650	2.810	0.933
		Carbon Tetrachloride	0.106	0.104	0.098	0.098	0.081
		Tetrachloroethylene	0.168	0.041	0.038	0.034	0.016
		Trichloroethylene	0.015	0.009	0.008	0.008	0.005
		1,2 Dichloropropane	0.000	0.000	0.000	0.000	0.000
		Vinyl Chloride	0.007	0.007	0.006	0.006	0.001
		Benzene	0.294	0.285	0.256	0.240	0.132
		Toluene	4.170	0.857	0.604	0.598	0.336
		Formaldehyde	4.370	3.550	3.110	2.630	1.630
		Acetaldehyde	2.530	2.240	1.990	1.720	1.038
		Acrolein	2.090	1.840	0.806	0.304	0.211
17-031-3103	Schiller Park	1,3 Butadiene	0.092	0.085	0.085	0.082	0.029
		Dichloromethane	1.700	0.336	0.280	0.228	0.178
		Chloroform	0.109	0.062	0.044	0.041	0.024
		Carbon Tetrachloride	0.094	0.092	0.090	0.089	0.077
		Tetrachloroethylene	0.322	0.310	0.172	0.161	0.055
		Trichloroethylene	0.273	0.233	0.172	0.125	0.028
		1,2 Dichloropropane	0.000	0.000	0.000	0.000	0.000
		Vinyl Chloride	0.004	0.003	0.003	0.002	0.001
		Benzene	0.371	0.354	0.337	0.320	0.200
		Toluene	0.837	0.624	0.568	0.565	0.279
		Formaldehyde	8.600	7.910	7.170	6.480	3.451
		Acetaldehyde	5.780	4.570	4.250	4.030	2.106
		Acrolein	0.690	0.553	0.376	0.340	0.198

Appendix C: Website Links

Illinois EPA's Website Information

To access the online version of the Annual Air Quality Report, various pollutant averages and exceedances, the monitoring network plan and emission trends:

- <https://www2.illinois.gov/epa/topics/air-quality/Pages/default.aspx>

Air Quality Index Information

To view current Air Quality Index numbers and forecasts across the country:

- <https://www.airnow.gov>

To view current fine particle pollution air quality, fire locations, and smoke plumes:

- <https://fire.airnow.gov>

To sign up for air quality information such as forecasts and pollution alerts:

- <https://www.enviroflash.info/signup.cfm>

Monitoring Data Access Information

To access yearly Air Quality Index summaries, air quality statistics and monitoring concentrations:

- <https://www.epa.gov/outdoor-air-quality-data>

To access status and trends of key air pollutants:

- <https://www.epa.gov/air-trends>

To access historical Design Values (statistic to compare to the National Ambient Air Quality Standards):

- <https://www.epa.gov/air-trends/air-quality-design-values>

Nonattainment Areas and Designations (regions in violation of the various National Ambient Air Quality Standards):

- <https://www.epa.gov/green-book>

Other

Ambient Monitoring Technology Information Center:

- <https://www.epa.gov/amtic>

Toxic Release Inventory Data and Tools

- <https://www.epa.gov/toxics-release-inventory-tri-program/tri-data-and-tools>

