

## **Ohio Air Monitoring Network Plan 2015-2016**

**6/5/15**

### **Requirements**

As required by 40 CFR 58.10, Ohio EPA is providing an annual monitoring network plan for public review and comments. Ohio EPA will submit this plan with any comments received to the US EPA Region V Regional Administrator. There will be a 30 day comment period for the public to make comments on the plan and those comments will also be submitted to Region V. The Ohio Air Monitoring Network as it exists as of July 1, 2015 is included in the accompanying table.

### **Changes**

The plan for Ohio's Air Monitoring Network for 2015-2016 is to make changes as required or necessary for the air monitoring network.

For sites that monitor for very fine particulate matter or PM<sub>2.5</sub>, Ohio EPA expects to continue with monitoring or sampling using the PM<sub>2.5</sub> Federal Reference Method at most of the sites as they existed at the beginning of 2015. There may be changes that have to be made in the PM<sub>2.5</sub> network that are not listed in these plans. Such changes may occur as a result of construction or maintenance operations that are not known ahead of when they occur.

The ozone monitoring sites will have minimal changes for 2015 and 2016. Ohio's current ozone monitoring sites should be sufficient to cover current ozone monitoring requirements.

PM<sub>10</sub> sampling sites in Ohio will remain at approximately the current number of sites.

Unplanned site changes occur to the network each year. Changes or temporary interruptions of sampling may occur because of events such as building or roof maintenance, construction, change of ownership of the site or other changes at the site that require moving the instruments. Some changes that may not be planned could include adding sites for complaint areas or for a new or proposed facility. Other changes that are planned may not actually happen because a new site cannot be secured or because of budget constraints.

All site and parameter changes are made in consultation with and approval of the US EPA Region 5 air monitoring staff.

### **Guidance and Priorities**

Ohio EPA follows the federal general guidance for air monitoring according to 40 CFR 58 Appendix D to monitor in areas of 1) expected high concentrations, 2) areas of high population density, 3) areas with significant sources, 4) general background concentration sites and 5) areas of regional transport of a pollutant. Not all air pollutants have sites for all of these categories.

In addition to the above guidance the Air Directors in the Region 5 states of Ohio, Michigan, Indiana, Illinois, Wisconsin and Minnesota have listed air monitoring objectives as:

- 1) Areas of high concentration and high population, provide timely air quality data to the public, support compliance with NAAQS and control strategy development and support air pollution research studies
- 2) Multi-pollutant monitoring such as the NCore sites
- 3) Source-oriented monitoring such as required monitoring for lead, nitrogen dioxide and sulfur dioxide
- 4) Rural monitoring and medium size city monitoring
- 5) Environmental justice monitoring
- 6) School air toxics monitoring

A fundamental consideration for all air monitoring projects and sites is that funding resources be available to operate and maintain the sites and equipment, to provide sample analyses and for data collection and reporting.

As of the time of publication of this list Ohio EPA plans to discontinue monitoring or has already discontinued monitoring at locations as shown and noted in the table at:

3 lead sampling sites – Canton, MTAPCA and SEDO  
1 special purpose PM<sub>2.5</sub> site - SWOAQA  
3 VOC industrial sites – Portsmouth  
4 PM<sub>2.5</sub> chemical speciation, URG carbon sites discontinued at Columbus, Toledo  
Portsmouth and Youngstown.

Ohio EPA has moved, plans to move or started sites and instruments for:

1 Akron SO<sub>2</sub>, CO relocated to new site-Akron  
1 PM<sub>2.5</sub>, Pb/metals site relocated to new site- CDO  
1 PM<sub>2.5</sub>, and 1 SO<sub>2</sub> new sites started in Middletown area-SWOAQA  
2 PM<sub>10</sub>, PM<sub>2.5</sub>, Lead and VOC sites, may combine as one - SWOAQA  
1 O<sub>3</sub> site relocated in Kinsman-MTAPCA  
1 PM<sub>2.5</sub>, PM<sub>2.5</sub> chemical speciation, URG carbon site relocated from Dayton  
Library to Sinclair College-RAPCA  
1 PM<sub>2.5</sub>, PM<sub>10</sub> site in Warren to relocate-MTAPCA  
1 SO<sub>2</sub>, O<sub>3</sub>, NO<sub>2</sub>, CO, PM<sub>2.5</sub>, Pb site to start in summer of 2015 Shadyside-SEDO

These plans are dependent upon securing adequate levels of funding to support existing monitoring and any changes to the air monitoring network. All of the plans are subject to approval by US EPA.

For questions about the Ohio Air Monitoring Network please contact:  
Gary Engler at 614-644-3623 or Dave Ambrose at 614-644-3620

Comments about the Ohio Air Monitoring Network may be emailed to:

[gary.engler@epa.state.oh.us](mailto:gary.engler@epa.state.oh.us)

Fax number 614-644-3681

Address:

Ohio EPA  
Air Monitoring Section  
Division of Air Pollution Control  
P.O. Box 1049, 50 West Town St.  
Columbus, OH 43215

**20015-2016 Ohio Air Monitoring Network**

<b>AQS ID # Air Agency</b>	<b>County/Address</b>	<b>Latitude</b>	<b>Longitude</b>	<b>Parameter/ Method</b>	<b>Analysis</b>	<b>Schedule</b>	<b>Monitoring Objective</b>	<b>Spatial Scale</b>	<b>Comments</b>
<b>Akron</b>	<b>Medina</b>								
39-103-0004	Chippawa, Ballash Rd.	41.0604	-81.9239	Ozone	U.V. Photometric	Continuous	Population	Urban	
				PM <sub>2.5</sub> - FRM Seq.	Gravimetric	1 in 3 day	Population	Urban	
				PM <sub>2.5</sub> Met One BAM	Beta attenuation	Continuous	Population	Urban	AQI, New BAM monitor Restarted Jan. 1, 2015
	<b>Portage. Co.</b>								
39-133-0002	531 Washington Ave. Ravenna	41.1644	-81.2352	PM <sub>2.5</sub> Seq. FRM	Gravimetric	1 in 3 day	Population	Neighborhood	
39-133-1001	1570 Ravenna Rd., Kent	41.182466	-81.330486	Ozone	U.V. Photometric	Continuous	Highest conc.	Urban	
	<b>Summit Co.</b>								
39-153-0014	177 S. Broadway St., Akron	41.079167	-81.5161	Wind speed/wind dir.					Ended 7/31/14.
39-153-0017	East High Sch., Akron	41.063526	-81.468956	PM <sub>2.5</sub> FRM Seq.Colo	Gravimetric	1 in 3 day	Population	Neighborhood	
				PM <sub>2.5</sub> BAM	Beta attenuation	Continuous	Population	Neighborhood	AQI, restarted 1/1 2015
				Sulfur dioxide	Pulsed Fluorescence	Continuous	Highest conc.	Neighborhood	
39-153-0020	800 Patterson Ave, Akron	41.106486	-81.503547	Ozone	U.V. Photometric	Continuous	Population	Urban	
				Carbon monoxide	Infrared	Continuous	Population	Neighborhood	
39-153-0022	177 S. Broadway, Akron	41.080266	-81.516228	Carbon monoxide	Infrared	Continuous	Highest conc.	Microscale	Discontinued 10/31/2014
				Sulfur dioxide	Pulsed Fluorescence	Continuous	Population	Neighborhood	Relocated to -153-0025
39-153-0023	660 W. Exchange St., Akron	41.087956	-81.541611	PM <sub>2.5</sub> Seq. FRM	Gravimetric	1 in 3 day	Population	Neighborhood	
				Chemical speciation	Ion Chromatograph	1 in 6 day	SIP information		
				URG-3000	Carbon speciation	1 in 6 day	SIP information		
39-153-0025	199 S. Broadway, Akron	40.07914	-81.51627	Carbon monoxide	Infrared	Continuous	Highest conc.	Microscale	Site started 2/11/2015.
				Sulfur dioxide	Pulsed Fluorescence	Continuous	Population	Neighborhood	starts in 2015.
				Wind speed/wind dir					starts in summer, 2015.
<b>Canton</b>	<b>Stark Co.</b>								
39-151-0016	515 25 <sup>th</sup> St., Malone University	40.828052	-81.37833	Ozone	U.V. Photometric	Continuous	Population	Neighborhood	
				Wind speed/wind dir.	Propeller/vane				
39-151-0017	1330 Dueber Ave., Fire Station	40.78689	-81.39419	PM <sub>2.5</sub> BGI FRMCol	Gravimetric	1 in 3 day	Highest conc.	Neighborhood	
				Chemical speciation	Ion Chromatograph	1 in 6 day	SIP information		
				URG-3000	Carbon speciation	1 in 6 day	SIP information		
				TSP – lead	ICP	1 in 6 day	Source-oriented		Low lead,ended 10/31/14

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39-151-0020	420 Market Ave. Canton			Carbon monoxide	Infrared	Continuous	Population	Middle	
				PM <sub>2.5</sub> TEOM	Oscillating crystal	Continuous	Population	Neighborhood	
39-151-0022	45 S. Wabash Ave., Brewster	40.712778	-81.5983	Ozone	U.V. Photometric	Continuous	Background	Urban	
39-151-4005	1175 W. Vine St., Alliance	40.93139	-81.123544	Ozone	U.V. Photometric	Continuous	Highest conc.	Urban	Site not moving.
<b>Toledo</b>	<b>Lucas Co.</b>								
39-095-0008	3040 York St., Toledo	41.663405	-83.47596	Sulfur dioxide	Pulsed fluorescent	Continuous	Population	Neighborhood	PWEI site
39-095-0024	348 Erie St., Toledo	41.644067	-83.54625	PM <sub>2.5</sub> TEOM	Oscillating crystal	Continuous	Highest conc.	Neighborhood	AQI
				PM <sub>2.5</sub> FRM Seq Colo	Gravimetric	1 in 3 day	Highest conc.	Neighborhood	
				Ozone	U.V. Photometric	Continuous	Population	Neighborhood	
				Wind speed/wind dir.	Propeller/vane				
39-095-0026	2550 Airport Highway	41.620633	-83..64225	PM <sub>2.5</sub> FRM Seq.	Gravimetric	1 in 3 day	Highest conc.	Neighborhood	
				Chemical speciation	Ion Chromatograph	1 in 6 day			Ended Jan. 24, 2015.
				URG-3000	Carbon speciation	1 in 6 day	SIP information		
39-095-0027	200 S. River Road, Waterville	41.494167	-83.718944	Ozone	U.V. Photometric	Continuous	Population	Neighborhood	
39-095-0028	3040 York St., Toledo	41.66225	-83.4783	PM <sub>2.5</sub> FRM Seq.	Gravimetric	1 in 3 day	Population	Neighborhood	
39-095-0034	306 N. Yondota, Low Service	41.675213	-83.30693	Ozone	U.V. Photometric	Continuous	Highest conc.	Urban	
39-095-0081	2930 131 <sup>st</sup> St., Toledo	41.719483	-83.47515	Wind speed/wind dir.	Propeller/vane				
<b>SWOAQA</b>	<b>Butler Co.</b>								
39-017-0003	Verity HS, Bonita & St. John Middletown	39.49369	-84.3543	PM <sub>10</sub>	Gravimetric	1 in 6 day	Population	Neighborhood	
				PM <sub>2.5</sub> BGI FRM (2)	Gravimetric	1 in 3 day	Population	Neighborhood	POCs 1,4 site likely to relocated nearby in 2015
				VOCs	GC MS	1 in 12 day			
39-017-0004	Hamilton Fire House Schuler & Bender Ave, Hamilt.	39.38338	84.5443	Ozone	U.V. Photometric	Continuous	Population	Urban	
39-017-0015	3901 Lefferson, Middletown	39.49014	-84.3642	PM <sub>10</sub>	Gravimetric	1 in 6 day	Population	Neighborhood	Site ends at end of 2015.
				TSP lead-metals Colo	ICP MS	1 in 6 day	Population	Neighborhood	Monitors may be combined with 017-0003
39-017-0016	Sacred Heart School 400 Nilles Rd., Fairfield	39.33841	-84.5666	PM <sub>2.5</sub> BGI FRM (2)	Gravimetric	1 in 3 day	Population	Urban	POCs 1,4





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<b>Cleveland</b>	<b>Cuyahoga Co.</b>								
39-035-0034	891 E. 152 St. Cleveland	41.55523	-81.575256	PM <sub>2.5</sub> FRM Seq. Ozone	Gravimetric U.V. Photometric	1 in 3 day Continuous	Highest conc. Population	Urban Neighborhood	
39-035-0038	St. Theodosius, St. Tikon St. Cleveland	41.477011	-81.682383	PM <sub>10</sub> (5) PM <sub>2.5</sub> FRM Seq Colo TSP lead-metals Sulfur dioxide Chemical Speciation VOCs	Gravimetric Gravimetric ICP Pulsed Fluorescence Ion Chromatograph GC MS	1 in 1 day 1 in 3 day 1 in 6 day Continuous 1 in 6 day 1 in 12 day	Highest conc. Population Highest conc. Highest conc. SIP info	Neighborhood Neighborhood Neighborhood Neighborhood	POCs 1,4,6,7,8
39-035-0042	Fire Station 4, 3136 Lorain	41.4823	-81.708906	TSP Pb\metals Colo	ICP	1 in 6 day	Highest conc.	Middle	
39-035-0045	FS 13, 4950 Broadway Ave. Cleveland	41.471782	-81.656792	PM <sub>10</sub> Colo PM <sub>2.5</sub> FRM Seq. Sulfur dioxide	Gravimetric Gravimetric Pulsed Fluorescence	1 in 6 day 1 in 3 day Continuous	Population Population Population	Neighborhood Neighborhood Neighborhood	
39-035-0049	Ferro Corp. E. 56 <sup>th</sup> St. Cleveland	41.446342	-81.6507	TSP-leadmetals Colo	ICP	1 in 6 day	Highest conc.	Neighborhood	
39-035-0051	Galleria, E. Ninth & St. Clair Cleveland	41.504661	-81.690186	Carbon monoxide	Infrared	Continuous	Highest conc.	Microscale	
39-035-0060	GT Craig, E. 14 <sup>th</sup> & Orange Cleveland	41.492117	-81.678449	PM <sub>10</sub> PM <sub>10</sub> TEOM PM <sub>2.5</sub> FRM Seq. PM <sub>2.5</sub> MetOne BAM PM <sub>2.5</sub> Spec. Colo URG-3000 TSP lead-metals Ozone NO <sub>2</sub> Sulfur dioxide Sulfur dioxide-trace NO <sub>y</sub> CO-trace PM <sub>10</sub> local PM <sub>10-2.5</sub>	Gravimetric Oscillating crystal Gravimetric Beta attenuation Ion Chromatograph Carbon speciation ICP U.V. Photometric Chemiluminescence Pulsed Fluorescence Pulsed Fluorescence Chemiluminescence Carbon monoxide Gravimetric Gravimetric	1 in 6 day Continuous 1 in 3 day Continuous 1 in 3 day 1 in 6 day 1 in 6 day Continuous Continuous Continuous Continuous Infrared 1 in 3 day 1 in 6 day	Population Population Population Population SIP info SIP information Highest conc. Population Population Population Population Population Population Population Population	Neighborhood Neighborhood Neighborhood Neighborhood Neighborhood Neighborhood Neighborhood Neighborhood Neighborhood Neighborhood Neighborhood Neighborhood Neighborhood Neighborhood Neighborhood	AQI NCore NCore NCore NCore NCore NCore



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<b>CLEVE cont'</b>									
39-035-0061	South side W. 3 <sup>rd</sup> St. Cleveland	41.473092	-81.676596	TSP-lead-metals	ICP	1 in 6 day	Source-oriented	Middle	
39-035-0064	390 Fair St. Berea BOE	41.36189	-81.864608	Ozone	U.V. Photometric	Continuous	Highest conc.	Neighborhood	
39-035-0065	4600 Harvard Ave., Newburgh	41.446682	-81.662419	PM <sub>10</sub>	Gravimetric	1 in 6 day	Highest conc.	Neighborhood	Off line May 28
				PM <sub>2.5</sub> FRM Seq.	Gravimetric	1 in 3 day	Population	Neighborhood	Will get new trailer
				Sulfur dioxide	Pulsed Fluorescence	Continuous	Highest conc.	Neighborhood	
39-035-0069	Fire Station #22, Superior Ave. Cleveland	41.519003	-81.637734	VOCs	GC MS	1 in 12 day			Maybe resumes sampling
39-035-0072	26565 Miles Rd., Warrensville	41.42585	-81.49078	TSP-Lead	ICP	1 in 6 day	Source oriented	Neighborhood	Site may end in 2015.
39-035-0073	25609 Emory Rd. Warrensville Hts.	41.4409	-81.4949	NO <sub>2</sub>	Chemiluminescence	Continuous	High conc.	Microscale	New Near-road NO2 site
				CO	Infrared	Continuous	High. Conc.	Middle scale	Started 8/1/2014
				WS\WD	Sonic	Continuous			Started 7/24/2014
									Will add PM2.5
39-035-1002	16900 Holland Road Brookpark	41.39629	-81.818667	PM <sub>10</sub>	Gravimetric	1 in 6 day	Population	Neighborhood	
				PM <sub>2.5</sub> FRM Seq.	Gravimetric	1 in 3 day	Population	Neighborhood	
				VOCs	GC MS	1 in 12 day			
39-035-5002	6116 Wilson Road, Mayfield	41.537344	-81.458834	Ozone	U.V. Photometric	Continuous	Population	Urban	
<b>RAPCA</b>	<b>Clark Co.</b>								
39-023-0001	5171 Urbana Rd., Springfield	40.00103	-83.80456	Ozone	U.V. Photometric	Continuous	Highest conc.	Urban	
39-023-0003	5400 Spangler Rd., Enon	39.85567	-83.99773	Ozone	U.V. Photometric	Continuous	Highest conc.	Neighborhood	
				Sulfur dioxide	Pulsed Fluorescence	Continuous	Population	Neighborhood	
39-023-0005	350 N. Fountain Rd., Springfield	39.928820	-83.80949	PM <sub>2.5</sub> Thermo Sharp	Beta attenuation	Continuous	Population	Neighborhood	
				PM <sub>2.5</sub> BGI FRM (2)	Gravimetric	1 in 3 day	Population	Neighborhood	POCs 1, 4
	<b>Greene Co.</b>								
39-057-0005	100 Dayton Rd., Yellow Springs	39.80834	-83.88705	PM <sub>10</sub>	Gravimetric	1 in 6 day	Population	Neighborhood	
				PM <sub>2.5</sub> BGI colo (2)	Gravimetric	1 in 3 day	Population	Neighborhood	POCs 1,2,4
				PM <sub>2.5</sub> Thermo Sharp	Beta attenuation	Continuous	Population	Neighborhood	Combine with 017-0020
39-057-0006	541 Ledbetter Rd., Xenia	39.66575	-83.94285	Ozone	U.V. Photometric	Continuous	Highest conc.	Urban	

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<b>RAPCA cont'</b>									
	<b>Miami Co.</b>								
39-109-0005	3825 N. Rt. 589, Castown	40.08455	-84.11412	Ozone	U.V. Photometric	Continuous	Highest conc.	Urban	
	<b>Montgomery Co</b>								
39-113-0032	215 E. 3 <sup>rd</sup> St., Dayton Library	39.760659	-84.187678	PM <sub>2.5</sub> FRM -Colo	Gravimetric	1 in 3 day	Population	Neighborhood	Site ended 9/24/2014
				PM <sub>2.5</sub> Thermo Sharp	Beta attenuation	Continuous	Population	Neighborhood	Relocated to Sinclair
39-113-0032	215 E. 3 <sup>rd</sup> St., Dayton Library			Chemical Speciation	Ion Chromatograph	1 in 6 day	SIP information		Community College,
				URG-3000	Carbon speciation	1 in 6 day	SIP information		39-113-0038
39-113-0034	117 S. Main St., Dayton	39.757837	-84.191667	Carbon monoxide	Infrared	Continuous	Highest conc	Microscale	
39-113-0037	1401Harshman Rd., Dayton	39.7863	-84.1337	Ozone	U.V. Photometric	Continuous	Population	Urban	
39-113-0038	Sinclair Community College	39.7560	-84.1987	PM <sub>2.5</sub> FRM SeqColo	Gravimetric	1 in 3 day	Population	Neighborhood	Site started 10/1/2014
	444 W. Third St., Dayton			PM <sub>2.5</sub> Thermo Sharp	Beta attenuation	Continuous	Population	Neighborhood	
				Chemical Speciation	Ion Chromatograph	1 in 6 day	SIP information		
				URG-3000	Carbon speciation	1 in 6 day	SIP information		
39-113-7001	2728 Viking Lane, Moraine	39.71451	-84.21798	PM <sub>10</sub> -Colo	Gravimetric	1 in 6 day	Highest conc	Neighborhood	
				TSP-Pb,metals-Colo	ICP	1 in 6 day	Source oriented	Neighborhood	
	<b>Preble Co.</b>								
39-135-1001	National Trail School	39.8362	-84.72049	PM <sub>2.5</sub> FRM Seq.	Gravimetric	1 in 3 day	Upwind backgd.	Regional	
	6940 Oxford Gettysburg Rd.			PM <sub>2.5</sub> Thermo Sharp	Beta attenuation	Continuous	Upwind backgd.	Urban	
	St. Rt. 40, New Paris			Ozone	U.V. Photometric	Continuous	Upwind backgd.	Regional	
				Sulfur dioxide	Pulsed Fluorescence	Continuous	Upwind backgd.	Regional	NCore
				Carbon monoxide	Infrared	Continuous	Upwind backgd.	Regional	NCore
				NOy	Chemiluminescence	Continuous	Upwind backgd.	Regional	NCore
				NO-trace	Chemiluminescence	Continuous	Upwind backgd.	Regional	NCore
				PM <sub>10-2.5</sub> Coarse	Gravimetric	1 in 3 day	Upwind backgd.	Regional	NCore
				PM <sub>10</sub> - LC-colo	Gravimetric	1 in 3 day	Upwind backgd.	Regional	NCore
				URG-3000	Carbon speciation	1 in 6 day	Upwind backgd.	Regional	NCore
				Chemical Speciation	Ion Chromatograph	1 in 6 day	Upwind backgd.	Regional	NCore
				WSpeed/WDir		Continuous			NCore
<b>MTAPCA</b>	<b>Mahoning Co.</b>								
39-099-0005	Elm & Madison,Fire Station #7	41.111111	-80.645278	PM <sub>10</sub>	Gravimetric	1 in 6 day	Population	Neighborhood	
				PM <sub>2.5</sub> FRM BGIColo	Gravimetric	1 in 6 day	Population	Neighborhood	
39-099-0006	Superior & Oakland, Fire St. 5	41.116667	-80.669722	PM <sub>10</sub> -colo	Gravimetric	1 in 6 day	Population	Neighborhood	

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	<b>Mahoning Co.</b>								
39-099-0013	345 Oakhill Ave. Youngstown	41.096142	-80.65852	Sulfur dioxide	Pulsed Fluorescence	Continuous	Population	Neighborhood	
				Ozone	U.V. Photometric	Continuous	Population	Neighborhood	
39-099-0014	345 Oakhill Ave. Youngstown	41.095938	-80.658467	PM <sub>2.5</sub> BGI FRM (2)	Gravimetric	1 in 3 day	Population	Neighborhood	POCs 1,4 started 7/19/14
				PM <sub>2.5</sub> TEOM	Oscillating crystal	Continuous	Population	Neighborhood	AQI
				Chemical Speciation	Ion Chromatograph	1 in 6 day	SIP info		ended 1/24/2015
				URG-3000	Carbon speciation	1 in 6 day	SIP information		ended 1/24/2015
	<b>Trumbull Co.</b>								
39-155-0005	540 Laird Ave., Warren	41.231167	-80.801914	PM <sub>10</sub> -Colo	Gravimetric	1 in 6 day	Source-oriented	Middle	Site moving nearby soon.
				PM <sub>2.5</sub> BGI FRM (2)	Gravimetric	1 in 3 day	Population	Neighborhood	POCs 1,4
				PM <sub>2.5</sub> TEOM	Oscillating crystal	Continuous	Population	Neighborhood	AQI
39-155-0006	Warren Water Treatment Plant	41.202237	-80.810644	PM <sub>10</sub>	Gravimetric	1 in 6 day	Population	Neighborhood	
39-155-0009	Kinsman Township Ad. Bldg, 6425 SR 87, Kinsman	41.454235	-80.591036	Ozone	U.V. Photometric	Continuous	Highest conc.	Urban	Site ended 10/31/2014
39-155-0011	St. Rt. 193, Vienna, TCSEG	41.240456	-80.662759	Ozone	U.V. Photometric	Continuous	Reg. transport	Urban	
39-155-0012	2600 Elmwood Dr., Hubbard	41.17279	-80.55572	TSP-Lead Colo	ICP	1 in 6 day	Source oriented	Urban	Low lead concentrations Site ended 1/ 31/ 2014.
39-155-0013	6380 SR 87, Kinsman Twnshp Maintenance Bldg., Kinsman	41.454546	-80.58805	Ozone	U.V. Photometric	Continuous	Highest conc.	Urban	Site started 4/1/2015 replaced 39-155-0009.
<b>Lake LAA</b>	<b>Geauga Co.</b>								
39-055-0004	Notre Dame School, Munson	41.51551	-81.249906	Ozone	U.V. Photometric	Continuous	Population	Urban	
	<b>Lake Co.</b>								
39-085-0003	Jefferson School, Eastlake	41.673006	-81.422455	Sulfur dioxide	Pulsed Fluorescence	Continuous	Source-oriented	Neighborhood	
				Ozone	U.V. Photometric	Continuous	Highest conc.	Neighborhood	
39-085-0006	8443 Mentor Ave., Mentor	41.666886	-81.338781	Carbon monoxide	Infrared	Continuous	Highest conc.	Microscale	
39-085-0007	177 Main St., Painesville	41.726811	-81.242156	PM <sub>2.5</sub> FRM Seq Colo	Gravimetric	1 in 3 day	Highest conc.	Urban	
				PM <sub>2.5</sub> TEOM FDMS	Oscillating crystal	Continuous	Highest conc.	Urban	AQI
				Sulfur dioxide	Pulsed Fluorescence	Continuous	Source-oriented	Middle	
				Ozone	U.V. Photometric	Continuous	Highest conc.	Urban	
39-085-1001	Fairport High School, Fairport	41.75489	-81.273076	PM <sub>10</sub> -Colo	Gravimetric	1 in 6 day	Highest conc.	Neighborhood	Complaint area







<b>AQS ID # Air Agency</b>	<b>County/Address</b>	<b>Latitude</b>	<b>Longitude</b>	<b>Parameter/ Method</b>	<b>Analysis</b>	<b>Schedule</b>	<b>Monitoring Objective</b>	<b>Spatial Scale</b>	<b>Comments</b>
<b>NWDO cont'</b>	<b>Wood Co.</b>								
39-173-0003	NWDO Office, Bowling Green	41.377685	-83.611104	Ozone	U.V. Photometric	Continuous	Other	Urban	
<b>SEDO</b>	<b>Athens Co.</b>								
39-009-0003	St. Rt. 377, Gifford Forest	39.442165	-81.908827	PM <sub>2.5</sub> FRM BGI colo	Gravimetric	1 in 6 day	Background	Regional	Background PM <sub>2.5</sub> site
	<b>Belmont Co.</b>								
39-013-3002	E. 40 <sup>th</sup> St. Shadyside Treatment	39.96862	-80.7449	Sulfur dioxide	Pulsed Fluorescence	Continuous	Population	Neighborhood	To move to 39-013-0006
39-013- 0006	2 Ball Park Rd, Shadyside	39.9679	-80.7464	Sulfur dioxide	Pulsed Fluorescence	Continuous	Background	Neighborhood	New site started in June.
				NO <sub>2</sub>	Chemiluminescence	Continuous	Background	Neighborhood	PSD monitoring of
				Carbon Monoxide	Infrared	Continuous	Background	Neighborhood	future plant.
				PM <sub>2.5</sub> FRM Seq.	Gravimetric	1 in 6 day	Background	Neighborhood	
				Pb/metals	Gravimetric	1 in 6 day	Background	Neighborhood	
				PM <sub>10</sub>	Gravimetric	1 in 6 day	Background	Neighborhood	
				Meteorological		Continuous			
	<b>Jefferson Co.</b>								
39-081-0001	1004 3 <sup>rd</sup> St., Brilliant	40.26157	-80.6335	PM <sub>10</sub>	Gravimetric	1 in 6 day	Population	Neighborhood	
39-081-0017	618 Logan St. , Steubenville	40.36644	-80.6158	Sulfur dioxide	Pulsed Fluorescence	Continuous	Population	Neighborhood	
				PM <sub>10</sub> -colo	Gravimetric	1 in 6 day	Population	Neighborhood	
				PM <sub>2.5</sub> FRM Seq.Colo	Gravimetric	1 in 3 day	Population	Neighborhood	Collocated began 4/1/13
				PM <sub>2.5</sub> BAM	Beta attenuation	Continuous	AQI	Neighborhood	
				Ozone	U.V. Photometric	Continuous	Population	Neighborhood	
				URG-3000	Carbon speciation	1 in 6 day	SIP information		From 39-081-1001
				Chemical Speciation	Ion Chromatograph	1 in 6 day	SIP info		From 39-081-1001
				VOCs	GC MS	1 in 12 day			From 39-081-1001
39-081-0021	110 Stueben , Mingo Junction	39.31951	-81.688	PM <sub>2.5</sub> FRM BGI (2)	Gravimetric	1 in 3 day			POCs 1,4
									Went 1 in 3 day 1/1/15
39-081-0018	3487 Cnty Rd. 19, Brilliant	40.272	-80.62962	Sulfur dioxide	Pulsed Fluorescence	Continuous	Source-Oriented		AEP Cardinal Power Plt
39-081-0019	Landfill Access Rd., Brilliant	40.26786	-80.64986	Wind Speed/Dir.	Sonic	Continuous	Source-Oriented		AEP Cardinal Power Plt
39-081-0020	1469 Third St., Brilliant	40.259475	-80.639987	Wind Speed/Dir.	Sonic	Continuous	Source-Oriented		AEP Cardinal Power Plt
				Sulfur dioxide	Pulsed Fluorescence	Continuous			
	<b>Meigs Co.</b>								
39-105-0003	117 Memorial Dr., Pomeroy	39.03849	-82.0459	Sulfur dioxide	Pulsed Fluorescence	Continuous	Population	Urban	

<b>AQS ID # Air Agency</b>	<b>County/Address</b>	<b>Latitude</b>	<b>Longitude</b>	<b>Parameter/ Method</b>	<b>Analysis</b>	<b>Schedule</b>	<b>Monitoring Objective</b>	<b>Spatial Scale</b>	<b>Comments</b>
<b>SEDO cont'</b>	<b>Morgan Co.</b>								
39-115-0004	St. Rt. 83, Hackney	39.63223	-81.67005	Sulfur dioxide	Pulsed Fluorescence	Continuous	Source-oriented	Urban	Musk.River power plant
	<b>Washington Co.</b>								
39-167-0004	2000 4 <sup>th</sup> St. Marietta WTP	39.432117	-81.460443	Ozone	U.V. Photometric	Continuous	Population	Neighborhood	
39-167-0008	SR 676 Washington Car. Ctr.	39.43147	-81.50131	TSP-lead metals	ICP	I in 6 day	Population	Urban	Colo. Starting in 2015. ?
39-167-0010	Ohio Valley Educa. Center	39.41365	-81.4703	TSP-Pb/metals-colo	ICP	I in 6 day	Population	Neighborhood	Site ended 6/30/2014
<b>West Virginia</b>	<b>Wood County</b>								
54-009-0003	SR 2, Beech Bottom WVA	40.29167	-80.60917	Wind Speed/Dir.	Sonic	Continuous	Source-Oriented		AEP Cardinal Power Plt
				Sulfur dioxide	Pulsed Fluorescence	Continuous			
<b>SWDO</b>	<b>Clinton Co.</b>								
39-027-1002	Laurel Oaks Sch., Wilmington	39.430000	-83.788611	Ozone	U.V. Photometric	Continuous	Population	Urban	
	<b>Logan Co.</b>								
39-091-0006	320 Richard Ave., Bellefontaine	40.341467	-83.7585	TSP-lead-metals	ICP	1 in 6 day	Highest conc.	Neighborhood	Low lead concentrations

**Notes/Explanations:**

AQS is the Air Quality System maintained by US EPA for air quality data. In the AQS ID# the first 2 digits refer 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<sub>2.5</sub> Sequential FRM sites and single-event FRM sites are comparable to the PM<sub>2.5</sub> NAAQS. No continuous PM<sub>2.5</sub> monitors are to be comparable to the PM<sub>2.5</sub> NAAQS.

All Ozone sites are comparable to the NAAQS.

All sulfur dioxide, carbon monoxide and nitrogen dioxide sites are comparable to the NAAQS.

PM is Particulate Matter. PM<sub>10</sub> means particulate matter of 10 microns in diameter or smaller. A micron is one millionth of a meter. PM<sub>2.5</sub> is particulate matter 2.5 millionths of a meter in diameter or smaller. PM<sub>10</sub> is fine particulate matter and PM<sub>2.5</sub> 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 Equivalent Methods.



PM<sub>2.5</sub> Seq. FRM samplers test for PM<sub>2.5</sub> and can hold multiple samples for Sequential sampling. They are Federal Reference Method (FRM).

Colocated 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 day schedule.

Chem. Speciation sites are sites and samplers that collect PM<sub>2.5</sub> samples that are analyzed for the chemical speciation make-up of the PM<sub>2.5</sub> particulate matter.

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 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 Graphic Furnace Atomic Absorption.

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

TEOM indicates a Tapered Element Oscillating Microbalance, a method of detection for very 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. Chemical speciation sampling and analysis for PM<sub>2.5</sub> aids helps to determine what control measures and plans will best control fine particulates.

### Ohio Air Monitoring Agencies

Akron Regional Air Quality Management District Fairway Center 1867 W. Market St. Akron, Ohio 44308 (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
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<p>Air Pollution Control Division  Canton City Health Department  420 Market Ave. North  Canton, Ohio 44702-1544  (330) 489-3385  Stark County</p>	<p>Mahoning-Trumbull APC Agency  345 Oak Hill Ave.  Youngstown, Ohio 44502  (330) 743-3333  Mahoning, Trumbull Counties</p>
<p>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</p>	<p>Regional Air Pollution Control Agency  Montgomery County Health Department  117 South Main St., P.O. Box 972  Dayton, Ohio 45422-1280  (937) 225-4435  Montgomery, Preble, Darke, Miami, Clark,  Greene</p>
<p>Cleveland Department of Public Health &amp; Welfare  Division of Air Quality  75 Erieview Plaza  Cleveland, Ohio 44114  (216) 664-2297  Cuyahoga County</p>	<p>Lake County General Health District  Air Pollution Control  33 Mill St.  Painesville, Ohio 44077  (440) 350-2543  Lake, Geauga counties</p>
<p>Air Pollution Unit  Portsmouth City Health Department  605 Washington Street  Portsmouth, Ohio 45662  (740) 353-5156  Brown, Adams, Scioto, Lawrence</p>	<p>Ohio EPA  Central District Office  50 West Town St.  Columbus, Ohio 43215  (614) 728-3778</p>
<p>Ohio EPA  Northeast District Office  2110 Aurora Rd.  Twinsburg, Ohio 44087  (330) 425-9171</p>	<p>Ohio EPA  Northwest District Office  347 North Dunbridge Rd.  Bowling Green, Ohio 43402  (419) 352-8461</p>
<p>Ohio EPA  Southeast District Office  2195 Front St.  Logan, Ohio 43138  (740) 385-8501</p>	<p>Ohio EPA  Southwest District Office  401 East Fifth St.  Dayton, Ohio 45402-2911  (937) 285-6357</p>