

Appendix A: Complete Network Plan Description

The following table presents Ohio's 2017-2018 proposed Air Monitoring Network, as required under 40 CFR 58.10 (b). Each monitoring site within the Local Air Agencies and District Offices in Ohio are listed. For each site, the following information is presented:

- Monitoring Agency, AQS Site ID
- Site Address
- Site coordinates, latitude and longitude in decimal degrees
- Pollutants/parameters monitored and collocation indicated
- Sampling method/analysis
- Sampling schedule, i.e. how frequent data is monitored
- Monitoring objective
- Spatial measurement scale
- The identification of any sites that are suitable or not suitable for comparison against the annual or short term average of the NAAQS as described in CFR 58.30
- The MSA, CBSA, CSA or other area represented by the monitor (see Appendix D)
- Site/monitor comments include AQS method code, AQI (Air Quality Index) indicated, any proposed change to site or monitor(s) (proposed changes are in red).

8.1 Monitoring Objectives and Spatial Scale

Federal regulations indicate that a minimum of five monitoring objectives should be met in establishing an ambient air monitoring network. The network is to have stations that monitor: (1) the highest pollutant concentrations; (2) the representative concentrations in areas of high population density; (3) assessing population exposure and risk from air toxics (4) the impact of major pollution emissions sources; and (5) the general background concentration levels.

The physical siting of the air monitoring station must achieve a spatial scale of representativeness that is consistent with the monitoring objective. The spatial scale results from the physical location of the site with respect to the pollutant sources and categories. It estimates the size of the area surrounding the monitoring site that experiences uniform pollutant concentrations.

The categories of spatial scale are:

Micro Scale: An area of uniform pollutant concentrations ranging from several meters up to 100 m.

Middle Scale: Uniform pollutant concentrations in an area of about 100 meters to 0.5 kilometer.

Neighborhood Scale: An area with dimensions in the 0.5 to 4.0 kilometer range with relatively uniform land use.

Urban Scale: Citywide pollutant conditions with dimensions ranging from 4 to 50 kilometers. Within a city, the geographic placement of sources may result in there being no single site that can be said to represent air quality on an urban scale.

Regional Scale: An entire rural area of the same general geography without large pollution sources and extends from tens to hundreds of kilometers.

Monitoring objectives and associated spatial scales from Appendix D of 40CFR58 are summarized in the following table.

Monitoring Objective	Appropriate Spatial Scale
Highest Concentration or source impact	Micro, Middle, Neighborhood, or (less frequently) Urban
Population oriented	Neighborhood or Urban
Source impact	Micro, Middle, Neighborhood
General/background, regional transport, welfare related impacts.	Urban, Regional (sometimes Neighborhood

8.2 Monitoring Types

Most monitors described in Ohio's monitoring network are designated as State and Local Air Monitoring Sites (SLAMS). In addition, some of these sites fulfill other requirements which must be identified by the monitoring type designation. In this description of the network, designations are also made for Special Purpose, Industrial and EPA. The criteria used to designate the monitor types are as follows:

SLAMS:

State or Local air monitoring stations for parameters (pollutants and/or meteorological data) addressed by 40 CFR Part 58. The SLAMS make up the ambient air quality monitoring sites that are primarily needed for NAAQS comparisons, but may serve other data purposes.

Special Purpose:

Not all monitors and monitoring sites in the air quality surveillance network are included in the SLAMS network. In order to allow the capability of providing monitoring for complaint studies, modeling verification, and compliance status, certain monitors are reserved for short-term studies and designated as Special Purpose Monitors (SPM). These monitors are not necessarily committed to any one location or for any specified time period. They may be located as separate monitoring sites or be included at SLAMS locations. Monitoring data may be reported to US EPA, provided that the monitors and sites conform to all requirements of the SLAMS network.

Industrial

A monitor that is operated by a private industry entity rather than under the control of a State, Local or Tribal government. Or a site that is categorize as an industrial site that is under the control of a State, Local or Tribal government.

EPA

A monitor that is operated by EPA or an EPA contractor for parameters addressed by 40 CRF Part 58.

All of Ohio's monitors listed in the following table are SLAMS except where otherwise indicated.

Table 1. 2017-2018 Ohio Air Monitoring Network¹

AQS ID # Air Agency	County/ Address	Latitude	Longitude	Parameter/ Method	Analysis	Schedule	Monitoring Objective	Spatial Scale	Method Code/ Comments
Akron	Medina Co.								
39-103-0004	Chippewa, Ballash Rd.	41.0604	-81.9239	Ozone	U.V. Photometric	Continuous	Upwind backgrd	Urban	(187) Ecotech Serinus 10
				PM _{2.5} - FRM Seq.	Gravimetric	1 in 3 days	Population	Neighborhood	(145) Partisol2025VSCC
				PM _{2.5} Met One BAM	Beta attenuation	Continuous	Upwind backgrd	Regional	(170) AQI
	Portage Co.								
39-133-0002	531 Washington Ave. Ravenna	41.1644	-81.2352	PM _{2.5} Seq. FRM	Gravimetric	1 in 3 days	Population	Neighborhood	(145)/Partisol 2025 VSCC
39-133-1001	1570 Ravenna Rd., Kent	41.182466	-81.330486	Ozone	U.V. Photometric	Continuous	Max. ozone conc.	Urban	(187) Ecotech Serinus 10
	Summit Co.								
39-153-0017	East High Sch., Akron	41.063526	-81.468956	PM _{2.5} FRM Seq/Colo	Gravimetric	1 in 3 days	Population	Neighborhood	(145) Partisol2025VSCC
				PM _{2.5} BAM	Beta attenuation	Continuous	Population	Neighborhood	(170), AQI, Met One BAM
				Sulfur dioxide	U.V. Fluorescence	Continuous	Highest conc.	Neighborhood	(188) Ecotech Serinus 50
39-153-0020	800 Patterson Ave, Akron	41.106486	-81.503547	Ozone	U.V. Photometric	Continuous	Population	Urban	(187) /API 400
				Carbon monoxide	Non- Dispersive Infrared	Continuous	Population	Neighborhood	(174) Ecotech Serinus 30
39-153-0023	660 W. Exchange St., Akron	41.087956	-81.541611	PM _{2.5} Seq. FRM	Gravimetric	1 in 3 days	Population	Neighborhood	(145) Partisol2025VSCC
				Chemical speciation	Ion Chromatograph	1 in 6 days	Population	Neighborhood	(811) Met One SASS
				URG-3000	Carbon speciation	1 in 6 days	Population	Neighborhood	(838)
39-153-0025	199 S. Broadway, Akron	40.07914	-81.51627	Carbon monoxide	Non- Dispersive Infrared	Continuous	Population	Microscale	(174) Ecotech Serinus 30
				Sulfur dioxide	U.V. Fluorescence	Continuous	Population	Neighborhood	(100) API 100
				Wind speed/dir.					.
Canton	Stark Co.								
39-151-0016	515 25 th St., Malone University	40.828052	-81.37833	Ozone	U.V. Photometric	Continuous	Population	Neighborhood	(047) Thermo 49
39-151-0017	1330 Dueber Ave., Fire Station	40.78689	-81.39419	PM _{2.5} BGI FRM/Col	Gravimetric	1 in 3 days	Highest conc.	Neighborhood	(142) BGI PQ200 VSCC
				Chemical speciation	Ion Chromatograph	1 in 6 days	Population	Neighborhood	(811) Met One SASS
				URG-3000	Carbon speciation	1 in 6 days	Population	Neighborhood	(838)
39-151-0020	420 Market Ave. Canton			Carbon monoxide	Non- Dispersive Infrared	Continuous	Population	Middle	(054) Thermo 48i
				PM _{2.5} Thermo Sharp 5030i	Beta attenuation	Continuous	Population	Neighborhood	AQI (184)
				PM _{2.5} BGI FRM/Col	Gravimetric	1 in 3 days	Population	Neighborhood	(142) BGI PQ200 VSCC
39-151-0022	45 S. Wabash Ave., Brewster	40.712778	-81.5983	Ozone	U.V. Photometric	Continuous	Upwind Backgrd	Urban	(047) Thermo 49
39-151-0024	3150 Georgetown Rd. NE	40.8003	-81.3312	TSP-Pb	Hi-Vol/ICP MS	1 in 6 days	Source-oriented	Microscale	Republic Steel-permit
									Site started June 2017
									Permit required, Canton operated, Republic Steel funded.
39-151-4005	1175 W. Vine St., Alliance	40.93139	-81.123544	Ozone	U.V. Photometric	Continuous	Max. ozone conc.	Urban	(047) Thermo 49.

AQS ID # Air Agency	County/ Address	Latitude	Longitude	Parameter/ Method	Analysis	Schedule	Monitoring Objective	Spatial Scale	Method Code/ Comments
Toledo	Lucas Co.								
39-095-0008	3040 York St., Toledo	41.663405	-83.47596	Sulfur dioxide	U.V. fluorescent	Continuous	Highest conc.	Neighborhood	(100) API 100.
39-095-0024	348 Erie St., Toledo	41.644067	-83.54625	PM _{2.5} TEOM	Oscillating crystal	Continuous	Highest conc.	Neighborhood	AQI\701TEOM 50C-SCC
				PM _{2.5} FRM Seq/Colo	Gravimetric	1 in 3 days	Highest conc.	Neighborhood	(145) Partisol2025VSCC
				Ozone	U.V. Photometric	Continuous	Population	Neighborhood	(047) Thermo 49
				Wind speed/wind dir.	Propeller/vane	Continuous			
39-095-0026	4150 Airport Highway	41.620633	-83.64225	PM _{2.5} FRM Seq.	Gravimetric	1 in 3 days	Population	Neighborhood	(145) Partisol2025VSCC
39-095-0027	200 S. River Road, Waterville	41.494167	-83.718944	Ozone	U.V. Photometric	Continuous	Population	Neighborhood	(047) Thermo 49
39-095-0028	3040 York St., Toledo	41.66225	-83.4783	PM _{2.5} FRM Seq.	Gravimetric	1 in 3 days	Highest conc.	Neighborhood	(145) Partisol2025VSCC
									Site is relocated to former Toledo ESPS on 3/29/17.
39-095-0034	1002 N. Yondota, Low Service	41.675213	-83.30693	Ozone	U.V. Photometric	Continuous	Max. ozone conc.	Urban	(047) Thermo 49
									Discontinued end of ozone season 2016
39-095-0035	10739 Corduroy Rd.	41.669001	-83.28717	Ozone	U.V. Photometric	Continuous	Max. ozone conc.	Urban	(047) Thermo 49
									New site began August 18 2016. Replaced 39-095-0034 in 2017
39-095-0081	2930 131 st St., Toledo	41.719483	-83.47515	Wind speed/wind dir.	Propeller/vane	Continuous	Population	Neighborhood	
39-095-1003	163 Lee Street	41.6799	-83.4786	PM _{2.5} FRM Seq.	Gravimetric	1 in 3 days	Highest conc.	Neighborhood	(145) Partisol2025VSCC
	Toledo East Site Pumping Station. (ESPS)								Site is relocation of 39-095-0028. Started 4/1/2017.
SWOAQA	Butler Co.								
39-017-0004	Hamilton Fire House	39.38338	84.5443	Ozone	U.V. Photometric	Continuous	Max. ozone conc.	Urban	(087) API 400
	Schuler & Bender Ave, Hamilton								Site discontinued 10/31/16. Relocated to 39-017-0023 .25 mile NNE.
39-017-0015	3901 Lefferson, Middletown	39.49014	-84.3642	PM ₁₀ Lo-Vol Std., BGI	Gravimetric	1 in 6 days	Population	Neighborhood	(125) PQ200, POC 2
				PM ₁₀ Lo-Vol Local, BGI	Gravimetric	1 in 6 days	Population	Neighborhood	(125) PQ200, POC 2
				PM _{2.5} Lo-Vol BGI FRM (2)	Gravimetric	1 in 3 days	Population	Neighborhood	(142) PQ200, POC 1,4
39-017-0016	Sacred Heart School	39.33841	-84.5666	PM _{2.5} BGI FRM (2)	Gravimetric	1 in 3 days	Population	Urban	(142) PQ200VSCC
	400 Niles Rd., Fairfield								POCs 1,4
39-017-0018	Hook Field AirPt, Middletown	39.529444	-84.393453	Ozone	U. V. Photometric	Continuous	Population	Urban	(087) API 400
39-017-0019	Amanda School	39.478849	-84.407675	PM ₁₀ Lo-Vol. Std., BGI	Gravimetric	1 in 6 days	Source oriented	Neighborhood	(125) BGI PQ200
	1300 Oxford Rd., Middletown			PM ₁₀ Lo-Vol Local, BGI	Gravimetric	1 in 6 days	Source oriented	Neighborhood	(125) PQ200

AQS ID # Air Agency	County/ Address	Latitude	Longitude	Parameter/ Method	Analysis	Schedule	Monitoring Objective	Spatial Scale	Method Code/ Comments
39-017-0019	(cont'd)			PM _{2.5} FRM BGI (2)	Gravimetric	1 in 3 days	Source oriented	Neighborhood	POCs 1,4 (142) PQ200 VSCC
				PM _{2.5} Thermo Sharp	Beta attenuation	Continuous	Source oriented	Neighborhood	753 Sharp 5030
				Sulfur dioxide	U.V. Florescence	Continuous	Source oriented	Neighborhood	100\API 100
				VOC	GC/MS	1 in 12days	Source oriented	Neighborhood	6L-Canister
									Permit Required, SWOAQA operated, Sun Coke funded.
39-017-0020	3350 Yankee Rd., Middletown	39.472436	-84.394952	PM ₁₀ Lo-Vol. Std., BGI	Gravimetric	1 in 6 days	Source oriented	Neighborhood	(125) BGI PQ200
				PM ₁₀ Lo-Vol Local, BGI	Gravimetric	1 in 6 days	Source oriented	Neighborhood	(125) PQ200
				PM _{2.5} BGI FRM (2)	Gravimetric	1 in 3 days	Source oriented	Middle Scale	POC 1,4 (142) PQ200 VSCC
				PM _{2.5} Thermo Sharp	Beta attenuation	Continuous	Source oriented	Neighborhood	753 Sharp5030
				Sulfur dioxide	Pulsed Florescence	Continuous	Source oriented	Neighborhood	100\API 100
				VOC	GC/MS	1 in 12days	Source oriented	Neighborhood	6L-Canister
									Permit Required, SWOAQA operated, Sun Coke funded.
39-017-0021	1491 Made Industrial Dr.	39.464718	-84.4037	Sulfur dioxide	U.V. Florescence	Continuous	Source oriented	Neighborhood	100\API 100
	Middletown								Settlement agreement, SWOAQA operated, Sun Coke funded
39-017-0022	3214 Yankee Rd., Middletown	39.47869	-84.3971	PM _{2.5} BGI FRM SPM	Gravimetric	1 in 6 days	Source oriented	Neighborhood	(142) BGI PQ200 VSCC
	Proposing to end site 12/31/17								Added a B sampler (POC 4) to increase SF from 1/6 to 1/3. Started 4/1/2017.
39-017-0023	2200 Hensley Av., Hamilton	39.3847	-84.5405	Ozone	U.V. Photometric	Continuous	Max. ozone conc.	Urban	(087) API 400
									This site is the relocation Of 39-017-0004. Started 3/1//2017. Located 0.25 miles NNE of former site.
	Clermont Co.								
39-025-0022	2400 Clermont Drive, Batavia	39.0828	-84.1441	Ozone	U.V. Photometric	Continuous	Max. Ozone conc	Urban	(087) API 400
				PM _{2.5} TEOM FDMS	Oscillating crystal	Continuous	Population	Neighborhood	AQI\ (761) R & P FDMS
									Change to MetOne BAM non-FEM starting 1/1/18.
	Hamilton Co.								
39-061-0006	11590 Grooms Rd., Sycamore	39.2787	-84.366192	PM _{2.5} BGI FRM (colo.)	Gravimetric	1 in 6 days	Population	Neighborhood	(142) PQ200 VSCC
				PM _{2.5} Thermo Sharp	Beta Attenuation	Continuous	Population	Neighborhood	(184) Thermo 5030i
				Ozone	U.V. Photometric	Continuous	Highest conc.	Urban	(087) API 400
									1/1/17, Sharp FEM became primary monitor. BGI FRM is now collocated FRM SF is now 1/6, AQI
39-061-0010	Colerain, 6950 Ripple Rd.	39.21487	-84.69086	Sulfur dioxide	U.V. Fluorescence	Continuous	Population	Urban	(100) API 100
	Cleves			Ozone	U.V. Photometric	Continuous	Population	Urban	(087) API 400
				PM _{2.5} Met One BAM	Beta Attenuation	Continuous	Population	Urban	AQI (733), BAM VSCC
				PM _{2.5} BGI FRM (2)	Gravimetric	1 in 3 days	Population	Urban	POCs 1,4 (142) PQ200. End sampling 12/31/17

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AQS ID # Air Agency	County/ Address	Latitude	Longitude	Parameter/ Method	Analysis	Schedule	Monitoring Objective	Spatial Scale	Method Code/ Comments
	Warren Co.								
39-165-0007	416 Southeast St., Lebanon	39.42693	-84.2006	PM _{2.5} BAM	Beta attenuation	Continuous	Population	Neighborhood	AQI\ (731) BAM SCC
				Ozone	U.V. Photometric	Continuous	Max. Ozone conc	Urban	(087) API 400
	Cuyahoga Co.								
39-035-0034	891 E. 152 St.	41.55523	-81.575256	PM _{2.5} FRM Seq.	Gravimetric	1 in 3 days	Population	Urban	(145) Partisol2025VSCC
	Cleveland			Ozone	U.V. Photometric	Continuous	Population	Neighborhood	(087) API400
39-035-0038	St. Theodosius, St. Tikon St.	41.477011	-81.682383	PM ₁₀ Hi-Vol. (5) unit	Gravimetric	1 in 1 day	Highest conc.	Neighborhood	(063) POCs 1,4,6,7,8
	Cleveland			PM _{2.5} FRM SeqColo	Gravimetric	1 in 3 days	Highest conc.	Neighborhood	(145) Partisol2025VSCC
				TSP lead-metals	Hi-Vol/ICP MS	1 in 6 days	Highest conc.	Neighborhood	(108) (192)
				Sulfur dioxide	Pulsed Fluorescence	Continuous	Highest conc.	Neighborhood	(188) Ecotech Serinus 50.
				Chemical Speciation (colo)	Ion Chromatograph	1 in 6 days	Population	Neighborhood	(811) Met One SASS
				VOCs	GC MS	1 in 12days	Population	Neighborhood	6L-canister
				URG-3000	Carbon speciation	1 in 6 days	Population	Neighborhood	(838)
39-035-0042	Fire Station 4, 3136 Lorain	41.4823	-81.708906	TSP Pb\Metals Colo.	Hi-Vol/ICP MS	1 in 6 days	Population	Middle	(108) (192)
39-035-0045	FS 13, 4950 Broadway Ave.	41.471782	-81.656792	PM ₁₀ Hi-Vol./Colo.	Gravimetric	1 in 6 days	Population	Neighborhood	(063) GMW 1200
	Cleveland			PM _{2.5} FRM Seq.	Gravimetric	1 in 3 days	Population	Neighborhood	(145) Partisol2025VSCC
				Sulfur dioxide	Pulsed Fluorescence	Continuous	Population	Neighborhood	(060) Thermo 43c
39-035-0049	Ferro Corp. E. 56 th St.	41.446342	-81.6507	TSP-Pb/Metals Colo.	Hi-Vol/ICP MS	1 in 6 days	Source-oriented	Neighborhood	(108) (192)
	Cleveland								
39-035-0051	Galleria, E. Ninth & St. Clair	41.504661	-81.690186	Carbon monoxide	Non- Dispersive Infrared	Continuous	Highest conc.	Microscale	(054) Thermo 48c
39-035-0060	GT Craig, E. 14 th & Orange	41.492117	-81.678449	PM ₁₀ Hi-Vol.	Gravimetric	1 in 6 days	Population	Neighborhood	(063) GMW 1200
N-Core site	Cleveland			PM ₁₀ TEOM	Oscillating crystal	Continuous	Population	Neighborhood	(079) R&P 1400
				PM _{2.5} FRM Seq. (colo)	Gravimetric	1 in 3 days	Population	Neighborhood	(179) Partisol Dicot2025i;
				PM _{2.5} MetOne BAM	Beta attenuation	Continuous	Population	Neighborhood	colo Partisol started 4/17.
				PM _{2.5} Spec. Colo.	Ion Chromatograph	1 in 3 days	Population	Neighborhood	(811) Met One SASS
				URG-3000	Carbon speciation	1 in 6 days	Population	Neighborhood	(838)
									(108)(192) Ended
				TSP lead-metals	Hi-Vol/ICP MS	1 in 6 days	Highest conc.	Neighborhood	8/26/16
				Ozone	U.V. Photometric	Continuous	Population	Neighborhood	(087) API400
				NOx trace	Chemiluminescence	Continuous	Population	Neighborhood	(690) POC 2
				NO ₂	Chemiluminescence	Continuous	Population	Neighborhood	(074) Thermo 42i
				SO ₂	Pulsed Fluorescence	Continuous	Population	Neighborhood	(060) Thermo 43a
				SO ₂ -trace POC 2	Pulsed Fluorescence	Continuous	Population	Neighborhood	(560) Thermo 43C-TLE
				NOy	Chemiluminescence	Continuous	Population	Neighborhood	(674)
				CO-trace	Non- Dispersive Infrared	Infrared	Population	Neighborhood	(554) Thermo 48i-TLE
				PM ₁₀ local	Gravimetric	1 in 3 days	Population	Neighborhood	(127) Partisol 2025i
				PM _{10-2.5} Seq.	Gravimetric	1 in 3 days	Population	Neighborhood	(176) Partisol Dicot2025i
				WS/WD Met					
39-035-0061	South side W. 3 rd St. Cleveland	41.473092	-81.676596	TSP-lead-metals	Hi-Vol/ICP MS	1 in 6 days	Highest conc.	Middle	(108) (192)

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AQS ID # Air Agency	County/ Address	Latitude	Longitude	Parameter/ Method	Analysis	Schedule	Monitoring Objective	Spatial Scale	Method Code/ Comments
39-155-0014	540 Laird Ave., Warren	41.231167	-80.801914	PM ₁₀ Hi-vol./Colo.	Gravimetric	1 in 6 days	Population	Neighborhood	(062) Wedding
				PM _{2.5} BGI FRM (2)	Gravimetric	1 in 3 days	Population	Neighborhood	(142) POCs 1,4
				PM _{2.5} TEOM	Oscillating crystal	Continuous	Population	Neighborhood	AQI (701) TEOM SCC POC 3
Lake LAA	Geauga Co.								
39-055-0004	Notre Dame School, Munson	41.51551	-81.249906	Ozone	U.V. Photometric	Continuous	Max. Ozone Con.	Urban	(087) API 400
	Lake Co.								
39-085-0003	Jefferson School, Eastlake	41.673006	-81.422455	Sulfur dioxide	Pulsed Fluorescence	Continuous	Source-oriented	Neighborhood	(100)/API 100
				Ozone	U.V. Photometric	Continuous	Max. Ozone Con.	Neighborhood	(087) API 400
39-085-0006	8443 Mentor Ave., Mentor	41.666886	-81.338781	Carbon monoxide	Non- Dispersive Infrared	Continuous	Highest conc.	Microscale	(051) Dasibi3003
39-085-0007	177 Main St., Painesville	41.726811	-81.242156	PM _{2.5} FRM Seq/Colo	Gravimetric	1 in 3 days	Highest conc.	Urban	(120) RASS2.5-300
				PM _{2.5} TEOM FDMS	Oscillating crystal	Continuous	Highest conc.	Urban	AQI (760) POC 3
				Sulfur dioxide	Pulsed Fluorescence	Continuous	Source-oriented	Neighborhood	(100)/API 100
				Ozone	U.V. Photometric	Continuous	Population	Urban	(087) API 400
39-085-1001	Fairport High School, Fairport	41.75489	-81.273076	PM ₁₀ Hi-vol./Colo.	Gravimetric	1 in 6 days	Population	Neighborhood	(063) GMW 1200 POC 1,2
Portsmouth	Adams Co.								
39-001-0001	Adams County Hospital	38.794667	-83.533988	PM _{2.5} TA-BAM	Beta attenuation	Continuous	Population	Neighborhood	AQI\ (753) BAM VSCC
	210 N. Wilson Dr., West Union			Sulfur dioxide	Pulsed Fluorescence	Continuous	Source-oriented	Neighborhood	(060) Thermo 43c
	Lawrence Co.								
39-087-0011	St. Rt. 141, Wilgus	38.62901	-82.45896	Ozone	U.V. Photometric	Continuous	Max. Ozone Con.	Urban	(047) Thermo 49
39-087-0012	ODOT Garage, Commerce Dr.	38.5081	-82.65924	PM ₁₀ Hi-vol	Gravimetric	1 in 6 days	Population	Neighborhood	(062) Wedding
				PM _{2.5} FRM Seq.	Gravimetric	1 in 3 days	Population	Neighborhood	(145) Partisol2025VSCC
									Partisol was changed to VSCC from WINS 1/1/17.
				PM _{2.5} TA-BAM	Beta attenuation	Continuous	Population	Neighborhood	AQI\ (753) BAM VSCC
				Sulfur dioxide	Pulsed Fluorescence	Continuous	Population	Neighborhood	(060) Thermo 43c
				Ozone	U.V. Photometric	Continuous	Population	Neighborhood	(047) Thermo 49
	Scioto Co.								
39-145-0013	Portsmouth WTP	38.754595	-82.917	PM ₁₀ Hi-Vol./Colo. POC 1,2	Gravimetric	1 in 6 days	Highest conc.	Middle	(062) Wedding
				PM _{2.5} FRM/Colo POC 1,2	Gravimetric	1 in 3 days	Highest conc.	Middle	(145) Partisol2025VSCC
									Partisol was changed to VSCC from WINS 1/1/17.
				Sulfur dioxide	Pulsed Fluorescence	Continuous	Population	Neighborhood	(060) Thermo 43c
39-145-0019	Portsmouth City Annex, Ports.	38.735056	-82.998726	PM ₁₀ Hi-vol	Gravimetric	1 in 6 days	Population	Neighborhood	(062) Wedding
39-145-0020	2840 Back Rd.,	38.609338	-82.822512	PM ₁₀ TEOM	Oscillating crystal	Continuous	Source-oriented	Neighborhood	(150) TA FH62 C14
	Franklin Furnace	Permit req.	site	Sulfur dioxide	Pulsed Fluorescence	Continuous	Source-oriented	Neighborhood	(060) Thermo 43c

AQS ID # Air Agency	County/ Address	Latitude	Longitude	Parameter/ Method	Analysis	Schedule	Monitoring Objective	Spatial Scale	Method Code/ Comments
39-145-0020	(cont'd)								Sun Coke operated and funded. Permit required.
39-145-0021	2446 Gallia Pike,	38.600611	-82.829782	PM ₁₀ TEOM	Oscillating crystal	Continuous	Source-oriented	Middle	(150) TA FH62 C14
	Franklin Furnace			MET Tower		Continuous			Sun Coke operated and funded. Permit required.
39-145-0022	1740 Gallia Pike,	38.588034	-82.834973	PM ₁₀ TEOM	Oscillating crystal	Continuous	Source-oriented	Neighborhood	(150) TA FH62 C14
	Franklin Furnace	Permit req.	site	Sulfur dioxide	Pulsed Fluorescence	Continuous	Source-oriented	Neighborhood	(060) Thermo 43c
									Sun Coke operated and funded. Permit required.
CDO	Delaware Co.								
39-041-0002	359 Main Rd., Delaware	40.356694	-83.063971	Ozone	U.V. Photometric	Continuous	Max. Ozone Con.	Urban	(047) Thermo 49
	Franklin Co.								
39-049-0005	1585 Morse Rd., Columbus	40.060124	-82.976857	Carbon monoxide	Non- Dispersive Infrared	Continuous	Highest conc.	Micro-scale	(093) API 300
39-049-0024	State Fairgrounds	39.99875	-82.99344	PM ₁₀ Hi-Vol./Colo.	Gravimetric	1 in 6 days	Highest conc.	Neighborhood	(063) POC 1,2
	Columbus			PM _{2.5} FRM Seq.	Gravimetric	1 in 3 days	Population	Neighborhood	(145) Partisol2025VSCC
39-049-0029	New Albany HS, New Albany	40.0845	-82.81552	PM _{2.5} BAM	Oscillating crystal	Continuous	Population	Neighborhood	AQI (170) MetOne POC 3
				Ozone	U.V. Photometric	Continuous	Population	Urban	(047) Thermo 49
39-049-0034	State Fairgrounds	40.002734	-82.994404	PM _{2.5} TEOM	Oscillating crystal	Continuous	Population	Neighborhood	AQI (701) POC 3
	Korbel Ave., Columbus			VOCs	GC MS	1 in 12days	Population	Neighborhood	6L-Canister
				Sulfur dioxide	Pulsed Fluorescence	Continuous	Population	Urban	(060) Thermo 43
39-049-0037	Franklin Park, Broad St., Col.	39.96523	-82.95549	Ozone	U.V. Photometric	Continuous	Population	Neighborhood	(047) Thermo 49
				NO ₂	Chemiluminescence	Continuous	Population	Neighborhood	(099) API 200
39-049-0038	Columbus Near Rd. NO ₂ site	40.1111	-83.06545	NO ₂	Chemiluminescence	Continuous	Highest conc.	Microscale	(099)
	7560 Smoky Row Rd.			Carbon monoxide	Non- Dispersive Infrared	Continuous	Highest conc.	Microscale	(093) API 300E
				PM _{2.5} FRM Partisol 2025	Gravimetric	1 in 3 days	Highest conc.	Microscale	(145) Started Jan. 1, 2017
				Black Carbon	Optical absorption	Continuous	Highest conc.	Microscale	Started May 26, 2017
				WS/WD	Sonic	Continuous			(130)
39-049-0039	Barack Recreation Center	39.92853	-82.98011	PM _{2.5} FRMSeq/Colo P1,2	Gravimetric	1 in 3 days	Highest conc.	Neighborhood	(145) Partisol2025VSCC
	580 E. Woodrow, Columbus			TSP-lead-metals	Hi-Vol/ICP MS	1 in 6 days	Highest conc.	Neighborhood	(108) (192)
				VOCs	GC MS	1 in 12days	Population	Neighborhood	6L-Canister
39-049-0081	Fire Station, Maple Canyon	40.0877	-82.959773	Ozone	U.V. Photometric	Continuous	Population	Urban	(047) Thermo 49
	Columbus			PM _{2.5} FRM Seq.	Gravimetric	1 in 3 days	Population	Neighborhood	(145) Partisol2025VSCC
	Knox Co.								
39-083-0002	Centerburg Water Plant	40.310025	-82.691724	Ozone	U.V. Photometric	Continuous	Max. Ozone Con.	Urban	(047) Thermo 49
				Site to terminate 10/31/17	To be relocated				
	Licking Co.								
39-089-0005	Heath School, Heath	40.026037	-82.433	Ozone	U.V. Photometric	Continuous	Max. Ozone Con.	Urban	(047) Thermo 49

AQS ID # Air Agency	County/ Address	Latitude	Longitude	Parameter/ Method	Analysis	Schedule	Monitoring Objective	Spatial Scale	Method Code/ Comments
	Madison Co.								
39-097-0007	Madison High School, London	39.78819	-83.47606	Ozone Upwind Backgrd.	U.V. Photometric	Continuous	Max. Ozone Con.	Urban	(047) Thermo 49
	NEDO								
39-007-1001	Conneaut Water Plt., Conneaut	41.959695	-80.572808	Sulfur dioxide	Pulsed Fluorescence	Continuous	Population	Neighborhood	(060) Thermo 43C
				Ozone	U.V. Photometric	Continuous	Population	Regional	(047) Thermo 49
	Columbiana Co.								
39-029-0019	Columbiana Port Authority, East Liverpool	40.631545	-80.547181	TSP-lead-metals	Hi-Vol/ICP MS	1 in 6 days	Population	Neighborhood	(108) (192)
				Sulfur dioxide	Pulsed Fluorescence	Continuous	Population	Neighborhood	(060) Thermo 43C
39-029-0020	Water Treat. Plant, East Liverpool	40.639595	-80.524019	TSP-lead-metals	Hi-Vol/ICP MS	1 in 6 days	Population	Neighborhood	(108) (192)
				PM ₁₀ Hi-Vol	Gravimetric	1 in 6 days	Population	Neighborhood	(062) Wedding
39-029-0023	East Liverpool	40.6349	-80.5457	TSP-Pb/metals/Colo.	Hi-Vol/ICP MS	1 in 6 days	Population	Middle scale	(108) (192) POC 1,2
				PM ₁₀ Hi- Vol./Colo.	Gravimetric	1 in 6 days	Population	Middle scale	(062) Wedding, POC 1,2
	Lorain Co.								
39-093-0018	Fire Station, Sheffield	41.420882	-82.095729	Ozone	U.V. Photometric	Continuous	Population	Neighborhood	(047) Thermo 49
39-093-3002	Barr School, Sheffield	41.463071	-82.114261	PM ₁₀ Hi-vol.	Gravimetric	1 in 6 days	Population	Neighborhood	(062) Wedding
				PM _{2.5} FRM Seq.Colo	Gravimetric	1 in 3 days	Population	Neighborhood	(120) Anderson; POC 1,2
				PM _{2.5} TEOM	Oscillating crystal	Continuous	Population	Neighborhood	AQI\ (701) POC 3
				Chemical Speciation	Ion Chromatograph	1 in 6 days	Population	Neighborhood	(811) Met One SASS
				URG-3000	Carbon speciation	1 in 6 days	Population	Neighborhood	(838)
	NWDO								
39-003-0009	Bath High School, Lima	40.770944	-84.0539	Sulfur dioxide	Pulsed Fluorescence	Continuous	Population	Neighborhood	(100) API 100
				Ozone	U.V. Photometric	Continuous	Population	Neighborhood	(047) Thermo 49
				PM _{2.5} FRM BGI/colo	Gravimetric	1 in 6 days	Population	Neighborhood	(142) PQ200 VSCC; POC1,2
				PM _{2.5} TEOM	Oscillating crystal	Continuous	Population	Neighborhood	AQI (701) POC 3
	Fulton Co.								
39-051-0001	200 Van Buren St., Delta	41.57588	-83.9959	TSP-PB\metals Colo.	Hi-Vol/ICP MS	1 in 6 days	Source-oriented	Middle	(108) (192)
	Marion Co.								
39-101-0003	Nucor Steel, Hawthorne Ave.	42.57141	-83.13556	TSP-lead-metals	Hi-Vol/ICP MS	1 in 6 days	Population	Middle	Marion (108) (192)
39-101-0004	640 Bellefontaine Ave.	40.57666	-83.14024	TSP-lead-metals	Hi-Vol/ICP MS	1 in 6 days	Population	Middle	Marion (108) (192)
	Ottawa Co.								
39-123-0006 to 123-0014	Materion, Elmore	41.494722	-83.214444	TSP – beryllium	Hi-Vol/ICP MS	7daysample	Source-oriented	Middle	Brush-Wellman (9 sites) operated by BW.
	Wood Co.								
39-173-0003	NWDO Office, Bowling Green	41.377685	-83.611104	Ozone	U.V. Photometric	Continuous	Upwind Backgd	Urban	(047) Thermo 49
	SEDO								
39-009-0003	St. Rt. 377, Gifford Forest	39.442165	-81.908827	PM _{2.5} FRM BGI/colo	Gravimetric	1 in 6 days	Background	Regional	(142) PQ200 VSCC; POC 1,2

AQS ID # Air Agency	County/ Address	Latitude	Longitude	Parameter/ Method	Analysis	Schedule	Monitoring Objective	Spatial Scale	Method Code/ Comments
	Belmont Co.								
39-013-0006	Ballpark Rd.	39.9678	-80.7476	Sulfur dioxide	U.V. Fluorescence	Continuous	General Backgd.	Neighborhood	(100) API 100
				PM ₁₀ Lo-Vol/Colo.	Gravimetric	1 in 6 days	General Backgd.	Neighborhood	(125) Partisol
	PSD Permit required site			NO ₂	Chemiluminescence	Continuous	General Backgd.	Neighborhood	2025,POC1,2
	Industrial			Carbon Monoxide	Non- Dispersive Infrared	Continuous	General Backgd.	Neighborhood	(099) API 200
				PM _{2.5} FRM Seq.	Gravimetric	1 in 3 days	General Backgd.	Neighborhood	(093) API 300
				Meteorological	Sonic	Continuous		Neighborhood	(145) Partisol2025VSCC
									(063) Climatronics
	Harrison Co.								
39-067-xxxx	Community Scale project			PM2.5					Sampling to start in 2017.
	Hopedale, Ohio			PM10					Sampling to start in 2017.
				VOC	GC-canister	1 in 12 days	Population	Neighborhood	Started sampling 05/2017.
				H ₂ S					Sampling to start in 2017.
	Gallia Co.								
39-053-0004	Watson Grove Rd., Cheshire	38.9502	-82.1220	Sulfur dioxide	Pulsed Fluorescence	Continuous	Source-oriented	Neighborhood	(060) Thermo 43C
									Gavin/Kyger SO2 network Sampling began 1/1/2017. Industry operated and funded.
39-053-0005	583 Honeysuckle Rd., Addison	38.8650	-82.1486	Sulfur dioxide	Pulsed Fluorescence	Continuous	Source-oriented	Neighborhood	(060) Thermo 43C
				MET Station					Gavin/Kyger SO2 network Began 1/1/2017. Industry operated and funded.
39-053-0006	8323 SR 7 North, Cheshire	38.9500	-82.1102	Sulfur dioxide	Pulsed Fluorescence	Continuous	Source-oriented	Neighborhood	(060) Thermo 43C
									Gavin/Kyger SO2 network Began 1/1/2017. State operated site.
									Relocation of 39-105-0003
54-053-0001	Highway 62, Lakin WV	38.9565	-82.0887	Sulfur dioxide	Pulsed Fluorescence	Continuous	Source-oriented	Neighborhood	(060) Thermo 43C
				MET Station					Gavin/Kyger SO2 network Began 1/1/2017. Industry operated and funded.
	Jefferson Co.								
39-081-0001	1004 3 rd St., Brilliant	40.26157	-80.6335	PM ₁₀ Hi-vol	Gravimetric	1 in 6 days	Population	Neighborhood	(063) GMW 1200
39-081-0017	618 Logan St., Steubenville	40.36644	-80.6158	Sulfur dioxide	U.V. Fluorescence	Continuous	Population	Neighborhood	(100) API 100
				PM ₁₀ Hi- Vol./Colo.	Gravimetric	1 in 6 days	Highest conc.	Neighborhood	(063) POC 1,2
				PM _{2.5} FRM Parisol/Colo	Gravimetric	1 in 3 days	Population	Neighborhood	(145) 2025VSCC, POC 1,2
				PM _{2.5} BAM	Beta attenuation	Continuous	Population	Neighborhood	(170) Met One, POC 3
				Ozone	U.V. Photometric	Continuous	Population	Neighborhood	(047) Thermo 49
				URG-3000	Carbon speciation	1 in 6 days	Population	Neighborhood	(838)
				Chemical Speciation	Ion Chromatograph	1 in 6 days	Population	Neighborhood	(811) Met One SASS
				VOCs	GC MS	1 in 12 days	Population	Neighborhood	6l-Canister
39-081-0021	110 Steuben St Mingo Junction	39.31951	-81.688	PM _{2.5} FRM BGI	Gravimetric	1 in 3 days	Population	Neighborhood	(142) PQ200 POC 1
39-081-0018	3487 Cnty Rd. 19, Brilliant	40.272	-80.62962	Sulfur dioxide	Pulsed Fluorescence	Continuous	Source-Oriented	Neighborhood	(060) Thermo 43A
	SLAMS site								Cardinal Power Plt., AEP operated and funded.

AQS ID # Air Agency	County/ Address	Latitude	Longitude	Parameter/ Method	Analysis	Schedule	Monitoring Objective	Spatial Scale	Method Code/ Comments
39-081-0019	Landfill Access Rd., Brilliant	40.26786	-80.64986	Wind Speed/Dir.	Sonic	Continuous	Source-Oriented	Neighborhood	Cardinal Power Plt, AEP operated and funded
	SLAMS site								
39-081-0020	1469 Third St., Brilliant	40.259475	-80.639987	Wind Speed/Dir.	Sonic	Continuous	Source-Oriented		AEP Cardinal Power Plt., AEP operated and funded.
	SLAMS site			Sulfur dioxide	Pulsed Fluorescence	Continuous	Source-Oriented	Neighborhood	(060) Thermo 43A
	Meigs Co.								
39-105-0003	117 Memorial Dr., Pomeroy	39.03849	-82.0459	Sulfur dioxide	Pulsed Fluorescence	Continuous	Source-oriented	Neighborhood	(060) Thermo 43C
									Site discontinued in 7/16 relocated to 39-053-0006.
	Morgan Co.								
39-115-0004	St. Rt. 83, Hackney	39.63223	-81.67005	Sulfur dioxide	U. V. Fluorescence	Continuous	Source-oriented	Neighborhood	(100) API 100
	Washington Co.								
39-167-0004	2000 4 th St. Marietta WTP	39.432117	-81.460443	Ozone	U.V. Photometric	Continuous	Population	Neighborhood	(047) Thermo 49
39-167-0008	SR 676 Washington Car. Ctr.	39.43147	-81.50131	TSP-lead/colo/metals	Hi-Vol/ICP MS	I in 6 days	Population	Neighborhood	(108) (192)
West VA	Wood County								
54-009-0003	SR 2, Beech Bottom WVA	40.29167	-80.60917	Wind Speed/Dir.	Sonic	Continuous			Cardinal Power Plt., AEP operated and funded.
	SLAMS site			Sulfur dioxide	Pulsed Fluorescence	Continuous	Source-Oriented	Middle-Scale	(060) Thermo 43A
SWDO	Clinton Co.								
39-027-1002	Laurel Oaks Sch., Wilmington	39.430000	-83.788611	Ozone	U.V. Photometric	Continuous	Highest conc.	Urban	(047) Thermo 49

¹Unless indicated the Parameter Occurrence Code of each primary monitor is POC 1. The collocated monitors in Ohio are assigned as POC 2 except for the PM_{2.5} and PM₁₀ monitors at Cincinnati's NCore Taft site, 39-61-0040. All continuous hourly PM_{2.5} in Ohio have been assigned POC 3 unless otherwise indicated in the table above.

Notes/Explanations:

AQS is the Air Quality System maintained by US EPA for air quality data. In the AQS ID #, the first 2 digits refers to the state (39 is Ohio). The next 3 digits are the county within Ohio. The last 4 digits designate a specific site within the county.

All PM_{2.5} Sequential FRM sites and single-event FRM sites are comparable to the PM_{2.5} NAAQS. No continuous PM_{2.5} monitors are to be comparable to the PM_{2.5} NAAQS except Cincinnati's Sycamore site, 39-061-0006 and the Taft site, 39-061-0040 beginning with their Jan. 1, 2017 data.

All ozone, sulfur dioxide, carbon monoxide and nitrogen dioxide sites are comparable to the NAAQS, unless they are designated for special purposes.

PM is particulate matter. PM₁₀ means particulate matter of 10 microns in diameter or smaller. A micron is one millionth of a meter. PM_{2.5} is particulate matter 2.5 millionths of a meter in diameter or smaller. PM₁₀ is fine particulate matter and PM_{2.5} is very fine particulate matter.

Monitoring instruments used for comparing to the National Ambient Air Quality Standards are designated as Federal Reference Methods (FRM) or Federal Equivalent Methods (FEM).

PM_{2.5} Seq. FRM samplers test for PM_{2.5} and can hold multiple samples for sequential sampling.

Collocated or colo indicates a site with duplicate samplers for quality assurance purposes. Data is statistically compared from the two samplers for the same days. Duplicate samplers may sample at a 1 in 6 day schedule or possibly at a 1 in 12 days schedule.

U.V. Photometric indicates ultra-violet photometric, a method of detection for ozone concentrations.

U.V. Fluorescence indicates ultra-violet fluorescence, a method of detection for sulfur dioxide concentrations.

VOCs are volatile organic compounds. The method of collecting and analyzing whole air samples for VOCs in Ohio is TO-15. The collection utilizes a stainless steel canister for air sample collection in the field followed by analysis by gas chromatograph-mass spectrometer in a laboratory. There are approximately 72 compounds scanned for in the analysis.

TSP – metals is the method of collecting total suspended particulate (TSP) by drawing an air sample through a filter media that is analyzed at a laboratory for airborne metals including lead, arsenic, cadmium, chromium, nickel, zinc, manganese and beryllium and sometimes particulate mercury. Analysis is by ICP or Inductively Coupled Plasma Emission Spectroscopy or Graphite Furnace Atomic Absorption.

BAM indicates a Beta Attenuation Monitor, a method of detection for fine particulates.

TEOM indicates a Tapered Element Oscillating Microbalance, a method of detection for fine particulates.

SIP is State Implementation Plan that details how the state will implement controls that will bring the area into attainment status for a particular National Ambient Air Quality Standard.

Ohio Air Monitoring Agencies

Akron Regional Air Quality Management District 1867 W. Market St. Akron, Ohio 44313 (330) 375-2480 Medina, Portage, Summit counties	City of Toledo Division of Environmental Services 348 South Erie St. Toledo, Ohio 43604 (419) 936-3015 Lucas County
Air Pollution Control Division Canton City Health Department 420 Market Ave. North Canton, Ohio 44702-1544 (330) 489-3385 Stark County	Mahoning-Trumbull APC Agency 345 Oak Hill Ave. Youngstown, Ohio 44502 (330) 743-3333 Mahoning, Trumbull Counties
Dept. of Environmental Services Southwest Ohio Air Quality Agency 250 William Howard Taft Road Cincinnati, Ohio 45219-2660 (513) 946-7777 Hamilton, Butler, Warren, Clermont counties	Regional Air Pollution Control Agency 117 South Main St., P.O. Box 972 Dayton, Ohio 45422-1280 (937) 225-4435 Montgomery, Preble, Drake, Miami, Clark, Greene
Cleveland Department of Public Health & Welfare Division of Air Quality 75 Erieview Plaza Cleveland, Ohio 44114 (216) 664-2297 Cuyahoga County	Lake County General Health District Air Pollution Control 33 Mill St. Painesville, Ohio 44077 (440) 350-2543 Lake, Geauga counties
Air Pollution Unit Portsmouth City Health Department 605 Washington Street Portsmouth, Ohio 45662 (740) 353-5156 Brown, Adams, Scioto, Lawrence	Ohio EPA Central District Office 50 West Town St. Columbus, Ohio 43215 (614) 728-3778
Ohio EPA Northeast District Office 2110 Aurora Rd. Twinsburg, Ohio 44087 (330) 963-1200	Ohio EPA Northwest District Office 347 North Dunbridge Rd. Bowling Green, Ohio 43402 (419) 352-8461
Ohio EPA Southeast District Office 2195 Front St. Logan, Ohio 43138 (740) 385-8501	Ohio EPA Southwest District Office 401 East Fifth St. Dayton, Ohio 45402-2911 (937) 285-6357