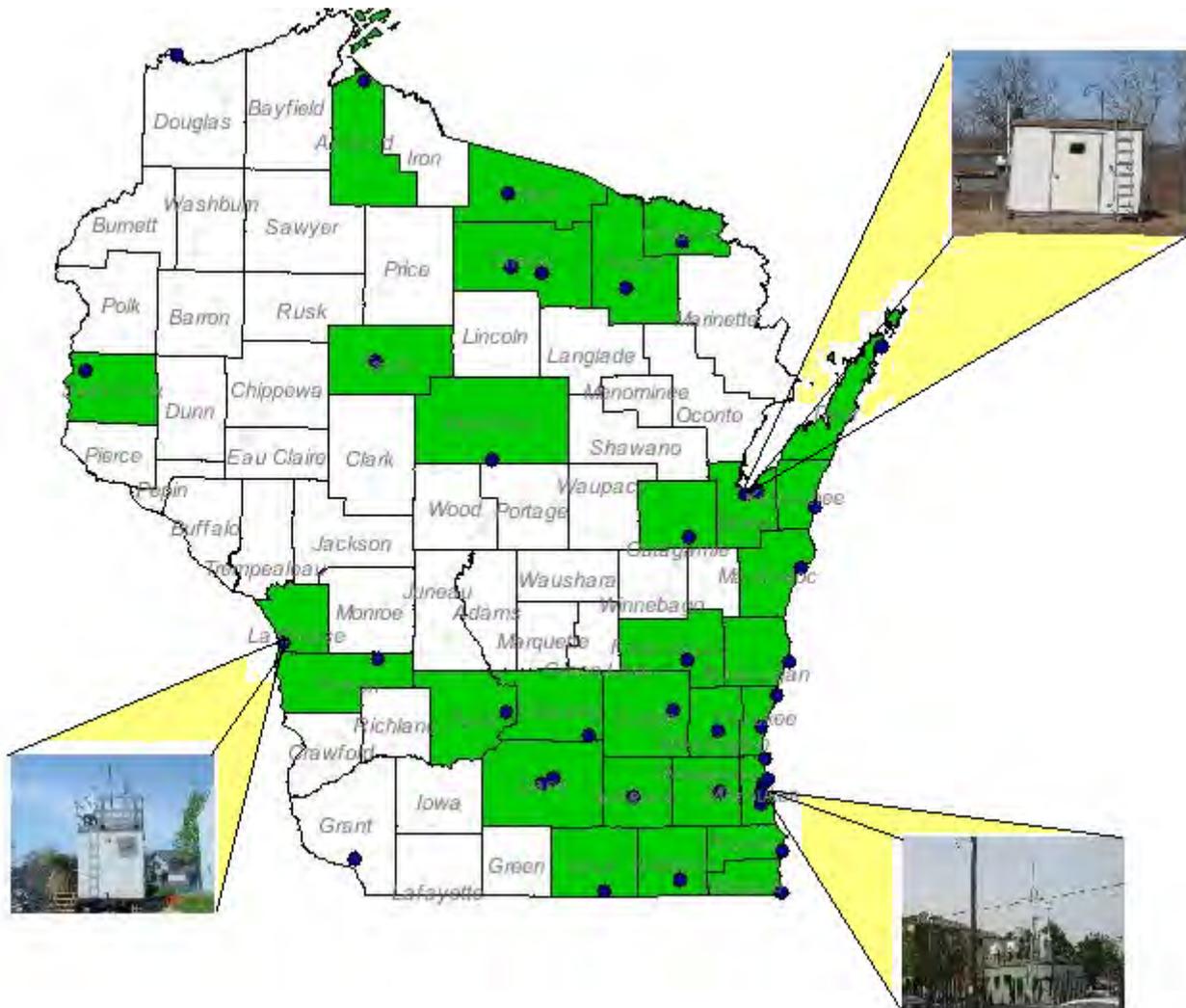




Wisconsin Department of Natural Resources/Air Monitoring

Network Plan 2013

June 2012



2013 Wisconsin Air Monitoring Network Plan

Signature page

By the signatures below, the Wisconsin Department of Natural Resources/Air Monitoring certifies that the information contained in this Network document for sampling year 2013 is complete and accurate at the time of submittal to US EPA Region 5. However, due to circumstances that may arise during the sampling year, some network information may change. A notification of change and a request for approval will be submitted to US EPA Region 5 at that time.

Signature _____
Director, Bureau of Air Management

Date _____

Signature _____
Chief, Air Monitoring Section

Date _____

Signature _____
Quality Assurance Coordinator

Date _____

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Public Notification and Comment Period

Pursuant to federal requirements, the Department of Natural Resources will provide a 30 day public comment period for review of this ambient air quality monitoring network plan.

Written comments on this monitoring network plan document may be submitted directly to

Mr. Bart Sponseller,
c/o Air Monitoring Section, Bureau of Air Management,
P.O. Box 7921,
Madison, WI 53707,

no later than June 4, 2012. Written comments will have the same weight and effect as oral comments presented at the meeting. A copy of the proposed revision to the Monitoring Plan is available for public inspection at the Bureau of Air Management, 7th Floor, 101 S. Webster Street, Madison, Wisconsin, on the following web address: <http://dnr.wi.gov/air/aq/monitor/netreview.htm> or by mail (at no charge) from Mr. Bart Sponseller at the address noted above.

In accordance with 40 C.F.R. 58.10(a)(1), the Wisconsin Department of Natural Resources, Air Monitoring shall make the annual monitoring network plan available for public inspection for at least 30 days prior to submission to the US EPA. The annual monitoring network plan details the operation and location of ambient air monitors operated by the Wisconsin Department of Natural Resources Air Monitoring Section.

Disclaimer

The network design proposed in this document represents a balance between the desired number of monitors and monitoring frequency and expected funding levels. The desired network configuration considers monitoring history, population distribution, federal monitoring requirements under the Clean Air Act, 40 Code of Federal Regulations (CFR) Part 58 and expected staffing levels.

US EPA proposed a number of rule changes that could have a significant effect on Wisconsin's network design in 2012 and 2013.

Recommended changes to this network will be implemented during the 2012 and 2013 calendar years, contingent upon adequate funding levels. The federal grant funding for the fine particulate matter (PM_{2.5}) program is changing to require that states provide 40 percent (%) matching funds. If this occurs, Wisconsin may not be able to provide such a match and will likely have to discontinue various monitoring, perhaps extending beyond the PM_{2.5} program.

Network operations may change during the years without public notice based on unexpected circumstances. Examples of unexpected circumstances include catastrophic equipment failure, construction or demolition activities, loss of site access, or monitor obstructions.

Acronyms and Abbreviations

AMS: Air Monitoring Section
AQCR: Air Quality Control Region
AQI: Air Quality Index
BAM/AM: Bureau of Air Management
CBSA: Core-Based Statistical Area
CMSA: Consolidated Metropolitan Statistical Area
DEQ: Division of Environmental Quality
DQA: Data Quality Assessment
DQO: Data Quality Objectives
ETV: Environmental Technology Verification Program
EOM: Enhanced Ozone Monitoring
FEM: Federal Alternate Method
FDMS: Filter Dynamic Measurement System
FRM: Federal Reference Method
MSA: Metropolitan Statistical Area
NAAQS: National Ambient Air Quality Standards
NATTS: National Ambient Toxic Trend Sites
PAMS: Photochemical Assessment Monitoring Site
PM10: Particulate Matter 10 micron or smaller in size
PM2.5: Particulate Matter 2.5 micron or smaller in size
PMcoarse: Particulate Matter 2.5 to 10 micron in size
QAPP: Quality Assurance Project Plan
R&P: Ruprecht & Pataschnick (now part of Thermo.)
SCC: Sharp Cut Cyclone
SLAMS: State and Local Air Monitoring Sites
SPM: Special Purpose Monitors
TEOM: Tapered Element Oscillating Method
UATM: Urban Air Toxics Monitor
US EPA: United States Environmental Protection Agency
UV: Ultra Violet
VOC: Volatile Organic compounds
VSCC: Very Sharp Cut Cyclone
WDNR: Wisconsin Department of Natural Resources

Monitor (Parameter) Abbreviations

CO – Carbon Monoxide
Hg - Mercury
NO₂ – Nitrogen Dioxide
NO_y – Reactive Oxides of Nitrogen
O₃ - Ozone
Pb – Lead
SO₂ – Sulfur Dioxide
T – Temperature
WD - Wind Direction
WS – Wind Speed

Introduction and Background

Federal Regulatory History

In October 1975, the United State Environmental Protection Agency (US EPA) established a work group to critically review and evaluate current air monitoring activities. This group was named the Standing Air Monitoring Working Group (SAMWG). The review by the SAMWG indicated several areas, nationally, where monitoring deficiencies existed which needed correction. The principal areas needing correction were: (1) an excess of monitoring sites in some areas to assess air quality (2) existing regulations did not allow for flexibility to conduct special purpose monitoring studies (3) data reporting was untimely and incomplete, caused by a lack of uniformity in site location and probe siting, sampling methodology, quality assurance practices, and data handling procedures.

In August 1978, recommendations developed by SAMWG, to remedy the deficiencies in the existing monitoring activities, were combined with the new requirements of Section 319 of the Clean Air Act. Section 319 provided for: (1) the development of uniform air quality monitoring criteria and methodology (2) reporting of a uniform air quality index in major urban areas and (3) the establishment of a nation wide air quality monitoring system, which utilizes uniform monitoring criteria and provides for monitoring sites in major urban areas that supplement State monitoring. The combination of the recommendations and requirements were included in a proposed revision to the federal air monitoring regulations.

State and Local Air Monitoring Sites (SLAMS)

In May 1979, air monitoring regulations were finalized by the US EPA requiring certain modifications and additions to be included in the State Implementation Plan for air quality surveillance. These regulations require each state to operate a network of monitoring sites designated as State and Local Air Monitoring Sites (SLAMS) that measure ambient concentrations of air pollutants for which federal standards or National Ambient Air Quality Standards (NAAQS) have been established. The SLAMS designation contains provisions concerning the conformity to specific siting and monitoring criteria not previously required. The regulations also provide for an annual review of the monitoring network to insure objectives are being met and to identify needed modification. Other federal air monitoring regulations have been codified in 40CFR Part 58 since 1979.

The SLAMS network includes the following:

- 1) **Ozone and Photochemical Assessment Monitoring Stations (PAMS):** Section 182(c)(1) of the 1990 Clean Air Act Amendments (CAAA) requires the Administrator to promulgate rules for the enhanced monitoring of ozone, oxides of nitrogen (NO_x), and volatile organic compounds (VOC) to obtain more comprehensive and representative data on ozone air pollution. Subsequent revisions to Title 40, Code of Federal Regulations, Part 58 (40 CFR 58) required states to establish Photochemical Assessment Monitoring Stations (PAMS) as part of their SIP monitoring networks in ozone nonattainment areas classified as serious, severe, or extreme. The chief objective of the enhanced ozone monitoring (EOM) revisions is to provide an air quality database that will assist air pollution control agencies in evaluating, tracking the progress of, and, if necessary, refining control strategies for

attaining the ozone NAAQS. Ambient concentrations of ozone and ozone precursors will be used to make attainment/nonattainment decisions, aid in tracking VOC and NOx emission inventory reductions, better characterize the nature and extent of the ozone problem, and prepare air quality trends.

The Wisconsin EOM program is part of a Lake Michigan Regional EOM program conducted by the states of Illinois, Indiana, Michigan, and Wisconsin. The Lake Michigan PAMS network consists of two components. The first fulfills the requirements of the Lake Michigan Alternative PAMS Plan as approved by US EPA in 1993, and the second includes supplemental measurements and activities developed and implemented by the four states to support the Lake Michigan Data Analysis Plan, photochemical modeling, and air quality analysis efforts.

The Wisconsin PAMS Network includes three monitoring sites. One urban source region site located in Milwaukee and two rural downwind sites, located at Harrington Beach State Park and in the Woodland Dunes conservancy near Manitowoc. The three sites are a subset of 28 fixed ozone sites located throughout Wisconsin.

- 2) **Air Toxics:** The goal of the air toxics monitoring program is to support reduction of public exposure to HAPs. Monitoring data provide a critically important role by characterizing HAPs concentrations to support three basic monitoring objectives: trends, exposure assessments and air quality model evaluation.
- 3) **National Core Multi-pollutant Monitoring Stations (NCore):** NCore is a multi pollutant network that integrates several advanced measurement systems for particles, pollutant gases and meteorology. US EPA coordinates with its state, local and tribal partners, who will operate the NCore sites, on a list of possible site locations. The only Wisconsin NCore site is located in Horicon.
- 4) **PM_{2.5} and Chemical Speciation:** As part of the effort to monitor particulate matter, US EPA monitors and gathers data on the chemical makeup of these particles. US EPA established a chemical speciation network consisting of approximately 300 monitoring sites. There are five speciation sites in Wisconsin.
- 5) **Lead Monitors:** US EPA requires lead monitoring based on population or individual facility emissions. The general monitoring criteria are:
 - a. Industrial facility emissions of 0.5 tons per year or more.
 - b. Airport emissions of 1.0 tons per year or more.
 - c. Core Based Statistical Area (CBSA) population of 500,000 or more.

Currently, there is one lead monitoring site in Wisconsin.

- 6) **Meteorological Monitors:** A variety of meteorological parameters are tracked including wind speed, wind direction, barometric pressure, temperature and solar radiation. There are 24 meteorological sites in Wisconsin.

National Atmospheric Deposition Program (NADP)

The National Atmospheric Deposition Program (NADP) is a cooperative research program whose goal is to monitor the chemistry of precipitation (rain and snow) consistently and as accurately as possible for long periods to determine trends over time. The program consists of four precipitation monitoring networks: National Trends Network (NTN), Mercury Deposition Network (MDN), Atmospheric Integrated Research Monitoring Network (AIRMON) and Atmospheric Mercury Network (AMNet). Wisconsin established NTN monitoring in 1980 as part of its acid rain program and continues to operate seven sites. Monitoring includes one-week precipitation-only samples with analyses for pH, sulfate, nitrate, chloride, ammonium, phosphate, calcium, magnesium, potassium, and sodium. MDN samples follow the same collection schedule and include analyses for total and methyl mercury. Wisconsin has six MDN sites, some of which are collocated with the NTN sites, the earliest of which began operating in 1995. US EPA does not fund this network so Wisconsin's monitoring has been funded through Focus on Energy (<http://www.focusonenergy.com/Enviro-Econ-Research/>). More details about the NADP program can be found at <http://NADP.sws.uiuc.edu>.

Although not required by US EPA, this network plan includes the location of the NTN and MDN sites because these sites affect siting and operational decisions. In 2012, the Lake Michigan Air Directors Consortium (LADCO) will be completing a Great Lakes mercury study that will impact future network planning. For sites that only have NADP monitoring, locational information is approximate and the maps presented do not have dots for the precise site location.

Data Processing and Reporting

With the exception of the NADP sites, fine particle speciation, and ambient air quality data are stored in a centralized server located at the Wisconsin Department of Administration. For the continuous pollutant monitoring, data are retrieved hourly and posted to the DNR Air Quality website and sent to US EPA's AIRNow web site. Particulate data collected over 24 hours (filter-based method) is made available on the Air Quality website as it is processed.

After data has passed all quality assurance checks, data are transmitted via the Exchange Network Node to US EPA's national data storage system known as AQS.

The federal contract laboratory for fine particle speciation is responsible for reporting the results directly to US EPA.

Network Review

Regulatory Requirements for the Network Plan

Requirements for an annual monitoring network description are provided for in 40 CFR Part 58.10, annual monitoring network plan and periodic network assessment. Beginning July 1, 2007, State agencies are required to submit an annual network plan of SLAMS, NCore, STN stations, State speciation stations, SPM stations and PAMS stations, if they exist in the State. The plan must include a statement of the purposes for each monitor and evidence that siting and operation of each monitor meets the requirements of 40 CFR Part 58 Appendices A, C, D, and E. In additions, the plan must be made available to the public for at least 30 days prior to its submission to US EPA.

The annual monitoring network plan must contain the following information for each existing and proposed site:

- 1) The AQS site identification number.
- 2) The location, including street address and geographical coordinates.
- 3) The sampling and analysis method(s) for each measured parameter.
- 4) The operating schedules for each monitor.
- 5) Any proposals to remove or move a monitoring station within a period of 18 months following plan submittal.
- 6) The monitoring objective and spatial scale of representativeness for each monitor
- 7) The identification of any sites that are suitable and not suitable for comparison against the annual $PM_{2.5}$ NAAQS.
- 8) The MSA, CBSA, CSA or other area represented by the monitor.
- 9) The designation of any Pb monitors as either source-oriented or non-source-oriented.
- 10) Any source-oriented monitors for which a waiver has been requested or granted by the EPA Regional Administrator
- 11) Any source-oriented or non-source-oriented site for which a waiver has been requested or granted by the EPA Regional Administrator for the use of Pb- PM_{10} monitoring in lieu of Pb-TSP.

Plan Organization

Wisconsin's ambient air monitoring network review plan is organized into four main parts.

1) **Summary of Changes:** The summary of changes includes a discussion of regulatory changes or other significant factors that affect the network design. These factors may include but are not limited to availability of resources, site access considerations, local or regional concerns (e.g. significant construction), population or source information or a data quality assessment (value of site in the network). Those assessments result in changes to the pollutant network design or schedule, which are summarized in this section of the report.

2) **Network Summary Reports.** This section contains summary reports of the network. EPA Air Quality Control Regions are used as a means to group similar areas and

incorporate interstate influences in an air shed. For each region, there is a description of the air shed, a table listing the sites in that region and their location information, and a table that identifies the monitors for those sites. In addition to this section, two additional reports are included:

- Monitoring Sites by Pollutant
- Monitoring Sites by County

3) **Air Monitoring Site Descriptions:** Each air monitor site is described in detail with the following information for each monitoring site in the network:

- Air Quality System (AQS) site identification number for existing sites.
- Site name.
- Location including the street address and geographical ordinates for each monitoring site.
- Core-Based Statistical Area designation (CBSA).
- Sampling and analysis method used for each measured parameter.
- Operating schedule for each monitor.
- Monitoring objective.
- Spatial scale for each monitor.
- Area of Representativeness.
- GIS map of the site location.
- Pictures from the site.

4) **Supporting Documentation:** This section contains relevant supporting documentation that network design and reporting requirements are being met. Any waivers granted by US EPA will be presented here. Other pertinent documentation may also be included in this section.

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Regulatory Changes Affecting Network Operations

Over the last three years, US EPA proposed or adopted revisions to several NAAQS and monitoring rules that involve establishing new monitors at existing sites, setting up additional sites, or changing existing monitoring. Most of the proposals will not affect the Wisconsin network until January 1, 2013.

A brief discussion of adopted and proposed revisions to NAAQS monitoring requirements follows.

Proposed Ozone Monitoring Network Design Requirements

On July 16, 2009 (74 FR 34525), US EPA proposed changing the monitoring season in Wisconsin from April 15 – October 15 to April 1 – October 31 with implementation no later than the season following final rule promulgation. WDNR provided comments and data to support limiting the season to April 1 – September 30. The final rule was expected in June 2010 with implementation in the 2011 monitoring season. On December 8, 2010, US EPA delayed promulgation and requested the Agency's science advisors for more input prior to

selecting final ozone standards.

US EPA also proposed additional monitoring requirements in non-urban areas. States would be required to operate a minimum of three ozone monitors in non-urban areas, to allow for:

- Assessment of ozone concentrations in areas such as federal, state, or tribal lands, including wilderness areas that have ozone-sensitive natural vegetation and/or ecosystems, to determine compliance with the revised secondary NAAQS.
- Assessment of at least one smaller population center of between 10,000 and 50,000 people that is expected to have ozone concentrations of at least 85 percent of the NAAQS level of 0.075 ppm averaged over an 8-hour period (0.064 ppm).
- Monitoring in the location of expected maximum ozone concentration outside of any urban area, potentially including the far-downwind transport zones of currently well-monitored urban areas.

An assessment of Wisconsin's network indicated that the existing monitors are sufficient to meet the requirements of the first and third bullets above. Two Wisconsin communities, Eau Claire and Oshkosh, met the population threshold described in the second bullet above and may require new monitors. On March 9, 2011, an Eau Claire site was established. As of March 2012, US EPA Region V indicated that the final ozone monitoring network design requirements were still being evaluated by the Office of Management and Budget and that the date of rule promulgation was unknown.

Revised Nitrogen Dioxide Monitoring Network Design Requirements

On January 22, 2010, US EPA finalized the health-based National Ambient Air Quality Standard (NAAQS) for nitrogen dioxide (NO₂) to 100 ppb over a 1 hour averaging period and established new ambient air monitoring and reporting requirements. In urban areas, monitors are required near major roads as well as in other locations where maximum concentrations are expected. Additional monitors are required in large urban areas to measure the highest concentrations of NO₂ that occur more broadly across communities. Working with the states, US EPA will site a subset of monitors in locations to help protect communities that are susceptible and vulnerable to NO₂-related health effects. The new monitoring network is being implemented in phases. Monitors in the first and second phases must be deployed by January 1, 2014.

The new requirements would obligate Wisconsin to locate a near-road NO₂ monitor in Milwaukee. The evaluation of a new monitoring location for near-road NO₂ monitoring is in the planning stages; the NO₂ monitor needs to be operational by January 1, 2014. A community wide population-oriented monitor will be required in Milwaukee as well. The existing NO₂ monitor at the Milwaukee SER HQ site may fulfill this monitoring requirement.

Revised Sulfur Dioxide Monitoring Network Design Requirements

On June 2, 2010 US EPA finalized the NAAQS for sulfur dioxide (SO₂) at 75 ppb over a 1 hour averaging period and established new ambient air monitoring and reporting requirements. In addition to the existing source-oriented SO₂ monitor in Rhinelander, the Green Bay SO₂ monitor, and the high sensitivity (background) SO₂ monitor at the NCore

site in Horicon, two additional community-wide population oriented monitors will be required to begin monitoring. One is already in operation at the Milwaukee Southeast Region Headquarters and the other will be required to operate in the Madison CBSA. The two community-oriented monitors must be operational by January 1, 2013. WDNR may establish an SO₂ monitor by January 1, 2013 at the Madison East High School location provided sufficient federal funding exists.

Proposed Carbon Monoxide Monitoring Network Design Requirements

On January 28, 2011 US EPA proposed to retain the existing National Ambient Air Quality Standards for carbon monoxide (CO) and proposed revisions to the monitoring requirements for CO. CO monitors would need to be sited near highly trafficked roads in certain urban areas having a population of 1 million or more. US EPA is proposing to require co-location of these CO monitors with NO₂ near-road monitors. The proposal, as it is written at this time, would result in the requirement of one CO monitor at the required NO₂ near-road monitoring site in Milwaukee and would need to be operable by January 1, 2014.

US EPA is also proposing that EPA Regional Administrators would have the authority to require additional monitoring in case-by-case circumstances, such as in areas impacted by major stationary CO sources, in urban downtown areas or urban street canyons, or in areas adversely impacted by meteorological and/or topographical influences.

Future Revisions to Monitoring Network Design Requirements

US EPA anticipates promulgating revisions to the particulate matter and ozone NAAQS in 2012 and 2013 respectively. As a result, the Department may be required to perform additional related monitoring related to these NAAQS.

Summary of Proposed Network Changes for Criteria Pollutants

Fine Particle Network

Wisconsin Air Monitoring Program's fine particle network has two primary goals:

- To deploy Federal Reference Method (FRM) non-continuous instruments to provide an air quality database for comparison with the NAAQS that will assist in evaluating, tracking the progress of and refining control strategies.
- To deploy non-Federal Equivalent Method (FEM) continuous fine particle instruments to maximize geographic coverage and support forecasting efforts, where possible and as resources permit.

TEOM-FDMS PM_{2.5} instruments are being replaced by MetOne Beta Attenuation Monitors (BAM) to create a more reliable and cost effective continuous fine particle network. In 2011, TEOMs were replaced by BAMs at the following sites: Harrington Beach, Horicon, Milwaukee-SER, Potawatomi, Potosi and Waukesha. On 11/11/11, BAMs were collocated with TEOMs at Devil's Lake. In 2012, TEOMs were replaced by BAMs at the following sites: Chiwaukee, Madison-East, Green Bay-East and Milwaukee-College Ave. Later in 2012, the TEOMS at Eau Claire-DOT and LaCrosse-DOT will be replaced by BAMs.

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In 2011, FRMs were installed at Chiwaukee, LaCrosse and Madison-East. On 1/1/12, a FRM was reinstalled at Milwaukee-Fire Dept HQ.

Based on current design values and the anticipated funding, FRM sampling frequency will be adjusted as follows:

<u>Site</u>	<u>2012 and 2013 Freq.</u>
Appleton	Daily
Bad River Tribal Site	1 in 6
Bad River Tribal Site (collocated)	1 in 6
Chiwaukee	1 in 3
Devils Lake	1 in 6
Devils Lake (collocated)	1 in 12
Eau Claire DOT	1 in 6
Green Bay East	Daily
Green Bay East (collocated)	1 in 12
Harrington Beach	1 in 6
Horicon	1 in 3
La Crosse DOT	1 in 3
Madison East High School	1 in 6
Madison Univ. Ave	Daily
Milwaukee 16 th St.	1 in 3
Milwaukee College Avenue	1 in 6
Milwaukee Fire Dept HQ	1 in 3
Milwaukee SER	1 in 6
Milwaukee SER (collocated)	1 in 12
Perkinstown	1 in 6
Potawatomi Tribal Site	1 in 6
Potosi	1 in 3
Trout Lake	1 in 6
Waukesha	1 in 6

Also, WDNR will continue supporting FRM PM_{2.5} monitoring at the Forest County Potawatomi community and Bad River tribal sites.

PM₁₀ – PM Coarse Network

A continuous PM Coarse system was installed at the Devil's Lake site in late 2011. A PM Coarse system consists of a continuous PM₁₀ BAM and continuous PM_{2.5} BAM placed side-by-side. Sampling for PM₁₀ ended at the Potawatomi site in late 2011. Currently, there are no plans to purchase additional PM Coarse or PM₁₀ instruments in 2012.

Gases Monitoring

On July 16, 2009, US EPA proposed to revise the monitoring network design requirements for ozone to assist with implementation of the ozone NAAQS. On September 16, 2009, US EPA announced it would reconsider its 2008 decision setting the NAAQS for ground-level ozone. US EPA delayed implementation of the ozone monitoring requirements until the revised ozone standard is promulgated. As of May 2012, the ozone monitoring requirements have not been finalized. As currently proposed, the required ozone monitoring season would be extended by a month, beginning on April 1 and ending on

October 31; currently the season is April 15 through October 15. As requested by US EPA Region V, the Chiwaukee ozone site will continue monitoring April 1 through October 31. As of May 2012, US EPA Region V indicated that the final ozone monitoring network design requirements were still being evaluated by the Office of Management and Budget and that the date of rule promulgation was unknown.

Additional changes and potential changes in the ozone network include:

- Discontinuation of Harshaw ozone monitoring at the Aspen FACE study location on October 18, 2011.
- Depending on the results of an investigation, the establishment of a new ozone site in Kenosha County that is more indicative of population exposure by the beginning of the 2013 ozone season. This site may be located north of the City of Kenosha.

PAMS

The AutoGC has failed at Milwaukee-SER ending continuous VOC monitoring. This monitoring won't resume until federal funds are available to replace the instrument. However, canister and carbonyl sampling on every sixth day continues at Milwaukee-SER.

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Network Summary Reports

To aid in understanding the monitoring network overall design, three network summary reports are presented here. Two of the reports group the monitoring geographically and the third details the network by the type of monitoring or in the case of non-EPA monitoring, by program. The report groupings are:

- Site and Monitors by Air Quality Control Region
- Monitoring Sites by Pollutant
- Sites and Monitors by County

Sites and Monitors by Air Quality Control Region

Lake Michigan Intra-State Air Quality Control Region

This air region is characterized by its variety in land use. The region varies from farmland in the south to wooded land in the north. Industry and population centers are located along the lower Fox River between Green Bay and northern Lake Winnebago, as well as along the northwest shore of Lake Winnebago; this area is referred to as the Fox River Valley. The Fox River Valley has many closely spaced cities which include the largest concentration of paper manufacturing facilities in the world. The area running from Oshkosh through Kaukauna is considered a major urbanized area. Besides the paper industry, this region is important for metal products, and food processing. The eastern boundary of the region is Lake Michigan. Fishing and shipping industries are concentrated in the towns on the lakefront. Large coal-fired power plants are located in Sheboygan and in Green



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Bay. Green Bay also has a wide variety of other industry, including a cement plant, large coal unloading and storage facilities, petroleum product storage and transshipment, etc.

Current Lake Michigan Monitoring Sites

AQS #	Site Name	CBSA or MSA	Latitude Longitude	Address	City	County	Site Est.
55-087-0009	Appleton AAL	Appleton-Neenah, WI	44.30738 -88.39509	4432 N Meade St	Appleton	Outagamie	4/14/95
55-039-0006	Fond du Lac	Fond du Lac	43.6874 -88.4220	N3996 Kelly Rd, Town of Byron		Fond du Lac	4/22/94
55-009-0005	Green Bay East	Green Bay, WI	44.50729 -87.99344	East High School, 1415 E. Walnut	Green Bay	Brown	7/24/80
55-009-0026	Green Bay UW	Green Bay, WI	44.53 -87.90889	UW-Green Bay, Hwys 54 & 57	Green Bay	Brown	4/7/94
55-061-0002	Kewaunee		44.44312 -87.506524	Route 1, Hwy 42	Kewaunee	Kewaunee	4/6/94
55-117-0008	Kohler		43.74395 -87.7763	444 Highland Dr 53044	Kohler	Sheboygan	12/15/09
55-071-0007	Manitowoc		44.138619 -87.6161	Woodland Dunes State Park 2315 Goodwin Rd	Two Rivers	Manitowoc	4/5/94
55-029-0004	Newport		45.237 -86.993	475 CTH NP (Near Ellison Bay)		Door	4/15/89
55-117-0006	Sheboygan	Sheboygan, WI	43.679 -87.716	Kohler Andre Park, 1520 Beach Park Road		Sheboygan	6/26/97
NA	Suring		45.053 -88.372	10360 Big Eddie Ln	Suring	Oconto	1/23/85

Current Lake Michigan Monitors

AQS #	Site Name	O ₃	PM _{2.5}	PM ₁₀	PM Crs	SO ₂	NO ₂	CO	M E T	Pb - TSP	Metals (PM ₁₀)	NO _y	PAH	VOC Carbonyl	NTN	Hg
55-087-0009	Appleton AAL	S	C, F													
55-039-0006	Fond du Lac	S														
55-009-0005	Green Bay East		C, Fc, M			HS, Y										
55-009-0026	Green Bay UW	S														
55-061-0002	Kewaunee	S														
55-117-0008	Kohler									Y						
55-071-0007	Manitowoc	S					S		Y			S				
55-029-0004	Newport	S							S							
55-117-0006	Sheboygan	S							S							

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AQS #	Site Name	O ₃	PM _{2.5}	PM ₁₀	PM Crs	SO ₂	NO ₂	CO	M E T	Pb - TSP	Metals (PM ₁₀)	NOy	PAH	VOC Carbonyl	NTN	Hg	
NA	Suring															NT	

c – Collocated monitor
 D – Discontinued
 HS – High Sensitivity
 MD – Mercury Deposition Network
 P – PAMS and schedule
 S – Seasonal monitoring
 T – Tekran

C – Continuous
 F – Federal Reference Method
 M – Fine Particle Speciation – Cation/Anion/Carbon
 NT – National Trends Network
 RF – Precipitation for National Weather Service
 SP – Special purpose, may not meet siting criteria
 Y – Year round monitoring

Southeastern Wisconsin Intra-State AQCR

The topography of this air region is generally flat to rolling. One terrestrial feature of special interest is the Menomonee River Valley which enters Milwaukee Harbor through the center of Milwaukee. Lake Michigan exerts a strong effect, on the local weather, especially along the shoreline.

The population center of the southeast region is Milwaukee. The population extends outward toward the Milwaukee-Ozaukee County line and south through Kenosha into the Chicago area. This pattern also extends westward into the eastern portion of Waukesha County.



The highly diversified industrial patterns of the region reflect the population distribution (i.e., centered at Milwaukee and decreasing in density to the north, west, and south). The western portion of Ozaukee, Waukesha, and Racine and Kenosha counties, and most of Washington and Walworth counties are primarily agricultural.

Current Southeastern Wisconsin Monitoring Sites

AQS #	Site Name	CBSA or MSA	Latitude Longitude	Address	City	County	Site Est.
55-079-0085	Bayside	Milwaukee-Waukesha, WI	43.18111 -87.90056	601 E. Ellsworth Lane	Bayside	Milwaukee	5/1/84
55-059-0019	Chiwaukee	Kenosha, WI	42.504722 -87.80930	Chiwaukee Prairie, 11838 First Court	Pleasant Prairie	Kenosha	7/15/87
55-089-0008	Grafton	Milwaukee-Waukesha, WI	43.34306 -87.92083	Grafton, East side of Hwy32 And I43	Grafton	Ozaukee	6/5/91
55-089-0009	Harrington Beach	Milwaukee-Waukesha, WI	43.498 -87.81	Harrington Beach State Park, 531 Hwy D		Ozaukee	6/15/94
55-127-0005	Lake Geneva		42.58 -88.49917	RR4 Elgin Club Rd	Lake Geneva	Walworth	2/27/91
55-079-0052	Milw - Havenwoods	Milwaukee-Waukesha, WI	43.128889 -87.970833			Milwaukee	Discontinued February 2012
55-079-0058	Milw College Ave Park and Ride	Milwaukee-Waukesha, WI	42.9305685 -87.932104	1550 W. College Ave.	Milwaukee	Milwaukee	11/1/09
55-079-0099	Milw – Fire Dept HQ	Milwaukee-Waukesha, WI	43.041 -87.925	744 W. Wells St.	Milwaukee	Milwaukee	1/1/70
55-079-0026	Milw SER DNR HQ	Milwaukee-Waukesha, WI	43.06111 -87.9125	2300 N M. L. King Jr. Dr	Milwaukee	Milwaukee	12/23/98

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AQS #	Site Name	CBSA or MSA	Latitude Longitude	Address	City	County	Site Est.
55-079-0010	Milw Sixteenth St.	Milwaukee-Waukesha, WI	43.01667 -87.93333	Health Center, 1337 S. 16th St	Milwaukee	Milwaukee	4/4/97
55-079-0041	Milw UWM	Milwaukee-Waukesha, WI	43.075 -87.884	UWM North Campus, 2114 E Kenwood Blvd	Milwaukee	Milwaukee	1/1/73
55-101-0017	Racine	Racine, WI	42.71389 -87.798611	1519 Washington Ave	Racine	Racine	1/1/97
55-133-0027	Wauk-Cleveland	Milwaukee-Waukesha, WI	43.02028 -88.215	1310 Cleveland Ave	Waukesha	Waukesha	1 in 31/89
Unknown	New near-road NO ₂ site	Milwaukee-Waukesha, WI	Unknown	Unknown	Unknown	Milwaukee	Estimated – 1/1/13

Current Southeastern Wisconsin Monitors

AQS #	Site Name	O ₃	PM _{2.5}	PM ₁₀	PM Crs	SO ₂	NO ₂	CO	MET	Pb - TSP	Metals (PM ₁₀)	NOy	PAH	VOC Carbonyl	NTN	Hg
55-079-0085	Bayside	S														
55-059-0019	Chiwaukee	S	C, F						Y, RF							
55-089-0008	Grafton	S							S, RF							
55-089-0009	Harrington Beach	S	C, F						Y							
55-127-0005	Lake Geneva	S							S							MD
55-079-0058	Milw College Ave		C, F	F							Y					
55-079-0099	Milw – Fire Dept HQ		F													
55-079-0026	Milw SER DNR HQ	Y	C,F, Fc,M	C	C	Y	Y		Y			S		P		
55-079-0010	Milw Sixteenth St.	Y	F	F					Y		Y			Y		D – 5/4/10
55-079-0041	Milw UWM								Y							MD, T(GEM)
55-101-0017	Racine	S							S							
55-133-0027	Wauk-Cleveland	S	C, F, M	F					Y							

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 T – Tekran

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 SP - Special purpose, may not meet siting criteria
 Y – Year round monitoring

Southern Wisconsin AQCR

The majority of the land in this air region is gently rolling farmland. In Lafayette county, for example, 93 % of the land is in farms. In the Dane county metropolitan area, Madison had a 2011 population of 233,890. As a whole, Dane county had a population of 489,331. (Population figures are final estimates from the Wisconsin Dept. of Administration.) There were 552 manufacturing establishments (2009) in Dane county. Outside of Madison, industry is scattered and is mainly electrical power generation, an occasional foundry, or quarrying.



Current Southern Wisconsin Monitoring Sites

AQS #	Site Name	CSA or UA	Latitude Longitude	Address	City	County	Site Est.
55-021-0015	Columbus	Madison, WI	43.3156 -89.1089	Wendt Rd, Columbus	Columbus	Columbia	8/11/88
55-111-0007	Devils Lake		43.4351 -89.6797	Devils Lake State Park, E12886 Tower Rd		Sauk	8/9/96
55-027-0001	Horicon Wildlife Area		43.466111 -88.621111	1210 N Palmatory	Horicon	Dodge	6/24/82
55-055-0002	Jefferson		43.00208 -88.81869	Willow Dr.	Jefferson	Jefferson	4/15/88
55-025-0041	Madison East	Madison, WI	43.10083 -89.35722	East High, 2302 Hoard St	Madison	Dane	4/15/92
55-025-0047	Madison University	Madison, WI	43.07377 -89.43597	2757 University Ave	Madison	Dane	3/1/99

Current Southern Wisconsin Monitors

AQS #	Site Name	O3	PM _{2.5}	PM ₁₀	PM Crs	SO ₂	NO ₂	CO	MET	Pb - TSP	Metals (PM ₁₀)	N O y	P A H	VOC Carb -onyl	NTN	Hg
55-021-0015	Columbus	S							S, RF							
55-111-0007	Devils Lake	S	C, 3 Cc, F	C	C				Y						NT	MD
55-027-0001	Horicon	Y	C, F M	C, F	C	HS		HS	Y, RF		Y	H S	Y	Y		T (GEM, GOM & PBM)
55-055-0002	Jefferson	S							RF							

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AQS #	Site Name	O3	PM _{2.5}	PM ₁₀	PM Crs	SO ₂	NO ₂	CO	MET	Pb - TSP	Metals (PM ₁₀)	NOy	PAH	VOC Carb -onyl	NTN	Hg
55-025-0041	Madison East	S	C, Cc, F			Start – 1/1/13			Y							
55-025-0047	Madison University		F	F												

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Rockford-Janesville-Beloit Interstate AQCR

The Rockford-Janesville-Beloit air region combines agricultural activities with the Beloit Janesville, Wisconsin and Rockford, Illinois urban-industrial areas. The Wisconsin portion of the air region, Rock county, is mostly flat farmland which becomes gently rolling farmland near the Rock River. Industry in the region consists of manufacturing, foundry operations and electrical power plants.



Current Rockford – Janesville – Beloit Monitoring Sites

AQS #	Site Name	CBSA or MSA	Latitude Longitude	Address	City	County	Site Est.
55-105-0024	Beloit	Janesville-Beloit, WI	42.50908 -89.06281	1948 Merrill St	Beloit	Rock	4/6/94

Current Rockford – Janesville – Beloit Monitors

AQS #	Site Name	O3	PM _{2.5}	PM ₁₀	PM Crs	SO ₂	NO ₂	CO	MET	Pb TSP	Metals (PM ₁₀)	NOy	PAH	VOC Carb -onyl	NTN	Hg
55-105-0024	Beloit	S														

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 Y – Year round monitoring

Southwestern Wisconsin - Metropolitan Dubuque, Iowa Interstate AQCR

This air region is primarily agricultural and covers one county in Wisconsin and several in Iowa. Grant County in Wisconsin consists of gently rolling farmland and is bordered by the



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Mississippi River. The only major city - Dubuque, Iowa - is across the Mississippi River and to the southwest of the Wisconsin portion of the region. Industry in Dubuque is mainly farm related chemical and equipment manufacturing.

Current Metropolitan Dubuque Monitoring Sites

AQS #	Site Name	CBSA or MSA	Latitude Longitude	Address	City	County	Site Est.
55-043-0009	Potosi		42.693 -90.698	128 Hwy 61, Potosi Township		Grant	1/6/99

Current Metropolitan Dubuque Monitors

AQS #	Site Name	O ₃	PM _{2.5}	PM ₁₀	PM Crs	SO ₂	NO ₂	CO	MET	Pb - TSP	Metals (PM ₁₀)	NOy	P A H	VOC/ Carbonyl	NTN	Hg
55-043-0009	Potosi		C, F						Y							

c – Collocated monitor

D – Discontinued

HS – High Sensitivity

MD – Mercury Deposition Network

P – PAMS and schedule

S – Seasonal monitoring

T – Tekran

C – Continuous

F – Federal Reference Method

M - Fine Particle Speciation – Cation/Anion/Carbon

NT – National Trends Network

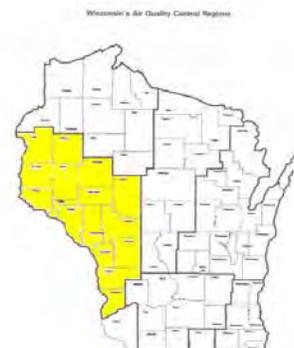
RF – Precipitation for National Weather Service

SP - Special purpose, may not meet siting criteria

Y – Year round monitoring

Southeast Minnesota – La Crosse (West Central Wisconsin) Interstate AQCR

This air region ranges from un-glaciated rolling hills and farmland in the south to extensive wooded areas and lakes in the north. The Wisconsin portion of the Southeast Minnesota-La Crosse air region has a varied topography. The northwestern part (i.e., north of La Crosse) is rugged and characterized by ridge crests, in contrast to the broad flat-topped divides of the region lying between the La Crosse and Wisconsin Rivers. The Mississippi gorge runs along the western edge of Wisconsin. The top of the gorge is over 400 feet above the river on both the Wisconsin and Minnesota sides.



Current Southeast Minnesota – LaCrosse Monitoring Sites

AQS #	Site Name	CSA or UA	Latitude Longitude	Address	City	County	Site Est.
55-035-0014	Eau Claire Dept of Transportation	Eau Claire- Menominee, WI	44.761 -91.413	5509 Highway 53 South	Eau Claire	Eau Claire	1/1/2011
55-063-0012	Lacrosse- DOT	La Crosse, WI- MN	43.7775 -91.2269	3550 Mormon Coulee Rd	La Crosse	La Crosse	10/13/2005
55-123-0008	Wildcat Mountain		43.70222 -90.56833	Wildcat Mountain State Park, Hwy 33,	Ontario	Vernon	7/3/89

Current Southeast Minnesota – LaCrosse Monitors

AQS #	Site Name	O ₃	PM _{2.5}	PM ₁₀	PM Crs	SO ₂	NO ₂	CO	MET	Pb – TSP	Metals (PM ₁₀)	N O y	P A H	VOC/ Carbonyl	NTN	Hg
55-035-0014	Eau Claire DOT	S	C, F						Y							
55-063-0012	Lacrosse-DOT	S	C, F						Y							
55-123-0008	Wildcat Mountain															MD

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 Y – Year round monitoring

Northwest Wisconsin - Duluth, Minnesota Interstate Air Quality Control Region

The Wisconsin portion of the Duluth-Superior air region has two geographically distinct areas. The northern portions of Bayfield, Douglas, and Ashland counties are lowland plains. The climate in these regions is affected by Lake Superior. The region south of these plains is generally flat, interrupted by hills (600-800 feet). In Price and Washburn counties, 80% of the area is forested. Superior is one of the major industrial cities in the area, as well as a major Great Lakes' port with significant coal and grain handling activity. Duluth, a heavily industrialized city, is across the St. Louis River just to the west of Superior. Throughout the rest of the region there are scattered lumbering operations and paper mills.



Current Northwest Wisconsin – Duluth Minnesota Monitoring Sites

AQS #	Site Name	CSA or UA	Latitude Longitude	Address	City	County	Site Est.
55-003-0010-	Bad River (Tribal site)		46.602344 -90.656153	Bad River Tribal School – Odanah		Ashland	7/25/02
55-119-8001	Perkinstown		45.2066 -90.5972	W10746 Cty Rd. M		Taylor	1/1/88
NA	Brule River					Douglas	3/5/96
NS	Spoooner		45.822 -91.874			Washburn	6/3/80
55-031-0019	Superior Sewage Treatment Plt		46.72694 -92.07167	Avenue E	Superior	Douglas	11/21/84

Current Northwest Wisconsin – Duluth Minnesota Monitors

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AQS #	Site Name	O ₃	PM _{2.5}	PM ₁₀	PM Crs	SO ₂	NO ₂	CO	MET	Pb - TSP	Metals (PM ₁₀)	NO _y	VOC/Carbonyl	P A H	NTN	Hg
55-003-0010	Bad River (Tribal site)	Y	C, F, Fc						Y							T (GEM, GOM & PBM) – Start 3/27/12
55-119-8001	Perkinstown		C, F, M													
NA	Brule River														NT	MD
NA	Spooner														NT	
55-031-0019	Superior STP								Y							

c – Collocated monitor

D – Discontinued

HS – High Sensitivity

MD – Mercury Deposition Network

P – PAMS and schedule

S – Seasonal monitoring

T – Tekran

C – Continuous

F – Federal Reference Method

M – Fine Particle Speciation – Cation/Anion/Carbon

NT – National Trends Network

RF – Precipitation for National Weather Service

SP – Special purpose, may not meet siting criteria

Y – Year round monitoring

North Central Wisconsin Intra-State Air Quality Control Region

The North Central Wisconsin air region extends from the Northern Highland south through the Central Plain. The flat surface of the Northern Highland slopes from elevations as high as 1,700 feet on the north to 1,000 feet on the south and is interrupted by numerous hills. In the northern counties, most of the land is forested. For example, in Vilas County, 80% of the land area is in forests. South of Marathon county, most of the land is agricultural generally flat with less than 100 feet of relief. Population and industry are concentrated along the Wisconsin River Valley in the Wausau, Stevens Point and Wisconsin Rapids area. Major industrial activity consists of paper mills and electrical power generation.



Current North Central Wisconsin Monitoring Sites

AQS #	Site Name	CSA or MSA	Latitude Longitude	Address	City	County	Site Est.
55-085-0004	Harshaw		45.67806 -89.63222	4398 Grace Lane,	Harshaw	Oneida	Discontinued October 2011
55-073-0012	Lake DuBay	Wausau, WI	44.70722 -89.76972	1780 Bergen Rd, Bergen Township		Marathon	9/25/91
55-041-0007	Potawatomi (Tribal site)		45.56498 -88.80859	Fire Tower Rd,	Crandon	Forest	1/15/04
55-085-0996	Rhinelander		45.64505 -89.41848	434 High St.	Rhinelander	Oneida	4/13/91
55-125-0001	Trout Lake		46.052 -89.653	Trout Lake Nursery, 10810 County Hwy M	Boulder Junction	Vilas	1/1/73

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Current North Central Wisconsin Monitors

AQS #	Site Name	O ₃	PM _{2.5}	PM ₁₀	PM Crs	SO ₂	NO ₂	CO	MET	Pb TSP	Metals (PM ₁₀)	NO _y	PAH	VOC/ Carbonyl	NTN	Hg
55-073-0012	Lake DuBay	S							Y						NT	
55-037-0001	Popple River														NT	MD
55-041-0007	Potawatomi	Y	C, F			Y			Y					Y		T(GEM)
55-085-0996	Rhineland					Y			Y							
55-125-0001	Trout Lake	S	F													MD

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 S – Seasonal monitoring
 T – Tekran

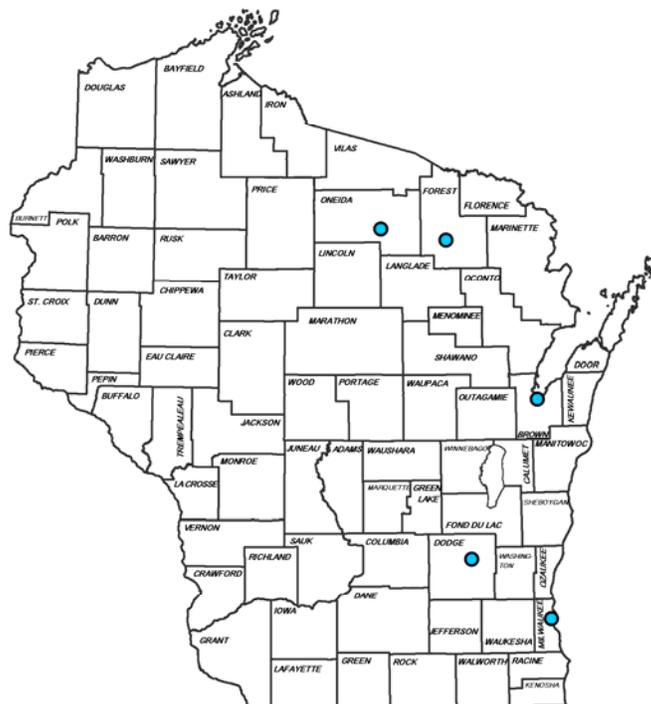
C – Continuous
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 SP - Special purpose, may not meet siting criteria
 Y – Year round monitoring

Monitoring Sites by Pollutant

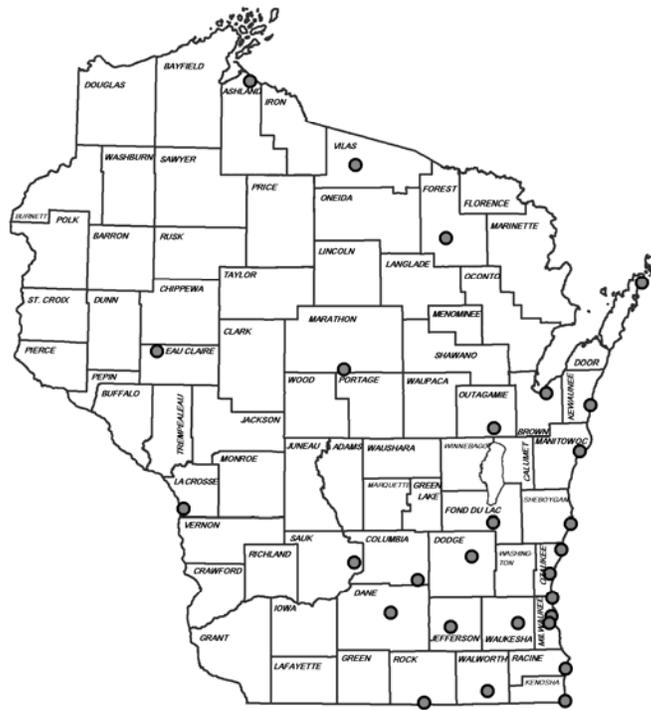
Nitrogen Dioxide (NO₂) Network Map



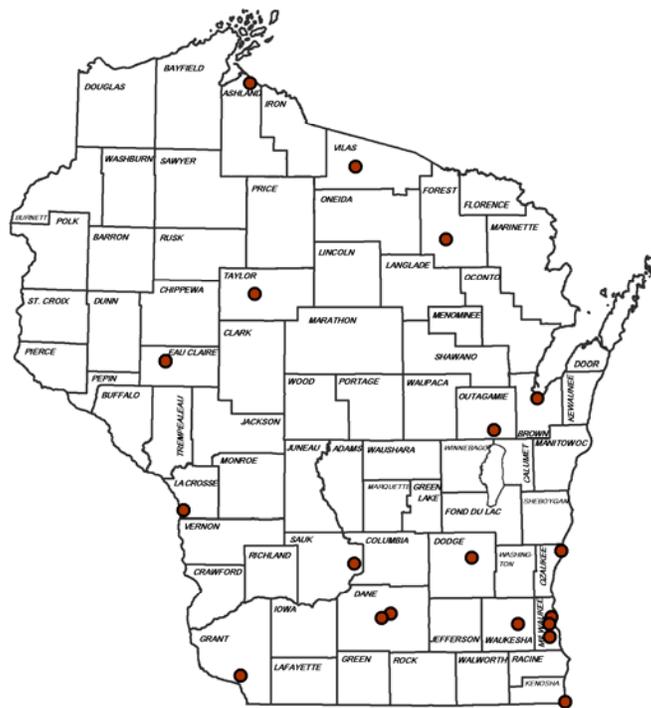
Sulfur Dioxide (SO₂) Network Map



Ozone Network Map



PM_{2.5} Continuous and Filter Based (FRM) Network Map



Report of Monitoring Sites by Pollutant

Carbon Monoxide (CO)						
Site Name	Urban Area	AQS	Address	City	County	Comments
Horicon Wildlife Area	None	55-027-0001	1210 N Palmatory St	Horicon	Dodge	High Sensitivity NCore
Enhanced Ozone Monitoring (EOM – PAMS)						
Site Name	Urban Area	AQS	Address	City	County	Comments
Harrington Beach Park	Milwaukee-Waukesha, WI	55-089-0009	531 Hwy D		Ozaukee	Ozone, MET
Manitowoc Woodland Dunes		55-071-0007	2315 Goodwin Rd	Two Rivers	Manitowoc	Ozone, MET, NOx and NOy
Milwaukee SER DNR HDQRS	Milwaukee-Waukesha, WI	55-079-0026	2300 N M. L. King Jr. Dr.	Milwaukee	Milwaukee	Ozone, MET, NOx, NOy, PAMS VOCs & Carbonyls
Nitrogen Dioxide (NO₂)						
Site Name	Urban Area	AQS	Address	City	County	Comments
Manitowoc Woodland Dunes		55-071-0007	2315 Goodwin Rd	Two Rivers	Manitowoc	PAMS – High Sensitivity
Milwaukee SER DNR HDQRS	Milwaukee-Waukesha, WI	55-079-0026	2300 N M. L. King Jr. Dr.	Milwaukee	Milwaukee	PAMS
Nitrogen, Reactive Oxides (NOy)						
Site Name	Urban Area	AQS	Address	City	County	Comments
Horicon Wildlife Area	None	55-027-0001	1210 N Palmatory St	Horicon	Dodge	High Sensitivity NCore
Manitowoc Woodland Dunes		55-071-0007	2315 Goodwin Rd	Two Rivers	Manitowoc	PAMS
Milwaukee SER DNR HDQRS	Milwaukee-Waukesha, WI	55-079-0026	2300 N M. L. King Jr. Dr	Milwaukee	Milwaukee	PAMS
NADP NTN - MDN						
Site Name	Urban Area	AQS	Address	City	County	Comments
Brule River					Douglas	MDN
Devils Lake		55-111-0007	E12886 Tower Rd	Baraboo	Sauk	MDN (Event Sampling)
Lake DuBay		55-073-0012			Marathon	NTN
Lake Geneva		55-127-0005	RR #4 Elgin Club Rd	Lake Geneva	Walworth	NTN MDN
Milwaukee – UWM North	Milwaukee-Waukesha, WI	55-079-0041				MDN

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Popple River		55-037-0001	Fire Station #565	Popple River	Florence	NTN MDN
Spooner	None				Washburn	NTN
Suring	None				Oconto	NTN
Trout Lake		55-073-0012	10810 County Hwy M	Boulder Junction		NTN MDN
Wildcat Mountain	None	55-123-0008	Wildcat Mountain State Park Hwy 33	Ontario	Vernon	NTN
Ozone (O₃)						
Site Name	Urban Area	AQS	Address	City	County	Comments
Appleton AAL	Appleton - Neenah, WI	55-087-0009	4432 N Meade St	Appleton	Outagamie	
Bad River Tribal School-Odanah		55-003-0010	Bad River Tribal School - Odanah		Ashland	Tribal - Year Round
Bayside	Milwaukee - Waukesha, WI	55-079-0085	601 E. Ellsworth Lane	Bayside	Milwaukee	
Beloit-Cunningham	Janesville-Beloit, WI	55-105-0024	1948 Merrill St	Beloit	Rock	
Chiwaukee Prairie Stateline	Kenosha, WI	55-059-0019	Chiwaukee Prairie, 11838 First Court	Pleasant Prairie	Kenosha	April 1 – October 31 Chicago CSA
Columbus		55-021-0015	Wendt Rd,	Columbus	Columbia	Madison CSA – maximum downwind
Devils Lake Park		55-111-0007	Devils Lake State Park, E12886 Tower Rd		Sauk	
Eau Claire – DOT Sign Shop	Eau Claire	55-035-0014	5509 Highway 53 South	Eau Claire	Eau Claire	
Fond du Lac		55-039-0006	N3996 Kelly Rd,	Town of Byron	Fond du Lac	
Grafton	Milwaukee - Waukesha, WI	55-089-0008	Hwy32 And I43	Grafton	Ozaukee	
Green Bay UW	Green Bay, WI	55-009-0026	UW-Green Bay, Hwys 54 & 57	Green Bay	Brown	
Harrington Beach Park	Milwaukee - Waukesha, WI	55-089-0009	Harrington Beach State Park, 531 Hwy D		Ozaukee	
Horicon Wildlife Area		55-027-0001	1210 N Palmatory St	Horicon	Dodge	Year-round; NCore and National Air Toxics Trends site
Jefferson		55-055-0002	.Jefferson HS, Willow Dr.	Jefferson	Jefferson	
Kewaunee		55-061-0002	Route 1, Hwy 42	Kewaunee	Kewaunee	
LaCrosse-DOT Building	La Crosse, WI-MN	55-063-0012	3550 Mormon Coulee Rd	La Crosse	La Crosse	

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Lake DuBay		55-073-0012	1780 Bergen Rd, Bergen Tnshp		Marathon	
Lake Geneva		55-127-0005	RR4 Elgin Club Rd	Lake Geneva	Walworth	
Madison East	Madison, WI	55-025-0041	2302 Hoard St	Madison	Dane	
Manitowoc Woodland Dunes		55-071-0007	2315 Goodwin Rd	Two Rivers	Manitowoc	
Milwaukee SER DNR HDQRS	Milwaukee-Waukesha, WI	55-079-0026	2300 N M. L. King Jr. Dr	Milwaukee	Milwaukee	Year Round
Milwaukee Sixteenth St Health Center	Milwaukee-Waukesha, WI	55-079-0010	1337 So 16th St	Milwaukee	Milwaukee	Environmental Justice
Newport Park		55-029-0004	475 CTH NP (Near Ellison Bay)		Door	Maximum downwind
Potawatomi		55-041-0007	Fire Tower Rd, Potawatomi Site	Crandon	Forest	Tribal – Year Road
Racine	Racine, WI	55-101-0017	1519 Washington Ave	Racine	Racine	
Sheboygan Kohler Andre	Sheboygan, WI	55-117-0006	1520 Beach Park Road		Sheboygan	
Trout Lake		55-125-0001	Trout Lake Nursery, 10810 County Hwy M	Boulder Junction	Vilas	
Waukesha-Cleveland Ave	Milwaukee-Waukesha, WI	55-133-0027	1310 Cleveland Ave	Waukesha	Waukesha	
Lead (Pb)						
Site Name	Urban Area	AQS	Address	City	County	Comments
Kohler	Sheboygan	55-117-0008		Kohler	Sheboygan	Source Oriented
Metals (Toxics)						
Site Name	Urban Area	AQS	Address	City	County	Comments
Horicon Wildlife Area		55-027-0001	Mayville, Near N6705 Madison Rd		Dodge	National Air Toxics Trends Site
Milwaukee Sixteenth St Health Center	Milwaukee-Waukesha, WI	55-079-0010	Health Center, 1337 So 16th St	Milwaukee	Milwaukee	Toxics – Not for NAAQS
PAMS VOCs and Carbonyls						
Site Name	Urban Area	AQS	Address	City	County	Comments
Milwaukee SER DNR HDQRS	Milwaukee-Waukesha, WI	55-079-0026	2300 N M. L. King Jr. Dr	Milwaukee	Milwaukee	1 in 6; autoGC not functioning halted the monitoring
PM Coarse						
Site Name	Urban Area	AQS	Address	City	County	Comments
Horicon Wildlife Area	None	55-027-	1210 N Palmatory St	Horicon	Dodge	NCore - Continuous

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PM ₁₀						
Site Name	Urban Area	AQS	Address	City	County	Comments
Milwaukee SER DNR HDQRS	Milwaukee-Waukesha, WI	55-079-0026	2300 N M. L. King Jr. Dr	Milwaukee	Milwaukee	Continuous
Devil's Lake	None	55-111-0007	Devils Lake State Park, E12886 Tower Rd		Sauk	Continuous
Madison University Ave.	Madison, WI	55-025-0047	2557 University Ave	Madison	Dane	
Horicon Wildlife Area	None	55-027-0001	1210 N Palmatory St	Horicon	Dodge	NCORE - Continuous
Milwaukee College Ave Park & Ride	Milwaukee-Waukesha, WI	55-079-0058	1550 W College Ave	Milwaukee	Milwaukee	
Milwaukee SER DNR HDQRS	Milwaukee-Waukesha, WI	55-079-0026	2300 N M. L. King Jr. Dr	Milwaukee	Milwaukee	Continuous
Milwaukee Sixteenth St Health Center	Milwaukee-Waukesha, WI	55-079-0010	Health Center, 1337 So 16th St	Milwaukee	Milwaukee	Toxics – Not for NAAQS
Devil's Lake	None	55-111-0007	Devils Lake State Park, E12886 Tower Rd		Sauk	Continuous
Waukesha-Cleveland Ave	Milwaukee-Waukesha, WI	55-133-0027	1310 Cleveland Ave	Waukesha	Waukesha	SIP Area

PM _{2.5}						
Site Name	Urban Area	AQS	Address	City	County	Comments
Appleton AAL	Appleton-Neenah, WI	55-087-0009	4432 N Meade St	Appleton	Outagamie	FRM daily; Continuous BAM
Bad River Tribal School-Odanah		55-003-0010	Bad River Tribal School - Odanah		Ashland	Tribal FRM every 6 days; Collocated FRM every 6 days
Chiwaukee Prairie Staline	Kenosha, WI	55-059-0019	Chiwaukee Prairie, 11838 First Court	Pleasant Prairie	Kenosha	FRM every 3 days; Continuous BAM
Devils Lake Park		55-111-0007	E12886 Tower Rd		Sauk	FRM every 6 days; Collocated FRM every 12 days; 2 collocated TEOMs; 2 collocated BAMs
Eau Claire DOT		55-035-0014	5509 Highway 53 South	Eau Claire	Eau Claire	FRM every 6 days; Continuous TEOM
Green Bay East High	Green Bay, WI	55-009-0005	1415 E. Walnut	Green Bay	Brown	FRM daily; Collocated FRM every 12 days; Continuous BAM
Harrington Beach Park	Milwaukee-Waukesha, WI	55-089-0009	531 Hwy D		Ozaukee	FRM every 6 days; Continuous BAM

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Horicon Wildlife Area		55-027-0001	1210 N Palmatory St	Horicon	Dodge	NCORE; Speciation FRM every 3 days; Continuous BAM
Lacrosse-DOT Building	La Crosse, WI-MN	55-063-0012	3550 Mormon Coulee Rd	La Crosse	La Crosse	FRM every 3 days; Continuous TEOM
Madison East	Madison, WI	55-025-0041	2302 Hoard St	Madison	Dane	FRM every 6 days; Continuous TEOM
Madison University Ave.	Madison, WI	55-025-0047	2557 University Ave	Madison	Dane	FRM daily
Milwaukee College Avenue Park & Ride	Milwaukee-Waukesha, WI	55-079-0058	1550 W College Ave	Milwaukee	Milwaukee	FRM every 6 days; Continuous BAM
Milwaukee Fire Dept HQ	Milwaukee-Waukesha, WI	55-079-0099	744 W. Wells St.	Milwaukee	Milwaukee	FRM every 3 days
Milwaukee SER DNR HDQRS	Milwaukee-Waukesha, WI	55-079-0026	DNR SER Hdqrts, 2300 N M. L. King Jr. Dr	Milwaukee	Milwaukee	Speciation FRM every 6 days; Collocated FRM every 12 days; Continuous BAM
Milwaukee Sixteenth St Health Center	Milwaukee-Waukesha, WI	55-079-0010	Health Center, 1337 So 16th St	Milwaukee	Milwaukee	FRM every 3 days
Perkinstown		55-119-8001	1 Mi E. Perkinstown On State Road M		Taylor	Speciation FRM every 6 days; Continuous BAM
Potawatomi		55-041-0007	Fire Tower Rd, Potawatomi Site	Crandon	Forest	Tribal FRM every 6 days; Continuous BAM
Potosi		55-043-0009	128 Hwy 61, Potosi Township		Grant	FRM every 3 days; Continuous BAM
Trout Lake		55-125-0001	Trout Lake Nursery, County Hwy M	Boulder Junction	Vilas	FRM every 6 days
Waukesha-Cleveland Ave	Milwaukee-Waukesha, WI	55-133-0027	1310 Cleveland Ave	Waukesha	Waukesha	Speciation FRM every 6 days; Continuous BAM
PM_{2.5} Speciation						
Site Name	Urban Area	AQS	Address	City	County	Comments
Green Bay East High	Green Bay, WI	55-009-0005	1415 E. Walnut	Green Bay	Brown	
Horicon Wildlife Area		55-027-0001	1210 N Palmatory St	Horicon	Dodge	NCORE
Milwaukee SER DNR HDQRS	Milwaukee-Waukesha, WI	55-079-0026	DNR SER Hdqrts, 2300 N M. L. King Jr. Dr	Milwaukee	Milwaukee	
Perkinstown		55-119-8001	SR.M - 1 Mi E. of Perkinstown	Perkinstown	Taylor	
Waukesha-Cleveland Ave	Milwaukee-Waukesha, WI	55-133-0027	1310 Cleveland Ave	Waukesha	Waukesha	

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Sulfur Dioxide (SO ₂)						
Site Name	Urban Area	AQS	Address	City	County	Comments
Green Bay East High	Green Bay, WI	55-009-0005	1415 E. Walnut	Green Bay	Brown	SIP-required Source Influenced
Horicon Wildlife Area		55-027-0001	1210 N Palmatory St	Horicon	Dodge	NCore – High Sensitivity
Madison East	Madison, WI	55-025-0041	2302 Hoard St	Madison	Dane	Will be added 1/1/2013 pending adequate federal funding
Milwaukee SER DNR HDQRS	Milwaukee-Waukesha, WI	55-079-0026	DNR SER Hdqrts, 2300 N M. L. King Jr. Dr	Milwaukee	Milwaukee	
Potawatomi		55-041-0007	Fire Tower Rd, Potawatomi Site	Crandon	Forest	Tribal
Rhinelander Tower		55-085-0996	Rhinelander Water Tower, Lake & High St.	Rhinelander	Oneida	Source oriented; SIP Requirement
Toxics						
Site Name	Urban Area	AQS	Address	city	County	Comments
Horicon Wildlife Area		55-027-0001	1210 N Palmatory St	Horicon	Dodge	
Milwaukee Sixteenth St Health Center	Milwaukee-Waukesha, WI	55-079-0010	1337 So 16th St	Milwaukee	Milwaukee	Environmental Justice Area
Meteorology (MET)						
Site Name	Urban Area	AQS	Address	city	County	Comments
Bad River Tribal School-Odanah		55-003-0010	Bad River Tribal School - Odanah		Ashland	
Chiwaukee Prairie Stateline	Kenosha, WI	55-059-0019	Chiwaukee Prairie, 11838 First Court	Pleasant Prairie	Kenosha	
Columbus		55-021-0015	Wendt Rd, Columbus	Columbus	Columbia	
Devils Lake Park		55-111-0007	Devils Lake State Park, E12886 Tower Rd		Sauk	
Eau Claire DOT		55-035-0014	5509 Highway 53 South	Eau Claire	Eau Claire	
Grafton	Milwaukee-Waukesha, WI	55-089-0008	Grafton, Hwy32 And I43	Grafton	Ozaukee	
Harrington Beach Park	Milwaukee-Waukesha, WI	55-089-0009	531 Hwy D		Ozaukee	
Horicon Wildlife Area		55-027-0001	1210 N Palmatory St	Horicon	Dodge	NCore
Lacrosse-DOT Building	La Crosse, WI-MN	55-063-0012	3550 Mormon Coulee Rd	La Crosse	La Crosse	
Lake DuBay		55-073-0012	1780 Bergen Rd, Bergen Township		Marathon	

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Lake Geneva		55-127-0005	RR4 Elgin Club Rd	Lake Geneva	Walworth	
Madison East	Madison, WI	55-025-0041	2302 Hoard St	Madison	Dane	
Manitowoc Woodland Dunes		55-071-0007	2315 Goodwin Rd	Two Rivers	Manitowoc	
Milwaukee SER DNR HDQRS	Milwaukee-Waukesha, WI	55-079-0026	DNR Ser Hdqrts, 2300 N M. L. King Jr. Dr	Milwaukee	Milwaukee	
Milwaukee Sixteenth St Health Center	Milwaukee-Waukesha, WI	55-079-0010	1337 So 16th St	Milwaukee	Milwaukee	
Milwaukee – UWM North	Milwaukee-Waukesha, WI	55-079-0041	2114 E Kenwood Ave	Milwaukee	Milwaukee	
Newport Park		55-029-0004	475 CTH NP (Near Ellison Bay)		Door	
Potawatomi		55-041-0007	Fire Tower Rd, Potawatomi Site	Crandon	Forest	
Potosi		55-043-0009	128 Hwy 61, Potosi Township		Grant	
Racine	Racine, WI	55-101-0017	1519 Washington Ave	Racine	Racine	
Rhineland Tower		55-085-0996	Rhineland Water Tower, Lake & High St.	Rhineland	Oneida	Source oriented; SIP Requirement
Sheboygan Kohler Andre	Sheboygan, WI	55-117-0006	1520 Beach Park Road		Sheboygan	
Superior Sewage Treatment Plant	Duluth-Superior	55-031-0019	Avenue E	Superior	Douglas	Supports industrial monitoring
Waukesha-Cleveland Ave	Milwaukee-Waukesha, WI	55-133-0027	1310 Cleveland Ave	Waukesha	Waukesha	

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Monitoring sites by County

Note: NADP National Trends and Mercury Deposition Network sites are not indicated on this list.

Site Name	AQS	Pollutants	Address	Site Began
County: Ashland				
Bad River	55-003-0010	O3, PM2.5, MET	Bad River Tribal School - Odanah	25-Jul-2002
County: Brown				
Green Bay E High	55-009-0005	SO2, PM2.5, Cont. PM2.5, Speciation	East High, 1415 E. Walnut	24-Jul-1980
Green Bay UW	55-009-0026	O3	UW-Green Bay, Hwys 54 & 57	07-Apr-1994
County: Columbia				
Columbus	55-021-0015	O3, WS, WD, T, Precip	Wendt Rd, Columbus	11-Aug-1988
County: Dane				
Madison East	55-025-0041	O3, Cont. PM2.5, MET	East High, 2302 Hoard St	15-Apr-1992
Madison University Ave	55-025-0047	PM10, PM2.5	2557 University Ave	01-Mar-1999
County: Dodge				
Horicon Wildlife Area	55-027-0001	CO, SO2, NOy, O3, PM10, PM2.5, Cont. PM2.5, Speciation, PMCoarse, Toxic Metals, VOCs, Carbonyls, PAHs, MET	1210 N Palmatory St	18-Dec-2009
County: Door				
Newport	55-029-0004	O3, MET	475 CTH NP (Near Ellison Bay)	15-Apr-1989
County: Douglas				
Superior Sewage Treatment Plant	55-031-0019	MET	Avenue E	24-Nov-1984
County: Eau Claire				
Eau Claire	55-035-0014	O3, PM2.5, Cont. PM2.5, MET	5509 HWY 53 South	01-Jan-2011
County: Fond du Lac				
Fond du Lac	55-039-0006	O3	N3996 Kelly Rd, Town of Byron	22-Apr-1994
County: Forest				
Potawatomi	55-041-0007	SO2, O3, PM2.5, Cont. PM2.5, MET	Fire Tower Rd, Potawatomi Site	04-Jun-2002
County: Grant				
Potosi	55-043-0009	PM2.5; Cont. PM2.5, MET	128 Hwy 61, Potosi Township	06-Jan-1999
County:				

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Jefferson				
Jefferson	55-055-0002	O3, Precip	Jefferson H.S. Trailer, Willow Dr.	15-Apr-1988
County: Kenosha				
Chiwaukee	55-059-0019	O3, PM2.5, Cont. PM2.5, MET, Precip	Chiwaukee Prairie, 11838 First St	15-Apr-1988
County: Kewaunee				
Kewaunee	55-061-0002	O3	Kewaunee, Route 1, Hwy 42	06-Apr-1994
County: La Crosse				
Lacrosse-DOT	55-063-0012	O3, PM2.5, Cont. PM2.5, MET	3550 Mormon Coulee Rd	13-Oct-2005
County: Manitowoc				
Manitowoc	55-071-0007	NO2, NOy, O3, MET	Manitowoc/Woodland Dunes, 2315 Goodwin Rd	05-Apr-1994
County: Marathon				
Lake DuBay	55-073-0012	O3, MET	Lake Dubai, 1780 Bergen Rd, Bergen Tnshp	25-Sep-1991
County: Milwaukee				
Milw Sixteenth St.	55-079-0010	O3, PM10, PM2.5, VOCs, Carbonyls, Toxic metals, MET	Health Center, 1337 So 16th St	04-Apr-1997
Milw SER DNR HQ	55-079-0026	NO2, NOy, O3, SO2, PM2.5, Cont. PM2.5, Cont. PM crs, Speciation, PAMS VOCs and Carbonyls, MET	DNR SER HQ, 2300 N M. L. King Jr. Dr	31-Dec-1998
Milw UWM	55-079-0041	MET	UWM North Campus, 2114 E Kenwood Blvd	01-Jan-1973
Milw College Ave Park & Ride	55-079-0058	PM10, PM2.5, Cont. PM2.5		03-Nov-2009
Bayside	55-079-0085	O3	601 E. Ellsworth Lane	01-May- 1984
Milw – Fire Dept. HQ	55-079-0099	PM2.5	744 W. Wells St.	01-Jan-1970
County: Oneida				
Rhineland	55-085-0996- 42401-1	SO2, MET	Rhineland Water Tower, Lake & High St.	13-Apr-1991
County: Outagamie				
Appleton AAL	55-087-0009	O3, PM2.5, Cont. PM2.5	4432 N Meade St	15-Apr-1995
County: Ozaukee				
Grafton	55-089-0008	O3, MET	Grafton, Hwy32 And I43	05-Jun-1991

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Harrington Beach	55-089-0009	O3, PM2.5, Cont. PM2.5, MET	Harrington Beach State Park, 531 Hwy D	15-Jun-1994
County: Racine				
Racine	55-101-0017	O3, MET	1519 Washington Ave	01-Jan-1997
County: Rock				
Beloit	55-105-0024	O3	1948 Merrill St	06-Apr-1994
County: Sauk				
Devils Lake	55-111-0007	O3, PM2.5, Cont. PM2.5, Cont. PM10, PMcrs, MET	Devils Lake State Park, E12886 Tower Rd	09-Aug-1996
County: Sheboygan				
Sheboygan	55-117-0006	O3, MET	Kohler Andre Park, 1520 Beach Park Road	26-Jun-1997
County: Taylor				
Perkinstown	55-119-8001	PM2.5, Cont. PM2.5, Speciation	1 Mi E. Perkinstown On State Road M	01-Jan-1988
County: Vilas				
Trout Lake	55-125-0001	O3, PM2.5	Trout Lake Nursery, 10810 County Hwy M	16-Dec-1992
County: Walworth				
Lake Geneva	55-127-0005	O3, MET	Lake Geneva NADP Site, Rr4 Elgin Club Rd	27-Feb-1991
County: Waukesha				
Wauk-Cleveland	55-133-0027	O3, PM10, PM2.5, Cont. PM2.5, Speciation, MET	1310 Cleveland Ave	31-Jan-1989

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Site Descriptions

Each active site contains a standard set of information. Sites that have been discontinued in the recent past are retained in the report for at least one year following shut down. However, detailed site information with parameters and methods may not be presented. Sites with NADP monitors only are listed with location information with other details considered to be irrelevant.

Network Site Description Format

The network site descriptions contained in this document include the following information:

1. **Site Description**

Specific information is provided to show the location of the monitoring equipment at the site, the CBSA (if appropriate), the AQS identification number, the GPS coordinates, and whether monitors and monitor probes conform to the siting criteria.

2. **Date established**

The date each existing monitoring site was established.

3. **Site Approval Status**

Whether a monitoring site meets all design criteria for inclusion in the State and Local Air Monitoring Stations (SLAMS) network. Sites that do not meet the criteria will either be relocated in the immediate area or when possible, re-sited at the present location.

4. **Monitoring Objectives**

The monitoring network was designed to provide information to be used as a basis for the following actions:

- To determine compliance with ambient air quality standards and to plan measures to attain these standards.
- To activate emergency control procedures in the event of an impending air pollution episode.
- To observe pollution trends throughout a region, including rural areas and
- To report progress made toward meeting ambient air quality standards.
- To provide a database for the evaluation of the effects of population, land use, and transportation planning on air quality.
- To provide a database for the development and evaluation of air dispersion models.
- To provide the Air Quality Index (AQI) to the public

5. Monitoring Sites' Designations

Most sites described in the 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. In this description of the network, designations are also made for National Core Multi-pollutant Monitoring Stations (NCORE), Special Purpose Monitors (SPM), Emergency Episode Monitoring sites and AQI sites. The following are the criteria used for each of these designations.

SLAMS: Requirements for monitoring provide for the establishment of a network of monitoring sites designated as SLAMS that measure ambient concentrations of those pollutants for which federal ambient air quality standards have been established. These sites must meet requirements that relate to four major areas: quality assurance, monitoring methodology, sampling interval and siting of instruments and instrument probes.

AQI: Certain sites in the SLAMS network provide data for daily index reporting. Index reporting is required for all urban areas with a population exceeding 350,000. The AQI is a method of reporting that converts concentration levels of pollution to a simple number scale of 0-500. Intervals on the AQI scale are related to potential health effects of the daily measured concentrations of the major pollutants. AQI values are updated with every hourly data polling to the public web site and to the Wisconsin Air Monitoring toll free hotline, 1-866-DailyAir .

SPM: 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 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.

NCORE: In October 2006, the US EPA issued final amendments to the ambient air monitoring regulations for criteria pollutants. These amendments are codified in 40 CFR parts 53 and 58. The purpose of the amendments was to enhance ambient air quality monitoring to better serve current and future air quality needs. One of the most significant changes in the regulations was the requirement to establish National Core (NCORE) multi-pollutant monitoring stations. These stations will provide data on several pollutants at lower detection limits and replace the National Air Monitoring Station (NAMS) networks that have existed for several years. Final network plan were submitted to US EPA by July 1, 2009 and the stations were operational by January 1, 2011.

The Wisconsin Department of Natural Resources operated a monitoring site near Mayville from 1994 to 2009. The Mayville site represented a rural location with relatively uniform land use and ambient air concentrations. By April 2007, WDNR began performing high sensitivity continuous gaseous, ozone, filter-based fine

particle, continuous fine particle, speciated fine particle and meteorological monitoring at this location. To assure long-term siting, in December 2009, WDNR moved the monitoring at Mayville to the Horicon Wildlife Area (a state-owned property).

6. Monitoring Methods

All sampling and analytical procedures used in the air monitoring network for determining compliance with regulatory standards conform to Federal reference (FRM), alternate (FAM) or equivalent (FEM) methods. Wisconsin's network includes monitors that use accepted methodologies that are not approved for comparison with the NAAQS for the pollutant e.g., non-Federal Equivalent Method continuous PM_{2.5} instruments.

Fine Particles: Wisconsin operates two types of continuous PM_{2.5} instruments, a Thermo Tapered Element Oscillating Microbalance (TEOM) with FDMS unit and Beta Attenuation Monitors (BAMs). All of the continuous PM_{2.5} TEOM-FDMS (Filter Dynamic Measurement System) monitors in Wisconsin's network measure Total Atmospheric PM_{2.5} that provides data that are neither equivalent to the reference method nor appropriate for direct comparison with the NAAQS. Results from these monitors are used for public health-oriented ambient air monitoring and are the basis for issuing air quality advisories.

In early 2010, Wisconsin began testing federal equivalent method Beta Attenuation Monitors (BAMs). Toward the end of 2010, Wisconsin introduced two PM Coarse (PM₁₀ and PM_{2.5} system) systems into its network. The first instruments were located at the Horicon NCore and Milwaukee SER HQ sites. Operations and data quality have been good. The Department plans to launch additional BAM PM_{2.5} units in its network in 2012 and 2013, as resources permit. None of the BAMs are set-up as FEMs.

Lead: Wisconsin monitors lead for two primary reasons. The first is to compare source-oriented lead concentrations to the federal lead NAAQS. The collocated monitors at Kohler are Hi-volume TSP samplers and data are compared to the NAAQS. The remaining lead monitors in Wisconsin's network are high volume PM₁₀ samplers. These instruments are used for the air toxics monitoring program and the methods are consistent with those in the National Air Toxics Trends program. The lead determination is performed using inductively coupled plasma mass spectroscopy (ICP-MS) that is consistent with the method developed by Pima County, Arizona, which has FEM status. US EPA approved Wisconsin's analytical method in November 2009.

Continuous PM₁₀: At the Horicon NCore, Devil's Lake and Milwaukee-SER sites; a dual Met One Beta Attenuation Monitor measures PM₁₀ and calculates concentrations in both local conditions (LC) and at Standard Temperature and Pressure (STP). The LC measurements are appropriate for calculating coarse particle concentrations but are not appropriate for comparison with the NAAQS. The method for the PM₁₀ STP is a federal equivalent method (FEM) and is appropriate for NAAQS comparison.

7. **Quality Assurance Status**

The WDNR Air Monitoring Section has an extensive quality assurance program to ensure that all air monitoring data collected and reported to US EPA's AQS data system is accurate and precise. Staff members audit air monitors on a scheduled basis to ensure that each instrument is calibrated and operating properly. Data validation is performed monthly by verifying that the data reported by each instrument is recorded accurately in the computerized database.

Exceptions

Meteorology: At special purpose or air toxics monitoring sites, siting for meteorological monitors may not meet the requirements in federal rules. Relative humidity, barometric pressure, and solar radiation may be measured at some sites to aid in instrument maintenance and data interpretation. Equipment calibration and audits for these monitors may not meet federal requirements so the data are not reported to US EPA's AQS data system. At some locations, the National Weather Service (NWS) has provided mechanical tipping buckets for determining hourly precipitation values that are reported to the public website. With the exception of the device at the Horicon site, these devices are not equipped with heaters so they operate in the warmer months (April through October). NWS monitors the results and is responsible for assuring calibration and performing any necessary maintenance. The Air Monitoring Program does no quality assurance of these monitors. Consequently, these results are not reported to US EPA's AQS data system.

Air Toxics: Monitoring schedules, calibrations, audits and collocation frequencies in the NATTS program are not consistent with the federal requirements for criteria pollutants. The data are quality assured before reporting. However, they are not held to the same specifications as the criteria pollutants.

8. **Area of Representativeness**

Each site in the monitoring network must be described in terms of the physical dimensions of the air parcel nearest the monitoring site throughout which actual pollutant concentrations are reasonably similar. Area dimensions or scales of representativeness used in the network description are:

- (a) Micro scale - defines the concentration in air volumes associated with area dimensions ranging from several meters up to about 100 meters.
- (b) Middle scale - defines the concentration typical of areas up to several city blocks in size with dimensions ranging from about 100 meters to 0.5 kilometers (500 meters).
- (c) Neighborhood scale - defines concentrations within an extended area of a city that has relatively uniform land use with dimensions in the 0.5 to 4 kilometers.
- (d) Urban scale - defines an overall citywide condition with dimensions on the order of 4 to 50 kilometers.
- (e) Regional scale - defines air quality level over areas having dimensions of 50 to hundreds of kilometers.

Closely associated with the area around the monitoring site where pollutant concentrations are reasonably similar are the basic monitoring exposures of the site. There are four basic exposures included in this description:

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

Monitoring Exposures	Siting Area Scale
Highest concentration	Micro, Middle, Neighborhood
Population	Neighborhood, Urban
Source impact	Micro, Middle, Neighborhood
General/background	Neighborhood, Regional

The design intent in locating sites is to correctly match the area dimensions represented by the sample of monitored air with the area dimensions most appropriate for the monitoring objective of the site.

Appleton AAL

AQS Site ID: 55-087-0009
Location: 4432 N Meade St., Appleton
County: Outagamie
Coordinates: 44.307,
 -88.395
Date Established: 04/15/1995



CBSA: Appleton
CSA: Appleton-Oshkosh-Neenah, WI
UA: Appleton-Neenah
AQCR: Lake Michigan Intra-State

Site Approval Status: Site and monitor meet all design criteria for the monitoring network

Locational Setting: This site is located in a neighborhood in Appleton. The sample inlets are about 5 meters above ground level and 10 meters from nearest road. The site meets the requirement of 40 CFR 58, Appendices C, D, E and G.

Monitoring Objective: The monitoring objectives are to determine compliance with NAAQS to detect elevated pollutant levels of ozone and PM_{2.5} and to provide pollutant levels for daily air quality index reporting.

Monitors:

Monitor	Monitor Equipment	Designation	Analysis Method	Sampling Frequency	Monitor Est.
Ozone	API Ozone	SLAMS	UV Photometry	Continuous	04/15/1995
PM _{2.5}	R&P FRM2025	SLAMS	Gravimetric	Daily	12/31/1998
PM _{2.5} Total Atmospheric	Met One BAM	SPM & Non-Regulatory	Beta Attenuation	Continuous	08/18/2011

Quality Assurance Status: All Quality Assurance procedures have been implemented in accordance with 40 CFR 58, Appendix A

Area of Representativeness: This site represents population exposure on a neighborhood scale for PM – 2.5 and Ozone.

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Wisconsin Department of Natural Resources

Air Monitoring Network

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Outagamie

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Select one of the listed air quality monitors to zoom to that location:

APPLETON AAL

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Scale: 1:30,633 go Selected Map Tool: Zoom In Zoom In

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Discussions Discussions not available on <http://dnrmaps.wisconsin.gov/>

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Bad River – Odanah (Tribal Site)

AQS Site ID: 55-003-0010
Location: Bad River Tribal School
 Odanah
County: Ashland
GPS Coordinates: 46.602,
 -90.656
Date Established: 07/25/2002



CBSA: None – Rural site
AQCR: Northwest Wisconsin - Duluth, Minnesota Interstate

Site Approval Status: Site and monitor meet all design criteria for the monitoring network.

Locational Setting: This site is located on the Bad River Reservation adjacent to the Tribal School. The sample inlets are 220 m from nearest road. The site meets the requirement of 40 CFR 58, Appendices C, D, E and G.



Monitoring Objective: Tribal, General/Background. The monitoring objectives are to determine compliance with NAAQS to detect elevated pollutant levels of PM2.5 and to provide pollutant levels for daily air quality index reporting.

Monitors:

Monitor	Monitor Equipment	Designation	Analysis Method	Sampling Frequency	Monitor Est.
Mercury (elemental)	Tekran	SPM	Tekran mercury analysis system	Continuous - 5 minutes	03/27/2012
Mercury (speciation)	Tekran	SPM	Tekran mercury speciation analysis system	Continuous - 5 minutes	03/27/2012
Ozone	API Ozone	Tribal	UV Photometry	Continuous	07/30/2004
PM2.5	R&P FRM2025	Tribal	Gravimetric	1 in 6 - collocated	07/25/2002
Wind Speed/Direction, Temperature	Met One Meteorological	Tribal	Ultra Sonic	Continuous	07/26/2004

Quality Assurance Status: All Quality Assurance procedures have been implemented in accordance with 40 CFR 58, Appendix A

Area of Representativeness: This site represents general background levels on a regional scale for PM2.5 and ozone.

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Comments: The original ozone site was located at the Fish Hatchery but was moved to the current site in 2004.

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Address <http://dnrmaps.wisconsin.gov/imf/imf.jsp?site=wisards> Go Links >>

Wisconsin Department of Natural Resources

Air Monitoring Network About

Legend Layers Map Introduction Reports Find Location Home Page Interactive Maps Print Help

Full State Zoom In Zoom Out Zoom Last Move Identify Monitor Info Graph

Zoom to an air quality monitor:

Select a county for which to list air quality monitors:
(Only counties with air quality monitors are listed)

Ashland

You can also type the first few letters of the location name:

Select one of the listed air quality monitors to zoom to that location:

BAD RIVER TRIBAL SCHOOL - ODANAH

No AQI layer selected

Kakagon River

Bad River

Douglas River

Lake Superior

Scale: 1:52,955 go Selected Map Tool: Zoom In Zoom In

WISARDS Reports | AQ Watch/Advisory | Monitoring | Air Staff Contacts | AirNow | DNR Home | Comments on this website |

Discussions Discussions not available on <http://dnrmaps.wisconsin.gov/>

WTM Coordinate: X= 467645, Y= 679475 Meters --- Latitude= 46°35'12" N, Longitude= 90°41'0" W Internet

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2013 Wisconsin Air Monitoring Network Plan

Wisconsin DNR Air Monitoring - Microsoft Internet Explorer provided by Wisconsin DNR

Address: <http://dnrmaps.wisconsin.gov/imf/imf.jsp?site=wisards>

Wisconsin Department of Natural Resources

Air Monitoring Network

Legend Layers Map Introduction Reports Find Location Home Page Interactive Maps Print Help

Full State **Zoom In** Zoom Out Zoom Last Move Identify Monitor Info Graph

Zoom to an air quality monitor:

Select a county for which to list air quality monitors:
(Only counties with air quality monitors are listed)

Ashland

You can also type the first few letters of the location name:

Select one of the listed air quality monitors to zoom to that location:

BAD RIVER TRIBAL SCHOOL - ODANAH

No AQI layer selected

Scale: 1:3,424 Selected Map Tool: Zoom In Zoom In

WISARDS Reports | AQ Watch/Advisory | Monitoring | Air Staff Contacts | AirNow | DNR Home | Comments on this website

Discussions not available on <http://dnrmaps.wisconsin.gov/>

WTM Coordinate: X= 469867, Y= 681139 Meters --- Latitude= 46°36'7.0" N, Longitude= 90°39'16.5" W

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Bayside

AQS Site ID: 55-079-0085
Location: 601 E. Ellsworth Lane,
 Bayside
County: Milwaukee
GPS coordinates: 43.181,
 -87.901
Date Established: 05/01/1984

CBSA: Milwaukee/Waukesha
CSA: Milwaukee-Racine-Waukesha, WI
UA: Milwaukee, WI
AQCR: Southeastern Wisconsin Intra-State



Site Approval Status: Site and monitor meet all design criteria for the monitoring network

This site is located inside the Bayside Middle School, in the boiler room. The sample inlet is about 6 meters above ground level and 258 m from nearest road. The site meets the requirement of 40 CFR 58, Appendices C, D, E and G.



Monitoring Objective: Population exposure. The monitoring objectives are to determine compliance with NAAQS to detect elevated pollutant levels of ozone and to provide pollutant levels for regular air quality index reporting.

Monitors:

Monitor	Monitor Equipment	Designation	Analysis Method	Sampling Frequency	Monitor Est.
Ozone	API Ozone	SLAMS	UV Photometry	Continuous	05/01/1984

Quality Assurance Status: All quality assurance procedures have been implemented in accordance with 40 CFR 58, Appendix A.

Area of Representativeness: This site represents population exposure on a neighborhood scale for ozone.

2013 Wisconsin Air Monitoring Network Plan

Wisconsin DNR Air Monitoring - Microsoft Internet Explorer provided by Wisconsin DNR

Address: <http://dnrmaps.wisconsin.gov/imf/imf.jsp?site=wisards>

Wisconsin Department of Natural Resources

Navigation: Legend, Layers, Map Introduction, Reports, Find Location, Home Page, Interactive Maps, Print, Help, About

Map Controls: Full State, Zoom In, Zoom Out, Zoom Last, Move, Identify, Monitor Info, Graph

Zoom to an air quality monitor:

Select a county for which to list air quality monitors (Only counties with air quality monitors are listed): Milwaukee

You can also type the first few letters of the monitor name:

Select one of the listed air quality monitors to zoom to that location:

- BAYSIDE
- MILWAUKEE APPLETON AVE
- MILWAUKEE - COLLEGE AVE PARK & RIDGE
- MILWAUKEE GREAT LAKES RESEARCH FACILITY
- MILWAUKEE I-94S & LAYTON (FAA)

Map: No AQI layer selected. Lake Michigan. Scale: 1:30,424. Selected Map Tool: Zoom Out

Footer: WISARDS Reports | AQ Watch/Advisory | Monitoring | Air Staff Contacts | AirNow | DNR Home | Comments on this website |

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Beloit

AQS Site ID: 55-105-0024
Location: 1948 Merrill St., Beloit
County: Rock
GPS coordinates: 42.509,
-89.063
Date Established: 04/06/1994

CBSA: Janesville, WI
CSA: None
UA: Beloit, WI-IL
AQCR: Rockford-Janesville-
Beloit Interstate



Site Approval Status: Site and monitor meet all design criteria for the monitoring network

Locational Setting: This site is located in a fenced area at the Cunningham School in Beloit. The sample inlet is 5 meters above ground level and 15 meters from nearest road. The site meets the requirement of 40 CFR 58, Appendices C, D, E and G.

Monitoring Objective: Population Exposure. The monitoring objectives are to determine compliance with NAAQS, to detect elevated pollutant levels of ozone and to provide pollutant levels for daily air quality index reporting.

Monitors:

Monitor	Monitor Equipment	Designation	Analysis Method	Sampling Frequency	Monitor Est.
Ozone	API Ozone	SLAMS	UV Photometry	Continuous	04/15/1994

Area of Representativeness: This site represents population exposure on an urban scale for ozone.

2013 Wisconsin Air Monitoring Network Plan

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Brule River

AQS Site ID: None
Location: Brule River State Park
County: Douglas
GPS coordinates: 46.746,
-91.605
Date Established: 03/05/1996

CBSA: None
AQCR: North Central Wisconsin Intra-State



Site Approval Status: Site and monitor meet all NADP design criteria for the MDN monitoring network.

Locational Setting: This site is located in a field at the end of Brule River Rd on the east side of the road. This site monitors atmospheric mercury deposition. The mercury deposition sampler is located 500 feet from the nearest road.

Monitoring Objective: The objective of the mercury deposition network (MDN) is to develop a national database of weekly concentrations of total mercury in precipitation and the seasonal and annual flux of total mercury in wet deposition. The data is used to develop information on spatial and seasonal trends in mercury deposited to surface waters, forested watersheds, and other sensitive receptors.

Monitors: Wet deposition of mercury

Quality Assurance Status: This site meets National Atmospheric Deposition Program Mercury Deposition Network quality assurance requirements.

Area of Representativeness: This site is representative of regional mercury deposition.

2013 Wisconsin Air Monitoring Network Plan

Wisconsin DNR Air Monitoring - Microsoft Internet Explorer provided by Wisconsin DNR

Address: <http://dnrmaps.wisconsin.gov/imf/imf.jsp?site=wisards>

Wisconsin Department of Natural Resources

Air Monitoring Network

Legend Layers Map Introduction Reports Find Location Home Page Interactive Maps Print Help

Full State Zoom In Zoom Out Zoom Last Move Identify Monitor Info Graph

Zoom To Geographic

Enter the geographic position where you wish to center the map and the width of the map that you wish to show, then press the "OK" button. The map will zoom to the extent that you entered. The position shown is the current map center.

Longitude (DMS):
-91 36 18.00000

Latitude (DMS):
46 44 45.00027

Select the zoom map width:
10 kilometers

OK

Back to main Find Locations page

No AQI layer selected

Lake Superior

Scale: 1:30,256 go Selected Map Tool: Zoom In Zoom In

WISARDS Reports | AQ Watch/Advisory | Monitoring | Air Staff Contacts | AirNow | DNR Home | Comments on this website |

Discussions Discussions not available on <http://dnrmaps.wisconsin.gov/>

WTM Coordinate: X= 397667, Y= 697803 Meters --- Latitude= 46°44'33" N, Longitude= 91°36'5" W

Wisconsin DNR Air Monitoring - Microsoft Internet Explorer provided by Wisconsin DNR

Address: <http://dnrmaps.wisconsin.gov/imf/imf.jsp?site=wisards>

Wisconsin Department of Natural Resources

Air Monitoring Network

Legend Layers Map Introduction Reports Find Location Home Page Interactive Maps Print Help

Full State Zoom In Zoom Out Zoom Last Move Identify Monitor Info Graph

Zoom To Geographic

Enter the geographic position where you wish to center the map and the width of the map that you wish to show, then press the "OK" button. The map will zoom to the extent that you entered. The position shown is the current map center.

Longitude (DMS):
-91 36 18.00000

Latitude (DMS):
46 44 45.00027

Select the zoom map width:
10 kilometers

OK

Back to main Find Locations page

No AQI layer selected

Bois Brule River

Scale: 1:3,256 go Selected Map Tool: Zoom In Zoom In

WISARDS Reports | AQ Watch/Advisory | Monitoring | Air Staff Contacts | AirNow | DNR Home | Comments on this website |

Discussions Discussions not available on <http://dnrmaps.wisconsin.gov/>

WTM Coordinate: X= 397477, Y= 698050 Meters --- Latitude= 46°44'41.1" N, Longitude= 91°36'14.4" W

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Chiwaukee Prairie Stateline

AQS Site ID: 55-059-0019
Location: 11838 First Court, Chiwaukee
 Prairie
County: Kenosha
GPS coordinates: 42.504,
 -87.809
Date Established: 07/15/1987



CBSA: Chicago-Naperville-Joliet, IL-IN-WI
CSA: Chicago-Naperville-Michigan City, IL-IN-WI
UA: Kenosha, WI
AQCR: Southeastern Wisconsin Intra-State

Site Approval Status: Site and monitor meet all design criteria for the monitoring network

Locational Setting: This site is located in the Chiwaukee Prairie, a rural area near the Wisconsin-Illinois border. The sample inlet is 5 meters above ground level and 24 feet from nearest road. The site meets the requirement of 40 CFR 58, Appendices C, D, E and G. This site also has a rain gauge as part of a special project with the National Weather Service.

Monitoring Objective: Regional Transport. The monitoring objectives are to determine compliance with NAAQS, to detect elevated pollutant levels of ozone and PM2.5, and to provide pollutant levels for daily air quality index reporting.

Monitors:

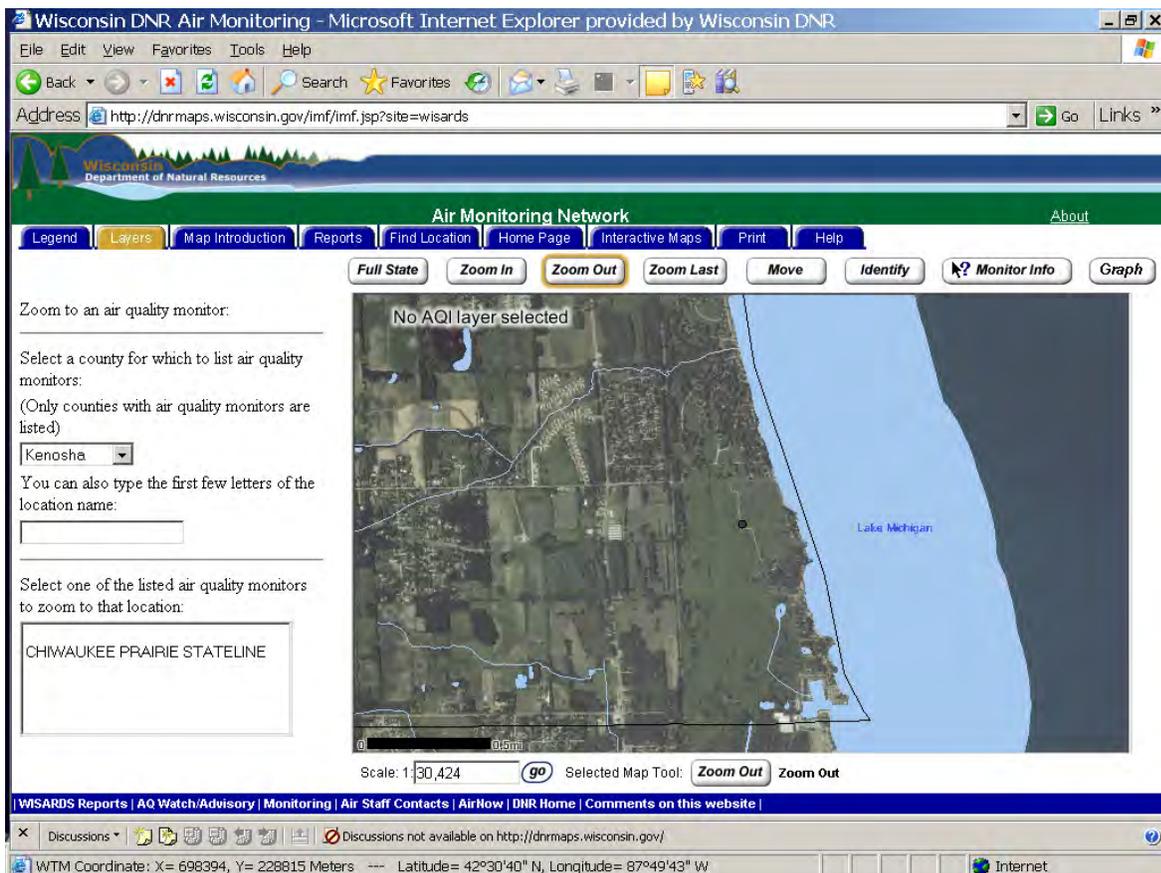
Monitor	Monitor Equipment	Designation	Analysis Method	Sampling Frequency	Monitor Est
Ozone	API Ozone	SLAMS	UV Photometry	Continuous	04/15/1988
PM2.5	R&P TEOM/FDMS-VSCC (- 3/20/2012)	SLAMS	Tapered Element Oscillating Microbalance	Continuous	06/24/2010 Discontinued 09/08/2011
PM2.5 Total Atmospheric	R&P TEOM/FDMS-SCC	SPM & Non-Regulatory	Tapered Element Oscillating Microbalance	Continuous	09/08/2011 Discontinued 3/20/2012
Acceptable PM2.5 Aqi & Speciation Mass	Met One BAM-SCC	SPM & Non-Regulatory	Beta Attenuation	Continuous	03/20/2012
PM2.5	R&P 2025 FRM	SLAMS	Gravimetric	1 in 3	08/31/2011

2013 Wisconsin Air Monitoring Network Plan

Wind Speed/Direction. Temperature	Met-One Meteorological	SLAMS	Mechanical	Continuous	05/23/1988
Precipitation	Texas Electronics	National Weather Service	Mechanical	Continuous	

Quality Assurance Status: All Quality Assurance procedures have been implemented in accordance with 40 CFR 58, Appendix A. The National Weather Service is responsible for all quality control and quality assurance associated with the precipitation monitor.

Area of Representativeness: This site represents regional transport on a regional scale for ozone and PM2.5.



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Columbus

AQS Site ID: 55-021-0015

Location: Wendt Road, Columbus
Township

County: Columbia

GPS coordinates: 43.314,
-89.109

Date Established: 8/10/88

CBSA: Madison, WI

CSA: Madison-Baraboo, WI

UA: Not in an urban area

AQCR: Southern Wisconsin



Site Approval Status: Site and monitor meet all design criteria for the monitoring network.

Locational Setting: This site is located in rural Columbia County on Wendt Road. The sample inlet is 5 meters above ground level and 10 meters from nearest road. The site meets the requirement of 40 CFR 58, Appendices C, D, E and G. This site also has a rain gauge as part of a special project with the National Weather Service.

Monitoring Objective: Regional transport. The monitoring objectives are to determine compliance with NAAQS to detect elevated pollutant levels of ozone and to provide pollutant levels for daily air quality index reporting. The ozone monitor serves as the downwind ozone instrument in the Madison CSA.

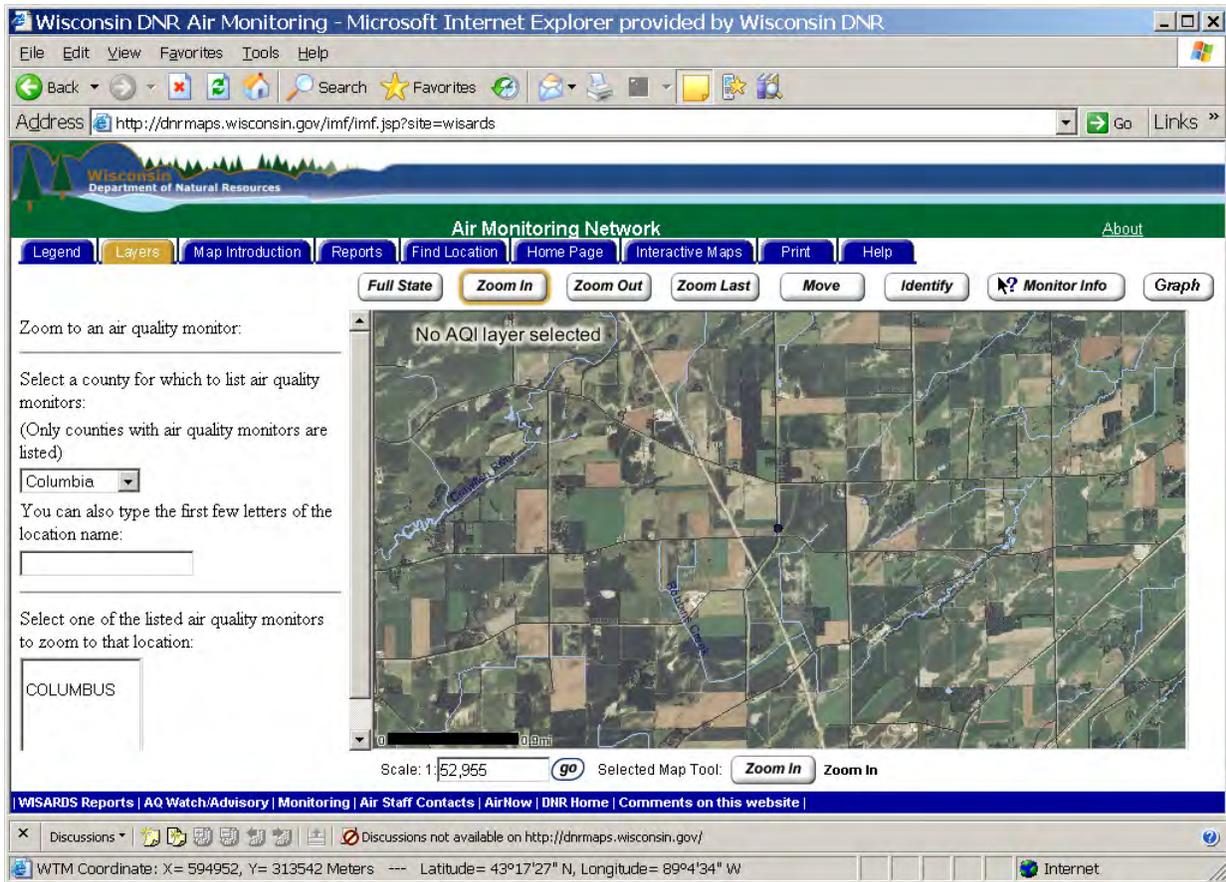
Monitors:

Monitor	Monitor Equipment	Designation	Analysis Method	Sampling Frequency	Monitor Est.
Ozone	API Ozone	SLAMS	UV Photometry	Continuous	08/10/1988
Wind speed/ direction. Temperature	Met One	Other	Mechanical	Continuous	08/10/1988
Precipitation	Texas Electronics	National Weather Service	Mechanical	Continuous	07/01/2009

Quality Assurance Status: All Quality Assurance procedures have been implemented in accordance with 40 CFR 58, Appendix A.

Area of Representativeness: Regional. This site represents regional transport on a regional scale for ozone.

2013 Wisconsin Air Monitoring Network Plan



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Devils Lake State Park

AQS Site ID: 55-111-0007
Location: E12886 Tower Road,
 Baraboo
County: Sauk
GPS coordinates: 43.435,
 -89.679
Date Established: 05/11/1995

CBSA: Baraboo, WI
CSA: Madison-Baraboo, WI
UA: Not in an urban area
AQCR: Southern Wisconsin



Site Approval Status: Site and monitors meet all design criteria for the monitoring network

Locational Setting: This site is located at Devils Lake State Park. The sample inlet is 200 feet from the nearest rural road and 1,380 meters from the nearest state road. This site is also part of the Mercury Deposition Network. The site meets the requirement of 40 CFR 58, Appendices C, D, E and G.

Monitoring Objective: General Background. The monitoring objectives are to determine compliance with NAAQS, to detect elevated pollutant levels of ozone and PM_{2.5}, and to provide pollutant levels for daily air quality index reporting.

Monitors:

Monitor	Monitor Equipment	Designation	Analysis Method	Sampling Frequency	Monitor Est.
Ozone	API Ozone	SLAMS	UV Photometry	Continuous	05/11/1995
PM _{2.5}	R&P FRM2025	SLAMS	Gravimetric	1 in 6 Collocated – 1 in 12	05/09/2003 05/09/2003
PM _{2.5} Total Atmospheric	R&P TEOM/FDMS VSCC	SPM & Non-Regulatory	Tapered Element Oscillating Microbalance	Continuous Collocated	11/03/2003
PM _{2.5}	Met One BAM-SCC	SPM & Non-Regulatory	Beta Attenuation	Continuous Collocated	11/14/2011
PM Coarse	Met One BAM-SCC	SPM & Non-Regulatory	Beta Attenuation	Continuous Collocated	11/14/2011

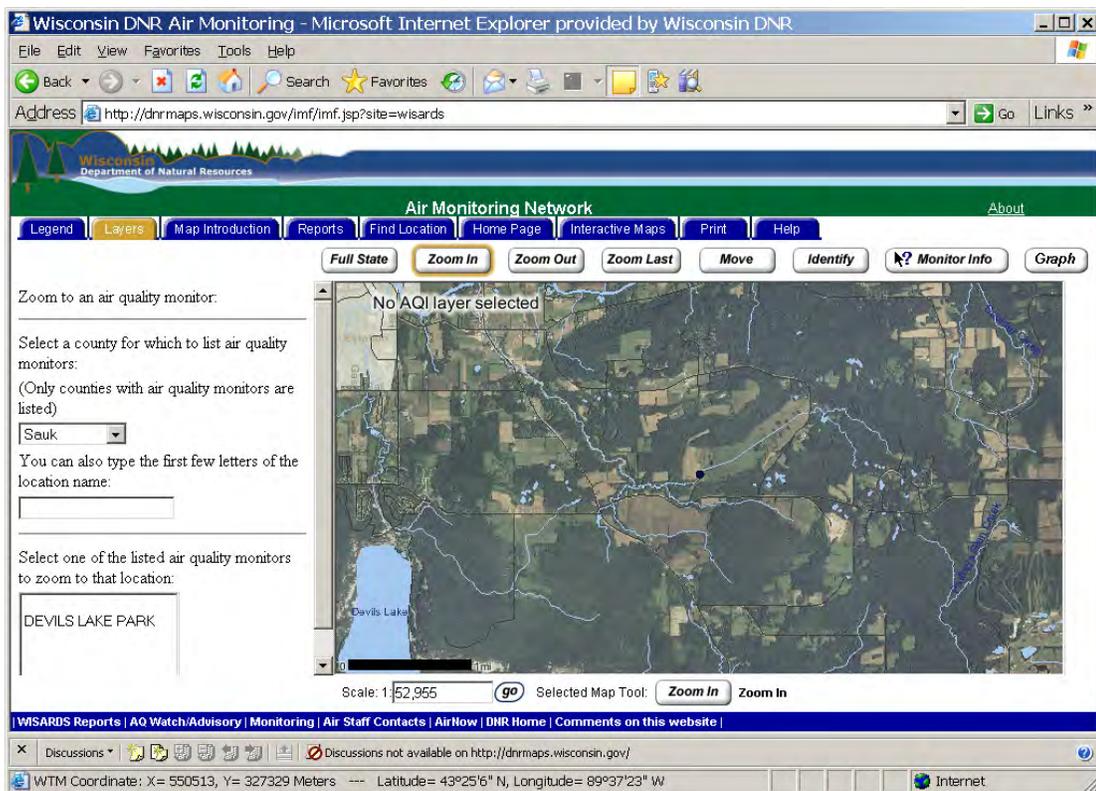
2013 Wisconsin Air Monitoring Network Plan

Wind speed/direction. Temperature, Humidity	Qualimetrics Meteorological	SLAMS	Mechanical	Continuous	07/03/1996
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Atmospheric Deposition Network
Mercury Deposition Network

Quality Assurance Status: All quality assurance procedures have been implemented in accordance with 40 CFR 58, Appendix A.

Area of Representativeness: This site represents general background on a regional background scale for PM2.5 and ozone.



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Eau Claire Department of Transportation (DOT)

AQS Site ID: 55-035-0014
Location: 5509 Highway 53 South
County: Eau Claire
GPS coordinates: 44.761
 -91.413
Date Established: 03/09/11

CBSA: Eau Claire, WI
CSA: Eau Claire-Menomonie, WI
UA: Eau Claire, WI
AQCR: Southeast Minnesota – La Crosse



Site Approval Status: Site and monitor meet all design criteria for the monitoring network. Operation of this site is a cooperative effort between the WDNR and the Eau Claire Health Department.

Locational Setting: This site is located in a grassy clearing near a Wisconsin DOT facility. The PM_{2.5} sample inlet is 7.8 meters above ground level and the ozone sample inlet is 6.2 meter above ground level. The distance to the nearest roadway is 149 meters. The site meets the requirement of 40 CFR 58, Appendices C, D, E and G.

Monitoring Objective: Population Exposure. The monitoring objectives are to determine compliance with NAAQS to detect elevated pollutant levels of PM_{2.5}.

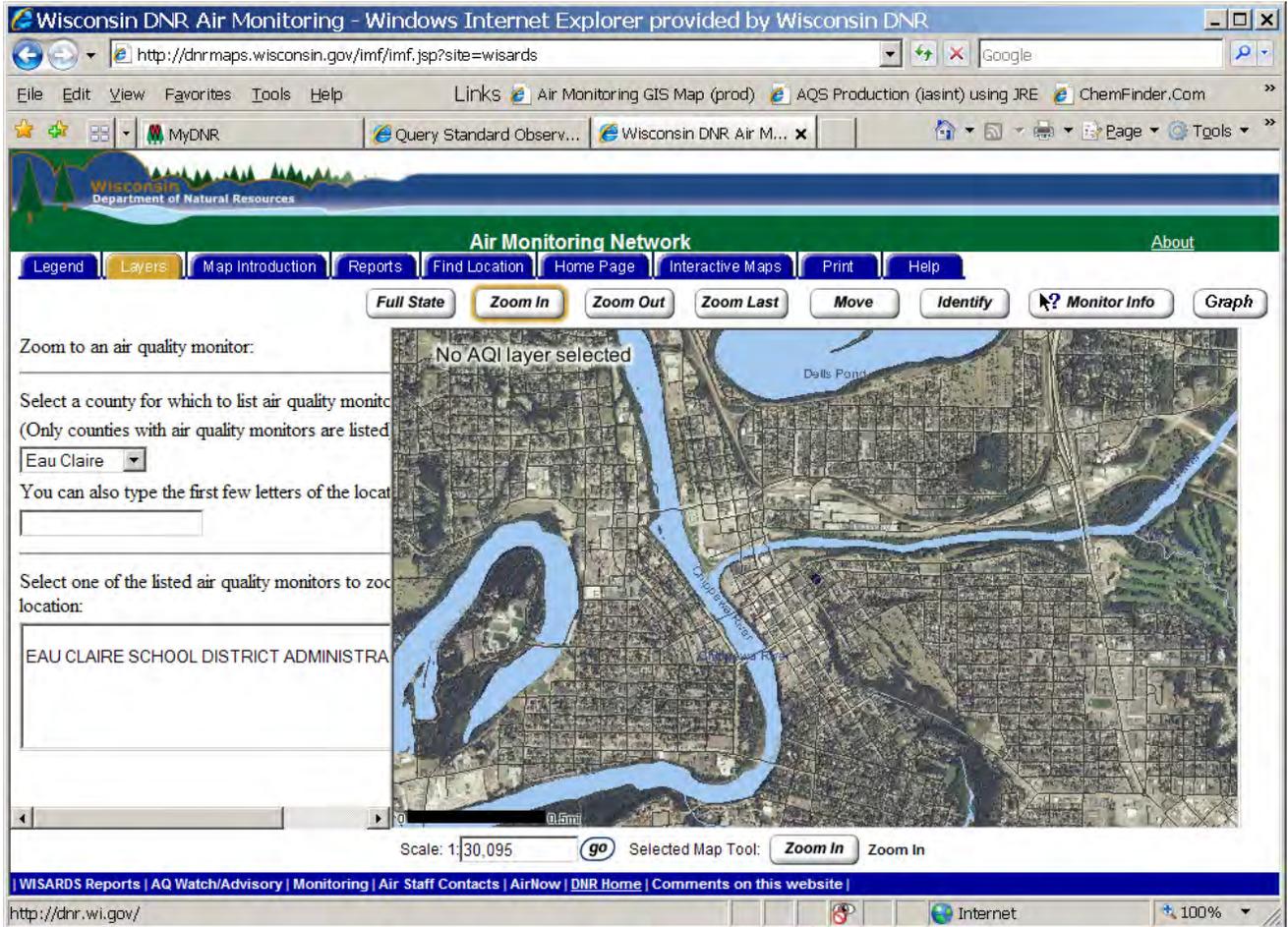
Monitors:

Monitor	Monitor Equipment	Designation	Analysis Method	Sampling Frequency	Monitor Est.
Ozone	API Ozone	SLAMS	UV Photometry	Continuous	04/01/2011
PM _{2.5}	R&P FRM 2025	SLAMS	Gravimetric	1 in 6	04/01/2011
PM _{2.5} Total Atmospheric	R&P TEOM/FDMS-VSCC	SPM & Non-Regulatory	Tapered Element Oscillating Microbalance	Continuous	03/16/2011 Planned conversion to BAM in 2012.
Wind speed/direction. Temperature, Humidity	Qualimetrics Meteorological	SLAMS	Mechanical	Continuous	05/17/2011

Quality Assurance Status: All Quality Assurance procedures have been implemented in accordance with 40 CFR 58, Appendix A

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Area of Representativeness: This site represents population exposure on a regional scale for ozone and PM2.5.



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Fond du Lac

AQS Site ID: 55-039-0006
Location: N3996 Kelly Road, Town of Byron
County: Fond du Lac
GPS coordinates: 43.6874, -88.4220
Date Established: 04/22/1994



CBSA: Fond du Lac, WI
CSA: Fond du Lac – Beaver Dam, WI
UA: Not in an urban area
AQCR: Lake Michigan Intra-State

Site Approval Status: Site and monitor meet all design criteria for the monitoring network.

Locational Setting: This site is located in a farm field in the rural town of Byron. The sample inlet is 5 meters above ground level and 32.5 meters from nearest road. The site meets the requirement of 40 CFR 58, Appendices C, D, E and G.

Monitoring Objective: Population Exposure. The monitoring objectives are to determine compliance with NAAQS, to detect elevated pollutant levels of ozone, and to provide pollutant levels for daily air quality index reporting.

Monitors:

Monitor	Monitor Equipment	Designation	Analysis Method	Sampling Frequency	Monitor Est.
Ozone	API Ozone	SLAMS	UV Photometry	Continuous	04/22/1994

Quality Assurance Status: All quality assurance procedures have been implemented in accordance with 40 CFR 58, Appendix A.

Area of Representativeness: This site represents population exposure on a regional scale for ozone.

2013 Wisconsin Air Monitoring Network Plan

The screenshot shows a Microsoft Internet Explorer browser window displaying the Wisconsin DNR Air Monitoring website. The browser's address bar shows the URL: <http://dnrmaps.wisconsin.gov/imf/imf.jsp?site=wisards>. The website header includes the Wisconsin DNR logo and the text "Air Monitoring Network". A navigation menu contains links for Legend, Layers, Map Introduction, Reports, Find Location, Home Page, Interactive Maps, Print, and Help. Below the menu is a toolbar with buttons for Full State, Zoom In, Zoom Out, Zoom Last, Move, Identify, Monitor Info, and Graph. The main content area is divided into two sections. On the left, there are form fields for selecting a county (currently "Fond du Lac" is selected) and a text input for location names. Below these is a list of air quality monitors, with "FOND DU LAC" selected. On the right, a satellite map is displayed with the text "No AQI layer selected" overlaid. The map shows a rural landscape with fields and a road. At the bottom of the map, the scale is indicated as 1:30,477, and the selected map tool is "Zoom In". The footer of the website contains a navigation bar with links for WISARDS Reports, AQ Watch/Advisory, Monitoring, Air Staff Contacts, AirNow, DNR Home, and Comments on this website. The browser's status bar at the bottom shows "Discussions not available on http://dnrmaps.wisconsin.gov/" and the Internet Explorer logo.

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Grafton

AQS Site ID: 55-089-0008
Location: Hwy's 57 and I43, Grafton
County: Ozaukee
GPS coordinates: 43.343,
 -87.920
Date Established: 06/05/1991

CBSA: Milwaukee-Waukesha-
 West Allis, WI

CSA: Milwaukee-Racine-
 Waukesha, WI

UA: Not in an urban area

AQCR: Southeastern Wisconsin Intra-State



Site Approval Status: Site and monitor meet all design criteria for the monitoring network.

Locational Setting: This site is located just off the Highway I-43, next to the WE Energies landfill. The sample inlet is 5 meters above ground level and 19.5 meters from nearest road. The site meets the requirement of 40 CFR 58, Appendices C, D, E and G. This site also has a rain gauge as part of a special project with the National Weather Service.

Monitoring Objective: Population exposure. The monitoring objectives are to determine compliance with NAAQS, to detect elevated pollutant levels of ozone, and to provide pollutant levels for daily air quality index reporting.

Monitors:

Monitor	Monitor Equipment	Designation	Analysis Method	Sampling Frequency	Monitor Est
Ozone	API Ozone	SLAMS	UV Photometry	Continuous	06/05/1991
Wind speed/direction. Temperature	Met One Meteorological	Other	Mechanical	Continuous	06/05/1991
Precipitation	Texas Electronics	National Weather Service	Mechanical	Continuous	10/08/2008

Quality Assurance Status: All quality assurance procedures have been implemented in accordance with 40 CFR 58, Appendix A. The National Weather Service is responsible for all quality control and quality assurance associated with the precipitation monitor.

Area of Representativeness: This site represents population exposure on an urban scale for ozone.

2013 Wisconsin Air Monitoring Network Plan

The screenshot shows a web browser window titled "Wisconsin DNR Air Monitoring - Microsoft Internet Explorer provided by Wisconsin DNR". The address bar shows the URL: <http://dnrmaps.wisconsin.gov/imf/imf.jsp?site=wisards>. The page header includes the Wisconsin Department of Natural Resources logo and the title "Air Monitoring Network".

The navigation menu includes: Legend, Layers, Map Introduction, Reports, Find Location, Home Page, Interactive Maps, Print, Help. Below this is a secondary menu with buttons: Full State, Zoom In (highlighted), Zoom Out, Zoom Last, Move, Identify, Monitor Info, Graph.

On the left side, there are instructions and form fields:

- Zoom to an air quality monitor:
- Select a county for which to list air quality monitors: (Only counties with air quality monitors are listed) - Ozaukee (selected in dropdown)
- You can also type the first few letters of the location name: [input field]
- Select one of the listed air quality monitors to zoom to that location: GRAFTON, HARRINGTON BEACH PARK

The main map area shows an aerial view with a blue river and a road. A text overlay reads "No AQI layer selected". A scale bar at the bottom of the map indicates a scale of 1:30,477. Below the map, the "Selected Map Tool" is set to "Zoom In".

The footer contains navigation links: WISARDS Reports | AQ Watch/Advisory | Monitoring | Air Staff Contacts | AirNow | DNR Home | Comments on this website |

The browser status bar at the bottom shows "Discussions not available on http://dnrmaps.wisconsin.gov/" and the "Internet" icon.

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Green Bay East High School

AQS Site ID: 55-009-0005
Location: 1415 E. Walnut St. Green Bay
County: Brown
GPS coordinates: 44.507,
-87.993
Date Established: 01/01/1971

CBSA: Green Bay, WI
CSA:
UA: Green Bay, WI
AQCR: Lake Michigan Intra-State



Site Approval Status: Site and monitor meet all design criteria for the monitoring network

Locational Setting: This site is located inside the Green Bay East High School. The sample inlets are 75 feet from nearest road. The site meets the requirement of 40 CFR 58, Appendices C, D, E and G.

Monitoring Objective: The monitoring objectives are to determine compliance with NAAQS, to detect elevated pollutant levels of PM2.5 and SO2, and to provide pollutant levels for daily air quality index reporting. Continuous TEOM PM2.5 began in December 2004 to measure PM2.5 continuously in the Fox Valley/NE Wisconsin area for AIRNow and AQS data submittals.



Monitors:

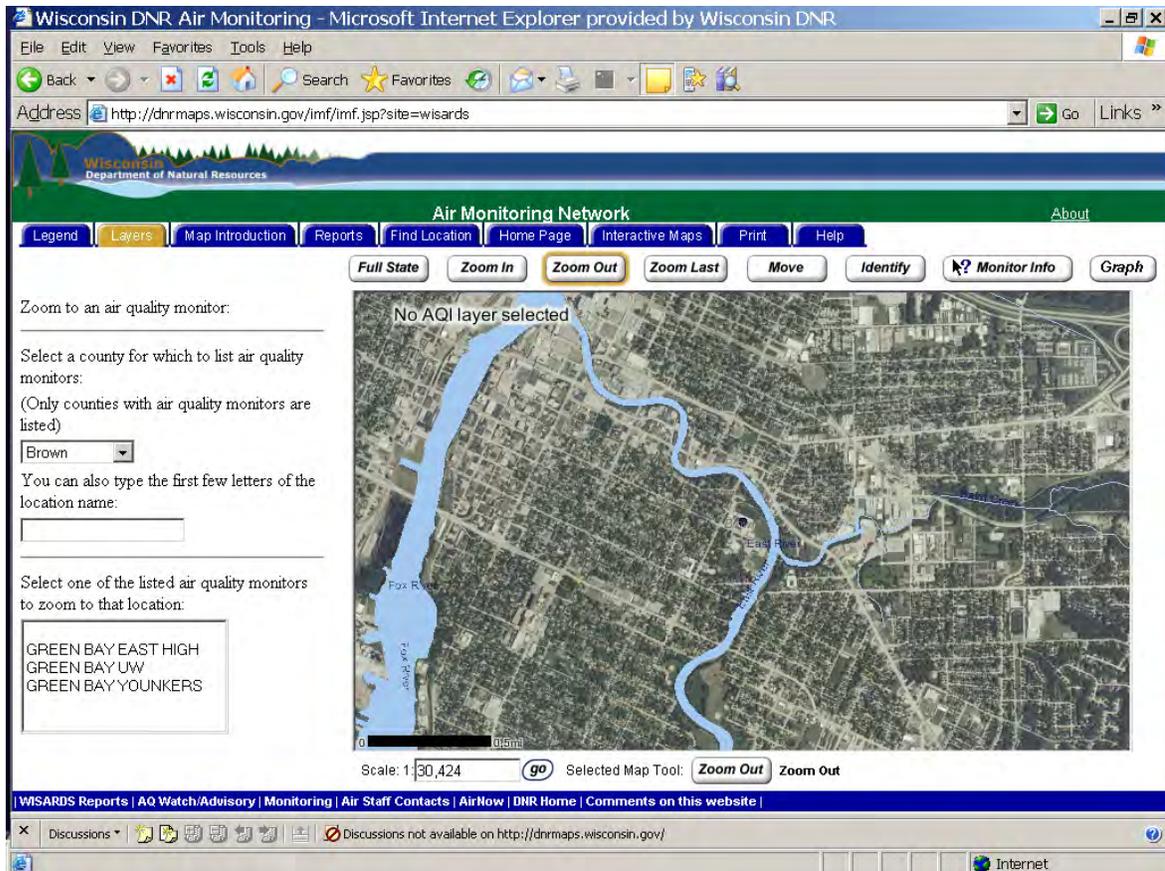
Monitor	Monitor Equipment	Designation	Analysis Method	Sampling Frequency	Monitor Est
Sulfur dioxide	API SO2	SLAMS	UV fluorescence	Continuous	07/24/1980
Sulfur dioxide	API SO2	SLAMS	UV fluorescence	Continuous – 5 min	01/01/2010
PM2.5	R&P FRM 2025	SLAMS	Gravimetric	Daily	01/01/1999
PM2.5 Species	R&P FRM 2025	SLAMS	Gravimetric	1 in 12	04/01/2004
PM2.5	R&P TEOM/FDMS-VSCC	SPM & Non-Regulatory	Tapered Element Oscillating Microbalance	Continuous	02/02/2010 Discontinued 10/03/2011
PM2.5 Total Atmospheric	R&P TEOM/FDMS-SCC	SPM & Non-Regulatory	Tapered Element Oscillating Microbalance	Continuous	10/04/2011 Discontinued 03/08/2012

2013 Wisconsin Air Monitoring Network Plan

Acceptable PM2.5 Aqi & Speciation Mass	Met One BAM-SCC	SPM & Non- Regulatory	Beta Attenuation	Continuous	03/08/2012
-------------------------------------------------	--------------------	--------------------------	---------------------	------------	------------

Quality Assurance Status: All quality assurance procedures have been implemented in accordance with 40 CFR 58, Appendix A.

Area of Representativeness: Population Exposure. This site represents population exposure on a neighborhood scale for SO₂ and PM_{2.5}.



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Green Bay UW

AQS Site ID: 55-009-0026
Location University of Wisconsin property, Green Bay
County: Brown
GPS coordinates: 44.53, -87.908
Date Established: 04/07/1994

CBSA: Green Bay, WI
CSA:
UA: Green Bay, WI
AQCR: Lake Michigan Intra-State



Site Approval Status: Site and monitor meet all design criteria for the monitoring network.

Locational Setting: This site is located behind the University of Wisconsin in Green Bay. The sample inlet is 5 meters above ground level and 600 feet from nearest road. The site meets the requirement of 40 CFR 58, Appendices C, D, E and G.

Monitoring Objective: Population exposure. The monitoring objectives are to determine compliance with NAAQS, to detect elevated pollutant levels of ozone, and to provide pollutant levels for daily air quality index reporting.

Monitors:

Monitor	Monitor Equipment	Designation	Analysis Method	Sampling Frequency	Monitor Est
Ozone	API Ozone	SLAMS	UV Photometry	Continuous	04/18/1994

Quality Assurance Status: All quality assurance procedures have been implemented in accordance with 40 CFR 58 Appendix A.

Area of Representativeness: This site represents population exposure on an urban scale for ozone.

2013 Wisconsin Air Monitoring Network Plan

Wisconsin DNR Air Monitoring - Microsoft Internet Explorer provided by Wisconsin DNR

Address: <http://dnr.maps.wisconsin.gov/imf/imf.jsp?site=wisards>

Wisconsin Department of Natural Resources

Air Monitoring Network

Legend Layers Map Introduction Reports Find Location Home Page Interactive Maps Print Help

Full State Zoom In **Zoom Out** Zoom Last Move Identify Monitor Info Graph

Zoom to an air quality monitor:

Select a county for which to list air quality monitors:
(Only counties with air quality monitors are listed)

Brown

You can also type the first few letters of the location name:

Select one of the listed air quality monitors to zoom to that location:

- GREEN BAY EAST HIGH
- GREEN BAY UW
- GREEN BAY YOUNKERS

No AQI layer selected

Lake Michigan

Scale: 1:30,424 go Selected Map Tool: Zoom Out Zoom Out

WISARDS Reports | AQ Watch/Advisory | Monitoring | Air Staff Contacts | AirNow | DNR Home | Comments on this website |

Discussions not available on <http://dnrmaps.wisconsin.gov/>

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Harrington Beach

AQS Site ID: 55-089-0009
Location: Harrington Beach State Park
 531 Hwy D
County: Ozaukee
GPS coordinates: 43.498,
 -87.81
Date Established: 06/08/1994

CBSA: Milwaukee-Waukesha-West
 Allis, WI
CSA: Milwaukee-Racine-Waukesha, WI
UA: Not in an urban area
AQCR: Southeastern Wisconsin Intra-State



Site Approval Status: Site and monitor meet all design criteria for the monitoring network.

Locational Setting: This site is located at the Harrington Beach State Park. The sample inlets are 142 meters from nearest state road. The site meets the requirement of 40 CFR 58, Appendices C, D, E and G.

Monitoring Objective: Regional transport. The monitoring objectives are to determine compliance with NAAQS, to detect elevated pollutant levels of ozone and fine particles, and to provide pollutant levels for daily air quality index reporting.

Monitors:

Monitor	Monitor Equipment	Designation	Analysis Method	Sampling Frequency	Monitor Est
Ozone	API Ozone	SLAMS	UV Photometry	Continuous	06/08/1994
PM2.5 Total Atmospheric	R&P TEOM/FDMS-SCC	SPM & Non-Regulatory	Tapered Element Oscillating Microbalance	Continuous	04/29/2004 Discontinued 12/01/2011
Acceptable PM2.5 Aqi & Speciation Mass	Met One BAM-SCC	SPM & Non-Regulatory	Beta Attenuation	Continuous	12/01/2011
PM2.5	R&P 2025 FRM	SLAMS	Gravimetric	1 in 6	06/23/2003
Wind speed/direction. Temperature	Met-One Meteorological	SLAMS	Mechanical	Continuous	06/08/1994

2013 Wisconsin Air Monitoring Network Plan

Quality Assurance Status: All Quality Assurance procedures have been implemented in accordance with 40 CFR 58, Appendix A.

Area of Representativeness: Regional. This site represents regional transport on an urban transport scale for PM2.5 & ozone.

Wisconsin DNR Air Monitoring - Microsoft Internet Explorer provided by Wisconsin DNR

File Edit View Favorites Tools Help

Address <http://dnrmaps.wisconsin.gov/imf/imf.jsp?site=wisards> Go Links »

Wisconsin Department of Natural Resources

Air Monitoring Network About

Legend Layers Map Introduction Reports Find Location Home Page Interactive Maps Print Help

Full State Zoom In Zoom Out Zoom Last Move Identify Monitor Info Graph

Zoom to an air quality monitor:

Select a county for which to list air quality monitors:
(Only counties with air quality monitors are listed)

Ozaukee

You can also type the first few letters of the location name:

Select one of the listed air quality monitors to zoom to that location:

GRAFTON
HARRINGTON BEACH PARK

No AQI layer selected

Lake Michigan

Scale: 1:30,424 go Selected Map Tool: Zoom Out Zoom Out

WISARDS Reports | AQ Watch/Advisory | Monitoring | Air Staff Contacts | AirNow | DNR Home | Comments on this website |

Discussions Discussions not available on <http://dnrmaps.wisconsin.gov/> Internet

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Harshaw Farms - Site Discontinued October 2011

AQS Site ID: 55-085-0004
Location: 4398 Grace Lane, Harshaw
County: Oneida
GPS coordinates: 45.678,
 -89.632
Date Established: 6/16/1994
 Discontinued October 18,
 2011



CBSA: None
CSA:
UA: Not in an urban area
AQCR: North Central Wisconsin Intra-State

Site Approval Status: Site and monitor meet all design criteria for the monitoring network.

Locational Setting: This site is located at the Harshaw Experimental Farms, for the Aspen Free-Air Carbon Dioxide Enrichment (FACE) and ozone plant Study, funded by US Forest Service. The sample inlet is 5 meters above ground level and 27 feet from Grace Lane, a rural road and 750 from the next rural road. The site meets the requirement of 40 CFR 58, Appendices C, D, E and G.

Monitoring Objective: Population exposure. The monitoring objectives are to determine compliance with NAAQS to detect elevated pollutant levels of Ozone and to provide pollutant levels for daily air quality index reporting.

Monitors:

Monitor	Monitor Equipment	Designation	Analysis Method	Sampling Frequency	Monitor Est
Ozone	API Ozone	SLAMS	UV Photometry	Continuous	06/16/1994 Discontinued 10/18/2011

Quality Assurance Status: All Quality Assurance procedures have been implemented in accordance with 40 CFR 58, Appendix A.

Area of Representativeness: This site represents population exposure on a neighborhood scale for ozone.

2013 Wisconsin Air Monitoring Network Plan

The screenshot shows a web browser window titled "Wisconsin DNR Air Monitoring - Microsoft Internet Explorer provided by Wisconsin DNR". The address bar shows the URL: <http://dnrmaps.wisconsin.gov/imf/imf.jsp?site=wisards>. The page header includes the Wisconsin Department of Natural Resources logo and the title "Air Monitoring Network".

The navigation menu includes: Legend, Layers, Map Introduction, Reports, Find Location, Home Page, Interactive Maps, Print, Help, and About. Below the menu are several buttons: Full State, Zoom In (highlighted), Zoom Out, Zoom Last, Move, Identify, Monitor Info, and Graph.

On the left side, there are instructions and form fields:

- Zoom to an air quality monitor:
- Select a county for which to list air quality monitors: (Only counties with air quality monitors are listed) Oneida
- You can also type the first few letters of the location name: [text input field]
- Select one of the listed air quality monitors to zoom to that location: HARSHAW FARM, RHINELANDER TOWER

The main map area shows a satellite view of a rural landscape with a river and fields. A text overlay on the map reads "No AQI layer selected". Below the map, the scale is 1:30,955 and the selected map tool is "Zoom In".

The footer contains navigation links: WISARDS Reports | AQ Watch/Advisory | Monitoring | Air Staff Contacts | AirNow | DNR Home | Comments on this website | and a status message: Discussions not available on <http://dnrmaps.wisconsin.gov/>.

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Horicon Wildlife Area

AQS Site ID: 55-027-0001
Location: 1210 N Palmatory St
County: Dodge
GPS coordinates: 43.466
 -88.621
Date Established: 06/24/1982



CBSA: Beaver Dam, WI
CSA: Fond du Lac – Beaver Dam, WI
UA: Not in an urban area
AQCR: Southern Wisconsin

Locational Setting: The sample inlet is 42 meters from a rural road, Palmatory Drive.

Quality Assurance Status: The site meets the requirement of 40 CFR 58, Appendices C, D, E and G.

Monitoring Objective: General background. The monitoring objectives are to meet NCore multi pollutant network objectives, to determine compliance with NAAQS, to detect elevated pollutant levels of ozone and to provide pollutant levels for daily air quality index reporting.

Monitors:

Monitor	Monitor Equipment	Designation	Analysis Method	Sampling Frequency	Monitor Est
Ozone	API Ozone	NCore	UV Absorption	Continuous	12/18/2009
PM2.5	R&P FRM2025	NCore	Gravimetric	1 in 3	12/18/2009
PM2.5	Met-One BAM – dual-VSCC	Proposed NCore	Beta Attenuation	Continuous	02/03/2010 Discontinued 08/26/2011
Acceptable PM2.5 Aqi & Speciation Mass	Met-One BAM – dual-SCC	Proposed NCore	Beta Attenuation	Continuous	08/26/2011
PM10 Total 0-10 µm STP	Met-One BAM – dual-VSCC (02/03/2010 – 08/26/2011), SCC (08/26/2011 -)	Proposed NCore	Beta Attenuation	Continuous	02/03/2010

2013 Wisconsin Air Monitoring Network Plan

PM10	Met-One BAM – dual-VSCC (02/03/2010 – 08/26/2011), SCC (08/26/2011 -)	NCore	Beta Attenuation	Continuous	02/03/2010
PM Coarse	Met-One BAM – dual-VSCC (02/03/2010 – 08/26/2011), SCC (08/26/2011 -)	NCore	Beta Attenuation	Continuous	02/03/2010
Fine Particle Species	Met-One Speciation	Regional	Gravimetric	1 in 3	12/18/2009
Fine Particle Species	URG 3000N	Regional	Gravimetric	1 in 3	10/1/2009
Toxic metals	High volume PM10	NATTS	Inductively Coupled Plasma (ICP)- Mass Spectrometry (MS)	1 in 6 Collocated – 1 in 90	12/21/2009
Hexavalent chromium	High volume TSP	NATTS	IC	1 in 6	12/21/2009
Polyaromatic hydrocarbons	PUF Sampler	NATTS	Gas Chromatography (GC) – MS	1 in 6 Collocated – 1 in 90	07/01/2010
Wind Speed/ Direction. Temperature, Barometric Pressure, Relative Humidity	Met One Meteorological	Proposed NCore	Mechanical	Continuous	01/20/2010
Sulfur Dioxide	SO ₂ , High Sensitivity	NCore	UV fluorescence	Continuous - hourly	01/26/2010
Sulfur Dioxide	SO ₂ , High Sensitivity	NCore	UV fluorescence	Continuous – 5 min	08/23/2010
Nitric Oxide (NO)	NO _y High Sensitivity	NCore	Chemiluminescence	Continuous	01/28/2010
Reactive Oxides of Nitrogen (NO _y)	NO _y High Sensitivity	NCore	Chemiluminescence	Continuous	01/28/2010
NO _y -NO	NO _y High Sensitivity	Proposed NCore	Chemiluminescence	Continuous	01/28/2010
Carbon Monoxide	CO High Sensitivity	NCore	Gas Filter Correlation	Continuous	01/25/2010

2013 Wisconsin Air Monitoring Network Plan

Volatile Organics and Carbonyls	Canister and Cartridge	NATTS	GC-MS	1 in 6	12/18/2009
Mercury	Tekran speciated mercury	State Toxics	Tekran speciation mercury analysis system	Continuous - 5 minutes	09/15/2010
Precipitation	Texas Electronics (Heated)	National Weather Service	Mechanical, heated	Continuous	02/09/2010

Quality Assurance Status: All Quality Assurance procedures have been implemented in accordance with 40 CFR 58, Appendix A. The National Weather Service is responsible for all quality control and quality assurance associated with the precipitation monitor.

Area of Representativeness: This site represents general background on a regional scale for PM2.5 & ozone. This is an NCORE rural background site.

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Jefferson

AQS Site ID: 55-055-0002
Location: Jefferson High School, 634 W. Linden Drive
County: Jefferson
GPS coordinates: 43.002, -88.818
Date Established: 4/6/1988



CBSA: Watertown-Fort Atkinson, WI
CSA:
UA: Not in an urban area
AQCR: Southern Wisconsin

Site Approval Status: Site and monitor meet all design criteria for the monitoring network

Locational Setting: This site is located next to the Jefferson High School sports field. The sample inlet is 4 meters above ground level and 10 meters from nearest road.

Quality Assurance Status: The site meets the requirement of 40 CFR 58, Appendices C, D, E and G. This site also has a rain gauge as part of a special project with the National Weather Service.

Monitoring Objective: Population Exposure. The monitoring objectives are to determine compliance with NAAQS to detect elevated pollutant levels of Ozone and to provide pollutant levels for daily air quality index reporting.

Monitors:

Monitor	Monitor Equipment	Designation	Analysis Method	Frequency of Sampling	Monitor Est.
Ozone	API Ozone	SLAMS	UV Photometry	Continuous	04/15/1988
Precipitation	Texas Electronics	National Weather Service	Mechanical	Continuous	09/24/2007

Quality Assurance Status: All Quality Assurance procedures have been implemented in accordance with 40 CFR 58, Appendix A. The National Weather Service is responsible for all quality control and quality assurance associated with the precipitation monitor.

Area of Representativeness: Regional. This site represents population exposure on a regional scale for ozone.

2013 Wisconsin Air Monitoring Network Plan

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Kewaunee

AQS Site ID: 55-061-0002
Location: RR#1 Hwy 42, Kewaunee
County: Kewaunee
GPS coordinates: 44.443,
 -87.505
Date Established: 04/06/1994

CBSA: Green Bay, WI
CSA:
UA: Not in an urban area
AQCR: Lake Michigan Intra-State



Site Approval Status: Site and monitor meet all design criteria for the monitoring network.

Locational Setting: This site is located on a bluff over Lake Michigan next to Jumbo's Drive Inn. The sample inlet is 6 meters above ground level and 83 meters from nearest road. The site meets the requirement of 40 CFR 58, Appendices C, D, E and G.

Monitoring Objective: Regional transport. The monitoring objectives are to determine compliance with NAAQS, to detect elevated pollutant levels of ozone, and to provide pollutant levels for daily air quality index reporting.

Monitors:

Monitor	Monitor Equipment	Designation	Analysis Method	Sampling Frequency	Monitor Est.
Ozone	API Ozone	SLAMS	UV Photometry	Continuous	04/15/1994

Quality Assurance Status: All Quality Assurance procedures have been implemented in accordance with 40 CFR 58, Appendix A.

Area of Representativeness: This site represents regional transport on a regional scale for ozone.

2013 Wisconsin Air Monitoring Network Plan

Wisconsin DNR Air Monitoring - Microsoft Internet Explorer provided by Wisconsin DNR

Address: <http://dnrmaps.wisconsin.gov/imf/imf.jsp?site=wisards>

Wisconsin Department of Natural Resources

Air Monitoring Network

Legend Layers Map Introduction Reports Find Location Home Page Interactive Maps Print Help

Full State Zoom In Zoom Out Zoom Last Move Identify Monitor Info Graph

Zoom to an air quality monitor:

Select a county for which to list air quality monitors:
(Only counties with air quality monitors are listed)

Kewaunee

You can also type the first few letters of the location name:

Select one of the listed air quality monitors to zoom to that location:

KEWAUNEE

No AQI layer selected

Lake Michigan

Scale: 1:30,424 go Selected Map Tool: Zoom Out Zoom Out

WISARDS Reports | AQ Watch/Advisory | Monitoring | Air Staff Contacts | Air Now | DNR Home | Comments on this website

Discussions Discussions not available on <http://dnrmaps.wisconsin.gov/>

WTM Coordinate: X= 716147, Y= 442452 Meters --- Latitude= 44°25'44" N, Longitude= 87°32'8" W

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Kohler Company

AQS Site ID: 55-117-0008
Location: 444 Highland Dr. fence line
County: Sheboygan
GPS coordinates: 43.743
 -87.776
Date Established: 12/15/2009

CBSA: Sheboygan, WI
CSA:
UA: Sheboygan, WI
AQCR: Lake Michigan Intra-State



Site Approval Status: The site and monitor meet all design criteria for the monitoring network.

Locational Setting: This source-oriented site is located at the Kohler Company fence line. The sample inlet is 2.4 meters above ground level and 213 meters from nearest road. This site monitors for TSP-lead and the associated meteorology parameters.

It meets the requirements of 40 CFR 58, Appendices C, D, E and G.

Monitors:

Monitor	Monitor Equipment	Designation	Analysis Method	Sampling Frequency	Monitor Est.
Lead, Average Temperature and Barometric Pressure	TSP with meteorological attachment	SLAMS	Inductively Coupled Plasma (ICP) - Mass Spectrometry (MS)	1 in 6 Collocated - 1 in 12	01/01/2010

Monitoring Objective: Source Oriented

Quality Assurance Status: All Quality Assurance procedures have been implemented in accordance with 40 CFR 58, Appendix A

Area of Representativeness: This site represents source oriented monitoring on a middle scale for ozone.

2013 Wisconsin Air Monitoring Network Plan

Wisconsin DNR Air Monitoring - Microsoft Internet Explorer provided by Wisconsin DNR

File Edit View Favorites Tools Help

Address <http://dnrmaps.wisconsin.gov/imf/imf.jsp?site=wisards>

Wisconsin DNR
Department of Natural Resources

Air Monitoring Network

Legend Layers Map Introduction Reports Find Location Home Page Interactive Maps Print Help

Full State Zoom In Zoom Out Zoom Last Move Identify Monitor Info Graph

Zoom to an air quality monitor:

Select a county for which to list air quality monitors:
(Only counties with air quality monitors are listed)

Sheboygan

You can also type the first few letters of the location name:

Select one of the listed air quality monitors to zoom to that location:

KOHLER
SHEBOYGAN KOHLER ANDRE

No AQI layer selected

Scale: 1:30,424 Selected Map Tool: Zoom Out Zoom Out

WISARDS Reports | AQ Watch/Advisory | Monitoring | Air Staff Contacts | AirNow | DNR Home | Comments on this website |

Discussions Discussions not available on <http://dnrmaps.wisconsin.gov/>

Internet

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La Crosse DOT

AQS Site ID: 55-063-0012
Location: 3550 Mormon Coulee Rd
County: La Crosse
GPS coordinates: 43.778
 -91.225
Date Established: 10/13/2005

CBSA: La Crosse, WI-MN
CSA:
UA: La Crosse, WI-MN
AQCR: Southeast Minnesota-
 LaCrosse (Western Wisconsin)



Site Approval Status: Site and monitor meet all design criteria for the monitoring network

Locational Setting: This site is located on a Wisconsin Department of Transportation lot near an apartment complex. The sample inlet is 113 meters from nearest road. The site meets the requirement of 40 CFR 58, Appendices C, D, E and G.

Monitoring Objective: Population Exposure. The monitoring objectives are to determine compliance with NAAQS, to detect elevated pollutant levels of ozone and fine particles, and to provide pollutant levels for daily air quality index reporting.

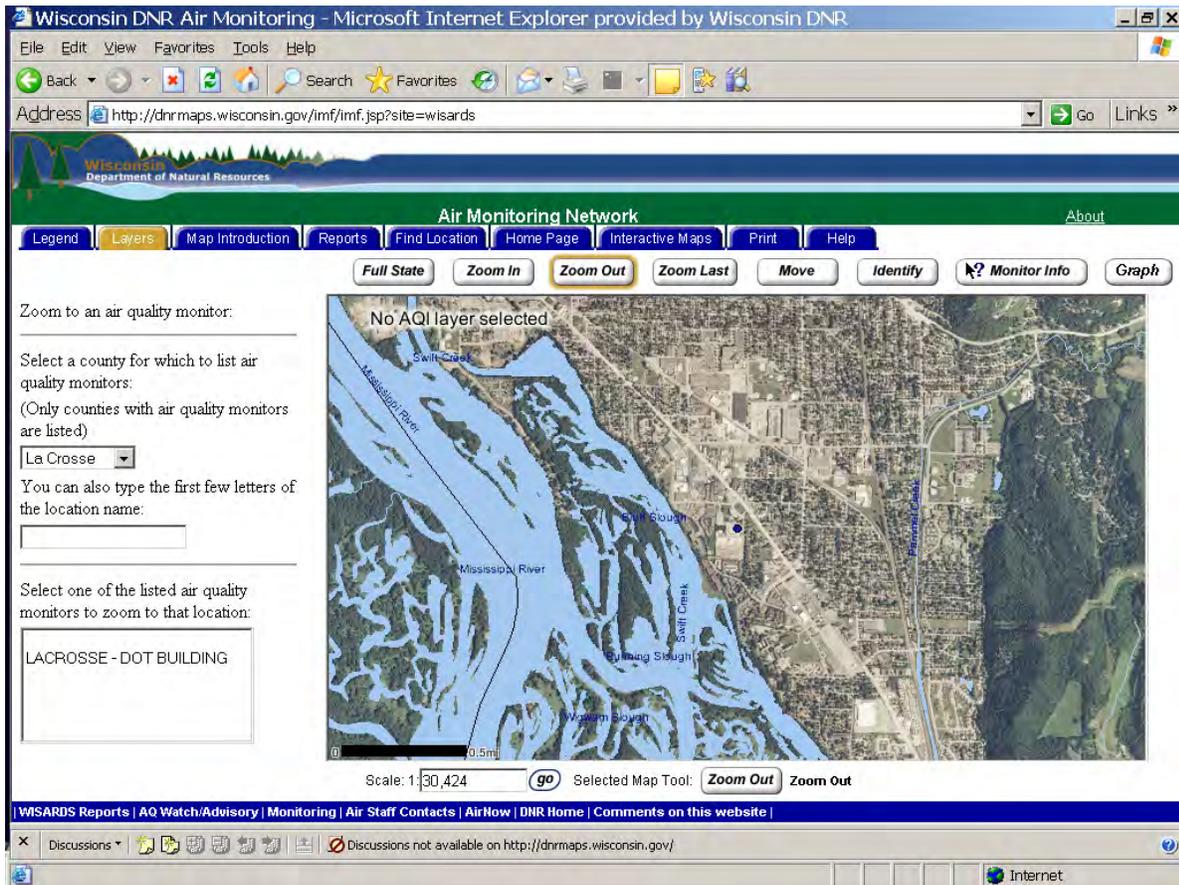
Monitors:

Monitor	Monitor Equipment	Designation	Analysis Method	Sampling Frequency	Monitor Est.
Ozone	API Ozone	SLAMS	UV Photometry	Continuous	02/27/2008
PM2.5	R&P TEOM/FDMS-VSCC	SLAMS	Tapered Element Oscillating Microbalance	Continuous	02/13/2008 Discontinued 08/26/2011
PM2.5 Total Atmospheric	R&P TEOM/FDMS-SCC	SPM & Non-Regulatory	Tapered Element Oscillating Microbalance	Continuous	08/26/2011
PM2.5	R&P 2025 FRM	SLAMS	Gravimetric	1 in 3	12/07/2005
Wind Speed/Direction	Qualimetrics Meteorological	Other	Mechanical	Continuous	04/08/2008

Quality Assurance Status: All Quality Assurance procedures have been implemented in accordance with 40 CFR 58, Appendix A.

2013 Wisconsin Air Monitoring Network Plan

Area of Representativeness: This site represents population exposure on a regional scale for ozone and fine particles.



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Lake DuBay

AQS Site ID: 55-073-0012
Location: 1780 Bergen Road, Bergen
 Township
County: Marathon
GPS coordinates: 44.707,
 -89.772
Date Established: 09/25/1991



CBSA: Wausau, WI
CSA: Wausau-Merrill, WI
UA: Not in an urban area
AQCR: North Central Wisconsin Intra-State

Site Approval Status: Site and monitor meet all design criteria for the monitoring network.

Locational Setting: This site is located near Lake DuBay in Marathon County. The sample inlet is 5.4 meters above ground level and 61 feet from nearest road. This is an Atmospheric Deposition Monitoring Site, National Trends Network. The site meets the requirement of 40 CFR 58, Appendices C, D, E and G.

Monitoring Objective: The monitoring objectives are to determine compliance with NAAQS, to detect elevated pollutant levels of ozone, and to provide pollutant levels for daily air quality index reporting.

Monitors:

Monitor	Monitor Equipment	Designation	Analysis Method	Sampling Frequency	Monitor Est.
Ozone	API Ozone	SLAMS	UV Photometry	Continuous	09/25/1991
Wind speed/ direction. Temperature	Qualimetrics Meteorological	SLAMS	Mechanical	continuous	10/08/1991

Atmospheric Deposition Network
 National Trends Network
 Mercury Deposition Network

Quality Assurance Status: All quality assurance procedures have been implemented in accordance with 40 CFR 58, Appendix A.

Area of Representativeness: This site represents general/background on a regional scale for ozone.

2013 Wisconsin Air Monitoring Network Plan

The screenshot shows a Microsoft Internet Explorer browser window displaying the Wisconsin DNR Air Monitoring website. The browser's address bar shows the URL: `http://dhrmaps.wisconsin.gov/imf/imf.jsp?site=wisards`. The website header includes the Wisconsin DNR logo and the text "Air Monitoring Network". A navigation menu contains buttons for "Legend", "Layers", "Map Introduction", "Reports", "Find Location", "Home Page", "Interactive Maps", "Print", and "Help". Below the menu is a toolbar with buttons for "Full State", "Zoom In", "Zoom Out", "Zoom Last", "Move", "Identify", "Monitor Info", and "Graph".

The main content area is divided into two sections. On the left, there are instructions and input fields:

- "Zoom to an air quality monitor:"
- "Select a county for which to list air quality monitors: (Only counties with air quality monitors are listed)" with a dropdown menu showing "Marathon".
- "You can also type the first few letters of the location name:" with an empty text input field.
- "Select one of the listed air quality monitors to zoom to that location:" with a list box containing "LAKE DUBAY".

On the right, a satellite map is displayed. The map shows a rural landscape with fields and a lake. A text overlay on the map reads "No AQI layer selected". A scale bar at the bottom of the map indicates "Scale: 1:30,955". Below the map, there is a "Selected Map Tool:" section with "Zoom In" buttons.

The footer of the browser window shows a navigation menu with links: "WISARDS Reports | AQ Watch/Advisory | Monitoring | Air Staff Contacts | AirNow | DNR Home | Comments on this website |". The status bar at the bottom displays the WTM Coordinate: X= 535439, Y= 466166 Meters, Latitude= 44°40'7" N, Longitude= 89°48'19" W, and the Internet icon.

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Lake Geneva

AQS Site ID: 55-127-0005
Location: Lake Geneva NADP Site, RR4 Elgin Club Rd.
County: Walworth
GPS coordinates: 42.580, -88.499
Date Established: 07/10/1987



CBSA: Whitewater, WI
CSA:
UA: Not in an urban area
AQCR: Southeastern Wisconsin Intra-State



Site Approval Status: Site and monitor meet all design criteria for the monitoring network.

Locational Setting: This site is located on rural private property on the outskirts of the City of Lake Geneva. The sample inlet is 6 meters above ground level and 120 meters from nearest road. This is an Atmospheric Deposition monitoring site, National Trends Network, and Mercury Deposition Network site. The site meets the requirement of 40 CFR 58, Appendices C, D, E and G.

Monitoring Objective: Population exposure. The monitoring objectives are to determine compliance with NAAQS, to detect elevated pollutant levels of ozone, and to provide pollutant levels for daily air quality index reporting.

Monitors:

Monitor	Monitor Equipment	Designation	Analysis Method	Sampling Frequency	Monitor Est.
Ozone	API Ozone	SLAMS	UV Photometry	Continuous	07/10/1987
Wind Speed/Direction. Temperature	Met One Meteorological	SLAMS	Mechanical	continuous	07/10/1987

NADP Site

Quality Assurance Status: All quality assurance procedures have been implemented in accordance with 40 CFR 58, Appendix A.

Area of Representativeness: This site represents population exposure on a regional scale for ozone.

2013 Wisconsin Air Monitoring Network Plan

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Madison East

AQS Site ID: 55-025-0041
Location: 2302 N Hoard St.,
 Madison
County: Dane
GPS coordinates: 43.100,
 -89.357
Date Established: 4/15/1992

CBSA: Madison, WI
CSA: Madison – Baraboo, WI
UA: Madison, WI
AQCR: Southern Wisconsin



Site Approval Status: Site and monitor meet all design criteria for the monitoring network

Locational Setting: This site is located next to the Madison East High School Sports Field. The sample inlet is 43 meters from nearest public road. (The site meets the requirement of 40 CFR 58, Appendices C, D, E and G.)

Monitoring Objective: Population Exposure. The monitoring objectives are to determine compliance with NAAQS, to detect elevated pollutant levels of ozone and PM_{2.5}, and to provide pollutant levels for daily air quality index reporting.

Monitors:

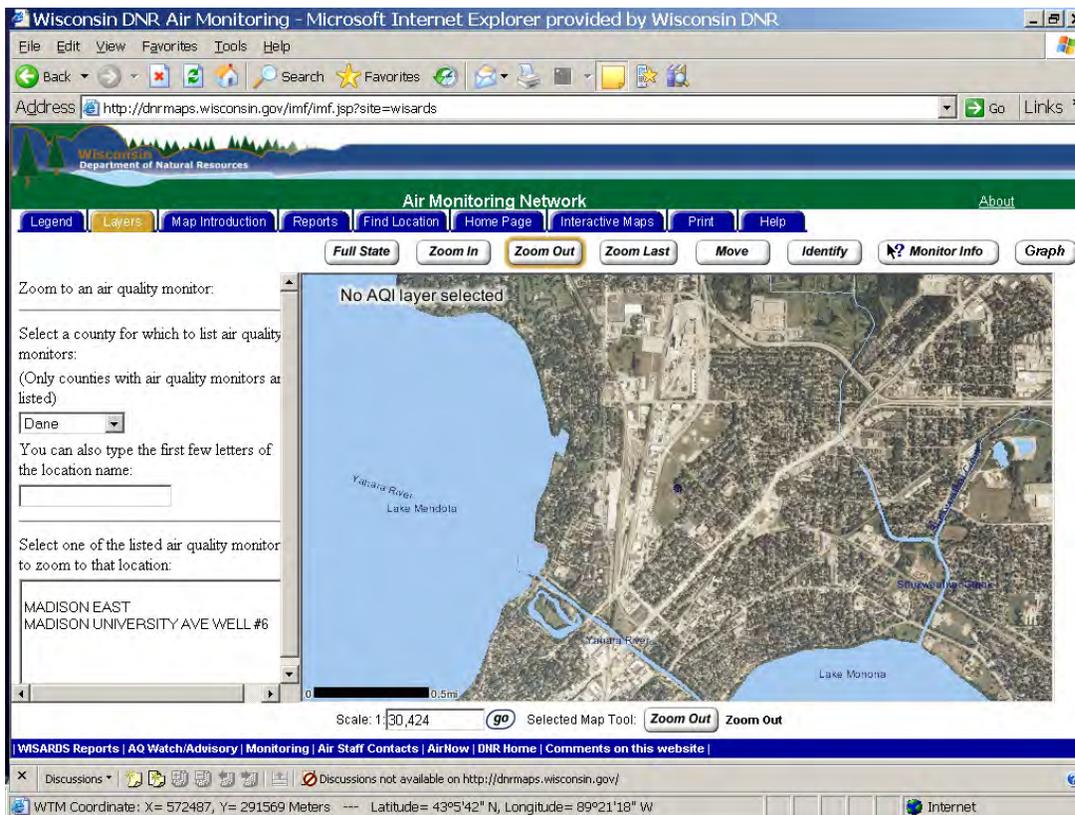
Monitor	Monitor Equipment	Designation	Analysis Method	Sampling Frequency	Monitor Est.
Ozone	API Ozone	SLAMS	UV Photometry	Continuous	04/15/1992
PM _{2.5}	R&P TEOM/FDMS-VSCC	SLAMS	Tapered Element Oscillating Microbalance	Continuous	04/01/2010 Discontinued 08/15/2011
PM _{2.5} Total Atmospheric	R&P TEOM/FDMS-SCC	SPM & Non-Regulatory	Tapered Element Oscillating Microbalance	Continuous	08/15/2011 Discontinued 04/23/2012
Acceptable PM _{2.5} Aqi & Speciation Mass	Met One BAM-SCC	SPM & Non-Regulatory	Beta Attenuation	Continuous	04/23/2012
PM _{2.5}	R&P 2025 FRM	SLAMS	Gravimetric	1 in 6	04/02/2010

2013 Wisconsin Air Monitoring Network Plan

Wind Speed/Wind Direction Temperature	Qualimetrics Meteorological	SLAMS	Mechanical	continuous	02/01/2008
------------------------------------------------	--------------------------------	-------	------------	------------	------------

Quality Assurance Status: All quality assurance procedures have been implemented in accordance with 40 CFR 58, Appendix A.

Area of Representativeness: This site represents population exposure on a neighborhood scale for ozone and PM2.5.



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Madison - University Avenue

AQS Site ID: 55-025-0047
Location: 2757 University Avenue,
 Madison
County: Dane
GPS coordinates: 43.073,
 -89.436
Date Established: 03/01/1999

CBSA: Madison, WI
CSA: Madison – Baraboo, WI
UA: Madison, WI
AQCR: Southern Wisconsin



Site Approval Status: Site and monitor meet all design criteria for the monitoring network.

Locational Setting: This site is located on top a City of Madison building. The sampler inlets are 12 meters from nearest road. The site meets the requirement of 40 CFR 58, Appendices C, D, E and G.

Monitoring Objective: Population exposure. The monitoring objectives are to determine compliance with NAAQS and to detect elevated pollutant levels of PM2.5 in a high population, high vehicle traffic area.

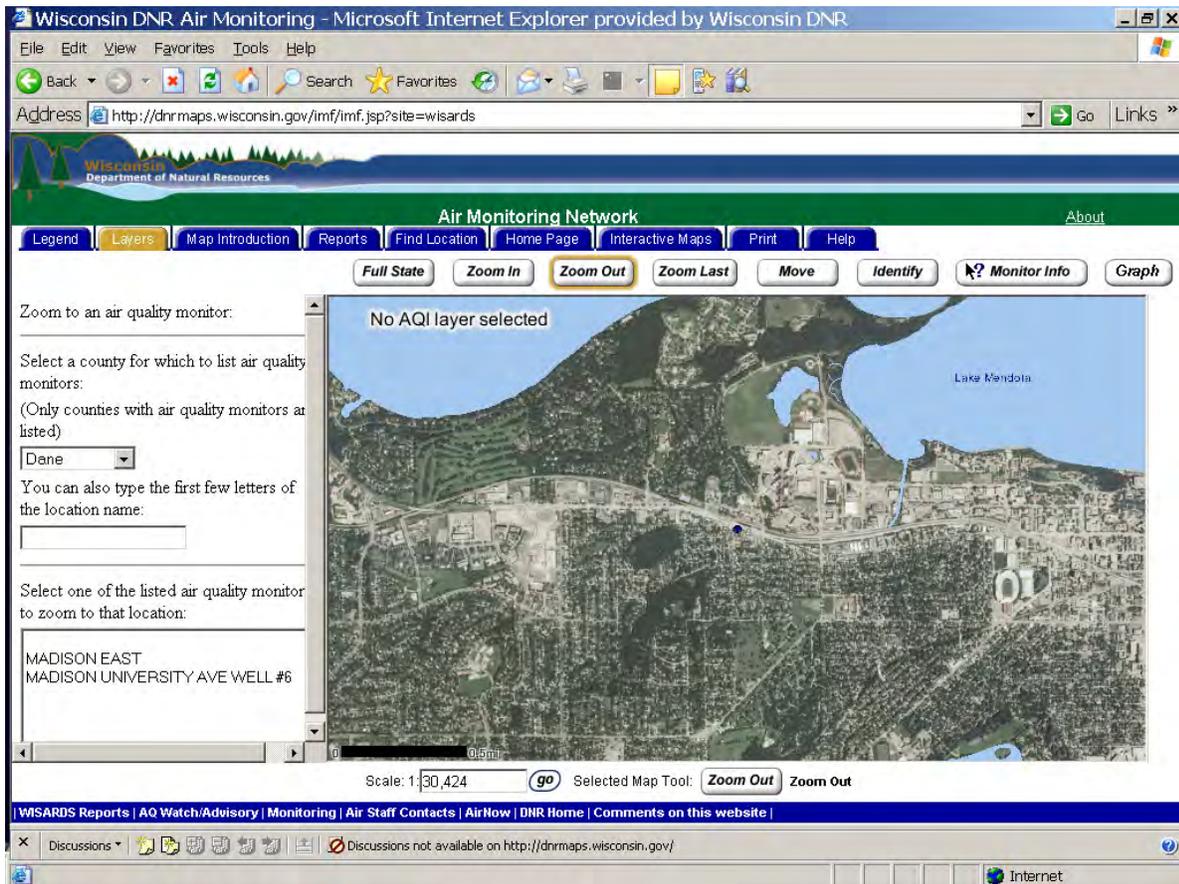
Monitors:

Monitor	Monitor Equipment	Designation	Analysis Method	Sampling Frequency	Monitor Est.
PM2.5	R&P FRM2025	Core community Oriented	Gravimetric	Daily	01/03/1999
PM10	Tisch High Volume PM10	SLAMS	Gravimetric	1 in 6	01/01/2008

Quality Assurance Status: All quality assurance procedures have been implemented in accordance with 40 CFR 58, Appendix A

Area of Representativeness: This site represents population exposure on a neighborhood scale for fine particles.

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Manitowoc Woodland Dunes

AQS Site ID: 55-071-0007
Location: 2315 Goodwin Road,
 Two Rivers
County: Manitowoc
GPS coordinates: 44.138,
 -87.616
Date Established: 04/05/1994



CBSA: Manitowoc, WI
CSA:
UA: Not in an urban area
AQCR: Lake Michigan Intra-State

Site Approval Status: Site and monitor meet all design criteria for the monitoring network.

Locational Setting: This site is located at the Woodland Dunes Nature Center & Preserve in Two Rivers. The sample inlet is 6 meters above ground level and 20 meters from nearest road. The site meets the requirement of 40 CFR 58, Appendices C, D, E and G.

Monitoring Objective: Regional transport. The monitoring objectives are to determine compliance with NAAQS, to detect elevated pollutant levels of ozone, NOY, NO2, and PM2.5, and to provide pollutant levels for daily air quality index reporting. High Sensitivity NOY and NO2 monitors only operate from June-August.

Monitors:

Monitor	Monitor Equipment	Designation	Analysis Method	Sampling Frequency	Monitor Est.
Nitric Oxide (NO)	TECO 42 CTL NOx	SLAMS	UV fluorescence	Continuous June - August	04/28/1995
	TECO 42 CTL NOy			Collocated	06/01/2004
Nitrogen Dioxide (NO2)	TECO 42 CTL NOx	SLAMS	UV fluorescence	Continuous June - August	04/28/1995
Oxides of Nitrogen (NOx)	TECO 42 CTL NOx	SLAMS	UV fluorescence	Continuous June - August	04/28/1995
Reactive Oxides of Nitrogen (NOy)	TECO 42 CTL NOy	SLAMS	UV fluorescence	Continuous June - August	06/01/2004
NOy-NO	TECO 42 CTL NOy	SLAMS	UV fluorescence	Continuous June - August	05/31/2011

2013 Wisconsin Air Monitoring Network Plan

Ozone	API Ozone	SLAMS	UV Photometry	Continuous	04/05/1994
Wind Speed and Direction. Temperature	Meteorological Qualimetrics	PAMS	Mechanical	Continuous	05/10/1995

Quality Assurance Status: All quality assurance procedures have been implemented in accordance with 40 CFR 58, Appendix A.

Area of Representativeness: This site represents regional transport on a regional scale for ozone, NO₂, NO_y and PM 2.5.

The screenshot displays the Wisconsin DNR Air Monitoring Network web application. The browser window title is "Wisconsin DNR Air Monitoring - Microsoft Internet Explorer provided by Wisconsin DNR". The address bar shows the URL "http://dnrmaps.wisconsin.gov/imf/imf.jsp?site=wisards". The page header includes the Wisconsin Department of Natural Resources logo and the title "Air Monitoring Network". The navigation menu contains links for Legend, Layers, Map Introduction, Reports, Find Location, Home Page, Interactive Maps, Print, and Help. Below the menu are buttons for Full State, Zoom In, Zoom Out, Zoom Last, Move, Identify, Monitor Info, and Graph. The main content area includes a search form for air quality monitors, with "Manitowoc" selected in a dropdown menu. A list of monitors is shown, with "MANITOWOC WDLND DUNES" selected. A satellite map of the area is displayed, showing Lake Michigan and surrounding land. The scale is 1:30,424 and the selected map tool is Zoom Out.

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Milwaukee – College Ave Park and Ride

AQS Site ID: 55-079-0058
Location: 1550 W College Ave
County: Milwaukee
GPS coordinates: 42.930
 -87.932
Date Established: 10/15/2009

CBSA: Milwaukee-Waukesha-West
 Allis, WI
CSA: Milwaukee-Racine-Waukesha,
 WI
UA: Milwaukee, WI

AQCR: Southeastern Wisconsin Intra-State



Site Approval Status: Site and monitor meet all design criteria for the monitoring network.

Locational Setting: This site is located near the I-94 exit ramp at College Avenue in the Park and Ride area. The trailer is 30 meters from nearest road. Given its proximity to a major interstate, this site is influenced by transportation pollution sources. The site meets the requirement of 40 CFR 58, Appendices C, D, E and G.

Monitoring Objective: Population exposure.

Monitors:

Monitor	Monitor Equipment	Designation	Analysis Method	Sampling Frequency	Monitor Est.
PM2.5	R&P FRM2025	SLAMS	Gravimetric	1 in 6	11/03/2009
PM10	Tisch PM10	SLAMS	Gravimetric	1 in 6 Collocated 1 in 6	11/03/2009
PM2.5 Total Atmospheric	R&P TEOM/FDMS- SCC	SPM & Non- Regulatory	Tapered Element Oscillating Microbalance	Continuous	03/23/2010

Quality Assurance Status: All Quality Assurance procedures have been implemented in accordance with 40 CFR 58, Appendix A

Area of Representativeness: This site represents population exposure on a neighborhood scale.

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Milwaukee – Fire Department HQ

AQS Site ID: 55-079-0099
Location: 711 W. Wells St.
County: Milwaukee
GPS coordinates: 43.041
 -87.925
Date Established: 01/01/1970

CBSA: Milwaukee-Waukesha-West Allis, WI
CSA: Milwaukee-Racine-Waukesha, WI
UA: Milwaukee, WI

AQCR: Southeastern Wisconsin Intra-State

Site Approval Status: Site and monitor meet all design criteria for the monitoring network.

Locational Setting: This site is located on the top of a fire department. The monitor is 36.6 meters from nearest road. The site meets the requirement of 40 CFR 58, Appendices C, D, E and G.

Monitoring Objective: Population exposure.

Monitors:

Monitor	Monitor Equipment	Designation	Analysis Method	Sampling Frequency	Monitor Est.
PM2.5	R&P FRM2025	SLAMS	Gravimetric	1 in 3	02/05/1999 Temporarily shutdown on 12/31/2009. Restarted 01/01/2012.

Quality Assurance Status: All Quality Assurance procedures have been implemented in accordance with 40 CFR 58, Appendix A

Area of Representativeness: This site represents population exposure on a neighborhood scale.

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Milwaukee - Havenwoods – Site Discontinued February 2012

AQS Site ID: 55-079-0052
Location: Havenwoods Environmental Center,
 6141 N. Hopkins St.
County: Milwaukee
GPS coordinates: 43.128,
 -87.971
Date Established: 10/20/2006



CBSA: Milwaukee-Waukesha-West Allis, WI
CSA: Milwaukee-Racine-Waukesha, WI
UA: Milwaukee, WI
AQCR: Southeastern Wisconsin Intra-State

Site Approval Status: Site and monitor meet all design criteria for the monitoring network

Locational Setting: This site is located at the Havenwoods State Forest. The meteorological sensors are 143 feet from nearest road. The site meets the requirement of 40 CFR 58, Appendices C, D, E and G.

Monitoring Objective: The monitoring objective is to provide meteorological data for educational purposes at the environmental center.

Monitors:

Monitor	Monitor Equipment	Designation	Analysis Method	Sampling Frequency	Monitor Est.
Wind Speed/Direction, Temperature	Met-One Meteorological	SPM & Non-Regulatory	Sonic	Continuous	11/06/2006 Discontinued 02/14/2012

Quality Assurance Status: All quality assurance procedures have been implemented in accordance with 40 CFR 58, Appendix A.

Area of Representativeness: N/A

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Milwaukee - Sixteenth St. Health Center

AQS Site ID: 55-079-0010
Location: Health Center, 1337 S. 16th St.
County: Milwaukee
GPS coordinates: 43.017,
-87.933
Date Established: 04/04/1997

CBSA: Milwaukee-Waukesha-West Allis, WI
CSA: Milwaukee-Racine-Waukesha, WI
UA: Milwaukee, WI
AQCR: Southeastern Wisconsin Intra-State



Site Approval Status: Site and monitor meet all design criteria for the monitoring network

Locational Setting: This site is located inside the Health Center Building on 16th and Greenfield. Sample inlets are 10 meters above ground level and 15 meters from nearest road. The site meets the requirement of 40 CFR 58, Appendices C, D, E and G.

Monitoring Objective: Population Exposure, Environmental Justice site. Monitoring site was requested by Health Care Center for Ozone Monitor to Study effects of ozone on Asthmatic Patients (children) in Area. Metals are also monitored with PM10. The monitoring objectives are to determine compliance with NAAQS to detect elevated pollutant levels of Ozone and to provide pollutant levels for daily air quality index reporting.

Monitors:

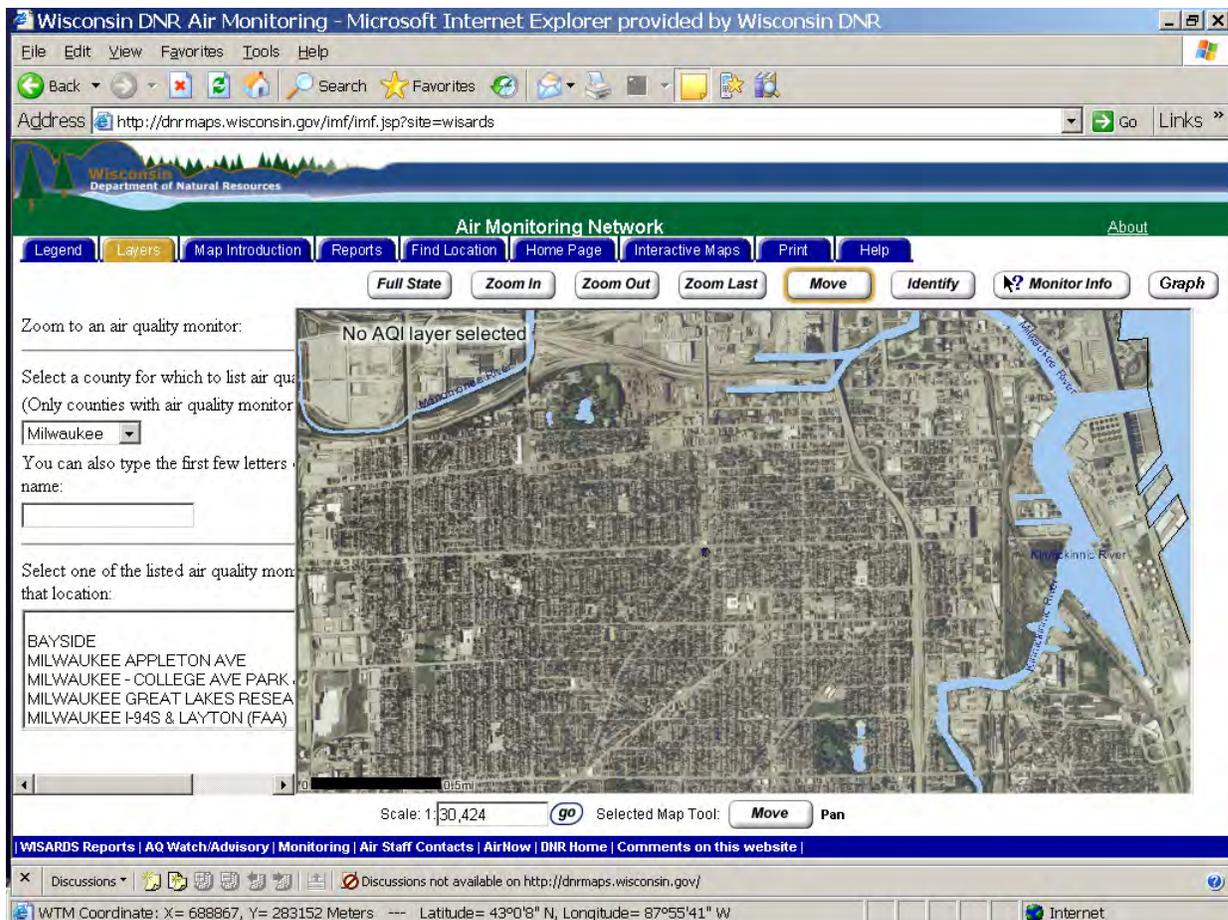
Monitor	Monitor Equipment	Designation	Analysis Method	Sampling Frequency	Monitor Est.
Ozone	API Ozone	SLAMS	UV Photometry	Continuous	06/24/2003
Wind Speed/Direction . Temperature	Met One Meteorologica I	SLAMS	Mechanical	Continuous	06/24/2003
PM2.5	R&P 2025 FRM	SLAMS	Gravimetric	1 in 3	01/01/1999
PM2.5 Total Atmospheric	Met One BAM -SCC	SLAMS	Beta Attenuation	Continuous	Planned Fall 2012
PM10	Tisch PM10	UATM	Gravimetric	1 in 12	04/04/1997
Toxic metals	Tisch PM10	UATM	Inductively Coupled Plasma (ICP)-Mass Spectrometry (MS)	1 in 6	07/17/2007

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VOCs and Carbonyls	Canister and Cartridge	UATM	Gas Chromatography (GC) – MS	1 in 12	02/01/2000
Polychlorinated Biphenyls (PCBs)	PUF Sampler	UATM	Gas Chromatography (GC) – ECD (Electron Capture Detector)	1 in 12 Collocated – 1 in 90	07/01/2010

Quality Assurance Status: All Quality Assurance procedures have been implemented in accordance with 40 CFR 58, Appendix A

Area of Representativeness: This site represents population exposure on a neighborhood scale for ozone and PM_{2.5}.



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Milwaukee Southeast Region Headquarters (SER HQ)

AQS Site ID: 55-079-0026
Location: DNR Southeast Region
 Headquarters
 2300 N. Martin Luther King
 Blvd.,
County: Milwaukee
GPS coordinates: 43.061,
 -87.912
Date Established: 6/1/1999



CBSA: Milwaukee-Waukesha-West Allis, WI
CSA: Milwaukee-Racine-Waukesha, WI
UA: Milwaukee, WI
AQCR: Southeastern Wisconsin Intra-State

Site Approval Status: Site and monitor meet all design criteria for the monitoring network

Locational Setting: This site is located in the secured lot at the DNR Southeast Region headquarters building. Sample inlets are located 4 – 10 meters above ground level and 39 meters from nearest road. Standard NOX operates all year, High Sensitivity NOY began in 2001 operates only Jun-August. This is a PAMS site. The site meets the requirement of 40 CFR 58, Appendices C, D, E and G.

Monitoring Objective: Population Exposure, Maximum Precursor Emissions,
 The monitoring objectives are to determine compliance with NAAQS to detect elevated pollutant levels of Ozone and to provide pollutant levels for daily air quality index reporting.

Monitors:

Monitor	Monitor Equipment	Designation	Analysis Method	Sampling Frequency	Monitor Est.
Ozone	API Ozone	SLAMS	UV Photometry	Continuous	06/01/1999
Nitric Oxide (NO)	API NOX	SLAMS	UV fluorescence	Continuous	06/24/1999
	TECO NOy 42			Collocated June-August	05/01/2004
Nitrogen Dioxide (NO2)	API NOX	SLAMS	UV fluorescence	Continuous	06/24/1999
Oxides of Nitrogen (NOx)	API NOX	SLAMS	UV fluorescence	Continuous	06/24/1999
Reactive Oxides of Nitrogen (NOy)	TECO NOy 42	SLAMS	UV fluorescence	Continuous June - August	05/01/2004

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NOy-NO	TECO NOy 42	SLAMS	UV fluorescence	Continuous June - August	05/24/2011
PM2.5	MetOne Dual BAM-VSCC	SPM & Non- Regulatory	Beta Attenuation	Continuous	10/14/2010 Discontinued 08/19/2011
PM2.5 Total Atmospheric	MetOne Dual BAM -SCC	SPM & Non- Regulatory	Beta Attenuation	Continuous	08/19/2011
PM10	Met-One BAM – dual-VSCC (10/14/2010 – 08/19/2011), SCC (08/19/2011 -)	SLAMS	Beta Attenuation	Continuous	10/14/2010
PM Coarse	Met-One BAM – dual-VSCC (10/14/2010 – 08/19/2011), SCC (08/19/2011 -)	SLAMS	Beta Attenuation	Continuous	10/14/2010
PM2.5	R&P 2025 FRM	SLAMS	Gravimetric	1 in 6 Collocated 1 in 12	01/01/1999 04/01/2004
Sulfur Dioxide (SO2)	SO2, High Sensitivity	SLAMS	UV fluorescence	Continuous - hourly	06/01/1996
Sulfur Dioxide (SO2)	SO2, High Sensitivity	SLAMS	UV fluorescence	Continuous – 5 min	01/01/2010
Volatiles & Carbonyls	Canisters & Cartridges	Unofficial PAMS	Gas Chromatography (GC) - Mass Spectrometry (MS)	1 in 6	01/01/1999
Wind Speed/Direction Temperature	Met One Metrological	SLAMS	Mechanical	Continuous	06/11/2002
Volatiles	Auto-Gas- Chromatograph	PAMS	GC - Flame Ionization Detector (FID)	Continuous June- August	06/01/1999 Discontinued September 2010
PM2.5 Species	Met-One Speciation	Urban	Gravimetric	1 in 3	12/13/2000

Quality Assurance Status: All Quality Assurance procedures have been implemented in accordance with 40 CFR 58, Appendix A

Area of Representativeness: This site represents population exposure on a neighborhood scale for ozone and PM2.5.

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Wisconsin DNR Air Monitoring - Microsoft Internet Explorer provided by Wisconsin DNR

Address: <http://dnrmaps.wisconsin.gov/imf/imf.jsp?site=wisards>

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Air Monitoring Network

Legend Layers Map Introduction Reports Find Location Home Page Interactive Maps Print Help

Full State Zoom In **Zoom Out** Zoom Last Move Identify **Monitor Info** Graph

Zoom to an air quality monitor:

Select a county for which to list air quality monitors:
(Only counties with air quality monitors are listed.)
Milwaukee

You can also type the first few letters of the monitor name:

Select one of the listed air quality monitors to view that location:

- BAYSIDE
- MILWAUKEE APPLETON AVE
- MILWAUKEE - COLLEGE AVE PARK & RIDE
- MILWAUKEE GREAT LAKES RESEARCH FACILITY
- MILWAUKEE I-94S & LAYTON (FAA)

No AQI layer selected

Scale: 1:30,424 Selected Map Tool: **Zoom Out** Zoom Out

WISARDS Reports | AQ Watch/Advisory | Monitoring | Air Staff Contacts | AirNow | DNR Home | Comments on this website |

WTM Coordinate: X= 688002, Y= 288661 Meters --- Latitude= 43°3'7" N, Longitude= 87°56'14" W

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Milwaukee - UWM North

AQS Site ID: 55-079-0041
Location: UWM North Campus, 2114 E Kenwood Blvd., Milwaukee
County: Milwaukee
GPS coordinates: 43.075,
 -87.884
Date Established: 01/01/1973

CBSA: Milwaukee-Waukesha-West Allis, WI
CSA: Milwaukee-Racine-Waukesha, WI
UA: Milwaukee, WI
AQCR: Southeastern Wisconsin Intra-State



Site Approval Status Site and monitor meet all design criteria for the monitoring network

Locational Setting: This site is located inside the day care center at the University of Wisconsin, Milwaukee. This is also a Mercury Deposition Network site. The sample inlet is 7 meters above ground level and 76 feet from nearest road. The site meets the requirement of 40 CFR 58, Appendices C, D, E and G.

Monitoring Objective: Population exposure. The monitoring objectives are to measure mercury continuously in an urban setting as well as collect data on the chemistry of precipitation for monitoring of geographical and temporal long-term trends. Ozone was measured at this site previously.

Monitors:

Monitor	Monitor Equipment	Designation	Analysis Method	Sampling Frequency	Monitor Est.
Mercury	Tekran	State Toxics	Cold vapor atomic fluorescence spectrometry	Continuous	01/29/2004
Wind Speed/Direction Temperature	Met One Meteorological	SPM	Mechanical	Continuous	01/01/1974

Quality Assurance Status: All Quality Assurance procedures have been implemented in accordance with 40 CFR 58, Appendix A

Area of Representativeness: This site represents a neighborhood scale.

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Wisconsin DNR Air Monitoring - Microsoft Internet Explorer provided by Wisconsin DNR

Address: <http://dnrmaps.wisconsin.gov/imf/imf.jsp?site=wisards>

Wisconsin Department of Natural Resources

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Legend Layers Map Introduction Reports Find Location Home Page Interactive Maps Print Help

Full State Zoom In Zoom Out Zoom Last Move Identify Monitor Info Graph

Zoom to an air quality monitor:

Select a county for which to list: (Only counties with air quality m...)

Milwaukee

You can also type the first few le... name:

Select one of the listed air quality that location:

- BAYSIDE
- MILWAUKEE APPLETON AVE
- MILWAUKEE - COLLEGE AVE
- MILWAUKEE GREAT LAKES R
- MILWAUKEE I-94S & LAYTON

No AQI layer selected

Scale: 1:30,424 Selected Map Tool: Zoom In

WISARDS Reports | AQ Watch/Advisory | Monitoring | Air Staff Contacts | AirNow | DNR Home | Comments on this website

Discussions not available on <http://dnrmaps.wisconsin.gov/>

WTM Coordinate: X= 691014, Y= 290255 Meters --- Latitude= 43°3'57" N, Longitude= 87°53'59" W

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Newport State Park

AQS Site ID: 55-029-0004
Location: 475 CTH NP, Newport State
 Park Ellison Bay
County: Door
GPS coordinates: 45.237
 -86.993
Date Established: 04/15/1989

CBSA: None
CSA:
UA: Not in an urban area
AQCR: Lake Michigan Intra-State



Site Approval Status: Site and monitor meet all design criteria for the monitoring network

Locational Setting: This site is located inside the Newport State Park. The sample inlet is 12 meters above ground level and 400 meters from nearest road. The site meets the requirement of 40 CFR 58, Appendices C, D, E and G.

Monitoring Objective: Regional Transport. The monitoring objectives are to determine compliance with NAAQS to detect elevated pollutant levels of Ozone and to provide pollutant levels for daily air quality index reporting.

Monitors:

Monitor	Monitor Equipment	Designation	Analysis Method	Sampling Frequency	Monitor Est.
Ozone	API Ozone	SLAMS	UV Photometry	Continuous	04/15/1989
Wind Speed/ Direction Temperature	Qualimetrics Meteorological	SLAMS	Mechanical	continuous	04/15/1989

Quality Assurance Status: All Quality Assurance procedures have been implemented in accordance with 40 CFR 58, Appendix A

Area of Representativeness: This site represents regional transport on a regional scale for ozone.

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Wisconsin DNR Air Monitoring - Microsoft Internet Explorer provided by Wisconsin DNR

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Address <http://dnrmaps.wisconsin.gov/imf/imf.jsp?site=wisards> Go Links »

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Full State **Zoom In** Zoom Out Zoom Last Move Identify **Monitor Info** Graph

Zoom to an air quality monitor:

Select a county for which to list air quality monitors:
(Only counties with air quality monitors are listed)
Door

You can also type the first few letters of the location name:

Select one of the listed air quality monitors to zoom to that location:
NEWPORT PARK

No AQI layer selected

Lake Michigan

Scale: 1:30,712 go Selected Map Tool: **Zoom In** Zoom In

WISARDS Reports | AQ Watch/Advisory | Monitoring | Air Staff Contacts | AirNow | DNR Home | Comments on this website |

Discussions Discussions not available on <http://dnrmaps.wisconsin.gov/>

WTM Coordinate: X= 752230, Y= 531162 Meters --- Latitude= 45°12'56" N, Longitude= 87°2'33" W Internet

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Perkinstown

AQS Site ID: 55-119-8001
Location: 1 mile east of Perkinstown on state Hwy M
County: Taylor
GPS coordinates: 45.203
 -90.600
Date Established: 01/01/1988

CBSA: None – Rural site
AQCR: Northwest Wisconsin Duluth, Minnesota Interstate



Site Approval Status Site and monitor meet all design criteria for the monitoring network

Locational Setting: This site is located on private property 1 mile east of the town of Perkinstown . The PM2.5 Speciation site (1 in 6) was est. in Dec. 2001, with continuous PM2.5 with FDMS in Nov. 2003 to fill a gap in north-central WI for regional PM2.5 mapping effort. The sample inlet is 3 meters above ground level and 100 meters from nearest road. The site meets the requirement of 40 CFR 58, Appendices C, D, E and G.

This is also a CASTnet monitoring site with the US EPA as the sponsoring agency as well as a National Atmospheric Deposition and National Trends Network.

Monitoring Objective: Welfare related. The monitoring objectives are to determine compliance with NAAQS to detect elevated pollutant levels of PM2.5 and to provide pollutant levels for daily air quality index reporting.

Monitors:

Monitor	Monitor Equipment	Designation	Analysis Method	Sampling Frequency	Monitor Est.
PM2.5	R&P FRM2025	SLAMS	Gravimetric	1 in 6	05/03/2003
PM2.5 Total Atmospheric	R&P TEOM/FDMS-VSCC	SPM & Non-Regulatory	Tapered Element Oscillating Microbalance	Continuous	11/21/2003 Discontinued 02/22/2012
Acceptable PM2.5 Aqi & Speciation Mass	Met-One BAM-SCC	SPM & Non-Regulatory	Beta Attenuation	Continuous	02/22/2012
PM2.5 Species	Met-One Speciation	SPM	Gravimetric	1 in 6	12/01/2001

Quality Assurance Status: All Quality Assurance procedures have been implemented in accordance with 40 CFR 58, Appendix A

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Area of Representativeness: This site represents welfare related on a regional scale for PM2.5.

The screenshot shows a web browser window titled "Wisconsin DNR Air Monitoring - Microsoft Internet Explorer provided by Wisconsin DNR". The address bar shows the URL: <http://dnrmaps.wisconsin.gov/imf/imf.jsp?site=wisards>. The page features a navigation menu with options like "Legend", "Layers", "Map Introduction", "Reports", "Find Location", "Home Page", "Interactive Maps", "Print", and "Help". Below the menu are map control buttons: "Full State", "Zoom In", "Zoom Out", "Zoom Last", "Move", "Identify", "Monitor Info", and "Graph".

On the left side, there are instructions for zooming to an air quality monitor. It includes a dropdown menu for selecting a county (currently set to "Taylor") and a text input field for typing the first few letters of the location name. Below this, a list of air quality monitors is shown, with "PERKINSTOWN" selected.

The main map area displays a satellite-style map of a region with several lakes labeled: "Rush Creek", "Lung Lake", "South Fork Taylor River", "Walton Lake", "Anderson Lake", and "Eoka Lake". A text overlay on the map reads "No AQI layer selected". At the bottom of the map, the scale is shown as "Scale: 1:30,712" and the selected map tool is "Zoom In".

The footer of the page contains navigation links: "WISARDS Reports | AQ Watch/Advisory | Monitoring | Air Staff Contacts | AirNow | DNR Home | Comments on this website". The browser status bar at the bottom shows the WTM Coordinate: X= 475386, Y= 525098 Meters, Latitude= 45°11'53" N, Longitude= 90°34'5" W, and the Internet icon.

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Popple River

AQS Site ID: 55-037-0001
Location: Highway 101, Florence
County: Florence
GPS coordinates: 45.795
-88.400
Date Established: 05/08/1987

CBSA: Iron Mountain, MI-WI
AQCR North Central Wisconsin Intra-State



Site Approval Status: Site and monitor meet all design criteria for the monitoring network

Locational Setting: This site is located at the fire site #565 on highway 101 in Florence. The sample inlet is 5 meters above ground level and 215 feet from nearest road. This is an Atmospheric Deposition Monitoring Site, National Trends Network and Mercury Deposition Network. The site meets the requirement of 40 CFR 58, Appendices C, D, E and G.

Monitoring Objective: The purpose of the network is to collect data on the chemistry of precipitation for monitoring of geographical and temporal long-term trends.

Monitors: Wet Deposition

Quality Assurance Status: All Quality Assurance procedures have been implemented in accordance with 40 CFR 58, Appendix A

Area of Representativeness: This site represents population exposure on a regional scale for ozone

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Wisconsin DNR Air Monitoring - Microsoft Internet Explorer provided by Wisconsin DNR

File Edit View Favorites Tools Help

Back Forward Stop Refresh Home Search Favorites Print Mail Print Diskette Home Folder

Address <http://dnr.maps.wisconsin.gov/imf/imf.jsp?site=wisards> Go Links »

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Air Monitoring Network About

Legend Layers Map Introduction Reports Find Location Home Page Interactive Maps Print Help

Full State Zoom In Zoom Out Zoom Last Move Identify Monitor Info Graph

Zoom to an air quality monitor:

Select a county for which to list air quality monitors:
(Only counties with air quality monitors are listed)

Florence

You can also type the first few letters of the location name:

Select one of the listed air quality monitors to zoom to that location:

POPPLE RIVER

No AQI layer selected

Scale: 1:30,712 go Selected Map Tool: Zoom In Zoom In

WISARDS Reports | AQ Watch/Advisory | Monitoring | Air Staff Contacts | AirNow | DNR Home | Comments on this website |

Discussions Discussions not available on <http://dnrmaps.wisconsin.gov/> Internet

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Potawatomi (Tribal Site)

AQS Site ID: 55-041-0007
Location: Fire Tower Road
County: Forest
GPS coordinates: 45.565
 -88.809
Date Established: 06/04/2004

CBSA: None
CSA:
UA: Not in an urban area
AQCR: North Central Wisconsin Intra-State



Site Approval Status: Site and monitor meets all design criteria for the monitoring network.

Locational Setting: This site is located on the Forest County Potawatomi community reservation. The sample inlet is 215 feet from nearest road. This site monitors Atmospheric Deposition, National Trends Network and Mercury Deposition. The site meets the requirement of 40 CFR 58, Appendices C, D, E and G.

Monitoring Objective: General Background. The monitoring objectives are to determine compliance with NAAQS, to detect elevated pollutant levels of ozone, and to provide pollutant levels for daily air quality index reporting.

Monitors:

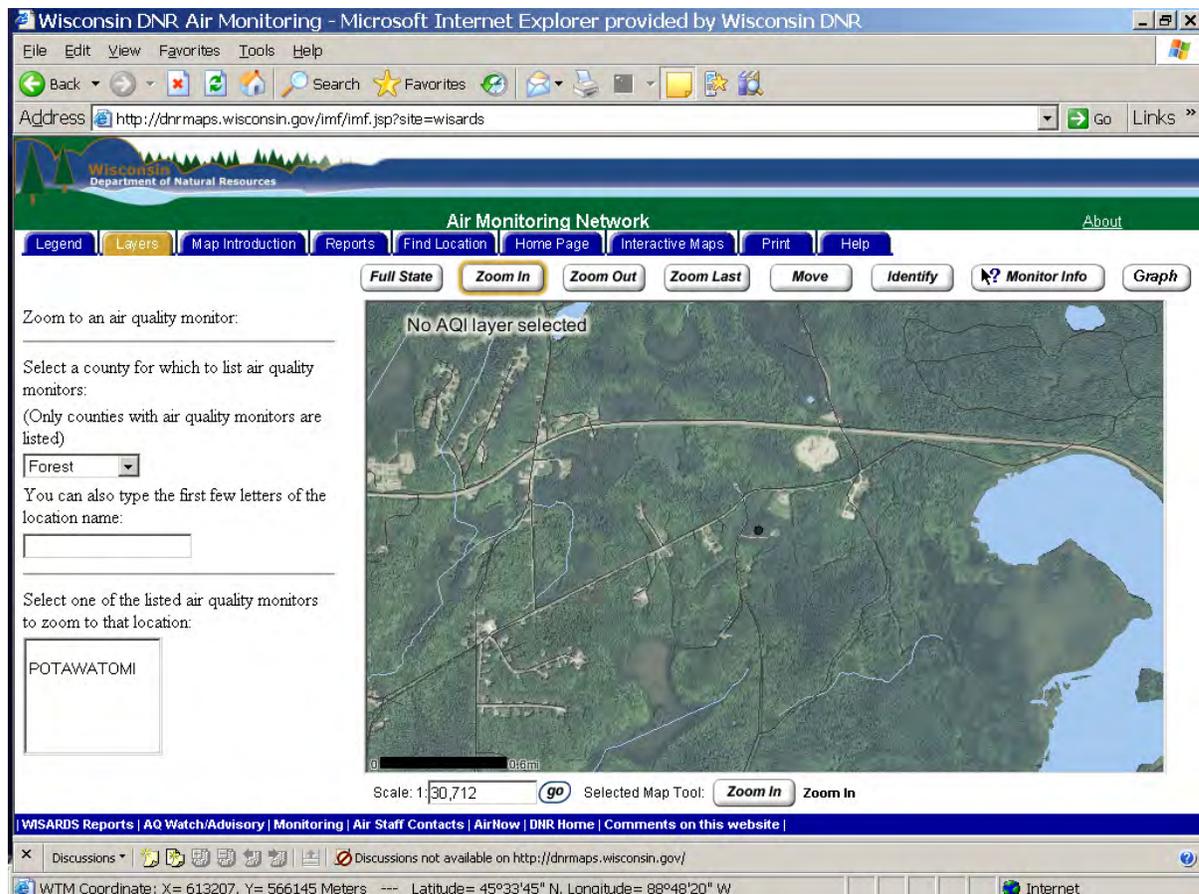
Monitor	Monitor Equipment	Designation	Analysis Method	Sampling Frequency	Monitor Est.
Ozone	API Ozone	Tribal	UV Photometry	Continuous	01/07/2004
Sulfur Dioxide	API SO2	Tribal	UV Photometry	Continuous	01/07/2004
Sulfur Dioxide	API SO2	Tribal	UV Photometry	Continuous – 5 min	01/01/2010
PM2.5	R&P 2025	Tribal	Gravimetric	1 in 6 Collocated	02/01/2004 Discontinued 06/30/2010
PM2.5	MetOne BAM-VSCC	Tribal	Beta Attenuation	Continuous	01/31/2011
Nitric Oxide (NO)	API NOX	Tribal	UV Photometry	Continuous	02/23/2010
Nitrogen Dioxide (NO ₂)	API NOX	Tribal	UV Photometry	Continuous	02/23/2010
Oxides of Nitrogen (NO _x)	API NOX	Tribal	UV Photometry	Continuous	02/23/2010

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Wind Speed,/Direction, Temperature, Solar Radiation, Relative Humidity	Met One	Tribal	Mechanical	Continuous	05/07/2008
PM10	Tisch PM10	SPM	Gravimetric	1 in 30	06/07/2002
Toxic Metals	Tisch PM10-	SPM	Inductively Coupled Plasma (ICP)-Mass Spectrometry (MS)	1 in 30	01/01/2007
Mercury	Tekran	Tribal	Cold Vapor Atomic Fluorescence	Continuous	01/01/2007

Quality Assurance Status: All Quality Assurance procedures have been implemented in accordance with 40 CFR 58, Appendix A

Area of Representativeness: This site represents general background on a regional scale for ozone and PM2.5.



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Potosi

AQS Site ID: 55-043-0009
Location: 128 Hwy 61, Tennyson
County: Grant
GPS coordinates: 42.693
 -90.698
Date Established: 01/06/1999

CBSA: None – Rural site
CSA:
UA: Not in an urban area
AQCR: Southwestern Wisconsin
 Metropolitan Dubuque, Iowa
 Interstate



Site Approval Status: Site and monitor meet all design criteria for the monitoring network

Locational Setting: This site is located in Tennyson at the Potosi High School grounds. The sample inlet is 5 meters above ground level and 100 meters from nearest road. The site meets the requirement of 40 CFR 58, Appendices C, D, E and G.

Monitoring Objective: Regional transport. The monitoring objectives are to determine compliance with NAAQS to detect elevated pollutant levels of PM2.5.

Monitors:

Monitor	Monitor Equipment	Designation	Analysis Method	Sampling Frequency	Monitor Est.
PM2.5	R&P FRM 2025	SLAMS	Gravimetric	1 in 3	01/06/1999
PM2.5	Met One BAM-VSCC	SLAMS	Beta Attenuation	Continuous	09/26/2011 Discontinued 10/31/2011
PM2.5 Total Atmospheric	Met One BAM-SCC	SPM & Non-Regulatory	Beta Attenuation	Continuous	11/01/2011
Wind Speed/Direction. Temperature	Met-One Meteorological	SLAMS	Mechanical	Continuous	09/26/2011

Quality Assurance Status: All Quality Assurance procedures have been implemented in accordance with 40 CFR 58, Appendix A

Area of Representativeness: This site represents regional transport on a regional scale for PM2.5.

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Wisconsin DNR Air Monitoring - Microsoft Internet Explorer provided by Wisconsin DNR

File Edit View Favorites Tools Help

Address <http://dnrmaps.wisconsin.gov/imf/imf.jsp?site=wisards> Go Links

Wisconsin Department of Natural Resources

Air Monitoring Network

About

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Full State Zoom In Zoom Out Zoom Last Move Identify Monitor Info Graph

Zoom to an air quality monitor:

Select a county for which to list air quality monitors:
(Only counties with air quality monitors are listed)

Grant

You can also type the first few letters of the location name:

Select one of the listed air quality monitors to zoom to that location:

POTOSI

No AQI layer selected

Scale: 1:30,424 go Selected Map Tool: Move Pan

WISARDS Reports | AQ Watch/Advisory | Monitoring | Air Staff Contacts | AirNow | DNR Home | Comments on this website |

Discussions Discussions not available on <http://dnrmaps.wisconsin.gov/>

Internet

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Racine

AQS Site ID: 55-101-0017
Location 1519 Washington Ave
County: Racine
GPS coordinates: 42.714
 -87.799
Date Established: 01/01/1977



CBSA: Racine, WI
CSA: Milwaukee-Racine-Waukesha
UA: Racine, WI
AQCR: Southeastern Wisconsin Intra-State

Site Approval Status Site and monitor meet all design criteria for the monitoring network



Locational Setting: This site is located inside a local business. The sample inlet is 11 meters above ground level and 48 meters from nearest road. The site meets the requirement of 40 CFR 58, Appendices C, D, E and G.

Monitoring Objective: Population exposure. The monitoring objectives are to determine compliance with NAAQS to detect elevated pollutant levels of Ozone and to provide pollutant levels for daily air quality index reporting.

Monitors:

Monitor	Monitor Equipment	Designation	Analysis Method	Frequency of Sampling	Monitor Est.
Ozone	API Ozone	SLAMS	UV Photometry	Continuous	08/26/1977
Wind Speed/Direction. Temperature	Met One Meteorological	SLAMS	Mechanical	Continuous	09/01/1977

Quality Assurance Status: All Quality Assurance procedures have been implemented in accordance with 40 CFR 58, Appendix A

Area of Representativeness: This site represents population exposure on a neighborhood scale for ozone.

2013 Wisconsin Air Monitoring Network Plan

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Rhineland Tower

AQS Site ID: 55-085-0996
Location: 434 High St.,
County: Oneida
GPS coordinates: 45.645
 -89.418
Date Established: 04/13/1981

CBSA: None
CSA:
UA: Not in an urban area
AQCR: North Central Wisconsin Intra-
 State



Site Approval Status: Site and monitor meet all design criteria for the monitoring network

Locational Setting: This site is located next to the Rhineland Water Tower on Lake & High Streets. The sample inlet is 5 meters above ground level and 30.5 meters from nearest road. The site meets the requirement of 40 CFR 58, Appendices C, D, E and G.

Monitoring Objective: Source Oriented. The monitoring objectives are to determine compliance with NAAQS to detect elevated pollutant levels of SO₂, is a SIP requirement and to provide pollutant levels for daily air quality index reporting.

Monitors:

Monitor	Monitor Equipment	Designation	Analysis Method	Sampling Frequency	Monitor Est.
Sulfur Dioxide	API SO2	SLAMS	UV fluorescence	Continuous	04/14/1981
Sulfur Dioxide	API SO2	SLAMS	UV fluorescence	Continuous – 5 min	01/01/2010
Wind Direction/ Speed	Qualimetrics Meteorological	SLAMS	Mechanical.	Continuous	04/26/1981

Quality Assurance Status: All Quality Assurance procedures have been implemented in accordance with 40 CFR 58, Appendix A

Area of Representativeness: This site represents source oriented monitoring on a neighborhood scale for SO₂.

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Sheboygan Kohler-Andre State Park

AQS Site ID: 55-117-0006
Location: Nature Center of Kohler-Andre State Park, 1520 Beach Park Rd.
County: Sheboygan
GPS coordinates: 43.679, -87.716
Date Established: 06/26/1997



CBSA: Sheboygan, WI
CSA:
UA: Sheboygan, WI
AQCR: Lake Michigan Intra-State



Site Approval Status: Site and monitor meet all design criteria for the monitoring network

Locational Setting: This site is located inside the nature center along the shore of Lake Michigan at the Kohler-Andre State Park. The sample inlet is 6.4 meters above ground level and 482 meters from nearest service road and 747 meters from nearest public road. The site meets the requirement of 40 CFR 58, Appendices C, D, E and G.

Monitoring Objective: Regional transport. The monitoring objectives are to determine compliance with NAAQS to detect elevated pollutant levels of Ozone and to provide pollutant levels for daily air quality index reporting.

Monitors:

Monitor	Monitor Equipment	Designation	Analysis Method	Sampling Frequency	Monitor Est.
Ozone	API Ozone	SLAMS	UV Photometry	Continuous	06/26/1997
Wind Direction/ Speed, Temperature	Meteorological Met-One	SLAMS	Mechanical	Continuous	04/14/2001

Quality Assurance Status: All Quality Assurance procedures have been implemented in accordance with 40 CFR 58, Appendix A

Area of Representativeness: This site represents regional transport on a regional scale for ozone.

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[Full State](#) [Zoom In](#) [Zoom Out](#) [Zoom Last](#) [Move](#) [Identify](#) [Monitor Info](#) [Graph](#)

Zoom to an air quality monitor:

Select a county for which to list air quality monitors:
(Only counties with air quality monitors are listed)

Sheboygan

You can also type the first few letters of the location name:

Select one of the listed air quality monitors to zoom to that location:

KOHLER
SHEBOYGAN KOHLER ANDRE

No AQI layer selected

Lake Michigan

Scale: 1:30,424 Selected Map Tool: [Zoom In](#) [Zoom In](#)

[WISARDS Reports](#) | [AQ Watch/Advisory](#) | [Monitoring](#) | [Air Staff Contacts](#) | [AirNow](#) | [DNR Home](#) | [Comments on this website](#)

WTM Coordinate: X= 704722, Y= 356603 Meters --- Latitude= 43°39'34" N, Longitude= 87°42'33" W

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[Full State](#) [Zoom In](#) [Zoom Out](#) [Zoom Last](#) [Move](#) [Identify](#) [Monitor Info](#) [Graph](#)

Zoom to an air quality monitor:

Select a county for which to list air quality monitors:
(Only counties with air quality monitors are listed)

Sheboygan

You can also type the first few letters of the location name:

Select one of the listed air quality monitors to zoom to that location:

KOHLER
SHEBOYGAN KOHLER ANDRE

No AQI layer selected

Lake Michigan

Scale: 1:3,803 Selected Map Tool: [Zoom In](#) [Zoom In](#)

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WTM Coordinate: X= 704375, Y= 357380 Meters --- Latitude= 43°39'59.6" N, Longitude= 87°42'47.2" W

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Spoooner

AQS Site ID: None
Location: Spooner Agricultural Research Station, Highway 70
County: Washburn
GPS coordinates: 45.822
-91.874
Date Established: 06/03/1980

CBSA: None
AQCR: North Central Wisconsin Intra-State



Site Approval Status: Site and monitor meet all design criteria for the monitoring network

Locational Setting: This site monitors National Atmospheric Deposition Program, National Trends Network.

Monitoring Objective: National Atmospheric Deposition Program, National Trends Network

Monitors: Wet Deposition

Quality Assurance Status: All Quality Assurance procedures have been implemented in accordance with specifications of NADP.

Area of Representativeness: Regional background

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Address: <http://dnr.maps.wisconsin.gov/imf/imf.jsp?site=wisards>

Wisconsin DNR Department of Natural Resources

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Full State **Zoom In** Zoom Out Zoom Last Move Identify Monitor Info Graph

Zoom To Geographic

Enter the geographic position where you wish to center the map and the width of the map that you wish to show, then press the "Ok" button. The map will zoom to the extent that you entered. The position shown is the current map center.

Longitude (DMS):
-91 52 26.00011

Latitude (DMS):
45 49 19.00005

Select the zoom map width:
10 kilometers

OK

Apr 20, 2010 4:00:00 PM OZONE and PM25

Scale: 1:30,054 go Selected Map Tool: Zoom In Zoom In

WISARDS Reports | AQ Watch/Advisory | Monitoring | Air Staff Contacts | AirNow | DNR Home | Comments on this website |

Discussions Discussions not available on <http://dnrmaps.wisconsin.gov/>

Done Internet

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Superior Sewage Treatment Plant

AQS Site ID: 55-031-0019
Location: Sewage Treatment Plant Avenue E
County: Douglas
GPS coordinates: 46.727
 -92.072
Date Established: 10/02/1980

CBSA: Duluth, MN-WI
AQCR: Northwest Wisconsin-Duluth,
 Minnesota Interstate



Site Approval Status: Site and monitor meet all design criteria for the monitoring network

Locational Setting: This site is located in a field at the Sewage Treatment Plant along the St. Louis River waterfront. Meteorology is measured at 17 meters above ground level. The site meets the requirement of 40 CFR 58, Appendices C, D, E and G.

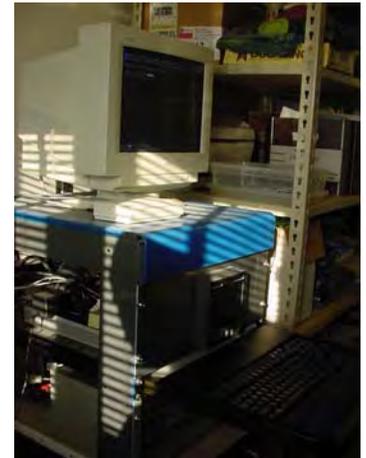
Monitoring Objective: Source oriented. This site supports permit-required monitoring for particles for multiple sites in the waterfront area.

Monitors:

Monitor	Monitor Equipment	Designation	Analysis Method	Sampling Frequency	Monitor Est.
Wind Direction/Speed Temperature	Qualimetrics Meteorological	SPM	Mechanical	Continuous	10/02/1980

Quality Assurance Status: All Quality Assurance procedures have been implemented in accordance with 40 CFR 58, Appendix A.

Area of Representativeness: Source on a neighborhood scale.



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Suring

AQS Site ID: None
Location: 10360 Big Eddie Ln
County: Oconto
GPS coordinates: 45.053
-88.372
Date Established: 1/23/85

CBSA: none
AQCR: Lake Michigan Intra-state



Site Approval Status: Site and monitor meet all design criteria for the monitoring network

Locational Setting: This site monitors National Atmospheric Deposition. The site meets the requirement of 40 CFR 58, Appendices C, D, E and G.

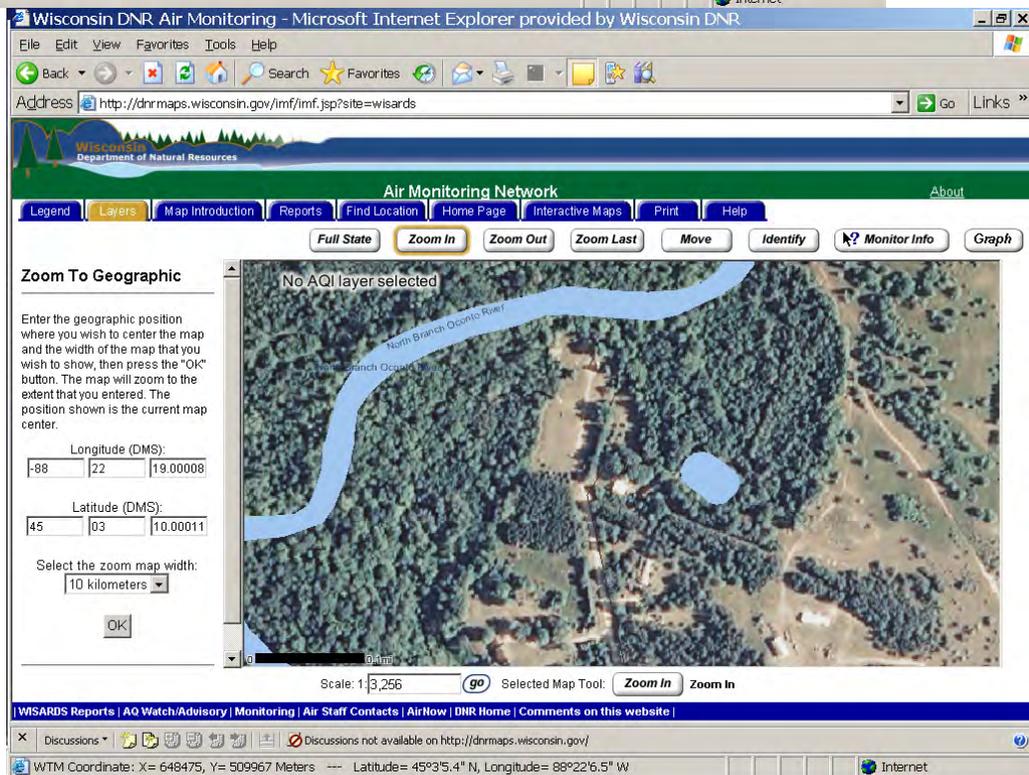
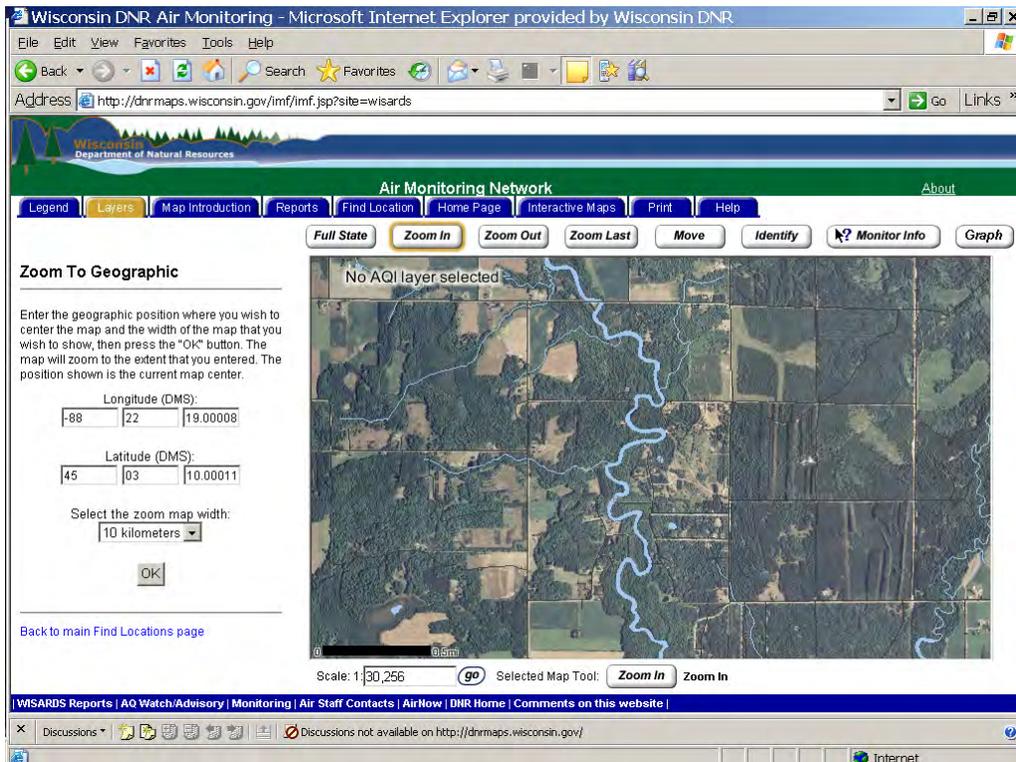
Monitoring Objective: The purpose of the network is to collect data on the chemistry of precipitation for monitoring of geographical and temporal long-term trends.

Monitors: Wet Deposition

Quality Assurance Status: All Quality Assurance procedures have been implemented in accordance with 40 CFR 58, Appendix A

Area of Representativeness: Regional background

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Trout Lake

AQS Site ID: 55-125-0001
Location: Trout Lake Forestry Hdqrs. Boulder Junction 10810 County Hwy M
County: Vilas
GPS coordinates: 46.052
 -89.653
Date Established: 01/01/1973



CBSA: None – Rural Site
AQCR: North Central Wisconsin Intra-State

Site Approval Status: Site and monitor does not meet all design criteria for the monitoring network due to probe height above 60 feet



Locational Setting: This site is located in a field at the DNR Forestry Site on County M, Boulder Junction. The sample inlets are 3.2 (PM2.5) and 116.8 (Ozone) meters above ground level and 122 meters from nearest road. This site monitors Atmospheric Deposition, National Trends Network and Mercury Deposition. The site meets the requirement of 40 CFR 58, Appendices C, D, E and G.

Monitoring Objective: General background. The monitoring objectives are to determine compliance with NAAQS to detect elevated pollutant levels of ozone and to provide pollutant levels for daily air quality index reporting.

Monitors:

Monitor	Monitor Equipment	Designation	Analysis Method	Sampling Frequency	Monitor Est.
Ozone	API Ozone	SLAMS	UV Photometry	Continuous	12/16/1992
PM2.5	R&P 2025	SLAMS	Gravimetric	1 in 6	01/01/1999

Quality Assurance Status: All Quality Assurance procedures have been implemented in accordance with 40 CFR 58, Appendix A

Area of Representativeness: This site represents general/background on a regional scale for ozone and PM2.5.

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[Full State](#) [Zoom In](#) [Zoom Out](#) [Zoom Last](#) [Move](#) [Identify](#) [Monitor Info](#) [Graph](#)

Zoom to an air quality monitor:

Select a county for which to list air quality monitors:
(Only counties with air quality monitors are listed)

Vilas

You can also type the first few letters of the location name:

Select one of the listed air quality monitors to zoom to that location:

TROUT LAKE

No AQI layer selected

Trout Lake

Allequash Lake

Scale: 1:30,424 [go](#) Selected Map Tool: [Zoom In](#) [Zoom In](#)

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Discussions not available on <http://dnrmaps.wisconsin.gov/>

WTM Coordinate: X= 539111, Y= 614345 Meters --- Latitude= 46°0'9" N, Longitude= 89°45'11" W

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Waukesha - Cleveland Avenue

AQS Site ID: 55-133-0027
Location: 1310 Cleveland Ave.
 Waukesha
County: Waukesha
GPS coordinates: 43.020
 -88.215
Date Established: 02/03/1989

CBSA: Milwaukee-Waukesha-
 West Allis, WI
AQCR: Southeastern Wisconsin
 Intra-State



Site Approval Status: Site and monitors meet all design criteria for the monitoring network.

Locational Setting: This site is located in a fenced-in area on a city lot in Waukesha County. The sample inlets are 5 - 5.4 meters above ground level and 6 meters from nearest road. The site meets the requirement of 40 CFR 58, Appendices C, D, E and G.



Monitoring Objective: Population exposure. The monitoring objectives are to determine compliance with NAAQS, to detect elevated pollutant levels of ozone, and PM2.5 and to provide pollutant levels for daily air quality index reporting.

Monitors:

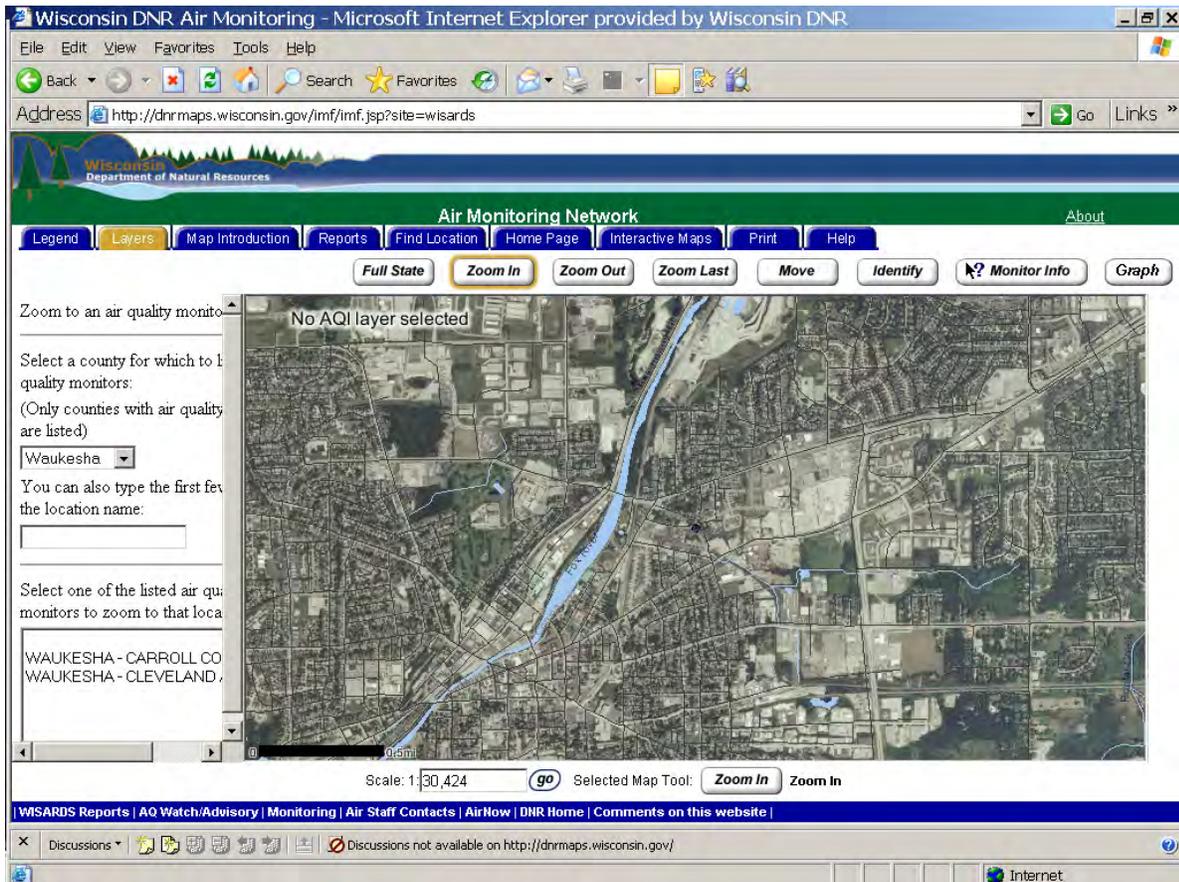
Monitor	Monitor Equipment	Designation	Analysis Method	Sampling Frequency	Monitor Est.
Ozone	API Ozone	SLAMS	UV Photometry	Continuous	04/27/2004
PM2.5 Total Atmospheric	R&P TEOM/FDMS-SCC	SPM & Non-Regulatory	Tapered Element Oscillating Microbalance	Continuous	03/01/2004 Discontinued 09/30/2011
Acceptable PM2.5 Aqi & Speciation Mass	Met One BAM-SCC	SPM & Non-Regulatory	Beta Attenuation	Continuous	09/26/2011
PM2.5	R&P 2025 FRM	SLAMS	Gravimetric	1 in 6	01/01/1999
PM2.5 Species	Met One Speciation	SLAMS	Gravimetric	1 in 6	01/01/1998

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PM10	Anderson HI-VOL	Other	Gravimetric	1 in 6	02/03/1989
Wind Speed/Direction. Temperature	Met One Meteorological	SLAMS	Mechanical	Continuous	03/17/2004

Quality Assurance Status: All quality assurance procedures have been implemented in accordance with 40 CFR 58, Appendix A.

Area of Representativeness: This site represents population exposure on a neighborhood scale for ozone and fine particles.



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Wildcat Mountain State Park

AQS Site ID: 55-123-0008
Location: Wildcat Mountain State Park , Hwy 33, Ontario
County: Vernon
GPS coordinates: 43.70222
-90.5683
Date Established: 3/20/1990

CBSA: None – Rural Site
AQCR: Southeast Minnesota-La Crosse

Locational Setting:

This site monitors National Atmospheric Deposition. The site meets the requirement of 40 CFR 58, Appendices C, D, E and G.

Monitoring Objective:

The purpose of the network is to collect data on the chemistry of precipitation for monitoring of geographical and temporal long-term trends.

Monitors: Wet Deposition

Quality Assurance Status:

All Quality Assurance procedures have been implemented in accordance with 40 CFR 58, Appendix A

Area of Representativeness: Regional background

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Full State **Zoom In** Zoom Out Zoom Last Move Identify Monitor Info Graph

Zoom to an air quality monitor:

Select a county for which to list air quality monitors:
(Only counties with air quality monitors are listed)
Vernon

You can also type the first few letters of the location name:

Select one of the listed air quality monitors to zoom to that location:
WILDCAT MOUNTAIN

No AQI layer selected

Scale: 1:30,424 go Selected Map Tool: **Zoom In** Zoom In

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Discussions not available on <http://dnrmaps.wisconsin.gov/>

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Appendix A: Industrial Sites*

AQS Site #	County	Facility	Pollutants
55-005-1001	Barron	Superior Silica Sands, LLC	PM10
55-017-0100	Chippewa	EOG Resources, Inc.	PM10
55-021-0019	Columbia	Didion Milling	TSP
55-025-1005	Dane	University of W\DOA	SO2 & PM10 continuous
55-031-0011	Douglas	Midwest Energy	TSP
55-031-0014	Douglas	Midwest Energy	TSP
55-031-0023	Douglas	BNSF – Railroad	TSP
55-031-0027	Douglas	Midwest Energy	TSP
55-031-0035	Douglas	Cenex Harvest States	TSP
55-031-0036	Douglas	Cenex Harvest States	TSP
55-031-0037	Douglas	Hallet Dock	TSP
55-031-0038	Douglas	Midwest Energy	TSP
55-133-0039	Waukesha	Metal Tek International	TSP
55-017-1001	Chippewa	Chippewa Sand Co.	PM10

* Additional sand mines are in the process of adding PM10 monitors.

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Appendix B: Methods Summaries

Particulate Matter 10 microns in size, PM10 Samplers operate as either FRM or FEM samplers and are operated according to the requirements set forth in 40 CFR 50 and 40 CFR 53. Filter-based samples are collected with a high-volume sampler followed by weighing in an analytical laboratory. Sample concentration is derived by the difference in weight in a laboratory under standard conditions. The Air Monitoring program operates one continuous monitor that determines an hourly concentration using a beta attenuation monitor.

Particulate Matter 2.5 microns in size (PM2.5) Federal Reference Method (FRM) With the exception of continuous samplers, all fine particle samplers operated by the Air Monitoring Section are certified as FRM samplers. All manual samplers are operated per the requirements set forth in 40 CFR 50; Appendix L. Samples are collected on 46.2mm PTFE filters over a 24-hour sampling period. Air flow through the filter is maintained at 16.7 liters per minute. The flow rate must not vary more than +/-5% for five minutes over a 24-hour sample period at actual ambient temperature and pressure. Samples must be retrieved within 177 hours of the end of the sample run and must be kept cool (4 °C or cooler) during transit to meet the thirty day limit for re-weighing. The PTFE filters are to be equilibrated before each weighing for minimum of 24 hours at a controlled atmosphere of 20-23 °C mean temperature and 30-40% mean relative humidity. Filters must be used within thirty days of initial weighing. Filters must be re-weighed within thirty days of the end of the sample run and must be kept at 4 °C or cooler. The gain in weight in relation to the volume of air sampled is calculated in micrograms per cubic meter ($\mu\text{g}/\text{m}^3$).

PM2.5 Continuous Sampling (FEM and non-FEM) Continuous PM2.5 samplers provide rolling 24-hour average sample concentrations for AQI reporting. The most of continuous fine particle samplers operated by the Air Monitoring Program use a TEOM equipped with a sharp cut cyclone and FDMS unit. As a result of US EPA's recent approval of TEOM-FDMS units as FEM samplers, the Air Monitoring Program began upgrading the equipment to a FEM or near-FEM configuration as funding permitted. Upgrades include retrofitting or updating the FDMS revision C configuration including a revision C dryer, changing to a very sharp cut cyclone (VSCC), and changing instrument firmware. Data are transmitted by telemetry for entry into the automated central data acquisition system (WISARDS).

PM2.5 Speciation sampling and analysis In addition to operating PM2.5 samplers that determine only PM2.5 mass values, WDNR also operates PM2.5 speciation samplers that collect samples that are analyzed to determine the chemical composition of PM2.5. Samples are collected on a set of three filters over a calendar-day 24-hour sampling period. The individual filters are composed of different media in order to collect specific types of toxic pollutants. After collection, the samples are shipped in ice chests to an EPA contract laboratory for analysis. At the laboratory the samples are analyzed, using optical and electron microscopy, thermal optical analysis, ion chromatography and x-ray fluorescence to determine the presence and level of specific toxic compound. Sample results are entered in the AQS data system.

Sulfur Dioxide Instruments used to continuously monitor sulfur dioxide levels in the

atmosphere employ the UV fluorescence and UV open path methods. The continuous data output from the instrument is transmitted by telemetry for entry into an automated central data system. Calibration of these instruments is done dynamically using certified gas mixtures containing a known concentration of sulfur dioxide gas. This gas is then diluted in a specially designed apparatus to give varying known concentrations of sulfur dioxide. These known concentrations are supplied to the instruments, which are adjusted so that instrument output corresponds with the specific concentrations. Calibration curves are prepared for each instrument and each data point is automatically compared to this curve before entry into the data acquisition system.

Carbon Monoxide Continuous monitoring for carbon monoxide is performed by use of the non dispersive infrared correlation method. Data is transmitted by telemetry for entry in an automated central data acquisition System. Calibration of the instrument is performed periodically by using nitrogen, or zero air, to establish the zero baseline and NIST or NIST-traceable gas mixtures of carbon monoxide in air. The span is checked daily using a certified mixture of compressed gas containing approximately 45 parts per million carbon monoxide.

Ozone Ozone is monitored using the UV photometry and UV open path methods. The continuous data output from the instrument is transmitted by telemetry for entry into an automated central data acquisition system. Monitors are verified routinely using an ozone transfer standard, which is calibrated using the ultra violet photometry reference method. Calibration curves are prepared for each instrument and each data point is automatically compared to this curve before entry into the data acquisition system.

Nitrogen Dioxide The chemiluminescence and UV open path methods are used in monitoring the nitrogen dioxide level in the ambient air. The continuous data output from the instrument is transmitted by telemetry for entry into an automated central data acquisition system. Calibration of these instruments is done dynamically using NIST certified gas mixtures of nitric oxide. Through the use of dilution apparatus, varying concentrations are produced and supplied to the monitors, thus producing a specific calibration curve for each instrument. Each data point is automatically compared to this curve before entry into the data acquisition system.

Lead In 2008, US EPA finalized changes to the sampling and analysis methods for the Pb monitoring network. Specifically, US EPA (1) continued using the current Pb-TSP Federal Reference Method (FRM, 40 CFR part 50 Appendix G), (2) finalized a new Federal Reference Method (FRM) for monitoring Pb in PM₁₀ (Pb-PM₁₀) low-volume for limited situations where it will be permitted, (3) lowered the Pb concentration range required during Pb-TSP and Pb-PM₁₀ candidate Federal Equivalent Method (FEM) comparability testing, and (4) finalized changes to the quality assurance requirements for Pb monitoring.

Mercury Ambient Air Monitoring Cold vapor atomic fluorescence spectrometry is used to determine elemental gaseous mercury in ambient air at sub-nanogram per cubic meter levels. The analyzer uses a dual, ultra pure gold absorbent cartridge design that allows alternating desorption and sampling. The dual cartridge design results in continuous mercury sampling of the air stream. The continuous data output from the instrument is transmitted by telemetry for entry into a data acquisition system.

Mercury and Atmospheric Deposition Monitoring Wet Deposition Also known as

NADP/MDN and NTN (National Atmospheric Deposition Program/ Mercury Deposition Network and National Trends Network), the objective of the MDN is to develop a national database of weekly concentrations of total mercury in precipitation and the seasonal and annual flux of total mercury in wet deposition. The data are used to develop information on spatial and seasonal trends in mercury deposited to surface waters, forested watersheds, and other sensitive receptors.

Acid precipitation monitoring sites operate on a weekly sampling schedule. Cumulative precipitation events occurring during a seven-day period are collected in one container to represent a one-week sample. An Aerochem precipitation sampler and NN samplers are used to collect the sample. The principle of operation of the samplers is based on the use of a moisture sensor that activates an electrically driven movable container lid covering the “wet” container during dry periods and then is moved to uncover the “wet” container when precipitation occurs. The opening and closing of the lid for each precipitation event is indicated on a data logger providing the time and date of each event. At the end of each weekly sampling period, the sample bag/bottle in the “wet” container is removed and a new sample bag/bottle is installed.

Analysis of precipitation samples for total- and methylmercury is performed by Frontier Geosciences, Inc., Seattle WA. And the data are available on the web site <http://NADP.sws.uiuc.edu/sites/>. The national MDN began a transition network of 13 sites in 1995. Beginning in 1996, MDN became an official network in NADP with 26 sites in operation. Currently, over 85 sites are in operation nationwide.

Air Toxics Air toxic pollutants are determined in three categories: metals, volatile organic compound (VOC) and carbonyls. Metal samples are collected on 46.2 mm PTFE filter over a 24-hour period similar to the PM10 monitoring method. The filter is weighed before and after the sample run. The gain in weight in relation to the volume of air sampled is used to calculate the concentration in micrograms per cubic meter ($\mu\text{g}/\text{m}^3$). The PTFE filter is to be equilibrated before each weighing for a minimum of 24 hours at a 20-23 °C mean temperature and a 30-40 % mean relative humidity. The filter is then delivered to the Wisconsin State Laboratory of Hygiene Division for Environmental Services (DES) for inductively coupled plasma/mass spectrometer analysis to determine the concentration of metals in $\mu\text{g}/\text{m}^3$.

VOC samples are collected in a vacuum canister. Ambient air is pulled into the canister over a 24-hour sampling period. Similarly, the sample is shipped to the DES for gas chromatography/mass spectrometer analysis. VOC concentrations determined in the sample are reported in $\mu\text{g}/\text{m}^3$.

Carbonyl samples are collected on a DPNH cartridge. An ambient air stream flows through the cartridge at a 1 liter per minute flow rate for a 24-hour sampling period. The cartridge is packed on ice and shipped to the DES for high-pressure liquid chromatography analysis. Carbonyl concentrations determined in the sample are reported in $\mu\text{g}/\text{m}^3$.

Enhanced Ozone Monitoring (EOM) – Photochemical Assessment Monitoring (PAMS) Twenty-four hour canister and cartridge samples will be collected following the procedures in OP.11.0 of the Wisconsin Air Monitoring Handbook, Operation of the Automated Combination Canister and Cartridge Sampler. Three hour canister and cartridge samples will

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be collected following the procedures in OP.11.1 of the Wisconsin Air Monitoring Handbook, Operation of the Automated Multi-Port Canister and Cartridge Sampler. Copies of both operating procedures are included in the PAMS handbook.

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