State of Illinois
Illinois Environmental Protection Agency

Illinois
Air Quality Report

2022

January 2024

ILLINOIS ANNUAL AIR QUALITY REPORT 2022

Illinois Environmental Protection Agency
Bureau of Air

Executive Summary

This report presents a summary of air quality data collected throughout the State of Illinois during calendar year 2022. Data is presented for the six criteria pollutants (those for which air quality standards have been developed – particulate matter (PM_{10} 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 64 different site locations collecting data from 136 instruments.

In terms of the Air Quality Index (AQI), air quality during 2022 was either good or moderate 95% of the time throughout Illinois. There were two days when at least one monitoring site registered Unhealthy AQI (category red). This compares with five Unhealthy days in 2021. The 2022 Unhealthy category days were due to elevated ozone concentrations in June. In 2022 there were 15 days (14 for ozone and one for PM2.5) when AQI in at least one part of Illinois was considered Unhealthy for Sensitive Groups (category orange). This compares with 24 Unhealthy for Sensitive Groups days reported in 2021.

Stationary point source emission data has again been included. The data in the report reflects information contained in Illinois EPA's Integrated Comprehensive Environmental Management System (ICEMAN) as of December 31, 2022. Emission estimates are for the calendar year 2022 and are for the pollutants: particulate matter, volatile organic material, sulfur dioxide, nitrogen oxides, and carbon monoxide. Emission trends of these pollutants have been given for the years 1998 to the present. Emissions reported with the Annual Emissions Report have been provided starting with 1998 and are currently available through 2021. There has been a trend toward decreasing emissions over this time period.

OZONE

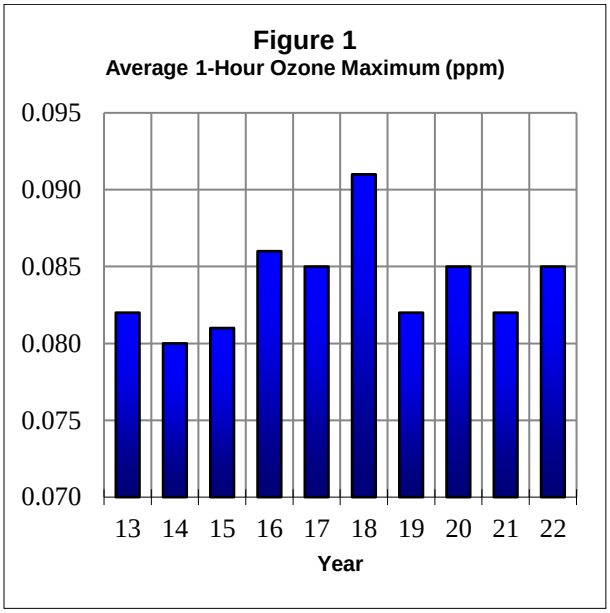
Monitoring was conducted at 37 locations during the March-October "ozone season" and at least 75 percent data capture was obtained at all 37 sites.

Zion recorded the highest 1-hour concentration of 0.103 ppm for Illinois Chicago area monitors. This compares with the highest concentration of 0.104 ppm in 2021 at Evanston. The highest 1-hour for Metro-East in 2021 was 0.096 ppm recorded at Alton, compared with a 2021 high of 0.114 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 eight sites in Illinois that had a fourth-high value above 0.070 ppm in 2022 compared with five sites in 2021. The highest Illinois Chicago area fourth-high value was 0.074 ppm at Lawndale-ComEd. The highest level in the Metro-East area was 0.076 ppm at Alton. For the three-year period 2020-2022, 10 sites had a fourth-high average above 0.070 ppm (Table B4).

Figure 1 shows for each year the statewide average of each site's highest hourly ozone value for the ten-year period 2013-2022. 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 2022 was 0.085 ppm compared with 0.082 ppm in 2021 and 0.085 ppm in 2020.

Statewide, the total number of 1-hour excursion days in 2022 was zero compared with zero in 2021 and zero in 2020.



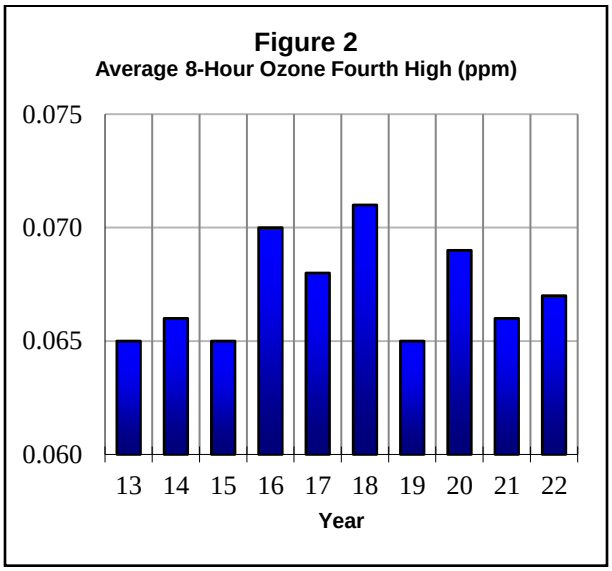


Figure 2 shows for each year the statewide annual average of the fourth highest 8-hour ozone value 2013-2022. The statewide average for 2021 was 0.067 ppm compared with 0.066 ppm in 2021 and 0.069 in 2020.

PARTICULATE MATTER

Monitoring was conducted at 34 sites for $PM_{2.5}$. In 2022, no sites recorded an average above 12.0 ug/m^3, the level of the annual standard. The statewide average of the annual averages was 8.9 ug/m^3 in 2022 compared to 9.4 ug/m^3 in 2021.

Figure 3 shows the trend of the statewide annual averages for $PM_{2.5}$ for the period 2013-2022. There was one exceedance of the 24-hour standard of 35 ug/m^3 in 2022 compared with 10 exceedances in 2021 and nine exceedances in 2020. The statewide peak of 40.6 ug/m^3 was recorded in Springfield. In 2022, the statewide 98-percentile 24-hour average was 21.9 ug/m^3. This compares with 22.0 ug/m^3 in 2021 and 19.9 ug/m^3 in 2020.

In 2022 there were four sites monitoring PM_{10}. The statewide annual average was 28 ug/m^3 compared with 29 ug/m^3 in 2021 and 30 ug/m^3 in 2020. The highest annual average was 38 ug/m^3 in Lyons Township. The lowest annual was 16 ug/m^3 at Northbrook.

For $PM_{10,}$ the statewide average of the maximum 24-hour averages in 2022 was 91 ug/m^3 compared with 97 ug/m^3 in 2021 and 98 ug/m^3 in 2020. **Figure 4** depicts this information for the period 2013-2022.

There were no exceedances of the 24-hour primary standard of 150 ug/m^3 in 2022. The highest 24-hour average was recorded in Lyons Township with a value of 139 ug/m^3 compared with a high 24-hour value of 130 ug/m^3 in Lyons Township in 2021.

Figure 3
Particulate Matter ($PM_{2.5}$) Annual Trends (ug/m^3)

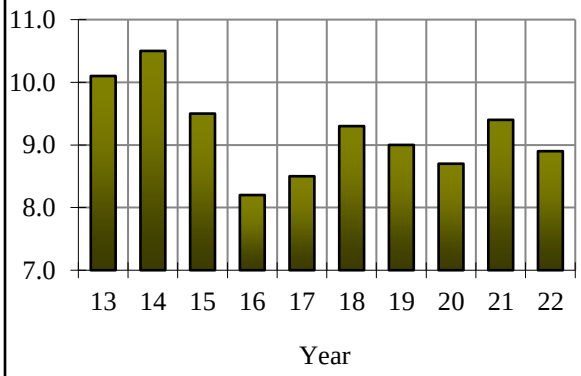
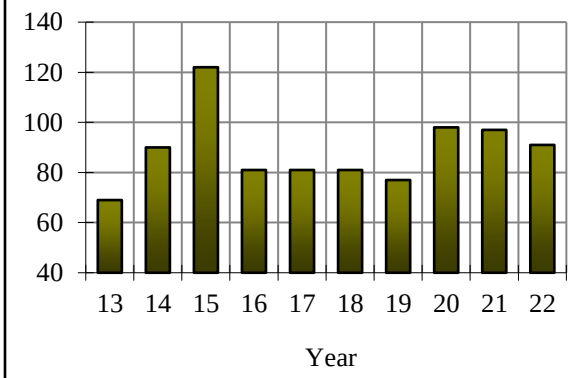


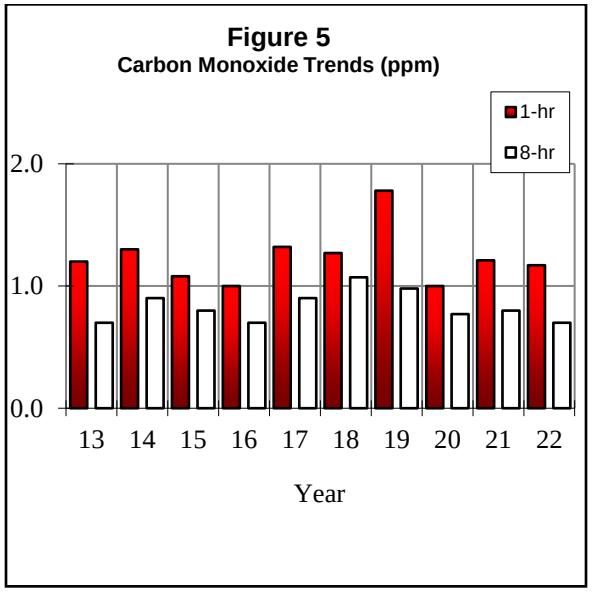
Figure 4
Particulate Matter (PM_{10}) 24-Hour Trends (ug/m^3)



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 2022. The highest 1-hour average was 1.8 ppm recorded at the Lansing-Kingery near-road location. The highest 8-hour average was 1.0 ppm also recorded at the Lansing-Kingery near-road location.

Figure 5 shows the trend for the period 2013-2022 for the statewide average of the 1-hour and 8-hour high CO values. The statewide average of the 1-hour high was 1.17 ppm in 2022 compared with 1.21 ppm in 2021. The statewide average for the 8-hour high was 0.70 ppm in 2022 compared with 0.80 ppm in 2021.



SULFUR DIOXIDE

There were five exceedances of the 1-hour primary standard of 75 ppb in 2022 compared with four exceedances in 2021. There were no exceedances of the 3-hour secondary standard of 500 ppb in 2022. The highest 1-hour average was 293 ppb recorded at the Decatur-Primient location compared with 2,732 ppb in Wood River in 2021 (railcar spill incident). The statewide average of the 1-hour high in 2022 was 50 ppb. This compares with 235 ppb in 2021 and 24 ppb in 2020. The highest 3-hour average of 158 ppb was recorded in Decatur-Primient in 2022 compared with 1,375 ppb in Wood River in 2021 (railcar spill). There were no sites over the primary 1-hour standard of 75 ppb for the 2020-2022 period (Table B17).

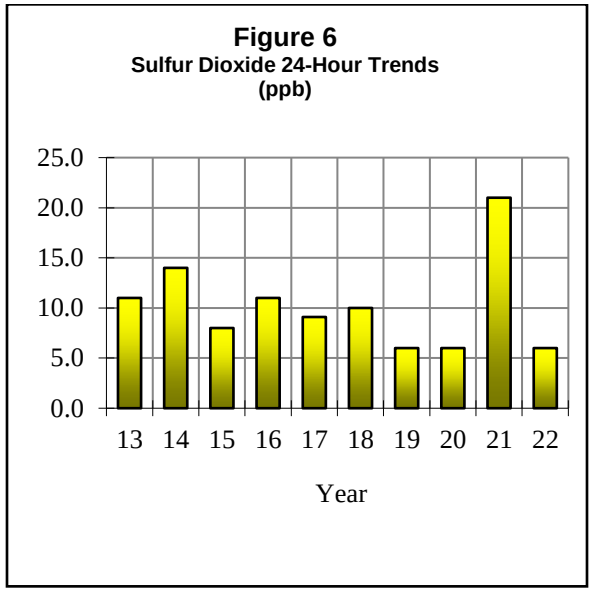
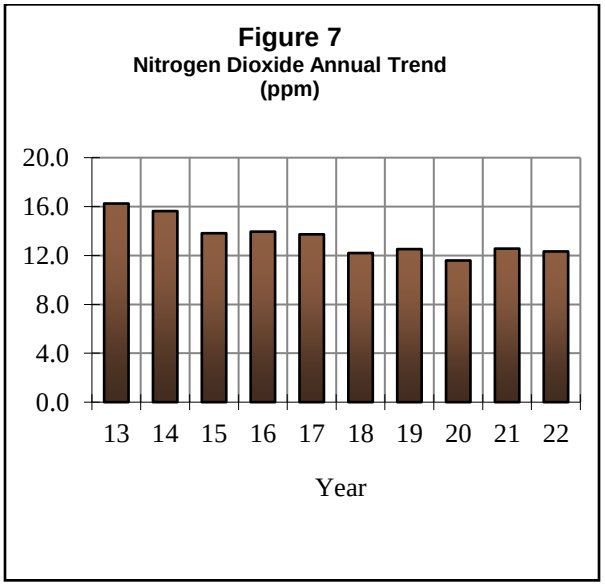


Figure 6 shows the statewide trend for the maximum 24-hour averages for the period 2013-2022. The statewide average for 2022 was 6 ppb. This compares with an average of 21 ppb in 2021.

NITROGEN DIOXIDE

There were no violations of the annual primary standard of 53 ppb recorded in Illinois during 2022. The highest annual average of 17.2 ppb was recorded at Schiller Park. The statewide annual average for 2022 was 12.3 ppb compared with 12.6 ppb in 2021 and 11.6 ppb in 2020. There were no violations of the 1-hour primary standard, and there were also no violations in 2021. There were no sites over the 1-hour primary standard of 100 ppb for the 2020-2022 period compared to zero sites for the 2019-2021 period (Table B20).

Figure 7 depicts the trend of statewide annual averages from 2013-2022. There have been no violations of the annual standard since 1980.



LEAD

There were no violations of the rolling three-month maximum mean standard for the 2020 to 2022 period (Table B23).

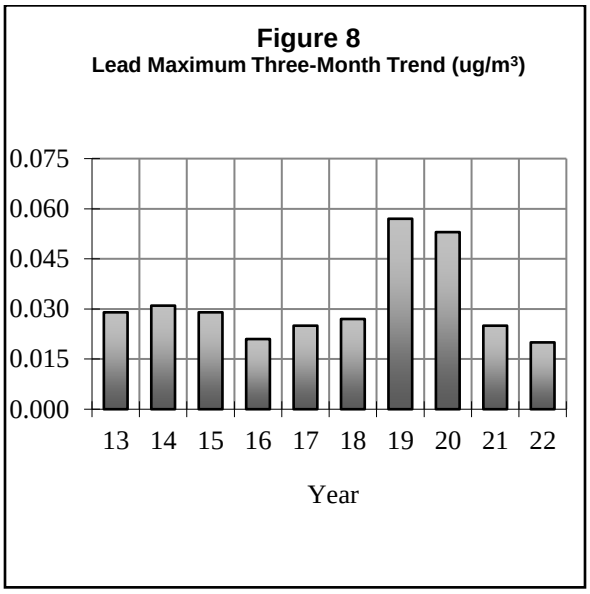


Figure 8 shows the trend of the statewide maximum rolling three-month averages from 2013-2021. The increase in 2019 was due to lead emission control problems at one facility in Granite City. The problems were addressed with the facility and corrective actions taken. Due to three-month averaging times, averages for January 2020 were affected as well (November 2019 – January 2020 average). All monitoring locations in the State have three-year maximum averages under the national standard for lead (Table B23). The statewide average for all sites was 0.020 ug/m^3 in 2022 compared to 0.025 ug/m^3 in 2021 and 0.053 ug/m^3 in 2020.

FILTER ANALYSIS RESULTS

The total suspended particulate samples were analyzed, in addition to lead, for specific metals (Table B24). 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 0.032 ug/m^3 measured in Granite City. The monitors at Chicago Perez and Chicago Washington High School both recorded the highest cadmium concentrations with a 24-hour average of 0.002 ug/m^3. The highest 24-hour chromium average was 0.029 ug/m^3 recorded in Granite City. The highest 24-hour manganese average was 0.459 ug/m^3 also recorded in Granite City.

TOXIC COMPOUNDS

Sampling for toxic compounds other than metals (see Filter Analysis Section, **Table B24**) was conducted at Northbrook and Schiller Park. Most compounds were below the method detection limits. **Table B25** has a listing of various toxic compound maximums and annual averages.

Section 2: 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 (O_3)
- Sulfur dioxide (SO_2)
- Carbon monoxide (CO)
- Particulate matter (PM_{10})
- Particulate matter ($PM_{2.5}$)
- Nitrogen dioxide (NO_2)

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. Each category corresponds to a different level of health concern. **Table 4** lists each AQI category and its corresponding meaning.

Unhealthy for Sensitive Groups occurs on occasion for 8-hour ozone, $PM_{2.5}$, and downwind of certain SO_2 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.

The AQI is computed as follows: data from pollution monitors in an area are collected, and the AQI sub index for each pollutant is computed using formulas derived from the index and concentration relations. Nomograms and tables are also available for this purpose. The data used are:

- O_3 estimate of the highest 8-hour average for that calendar day
- SO_2 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 far that calendar day
- PM_{10} the most recent 24-hour average
- $PM_{2.5}$ estimate of the 24-hour average for that calendar day
- NO_2 the highest 1-hour average

Continuous monitors are utilized for all the pollutants, including PM_{10} 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 5**).

These correspond to metropolitan areas with populations greater than 100,000.

Table 3: Air Quality Index Categories		
AQI Values	**AQI Descriptor**	**Colors**
***When the AQI is in this range*:**	***...air quality conditions are:***	***...as symbolized by this color:***
0-50	**Good**	**Green**
51-100	**Moderate**	**Yellow**
101-150	**Unhealthy for Sensitive Groups**	**Orange**
151 to 200	**Unhealthy**	**Red**
201 to 300	**Very Unhealthy**	**Purple**
301 to 500	**Hazardous**	**Maroon**

Table 4: Air Quality Index Health Concerns		
Air Quality Index Levels of Health Concern	**Numerical Value**	**Meaning**
Good	**0 to 50**	**Air quality is considered satisfactory, and air pollution poses little or no risk.**
Moderate	**51 to 100**	**Air quality is acceptable; however, for some pollutants there may be a moderate health concern for a very small number of people who are unusually sensitive to air pollution.**
Unhealthy for Sensitive Groups	**101 to 150**	**Members of sensitive groups may experience health effects. The general public is not likely to be affected.**
Unhealthy	**151 to 200**	**Everyone may begin to experience health effects; members of sensitive groups may experience more serious health effects.**
Very Unhealthy	**201 to 300**	**Health warnings of emergency conditions. The entire population is more likely to be affected.**
Hazardous	**301 to 500**	**Health alert: everyone may experience more serious health effects.**

Table 5: 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 only
Aurora-Elgin	Sub-Sector of Chicago Metropolitan Area including the eastern part 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	The Illinois portion of the St. Louis Metropolitan Area

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.

2022 Illinois AQI Sector Summary

In order to present a more representative AQI, 24-hour calendar day FRM $PM_{2.5}$ and PM_{10} values from the total network were used to determine the percentages in **Figure 9** even though some of these values were not available for issuing the daily AQI.

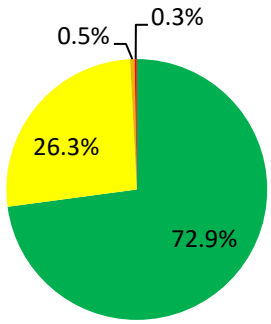
Air quality was in the "Good" and "Moderate" categories most often in 2022. All sectors had a higher frequency of "Good" than "Moderate" as well as a higher frequency of "Moderate" than "Unhealthy for Sensitive Groups." All but two sectors (South & West Suburbs and Metro-East) had 65 percent or more of the days in the "Good" category.

Within AQI sectors there were 42 occurrences of "Unhealthy for Sensitive Groups" air quality and two occurrences of "Unhealthy" air quality in 2022. The sector breakdown for "Unhealthy for Sensitive Groups" was two in Lake County, five in Chicago, four in North & West Suburbs, five in South & West Suburbs, three in Aurora-Elgin, five in Will County, one in Champaign, two in Normal, two in Decatur, four in Springfield, and nine in Metro-East. The sector breakdown for "Unhealthy" was one in Lake County and one in North & West Suburbs. **Figure 9** presents the AQI statistics for each sector. The pie chart shows the percent of days each sector was in a particular category.

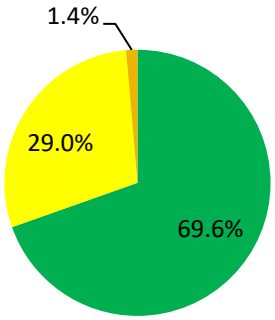
In 2022, there were no ozone advisories issued in Illinois. An advisory is declared when ozone levels have reached the level of the former 1-hour standard (0.125 ppm) on a particular day. In the Chicago MSA there was one Air Pollution Action Day issued in 2022. This compares with four in 2021.

Additional Air Quality Standards

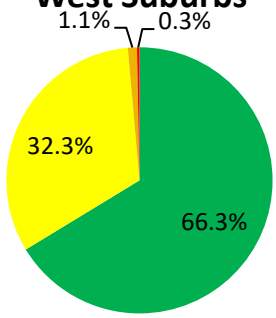
Chicago Sector - Lake County



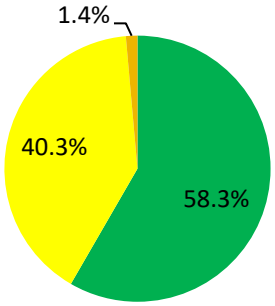
Chicago Sector - Chicago



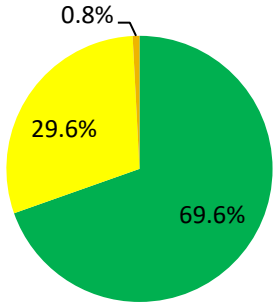
Chicago Sector - North & West Suburbs



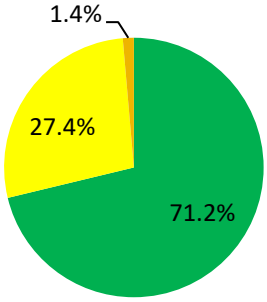
Chicago Sector - South & West Suburbs

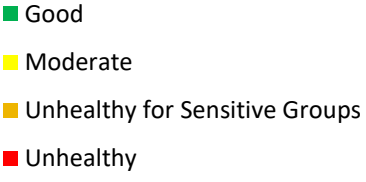


Aurora - Elgin



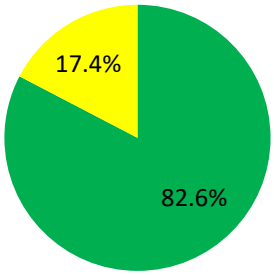
Joliet/Will County



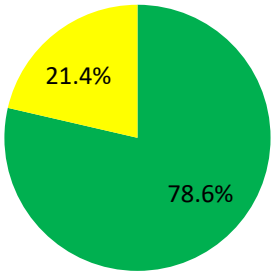


Additional Air Quality Standards

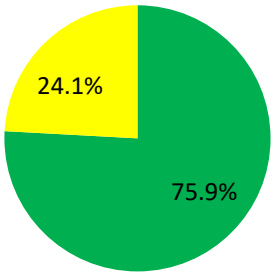
Rockford



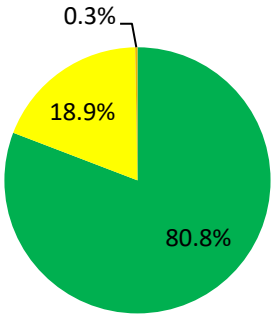
Rock Island



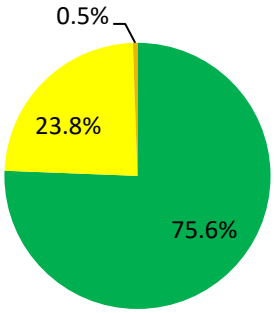
Peoria



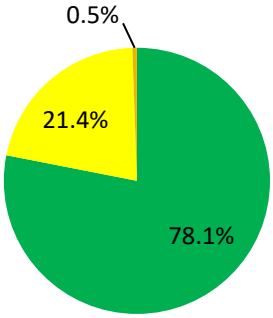
Champaign

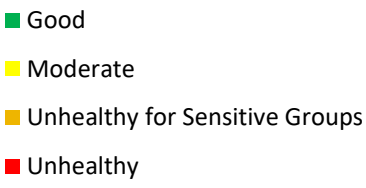


Normal

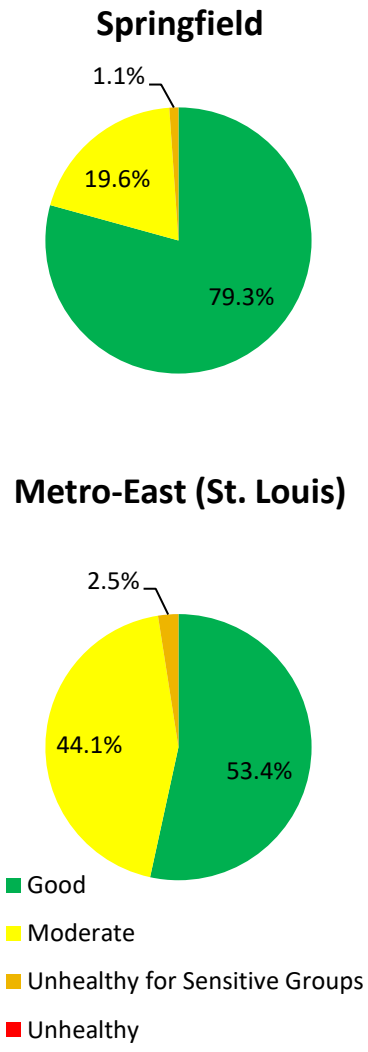


Decatur





Additional Air Quality Standards



Additional Air Quality Standards

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
			1-hour	35 ppm	
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
		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
Particle Pollution	$PM_{2.5}$	primary	Annual	12.0 µg/m^3	Annual mean, averaged over 3 years
		secondary	Annual	15.0 µg/m^3	Annual mean, averaged over 3 years
		primary and secondary	24-hour	35 µg/m^3	98th percentile, averaged over 3 years
	PM_{10}	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
		secondary	3-hour	0.5 ppm	Not to be exceeded more than once per year
$PM_{2.5}$ standards are referenced to local conditions of temperature and pressure rather than standard conditions (760 mmHg and 25 degrees Celsius).					

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 3: Statewide Summary of Point Source Emissions

Since the late 1970s, the Illinois EPA's Division of Air Pollution Control has maintained a database of stationary point source emissions for the entire State. 40 CFR 51.211 requires Illinois to include in its State Implementation Plan "... procedures for requiring owners or operators of stationary sources to maintain records of... a) Information on the nature and amount of emissions from the stationary source and b) other information as may be necessary..." The emission database maintained by the Division of Air Pollution Control has changed over time.

The current emissions inventory is known as the Integrated Comprehensive Environmental Management System (ICEMAN) and includes emission data on approximately 6,153 active sources (including 3,654 in the Registration of Smaller Sources, or ROSS, program) throughout the State. The ICEMAN data includes source addresses; source emission totals; permit data such as expiration date and status; emission unit data such as name, hours of operation, operating rate, fuel parameters, and emissions; control equipment data such as control device name, type, and removal efficiencies; and stack parameters. Reported emissions and Agency-calculated emissions are stored separately.

The group responsible for the entry of emission inventory data is the Regulatory Development Unit of the Air Quality Planning Section. This group uses permit applications, issued permits, and data reported on annual emissions reports to compile the inventory.

The following tables and graphs are an analysis of the emissions data contained in ICEMAN at the end of 2022. It is important to note emissions contained in ICEMAN are not necessarily the actual emissions that entered the atmosphere. This is due to the fact that when an air pollution permit is applied for, the applicant provides maximum and average emission rates. The maximum emission rate reflects what the applicant believes the emission rate would be at maximum production. The average emission rate reflects emissions at the applicant's most probable production rate. The Regulatory Development Unit has been updating its estimated emissions to more accurately reflect the reported emissions.

To calculate the distribution of emissions for the individual categories, the source classification code (SCC) field was used from the ICEMAN. The SCC is an eight-digit code that breaks emission units into logical categories. SCCs are provided by the USEPA.

To produce the following tables, the first three digits of the SCC were used. Only categories that contributed significantly to the overall total are listed in the following sections. The complete category breakdown can be found in Appendix C.

Volatile Organic Material

Figure 10
Volatile Organic Material
Emission Trend (1000s of Tons/Year)

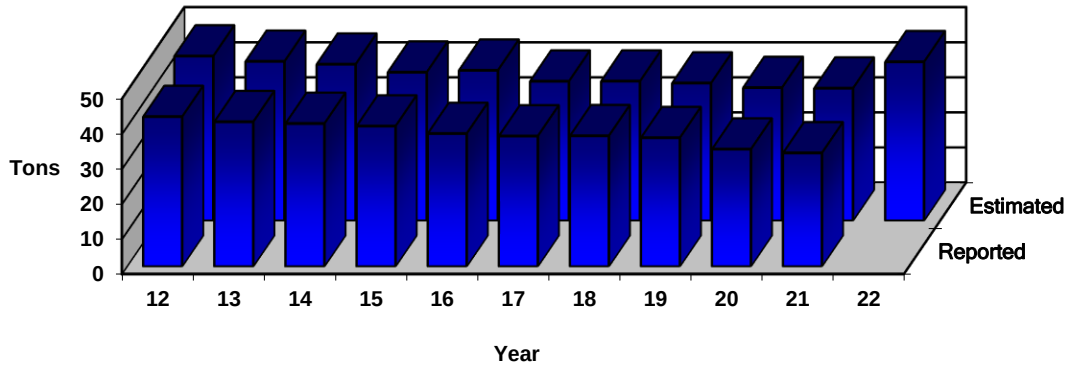


Table 6: Volatile Organic Material Emissions - 2022

Category	Estimated Emissions (tons)	Category Contribution	Cumulative Percent
Food/Agriculture	10,484.67	23.46%	23.46%
Surface Coating Operations	7,017.38	15.70%	39.17%
Chemical Manufacturing	6,763.27	15.14%	54.30%
Petroleum Product Storage	2,602.52	5.82%	60.13%
Printing/Publishing	2,546.54	5.70%	65.83%
Fuel Combustion	2,223.57	4.98%	70.80%
Organic Chemical Storage (large)	2,122.43	4.75%	75.55%
Petroleum Industry	1,656.53	3.71%	79.26%
Rubber and Plastic Products	1,527.23	3.42%	82.68%
Bulk Terminals/Plants	1,246.45	2.79%	85.47%
Mineral Products	1,054.44	2.36%	87.83%
Secondary Metal Production	915.90	2.05%	89.88%
Solid Waste Disposal	852.24	1.91%	91.79%
Fabricated Metal Products	847.16	1.90%	93.68%
Organic Solvent Use	678.95	1.52%	95.20%
Petroleum Marketing/Transport	386.33	0.86%	96.07%
Oil and Gas Production	353.27	0.79%	96.86%
All Other Categories	1,404.73	3.14%	100.00%

PM_{10}

Figure 11
PM_{10} Emission Trend
(1000s of Tons/Year)

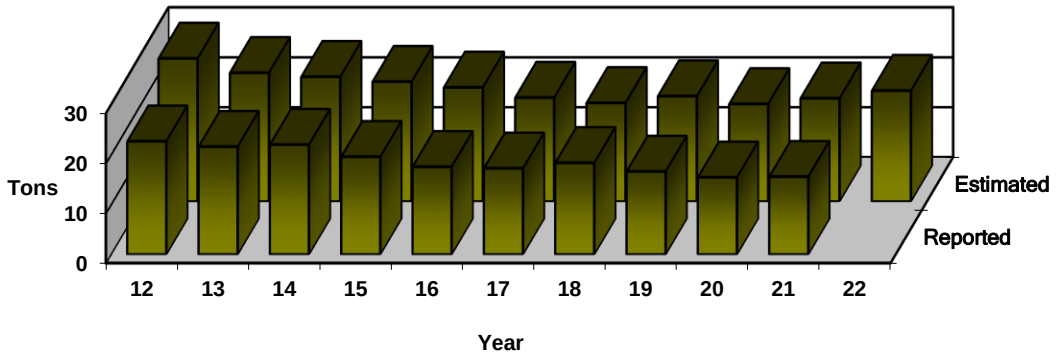


Table 7: Distribution of PM_{10} Emissions – 2022

Category	Estimated Emissions (tons)	Category Contribution	Cumulative Percent
Food/Agriculture	6,349.89	28.83%	28.83%
Fuel Combustion	4,856.41	22.05%	50.88%
Mineral Products	3,847.93	17.47%	68.36%
Chemical Manufacturing	1,278.90	5.81%	74.16%
Petroleum Industry	1,203.06	5.46%	79.63%
Secondary Metal Production	1,052.54	4.78%	84.41%
Solid Waste Disposal	814.79	3.70%	88.11%
Primary Metal Production	813.44	3.69%	91.80%
Surface Coating Operations	346.57	1.57%	93.37%
Fabricated Metal Products	247.65	1.12%	94.50%
Process Cooling	243.17	1.10%	95.60%
All Other Categories	968.53	4.40%	100.00%

Carbon Monoxide

Figure 12
Carbon Monoxide Emission
Trend (1000s of Tons/Year)

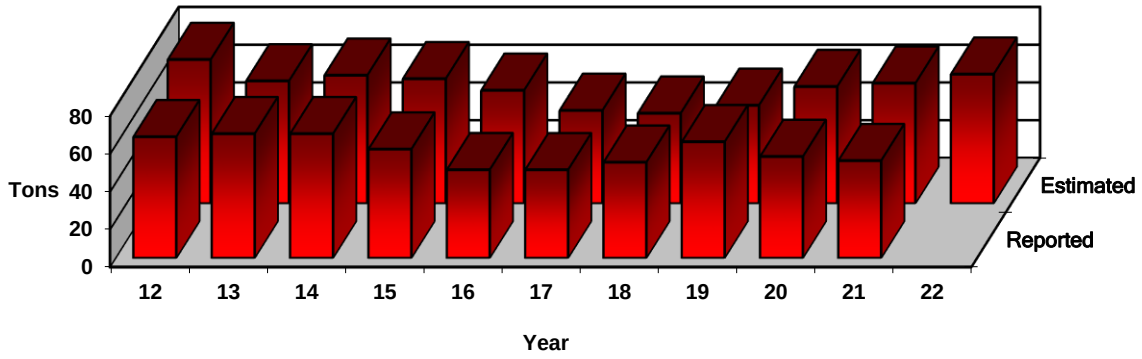


Table 8: Distribution of Carbon Monoxide Emissions - 2022

Category	Estimated Emissions (tons)	Category Contribution	Cumulative Percent
Fuel Combustion	23,745.40	34.93%	34.93%
Primary Metal Production	21,862.16	32.16%	67.10%
In-Process fuel use	4,567.61	6.72%	73.82%
Solid Waste Disposal	4,281.74	6.30%	80.11%
Mineral Products	3,217.41	4.73%	84.85%
Petroleum Industry	2,578.11	3.79%	88.64%
Secondary Metal Production	2,036.15	3.00%	91.64%
Chemical Manufacturing	1,862.39	2.74%	94.38%
Food/Agriculture	1,614.39	2.38%	96.75%
Solid Waste Disposal	738.36	1.09%	97.84%
Oil and Gas Production	576.22	0.85%	98.68%
All Other Categories	894.00	1.32%	100.00%

Sulfur Dioxide

Figure 13
Sulfur Dioxide Emission
Trend (1000s of Tons/Year)

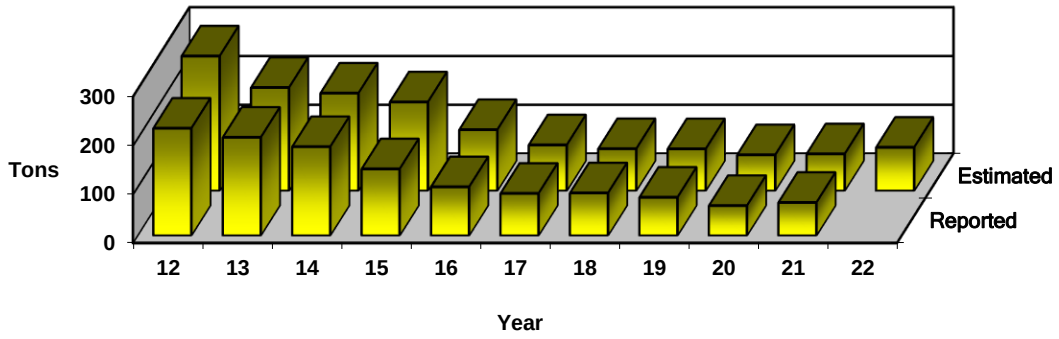


Table 9: Distribution of Sulfur Dioxide Emissions - 2022

Category	Estimated Emissions (tons)	Category Contribution	Cumulative Percent
Fuel Combustion	60,437.21	67.80%	67.80%
Petroleum Industry	15,083.49	16.92%	84.73%
Mineral Products	6,306.77	7.08%	91.80%
Solid Waste Disposal	2,229.36	2.50%	94.30%
Primary Metal Production	1,638.49	1.84%	96.14%
Food/Agriculture	1,457.21	1.63%	97.78%
Chemical Manufacturing	1,153.53	1.29%	99.07%
All Other Categories	829.50	0.93%	100.00%

Nitrogen Oxides

Figure 14
Nitrogen Oxide Emission
Trend (1000s of Tons/Year)

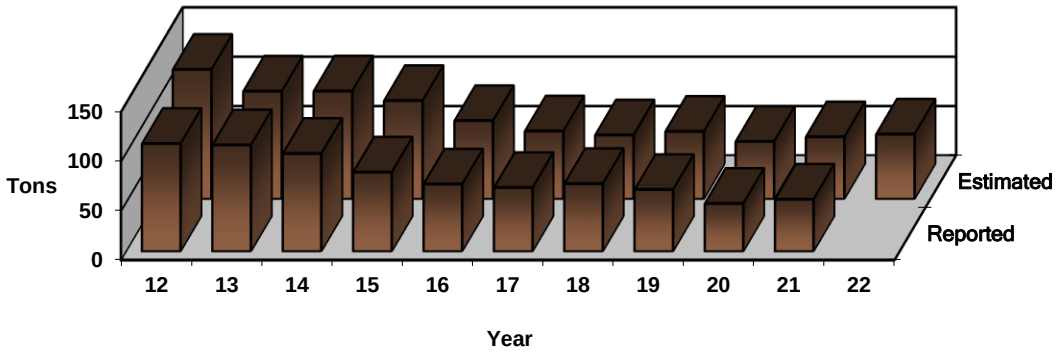


Table 10: Distribution of Nitrogen Oxide Emissions – 2022

Category	Estimated Emissions (tons)	Category Contribution	Cumulative Percent
Fuel Combustion	44,343.65	68.07%	68.07%
Mineral Products	7,794.11	11.97%	80.04%
Petroleum Industry	3,577.30	5.49%	85.53%
Chemical Manufacturing	1,620.93	2.49%	88.02%
Food/Agriculture	1,586.62	2.44%	90.46%
Oil and Gas Production	1,566.09	2.40%	92.86%
Primary Metal Production	1,326.22	2.04%	94.90%
Solid Waste Disposal	1,315.77	2.02%	96.92%
Secondary Metal Production	739.59	1.14%	98.05%
Surface Coating Operations	522.19	0.80%	98.85%
All Other Categories	747.03	1.15%	100.00%

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 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.

The Illinois network is deployed along the lines described in the Illinois State Implementation Plan. An updated air monitoring plan is submitted to USEPA each year for review.

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 Annual Network Plan, which 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 pollutants 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 basis 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 (NOx 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 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.

Table A1
Distribution of Air Monitoring Equipment

Parameter	2022	2021	2020	2019	2018
Particulate Matter Federal Reference Method ($PM_{2.5}$ FRM)	22	23	25	25	24
$PM_{2.5}$ Federal Equivalent Method ($PM_{2.5}$ FEM)	20	19	17	17	16
$PM_{10\text{-}2.5}$ (PM Coarse)	1	1	1	1	1
$PM_{2.5}$ Air Quality Index (non-FEM)	5	7	7	7	7
$PM_{2.5}$ Speciation	4	4	4	4	4
Particulate Matter (PM_{10})	5	5	5	5	5
Lead (Pb)	7	7	5	5	5
Sulfur Dioxide (SO_2)	13	13	14	14	14
Nitrogen Dioxide (NO_2)	8	8	7	7	5
Total Reactive Nitrogen (NO_y)	2	2	2	2	2
Ozone (O_3)	37	37	37	37	37
Carbon Monoxide (CO)	3	3	3	4	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
Meteorology	3	3	4	11	17
Total Instruments	136	138	137	145	146
Total Sites	64	64	64	64	63

Note, the above table includes collocated monitors.

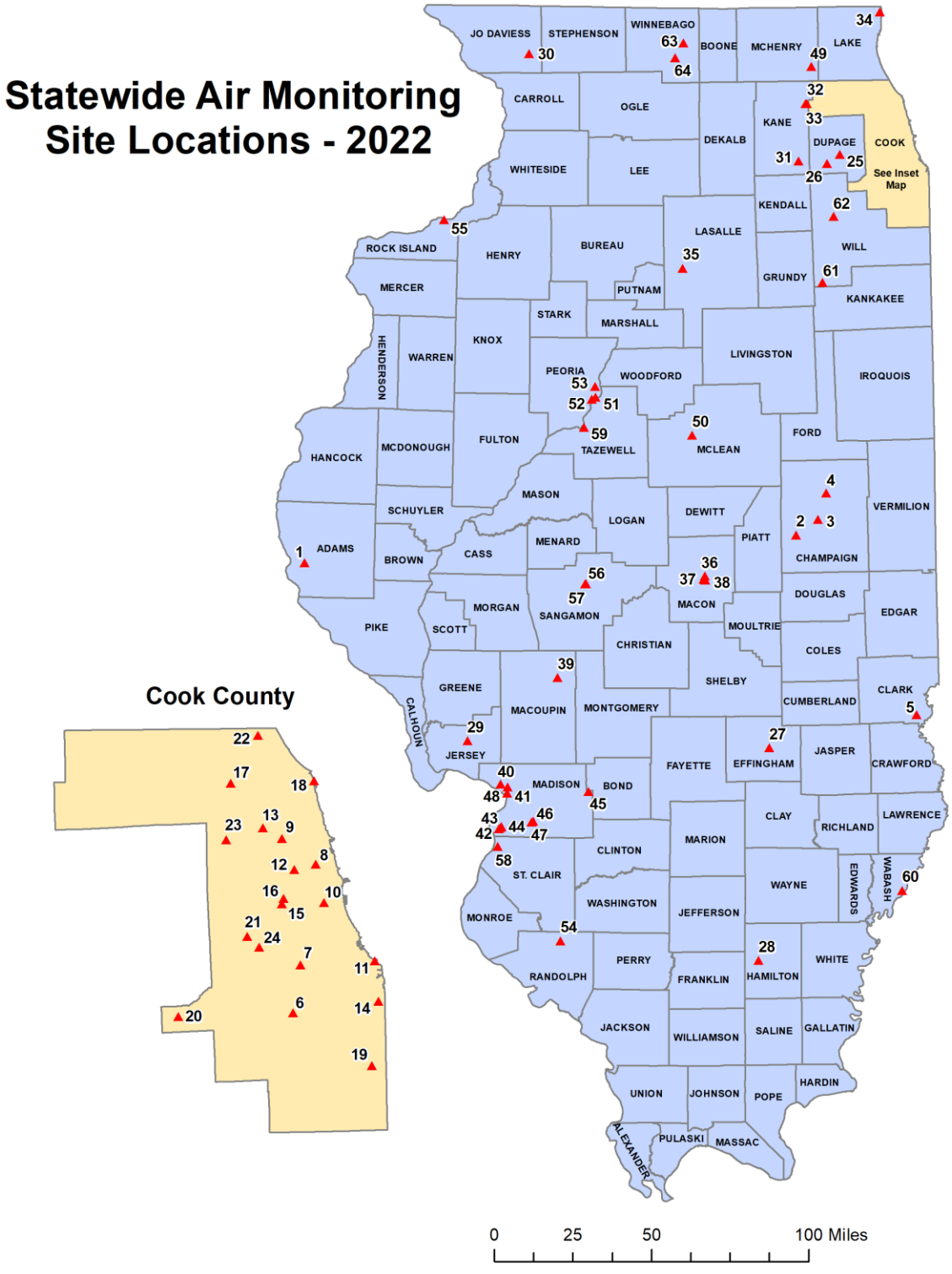

Statewide Air Monitoring Site Locations - 2022
Cook County
See Inset Map
JO DAVIESS
STEPHENSON
WINNEBAGO
BOONE
MCHENRY
LAKE
CARROLL
OGLE
DEKALB
KANE
DUPAGE
COOK
WHITESIDE
LEE
KENDALL
ROCK ISLAND
HENRY
BUREAU
LASALLE
WILL
MERCER
PUTNAM
GRUNDY
KANKAKEE
STARK
MARSHALL
HENDERSON
WARREN
KNOX
LIVINGSTON
IROQUOIS
PEORIA
WOODFORD
HANCOCK
MCDONOUGH
FULTON
TAZEWELL
MCLEAN
FORD
MASON
SCHUYLER
LOGAN
DEWITT
VERMILION
ADAMS
BROWN
CASS
MENARD
PIATT
CHAMPAIGN
MORGAN
SANGAMON
MACON
DOUGLAS
EDGAR
PIKE
SCOTT
CHRISTIAN
MOULTRIE
COLES
GREENE
MACOUPIN
MONTGOMERY
SHELBY
CUMBERLAND
CLARK
CALHOUN
JERSEY
FAYETTE
EFFINGHAM
JASPER
CRAWFORD
MADISON
BOND
CLAY
RICHLAND
LAWRENCE
CLINTON
MARION
ST. CLAIR
WAYNE
EDWARDS
WABASH
WASHINGTON
JEFFERSON
MONROE
PERRY
WHITE
RANDOLPH
FRANKLIN
HAMILTON
JACKSON
WILLIAMSON
SALINE
GALLATIN
UNION
JOHNSON
POPE
HARDIN
ALEXANDER
PULASKI
MASSAC
0
25
50
100 Miles

Table A2
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	Ameren Substation 904 N. Walnut	+40.1237962 -88.229531	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
24	17-031-3301	Cook	Summit	Graves Elementary School 60th St. & 74th Ave.	+41.78276601 -87.80537679	CCDES

Table A2
Site Directory

Site Map ID	AQS ID	County	City	Address	Latitude Longitude	Owner / Operator
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	21965 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	17-089-0005	Kane	Elgin	Larsen Junior High School 665 Dundee Rd.	+42.04914776 -88.27302929	IL EPA
33	17-089-0003	Kane	Elgin	McKinley School 258 Lovell St.	+42.050403 -88.28001471	IL EPA
34	17-097-1007	Lake	Zion	Camp Logan Illinois Beach State Park	+42.4675733 -87.81004705	IL EPA
35	17-099-0007	La Salle	Oglesby	308 Portland Ave.	+41.29301454 -89.04942498	IL EPA
36	17-115-0013	Macon	Decatur	IEPA Trailer 2200 N. 22nd	+39.866933 -88.925452	IL EPA
37	17-115-0217	Macon	Decatur	Tate & Lyle North 899 N. Folk St.	+39.850712 -88.933635	ERM Inc.
38	17-115-0317	Macon	Decatur	Tate & Lyle South 2200 E. El Dorado St.	+39.846856 -88.923323	ERM Inc.
39	17-117-0002	Macoupin	Nilwood	IEPA Trailer Heaton & Dubois	+39.39607533 -89.80973892	IL EPA
40	17-119-0120	Madison	Alton	Horace Mann School 2708 Edwards St.	+38.901316 -90.146211	IL EPA
41	17-119-0121	Madison	Alton	Olin Inc. 600 Powder Mill Rd.	+38.888056 -90.104444	Olin Inc./CEC
42	17-119-0010	Madison	Granite City	Air Products 15th & Madison	+38.69443831 -90.15395426	IL EPA
43	17-119-1007	Madison	Granite City	Fire Station #1 23rd & Madison	+38.70453426 -90.13967484	IL EPA
44	17-119-0024	Madison	Granite City	Gateway Medical Center 2100 Madison Ave.	+38.7006315 -90.14476267	IL EPA
45	17-119-9991	Madison	Highland	5403 State Rd. 160	+38.8690 -89.6228	US EPA
46	17-119-1009	Madison	Maryville	200 West Division	+38.72657262 -89.95996251	IL EPA
47	17-119-0122	Madison	Maryville	8B Schiber Ct.	+38.730263 -89.950053	IL EPA
48	17-119-3007	Madison	Wood River	Water Treatment Plant 54 N. Walcott	+38.86066947 -90.10585111	IL EPA
49	17-111-0001	McHenry	Cary	Cary Grove High School 1st St. & Three Oaks Rd.	+42.22144166 -88.24220734	IL EPA

Table A2
Site Directory

Site Map ID	AQS ID	County	City	Address	Latitude Longitude	Owner / Operator
50	17-113-2003	McLean	Normal	ISU Physical Plant Main & Gregory	+40.51873537 -88.99689571	IL EPA
51	17-143-0037	Peoria	Peoria	City Office Building 613 N.E. Jefferson	+40.697326 -89.584084	IL EPA
52	17-143-0024	Peoria	Peoria	Fire Station #8 MacArthur & Hurlburt	+40.68742038 -89.60694277	IL EPA
53	17-143-1001	Peoria	Peoria Heights	Peoria Heights High School 508 E. Glen Ave.	+40.74550393 -89.58586902	IL EPA
54	17-157-0001	Randolph	Houston	IEPA Trailer Hickory Grove & Fallview	+38.17627761 -89.78845862	IL EPA
55	17-161-3002	Rock Island	Rock Island	Rock Island Arsenal 32 Rodman Ave.	+41.51472697 -90.51735026	IL EPA
56	17-167-0012	Sangamon	Springfield	Agricultural Building State Fair Grounds	+39.83192087 -89.64416359	IL EPA
57	17-167-0014	Sangamon	Springfield	Illinois Building State Fair Grounds	+39.831522 -89.640926	IL EPA
58	17-163-0010	St. Clair	East St. Louis	RAPS Trailer 13th & Tudor	+38.61203448 -90.16047663	IL EPA
59	17-179-0004	Tazewell	Pekin	Fire Station #3 272 Derby	+40.55643203 -89.65402083	IL EPA
60	17-185-0001	Wabash	Mount Carmel	Division St.	+38.397276 -87.773631	Indiana DEP
61	17-197-1011	Will	Braidwood	Com Ed Training Center 36400 S. Essex Rd.	+41.22153707 -88.19096718	IL EPA
62	17-197-1002	Will	Joliet	Pershing Elementary School Midland & Campbell Sts.	+41.52688509 -88.11647381	IL EPA
63	17-201-2001	Winnebago	Loves Park	Maple Elementary School 1405 Maple Ave.	+42.33498222 -89.0377748	IL EPA
64	17-201-0118	Winnebago	Rockford	Fire Department 204 S. 1st St.	+42.2670002 -89.089170	IL EPA

Table A3
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 N. Walnut															
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															

Active Monitor	Site/Monitor Installed	Site/Monitor Removed	C = Continuous PM_{10}, T = Trace level 2 = 2nd Collocated monitor * = FEM primary start 10/1/22, FRM remains as collocated

Table A3
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
17-031-4007	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															
17-089-0007	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															
17-115-0317	Decatur Tate & Lyle South															

Active Monitor | Site/Monitor Installed | Site/Monitor Removed | T = Trace level P = PAMS season only. 2 = 2nd Collocated monitor

Table A3
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
17-117-0002	Nilwood															
17-119-0120	Alton Horace Mann School															
17-119-0121	Alton Olin Inc.														2	
17-119-0010	Granite City Air Products														2	
17-119-0024	Granite City Gateway Medical Center															
17-119-1007	Granite City Fire Station #1							2								
17-119-0122	Maryville Maintenance Bldg				*											
17-119-1009	Maryville															
17-119-3007	Wood River															
17-119-9991	Highland															
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															

Active Monitor | Site/Monitor Installed | Site/Monitor Removed

2 = 2nd Collocated monitor
* = Relocation of Maryville monitor, new site started 05/01/22

Table A3
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
17-197-1002	Joliet Pershing Elementary															
17-197-1011	Braidwood															
17-201-0118	Rockford Fire Department															
17-201-2001	Loves Park															

Active Monitor	Site/Monitor Installed	Site/Monitor Removed

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.

PM_{10} 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 PM_{10} 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.

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

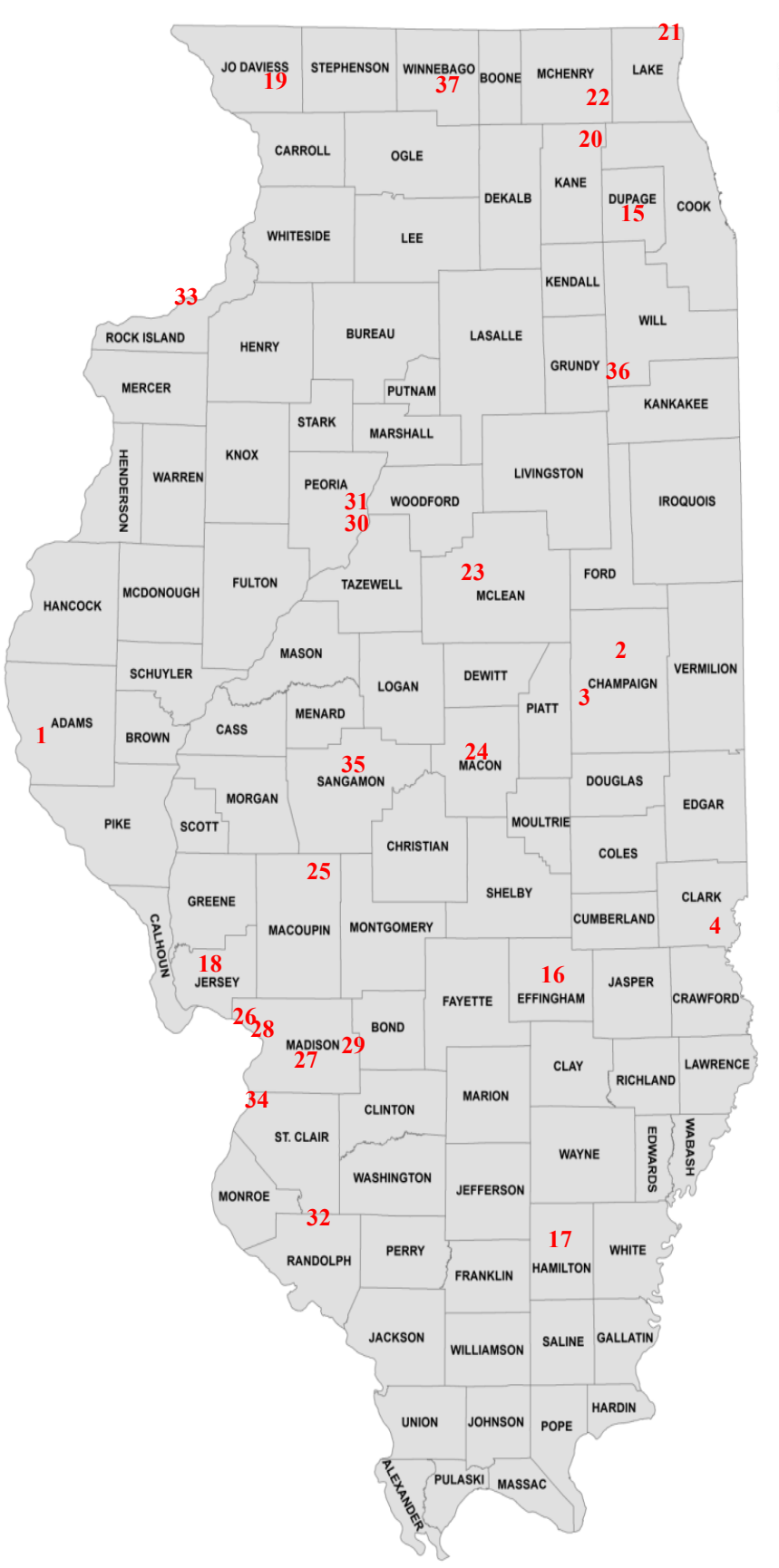
averaged to give 9; whereas the values 9.0, 9.0, and 10.0 are averaged to 9.3. The raw data itself should not be expressed to more significant figures than the sensitivity of the monitoring methodology allows.

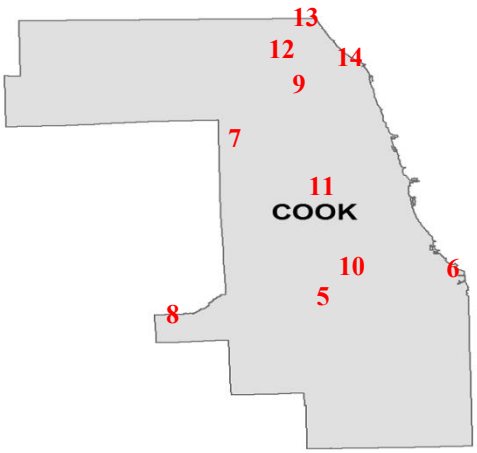
In comparing data to the various air quality standards, the data are implicitly rounded to the number of significant figures specified by that standard. For example, to exceed the 0.15 ug/m^3 three-month lead standard, a three-month average value must be 0.155 ug/m^3 or higher; to exceed the 9 ppm CO 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. SO_2 has a 1-hour standard which is the three-year average of each year's 99^{th} percentile values. NO_2 has a 1-hour standard which is the three-year average of each year's 98^{th} percentile values. PM_{10} 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 98^{th} 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.	170831001	Jerseyville
19.	170859991	Stockton
20.	170890005	Elgin
21.	170971007	Zion
22.	171110001	Cary
23.	171132003	Normal
24.	171150013	Decatur
25.	171170002	Nilwood
26.	171190120	Alton
27.	171190122	Maryville (formerly 171191009)
28.	171193007	Wood River
29	171199991	Highland
30.	171430024	Peoria
31.	171431001	Peoria Heights
32.	171570001	Houston
33.	171613002	Rock Island
34.	171630010	East St. Louis
35.	171670014	Springfield
36.	171971011	Braidwood
37.	172012001	Loves Park

Table B1
1-Hour Ozone Exceedances

EXCEEDANCES OF THE FORMER 1-HOUR PRIMARY STANDARD OF 0.12 PPM		
Date	**City**	**Concentration**
None	None	None
Total Over 0.12 ppm	0	
Total Days Over 0.12 ppm	0	

Table B2
8-Hour Ozone Exceedances

EXCEEDANCES OF THE 8-HOUR PRIMARY STANDARD OF 0.070 PPM						
Date	**City**	**Concentration**		**Date**	**City**	**Concentration**
05/13/22	Cary	0.073		06/24/22	Elgin	0.079
06/04/22	Alton	0.072			Zion	0.081
06/05/22	Jerseyville	0.074			Cary	0.078
	Alton	0.073			Jerseyville	0.072
	Springfield	0.071			Alton	0.073
06/14/22	Zion	0.080		06/29/22	Alsip	0.077
	Evanston	0.071			Chicago - Com Ed	0.077
06/20/22	Alsip	0.077			Chicago - SWFP	0.080
	Chi-ComEd	0.078			Chicago - Taft	0.071
	Chi-SWFP	0.076			Cicero	0.072
	Chi-Taft	0.073			Des Plaines	0.072
	Cicero	0.075			Evanston	0.073
	Des Plaines	0.075			Lemont	0.075
	Evanston	0.080			Northbrook	0.074
	Lemont	0.075			Cary	0.073
	Northbrook	0.080			Jerseyville	0.072
	Elgin	0.073			Alton	0.081
	Zion	0.089			Wood River	0.078
	Braidwood	0.071			Houston	0.073
	Jerseyville	0.074			E. St. Louis	0.072
	Alton	0.080		06/30/22	Lemont	0.071
	Highland	0.072			Jerseyville	0.071
	Nilwood	0.073			Alton	0.076
	Springfield	0.077			Wood River	0.072
	Thomasboro	0.074			Highland	0.073
	Bondville	0.078			Nilwood	0.073
	Normal	0.079			Springfield	0.078
	Decatur	0.075			Normal	0.073
06/21/22	Maryville	0.076			Decatur	0.074
	Highland	0.084		07/03/22	Alsip	0.073
	Houston	0.072		07/05/22	Chicago - SWFP	0.072
	West Union	0.071		07/07/22	Elgin	0.071
06/23/22	Braidwood	0.071		07/08/22	Wood River	0.073
06/24/22	Alsip	0.084		07/11/22	Alton	0.079
	Chicago - Com Ed	0.080			Wood River	0.071
	Chicago - SWFP	0.079		07/18/22	Chicago - Com Ed	0.074
	Chicago - Taft	0.076				
	Cicero	0.077				
	Des Plaines	0.078				
	Evanston	0.086				
	Lemont	0.080				
	Northbrook	0.076				
	Schiller Park	0.078				
	Lisle	0.079				
Total Over 0.070 ppm				81		
Total Days Over 0.070 ppm				16		

Table B3
Ozone Highs

AQS ID	City	Number Of Days 8-Hour Greater Than 0.070 ppm			Fourth Highest Samples 1-Hour (ppm)				Fourth Highest Samples 8-Hour (ppm)			
		2022	2021	2020								
17-001-0007	Quincy	0	0	0	0.065	0.062	0.061	0.060	0.061	0.059	0.058	0.056
17-019-0007	Thomasboro	1	0	2	0.079	0.074	0.069	0.068	0.074	0.070	0.066	0.064
17-019-1001	Bondville	1	0	1	0.082	0.072	0.071	0.070	0.078	0.069	0.069	0.068
17-023-0001	West Union	1	0	0	0.075	0.071	0.068	0.068	0.071	0.064	0.063	0.062
17-031-0001	Alsip	4	2	10	0.093	0.091	0.085	0.082	0.084	0.077	0.077	0.073
17-031-0032	Chicago South Water Filtration	4	10	6	0.087	0.087	0.087	0.082	0.080	0.079	0.076	0.072
17-031-0076	Chicago Com Ed Maintenance	4	3	2	0.087	0.085	0.084	0.081	0.080	0.078	0.077	0.074
17-031-1003	Chicago Taft High School	3	2	6	0.088	0.084	0.076	0.075	0.076	0.073	0.071	0.070
17-031-1601	Lemont	4	4	8	0.087	0.081	0.080	0.079	0.080	0.075	0.075	0.071
17-031-3103	Schiller Park	1	0	2	0.091	0.069	0.069	0.068	0.078	0.064	0.063	0.062
17-031-4002	Cicero Cook County Trailer	3	2	6	0.088	0.082	0.079	0.073	0.077	0.075	0.072	0.068
17-031-4007	Des Plaines	3	2	6	0.092	0.079	0.078	0.077	0.078	0.075	0.072	0.070
17-031-4201	Northbrook	3	8	11	0.089	0.082	0.080	0.078	0.080	0.076	0.074	0.070
17-031-7002	Evanston	4	11	10	0.099	0.086	0.082	0.079	0.086	0.080	0.073	0.071
17-043-6001	Lisle	1	2	4	0.087	0.079	0.076	0.075	0.079	0.069	0.068	0.068
17-049-1001	Effingham	0	0	0	0.074	0.074	0.073	0.072	0.070	0.069	0.069	0.067
17-065-0002	Knight Prairie	0	1	0	0.069	0.069	0.069	0.066	0.066	0.065	0.064	0.064
17-083-1001	Jerseyville	5	2	1	0.094	0.092	0.090	0.079	0.074	0.074	0.072	0.072
17-085-9991	Stockton	0	0	0	0.072	0.065	0.064	0.064	0.065	0.062	0.061	0.059
17-089-0005	Elgin Larsen Jr. High School	3	0	7	0.093	0.081	0.080	0.078	0.079	0.073	0.071	0.070
17-097-1007	Zion	3	9	11	0.103	.102	0.092	0.078	0.089	0.081	0.080	0.070
17-111-0001	Cary	3	2	8	0.091	0.081	0.080	0.075	0.078	0.073	0.073	0.070
17-113-2003	Normal	2	0	3	0.083	0.080	0.073	0.072	0.079	0.073	0.070	0.069
17-115-0013	Decatur IEPA Trailer	2	0	0	0.079	0.078	0.073	0.069	0.075	0.074	0.067	0.065
17-117-0002	Nilwood	2	0	0	0.082	0.080	0.072	0.070	0.073	0.073	0.065	0.062

Table B3
Ozone Highs

AQS ID	City	Number Of Days 8-Hour Greater Than 0.070 ppm			Fourth Highest Samples 1-Hour (ppm)				Fourth Highest Samples 8-Hour (ppm)			
		2022	2021	2020								
17-119-0120	Alton	6	3	1	0.096	0.093	0.090	0.085	0.081	0.080	0.079	0.076
17-119-0122	Maryville	1	3	1	0.083	0.081	0.076	0.076	0.076	0.070	0.069	0.067
17-119-3007	Wood River	6	2	3	0.095	0.089	0.083	0.081	0.080	0.078	0.073	0.072
17-119-9991	Highland	3	0	0	0.092	0.079	0.076	0.076	0.084	0.073	0.072	0.070
17-143-0024	Peoria Fire Station #8	0	1	0	0.072	0.066	0.066	0.063	0.065	0.063	0.060	0.059
17-143-1001	Peoria Heights	0	0	1	0.076	0.076	0.069	0.069	0.070	0.069	0.066	0.065
17-157-0001	Houston	2	1	0	0.080	0.078	0.075	0.075	0.073	0.072	0.068	0.068
17-161-3002	Rock Island	0	2	0	0.069	0.069	0.067	0.066	0.063	0.063	0.062	0.061
17-163-0010	East St. Louis	1	2	0	0.080	0.075	0.075	0.074	0.072	0.069	0.068	0.067
17-167-0014	Springfield	3	0	0	0.087	0.087	0.075	0.071	0.078	0.077	0.071	0.064
17-197-1011	Braidwood	2	2	2	0.086	0.077	0.076	0.070	0.071	0.071	0.065	0.064
17-201-2001	Loves Park	0	0	1	0.083	0.074	0.074	0.073	0.069	0.069	0.069	0.066
Statewide Average					0.085	0.079	0.076	0.073	0.075	0.072	0.069	0.067
Total Over 0.070 ppm		81	76	113								
Total Days Over 0.070 ppm		16	23	24								

Table B4
Ozone Design Values

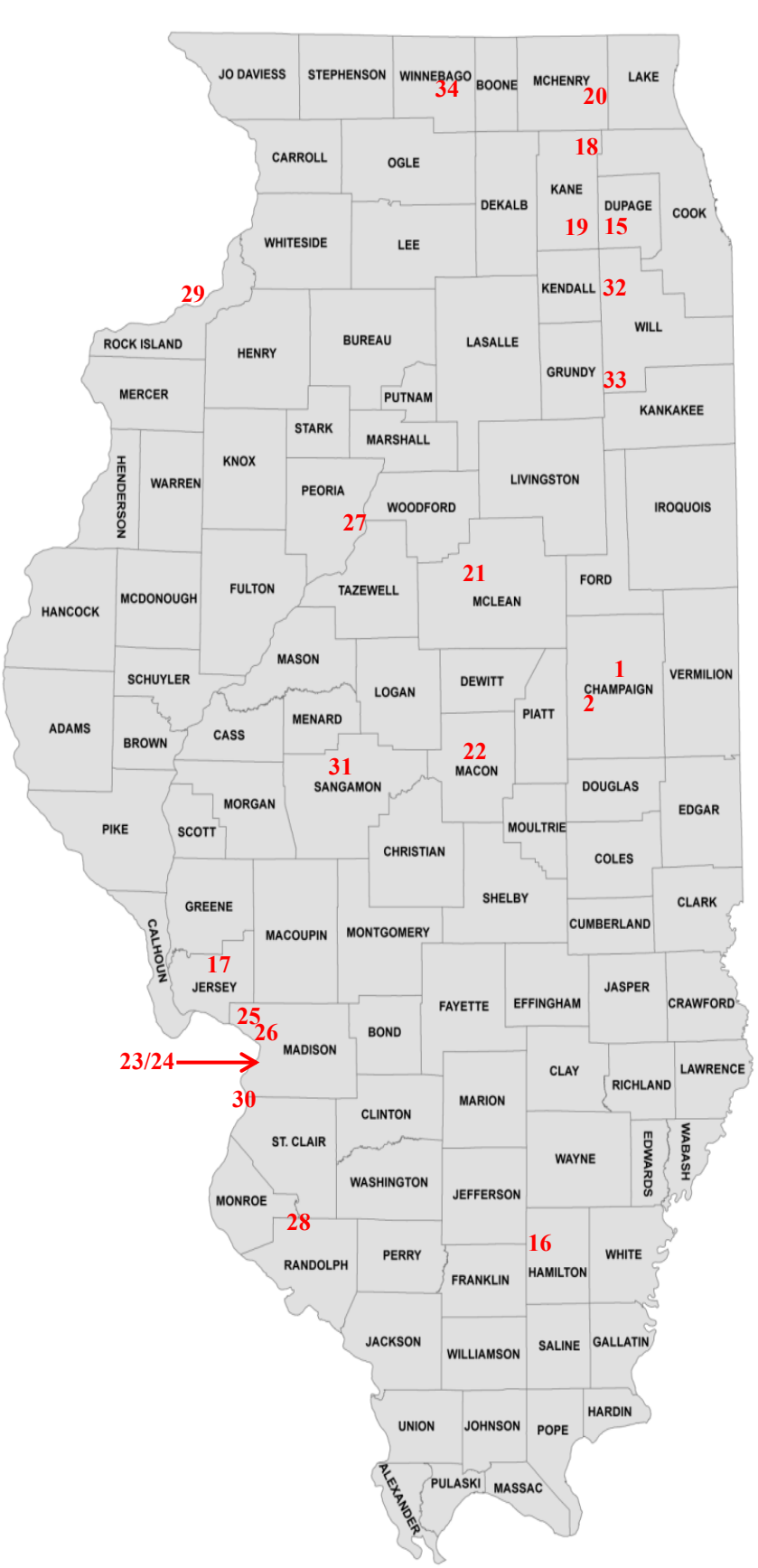
AQS ID	City	Fourth High 8-Hour Concentrations (ppm)					Design Values* (ppm)		
		2022	2021	2020	2019	2018	2020-2022	2019-2021	2018-2020
17-001-0007	Quincy	0.056	0.064	0.064	0.062	0.063	0.061	0.063	0.063
17-019-0007	Thomasboro	0.064	0.064	0.069	0.062	0.072	0.065	0.065	0.067
17-019-1001	Bondville	0.068	0.060	0.062	0.058	0.064	0.063	0.060	0.061
17-023-0001	West Union	0.062	0.062	0.060	0.060	0.066	0.061	0.060	0.062
17-031-0001	Alsip	0.073	0.068	0.076	0.070	0.079	**0.072**	**0.071**	**0.075**
17-031-0032	Chicago South Water Filtration	0.072	0.077	0.077	0.071	0.076	**0.075**	**0.075**	**0.074**
17-031-0076	Chicago Com Ed Maintenance	0.074	0.070	0.068	0.065	0.074	0.070	0.067	0.069
17-031-1003	Chicago Taft High School	0.070	0.068	0.077	0.069	0.073	**0.071**	**0.071**	**0.073**
17-031-1601	Lemont	0.071	0.072	0.078	0.068	0.068	**0.073**	**0.072**	**0.071**
17-031-3103	Schiller Park	0.062	0.060	0.068	0.064	0.065	0.063	0.064	0.065
17-031-4002	Cicero Cook County Trailer	0.068	0.067	0.079	0.064	0.072	0.071	0.070	**0.071**
17-031-4007	Des Plaines	0.070	0.069	0.072	0.066	0.075	0.070	0.069	**0.071**
17-031-4201	Northbrook	0.070	0.075	0.079	0.069	0.083	**0.074**	**0.074**	**0.077**
17-031-7002	Evanston	0.071	0.078	0.074	0.069	0.084	**0.074**	**0.073**	**0.075**
17-043-6001	Lisle	0.068	0.069	0.073	0.070	0.071	0.070	0.070	**0.071**
17-049-1001	Effingham	0.067	0.060	0.062	0.063	0.066	0.063	0.061	0.063
17-065-0002	Knight Prairie	0.064	0.066	0.067	0.064	0.069	0.065	0.065	0.066
17-083-1001	Jerseyville	0.072	0.065	0.062	0.069	-	0.066	0.065	0.067
17-085-9991	Stockton	0.059	0.064	0.063	0.059	0.067	0.062	0.062	0.063
17-089-0005	Elgin Larsen Jr. High School	0.070	0.068	0.073	0.071	0.072	0.070	0.070	**0.072**
17-097-1007	Zion	0.070	0.077	0.076	0.066	0.074	**0.074**	**0.073**	**0.072**
17-111-0001	Cary	0.070	0.069	0.076	0.070	0.074	**0.071**	**0.071**	**0.073**
17-113-2003	Normal	0.069	0.062	0.070	0.063	0.068	0.067	0.065	0.067
17-115-0013	Decatur Illinois EPA Trailer	0.065	0.064	0.065	0.063	0.069	0.064	0.064	0.065
17-117-0002	Nilwood	0.062	0.062	0.063	0.063	0.066	0.062	0.062	0.064

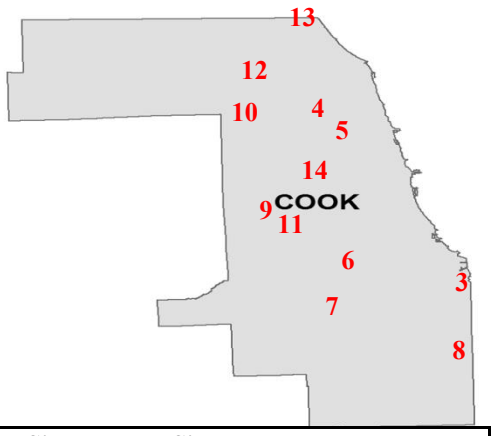
Table B4
Ozone Design Values

AQS ID	City	Fourth High 8-Hour Concentrations (ppm)					Design Values* (ppm)		
		2022	2021	2020	2019	2018	2020-2022	2019-2021	2018-2020
17-119-0120	Alton	0.076	0.070	0.069	0.067	0.072	**0.071**	0.068	.069
17-119-0122	Maryville	0.067	0.070	0.067	0.064	0.075	0.068	0.067	.068
17-119-3007	Wood River	0.072	0.070	0.069	0.070	0.072	0.070	0.069	.070
17-119-9991	Highland	0.070	0.067	0.066	0.062	0.071	0.067	0.064	.066
17-143-0024	Peoria Fire Station #8	0.059	0.064	0.064	0.062	0.069	0.062	0.063	.065
17-143-1001	Peoria Heights	0.065	0.062	0.070	0.064	0.070	0.065	0.065	.068
17-157-0001	Houston	0.068	0.065	0.061	0.060	0.065	0.064	0.062	.062
17-161-3002	Rock Island	0.061	0.066	0.063	0.066	0.067	0.063	0.065	.065
17-163-0010	East St. Louis	0.067	0.066	0.065	0.064	0.073	0.066	0.065	.067
17-167-0014	Springfield State Fairgrounds	0.064	0.057	0.067	0.062	0.069	0.062	0.062	.066
17-197-1011	Braidwood	0.064	0.065	0.067	0.060	0.071	0.065	0.064	.066
17-201-2001	Loves Park	0.066	0.067	0.067	0.066	0.070	0.066	0.066	.067
Statewide Average		0.067	0.067	0.069	0.065	0.071	0.067	0.067	0.068

*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.

$PM_{2.5}$ 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 Station
6.	170310076	Chicago – Com Ed Maint. Bldg.
7.	170310001	Alsip
8.	170310119	Lansing – Kingery near-road
9.	170311016	Lyons Township
10.	170313103	Schiller Park
10.	170313301	Summit
12.	170314007	Des Plaines
13.	170314201	Northbrook
14.	170316005	Cicero
15.	170434002	Naperville
16.	170650002	Knight Prairie
17.	170831001	Jerseyville
18.	170890003	Elgin
19.	170890007	Aurora
20.	171110001	Cary
21.	171132003	Normal
22.	171150013	Decatur
23.	171190024	Granite City – Gateway Medical
24.	171191007	Granite City – 23rd 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

Table B5
$PM_{2.5}$ 24-Hour Exceedances

EXCEEDANCES OF THE 24-HOUR PRIMARY STANDARD OF 35 ug/m3		
Date	**Location**	**Concentration (ug/m3)**
6/15/22	Springfield	40.6
Total Over 35 ug/m3	1	
Total Days Over 35 ug/m3	1	

Table B6
$PM_{2.5}$ Highs

AQS ID	City	Total Samples	Samples Greater Than 35 ug/m3			Highest Samples 2022							
			2022	2021	2020	1st	2nd	3rd	4th	5th	6th	7th	8th
17-019-0006	Champaign	119	0	0	0	21.3	20.9	15.9	15.7	15.3	15.0	13.3	13.0
17-019-1001	Bondville	361	0	0	0	33.8	30.4	26.0	22.1	20.5	19.0	19.0	17.6
17-031-0001	Alsip	60	0	0	0	28.5	23.7	20.2	18.9	17.6	16.3	16.0	12.4
17-031-0022	Chicago Washington High School	118	0	0	0	30.1	27.3	23.1	21.2	20.7	19.7	19.7	18.3
17-031-0052	Chicago Mayfair Pump Station	120	0	0	1	27.1	23.5	23.2	21.0	20.5	19.3	17.7	16.1
17-031-0057	Chicago Springfield Pump Station	59	0	0	0	28.9	28.3	23.7	19.2	17.1	15.4	14.3	12.7
17-031-0076	Chicago Com Ed Maintenance	60	0	0	0	29.5	22.3	22.3	20.0	19.3	18.3	13.4	11.8
17-031-0119	Lansing Kingery near-road #1	365	0	0	0	32.6	28.7	28.5	27.5	24.3	23.5	22.7	22.6
17-031-1016	Lyons Township	118	0	0	0	33.0	31.5	29.5	22.7	22.4	21.0	21.0	20.9
17-031-3103	Schiller Park	173	0	1	0	28.0	26.8	26.0	22.5	22.1	21.2	21.0	20.9
17-031-3301	Summit	120	0	0	0	30.0	25.1	23.3	22.8	21.2	21.2	20.7	19.4
17-031-4007	Des Plaines	353	0	1	0	27.6	27.4	26.9	22.1	22.0	21.6	21.6	20.4
17-031-4201	Northbrook	358	0	1	0	29.1	25.3	24.4	23.4	21.5	21.2	20.0	19.7
17-031-6005	Cicero Liberty School	61	0	0	0	31.7	29.2	23.2	19.6	18.5	18.3	16.2	15.3
17-043-4002	Naperville	365	0	0	0	28.8	27.9	26.9	26.2	24.6	23.6	22.3	20.7
17-065-0002	Knight Prairie	364	0	1	1	28.7	28.4	25.3	24.8	22.6	21.4	20.4	19.2
17-083-0117	Jerseyville	363	0	0	0	29.9	25.1	22.9	22.3	21.8	21.6	21.0	20.2
17-089-0003	Elgin McKinley School	115	0	1	0	33.3	29.1	26.0	23.9	20.0	20.1	19.7	19.3
17-089-0007	Aurora	120	0	0	0	24.9	19.3	18.0	18.0	17.8	16.9	16.5	16.2
17-111-0001	Cary	350	0	0	0	29.4	29.0	28.9	27.0	23.2	22.6	20.7	19.4
17-113-2003	Normal	365	0	1	0	31.1	29.5	25.1	24.0	23.6	23.1	21.2	20.5
17-115-0013	Decatur Illinois EPA Trailer	365	0	3	0	30.2	29.4	22.3	22.1	22.0	21.4	20.1	19.5
17-119-0024	Granite City Gateway Medical Center	110	0	0	0	24.9	21.2	21.1	21.0	21.0	20.2	18.9	18.8
17-119-1007	Granite City Fire Station #1	59	0	0	0	24.6	23.8	20.8	20.6	20.5	19.0	16.5	15.9
17-119-0120	Alton Horace Mann	113	0	0	0	29.1	23.7	22.4	20.3	19.1	18.5	16.6	16.2
17-119-3007	Wood River	118	0	0	0	23.2	22.6	22.4	22.2	21.0	20.0	19.3	17.8
17-143-0037	Peoria	308	0	0	1	29.9	27.9	27.2	25.8	25.0	24.8	24.4	23.8

Table B6
$PM_{2.5}$ Highs

AQS ID	City	Total Samples	Samples Greater Than 35 ug/m3			Highest Samples 2022							
			2022	2021	2020	1st	2nd	3rd	4th	5th	6th	7th	8th
17-157-0001	Houston	363	0	0	2	31.8	26.5	23.0	19.4	19.4	19.0	18.3	18.2
17-161-3002	Rock Island	359	0	1	1	30.3	27.2	26.0	23.9	23.9	23.9	23.1	22.0
17-163-0010	East St. Louis	355	0	0	0	33.2	28.9	26.6	25.2	24.6	23.6	23.2	22.7
17-167-0012	Springfield Agricultural Building	349	1	0	0	40.6	29.3	28.1	23.4	20.6	19.1	19.0	19.0
17-197-1002	Joliet Pershing Elementary	355	0	0	2	31.6	29.8	26.8	24.0	23.4	21.9	21.4	19.8
17-197-1011	Braidwood	365	0	0	1	27.4	26.8	25.7	21.0	19.7	19.5	19.5	19.2
17-201-0118	Rockford Fire Dept.	358	0	0	0	28.2	27.3	26.6	26.0	25.6	24.4	23.0	22.8
Total Over 35 ug/m3			1	10	9								
Total Days Over 35 ug/m3			1	6	5								

Table B7
$PM_{2.5}$ 24-Hour Design Values

AQS ID	City	98th Percentile Concentrations (ug/m3)					Design Values* (ug/m3)		
		2022	2021	2020	2019	2018	2020-2022	2019-2021	2018-2020
17-019-0006	Champaign	15.9	21.0	17.3	19.8	16.8	18.1	19.4	18.0
17-019-1001	Bondville	17.6	19.7	16.1	18.7	17.8	17.8	18.2	17.5
17-031-0001	Alsip	23.7	19.1	14.9	16.0	21.9	19.2	16.7	17.6
17-031-0022	Chicago Washington High School	23.1	21.5	22.3	24.8	27.0	22.3	22.9	24.7
17-031-0052	Chicago Mayfair Pump Station	23.2	22.0	24.0	24.7	25.2	23.1	23.6	24.6
17-031-0057	Chicago Springfield Pump Station	28.3	20.0	22.4	18.6	25.3	23.6	20.3	22.1
17-031-0076	Chicago Com Ed Maintenance	22.3	19.3	14.5	24.9	17.8	18.7	19.6	19.1
17-031-0119	Lansing Kingery near-road #1	22.6	22.5	23.1	21.6	-	22.7	22.4	-
17-031-1016	Lyons Township	29.5	24.4	19.4	25.8	23.5	24.4	23.2	22.9
17-031-3103	Schiller Park	22.5	22.8	20.0	26.3	25.5	21.8	23.0	23.9
17-031-3301	Summit	23.3	20.7	21.4	19.3	22.5	21.8	20.5	21.1
17-031-4007	Des Plaines	20.4	25.9	18.0	29.0	25.7	21.4	24.3	24.2
17-031-4201	Northbrook	19.7	22.1	15.0	20.7	22.7	18.9	19.3	19.5
17-031-6005	Cicero Liberty School	29.2	17.8	21.9	19.3	22.8	23.0	19.7	21.3
17-043-4002	Naperville	20.7	20.7	20.9	22.8	23.6	20.8	21.5	22.4
17-065-0002	Knight Prairie	19.2	20.1	16.9	17.3	20.6	18.7	18.1	18.3
17-083-0117	Jerseyville	20.2	21.7	16.9	16.9	19.2	19.6	18.5	17.7
17-089-0003	Elgin McKinley School	26.0	27.1	25.7	24.9	19.5	26.3	25.9	23.4
17-089-0007	Aurora	18.0	19.4	20.5	24.5	21.3	19.3	21.5	22.1
17-111-0001	Cary	20.7	26.8	17.1	18.6	19.0	21.5	20.8	18.2
17-113-2003	Normal	20.5	22.3	18.9	20.6	19.5	20.6	20.6	19.7
17-115-0013	Decatur Illinois EPA Trailer	19.5	23.6	17.6	20.4	22.4	20.2	20.5	20.1
17-119-0120	Alton Horace Mann	22.4	20.8	22.4	19.2	21.8	22.0	20.8	21.1
17-119-0024	Granite City Gateway Medical Center	21.1	23.0	23.7	25.0	20.9	22.6	23.9	23.2
17-119-1007	Granite City Fire Station #1	23.8	19.3	22.3	23.8	22.8	21.8	21.8	23.0

Table B7
$PM_{2.5}$ 24-Hour Design Values

AQS ID	City	98th Percentile Concentrations (ug/m3)					Design Values* (ug/m3)		
		2022	2021	2020	2019	2018	2020-2022	2019-2021	2018-2020
17-119-3007	Wood River	22.4	21.8	26.1	22.7	22.2	23.4	23.5	23.7
17-143-0037	Peoria City Office Building	24.4	22.2	19.6	19.3	20.4	22.1	20.4	19.8
17-157-0001	Houston	18.2	19.7	18.6	16.9	19.1	18.8	18.4	18.2
17-161-3002	Rock Island	22.0	24.6	17.5	20.1	19.4	21.4	20.7	19.0
17-163-0010	East St. Louis	22.7	23.3	22.1	22.9	22.6	22.7	22.8	22.5
17-167-0012	Springfield Agricultural Building	19.0	22.4	17.6	17.9	19.8	19.7	19.3	18.4
17-197-1002	Joliet Pershing Elementary	19.8	23.4	21.0	21.4	20.9	21.4	21.9	21.1
17-197-1011	Braidwood	19.2	22.2	19.1	20.6	19.5	20.2	20.6	19.7
17-201-0118	Rockford Fire Department	22.8	24.1	21.3	23.4	10.6	22.7	22.9	18.4
17-201-0013	Rockford Health Department	-	-	-	-	23.0	-	-	-
Statewide Average		21.9	22.0	19.9	21.4	21.3	21.3	21.1	20.8

*The design value is the three-year average of the 98th percentile concentration. Design value greater than or equal to 35.5 ug/m^3 is a violation of the National Ambient Air Quality Standard.

Table B8
$PM_{2.5}$ Annual Design Values

AQS ID	City	Annual Arithmetic Mean Concentrations (ug/m3)					Design Values* (ug/m3)		
		2022	2021	2020	2019	2018	2020-2022	2019-2021	2018-2020
17-019-0006	Champaign	7.4	8.5	7.3	7.5	7.6	7.8	7.8	7.5
17-019-1001	Bondville	7.8	8.2	7.3	7.8	8.0	7.8	7.8	7.7
17-031-0001	Alsip	8.6	9.1	8.6	7.9	9.0	8.7	8.5	8.5
17-031-0022	Chicago Washington High School	9.0	9.4	8.8	10.3	9.6	9.1	9.5	9.6
17-031-0052	Chicago Mayfair Pump Station	8.6	9.5	10.3	9.2	9.8	9.5	9.7	9.8
17-031-0057	Chicago Springfield Pump Station	8.7	9.1	8.3	8.8	9.6	8.7	8.7	8.9
17-031-0076	Chicago Com Ed Maintenance	8.8	8.7	8.3	8.3	9.0	8.6	8.5	8.6
17-031-0119	Lansing Kingery near-road #1	9.9	10.8	10.8	10.8	-	10.5	10.8	-
17-031-3103	Schiller Park	10.0	10.5	9.9	10.8	11.2	10.1	10.4	10.6
17-031-3301	Summit	9.2	9.8	8.7	9.3	10.2	9.3	9.3	9.4
17-031-4007	Des Plaines	8.7	10.1	8.4	10.3	11.4	9.1	9.6	10.0
17-031-4201	Northbrook	8.1	8.8	7.3	8.5	8.8	8.1	8.2	8.2
17-031-6005	Cicero Liberty School	9.1	8.7	9.3	9.0	10.0	9.1	9.0	9.5
17-043-4002	Naperville	9.3	10.1	9.1	10.3	10.5	9.5	9.8	10.0
17-065-0002	Knight Prairie	8.2	9.4	8.8	8.3	8.9	8.8	8.8	8.6
17-083-0117	Jerseyville	8.0	8.4	7.5	8.0	8.3	8.0	8.0	7.9
17-089-0003	Elgin McKinley School	9.7	9.0	8.8	8.5	8.7	9.2	8.8	8.7
17-089-0007	Aurora	9.1	9.6	8.4	8.7	9.0	9.1	8.9	8.7
17-111-0001	Cary	9.0	9.3	8.2	7.8	8.2	8.9	8.4	8.1
17-113-2003	Normal	8.7	9.3	8.5	9.2	9.7	8.9	9.0	9.2
17-115-0013	Decatur IEPA Trailer	8.7	10.2	8.6	9.5	10.4	9.2	9.4	9.5
17-119-0120	Alton Horace Mann	8.9	9.3	9.0	9.1	9.3	9.1	9.1	9.1
17-119-1007	Granite City Fire Station #1	9.9	10.0	10.1	10.5	11.0	10.0	10.2	10.5
17-119-3007	Wood River	9.6	9.7	9.2	9.1	9.2	9.5	9.3	9.2
17-143-0037	Peoria City Office Building	9.5	9.9	8.3	8.0	9.4	9.3	8.7	8.6

Table B8
$PM_{2.5}$ Annual Design Values

AQS ID	City	Annual Arithmetic Mean Concentrations (ug/m3)					Design Values* (ug/m3)		
		2022	2021	2020	2019	2018	2020-2022	2019-2021	2018-2020
17-157-0001	Houston	7.8	8.5	8.3	7.7	7.8	8.2	8.1	7.9
17-161-3002	Rock Island	8.8	9.4	8.1	8.6	8.9	8.8	8.7	8.5
17-163-0010	East St. Louis	10.2	10.4	9.5	9.1	10.3	10.0	9.7	9.6
17-167-0012	Springfield Agricultural Building	8.7	8.7	7.6	8.2	9.5	8.3	8.2	8.4
17-197-1002	Joliet Pershing Elementary	9.1	10.2	9.8	9.7	9.8	9.7	9.9	9.8
17-197-1011	Braidwood	8.3	9.0	8.2	8.8	7.9	8.5	8.7	8.3
17-201-0118	Rockford Fire Department	8.3	9.8	9.1	10.3	-	9.1	9.7	-
17-201-0013	Rockford Health Department	-	-	-	-	7.7	-	-	-
Statewide Average		8.9	9.4	8.7	9.0	9.3	9.0	9.0	9.0

*The design value is the three-year average of the annual arithmetic mean concentrations. Design value greater than 12.0 ug/m^3 is a violation of the National Ambient Air Quality Standard.

Shaded cells indicate completeness criteria were not met.

PM_{10} Monitoring Sites

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

Table B9
PM_{10} 24-Hour Exceedances

EXCEEDANCES OF THE 24-HOUR PRIMARY STANDARD OF 150 ug/m3		
Date	**City**	**Concentration (ug/m3)**
None	None	None
Total Over 150 ug/m3	0	
Total Days Over 150 ug/m3	0	

Table B10
PM_{10} 24-Hour Highs and Design Values

AQS ID	City	Total Samples	Highest 24-Hour Samples								Samples Greater Than 150 ug/m3			Three-year Exceedance Average*
			1st	2nd	3rd	4th	5th	6th	7th	8th	2022	2021	2020	
17-031-0022	Chicago Washington High School	316	89	79	66	66	61	60	59	59	0	0	0	0.0
17-031-1016	Lyons Township	361	139	134	123	99	98	93	93	91	0	0	1	0.3
17-031-4201	Northbrook	60	57	40	39	38	33	30	26	24	0	0	0	0.0
17-119-1007	Granite City Fire Station #1	58	78	75	72	71	68	67	57	51	0	0	0	0.0
Statewide Average			91	82	75	69	65	63	59	56				
Total Over 150 ug/m3												0	1	
Total Days Over 150 ug/m3												0	1	

*The 24-hour PM_{10} standard is an exceedance-based standard set at 150 ug/m^3. 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.

Table B11
PM_{10} Annual Design Values

AQS ID	City	Annual Arithmetic Mean Concentration (ug/m3)					Design Values* (ug/m3)		
		2022	**2021**	**2020**	**2019**	**2018**	2020-2022	2019-2021	2018-2020
17-031-0022	Chicago Washington High School	29	29	32	27	23	30	29	27
17-031-1016	Lyons Township	38	42	37	30	24	39	36	30
17-031-4201	Northbrook	16	19	20	14	14	18	18	16
17-119-1007	Granite City Fire Station #1	30	25	32	35	33	29	31	33
Statewide Average		28	29	30	27	24	29	29	27

*The annual PM_{10} standard was revoked in 2007. Previously the standard was a three-year average of the annual means. Concentrations above 50 ug/m^3 were a violation of the former National Ambient Air Quality Standard. Currently only the 24-hour PM_{10} 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

Table B12
Carbon Monoxide Exceedances

EXCEEDANCES OF EITHER THE 1-HOUR (35 PPM) OR 8-HOUR (9 PPM) PRIMARY STANDARDS			
Date	**City**	**Concentration**	**Averaging Period**
None	None	None	None

Total 1-hour Over 35 ppm	0	Total 8-hour Over 9 ppm	0
Total Days 1-hour Over 35 ppm	0	Total Days 8-hour Over 9 ppm	0

Table B13
Carbon Monoxide Highs

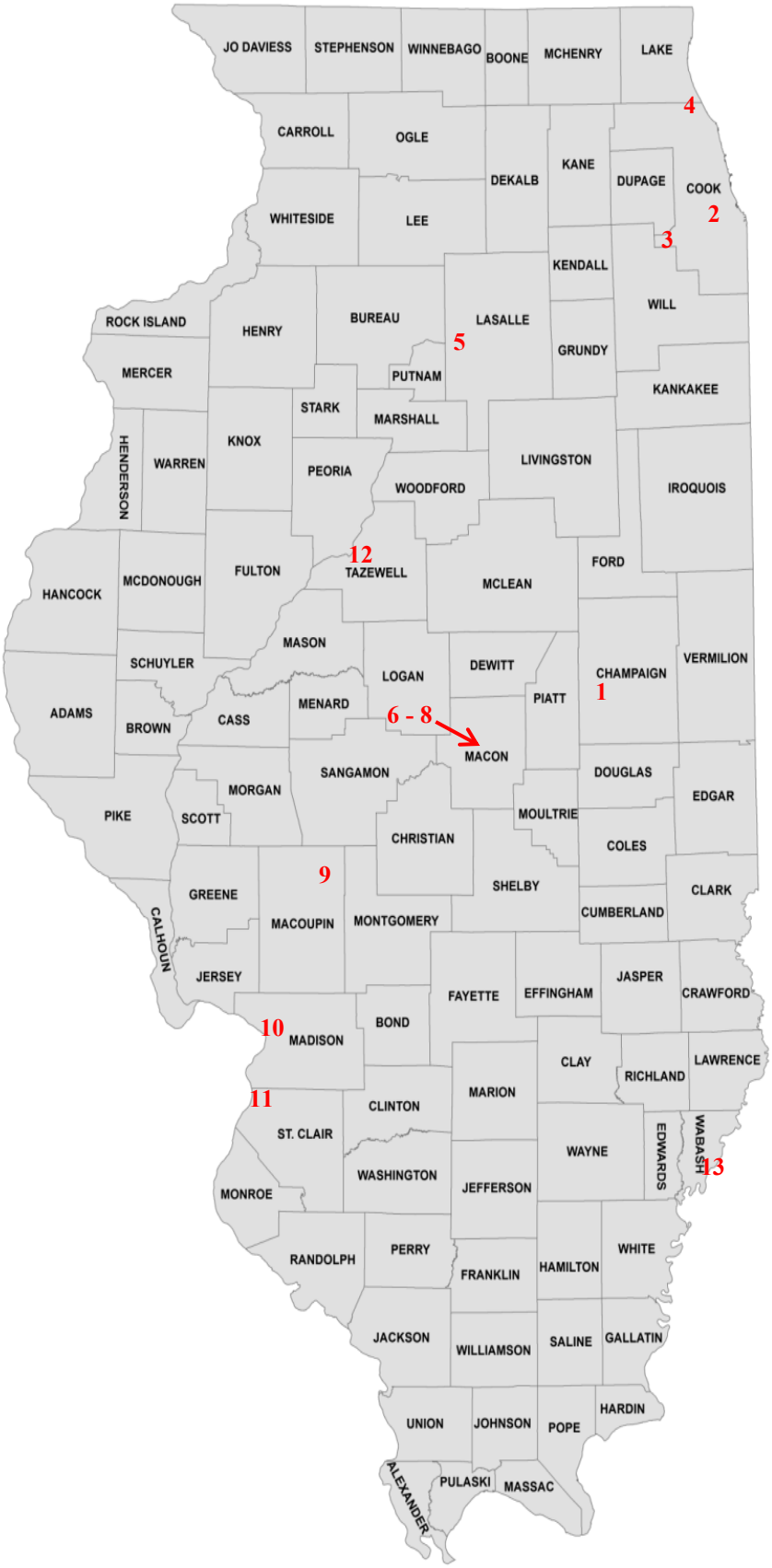
AQS ID	City	Total Hourly Samples	Fourth Highest Daily Samples 1-Hour (ppm)				Fourth Highest Samples 8-Hour (ppm)			
17-019-1001	Bondville	3765	0.234	0.221	0.217	0.204	0.2	0.2	0.2	0.1
17-031-0119	Lansing Kingery near-road #1	8636	1.8	1.4	1.4	1.4	1.0	1.0	1.0	1.0
17-031-4201	Northbrook	8311	1.464	1.286	1.176	1.006	0.9	0.7	0.7	0.6
Statewide Average			1.166	0.969	0.931	0.870	0.7	0.6	0.6	0.6

Table B14
Carbon Monoxide 1-Hour and 8-Hour Design Values

AQS ID	City	1-Hour Samples Greater than 35 (ppm)					8-Hour Samples Greater than 9 (ppm)				
		2022	2021	2020	2019	2018	2022	2021	2020	2019	2018
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	-
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

Table B15
Sulfur Dioxide Exceedances

EXCEEDANCES OF THE 1-HOUR PRIMARY STANDARD OF 75 ppb		
Date	**City**	**Concentration (ppb)**
2/12/22	Decatur - Primient South	136.4
3/15/22	Mount Carmel	80.2
5/12/22	Decatur - Primient North	76.7
8/30/22	Decatur - Primient South	90.2
12/19/22	Decatur - Primient South	293.1
Total Over 75 ppb	5	
Total Days Over 75 ppb	5	

Table B16
Sulfur Dioxide Highs

AQS ID	City	Total Hourly Samples	Samples Greater Than 75 ppb			Highest Daily 1-Hour Samples (ppb)				Highest 3-Hour Block Averages (ppb)	
			2022	2021	2020	1st	2nd	3rd	4th	1st	2nd
17-019-1001	Bondville	7724	0	0	0	5.0	4.8	4.5	3.6	4.3	3.9
17-031-0076	Chicago Com Ed Maintenance	7929	0	0	0	23.4	13.0	10.5	10.5	17.6	9.8
17-031-1601	Lemont	8657	0	0	0	8.4	8.0	7.6	7.1	6.0	5.8
17-031-4201	Northbrook	7966	0	0	0	5.1	4.6	4.6	3.6	4.1	3.2
17-099-0007	Oglesby	8359	0	0	0	8.3	5.6	5.3	4.5	5.0	4.4
17-115-0013	Decatur Illinois EPA Trailer	8101	0	0	0	30.4	20.6	18.5	18.2	14.3	12.3
17-115-0217	Decatur Primient North	8713	2	0	0	293.1	76.7	61.4	55.4	158.2	48.8
17-115-0317	Decatur Primient South	8503	2	1	0	136.4	90.2	47.6	44.5	78.3	49.3
17-117-0002	Nilwood	8237	0	0	0	5.6	5.3	4.6	4.2	3.8	3.6
17-119-3007	Wood River	8621	0	3	0	13.8	13.7	9.9	9.1	8.7	6.9
17-163-0010	East St. Louis	8525	0	0	0	17.0	14.6	13.9	13.8	10.3	10.1
17-179-0004	Pekin	8355	0	0	0	21.0	11.7	11.5	11.0	17.2	8.7
17-185-0001	Mount Carmel	8335	1	0	0	80.2	27.1	26.1	24.9	32.1	13.5
Statewide Average						49.8	22.8	17.4	16.2	27.7	13.9
Total Over 75 ppb			5	4	0						
Total Days Over 75 ppb			5	4	0						

Table B17
Sulfur Dioxide 1-Hour Design Values

AQS ID	City	99th Percentile Concentrations (ppb)					Design Values* (ppb)		
		2022	2021	2020	2019	2018	2020-2022	2019-2021	2018-2020
17-019-1001	Bondville	4.5	3.2	2.6	3.8	3.3	3	3	3
17-031-0076	Chicago Com Ed Maintenance	10.5	9.7	14.4	10.5	11.0	12	12	12
17-031-1601	Lemont	7.1	6.9	4.8	6.6	6.3	6	6	6
17-031-4201	Northbrook	3.6	5.7	6.1	4.1	3.4	5	5	5
17-099-0007	Oglesby	4.5	5.3	7.6	22.4	27.4	6	12	19
17-115-0013	Decatur Illinois EPA Trailer	18.2	16.6	21.6	23.4	37.0	19	21	27
17-115-0117	Decatur ADM	-	-	16.3	17.0	20.8	-	-	18
17-115-0217	Decatur Primient North	55.4	42.6	38.8	41.8	83.9	46	41	55
17-115-0317	Decatur Primient South	44.5	51.8	38.5	34.2	89.0	45	42	54
17-117-0002	Nilwood	4.2	3.4	2.9	4.6	4.5	4	4	4
17-119-3007	Wood River	9.1	12.0	7.2	9.3	9.7	9	10	9
17-163-0010	East St. Louis	13.8	12.4	8.3	10.6	15.9	12	10	12
17-179-0004	Pekin	11.0	12.2	14.3	17.3	11.8	13	15	14
17-185-0001	Mount Carmel	24.9	21.0	48.9	30.5	36.8	32	33	39
Statewide Average		16.3	15.6	16.6	16.9	25.8	16	16	19

*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.	170310216	Chicago - Kennedy near-road
3.	170310116	Lansing - Kingery near-road
4.	170313103	Schiller Park
5.	170314002	Cicero
6.	170314201	Northbrook (PAMS only)
7.	171170002	Nilwood
8.	171630010	East St. Louis

Table B18
Nitrogen Dioxide 1-Hour Exceedances

EXCEEDANCES OF THE 1-HOUR PRIMARY STANDARD OF 100 PPB		
Date	**City**	**Concentration (ppb)**
None	None	None
Total Over 100 ppb	0	
Total Days Over 100 ppb	0	

Table B19
Nitrogen Dioxide Highs

AQS ID	City	Total Hourly Samples	Samples Greater Than 100 ppb			Highest Samples							
			2022	2021	2020	1st	2nd	3rd	4th	5th	6th	7th	8th
17-031-0076	Chicago Com Ed Maintenance	8274	0	0	0	66.8	57.8	56.6	56.4	54.8	54.3	53.7	50.3
17-031-0119	Lansing Kingery near-road #1	8727	0	0	0	61.0	57.2	55.2	55.1	54.6	53.6	52.6	51.7
17-031-0219	Chicago Kennedy near-road #2	8410	0	0	0	58.9	58.0	55.1	54.9	54.4	53.9	52.7	50.5
17-031-3103	Schiller Park	8757	0	0	0	66.0	63.1	61.5	59.4	58.6	56.8	52.5	51.6
17-031-4002	Cicero Cook County Trailer	8557	0	0	0	64.9	62.4	61.5	61.3	59.2	58.0	56.6	55.3
17-031-4201	Northbrook PAMS only June -Aug	2186	0	0	-	35.7	31.4	29.1	28.5	26.7	26.6	24.6	23.7
17-117-0002	Nilwood	8607	0	0	0	21.2	16.5	15.9	15.5	15.2	15.0	14.5	13.5
17-163-0010	East St. Louis	8753	0	0	0	45.8	43.5	42.3	40.0	39.6	39.1	38.6	38.6
Total Over 100 ppb			0	0	0								
Total Days Over 100 ppb			0	0	0								

Table B20
Nitrogen Dioxide 1-Hour Design Values

AQS ID	City	98th Percentile Concentrations (ppb)					Design Values* (ppb)		
		2022	2021	2020	2019	2018	2020-2022	2019-2021	2018-2020
17-031-0076	Chicago Com Ed Maintenance	50.3	46.9	44.4	46.8	65.9	47	46	52
17-031-0119	Lansing Kingery near-road #1	51.7	49.0	47.8	51.1	-	50	49	49
17-031-0219	Chicago Kennedy near-road #2	52.7	52.1	49.9	44.7	-	52	49	47
17-031-3103	Schiller Park	51.6	54.3	50.2	54.1	61.0	52	53	55
17-031-4002	Cicero Cook County Trailer	55.3	56.6	49.4	55.7	59.7	54	54	55
17-031-4201	Northbrook PAMS only June -Aug	31.4	28.2	-	-	-	30	-	-
17-117-0002	Nilwood	13.5	13.0	15.5	15.0	15.2	14	15	15
17-163-0010	East St. Louis	38.6	38.8	39.1	39.1	38.2	39	39	39
Statewide Average		43.1	42.4	42.3	43.8	48.0	42	44	45

*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.

Table B21
Nitrogen Dioxide Annual Design Values

AQS ID	City	Annual Arithmetic Mean Concentrations* (ppb)				
		2022	2021	2020	2019	2018
17-031-0076	Chicago Com Ed Maintenance	11.51	11.86	11.33	11.89	15.33
17-031-0119	Lansing Kingery near-road #1	17.09	17.49	16.46	16.64	-
17-031-0219	Chicago Kennedy near-road #2	15.56	15.70	14.74	16.37	-
17-031-3103	Schiller Park	17.21	17.14	15.19	17.43	17.91
17-031-4002	Cicero Cook County Trailer	14.53	14.77	12.75	14.14	15.89
17-031-4201	Northbrook PAMS only June -Aug	7.39	5.02	-	-	-
17-117-0002	Nilwood	1.80	2.04	2.12	2.37	2.40
17-163-0010	East St. Louis	8.62	8.90	8.56	8.82	9.49
Statewide Average (year-round sites only)		12.33	12.56	11.59	12.52	12.20

*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 – 15th and Madison
4.	171190121	Alton – Olin Inc.

Table B22
Lead Highs

AQS ID	City	Total Sample Days	Highest Monthly Means					Maximum Three-Month Mean
			1st	2nd	3rd	4th	5th	
17-031-0022	Chicago Washington High School	57	0.019	0.018	0.016	0.014	0.013	0.01
17-031-0110	Chicago Perez Elementary	67	0.021	0.014	0.013	0.012	0.011	0.01
17-119-0010	Granite City Air Products	61	0.046	0.045	0.031	0.030	0.018	0.04
17-119-0121	Alton Olin Inc.	25	0.028	0.023	0.020	0.016	0.012	0.02
Statewide Average			0.029	0.025	0.020	0.018	0.014	0.02

Table B23
Lead Design Values

AQS ID	City	Maximum Three-Month Rolling Mean (ug/m3)					Design Values* (ug/m3)		
		2022	2021	2020	2019	2018	2020-2022	2019-2021	2018-2020
17-031-0022	Chicago Washington High School	0.01	0.01	0.02	0.01	0.01	0.02	0.02	0.02
17-031-0110	Chicago Perez Elementary	0.01	0.01	0.02	0.01	0.01	0.02	0.02	0.02
17-119-0010	Granite City Air Products	0.04	0.03	0.12	0.15	0.06	0.12	0.15	0.15
17-119-0121	Alton Olin Inc.	0.02	0.05	-	-	-	0.05	0.05	-
Statewide Average		0.02	0.03	0.06	0.06	0.03	0.05	0.06	0.06

*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.

Table B24
Filter Analysis Data

AQS ID	City	Total Samples	Highs (ug/m3)		Annual Mean	Total Samples	Highs (ug/m3)		Annual Mean
			1st	2nd			1st	2nd	
		Cadmium				**Chromium**			
17-031-0022	Chicago Washington High School	57	0.002	0.002	0.000	57	0.026	0.023	0.007
17-031-0110	Chicago Perez Elementary	57	0.002	0.000	0.000	57	0.012	0.007	0.003
17-119-0010	Granite City Air Products	51	0.001	0.001	0.000	51	0.029	0.028	0.008
		Manganese				**Nickel**			
17-031-0022	Chicago Washington High School	57	0.311	0.274	0.072	57	0.020	0.011	0.004
17-031-0110	Chicago Perez Elementary	57	0.126	0.068	0.027	57	0.015	0.013	0.003
17-119-0010	Granite City Air Products	51	0.459	0.367	0.091	51	0.032	0.020	0.005

Table B25
Toxic Compounds

AQS ID	City	Compounds	Highest 24-hour Samples (ppbc)				2022 Annual Average
			1st	2nd	3rd	4th	
17-031-4201	Northbrook	1,3 Butadiene	0.1	0.1	0.1	0.1	0.06
		Dichloromethane	59.0	19.0	10.9	1.04	4.44
		Chloroform	19.3	14.0	13.7	13.3	5.48
		Carbon Tetrachloride	0.3	0.2	0.2	0.2	0.11
		Tetrachloroethylene	0.1	0.1	0.1	0.1	0.03
		Trichloroethylene	0.0	0.0	0.0	0.0	0.00
		1,2 Dichloropropane	0.1	0.0	0.0	0.0	0.00
		Vinyl Chloride	0.0	0.0	0.0	0.0	0.00
		Benzene	1.8	1.7	1.5	1.5	0.86
		Toluene	62.9	11.8	8.1	7.6	5.38
		Formaldehyde	22.7	19.4	18.6	17.8	11.80
		Acetaldehyde	18.2	15.1	13.4	13.2	7.99
		Acrolein	2.8	2.4	2.3	2.2	1.33
17-031-3103	Schiller Park	1,3 Butadiene	0.4	0.3	0.3	0.3	0.13
		Dichloromethane	2.7	2.1	1.4	0.7	0.35
		Chloroform	0.1	0.1	0.1	0.1	0.03
		Carbon Tetrachloride	0.1	0.1	0.1	0.1	0.10
		Tetrachloroethylene	2.5	2.5	2.2	2.2	1.18
		Trichloroethylene	1.1	0.3	0.3	0.2	0..05
		1,2 Dichloropropane	0.0	0.0	0.0	0.0	0.00
		Vinyl Chloride	0.1	0.0	0.0	0.0	0.00
		Benzene	2.3	2.2	2.1	2.1	1.25
		Toluene	13.3	6.4	5.6	5.3	3.20
		Formaldehyde	19.0	13.2	12.4	12.3	5.75
		Acetaldehyde	14.0	12.5	8.3	8.2	3.92
		Acrolein	3.8	3.3	2.9	2.9	1.35

[1] – Toxic metals data (Cd, Cr, Mn, Ni) summarized in Table B24 - Filter Analysis Data

Table C1

Carbon Monoxide Point Source Emission Distribution (Tons/Year)

Category	2018	2019	2020	2021	2022
External Fuel Combustion					
Electric Generation	12,253.2	13,628.8	10,592.7	10,617.2	10,496.9
Industrial	4,674.7	4,559.1	4,638.4	5,018.0	5,475.7
Commercial/Institutional	1,433.4	1,445.3	1,497.3	1,487.7	1,620.9
Space Heating	17.7	21.4	21.4	27.1	24.4
Internal Fuel Combustion					
Electric Generation	1,750.4	1,972.8	2,176.3	2,051.4	1,910.9
Industrial	2,648.3	3,188.1	2,962.7	3,290.2	3,664.7
Commercial/Institutional	179.0	213.8	294.1	307.2	316.3
Engine Testing	162.1	208.7	212.3	228.3	235.6
Industrial Processes					
Chemical Manufacturing	1,832.6	1,827.2	1,552.2	1,868.4	1,862.4
Food/Agriculture	1,263.0	1,189.6	1,201.8	1,304.7	1,614.4
Primary Metal Production	9,912.7	12,408.3	21,676.6	21,846.3	21,862.2
Secondary Metal Production	2,103.6	1,906.6	1,893.8	1,892.9	2,036.1
Mineral Products	3,546.7	3,334.4	3,039.8	3,124.0	3,217.4
Petroleum Industry	2,669.7	2,477.7	2,567.2	2,587.4	2,578.1
Paper and Wood Products	0.5	0.5	0.2	0.2	0.2
Rubber and Plastic Products	18.5	21.9	21.8	23.3	23.5
Fabricated Metal Products	218.4	191.7	189.2	182.4	209.6
Oil and Gas Production	241.2	244.4	220.5	284.0	576.2
Miscellaneous Machinery	0.6	0.6	0.6	0.6	0.6
Electrical Equipment	1.4	1.4	1.4	1.4	1.5
Health Services	170.9	168.5	164.4	168.6	166.3
In-Process Fuel Use	10.1	112.9	4,567.0	4,567.0	4,567.6
Miscellaneous Manufacturing	55.0	59.6	60.3	52.2	26.2
Organic Solvent Emissions					
Organic Solvent Use					
Surface Coating Operations	213.4	233.0	237.0	244.1	331.0
Petroleum Product Storage	0.3	0.0	0.2	0.2	0.2
Bulk Terminals/Plants	10.9	17.5	12.6	12.6	19.0
Printing/Publishing	0.7	2.1	4.9	8.7	9.9
Petroleum Marketing/Transport	8.4	95.7	22.9	33.3	33.3
Organic Chemical Storage (large)	0.2	0.0	0.0	0.0	0.0
Organic Chemical Transportation		3.6	1.0	1.0	1.1
Organic Solvent Evaporation	20.4	39.8	39.8	39.8	39.8
Solid Waste Disposal					
Government	1,661.5	1,757.6	1,390.7	1,770.7	4,281.7
Commercial/Institutional	11.8	11.8	11.8	11.8	11.8
Industrial	663.8	597.5	655.7	624.6	738.4
Site Remediation	2.2	3.3	1.3	4.2	4.0
Commercial	28.1	15.5	15.2	16.3	16.0
Institutional		0.1	0.0	0.0	0.0
Totals	**47,785.6**	**51,961.0**	**61,945.1**	**63,697.9**	**67,974.0**

Table C2

Nitrogen Oxides Point Source Emission Distribution (Tons/Year)

Category	2018	2019	2020	2021	2022
External Fuel Combustion					
Electric Generation	28,127.4	29,824.7	20,090.9	20,118.3	19,824.9
Industrial	7,863.4	7,392.7	7,419.7	7,710.1	8,021.8
Commercial/Institutional	1,858.3	1,894.3	1,965.9	1,958.5	1,975.2
Space Heating	71.9	74.0	59.6	67.5	53.6
Internal Fuel Combustion					
Electric Generation	2,046.9	2,522.1	2,856.4	2,983.8	2,683.8
Industrial	7,232.8	8,659.5	8,533.5	10,572.4	10,841.6
Commercial/Institutional	431.3	471.4	584.4	638.1	681.7
Engine Testing	344.5	327.2	333.5	311.5	261.0
Industrial Processes					
Chemical Manufacturing	1,452.3	1,468.9	1,437.2	1,543.6	1,620.9
Food/Agriculture	1,299.1	1,137.9	1,191.5	1,293.7	1,586.6
Primary Metal Production	1,010.2	1,208.4	1,269.9	1,307.4	1,326.2
Secondary Metal Production	720.5	629.5	691.6	673.5	739.6
Mineral Products	6,405.3	6,699.2	6,065.9	7,735.6	7,794.1
Petroleum Industry	3,640.5	3,771.5	3,571.4	3,551.2	3,577.3
Paper and Wood Products	0.9	0.9	0.8	0.8	0.8
Rubber and Plastic Products	20.6	27.5	24.0	26.2	26.5
Fabricated Metal Products	266.1	244.2	237.7	230.8	241.9
Oil and Gas Production	691.2	627.8	555.8	548.8	1,566.1
Miscellaneous Machinery	0.8	0.8	0.8	0.8	0.8
Electrical Equipment	1.9	1.7	1.7	1.7	1.8
Health Services	6.6	7.0	7.0	10.9	11.3
Textile Products					
In-Process Fuel Use	70.3	165.0	111.8	111.8	112.5
Miscellaneous Manufacturing	18.6	17.9	18.4	19.0	27.4
Organic Solvent Emissions					
Organic Solvent Use					
Surface Coating Operations	475.3	473.6	468.3	495.3	522.2
Petroleum Product Storage	0.2	0.0	0.2	0.2	0.2
Bulk Terminals/Plants	2.9	7.4	12.8	12.8	27.9
Printing/Publishing	0.8	4.0	5.8	10.3	11.8
Petroleum Marketing/Transport	3.5	38.2	11.6	11.7	11.7
Organic Chemical Storage (large)	0.2	0.0	0.0	0.0	0.0
Organic Chemical Transportation		1.5	0.4	0.4	0.4
Organic Solvent Evaporation	15.9	20.2	20.2	20.2	20.2
Solid Waste Disposal					
Government	590.5	574.8	513.4	799.8	1,315.8
Commercial/Institutional	1.3	1.3	1.3	1.3	1.3
Industrial	201.4	195.2	212.6	196.3	233.5
Site Remediation	2.8	5.8	1.9	5.3	4.6
Commercial	11.9	11.0	10.9	12.7	12.4
Institutional		0.1	0.0	0.0	0.0
Totals	**64,888.5**	**68,507.0**	**58,289.1**	**62,982.3**	**65,139.5**

Table C3

PM_{10} Point Source Emission Distribution (Tons/Year)

Category	2018	2019	2020	2021	2022
External Fuel Combustion					
Electric Generation	2,901.5	4,004.8	2,760.6	2,761.1	2,763.6
Industrial	734.0	715.8	806.8	1,008.3	1,010.7
Commercial/Institutional	179.4	180.8	184.2	183.7	233.3
Space Heating	3.0	3.2	2.6	3.2	2.7
Internal Fuel Combustion					
Electric Generation	291.8	382.1	425.3	480.9	470.4
Industrial	228.7	269.3	258.0	281.8	331.9
Commercial/Institutional	21.9	26.3	29.5	31.3	35.4
Engine Testing	14.7	15.5	15.0	9.3	8.4
Industrial Processes					
Chemical Manufacturing	985.4	1,023.5	992.5	1,223.4	1,278.9
Food/Agriculture	5,600.5	5,497.3	5,756.1	5,977.0	6,349.9
Primary Metal Production	634.5	882.7	816.4	833.2	813.4
Secondary Metal Production	885.4	869.2	851.6	862.0	1,052.5
Mineral Products	4,332.8	4,093.1	3,597.1	3,701.8	3,847.9
Petroleum Industry	1,153.0	1,234.2	1,195.3	1,194.7	1,203.1
Paper and Wood Products	130.5	140.9	129.2	158.0	202.8
Rubber and Plastic Products	140.8	162.1	164.7	154.9	164.3
Fabricated Metal Products	258.9	270.0	249.1	256.8	247.7
Oil and Gas Production	14.0	12.0	11.3	19.1	25.6
Building Construction	0.0	0.0	0.0	0.0	0.0
Miscellaneous Machinery	15.2	13.1	13.3	15.0	14.4
Electrical Equipment	5.0	5.1	4.9	4.9	4.9
Transportation Equipment	0.1	0.2	2.2	15.9	15.9
Health Services	79.2	79.0	76.6	78.2	77.7
Leather and Leather Products	11.9	11.9	6.6	6.9	6.9
Textile Products	0.0	0.0	0.0	0.0	0.0
Type Setting	0.5	0.5	1.6	1.6	1.6
Process Cooling	237.4	237.7	230.5	234.2	243.2
In-Process Fuel Use	2.9	26.0	42.1	42.1	42.1
Miscellaneous Manufacturing	19.0	51.7	51.9	55.9	120.9
Organic Solvent Emissions					
Organic Solvent Use	23.0	21.4	21.9	14.2	23.8
Surface Coating Operations	250.8	239.9	235.3	290.5	346.6
Petroleum Product Storage	1.1	0.0	0.0	0.0	0.2
Bulk Terminals/Plants	4.1	1.2	1.2	1.2	1.5
Printing/Publishing	29.9	37.6	37.7	77.1	75.9
Petroleum Marketing/Transport	1.0	4.4	4.4	1.3	1.3
Organic Chemical Storage (large)	5.7	6.1	6.1	6.6	6.6
Dry Cleaning (petroleum based)	0.7	7.4	6.2	0.0	63.4
Organic Solvent Evaporation	3.7	10.4	10.4	12.9	11.6
Solid Waste Disposal					
Government	382.7	426.3	410.2	500.3	814.8
Commercial/Institutional	1.3	0.0	0.0	0.0	0.0
Industrial	201.4	86.7	87.8	90.3	100.9
Site Remediation	2.8	13.7	7.2	1.6	1.8
Commercial	7.2	3.2	3.2	4.7	4.4
Institutional		0.1	0.0	0.0	0.0
Totals	**19,725.7**	**21,066.4**	**19,506.5**	**20,632.8**	**22,022.9**

Table C4

Sulfur Dioxide Point Source Emission Distribution (Tons/Year)

Category	2018	2019	2020	2021	2022
External Fuel Combustion					
Electric Generation	54,066.6	57,192.8	46,507.2	46,507.3	46,039.3
Industrial	13,409.5	12,220.6	11,697.5	12,265.9	11,477.0
Commercial/Institutional	2,486.2	2,606.4	2,515.0	2,513.3	2,513.0
Space Heating	0.5	0.5	0.5	0.5	0.4
Internal Fuel Combustion					
Electric Generation	268.5	248.8	294.0	320.5	304.7
Industrial	42.2	70.6	49.8	50.5	73.7
Commercial/Institutional	15.9	16.8	17.3	24.3	27.6
Engine Testing	4.3	5.2	4.3	1.9	1.6
Industrial Processes					
Chemical Manufacturing	727.9	912.3	850.4	1,273.6	1,153.5
Food/Agriculture	1,440.8	1,436.7	1,301.3	1,225.5	1,457.2
Primary Metal Production	1,426.9	2,533.5	1,624.3	1,638.4	1,638.5
Secondary Metal Production	85.7	92.6	73.3	71.7	78.4
Mineral Products	9,107.2	6,261.1	6,068.8	6,275.0	6,306.8
Petroleum Industry	1,635.0	1,299.7	1,629.0	1,650.5	15,083.5
Paper and Wood Products	0.0	0.0			
Rubber and Plastic Products	0.2	3.9	0.3	0.3	0.3
Fabricated Metal Products	14.7	12.8	12.7	13.0	13.1
Oil and Gas Production	0.8	0.6	96.7	98.6	101.9
Miscellaneous Machinery	0.0	0.0	0.0	0.0	0.0
Electrical Equipment					0.0
Health Services	7.5	7.5	7.5	10.8	11.3
Process Cooling	0.0	0.0	0.0	0.0	0.0
In-Process Fuel Use	5.9	61.7	89.9	90.0	90.0
Miscellaneous Manufacturing	0.4	0.4	2.0	2.0	2.7
Organic Solvent Emissions					
Organic Solvent Use					
Surface Coating Operations	4.5	4.9	4.8	5.0	6.2
Petroleum Product Storage	8.3	8.3	8.3	8.3	8.3
Bulk Terminals/Plants		0.5	0.5	0.5	0.9
Printing/Publishing	0.5	0.0	0.0	0.1	0.1
Petroleum Marketing/Transport	0.0	2.5	1.2	1.2	1.2
Organic Chemical Storage (large)	0.1	0.5	0.5	4.9	1.0
Organic Chemical Transportation	1.6		0.0	0.0	0.0
Organic Solvent Evaporation	0.6	0.9	0.9	0.9	0.9
Solid Waste Disposal					
Government	1,063.8	900.8	714.7	1,511.4	2,229.4
Commercial/Institutional	1.5	1.5	1.5	1.5	1.5
Industrial	365.7	218.4	232.8	175.5	509.6
Site Remediation		1.8	1.0	0.8	0.8
Commercial		0.7	0.7	1.5	1.5
Institutional		0.0	0.0	0.0	0.0
Totals	**86,245.4**	**86,125.6**	**73,808.5**	**75,745.0**	**89,135.6**

Table C5

Volatile Organic Material Point Source Emission Distribution (Tons/Year)

Category	2018	2019	2020	2021	2022
External Fuel Combustion					
Electric Generation	1,111.1	1,128.9	701.3	701.3	711.6
Industrial	314.9	303.9	306.2	327.1	374.8
Commercial/Institutional	83.7	85.5	89.7	89.1	106.2
Space Heating	3.8	3.9	3.2	3.6	2.9
Internal Fuel Combustion					
Electric Generation	352.7	172.2	219.6	231.0	222.4
Industrial	519.0	684.8	638.7	685.9	684.1
Commercial/Institutional	36.2	45.6	59.0	61.2	67.3
Engine Testing	45.0	56.7	57.4	52.3	54.3
Industrial Processes					
Chemical Manufacturing	5,769.7	5,679.5	5,658.5	5,475.8	6,763.3
Food/Agriculture	9,316.2	9,432.5	9,718.2	9,457.5	10,484.7
Primary Metal Production	146.8	163.6	256.1	254.8	256.9
Secondary Metal Production	725.7	760.1	776.7	750.6	915.9
Mineral Products	1,100.6	999.7	939.8	1,002.9	1,054.4
Petroleum Industry	1,979.2	1,748.7	1,775.0	1,644.2	1,656.5
Paper and Wood Products	59.5	68.3	64.0	68.7	86.6
Rubber and Plastic Products	1,670.1	1,603.5	1,471.9	1,433.2	1,527.2
Fabricated Metal Products	648.2	667.7	710.6	700.4	847.2
Oil and Gas Production	303.7	288.9	269.4	271.9	353.3
Miscellaneous Machinery	74.2	31.1	27.8	27.8	24.0
Electrical Equipment	68.0	65.2	63.8	64.3	63.5
Transportation Equipment	18.5	18.2	18.2	18.2	18.2
Health Services	10.6	5.8	3.9	4.5	4.7
Photographic Film Manufacturing	1.7	0.8		5.7	0.4
Leather and Leather Products	17.9	17.9	17.2	2.3	5.8
Textile Products	2.3	2.3	2.3	27.8	2.3
Process Cooling	80.7	80.7	79.5	79.5	79.9
In-Process Fuel Use	6.7	10.6	11.5	11.5	11.5
Miscellaneous Manufacturing	104.7	67.4	67.5	61.2	68.3
Organic Solvent Emissions					
Organic Solvent Use	472.5	502.0	512.9	518.9	678.9
Surface Coating Operations	6,138.0	6,064.1	5,656.8	5,822.3	7,017.4
Petroleum Product Storage	2,517.0	2,492.5	2,368.0	2,325.4	2,602.5
Bulk Terminals/Plants	1,015.6	1,052.0	895.5	1,038.8	1,246.5
Printing/Publishing	2,467.7	2,382.2	1,947.2	2,103.7	2,546.5
Petroleum Marketing/Transport	354.7	358.5	344.3	342.3	386.3
Organic Chemical Storage (large)	578.7	775.3	861.7	857.1	2,122.4
Organic Chemical Transportation	60.6	41.6	48.9	55.4	55.3
Dry Cleaning (petroleum based)	283.5	280.8	232.7	222.6	214.6
Aerosol Can Filling			170.1		
Organic Chemical Storage (small)	0.2				

Table C5

Volatile Organic Material Point Source Emission Distribution (Tons/Year)

Category	2018	2019	2020	2021	2022
Organic Solvent Evaporation	372.0	354.5	341.4	333.3	334.3
Solid Waste Disposal					
Government	514.5	407.5	403.9	498.0	852.2
Commercial/Institutional	2.9	2.9	2.9	2.9	2.9
Industrial	61.3	60.3	60.3	72.0	77.5
Site Remediation	139.8	97.5	90.9	109.9	95.7
Commercial		3.9	3.7	2.5	2.1
Institutional		0.0	0.0	0.0	0.0
Totals	**39,785.1**	**39,070.1**	**37,948.2**	**37,791.7**	**44,683.6**

Table C6

2022 Estimated County Stationary Point Source Emissions (Tons/Year)

County	Carbon Monoxide	Nitrogen Oxides	PM_{10}	Sulfur Dioxide	Volatile Organic Material
Adams	326.51	186.80	290.46	517.33	1,756.58
Alexander	27.22	32.00	40.75	0.37	413.77
Bond	13.64	15.56	13.23	0.72	21.27
Boone	77.09	74.77	73.16	1.20	291.13
Brown	0.02	0.01	2.78	0.00	0.00
Bureau	17.92	31.03	61.25	0.28	79.85
Calhoun	0.63	0.75	5.22	0.00	0.11
Carroll	60.53	66.69	31.79	1.78	13.94
Cass	71.91	81.37	48.56	15.77	21.33
Champaign	352.73	489.58	197.96	106.53	497.03
Christian	326.28	1,155.97	126.54	1,534.14	243.00
Clark	41.12	4.98	122.31	1.43	341.61
Clay	3.97	6.07	16.58	0.14	71.05
Clinton	266.99	806.94	72.61	286.98	67.36
Coles	116.47	111.48	117.66	6.86	151.65
Cook	11,528.76	4,346.84	2,468.06	1,264.52	7,621.42
Crawford	989.97	1,546.10	496.63	4,333.50	971.44
Cumberland	13.64	3.24	17.51	1.02	42.19
DeKalb	274.62	168.29	86.23	186.72	127.68
DeWitt	89.26	71.12	99.33	80.05	230.41
Douglas	959.41	3,402.45	109.38	0.93	510.90
DuPage	992.93	1,137.74	343.24	111.55	1,334.56
Edgar	19.15	69.87	68.46	2.92	62.89
Edwards	0.36	1.73	10.02	0.02	8.01
Effingham	11.82	27.36	52.89	1.75	515.87
Fayette	79.06	301.40	74.58	247.78	101.95
Ford	170.65	234.35	210.44	83.92	825.51
Franklin	10.03	5.46	108.49	0.01	17.91
Fulton	8.86	8.18	12.28	0.05	13.11
Gallatin	0.00	0.00	2.95	0.00	0.00
Greene	0.06		19.33		0.24
Grundy	656.60	996.42	181.30	33.49	580.94
Hamilton	0.27	0.33	96.58	0.00	0.84
Hancock	15.99	4.00	62.66	0.36	8.79
Hardin	1.64	1.95	12.53	0.01	1.90
Henderson			28.62		
Henry	828.21	1,323.25	296.95	102.78	449.83
Iroquois	114.30	84.80	246.21	5.21	237.41
Jackson	371.07	360.78	63.23	239.72	86.65
Jasper	2,246.68	1,814.58	112.27	5,004.50	119.97
Jefferson	77.20	87.74	31.61	0.94	296.69
Jersey	0.10		6.07		10.34
Jo Daviess	256.00	441.64	148.34	24.18	65.87
Johnson	24.74	23.55	7.81	219.99	5.88
Kane	327.70	382.08	217.80	25.05	910.11
Kankakee	1,140.16	722.94	162.49	61.74	775.88
Kendall	347.06	671.45	263.35	33.13	115.26
Knox	28.03	21.13	42.53	1.92	72.65
Lake	1,394.75	1,478.86	548.20	797.11	514.31
La Salle	1,570.04	2,946.09	1,101.75	699.02	1,277.25
Lawrence	26.87	8.39	19.08	1.18	40.29
Lee	548.58	364.14	170.72	164.73	271.56

Table C6

2022 Estimated County Stationary Point Source Emissions (Tons/Year)

County	Carbon Monoxide	Nitrogen Oxides	PM_{10}	Sulfur Dioxide	Volatile Organic Material
Livingston	456.39	244.61	139.03	124.26	274.86
Logan	28.37	38.47	71.13	427.75	8.65
McDonough	37.26	72.55	20.14	0.69	60.92
McHenry	216.86	278.24	194.12	5.65	361.97
McLean	220.81	254.30	151.71	10.40	700.51
Macon	1,245.82	6,249.18	2,059.76	10,978.49	5,214.77
Macoupin	4.20	4.36	64.95	0.02	28.92
Madison	19,786.85	3,360.97	1,508.01	3,060.34	2,363.63
Marion	45.34	69.03	68.92	2.32	755.05
Marshall	64.18	137.00	131.35	230.16	36.90
Mason	2.09	2.58	42.56	0.02	34.56
Massac	3,451.17	3,713.85	619.60	10,851.20	122.47
Menard	15.07	3.31	16.14	0.04	26.37
Mercer	0.40	0.48	15.24	0.00	14.31
Monroe	2.91	4.39	11.95	0.07	8.19
Montgomery	39.24	11.32	49.86	4.47	30.09
Morgan	271.24	1,169.10	43.61	38.91	44.26
Moultrie	3.16	9.10	35.68	0.01	182.85
Ogle	731.94	431.93	400.53	1,001.44	786.62
Peoria	1,898.61	3,380.47	548.42	6,957.27	1,004.68
Perry	61.10	66.60	76.13	0.49	41.93
Piatt	94.33	926.17	41.95	0.11	58.82
Pike	117.13	152.69	89.62	2.27	43.35
Pope					
Pulaski	76.67	20.26	59.82	4.15	4.05
Putnam	497.17	305.76	428.59	892.47	337.54
Randolph	968.86	2,836.17	120.46	2,279.67	214.82
Richland	25.07	31.64	13.89	0.19	49.84
Rock Island	430.82	423.90	176.88	142.31	721.00
St. Clair	389.58	322.57	324.39	105.48	495.79
Saline	79.09	54.68	21.79	3.52	7.76
Sangamon	442.98	856.30	203.22	864.56	160.00
Schuyler	0.01	0.02	8.27	0.00	20.55
Scott	41.21	39.46	44.90	6.56	3.66
Shelby	44.23	183.53	63.18	2.20	55.47
Stark			20.86		5.62
Stephenson	72.77	102.70	106.94	8.38	98.28
Tazewell	838.28	2,213.69	802.23	2,178.08	723.71
Union	36.97	45.91	32.45	687.54	1.79
Vermilion	674.81	721.14	364.44	99.71	2,915.01
Wabash	8.90	2.89	31.49	0.00	5.15
Warren	82.39	42.56	70.76	160.11	22.08
Washington	331.24	4,041.37	1,384.66	10,431.53	131.31
Wayne	42.31	79.55	7.93	3.93	12.86
White	47.54	24.80	2.79	3.00	39.38
Whiteside	677.02	249.97	176.89	31.19	70.33
Will	3,600.97	3,921.30	1,413.92	15,125.41	3,114.28
Williamson	1,135.37	1,271.25	145.48	5,977.89	363.19
Winnebago	1,794.10	629.62	333.61	225.80	833.87
Woodford	13.64	15.52	44.08	2.14	83.99

Table C7

Annual Source Estimated Emissions Trends (Tons)

Year	Carbon Monoxide	Nitrogen Oxides	PM_{10}	Sulfur Dioxide	Volatile Organic Material
1981	240,421	826,427		1,577,992	270,814
1982	163,704	693,054		1,404,040	233,951
1983	144,622	759,453		1,363,292	207,405
1984	110,922	746,367		1,435,066	197,418
1985	107,876	715,556		1,406,300	191,070
1986	109,777	676,181		1,400,761	180,148
1987	98,213	644,511		1,379,407	176,406
1988	127,758	653,521		1,393,628	165,792
1989	132,214	610,214		1,254,474	193,499
1990	134,744	623,466		1,272,445	170,378
1991	148,667	619,161		1,239,690	154,008
1992	129,054	610,214	181,775	1,228,949	156,867
1993	130,097	556,460	113,482	1,170,549	152,288
1994	127,848	555,893	50,730	1,158,555	140,492
1995	127,661	505,966	48,839	1,273,786	141,381
1996	130,040	495,267	43,950	1,183,278	139,445
1997	117,046	510,729	41,078	1,197,404	136,541
1998	108,117	509,676	43,392	1,196,461	134,924
1999	120,906	421,993	40,598	1,085,828	99,121
2000	122,702	424,609	36,885	1,070,058	101,147
2001	96,970	358,263	34,233	653,797	95,221
2002	99,173	301,216	30,422	531,343	90,014
2003	88,367	289,921	41,589	512,321	89,579
2004	80,479	248,245	42,402	507,142	84,080
2005	83,671	238,026	40,359	522,677	75,690
2006	89,717	219,200	37,979	487,588	70,858
2007	80,969	205,602	34,847	429,976	59,021
2008	80,628	203,014	34,474	406,905	57,135
2009	78,720	198,178	32,551	375,807	54,668
2010	65,797	138,344	30,931	304,709	49,975
2011	78,283	143,035	29,796	295,658	48,323
2012	76,255	131,326	28,624	276,412	46,957
2013	64,915	109,308	25,744	211,873	45,430
2014	67,921	109,444	24,942	200,350	44,610
2015	66,072	99,753	23,959	182,200	42,345
2016	59,945	79,439	22,820	125,421	42,885
2017	49,267	68,916	20,779	94,095	39,768
2018	47,786	64,889	19,726	86,245	39,785
2019	51,961	68,507	21,066	86,126	39,070
2020	61,945	58,289	19,507	73,809	37,948
2021	63,698	62,982	20,633	75,745	37,792
2022	68,478	65,703	22,170	89,163	45,317

Table C8

Annual Source Reported Emissions Trends (Tons)

Year	Carbon Monoxide	Nitrogen Oxides	PM_{10}	Sulfur Dioxide	Volatile Organic Material
1992	112,403	381,938	49,377	1,045,113	143,853
1993	113,781	418,209	36,737	1,001,123	108,847
1994	116,192	404,486	34,086	967,213	108,897
1995	160,256	366,978	31,491	814,229	103,144
1996	84,258	407,683	30,850	914,295	87,271
1997	71,408	404,289	25,648	974,232	76,350
1998	79,147	377,191	31,828	964,262	77,952
1999	91,153	360,850	27,663	863,759	71,514
2000	90,315	329,141	30,482	620,592	71,063
2001	83,453	291,778	28,929	531,504	62,647
2002	83,795	261,202	26,900	498,754	70,703
2003	75,511	230,068	29,939	507,338	63,495
2004	77,847	229,127	31,896	521,808	64,594
2005	85,892	215,366	30,535	486,534	62,251
2006	77,099	200,832	29,367	429,573	53,791
2007	77,211	198,073	28,784	406,405	50,933
2008	75,183	193,637	28,194	376,627	49,112
2009	62,285	134,274	25,988	305,297	41,839
2010	75,277	139,508	25,993	297,254	44,245
2011	73,586	129,058	25,209	272,747	42,430
2012	64,253	109,298	22,631	220,143	42,735
2013	65,879	107,877	21,549	201,509	41,276
2014	65,865	99,230	21,962	182,337	40,767
2015	57,688	80,469	19,557	136,749	40,039
2016	46,864	68,441	17,560	99,907	37,593
2017	46,747	64,673	17,209	86,446	37,206
2018	50,727	68,632	18,316	87,437	37,265
2019	61,586	62,595	16,582	78,506	36,723
2020	53,766	48,565	15,415	61,450	33,446
2021	51,591	52,809	15,541	67,886	32,383

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:

- http://www.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):

- http://www.epa.gov/green-book

Other

- Ambient Monitoring Technology Information Center: https://www.epa.gov/amtic
- Toxic Release Inventory Search: http://www.epa.gov/enviro/tri-search
- Toxic Release Inventory Data and Tools: https://www.epa.gov/toxics-release-inventory-tri-program/tri-data-and-tools