



**Allegheny County Health Department
Air Quality Program
301 39th St., Bldg. #7
Pittsburgh, PA 15201**

**Air Quality
Annual Data Summary**

**Criteria Pollutants and Selected Other
Pollutants**

**for
2019**

Below is a map of all monitoring locations. Downtown Pittsburgh comprises the Flag Plaza site.



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Preface

This report reflects air quality as sampled and validated by the Allegheny County Health Department (ACHD) through the calendar year of 2019. The 2019 Annual Report will be completed after all the air toxics data is quality assured by ACHD.

For comparison to previous data, this report also provides 2018 data and twenty-year trends. For standards that require consecutive years' averages, multi-year averages are also given.

Exceedances are given for pollutants. An *exceedance* is a concentration that exceeds a standard but does not necessarily constitute a *violation* of a standard. For some standards, a violation is a culmination of several exceedances over a multi-year period. The standards for each pollutant are described in detail in the pollutant sections.

Official validated concentrations are submitted to EPA's Air Quality System (AQS) on a quarterly basis, and selected parameters are available at the AirData website: www.epa.gov/airdata/. Allegheny County 2019 air quality data will be submitted for certification in mid-2020.

Unofficial data for ozone and PM_{2.5} is reported to EPA's AIRNow on an hourly basis and is available at the AIRNow website: www.airnow.gov/.

Unofficial Air Quality Index (AQI) levels are also available each hour for all continuously monitored pollutants via ACHD phone recording at 412-578-8179 and at the Allegheny County website: <https://alleghenycounty.us/hd/AQIReport.XLS>.

Executive Summary

The County recorded no exceedance days for 8-hour ozone in 2019, with no days above the previous standard of 0.075 parts per million (ppm). The ACHD monitors showed attainment of the 8-hour standard of 0.070 ppm for the third time in four years. The highest 3-year average of the 4th maximum concentration for 2017-2019 was 0.068 ppm at South Fayette and Lawrenceville.

For particulate matter 2.5 microns or less in diameter (PM_{2.5}), one of the eight monitoring sites was above the annual standard of 12.0 µg/m³ (micrograms/cubic meter): Liberty was 12.4 µg/m³ for the years 2017-2019.

On a short-term basis, the Liberty FRM (Federal Reference Method) PM_{2.5} monitor exceeded the 24-hour standard of 35 µg/m³ nine times, leading to a 98th-percentile value of 39.4 µg/m³. For the third time in five years, data from the Liberty PM_{2.5} monitor in Allegheny County shows attainment of this standard.

A new 1-hour federal standard of 75 ppb was promulgated in 2010 for SO₂. To attain this standard, the 3-year average of the 99th percentile of the daily maximum 1-hour average at each monitor must not exceed 75 ppb.

A new 1-hour federal standard of 100 ppb was promulgated in 2010 for NO₂. To attain this standard, the 3-year average of the 98th percentile of the daily maximum 1-hour average at each monitor must not exceed 100 ppb.

All exceedances of the short-term standards in 2019 are shown in the table on the next page. All other criteria pollutants were below the annual and short-term federal standards in 2019. Ozone can have a short-term exceedance of either the 1-hour or 8-hour standard and will be labeled as such. The PM_{2.5} short-term exceedances are for the 24-hour standard and the SO₂ short-term exceedances are for the 1-hour standard.

2019 Exceedances of the Short-Term Federal Standards

Pollutant	Site	Date	Concentration	Standard
PM _{2.5}	Liberty	9 Days	Max = 66.4 µg/m ³	35 µg/m ³
SO ₂	Liberty	5 Hours	Max = 85 ppb	75 ppb
SO ₂	North Braddock	2 Hours	Max = 83 ppb	75 ppb

Attainment of the Federal Standards

8-Hour Ozone

Allegheny County and the surrounding six counties of the Pittsburgh-Beaver Valley Area were designated nonattainment of the previous 1997 and 2008 standards (0.08 ppm and 0.075 ppm, respectively) for 8-hour ozone. The Pittsburgh-Beaver Valley Area has since been in attainment of these standards, and Allegheny County and surrounding counties have not been designated under the 2015 standard (0.070 ppm). The monitor at South Fayette had the highest 3-year average of 0.071 ppm for 2016-2018 in the area. South Fayette tied with Lawrenceville as the highest in Allegheny County for 2017-2019 at 0.068 ppm. Allegheny County is in attainment of the current 8-hour ozone standard of 0.070 ppm at all sites based on 2017-2019 data.

PM_{2.5}

For the 1997 and 2006 standards, Allegheny County had been designated nonattainment for PM_{2.5} as part of a multi-county Pittsburgh-Beaver Valley Area. Additionally, a five-municipality Liberty-Clairton Area was designated nonattainment as a separate area within Allegheny County. The areas have since been in attainment of these standards. In 2015, Allegheny County was designated a nonattainment area for the 2012 standards, and a State Implementation Plan (SIP) has been developed for the attainment of this standard to demonstrate attainment by the end of 2021. Monitored results for 2017-2019 show levels of attainment county-wide, excluding the Liberty monitor, for the annual standard of 12.0 µg/m³.

SO₂

The County has monitored attainment for the annual and 24-hour SO₂ standards for several consecutive years. In 2013, EPA designated a 22-municipality nonattainment area in the Monongahela Valley region of Allegheny County for the 2010 1-hour standard of 75 ppb, and a SIP has been developed for this area. The Liberty monitor is not yet in attainment of the standard, with 2017-2019 results showing a 3-year average of 109 ppb.

Other Criteria

For PM₁₀ the County has monitored attainment for 25 consecutive years. EPA redesignated Allegheny County to attainment for PM₁₀ in 2003.

For 1-hour ozone, the County has monitored attainment for 22 consecutive years. EPA redesignated Allegheny County to attainment for the 1-hour ozone standard in 2001. EPA revoked this standard for Southwestern PA in 2005.

For CO, the County has monitored attainment for 32 consecutive years. EPA redesignated Allegheny County to attainment for CO in 2003.

For NO₂, the County has monitored attainment for over 35 consecutive years and has been in attainment since promulgation of the standard.

For Lead (Pb), in 2014 the County had monitored nonattainment for the first time in over 25 years. The County has monitored attainment in 2015, 2016 and 2017.

Air Monitoring Results

Ozone (O₃)

The federal standard for ozone is based on maximum 8-hour averages within each 8-hour block period within a calendar day. The 8-hour standard of 0.070 parts per million (ppm) must not be exceeded by the 3-year average of the 4th highest 8-hour concentrations. Starting 2016, the ozone season for Allegheny County extends from March 1 through October 31.

There were no exceedance days overall for 8-hour ozone in 2019. None of the days included an exceedance at more than one monitor.

Based on predominant wind flow for Allegheny County, South Fayette is considered to represent incoming ozone levels, Lawrenceville represents ambient urban ozone levels, and Harrison represents outgoing ozone levels.

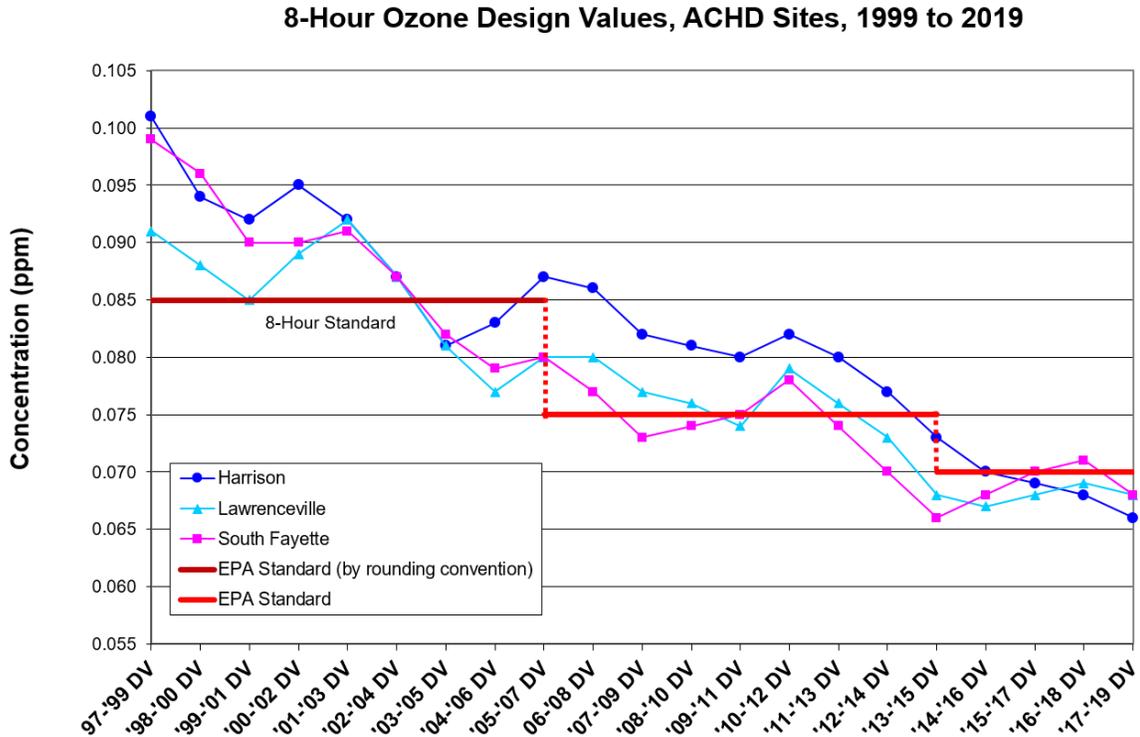
8-Hour Ozone Concentrations

Maximum 8-hour ozone concentrations and exceedance days are given below for 2019, with exceedance concentrations and days shown in red. 2018 values are shown in gray for comparison.

8-Hour Std. = 0.070 ppm*						
Site	2018 8-Hour Maximum (ppm)	2019 8-Hour Maximum (ppm)	2018 Exceedance Days	2019 Exceedance Days	2016-2018 8-Hour 3-Yr. Avg. of 4 th Max. (ppm)	2017-2019 8-Hour 3-Yr. Avg. of 4 th Max. (ppm)
South Fayette	0.078	0.066	3	0	0.071	0.068
Lawrenceville	0.079	0.066	6	0	0.069	0.068
Harrison	0.087	0.067	5	0	0.068	0.066

* For comparison to the standards, values are truncated at 1/1000th ppm (e.g., 0.0706 truncates to 0.070 ppm). An exceedance day is one in which any 8-hour period has an average of greater than 0.070 ppm.

Below is a chart showing the 8-hour design values for the three Allegheny County Health Department sites since 1999.



1-Hour Ozone Concentrations

The 1-hour standard was revoked for the Pittsburgh-Beaver Valley Area in mid-2005. The former 1-hour standard of 0.12 ppm was not to be exceeded more than once a year, averaged over a 3-year period. 1-hour ozone maximums and exceedances are given in this report for comparative purposes.

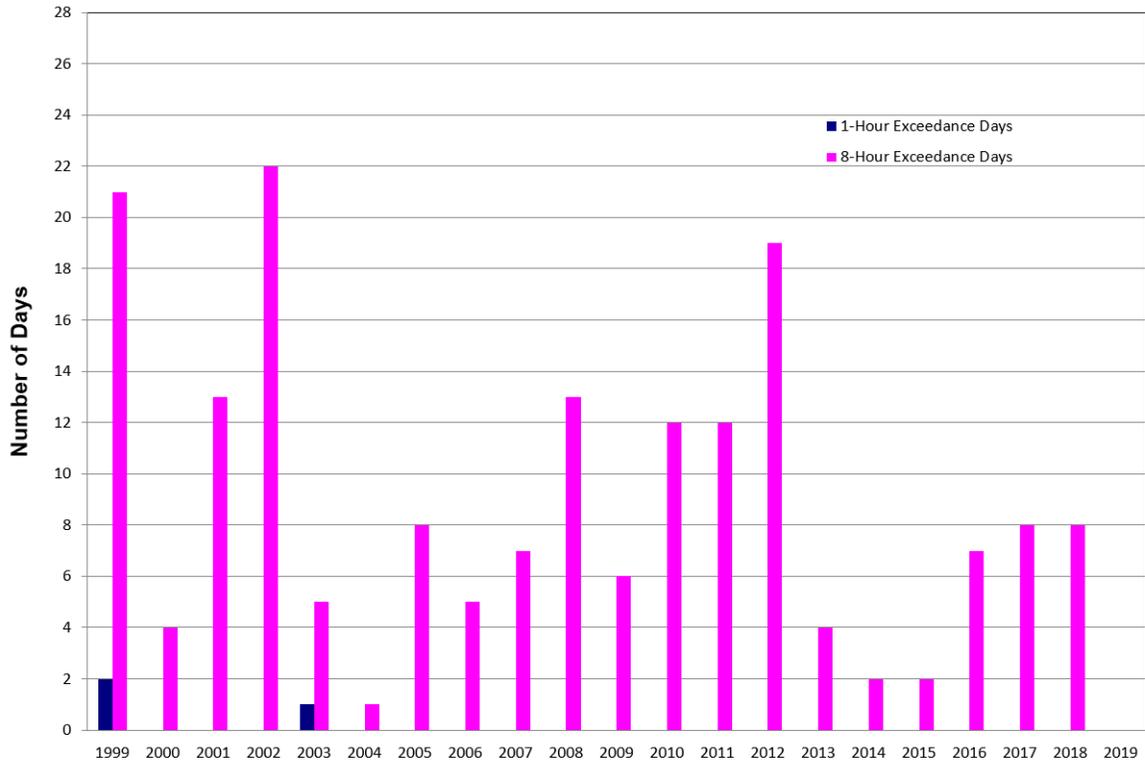
Maximum 1-hour concentrations for ozone are given in the table that follows for 2019, with 2018 values shown in gray. "Expected" exceedance days are based on the 3-year average of the actual exceedance days per year, adjusted for missing data.

Former 1-Hour Std. = 0.12 ppm*						
Site	2018 1-Hour Maximum (ppm)	2019 1-Hour Maximum (ppm)	2018 Exceedance Days	2019 Exceedance Days	2016-2018 Expected Exceedance Days	2017-2019 Expected Exceedance Days
Lawrenceville	0.086	0.079	0	0	0.0	0.0
Harrison	0.100	0.077	0	0	0.0	0.0
South Fayette	0.083	0.076	0	0	0.0	0.0

* For comparison to the standards, values are rounded to the nearest 1/100th ppm (e.g., 0.126 rounds up to 0.13 ppm). An exceedance day is one in which any hour has a concentration of 0.125 ppm or greater. Concentrations are shown here in thousandths of ppm for detail.

Below is a chart showing ozone exceedance days, both 1-hour and 8-hour, for all Allegheny County sites over the period 1999-2019. Exceedance days represent days when at least one site exceeded the standard.

Ozone Exceedance Days, 1999-2019



Particulate Matter - 2.5 microns or less (PM_{2.5})

PM_{2.5} Filter-Based Monitors, Annual

Federal Reference Method (FRM) filter-based PM_{2.5} monitors are used to determine attainment for an area. The annual federal standard for PM_{2.5} is 12.0 µg/m³ on an annual basis (3-year average).

Annual averages for 2019 are given in the table below, with 2018 averages shown in gray. 2019 annual and 3-year averages that exceeded the standard are shown in red.

Annual Std. = 12.0 µg/m ³				
Site	2018 Average	2019 Average	2016-2018 3-Year Average	2017-2019 3-Year Average
Liberty	11.5	12.2	12.6	12.4
North Braddock	10.2	9.9	10.7	10.4
Harrison	9.3	8.6	9.6	9.3
Lawrenceville	9.0	9.0	9.1	9.1
Clairton	8.8	7.9	9.3	8.8
South Fayette	8.1	7.7	8.3	8.1
North Park	7.2	6.8	7.8	7.4

Note: Starting 2017, the Avalon filter-based monitor is now a quality assurance monitor.

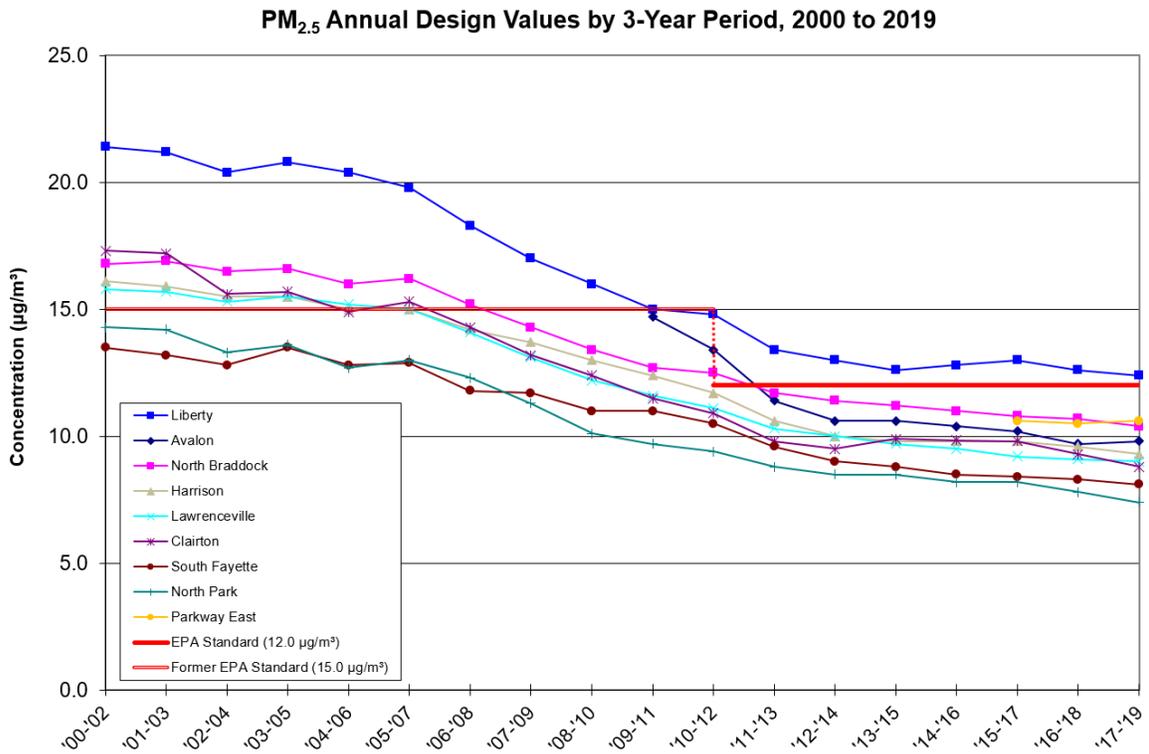
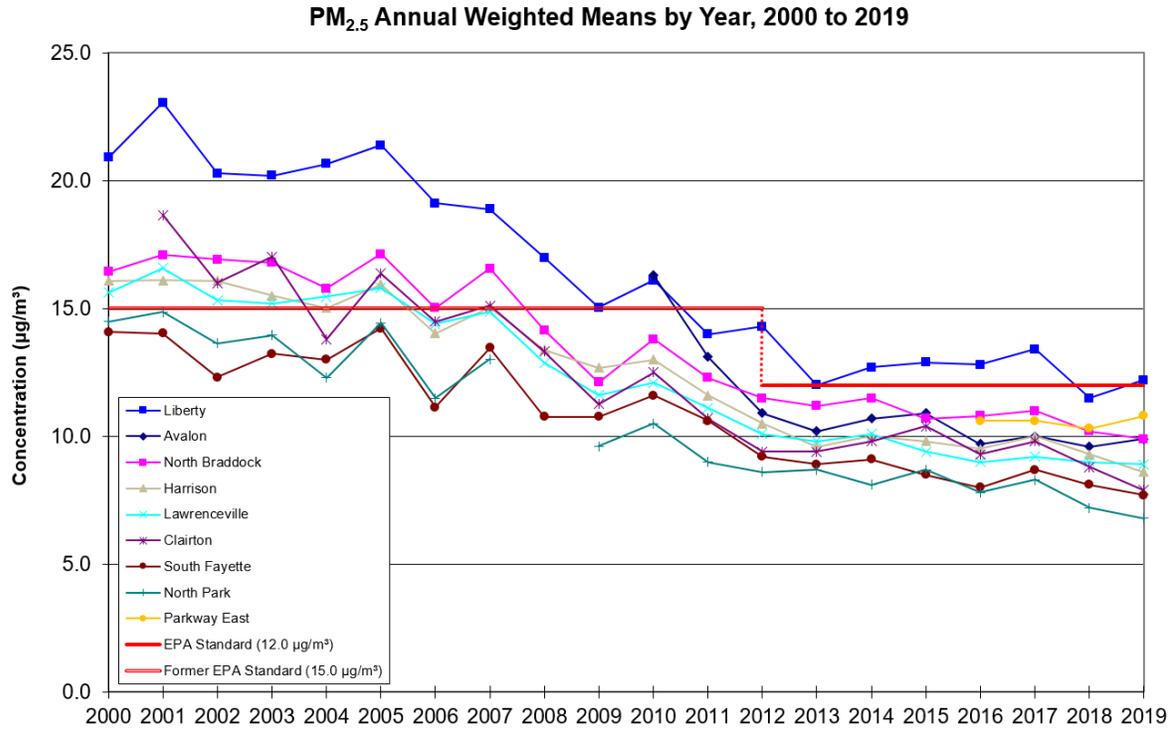
PM_{2.5} Continuous Monitors, Annual

ACHD's four continuous PM_{2.5} monitors are used mainly for AQI reporting. The Parkway East monitor started operation in 2016 and the Avalon monitor started operation in 2017; both monitors are used to determine attainment of the federal standards.

Annual averages for 2019 are given in the table below, with 2018 averages shown in gray. 2019 annual and 3-year averages that exceeded the standard are shown in red.

Annual Std. = 12.0 µg/m ³				
Site	2018 Average	2019 Average	2016-2018 3-Year Average	2017-2019 3-Year Average
Parkway East	10.3	10.8	10.5	10.6
Avalon	9.6	9.9	9.7	9.8

Long-term trends for the PM_{2.5} annual averages and the PM_{2.5} annual design values are shown in the charts below.



PM_{2.5} Filter-Based Monitors, 24-Hour

The 24-hour standard for PM_{2.5} of 65 µg/m³ on a 24-hour basis (3-year average of the 98th-percentile value) was revised in December 2006 to 35 µg/m³.

The maximum 2019 24-hour concentrations and number of exceedance days are shown in the following table, with 2018 values shown in gray. Values for 98th-percentile values by year and by 3-year average are also shown. Exceedances in 2019 are shown in red.

24-Hour Std. = 35 µg/m ³								
Site	2018 24-Hour Max.	2019 24-Hour Max.	2018 24-Hour Exceed.	2019 24-Hour Exceed.	2018 98 th - Percentile Value	2019 98 th - Percentile Value	2016-2018 3-Year Avg. of 98 th - Percentile	2017-2019 3-Year Avg. of 98 th - Percentile
Liberty	43.8	66.4	2	9	28.0	39.4	34.9	34.6
North Braddock	26.9	31.9	0	0	24.5	21.8	24.5	23.1
Harrison	21.3	24.4	0	0	19.3	20.6	20.0	20.3
Lawrenceville	27.7	27.1	0	0	19.2	21.7	18.4	19.5
Clairton	17.5	20.4	0	0	17.5	20.1	18.7	18.9
South Fayette	19.5	18.1	0	0	17.9	16.5	18.3	17.9
North Park	18.3	18.6	0	0	14.3	14.1	15.6	14.9

Note: Starting 2017, the Avalon filter-based monitor is now a quality assurance monitor.

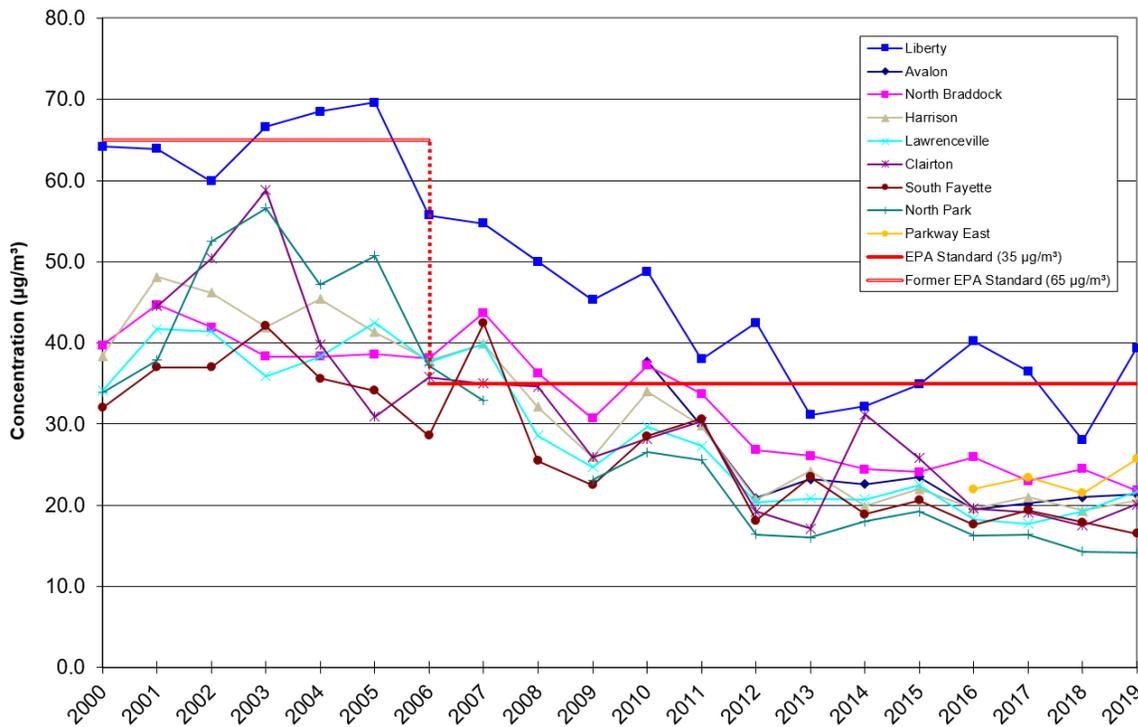
PM_{2.5} Continuous Monitors, 24-Hour

The maximum 2019 24-hour concentrations and number of exceedance days are shown in the following table, with 2018 values shown in gray. Values for 98th-percentile values by year and by 3-year average are also shown. Exceedances in 2019 are shown in red.

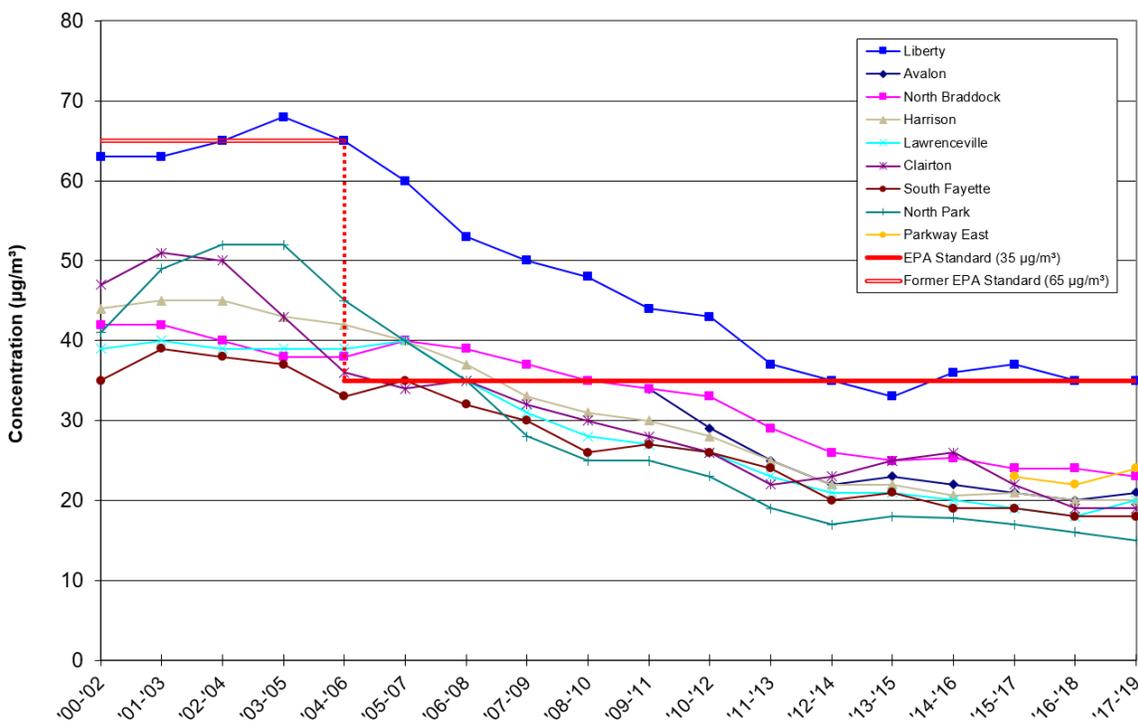
24-Hour Std. = 35 µg/m ³								
Site	2018 24-Hour Max.	2019 24-Hour Max.	2018 24-Hour Exceed.	2019 24-Hour Exceed.	2018 98 th - Percentile Value	2019 98 th - Percentile Value	2016-2018 3-Year Avg. of 98 th - Percentile	2017-2019 3-Year Avg. of 98 th - Percentile
Parkway East	25.3	32.5	0	0	21.5	25.7	22.3	23.5
Avalon	32.1	30.4	0	0	21.0	21.3	20.2	20.8

Long-term trends for the PM_{2.5} 24-hour 98th-percentile by year and the design values by 3-year period are shown in the charts that follow.

PM_{2.5} 24-Hour 98th Percentile Values by Year, 2000 to 2019



PM_{2.5} 24-Hour Design Values by 3-Year Period, 2000 to 2019



Particulate Matter - 10 microns or less (PM₁₀)

PM₁₀ is sampled using both intermittent filter-based and continuous monitors throughout the County. Both types of PM₁₀ monitors can be used for comparison to the federal standard of 150 µg/m³ (24-hour). The 24-hour standard can be exceeded an average of once per year over a 3-year period. The PM₁₀ annual standard of 50 µg/m³ was revoked by EPA in December 2006; annual averages have been given below for comparative purposes. The North Braddock Filter-based Monitor and the Monroeville Continuous Monitor were discontinued yearend 2015. The Avalon Filer-based Monitor was discontinued after the first quarter of 2017.

2019 maximums and averages are shown in the table below, with 2018 values shown in gray. There were no exceedances in 2019.

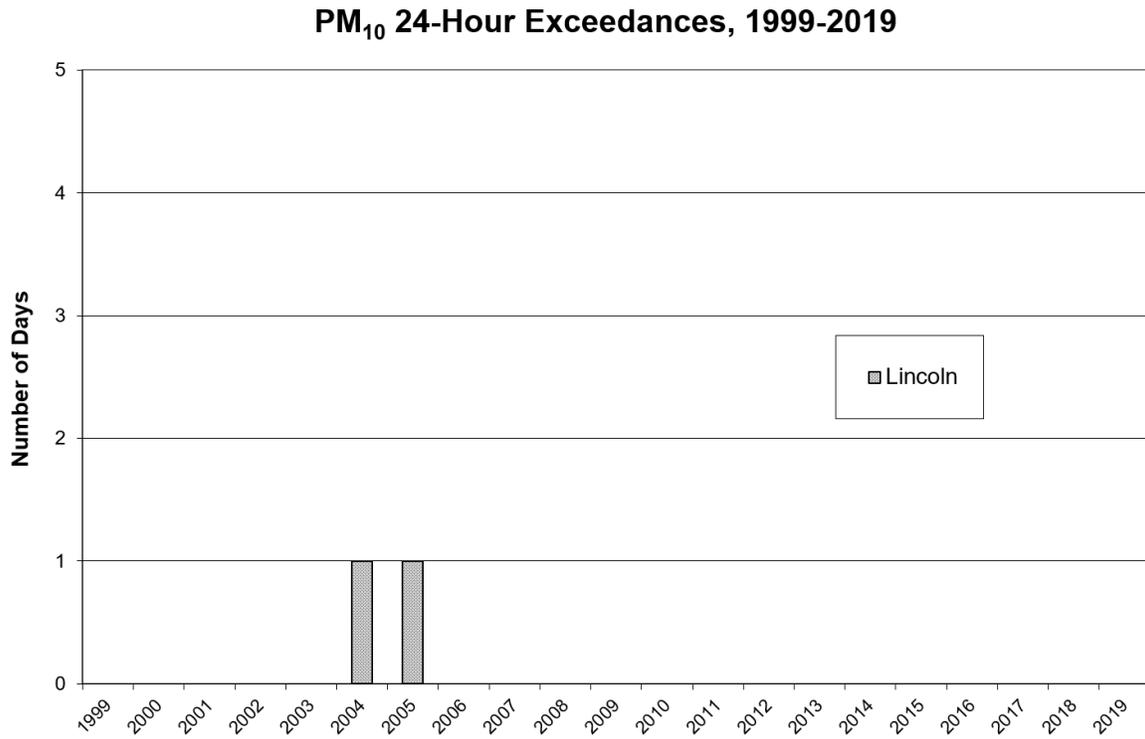
PM₁₀ Filter-Based Monitors

	24-Hour Std. = 150 µg/m ³		Former Annual Std. = 50 µg/m ³	
Site	2018 24-Hour Maximum	2019 24-Hour Maximum	2018 Average	2019 Average
Liberty	50	72	16.9	17.2
Manchester	32	42	14.7	13.2
South Fayette	22	31	10.7	9.7
Clairton	27	26	12.6	11.3

PM₁₀ Continuous Monitors

	24-Hour Std. = 150 µg/m ³		Former Annual Std. = 50 µg/m ³	
Site	2018 24-Hour Maximum	2019 24-Hour Maximum	2018 Average	2019 Average
Glassport	57	105	15.0	16.2
Lincoln	83	75	20.1	21.0
Liberty	54	74	16.3	16.7
North Braddock	62	64	22.1	23.8
Flag Plaza	44	47	15.1	14.7

Below is a chart showing PM₁₀ 24-hour exceedances for the period 1999-2019. Continuous monitors began operation after 1992. For sites with both filter-based and continuous monitors, data for only the filter-based monitors are shown.



Sulfur Dioxide (SO₂)

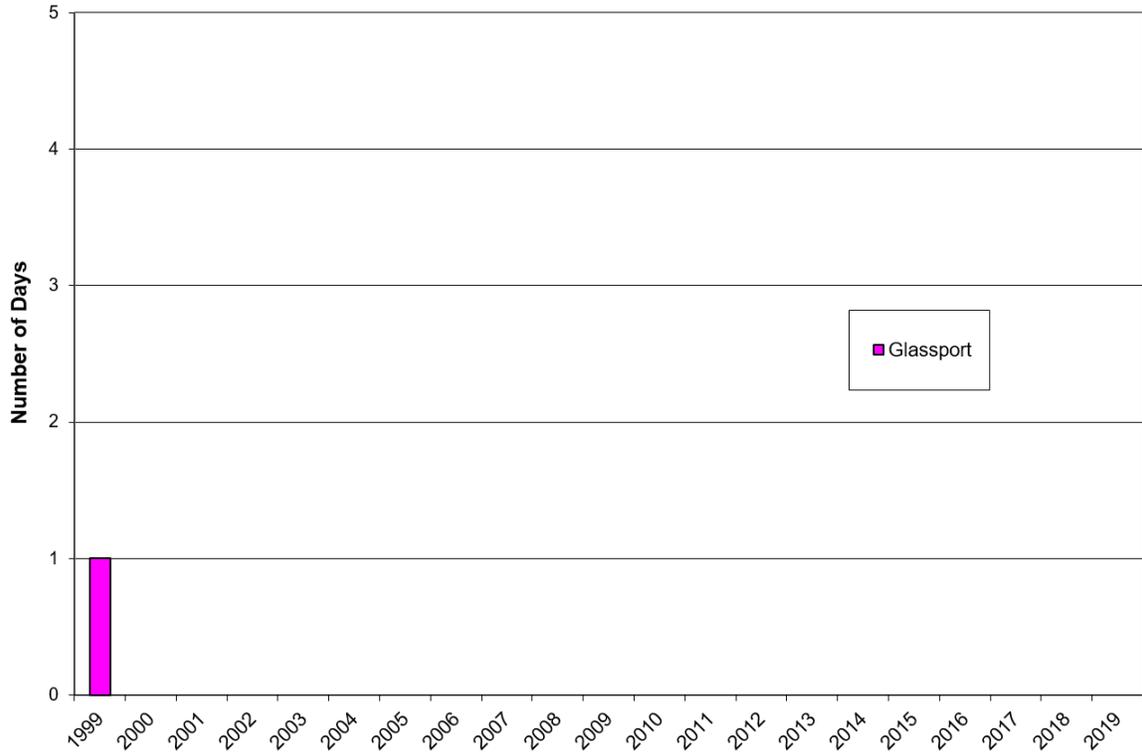
Sulfur dioxide is monitored at five sites in the County, mostly in industrial areas. The South Fayette monitor is used as a background monitor, providing a measurement of SO₂ entering Allegheny County from the southwest. The former primary federal standards were 0.14 ppm (24-hour average) and 0.03 ppm (annually); the new 1-hour primary federal standard of 75 ppb was promulgated in 2010. To attain this standard, the 3-year average of the 99th percentile of the daily maximum 1-hour average at each monitor must not exceed 75 ppb. Maximums and averages for 2019 are shown in the table below, with 2018 values shown in gray. Exceedances in 2019 are shown in red. The NCore trace gas analyzer for SO₂ at Lawrenceville started operation in 2010 and Stowe was discontinued in 2011. The North Braddock SO₂ gas analyzer started operation in 2014.

Site	Former 24-Hour Std. = 0.14 ppm		Former Annual Std. = 0.03 ppm	
	2018 24-Hour Maximum	2019 24-Hour Maximum	2018 Average	2019 Average
Liberty	0.029	0.030	0.004	0.004
North Braddock	0.014	0.018	0.001	0.002
Lawrenceville	0.007	0.003	0.001	0.001
South Fayette	0.004	0.003	0.001	0.001
Avalon	0.002	0.003	0.000	0.000

Site	1-Hour Std. = 75 ppb				2019 Exceedances
	2018 1-Hour Maximum	2019 1-Hour Maximum	2016-2018 99 th percentile	2017-2019 99 th percentile	
Liberty	155	85	103	109	5
North Braddock	113	83	61	63	2
Lawrenceville	19	21	10	10	0
South Fayette	15	18	9	11	0
Avalon	19	12	9	7	0

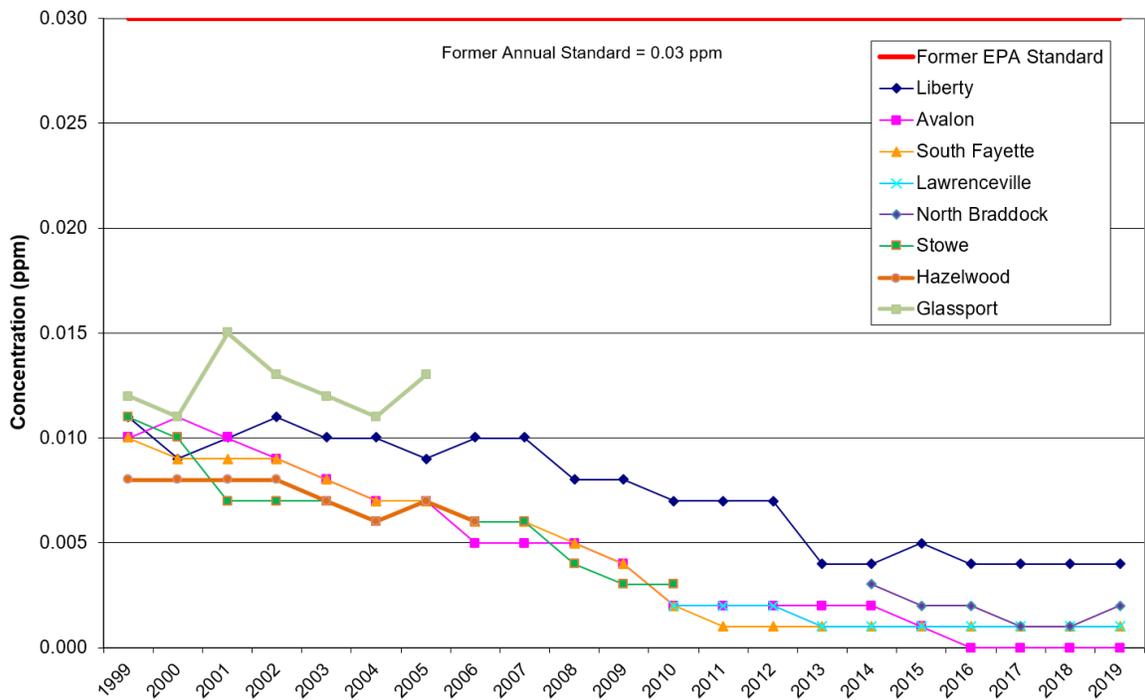
SO₂ 24-hour exceedances are shown on the following page for 1999-2019. The former 24-hour standard can be exceeded once per year. Glassport was the last site to exceed the 24-hour standard in 1999.

Sulfur Dioxide 24-Hour Exceedances, 1999-2019

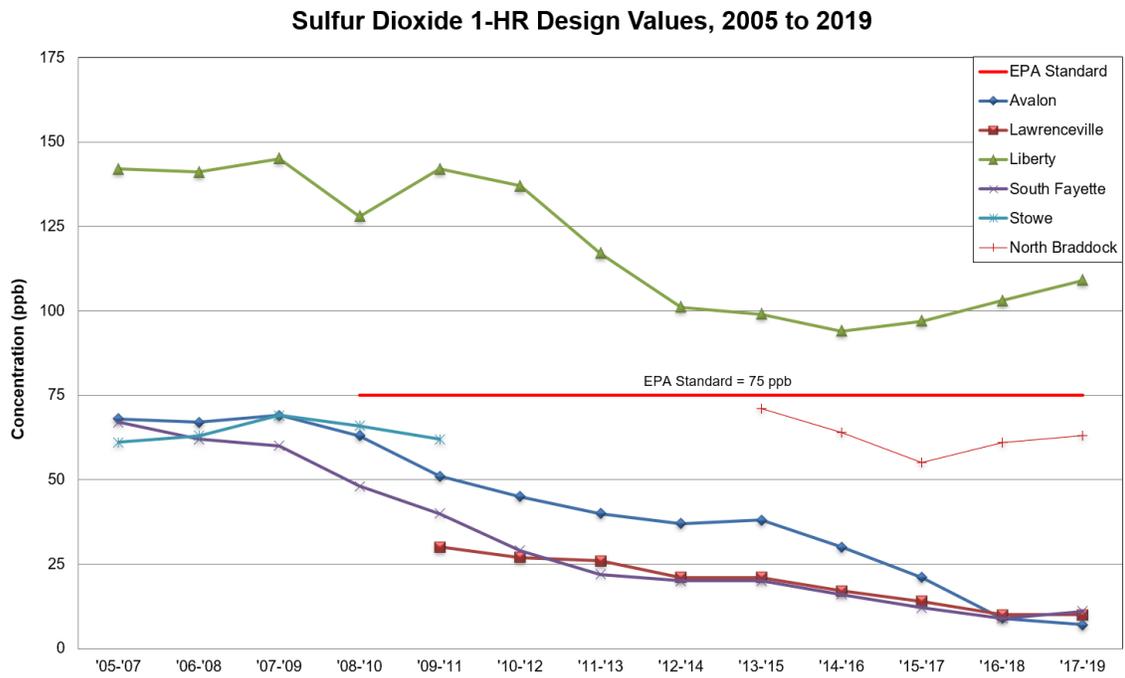


SO₂ annual average trends are shown below for 1999-2019.

Sulfur Dioxide Annual Averages, 1999-2019



SO₂ one-hour design value trends are shown below for 2005-2019.



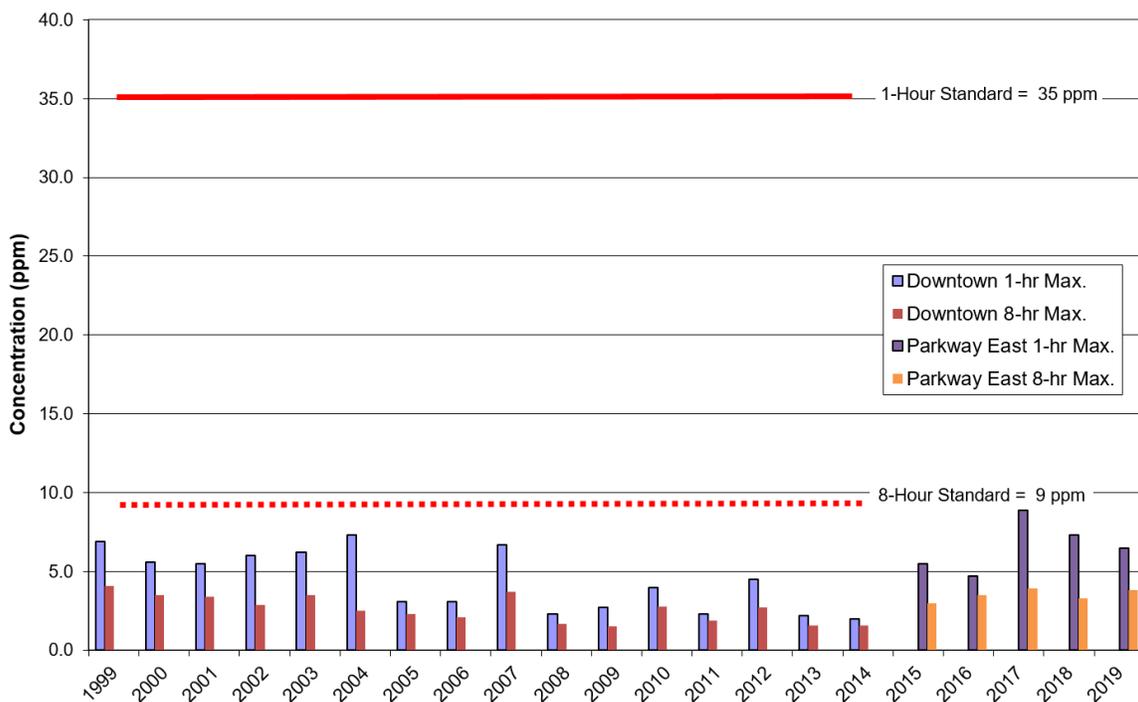
Carbon Monoxide (CO)

The County operates three carbon monoxide (CO) monitors; one in the Downtown Pittsburgh area. The NCore trace gas analyzer for CO at Lawrenceville started operation in 2010. The Parkway East, Near Road, trace gas analyzer for CO started operation on 9/1/2014 and the Downtown CO monitor was discontinued on 8/27/2014. The federal standards for CO are 35 ppm on an hourly basis and 9 ppm on an 8-hour average basis. Maximums for 2019 are shown in the table below, with 2018 values shown in gray.

Site	1-Hour Std. = 35 ppm		8-Hour Std. = 9 ppm	
	2018 1-Hour Maximum	2019 1-Hour Maximum	2018 8-Hour Maximum	2019 8-Hour Maximum
Parkway East	7.3	6.5	3.3	3.8
Flag Plaza	1.9	2.2	1.3	1.7
Lawrenceville	1.3	2.2	1.0	1.4

Carbon monoxide maximum trends are shown below for 1999-2019. The County has not exceeded the 8-hour standard since 1987.

Carbon Monoxide 1-Hour and 8-Hour Maximum Trends, 1999-2019



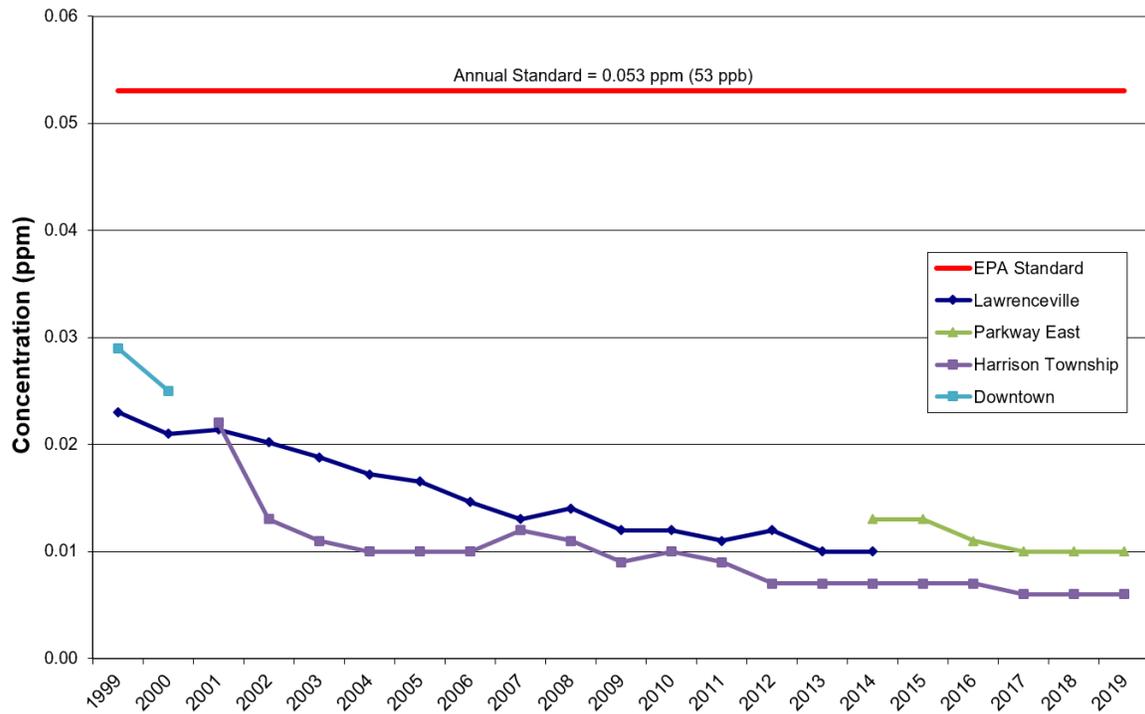
Nitrogen Dioxide (NO₂)

Nitrogen oxides are monitored at two sites in the County. Nitrogen dioxide (NO₂) is calculated each hour by subtracting nitrogen oxide (NO) from the total nitrogen oxides (NO_x) concentration. Starting in 2010, the standard for NO₂ is now 0.053 ppm (53 ppb) on an annual average basis. A new 1-hour federal standard 100 ppb was promulgated in 2010. To attain this standard, the 3-year average of the 98th percentile of the daily maximum 1-hour average at each monitor must not exceed 100 ppb. 2019 averages are shown in the table below, with 2018 values shown in gray. The Parkway East, Near Road, trace gas analyzer for NO₂ started operation on 9/1/2014 and the Lawrenceville NO₂ monitor was discontinued on 8/25/2014.

Site	Annual Std. = 53 ppb		1-Hour Std. = 100 ppb			
	2018 Average	2019 Average	2018 1-Hour Maximum	2019 1-Hour Maximum	2016-2018 98 th percentile	2017-2019 98 th percentile
Parkway East	10	10	44	40	37	36
Harrison	6	6	49	45	35	34

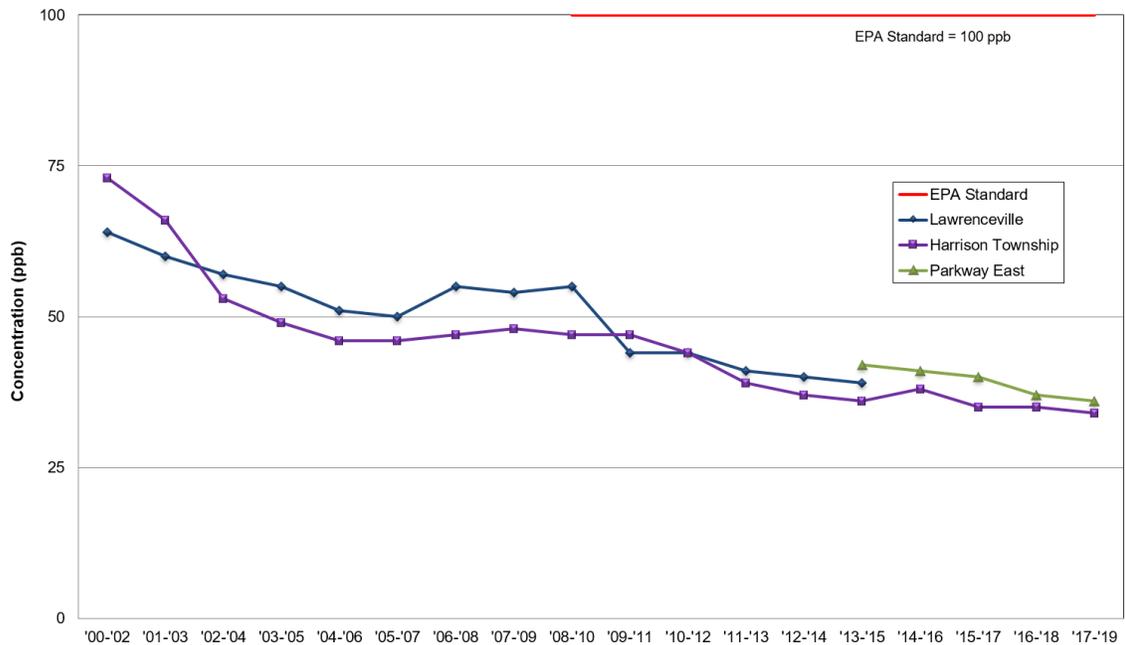
Long-term trends for NO₂ annual averages are shown on the following page for 1999-2019.

Nitrogen Dioxide Annual Averages, 1999-2019



NO₂ one-hour design value trends are shown below for 2000-2019.

Nitrogen Dioxide 1-HR Design Values, 2000 to 2019



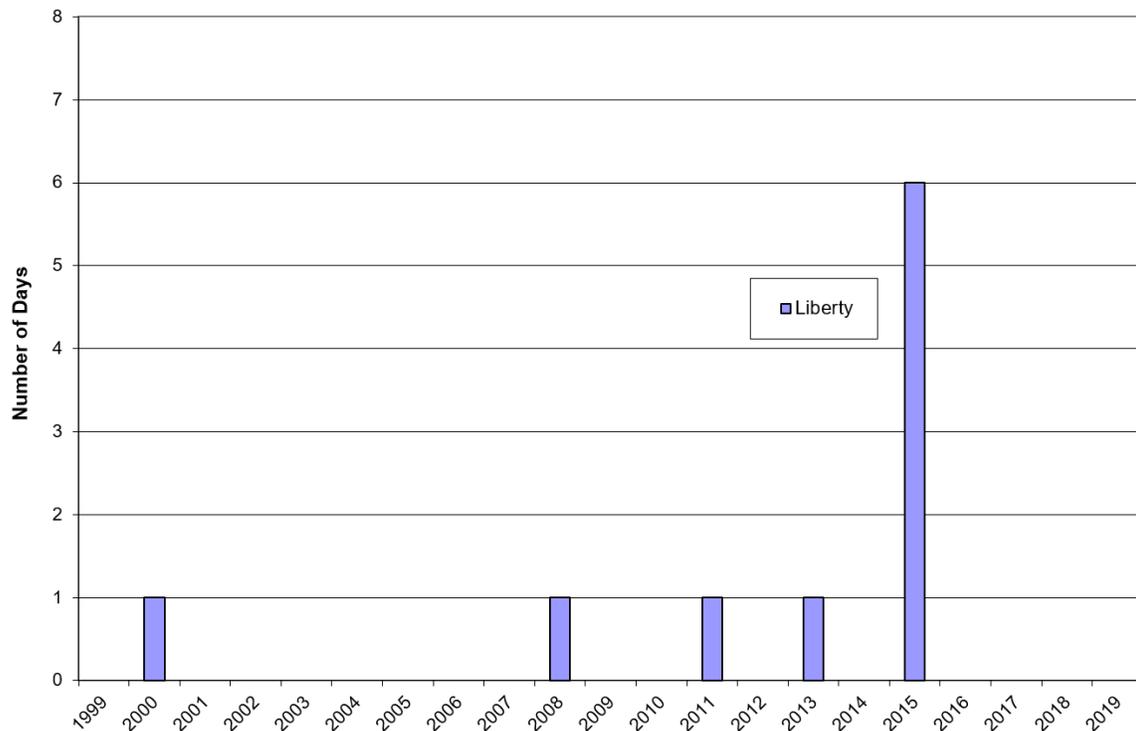
Hydrogen Sulfide (H₂S)

There are no federal standards for hydrogen sulfide. However, PA state standards for protection against odor nuisances are 0.1 ppm on a 1-hour basis and 0.005 ppm on a 24-hour average basis.

Hydrogen sulfide 1-hour concentrations for 2019 are given in the table below, with 2018 values shown in gray. 2019 1-hour concentrations that exceeded the standard are shown in red. Long-term exceedances for 1999-2019 are also given in the chart below. Liberty last exceeded the 1-hour PA standard six times in 2015. The West Allegheny monitor started operation in May 2009 and was discontinued on 8/29/2014.

	1-Hour PA Standard = 0.1 ppm			
Site	2018 1-Hour Maximum	2019 1-Hour Maximum	2018 Exceedances	2019 Exceedances
Liberty	0.073	0.074	0	0
Avalon	0.005	0.006	0	0

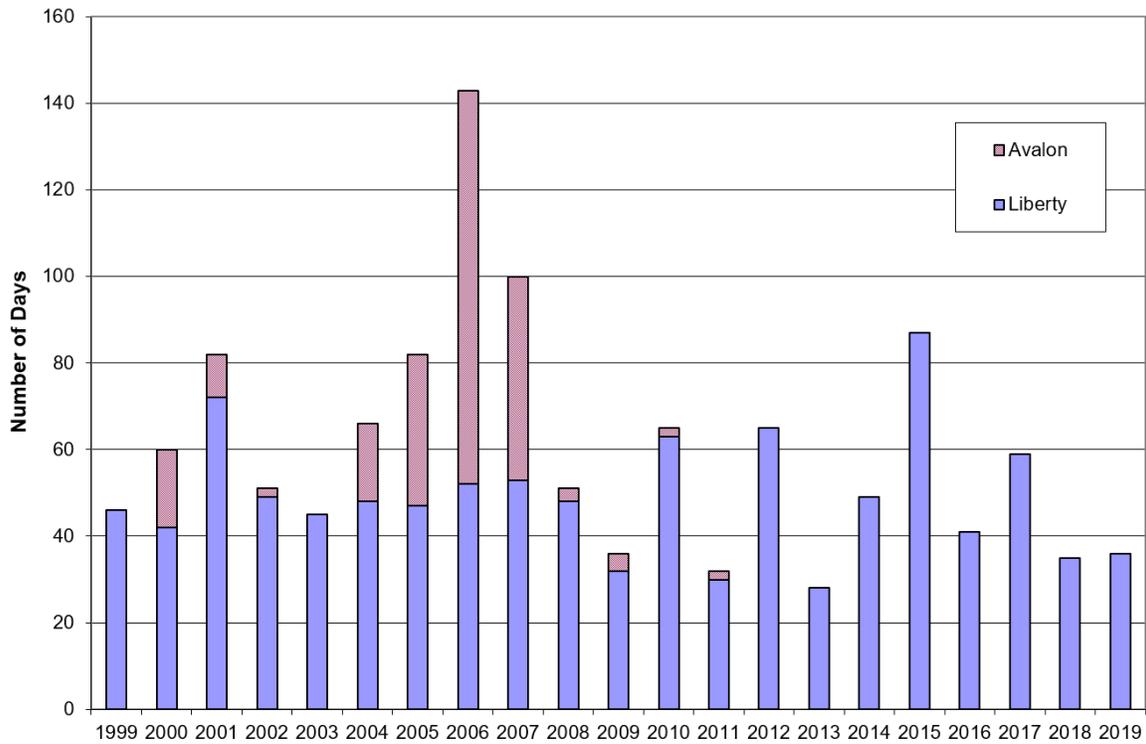
Hydrogen Sulfide 1-Hour Exceedances, 1999-2019



Hydrogen sulfide 24-hour concentrations and exceedances for 2019 are next given in the following table, with 2018 values shown in gray. Long-term exceedances for 1999-2019 are also given in the chart below. Exceedances for 2019 are shown in red. Each exceedance constitutes a violation of the state 24-Hour H₂S standard.

	24-Hour PA Standard = 0.005 ppm			
Site	2018 24-Hour Maximum	2019 24-Hour Maximum	2018 Exceedances	2019 Exceedances
Liberty	0.017	0.023	35	36
Avalon	0.003	0.002	0	0

Hydrogen Sulfide 24-Hour Exceedances, 1999-2019



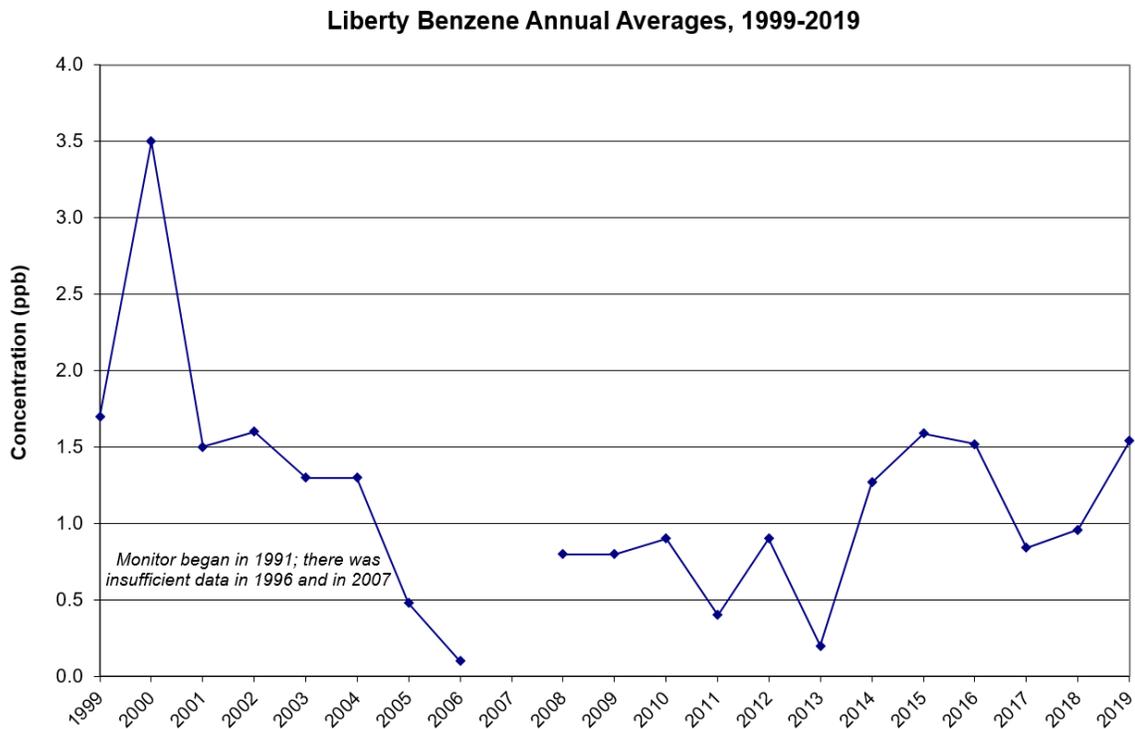
Benzene

Additionally, benzene was measured continuously at Liberty through 2013. ACHD started monitoring benzene at Liberty in January and Avalon in April of 2014 using charcoal tubes on a 24-hour basis. The annual average and 24-hour maximum for benzene in 2019 are shown below, with 2018 values shown in gray.

Site	2018 Average (ppb)	2018 24-Hour Maximum (ppb)	2019 Average (ppb)	2019 24-Hour Maximum (ppb)
Liberty	0.96	12.74	1.54	8.00
Avalon	0.05	0.66	--	--

Note: As of this report, 2019 Benzene data at Liberty is valid through 8/10/19 and is subject to change.

A chart showing Liberty benzene annual averages for 1999-2019 is shown below. The continuous monitor began operation in 1991 and was not operational in 1996, most of 2006, 2007, and portions of 2011, 2012 and 2013.



Short-Term Exceedances

Exceedances of the federal short-term primary standards are listed below for the years 2008 through 2019 for each standard. Exceedances are given by year, site, number of exceedances, and maximum concentration.

Standard	Year	Site	Number of Exceedances	Maximum Concentration
24-Hour PM _{2.5} 35 µg/m ³	2008	Liberty	31	70.8 µg/m ³
	2008	N. Braddock	4	38.4 µg/m ³
	2008	Harrison	2	41.3 µg/m ³
	2008	Clairton	1	40.6 µg/m ³
	2008	Lawrenceville	1	39.7 µg/m ³
	2009	Liberty	12	92.1 µg/m ³
	2009	Harrison	1	43.5 µg/m ³
	2010	Liberty	25	69.9 µg/m ³
	2010	Lawrenceville	2	41.5 µg/m ³
	2010	N. Braddock	3	40.6 µg/m ³
	2010	Harrison	2	39.7 µg/m ³
	2010	Clairton	1	37.0 µg/m ³
	2011	Liberty	10	59.0 µg/m ³
	2011	Avalon	1	35.6 µg/m ³
	2011	N. Braddock	1	35.5 µg/m ³
	2012	Liberty	9	54.7 µg/m ³
	2013	Liberty	6	43.6 µg/m ³
	2014	Liberty	4	63.8 µg/m ³
	2015	Liberty	7	58.1 µg/m ³
	2016	Liberty	13	56.0 µg/m ³
2017	Liberty	10	77.7 µg/m ³	
2017	Parkway East	1	44.9 µg/m ³	
2017	N. Braddock	1	41.6 µg/m ³	
2018	Liberty	2	43.8 µg/m ³	
2019	Liberty	9	66.4 µg/m ³	

Standard	Year	Site	Number of Exceedances	Maximum Concentration	
8-Hour Ozone 0.075 ppm	2008	Harrison	10	0.091 ppm	
	2008	Lawrenceville	7	0.084 ppm	
	2008	South Fayette	3	0.079 ppm	
	2009	Harrison	6	0.084 ppm	
	2009	Lawrenceville	1	0.077 ppm	
	2010	Harrison	6	0.105 ppm	
	2010	Lawrenceville	7	0.087 ppm	
	2010	South Fayette	5	0.089 ppm	
	2011	Harrison	10	0.085 ppm	
	2011	Lawrenceville	3	0.095 ppm	
	2011	South Fayette	6	0.086 ppm	
	2012	Harrison	16	0.094 ppm	
	2012	Lawrenceville	7	0.089 ppm	
	2012	South Fayette	6	0.085 ppm	
	2013	Harrison	4	0.085 ppm	
	2013	Lawrenceville	1	0.095 ppm	
	2013	South Fayette	2	0.089 ppm	
	0.070 ppm	2014	Harrison	2	0.076 ppm
2015		Harrison	2	0.084 ppm	
2016		Harrison	1	0.076 ppm	
2016		Lawrenceville	3	0.077 ppm	
2016		South Fayette	4	0.081 ppm	
2017		Harrison	1	0.071 ppm	
2017		South Fayette	8	0.082 ppm	
2018		Harrison	5	0.087 ppm	
2018		Lawrenceville	6	0.079 ppm	
2018		South Fayette	3	0.078 ppm	

Standard	Year	Site	Number of Exceedances	Maximum Concentration
1-Hour SO ₂ 75 ppb	2010	Liberty	34	215 ppb
	2010	South Fayette	1	108 ppb
	2010	Avalon	2	97 ppb
	2010	Stowe Township	3	93 ppb
	2011	Liberty	45	450 ppb
	2012	Liberty	43	199 ppb
	2013	Liberty	9	99 ppb
	2013	Lawrenceville	2	100 ppb
	2014	Liberty	14	122 ppb
	2014	North Braddock	5	126 ppb
	2015	Liberty	17	244 ppb
	2015	North Braddock	1	80 ppb
	2016	Liberty	4	171 ppb
	2017	Liberty	18	163 ppb
	2017	North Braddock	3	127 ppb
	2018	Liberty	11	155 ppb
	2018	North Braddock	3	113 ppb
	2019	Liberty	5	85 ppb
	2019	North Braddock	2	83 ppb

Air Monitoring Network

Below is a table of monitor sites corresponding to pollutant types, current through 2019. Meteorological monitors (wind and temperature) are also included.

	SO ₂	CO	NO _x	O ₃	PM ₁₀	PM _{2.5}	Pb	H ₂ S	HAPs	Dustfall	Met
Flag Plaza		C(T)			C				I(6), I(6)		
Manchester					I(6)						
Lawrenceville	C(T)	C(T)		C		C, I(1) I(6) SPC(3)			I		C
North Park						I(6)					
Avalon	C					C, I(3)		C	I		C
West Deer										I	
Harrison			C	C		I(3)					
Natrona										I, I	
N. Braddock	C				C	I(3)					C
Liberty	C				C, I(3) I(6)	C, I(1) I(6) SPC(6)		C	I		C
Glassport					C						
Lincoln					C						
Clairton					I(6)	I(6)					
South Fayette	C			C	I(6)	I(3)					C
Collier										I	
Parkway East		C(T)	C(T)			C			BC		C
Russellton										I	
Total	C = 5	C = 3	C = 2	C = 3	C = 5 I = 5	C = 4 I = 10 SPC = 2	I = 0	C = 2	C = 1 I = 5	I = 5	C = 6

KEY C = Continuous; I = Intermittent or Filter-Based; BC = Black Carbon (Aethalometer, Continuous data)
 (1), (3), or (6) = Sampling Frequency [for example, (3) means every third day]
 SPC = Speciation; (S) = Seasonal Continuous Monitor; (T) = Trace Level Monitor

