# Draft 2025 Air Monitoring Network Plan for Minnesota Appendix A:

# **2024 Air Monitoring Site Descriptions**

# **Summary**

The following pages are descriptions of Minnesota Pollution Control Agency (MPCA) Air Quality Monitoring Sites. Each site has its own page and each page is listed in the Table of contents.

At the top of each page is the city where the site is located and the site name. Below the heading there is identification information for each site, including the Air Quality System site identification number, MPCA site identification number, address, city, county, location setting, latitude, longitude, elevation, and year established.

The next section of the page has a table of possible monitoring parameters and a map of Minnesota. Parameters that are monitored at the particular site are indicated in the table. The Minnesota map portrays the approximate location of the site within the state.

Next, there is a smaller scale map of the site. This map indicates the major roadways or other geographic features that are near the site. It is followed by a recent picture of the monitors in their current location.

The final section of the page contains a short site description, a list of monitoring objectives, and any changes proposed for the site.

# Federal Regulation

40 CFR § 58.10 Annual monitoring network plan and periodic network assessment. (a)(1) Beginning July 1, 2007, the state, or where applicable local, agency shall submit to the Regional Administrator an annual monitoring network plan which shall provide for the documentation of the establishment and maintenance of an air quality surveillance system that consists of a network of SLAMS monitoring stations that can include FRM, FEM, and ARM monitors that are part of SLAMS, NCore, CSN, PAMS, and SPM stations. The plan shall include a statement of whether the operation of each monitor meets the requirements of appendices A, B, C, D, and E of this part, where applicable. The Regional Administrator may require additional information in support of this statement. The annual monitoring network plan must be made available for public inspection and comment for at least 30 days prior to submission to the EPA and the submitted plan shall include and address, as appropriate, any received comments.

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This report is available in alternative formats upon request, and online at <a href="www.pca.state.mn.us">www.pca.state.mn.us</a>.

Document number: aq10-24b

# **Table of contents**

Site 27-003-1001: U of M – Cedar Creek Ecosystem Science Reserve (NADP site MN01)	
Site 27-003-1002: Blaine – Anoka County Airport (NCore)	A-2
Site 27-003-6021: Anoka – Federal Ammunition	
Site 27-005-2013: Detroit Lakes – FWS Wetland Management District	A-4
Site 27-007-2304: Red Lake Nation Hospital	A-5
Site 27-003-2305: Red Lake Nation DNR	
Site 27-013-5510: Mankato – Rosa Parks Elementary	
Site 27-017-7417: Fond du Lac Band	A-8
Site 27-021-3410: Leech Lake Nation: Cass Lake	A-9
Site 27-031-7810: Grand Portage Band	A-10
Site 27-035-3204: Brainerd Lakes Regional Airport	A-11
Site 27-037-0020: Rosemount – Flint Hills Refinery 420	
Site 27-037-0423: Rosemount – Flint Hills Refinery 423	A-13
Site 27-037-0443: Rosemount – Flint Hills Refinery 443	
Site 27-037-0465: Eagan – Gopher Resources	A-15
Site 27-037-0470: Apple Valley – Westview School	A-16
Site 27-037-0480: Lakeville – Near Road I-35	A-17
Site 27-049-5302: Stanton Air Field	
Site 27-053-0909: Minneapolis – Lowry Avenue	A-19
Site 27-053-0910: Minneapolis – Pacific Street	A-20
Site 27-053-0954: Minneapolis – Arts Center	A-21
Site 27-053-0961: Richfield Intermediate School	A-22
Site 27-053-0962: Minneapolis – Near Road I-35/I-94	A-23
Site 27-053-0963: Minneapolis – Andersen School	A-24
Site 27-053-0966: Minneapolis – City of Lakes Building	A-25
Site 27-053-1007: Minneapolis – Humboldt Avenue	A-26
Site 27-053-1904: Minneapolis – East Phillips Community	A-27
Site 27-053-1909: Bottineau/Marshall Terrace	A-28
Site 27-053-2006: St. Louis Park – City Hall	A-29
Site 27-075-0005: Ely – Fernberg Road (NADP site MN18)	A-30
Site 27-083-4210: Marshall – Southwest Minnesota Regional Airport	A-31
Site 27-095-3051: Mille Lacs Band	A-32
Site 27-109-5008: Rochester – Ben Franklin School	A-33
Site 27-115-3061: Lake Lena	A-34
Site 27-123-0866: St. Paul – Red Rock Road	A-35
Site 27-123-0868: St. Paul – Ramsey Health Center	
Site 27-123-0871: St. Paul – Harding High School	A-37
Site 27-123-0875: St Paul – West Side	
Site 27-123-0890: St Paul – Northern Iron	A-39
Site 27-137-0032: Duluth – Oneota Street	
Site 27-137-0034: Voyageurs National Park (NADP site MN32)	
, ,	
Site 27-137-7001: Virginia City Hall	A 42
, ,	A-43
Site 27-137-7001: Virginia City Hall	
Site 27-137-7001: Virginia City Hall	A-44 A-45
Site 27-137-7001: Virginia City Hall	A-44 A-45 A-46
Site 27-137-7001: Virginia City Hall	A-44 A-45 A-46
Site 27-137-7001: Virginia City Hall Site 27-137-7549: Duluth – Michigan Street Site 27-137-7550: Duluth – U of M Site 27-137-7554: Duluth – Laura MacArthur School Site 27-137-7555: Duluth – Waseca Road Site 27-139-0505: Shakopee – B.F. Pearson School Site 27-145-3052: Saint Cloud – Talahi School	A-44 A-45 A-46 A-47 A-48
Site 27-137-7001: Virginia City Hall	A-44 A-45 A-46 A-47 A-48
Site 27-137-7001: Virginia City Hall  Site 27-137-7549: Duluth – Michigan Street  Site 27-137-7550: Duluth – U of M  Site 27-137-7554: Duluth – Laura MacArthur School  Site 27-137-7555: Duluth – Waseca Road  Site 27-139-0505: Shakopee – B.F. Pearson School  Site 27-145-3052: Saint Cloud – Talahi School  Site 27-163-0436: St. Paul Park Refinery 436	A-44 A-45 A-46 A-47 A-48 A-49 A-50
Site 27-137-7001: Virginia City Hall Site 27-137-7549: Duluth – Michigan Street Site 27-137-7550: Duluth – U of M Site 27-137-7554: Duluth – Laura MacArthur School Site 27-137-7555: Duluth – Waseca Road Site 27-139-0505: Shakopee – B.F. Pearson School Site 27-145-3052: Saint Cloud – Talahi School Site 27-163-0436: St. Paul Park Refinery 436 Site 27-163-0446: Bayport – Point Road Site 27-163-6016: St. Croix Watershed Research Station	A-44 A-45 A-46 A-47 A-48 A-49 A-50 A-51
Site 27-137-7001: Virginia City Hall Site 27-137-7549: Duluth – Michigan Street Site 27-137-7550: Duluth – U of M Site 27-137-7554: Duluth – Laura MacArthur School Site 27-137-7555: Duluth – Waseca Road Site 27-139-0505: Shakopee – B.F. Pearson School Site 27-145-3052: Saint Cloud – Talahi School Site 27-163-0436: St. Paul Park Refinery 436. Site 27-163-0446: Bayport – Point Road Site 27-163-6016: St. Croix Watershed Research Station Site 27-171-3201: St. Michael Elementary School	A-44 A-45 A-46 A-47 A-48 A-49 A-50 A-51 A-52
Site 27-137-7001: Virginia City Hall Site 27-137-7549: Duluth – Michigan Street Site 27-137-7550: Duluth – U of M Site 27-137-7554: Duluth – Laura MacArthur School Site 27-137-7555: Duluth – Waseca Road Site 27-139-0505: Shakopee – B.F. Pearson School Site 27-145-3052: Saint Cloud – Talahi School Site 27-163-0436: St. Paul Park Refinery 436 Site 27-163-0446: Bayport – Point Road Site 27-163-6016: St. Croix Watershed Research Station	A-44 A-45 A-46 A-47 A-48 A-49 A-50 A-51 A-52
Site 27-137-7001: Virginia City Hall Site 27-137-7549: Duluth – Michigan Street Site 27-137-7550: Duluth – U of M Site 27-137-7554: Duluth – Laura MacArthur School Site 27-137-7555: Duluth – Waseca Road Site 27-139-0505: Shakopee – B.F. Pearson School Site 27-145-3052: Saint Cloud – Talahi School Site 27-163-0436: St. Paul Park Refinery 436. Site 27-163-0446: Bayport – Point Road Site 27-163-6016: St. Croix Watershed Research Station Site 27-171-3201: St. Michael Elementary School	A-44 A-45 A-46 A-47 A-48 A-49 A-50 A-51 A-52 A-53
Site 27-137-7001: Virginia City Hall Site 27-137-7549: Duluth – Michigan Street Site 27-137-7550: Duluth – U of M Site 27-137-7554: Duluth – Laura MacArthur School Site 27-137-7555: Duluth – Waseca Road Site 27-139-0505: Shakopee – B.F. Pearson School Site 27-145-3052: Saint Cloud – Talahi School Site 27-163-0436: St. Paul Park Refinery 436 Site 27-163-0446: Bayport – Point Road Site 27-163-6016: St. Croix Watershed Research Station Site 27-171-3201: St. Michael Elementary School Site 27-169-9000: Great River Bluffs State Park	A-44 A-45 A-46 A-47 A-48 A-49 A-50 A-51 A-52 A-53 A-54
Site 27-137-7001: Virginia City Hall Site 27-137-7549: Duluth – Michigan Street Site 27-137-7550: Duluth – U of M Site 27-137-7554: Duluth – Laura MacArthur School Site 27-137-7555: Duluth – Waseca Road Site 27-139-0505: Shakopee – B.F. Pearson School Site 27-145-3052: Saint Cloud – Talahi School Site 27-163-0436: St. Paul Park Refinery 436 Site 27-163-0446: Bayport – Point Road Site 27-163-6016: St. Croix Watershed Research Station Site 27-171-3201: St. Michael Elementary School Site 27-169-9000: Great River Bluffs State Park NADP Site MN08: Hovland	A-44 A-45 A-46 A-47 A-48 A-50 A-51 A-52 A-53 A-54 A-55
Site 27-137-7001: Virginia City Hall  Site 27-137-7549: Duluth – Michigan Street  Site 27-137-7550: Duluth – U of M  Site 27-137-7554: Duluth – Laura MacArthur School  Site 27-137-7555: Duluth – Waseca Road  Site 27-139-0505: Shakopee – B.F. Pearson School  Site 27-145-3052: Saint Cloud – Talahi School  Site 27-163-0436: St. Paul Park Refinery 436.  Site 27-163-0446: Bayport – Point Road  Site 27-163-6016: St. Croix Watershed Research Station  Site 27-171-3201: St. Michael Elementary School  Site 27-169-9000: Great River Bluffs State Park  NADP Site MN08: Hovland  NADP Site MN16: Marcell  NADP Site MN23: Camp Ripley  NADP Site MN27: Lamberton	A-44 A-45 A-46 A-47 A-48 A-50 A-51 A-52 A-53 A-54 A-55 A-56 A-57
Site 27-137-7001: Virginia City Hall Site 27-137-7549: Duluth – Michigan Street Site 27-137-7550: Duluth – U of M Site 27-137-7554: Duluth – Laura MacArthur School Site 27-137-7555: Duluth – Waseca Road. Site 27-139-0505: Shakopee – B.F. Pearson School Site 27-145-3052: Saint Cloud – Talahi School Site 27-163-0436: St. Paul Park Refinery 436. Site 27-163-0446: Bayport – Point Road. Site 27-163-6016: St. Croix Watershed Research Station Site 27-171-3201: St. Michael Elementary School Site 27-169-9000: Great River Bluffs State Park NADP Site MN08: Hovland. NADP Site MN16: Marcell. NADP Site MN23: Camp Ripley	A-44 A-45 A-46 A-47 A-48 A-50 A-51 A-52 A-53 A-54 A-55 A-56 A-57 A-58

# U of M Cedar Creek Ecosystem Science Reserve

#### Site information:

AQS Site ID: 27-003-1001 NADP Site ID: MN01 Address: 2660 Fawn Rd

City: East Bethel
County: Anoka

Location Setting: Rural Latitude: 45.4018 Longitude: -93.2031 Elevation: 280 m Year Established: 1979

Former MPCA Site ID: 6012

#### **Monitoring parameters:**

	PM <sub>2.5</sub> FRM
	PM <sub>2.5</sub> Continuous
	PM <sub>2.5</sub> Speciation
	$PM_{10}$
	TSP/Metals
	VOCs
	Carbonyls
	Carbon Monoxide
Ε	Ozone
	<sup>2</sup> O <sub>2</sub>
	×ON
	Meteorological Data
Ε	Other*

E = Existing, A = Proposed to Add, T = Proposed to Terminate Sampling Frequency: 1/1 = Everyday, 1/3 = 1-in-3 day, 1/6 = 1-in-6 day







#### Site description:

This monitoring site is located at the University of Minnesota (U of M) Cedar Creek Ecosystem Science Reserve near East Bethel, approximately 30 miles north of the Twin Cities. Cedar Creek is one of 26 Long Term Ecological Research Sites in the country. It consists of 5,400 acres of wooded uplands, abandoned fields, lowland wooded swamps, and open fens and marshes. Land use surrounding Cedar Creek is rapidly being developed from agricultural to large-lot residential and commercial use.

#### **Monitoring objectives:**

- Demonstrate compliance with ozone National Ambient Air Quality Standards (NAAQS).
- Support Air Quality Index (AQI) forecasting and reporting for ozone.
- Characterize precipitation chemistry to track long-term spatial and temporal trends, support research, and assess the effectiveness of State and Federal SO<sub>2</sub> emissions reduction programs.
- Demonstrate compliance with the Minnesota Wet Sulfate Deposition Standard (Minn. R. 7005.4010 to 7005.4050).

# **Planned changes:**

<sup>\*</sup>Acid Deposition

# **Blaine – Anoka County Airport (NCore/PAMS)**

#### Site information:

AQS Site ID: 27-003-1002 Address: South end of Lima Street

City: **Blaine**County: **Anoka** 

Location Setting: Suburban

Latitude: **45.1407** Longitude: **-93.2220** 

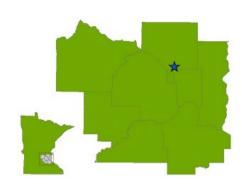
Elevation: **280 m** Year Established: **1979** MPCA Site ID: **1002** 

#### **Monitoring parameters:**

PM <sub>2.5</sub> FRM	PM <sub>2.5</sub> Continuous	PM <sub>2.5</sub> Speciation*	PM <sub>10</sub> Continuous	PM <sub>10-2.5</sub>	TSP/Metals <sup>րլ</sup>	NOCs	Carbonyls	Carbon Monoxide	Ozone	SO <sub>2</sub>	NO <sub>x</sub> t		Other**
1/3	E	Ε	E	E	E	Е	E	Ε	E	E	Ε	E	Е

E = Existing, A = Proposed to Add, T = Proposed to Terminate Sampling Frequency: 1/1 = Everyday, 1/3 = 1-in-3 day, 1/6 = 1-in-6 day

\*CSN <sup>t</sup>Trace level NO<sub>x</sub>, NO<sub>y</sub>, SO<sub>2</sub> and CO <sup>PL</sup>Population-oriented \*\*PAMS







# Site description:

This monitoring site is located at the Anoka County Airport in Blaine, approximately 12 miles northwest of St. Paul. The Anoka County Airport is characterized as a reliever airport in the metropolitan air traffic system and has a low traffic volume with no commercial service. The area surrounding the airport contains a mix of residential, office parks, commercial, light industrial, and recreational use.

# **Monitoring objectives:**

- Demonstrate compliance with PM<sub>2.5</sub>, PM<sub>10</sub>, Pb, CO, ozone, SO<sub>2</sub>, and NO<sub>2</sub> NAAQS.
- Support AQI reporting and forecasting for PM<sub>2.5</sub>, ozone, and SO<sub>2</sub>.
- Characterize air toxics (VOCs, carbonyls, and metals).
- Characterize PM<sub>2.5</sub> chemical composition.
- Support NCore and PAMS monitoring objectives.

#### **Planned changes:**

# **Anoka – Federal Ammunition**

#### Site information:

AQS Site ID: 27-003-6021

Address: 1055 W Main St

City: Anoka

County: Anoka

Latitude: 45.2035

Longitude: -93.3723

Elevation: 393 m

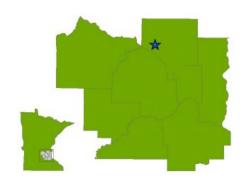
Year Established: 2022

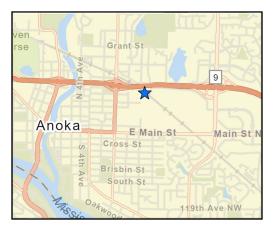
Location Setting: Suburban

# **Monitoring parameters:**

PM <sub>2.5</sub> FRM	PM <sub>2.5</sub> Continuous	PM <sub>10</sub> Continuous	PM <sub>10-2.5</sub>	тSP/Metals <sup>pL</sup>	VOCs	Carbonyls	Carbon Monoxide	Ozone	SO <sub>2</sub>	NOx <sup>t</sup>	Meteorological Data	Other**
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E = Existing, A = Proposed to Add, T = Proposed to Terminate Sampling Frequency: 1/1 = Everyday, 1/3 = 1-in-3 day, 1/6 = 1-in-6 day







#### Site description:

This monitoring site is located in Anoka at the Federal Ammunition Company facility approximately 22 miles northwest of St. Paul. The air monitoring site is located at the fence line of this ammunition manufacturing facility. This is one of the two MPCA source orientated lead monitoring sites, however a full scan of metals is performed on all TSP samples. The area surrounding site contains a mix of residential, commercial, and light industrial use.

### Monitoring objectives:

- Demonstrate compliance with the lead NAAQS.
- Demonstrate compliance with the TSP MAAQS.
- Characterize metals concentrations.

# **Planned changes:**

# **Detroit Lakes – FWS Wetland Management District**

#### **Site Information:**

AQS Site ID: **27-005-2013** MPCA Site ID: **2013** 

Address: 26624 N Tower Rd

City: **Detroit Lakes**County: **Becker** 

Location Setting: Rural Latitude: 46.8499 Longitude: -95.8463 Elevation: 425 m Year Established: 2004

# **Monitoring parameters:**

	PM <sub>2.5</sub> FRM
Ε	PM <sub>2.5</sub> Continuous FEM
	PM <sub>2.5</sub> Speciation
	$PM_{\mathtt{10}}$
	TSP/Metals
	NOCs
	Carbonyls
	Carbon Monoxide
Е	Ozone
	SO <sub>2</sub>
	NO <sub>x</sub>
	Meteorological Data
	Other

E = Existing, A = Proposed to Add, T = Proposed to Terminate
Sampling Frequency: 1/1 = Everyday, 1/3 = 1-in-3 day, 1/6 = 1-in-6 day







# Site description:

This monitoring site is located at the U.S. Fish and Wildlife Service Wetland Management District office near Detroit Lakes in west central Minnesota. It is approximately two miles north of downtown Detroit Lakes. Land use near this site is a mix of residential and agricultural activities.

#### **Monitoring objectives**

- Demonstrate compliance with PM<sub>2.5</sub> and ozone NAAQS.
- Support AQI reporting and forecasting for PM<sub>2.5</sub> and ozone.

#### Planned changes:

# **Red Lake Nation Hospital\***

#### Site information:

AQS Site ID: **27-007-2304** MPCA Site ID: **2304** 

Address: 24760 Hospital Drive

City: **Red Lake** County: **Beltrami**  Location Setting: Rural Latitude: 47.8782 Longitude: -95.0292 Elevation: 369 m

Year Established: 2014

# Monitoring parameters:

	PM <sub>2.5</sub> FRM
Ε	PM <sub>2.5</sub> Continuous FEM
	PM <sub>2.5</sub> Speciation
	$PM_{10}$
	TSP/Metals
	NOCs
	Carbonyls
	Carbon Monoxide
	Ozone
	<sub>2</sub> O <sub>2</sub>
	NOx
	Meteorological Data
	Other*

E = Existing, A = Proposed to Add, T = Proposed to Terminate Sampling Frequency: 1/1 = Everyday, 1/3 = 1-in-3 day, 1/6 = 1-in-6 day







# Site description:

This tribal monitoring site is located on the roof of the Red Lake Indian Health Service Hospital. The site is located along the south shore of Lower Red Lake. Land use surrounding the hospital is primarily residential.

#### **Monitoring objectives:**

- Demonstrate compliance with PM<sub>2.5</sub> NAAQS.
- Support AQI reporting and forecasting for PM<sub>2.5</sub>.
- Support Tribal monitoring objectives.

# Planned changes:

<sup>\*</sup>This monitoring site is operated by the Red Lake Band of Chippewa Indians and is supported, in part, by the MPCA.

# **Red Lake Nation DNR\***

#### Site information:

AQS Site ID: **27-007-2305** MPCA Site ID: **2305** 

Address: 15761 High School Drive

City: **Red Lake**County: **Beltrami** 

Location Setting: Rural Latitude: 47.8796 Longitude: -95.0166 Elevation: 369.13 m Year Established: 2024

# **Monitoring parameters:**

I		
	PM <sub>2.5</sub> FRM	
	PM <sub>2.5</sub> Continuous FEM	
	PM <sub>2.5</sub> Speciation	
	$PM_{10}$	
	TSP/Metals	
	s)OOs	
	Carbonyls	
	Carbon Monoxide	
Е	Ozone	
	<sup>2</sup> 05	
	×ON	
	Meteorological Data	
	Other*	
I		







#### Site description:

This tribal monitoring site is located inside the DNR building, along the south shore of Lower Red Lake. Land use surrounding the site is a mix of residential and commercial.

# **Monitoring objectives:**

- Demonstrate compliance with Ozone NAAQS.
- Support AQI reporting and forecasting for Ozone.
- Support Tribal monitoring objectives.

# Planned changes:

<sup>\*</sup>This monitoring site is operated by the Red Lake Band of Chippewa Indians and is supported, in part, by the MPCA

# **Mankato – Rosa Parks Elementary School**

# **Site Information:**

AQS Site ID: **27-013-5510**MPCA Site ID: **5510**Address: **1001 Heron Drive** 

City: Mankato
County: Blue Earth

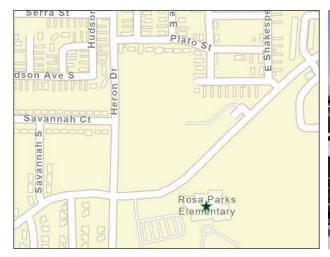
Location Setting: Rural Latitude: 44.1364 Longitude: -93.9813 Elevation: 311 m Year Established: 2024

# **Monitoring parameters:**

	PM <sub>2.5</sub> FRM
Ε	PM <sub>2.5</sub> Continuous FEM
	PM <sub>2.5</sub> Speciation
	$PM_{10}$
	TSP/Metals
	VOCs
	Carbonyls
	Carbon Monoxide
Ε	Ozone
	SO <sub>2</sub>
	$NO_X$
	Meteorological Data
	Other

E = Existing, A = Proposed to Add, T = Proposed to Terminate
Sampling Frequency: 1/1 = Everyday, 1/3 = 1-in-3 day, 1/6 = 1-in-6 day







# Site description:

This monitoring site is located on the roof of Rosa Parks Elementary School, on the south side of Mankato, approximately 2 miles from the city center. Area west and north of Rosa Parks School are residentials. South of the school is athletic field. East and further south of the school are open fields.

#### **Monitoring objectives**

- Demonstrate compliance with PM<sub>2.5</sub> and ozone NAAQS.
- Support AQI reporting and forecasting for PM<sub>2.5</sub> and ozone.

# Planned changes:

# Fond du Lac Band\*

#### Site information:

AQS Site ID: 27-017-7417 MPCA Site ID: 7417 Address: 28 University Rd

City: **Cloquet**County: **Carlton** 

Location Setting: Rural Latitude: 46.1737 Longitude: -92.5117 Elevation: 433 m Year Established: 2015

#### **Monitoring parameters:**

E = Existing, A = Proposed to Add, T = Proposed to Terminate
Sampling Frequency: 1/1 = Everyday, 1/3 = 1-in-3 day, 1/6 = 1-in-6 day







#### Site description:

This tribal monitoring station is located at the Fond du Lac Resource Management and Tribal Court Building, approximately two miles west of Cloquet. The Fond du Lac Environmental Program relocated their long-term air monitoring site to this new location in April 2015. Land use in the surrounding area includes a Tribal government campus, community center, and school. Low-density residential neighborhoods and undeveloped forestlands surround the Tribal campus to the south, west, and north. The Cloquet Carleton County Airport is located to the southeast of the campus. The city of Cloquet is approximately two miles to the east, and is the home of several large forest products industries.

#### **Monitoring objectives:**

- Demonstrate compliance with ozone and PM<sub>2.5</sub> NAAQS.
- Support AQI reporting and forecasting for ozone and PM<sub>2.5</sub>.
- Support Tribal monitoring objectives.

#### Planned changes:

<sup>\*</sup>This monitoring site is operated by the Fond du Lac Band of Lake Superior Chippewa and is supported, in part, by the MPCA.

# **Leech Lake Nation: Cass Lake\***

#### Site information:

AQS Site ID: 27-021-3410 Address: 200 Sailstar Dr

City: Cass Lake
County: Cass

Location Setting: Rural Latitude: 47.38443 Longitude: -94.60166 Elevation: 408 m

Year Established: 2018

# **Monitoring parameters:**

п РМ <sub>2.5</sub> РМ <sub>10</sub> РМ <sub>10</sub> РМ 10 ТЅР/N VOCS Carbo	
PM <sub>2.5</sub> PM <sub>10</sub> TSP/I VOCs	PM <sub>2.5</sub> Continuous
PM <sub>10</sub> TSP/r VOCs Carbo	PM <sub>2.5</sub> Speciation
TSP/n VOCs Carbo	
VOCS	TSP/Metals
Carbo	9
	Carbonyls
Carbo	Carbon Monoxide
Ozone	ıe
SO <sub>2</sub>	
NOx	
Mete	Meteorological Data
Other	ند

E = Existing, A = Proposed to Add, T = Proposed to Terminate Sampling Frequency: 1/1 = Everyday, 1/3 = 1-in-3 day, 1/6 = 1-in-6 day







#### Site description:

This tribal monitoring site is located on the roof of the Leech Lake Nation Tribal Justice Center in the City of Cass Lake. The Leech Lake Tribal Justice Center is on the north side of Hwy 2 and ½ mile west of Cass Lake. Land use surrounding the station is a mix of government buildings, a school, residential, and commercial use.

# Monitoring objectives:

- Demonstrate compliance with PM<sub>2.5</sub> NAAQS.
- Support AQI reporting and forecasting for PM<sub>2.5</sub>
- Support Tribal monitoring objectives.

# Planned changes:

None

\*This monitoring site is operated by the Leech Lake Nation of Ojibwe and is supported, in part, by the MPCA

# **Grand Portage Band\***

#### Site information:

AQS Site ID: 27-031-7810 MPCA Site ID: 7810 Address: 27 Store Rd City: Grand Portage County: Cook Location setting: Rural Latitude: 47.9701 Longitude: -89.6910 Elevation: 125 m Year Established: 2005

# Monitoring parameters:

	PM <sub>2.5</sub> FRM
Е	PM <sub>2.5</sub> FEM Continuous
	PM <sub>2.5</sub> Speciation
	PM <sub>10</sub>
	TSP/Metals
	VOCs
	Carbonyls
	Carbon Monoxide
	Ozone
	SO <sub>2</sub>
	NOx
	Meteorological Data
	Other

E = Existing, A = Proposed to Add, T = Proposed to Terminate
Sampling Frequency: 1/1 = Everyday, 1/3 = 1-in-3 day, 1/6 = 1-in-6 day







# Site description:

This Tribal monitoring site is located at the Grand Portage Band offices in Grand Portage in northeastern Minnesota. This site is less than one mile south of U.S. Highway 61 and less than one mile north of the Lake Superior shoreline. A small residential neighborhood surrounds the monitor. Land use outside of the Grand Portage community is undeveloped forests.

#### **Monitoring objectives:**

- Support AQI reporting and forecasting for PM<sub>2.5</sub>
- Support Tribal monitoring objectives.

#### Planned changes:

None

\*This monitoring site is operated by the Grand Portage Band of Lake Superior Chippewa and is supported, in part, by the MPCA.

# **Brainerd Lakes Regional Airport**

#### Site information:

AQS Site ID: **27-035-3204** MPCA Site ID: **3204** Address: **16384 Airport Rd** 

City: **Brainerd**County: **Crow Wing** 

Location Setting: Rural Latitude: 46.3921 Longitude: -94.1444 Elevation: 381 m Year Established: 2004

# Monitoring parameters:

г		
		PM <sub>2.5</sub> FRM
	Е	PM <sub>2.5</sub> Continuous FEM
		PM <sub>2.5</sub> Speciation
		$PM_{10}$
		TSP/Metals
		NOCs
		Carbonyls
		Carbon Monoxide
	Ε	Ozone
		SO <sub>2</sub>
		×ON
		Meteorological Data
		Other
1		

E = Existing, A = Proposed to Add, T = Proposed to Terminate Sampling Frequency: 1/1 = Everyday, 1/3 = 1-in-3 day, 1/6 = 1-in-6 day







# Site description:

This monitoring site is located in an open field on the east side of the Brainerd Regional Airport. The airport is less than one mile northwest of State Highway 210 and about three miles northeast of the Brainerd business district. Land use surrounding the airport is primarily residential and forest cover.

# **Monitoring objectives:**

- Demonstrate compliance with PM<sub>2.5</sub> and ozone NAAQS.
- Support AQI reporting and forecasting for PM<sub>2.5</sub> and ozone.

# Planned changes:

# Rosemount – Flint Hills Refinery 420

#### Site information:

AQS Site ID: 27-037-0020 Address: 12821 Pine Bend Trail

City: **Rosemount**County: **Dakota** 

Location Setting: Rural Latitude: 44.7632 Longitude: -93.0325 Elevation: 285 m Year Established: 1972

# **Monitoring parameters:**

		PM <sub>2.5</sub> FRM
		PM <sub>2.5</sub> Continuous
		PM <sub>2.5</sub> Speciation
		$PM_{10}$
	1/6	TSP/Metals*
	1/6	soon
•	1/6	Carbonyls
	Ε	Carbon Monoxide
		Ozone
	Ε	s0 <sub>2</sub>
	Ε	×ON
	Е	Meteorological Data
	Ε	Other**

E = Existing, A = Proposed to Add, T = Proposed to Terminate Sampling Frequency: 1/1 = Everyday, 1/3 = 1-in-3 day, 1/6 = 1-in-6 day

<sup>\*</sup>Colocated \*\*TRS





#### Site description:

This monitoring site is located in Rosemount and is one of three sites in the Flint Hills Resources Pine Bend air quality monitoring network. This site is located in the highway median created by the split of State Highways 55 and 52, less than one mile east of the refinery complex. In addition to the refinery, several air emission sources are located to the north, east, and southeast of this site. These include household waste and demo landfills, truck terminals, sand and gravel operations, waste food recycling, aluminum smelting, and a fertilizer plant.

# Monitoring objectives:

- Demonstrate compliance with SO<sub>2</sub>, NO<sub>2</sub>, CO NAAQS.
- Demonstrate compliance with TSP and H₂S MAAQS.
- Characterize air toxics (VOCs, carbonyls, PAHs, and metals).
- Support modeling and source separation by collecting meteorological data.

# Planned changes:

# Rosemount – Flint Hills Refinery 423

#### Site information:

AQS Site ID : **27-037-0423** Address: **2142 120**<sup>th</sup> **St E** 

City: **Rosemount**County: **Dakota** 

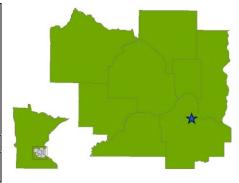
Location Setting: Rural Latitude: 44.7730 Longitude: -93.0627 Elevation: 272 m

Year Established: 1990

# **Monitoring parameters:**

E = Existing, A = Proposed to Add, T = Proposed to Terminate Sampling Frequency: 1/1 = Everyday, 1/3 = 1-in-3 day, 1/6 = 1-in-6 day









# Site description:

This monitoring site is located in Rosemount and is one of three sites in the Flint Hills Resources Pine Bend air quality monitoring network. This site is located on the west side of the refinery less than one mile west of U.S. Highway 52 on 120<sup>th</sup> Street. Large municipal waste and demo landfills are located to the northeast of this site.

#### **Monitoring objectives:**

- Demonstrate compliance with SO<sub>2</sub>, NO<sub>2</sub>, and CO NAAQS.
- Demonstrate compliance with TSP and H₂S MAAQS.
- Characterize air toxics (VOCs carbonyls, and metals).
- Support modeling and source separation by collecting meteorological data.

# Planned changes:

# Rosemount – Flint Hills Refinery 443

#### Site information:

AQS Site ID: **27-037-0443** Address: **14035 Blaine Ave E** 

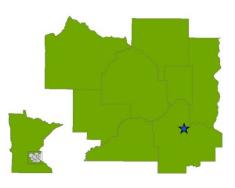
City: **Rosemount** County: **Dakota** 

Location Setting: Rural Latitude: 44.7457 Longitude: -93.0554 Elevation: 270 m Year Established: 2008

# **Monitoring parameters:**

		PM <sub>2.5</sub> FRM
		PM <sub>2.5</sub> Continuous
		PM <sub>2.5</sub> Speciation
		$PM_{10}$
		TSP/Metals
	T	VOCs
	Т	Carbonyls
		Carbon Monoxide
		Ozone
	Ε	SO <sub>2</sub>
		NOx
		Meteorological Data
		Other
٦.	Ì	

E = Existing, A = Proposed to Add, T = Proposed to Terminate
Sampling Frequency: 1/1 = Everyday, 1/3 = 1-in-3 day, 1/6 = 1-in-6 day







#### Site description:

This monitoring site is located in Rosemount, and is one of three sites in the Flint Hills Resources Pine Bend air quality monitoring network. The site is located approximately one mile west of U.S. Highway 52 and one mile southwest of the refinery complex.

# Monitoring objectives:

- Demonstrate compliance with SO<sub>2</sub> NAAQS.
- Characterize air toxics (VOCs and carbonyls).

# Planned changes:

As discussed in the Network Assessment section of this plan, the MPCA will discontinue air toxics monitoring at this site. The SO<sub>2</sub> monitor will be moved to an undetermined site nearby due to a loss of access to the current location.

# **Eagan – Gopher Resources**

#### Site information:

AQS Site ID: **27-037-0465** 

MPCA Site ID: 465

Address: Yankee Doodle Rd & Hwy 149

City: **Eagan** County: **Dakota**  Location Setting: Suburban

Latitude: **44.8343** Longitude: **-93.1163** Elevation: **281 m** 

Year Established: 2006

# Monitoring parameters:

PM <sub>2.5</sub> FRM	PM <sub>2.5</sub> Continuous	PM <sub>2.5</sub> Speciation	PM <sub>10</sub>	TSP/Metals*	VOCs	Carbonyls	Carbon Monoxide	Ozone	502	NOx	Meteorological Data	Other
				1/6								

E = Existing, A = Proposed to Add, T = Proposed to Terminate Sampling Frequency: 1/1 = Everyday, 1/3 = 1-in-3 day, 1/6 = 1-in-6 day







#### Site description:

This monitoring site is located in Eagan, near the northeast corner of State Highway 149 and Yankee Doodle Road. The site is approximately 100 meters east of Gopher Resources Corporation, a lead recycling, smelting, and refining facility. This is the MPCA's only source-oriented lead monitoring site; however, a full scan of metals is performed on all TSP samples. More detailed information about this site can be found in the 2011 Source-oriented Lead Monitoring Plan on the MPCA website, at <a href="https://www.pca.state.mn.us/air/state-implementation-plan-lead">https://www.pca.state.mn.us/air/state-implementation-plan-lead</a>.

#### Monitoring objectives:

- Demonstrate compliance with the lead NAAQS.
- Demonstrate compliance with the TSP MAAQS.
- Characterize metals concentrations.

# Planned changes:

<sup>\*</sup>Collocated and source-oriented

# **Apple Valley – Westview School**

#### Site information:

AQS Site ID: **27-037-0470** MPCA Site ID: **0470** 

Address: 225 Garden View Dr

City: **Apple Valley**County: **Dakota** 

Location Setting: Suburban

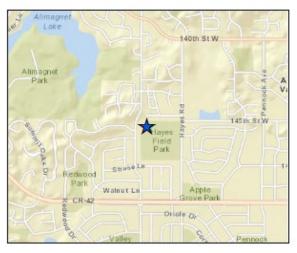
Latitude: 44.7387 Longitude: -93.2373 Elevation: 306 m Year Established: 2000

# Monitoring parameters:

	PM <sub>2.5</sub> FRM
Е	PM <sub>2.5</sub> Continuous FEM
	PM <sub>2.5</sub> Speciation
	$PM_{10}$
T	TSP/Metals
T	SOON
T	Carbonyls
	Carbon Monoxide
	Ozone
	SO <sub>2</sub>
	×ON
	Meteorological Data
	Other

E = Existing, A = Proposed to Add, T = Proposed to Terminate Sampling Frequency: 1/1 = Everyday, 1/3 = 1-in-3 day, 1/6 = 1-in-6 day







# Site description:

This monitoring site is located on the roof of Westview Elementary School in Apple Valley. This location provides air quality data representative of suburban neighborhoods, which are dominated by residential areas, light commercial zones, retail zones, and roadways. The school is located less than one mile north of County Road 42.

#### **Monitoring objectives:**

- Demonstrate compliance with the PM<sub>2.5</sub> NAAQS.
- Demonstrate compliance with the TSP MAAQS.
- Support AQI reporting and forecasting for PM<sub>2.5</sub>.
- Characterize air toxics (VOCs, carbonyls, and metals).

# **Planned changes:**

As discussed in the Network Assessment section of this plan, the MPCA will discontinue air toxics monitoring at this site.

# Lakeville - Near Road I-35

#### Site information:

AQS Site ID: 27-037-0480

MPCA Site ID: 480

Address: 16750 Kenyon Ave

City: Lakeville
County: Dakota

Location Setting: Suburban

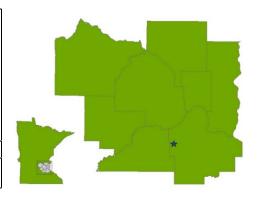
Latitude: 44.7061 Longitude: -93.2858 Elevation: 312 m

Year Established: 2015

# Monitoring parameters:

	PM <sub>2.5</sub> FRM
E	PM <sub>2.5</sub> Continuous FEM
	PM <sub>2.5</sub> Speciation
	$PM_{\mathtt{10}}$
	TSP/Metals
	NOCs
	Carbonyls
Ε	Carbon Monoxide
	Ozone
	<sub>2</sub> O <sub>2</sub>
Ε	$NO_X$
Ε	Meteorological Data
	Other

E = Existing, A = Proposed to Add, T = Proposed to Terminate Sampling Frequency: 1/1 = Everyday, 1/3 = 1-in-3 day, 1/6 = 1-in-6 day







# Site description:

This monitoring site is located on the west side of Interstate 35, approximately one mile south of Buck Hill in Lakeville. The surrounding area is predominantly residential, with commercial and retail businesses along the interstate frontage roads. This is the second near-road monitor required in the Twin Cities to assess air pollution levels in the near-road environment. This traffic segment had an Annual Average Daily Traffic (AADT) count of approximately 87,000 vehicles per day in 2012.

# Monitoring objectives:

- Demonstrate compliance with the NO<sub>2</sub>, CO, and PM<sub>2.5</sub> NAAQS.
- Support modeling and source separation by collecting meteorological data.
- Support AQI reporting and forecasting for PM<sub>2.5</sub>, NO<sub>2</sub>, and CO.

# Planned changes:

# **Stanton Air Field**

#### Site information:

AQS Site ID: **27-049-5302** MPCA Site ID: **5302** Address: **1235** Highway **17** 

City: **Stanton** 

County: **Goodhue** 

Location Setting: Rural Latitude: 44.4719 Longitude: -93.0126 Elevation: 300 m Year Established: 2003

# Monitoring parameters:

	PM <sub>2.5</sub> FRM
	PM <sub>2.5</sub> FEM
	PM <sub>2.5</sub> Speciation
	PM <sub>10</sub>
	TSP/Metals
	VOCs
	Carbonyls
	Carbon Monoxide
Ε	Ozone
	SO <sub>2</sub>
	$NO_X$
	Meteorological Data
	Other

E = Existing, A = Proposed to Add, T = Proposed to Terminate
Sampling Frequency: 1/1 = Everyday, 1/3 = 1-in-3 day, 1/6 = 1-in-6 day







# Site description:

This monitoring site is located at the Stanton Air Field in Goodhue County. The site is located approximately 10 miles east of Northfield and 36 miles south of St. Paul. Land use near the airfield is predominantly agricultural.

# **Monitoring objectives:**

- Demonstrate compliance with ozone NAAQS.
- Support AQI reporting and forecasting for ozone.

# Planned changes:

# Minneapolis – Lowry Avenue

#### Site information:

AQS Site ID: **27-053-0909** 

MPCA Site ID: 909

Address: 3104 North Pacific Street

City: Minneapolis
County: Hennepin

Location Setting: Urban

Latitude: **45.0121** Longitude: **-93.2767** Elevation: **249** m

Year Established: 2013

# **Monitoring parameters:**

PM2.5 Con PM2.5 Spee	PM <sub>2.5</sub> FRM
	2.5 Continuous
	PM <sub>2.5</sub> Speciation
	$PM_{10}Continuous$
	SP/Metals
	Ss
	bonyls
	Carbon Monoxide
	ıne
	(
	Meteorological Data
Other	er

E = Existing, A = Proposed to Add, T = Proposed to Terminate
Sampling Frequency: 1/1 = Everyday, 1/3 = 1-in-3 day, 1/6 = 1-in-6 day







#### Site description:

This monitoring site is located on the roof of a commercial building near the west bank of the Mississippi River, east of Interstate 94, in an industrial area of North Minneapolis. The surrounding area contains a mix of land use activities, including highway corridors, metal recycling (until August 2019), manufacturing facilities, aggregate and ready-mix concrete supply, commercial warehousing, office buildings, and retail businesses, with adjacent residential neighborhoods.

#### **Monitoring objectives:**

- Demonstrate compliance with PM<sub>10</sub> NAAQS and TSP MAAQS
- Characterize air toxics (VOCs, carbonyls, PAHs, and metals)
- Assess neighborhood exposure to air emissions.
- Support modeling and source separation by collecting meteorological data.
- Identify sources contributing to the exceedance of TSP standards.

# Planned changes:

# **Minneapolis – Pacific Street**

#### Site information:

AQS Site ID: **27-053-0910** 

MPCA Site ID: 910

Address: 2710 North Pacific Street

City: Minneapolis
County: Hennepin

Location Setting: **Urban** 

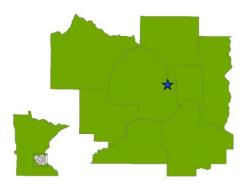
Latitude: **45.0083** Longitude: **-93.2770** Elevation: **249** m

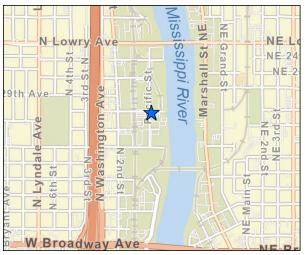
Year Established: 2015

# Monitoring parameters:

	PM <sub>2.5</sub> FRM
Α	PM <sub>2.5</sub> Continuous
	PM <sub>2.5</sub> Speciation
E	$PM_{10}$ Continuous
Ē	TSP/Metals
	VOCs
	Carbonyls
	Carbon Monoxide
	Ozone
	2O <sub>2</sub>
	NOx
	Meteorological Data
	Other

E = Existing, A = Proposed to Add, T = Proposed to Terminate Sampling Frequency: 1/1 = Everyday, 1/3 = 1-in-3 day, 1/6 = 1-in-6 day







#### Site description:

This monitoring site is located on the ground at a City of Minneapolis Public Works facility near the west bank of the Mississippi River, east of Interstate 94, in an industrial area of North Minneapolis. The surrounding area contains a mix of land uses including metal recycling (until August 2019), manufacturing facilities, aggregate and ready-mix concrete supply, commercial warehousing, office buildings, and retail businesses, with residential neighborhoods to the east and west.

# **Monitoring objectives:**

- Demonstrate compliance with PM<sub>10</sub> NAAQS and TSP MAAQS.
- Identify sources contributing to the exceedance of TSP standards.

#### Planned changes:

# Minneapolis – Arts Center

#### Site information:

AQS Site ID: **27-053-0954** 

MPCA Site ID: 954

Address: **528 Hennepin Ave** 

City: Minneapolis
County: Hennepin

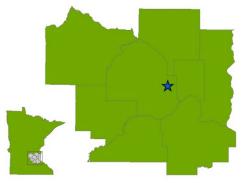
**Location Setting: Urban Center City** 

Latitude: 44.9790 Longitude: -93.2737 Elevation: 259 m Year Established: 1989

# Monitoring parameters:

Г		
		PM <sub>2.5</sub> FRM
		PM <sub>2.5</sub> Continuous
		PM <sub>2.5</sub> Speciation
		PM <sub>10</sub>
		TSP/Metals
		VOCs
_		Carbonyls
	Ε	Carbon Monoxide
_		Ozone
	Е	SO <sub>2</sub>
		NOx
		Meteorological Data
		Other
ı		

E = Existing, A = Proposed to Add, T = Proposed to Terminate Sampling Frequency: 1/1 = Everyday, 1/3 = 1-in-3 day, 1/6 = 1-in-6 day







# Site description:

This monitoring site is located at the Cowles Center for Dance and the Performing Arts in downtown Minneapolis. This center city location is characterized by a mix of commercial and residential land use, with high traffic volume and street canyons created by tall buildings that restrict air dispersion.

#### **Monitoring objectives:**

- Demonstrate compliance with CO and SO<sub>2</sub> NAAQS.
- Support AQI reporting for CO and SO<sub>2</sub>.

# Planned changes:

# **Richfield Intermediate School**

#### Site information:

AQS Site ID: 27-053-0961 MPCA Site ID: 961

Address: 7020 12th Ave S

City: Richfield

County: Hennepin

Location Setting: Suburban

Latitude: 44.8756 Longitude: -93.2588 Elevation: 262 m

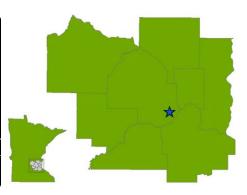
Year Established: 1999

# **Monitoring parameters:**

	PM <sub>2.5</sub> FRM
	PM <sub>2.5</sub> Continuous
	PM <sub>2.5</sub> Speciation
	PM <sub>10</sub>
	TSP/Metals
1/6	NOCs
1/6	Carbonyls
	Carbon Monoxide
	Ozone
	SO <sub>2</sub>
	$NO_X$
	Meteorological Data
	Other

E = Existing, A = Proposed to Add, T = Proposed to Terminate

Sampling Frequency: 1/1 = Everyday, 1/3 = 1-in-3 day, 1/6 = 1-in-6 day







#### Site description:

This monitoring site is located on the roof of the Richfield Intermediate School in Richfield. The school is approximately one mile west of Cedar Avenue (State Highway 77) and the Minneapolis-St. Paul International Airport. Air toxics monitoring was added to this site in 2006 at the request of the City of Richfield to address concerns regarding the impact of airport operations on air quality in the surrounding residential neighborhoods. This area is predominantly residential with commercial and retail businesses along the main corridors of Cedar Avenue, I-494, and 66th Street East (Richfield City Center).

#### **Monitoring objectives:**

Characterize air toxics (VOCs and carbonyls)

#### **Planned changes:**

# Minneapolis - Near Road I-35/I-94

#### Site information:

AQS Site ID: 27-053-0962

MPCA Site ID: 962
Address: 1444 18<sup>th</sup> St E
City: Minneapolis
County: Hennepin

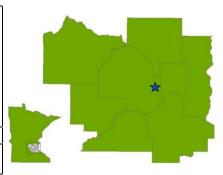
Location Setting: Urban Latitude: 44.9652 Longitude: -93.2548 Elevation: 259 m Year Established: 2013

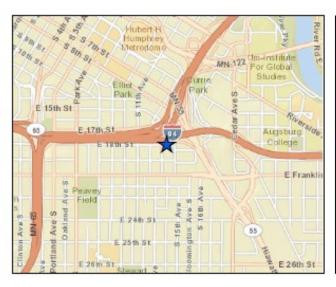
# Monitoring parameters:

	PM <sub>2.5</sub> FRM
Ε	PM <sub>2.5</sub> FEM
	PM <sub>2.5</sub> Speciation
	PM <sub>10</sub>
Ε	TSP/Metals
Ε	VOCs
Ε	Carbonyls
Ε	Carbon Monoxide
Ε	Ozone
	SO <sub>2</sub>
Ε	$NO_X$
Ε	Meteorological Data
Ε	Other

E = Existing, A = Proposed to Add, T = Proposed to Terminate

Sampling Frequency: 1/1 = Everyday, 1/3 = 1-in-3 day, 1/6 = 1-in-6 day







# Site description:

This monitoring site is located along the I-94/I-35W commons near downtown Minneapolis. This area is mostly residential, with some commercial and retail businesses nearby. It is part of the near-road monitoring network, which was established to assess air pollution levels in the near-road environment. This traffic segment had the highest Annual Average Daily Traffic (AADT) count in Minnesota in 2012, at 277,000 vehicles per day.

# Monitoring objectives:

- Demonstrate compliance with NO<sub>2</sub>, ozone, PM<sub>2.5</sub>, and CO NAAQS.
- Support modeling and source separation by collecting meteorological data.
- Demonstrate compliance with TSP MAAQS.
- Characterize air toxics (VOCs, carbonyls, and metals).
- Characterize black carbon and ultra-fine particles in the near-road environment.

#### Planned changes:

# Minneapolis – Andersen School

#### Site information:

AQS Site ID: 27-053-0963

MPCA Site ID: 963

Address: 2727 10th Ave S

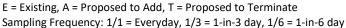
City: Minneapolis
County: Hennepin

Location Setting: Urban Center City

Latitude: **44.9535** Longitude: **-93.2583** Elevation: **270** m

Year Established: 2001

# Monitoring parameters:









# Site description:

This monitoring site is located on the roof of the Hans Christian Andersen School in the Phillips Neighborhood of Minneapolis. It is approximately two miles south of downtown Minneapolis, bordered by major roadways. This location provides air quality data representative of urban neighborhoods, which are dominated by residential and commercial land use.

#### **Monitoring objectives:**

- Demonstrate compliance with PM<sub>2.5</sub> NAAQS.
- Demonstrate compliance with TSP MAAQS.
- Support AQI reporting and forecasting for PM<sub>2.5</sub>.
- Characterize air toxics (VOCs, carbonyls, PAHs, and metals).
- Characterize PM<sub>2.5</sub> chemical composition.

# Planned changes:

# Minneapolis – City of Lakes Building

#### Site information:

AQS Site ID: 27-053-0966

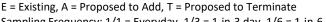
MPCA Site ID: 966 Address: 309 2<sup>nd</sup> Ave S City: Minneapolis County: Hennepin

Location Setting: Urban Center City

Latitude: 44.9793 Longitude: -93.2661 Elevation: 267 m Year Established: 2002

# **Monitoring parameters:**

1/6 1/6 1/6 1/6	PM <sub>2.5</sub> FRM PM <sub>2.5</sub> Continuous PM <sub>2.5</sub> Speciation PM <sub>10</sub> TSP/Metals VOCs* Carbonyls* Carbon Monoxide Ozone SO <sub>2</sub>
	Meteorological Data
	Other



Sampling Frequency: 1/1 = Everyday, 1/3 = 1-in-3 day, 1/6 = 1-in-6 day





#### Site description:

This monitoring site is located on the roof of the City of Lakes Building, at the corner of 3<sup>rd</sup> Street and 2<sup>nd</sup> Avenue South in downtown Minneapolis. This center city location is characterized by a mix of commercial and residential land use, with high traffic volume and street canyons created by tall buildings that restrict air dispersion.

#### **Monitoring objectives:**

- Demonstrate compliance with PM<sub>10</sub> NAAQS.
- Demonstrate compliance with TSP MAAQS.
- Characterize air toxics (VOCs, carbonyls, and metals).

#### Planned changes:

# Minneapolis – Humboldt Avenue

#### Site information:

AQS Site ID: **27-053-1007** MPCA Site ID: **1007** 

Address: 4646 N Humboldt Ave

City: **Minneapolis** County: **Hennepin**  Location Setting: **Urban** Latitude: **45.0397** 

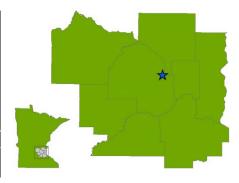
Longitude: -93.2987 Elevation: 263 m

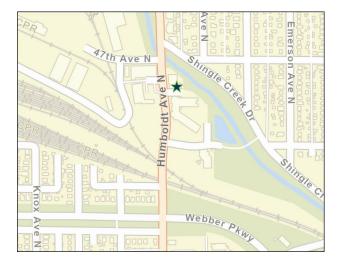
Year Established: 1966

# Monitoring parameters:

	PM <sub>2.5</sub> FRM
	PM <sub>2.5</sub> Continuous
	PM <sub>2.5</sub> Speciation
	PM <sub>10</sub>
1/6	TSP/Metals
1/6	VOCs
1/6	Carbonyls
	Carbon Monoxide
	Ozone
	SO <sub>2</sub>
	NOx
	Meteorological Data
	Other

E = Existing, A = Proposed to Add, T = Proposed to Terminate Sampling Frequency: 1/1 = Everyday, 1/3 = 1-in-3 day, 1/6 = 1-in-6 day







# Site description:

This monitoring site is located on the roof of Fire Station No. 22 in North Minneapolis. The surrounding area contains a mix of land uses, including truck terminals, railroad yards, and manufacturing facilities to the west and northwest, and residential neighborhoods to the north, east, and south. This location provides air quality data representative of urban neighborhoods, which, though predominantly residential, are adjacent to or near significant industrial air emission sources.

# Monitoring objectives:

- Demonstrate compliance with TSP MAAQS.
- Characterize air toxics (VOCs, carbonyls, PAHs, and metals).

# **Planned changes:**

# Minneapolis – East Phillips Community

#### **Site Information:**

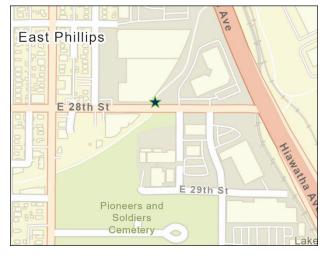
AQS Site ID: 27-053-1904 MPCA Site ID: 1904 Address: 1860 E 28th St. City: Minneapolis County: Hennepin Location Setting: **Urban**Latitude: **44.9521**Longitude: **-93.2443**Elevation: 257 m
Year Established: **2024** 

#### **Monitoring parameters:**

E - Existing A - Droposed to Add T - Droposed to Tormi	EEE	PM <sub>2.5</sub> FRM PM <sub>2.5</sub> Continuous FEM PM <sub>2.5</sub> Speciation PM <sub>10</sub> TSP/Metals VOCs Carbonyls Carbon Monoxide Ozone
nato		NO <sub>x</sub>
		Meteorological Data
		Other

E = Existing, A = Proposed to Add, T = Proposed to Terminate Sampling Frequency: 1/1 = Everyday, 1/3 = 1-in-3 day, 1/6 = 1-in-6 day







#### Site description:

This monitoring site is located just northeast of the Smith Foundry on 28<sup>th</sup> Street E. Area surrounding the site is a mix of residential and commercial. The purpose of the site is source-oriented lead monitoring since Smith Foundry produces iron castings. A full metal scan is also performed on all TSP samples

# **Monitoring objectives**

- Demonstrate compliance with PM<sub>2.5</sub> and lead NAAQS.
- Support AQI reporting and forecasting for PM<sub>2.5</sub>
- Demonstrate compliance with the TSP MAAQS.
- Characterize metals concentrations.

# **Planned changes:**

# Minneapolis - Bottineau/Marshall Terrace

#### Site information:

AQS Site ID: **27-053-1909** MPCA Site ID: **1909** 

Address: 2522 Marshall St NE

City: **Minneapolis**County: **Hennepin** 

**Location Setting: Urban City Center** 

Latitude: **45.013611** Longitude: **-93.272049** Elevation: **253 m** 

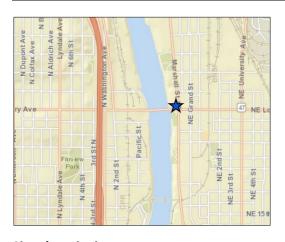
Year Established: 2017

# Monitoring parameters:

	PM <sub>2.5</sub> FRM
	PM <sub>2.5</sub> Continuous FEM
	PM <sub>2.5</sub> Speciation
Е	$PM_{10}$
Е	TSP/Metals
Е	SOON
Е	Carbonyls
	Carbon Monoxide
	Ozone
	<sup>2</sup> OS
	NOx
	Meteorological Data
	Other

E = Existing, A = Proposed to Add, T = Proposed to Terminate Sampling Frequency: 1/1 = Everyday, 1/3 = 1-in-3 day, 1/6 = 1-in-6 day







#### Site description:

This monitoring site is located in the Bottineau/Marshall Terrace neighborhood. It is on the roof of the Mississippi Watershed Management Organization building near the east bank of the Mississippi River, east of Interstate 94 in an industrial area of North Minneapolis. The surrounding area contains a mix of land use activities including highway corridors, metal recycling, manufacturing facilities, aggregate and ready-mix concrete supply, commercial warehousing, office buildings, and retail businesses, with adjacent residential neighborhoods. This Community Air Monitoring Project site was chosen to assess air quality in a neighborhood impacted by a variety of commercial and mobile sources.

#### **Monitoring objectives:**

- Assess air quality impacts from mobile sources.
- Characterize air toxics (VOCs, carbonyls, and metals).
- Support AQI reporting and forecasting for PM<sub>2.5</sub>.

#### Planned changes:

# St. Louis Park – City Hall

#### Site information:

AQS Site ID: **27-053-2006** 

Address: 5005 Minnetonka Blvd

City: **St. Louis Park**County: **Hennepin** 

Location Setting: Suburban

Latitude: 44.9481 Longitude: -93.3429 Elevation: 282 m Year Established: 1972

# **Monitoring parameters:**

PM <sub>2.5</sub> FRM*	PM <sub>2.5</sub> Continuous	PM <sub>2.5</sub> Speciation	PM <sub>10</sub>	TSP/Metals	VOCs	Carbonyls	Carbon Monoxide	Ozone	SO <sub>2</sub>	NO <sub>x</sub>	Meteorological Data	Other
1/3					T	T						
F - F	victing	- A - I	rono	od to	Add 1	- Dro	nacad	1 to To	rmina	to		

E = Existing, A = Proposed to Add, T = Proposed to Terminate
Sampling Frequency: 1/1 = Everyday, 1/3 = 1-in-3 day, 1/6 = 1-in-6 day







#### Site description:

This monitoring site is located on the roof of the St. Louis Park City Hall. This location provides air quality data representative of suburban neighborhoods, which are dominated by residential areas, commercial zones, and high-volume roadways. It is approximately three blocks east of State Highway 100 and ½ mile north of State Highway 7.

#### **Monitoring objectives:**

- Demonstrate compliance with PM<sub>2.5</sub> NAAQS.
- Characterize air toxics (VOCs, carbonyls).

#### **Planned changes:**

As discussed in the Network Assessment section of this plan, the MPCA will discontinue air toxics monitoring at this site.

<sup>\*</sup>Collocated

# **Ely – Fernberg Road**

#### Site information:

AQS Site ID: 27-075-0005 MPCA Site ID: 0005 NADP Site ID: MN18 IMPROVE Site ID: BOWA1 Address: Fernberg Rd

City: Ely

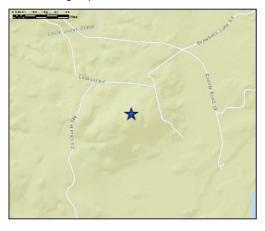
County: Lake

Location Setting: Rural Latitude: 47.9466 Longitude: -91.4956 Elevation: 528 m Year Established: 1977

#### **Monitoring parameters:**

E = Existing, A = Proposed to Add, T = Proposed to Terminate Sampling Frequency: 1/1 = Everyday, 1/3 = 1-in-3 day, 1/6 = 1-in-6 day

<sup>\*\*</sup>IMPROVE





#### Site description:

This monitoring site is located in a remote hilltop clearing approximately 19 miles east of Ely, adjacent to the Boundary Waters Canoe Area Wilderness. Land use surrounding this site is managed forests, recreation, and wilderness. This site is operated and maintained by the Superior National Forest, with support from the MPCA.

#### **Monitoring objectives:**

- Demonstrate compliance with ozone and PM<sub>2.5</sub> NAAQS.
- Support AQI reporting and forecasting for PM<sub>2.5</sub> and ozone.
- Characterize precipitation chemistry to track long-term spatial and temporal trends, support research, and assess effectiveness of State and Federal SO<sub>2</sub> and mercury emissions reduction programs.
- Demonstrate compliance with the Minnesota Wet Sulfate Deposition Standard (Minn. R. 7005.4010 to 7005.4050).
- Characterize fine particle chemistry to quantify existing conditions, track trends, and develop plans to protect visibility in Class 1 wilderness areas.

# Planned changes:

<sup>\*</sup>Acid and Hg Deposition

# Marshall - Southwest Minnesota Regional Airport

#### Site information:

AQS Site ID: **27-083-4210** MPCA Site ID: **4210** 

Address: West Highway 19

City: Marshall County: Lyon

Location Setting: Rural Latitude: 44.4559 Longitude: -95.8363 Elevation: 361 m

Year Established: 2004

# **Monitoring parameters:**

E = Existing, A = Proposed to Add, T = Proposed to Terminate Sampling Frequency: 1/1 = Everyday, 1/3 = 1-in-3 day, 1/6 = 1-in-6 day







#### Site description:

This monitoring site is located in an open field at the Marshall Regional Airport near Marshall in southwest Minnesota. The monitor is located approximately one mile west of the central business district. Land use surrounding the airport and the City of Marshall is predominantly agricultural, with a mix of commercial and light industrial.

# Monitoring objectives:

- Demonstrate compliance with PM<sub>2.5</sub> and ozone NAAQS.
- Support AQI reporting and forecasting for PM<sub>2.5</sub> and ozone.

# Planned changes:

# Mille Lacs Band\*

#### Site information:

AQS Site ID: **27-095-3051**MPCA Site ID: **3051**Address: **43408 Oodena Dr** 

City: **Onamia**County: **Mille Lacs** 

Location Setting: Rural Latitude: 46.2052 Longitude: -93.7594 Elevation: 393 m Year Established: 1997

# Monitoring parameters:

	PM <sub>2.5</sub> FRM
	PM <sub>2.5</sub> Continuous
	PM <sub>2.5</sub> Speciation
	PM <sub>10</sub>
•	TSP/Metals
	VOCs
	Carbonyls
	Carbon Monoxide
E	Ozone
	SO <sub>2</sub>
	$NO_X$
	Meteorological Data
	Other

E = Existing, A = Proposed to Add, T = Proposed to Terminate
Sampling Frequency: 1/1 = Everyday, 1/3 = 1-in-3 day, 1/6 = 1-in-6 day







#### Site description:

This tribal monitoring site is located one mile north of the Mille Lacs Band of Ojibwe Government Center located on the western shore of Mille Lacs Lake. This site is approximately 12 miles north of Onamia on Highway 169. Land use to the south and west of the monitoring site is a mix of residential and heavy forest cover. This site was established in 1997 to characterize and assess transport of pollutants from the Twin Cities metropolitan area, located approximately 90 miles to the southeast.

#### **Monitoring objectives:**

- Demonstrate compliance with ozone NAAQS.
- Support AQI reporting and forecasting for ozone.
- Support Tribal monitoring objectives.

# Planned changes:

<sup>\*</sup>This monitoring site is operated by the Mille Lacs Band of Ojibwe and is supported, in part, by the MPCA.

# Rochester – Ben Franklin School

#### Site information:

AQS Site ID: **27-109-5008** MPCA Site ID: **5008** Address: **1801 9**<sup>th</sup> **Ave SE** 

City: **Rochester** County: **Olmsted**  Location Setting: Suburban

Latitude: **43.9949**Longitude: **-92.4504**Elevation: **400 m**Year Established: **1997** 

# Monitoring parameters:

PM <sub>2.5</sub> FRM
Continuous FEM
PM <sub>2.5</sub> Speciation
TSP/Metals
Carbonyls
Carbon Monoxide
Meteorological Data

E = Existing, A = Proposed to Add, T = Proposed to Terminate Sampling Frequency: 1/1 = Everyday, 1/3 = 1-in-3 day, 1/6 = 1-in-6 day







# Site description:

This monitoring site is located on the roof of the Ben Franklin Elementary School in southeast Rochester. The school is located in a residential neighborhood approximately two miles south of the central business district. Some commercial and light industrial activity is located to the south and west of the site. This location provides air quality data representative of suburban neighborhoods, which are dominated by residential land use.

# **Monitoring objectives:**

- Demonstrate compliance with PM<sub>2.5</sub>, ozone, and SO<sub>2</sub> NAAQS.
- Support AQI reporting and forecasting for PM<sub>2.5</sub> and ozone.

# Planned changes:

# Hinckley - Lake Lena

#### Site Information:

AQS Site ID: **27-115-3061**MPCA Site ID: **3061**Address: **63144 MN-48** 

City: **Hinckley** County: **Pine** 

Location Setting: Rural Latitude: 46.0207 Longitude: -92.4907 Elevation: 300 m Year Established: 2024

## **Monitoring parameters:**

Г		
		PM <sub>2.5</sub> FRM
	Е	PM <sub>2.5</sub> Continuous FEM
		PM <sub>2.5</sub> Speciation
		$PM_{\mathtt{10}}$
		TSP/Metals
		VOCs
		Carbonyls
		Carbon Monoxide
	Ε	Ozone
		SO <sub>2</sub>
		NO <sub>×</sub>
		Meteorological Data
		Other

E = Existing, A = Proposed to Add, T = Proposed to Terminate Sampling Frequency: 1/1 = Everyday, 1/3 = 1-in-3 day, 1/6 = 1-in-6 day







#### Site description:

This monitoring site is located on the ground, just south of the Crossroads Convenience Store, 63144 MN-48, Hinkley, MN. The site is surrounded by wooded area to the north and farm fields to the south, west and east. Lake Lena is about 2 miles to the north. This site is about halfway between the Twin Cities and Duluth. It is established to assess transport of pollutants from the Twin Cities metropolitan area.

#### **Monitoring objectives**

- Demonstrate compliance with PM<sub>2.5</sub> NAAQS.
- Support AQI reporting and forecasting for PM<sub>2.5</sub>

## **Planned changes:**

## St. Paul – Red Rock Road

#### Site information:

AQS Site ID : **27-123-0866** MPCA Site ID: **866** 

Address: 1450 Red Rock Rd

City: **St. Paul**County: **Ramsey** 

Location Setting: Suburban

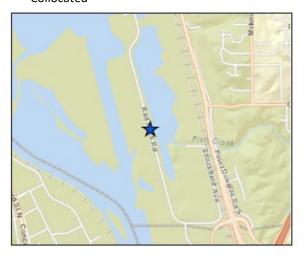
Latitude: 44.8994 Longitude: -93.0171 Elevation: 232 m Year Established: 1997

## Monitoring parameters:

	PM <sub>2.5</sub> FRM
	PM <sub>2.5</sub> Continuous
	PM <sub>2.5</sub> Speciation
1/6	$PM_{10}^{*}$
	TSP/Metals
	NOCs
	Carbonyls
	Carbon Monoxide
	Ozone
	SO <sub>2</sub>
	$NO_X$
	Meteorological Data
	Other

E = Existing, A = Proposed to Add, T = Proposed to Terminate Sampling Frequency: 1/1 = Everyday, 1/3 = 1-in-3 day, 1/6 = 1-in-6 day

<sup>\*</sup>Collocated





## Site description:

This monitoring site is located along Red Rock Road in St. Paul. This area was a non-attainment area for  $PM_{10}$  in the 1990s due to high particulate emissions from area sources and roadways. The site is located in an industrialized corridor along the Mississippi River. The surrounding area contains a mix of industrial and commercial activities, including a steel recycling mill, a municipal waste sorting plant, railroad yards, and barge operations for river transport of grain, aggregate, and coal. Diesel truck traffic is heavy as materials are transported to and from the various facilities. Residential neighborhoods border this area to the east and to the southwest across the river. The nearest residential neighborhoods are approximately  $\frac{1}{2}$  mile to the east.

### **Monitoring objectives:**

Demonstrate compliance with PM<sub>10</sub> NAAQS.

## **Planned changes:**

# St. Paul – Ramsey Health Center

#### Site information:

AQS Site ID: **27-123-0868** MPCA Site ID: **868** 

Address: **555 Cedar St** 

City: **St. Paul**County: **Ramsey** 

Location Setting: Urban Center City

Latitude: 44.9507 Longitude: -93.0985 Elevation: 251 m

Year Established: 1998

## **Monitoring parameters:**

1/3	PM <sub>2.5</sub> FRM
	PM <sub>2.5</sub> Continuous
	PM <sub>2.5</sub> Speciation
Ε	PM <sub>10</sub> Continuous
	TSP/Metals
1/6	VOCs
1/6	Carbonyls
	Carbon Monoxide
	Ozone
	SO <sub>2</sub>
	NOx
	Meteorological Data
	Other

E = Existing, A = Proposed to Add, T = Proposed to Terminate Sampling Frequency: 1/1 = Everyday, 1/3 = 1-in-3 day, 1/6 = 1-in-6 day







## Site description:

This monitoring site is located at the intersection of Cedar and 10<sup>th</sup> Street on the roof of the Ramsey County Health Center in St. Paul. The monitors are positioned on the north side of the building, approximately 60 meters south of the I-94 corridor and interchange with I-35E. The Central Corridor Light Rail Transit line, which runs along Cedar Avenue, began operating in June 2014. Redevelopment is expected in the area. The location was selected to demonstrate NAAQS compliance in areas where commercial and residential land uses are in close proximity to major roadways.

## Monitoring objectives:

- Demonstrate compliance with PM<sub>2.5</sub> and PM<sub>10</sub> NAAQS.
- Characterize air toxics (VOCs and carbonyls).
- Support AQI reporting and forecasting for PM<sub>10</sub>.

#### **Planned changes:**

# St. Paul – Harding High School

#### Site information:

AQS Site ID: **27-123-0871** MPCA Site ID: **871** Address: **1540** East 6<sup>th</sup> St

City: St. Paul

County: Ramsey

## Location Setting: Urban

Latitude: 44.9593 Longitude: -93.0359 Elevation: 296 m

Year Established: 1998

## Monitoring parameters:

E = Existing, A = Proposed to Add, T = Proposed to Terminate Sampling Frequency: 1/1 = Everyday, 1/3 = 1-in-3 day, 1/6 = 1-in-6 day

<sup>\*</sup>Collocated





## Site description:

This monitoring site is located on the roof of Harding High School on the east side of St. Paul. The surrounding area is predominantly residential neighborhoods, with some commercial and retail activity. This location provides air quality data representative of urban neighborhoods, which are dominated by residential land use.

## Monitoring objectives:

- Demonstrate compliance with PM<sub>2.5</sub> NAAQS.
- Support AQI reporting and forecasting for PM<sub>2.5</sub>.
- Demonstrate compliance with TSP MAAQS.
- Characterize air toxics (VOCs, carbonyls, and metals).

## Planned changes:

## St. Paul – West Side

## Site information:

AQS Site ID: **27-123-0875** MPCA Site ID: **0875** Address: **515 Concord St.** 

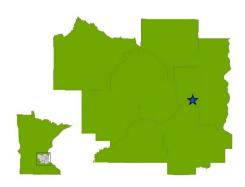
City: **St. Paul**County: **Ramsey** 

Location Setting: **Urban**Latitude: **44.9271**Longitude: **-93.0671**Elevation: **296** m

Year Established: 2020

## Monitoring parameters:

Sampling Frequency: 1/6 = 1-in-6 day







## Site description:

This monitoring site is located on the east side of the St. Paul West-Side neighborhood. The surrounding area is predominantly residential neighborhoods, with the St Paul Downtown Holman Field Airport to the east and the Southport Industrial District to the south. The purpose of this monitoring is to further investigate the findings from the St. Paul Westside Community Air Monitoring Project conducted in the spring of 2014 that showed elevated metals concentrations.

#### **Monitoring objectives:**

Monitor metals concentrations and determine the need for further monitoring.

## Planned changes:

## St. Paul - Northern Iron

## **Site Information:**

AQS Site ID: **27-123-0890** MPCA Site ID: **0890** Address: **842 Mendota St.** 

City: **St. Paul**County: **Ramsey** 

Location Setting: Urban

Latitude: 44.9667 Longitude: -93.0642 Elevation: 256 m Year Established: 2024

#### **Monitoring parameters:**

Г		
		PM <sub>2.5</sub> FRM
		PM <sub>2.5</sub> Continuous FEM
		PM <sub>2.5</sub> Speciation
		PM <sub>10</sub>
	Е	TSP/Metals
		VOCs
		Carbonyls
		Carbon Monoxide
		Ozone
		SO <sub>2</sub>
		NOx
	Е	Meteorological Data
		Other
ì		

E = Existing, A = Proposed to Add, T = Proposed to Terminate Sampling Frequency: 1/1 = Everyday, 1/3 = 1-in-3 day, 1/6 = 1-in-6 day







#### Site description:

This monitoring site is located within 20 meters from Northern Iron & Machine property fence line, just south of the facility. The surrounding area is predominantly residential neighborhoods, with commercial business to the west and east. South of the site is Minnehaha Ave. The purpose of the site is source-oriented Lead monitoring since Northern Iron & Machine is a full-service iron foundry. A full metal scan is also performed on all TSP samples.

#### **Monitoring objectives**

- Demonstrate compliance with Pb NAAQS.
- Demonstrate compliance with the TSP MAAQS.
- Characterize metals concentrations.

## **Planned changes:**

## **Duluth – Oneota Street**

#### Site information:

AQS Site ID: **27-137-0032** MPCA Site ID: **7545** 

Address: Oneota St & 37th Ave W

City: **Duluth** County: **St. Louis**  Location Setting: Urban Center City

Latitude: 46.7516 Longitude: -92.1413 Elevation: 193 m Year Established: 1985

## Monitoring parameters:

	PM <sub>2.5</sub> FRM
	PM <sub>2.5</sub> Continuous
	PM <sub>2.5</sub> Speciation
1/6	PM <sub>10</sub> *
	TSP/Metals
	VOCs
	Carbonyls
	Carbon Monoxide
	Ozone
	SO <sub>2</sub>
	NOx
	Meteorological Data
	Other

E = Existing, A = Proposed to Add, T = Proposed to Terminate Sampling Frequency: 1/1 = Everyday, 1/3 = 1-in-3 day, 1/6 = 1-in-6 day







This monitoring site is located in west central Duluth, between I-35 and the Duluth-Superior Harbor. This site was established to monitor fugitive emissions from a variety of facilities and harbor operations that handle and ship materials including taconite pellets, aggregate, and coal. Other air emissions sources in the harbor area include scrap metal yards, railroad yards, wastewater treatment, power generation, and the I-35 corridor. Commercial land use changes to residential neighborhoods approximately 400 meters northwest of the site.

#### **Monitoring objectives:**

Demonstrate compliance with PM<sub>10</sub> NAAQS.

## Planned changes:

<sup>\*</sup>Collocated

## **Voyageurs NP**

#### Site information:

AQS Site ID: 27-137-0034 NADP Site ID: MN32 IMPROVE Site ID: VOYA2 Address: Sullivan Bay City: International Falls

County: Louis

Location Setting: National Park

Latitude: 48.4128 Longitude: -92.8292 Elevation: 429 m Year Established: 2000

#### **Monitoring parameters:**

ı	Ī	
		PM <sub>2.5</sub> FRM
		PM <sub>2.5</sub> Continuous
	1/6	PM <sub>2.5</sub> Speciation**
		PM <sub>10</sub>
		TSP/Metals
–		VOCs
_		Carbonyls
		Carbon Monoxide
	Ε	Ozone
		SO <sub>2</sub>
		NO <sub>X</sub>
		Meteorological Data
	Ε	Other*
ì	l	

E = Existing, A = Proposed to Add, T = Proposed to Terminate Sampling Frequency: 1/1 = Everyday, 1/3 = 1-in-3 day, 1/6 = 1-in-6 day







## Site description:

This monitoring site is located on a rocky outcrop near the Ash River Interpretive Center, on the southeast side of Voyageurs National Park. Land use in this area is primarily forest managed for recreation, timber, and wilderness. Pulp and paper mills in International Falls and Fort Frances, Ontario are located approximately 20 miles northwest of the site. The National Park Service operates this site.

#### **Monitoring objectives:**

- Characterize precipitation chemistry to track long-term spatial and temporal trends, support research, and assess the effectiveness of State and Federal SO<sub>2</sub> emissions reduction programs.
- Demonstrate compliance with the Minnesota Wet Sulfate Deposition Standard (Minn. R. 7005.4010 to 7005.4050).
- Characterize fine particle chemistry to quantify existing conditions, track trends, and develop plans to protect visibility in Class 1 wilderness areas.

## Planned changes:

<sup>\*</sup>Acid Deposition \*\*IMPROVE \*not part of the MPCA network

# **Virginia City Hall**

#### Site information:

AQS Site ID: **27-137-7001** MPCA Site ID: **1300** 

Address: 327 First Street South

City: **Virginia**County: **St. Louis** 

**Location Setting: Urban Center City** 

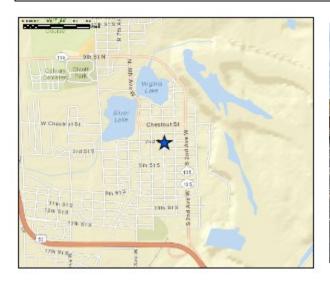
Latitude: 47.5212 Longitude: -92.5363 Elevation: 455 m Year Established: 1968

## Monitoring parameters:

	PM <sub>2.5</sub> FRM
Ε	PM <sub>2.5</sub> FEM
	PM <sub>2.5</sub> Speciation
1/6	$PM_{10}$
1/6	TSP/Metals
	VOCs
	Carbonyls
	Carbon Monoxide
	Ozone
Ε	SO <sub>2</sub>
Ε	NOx
	Meteorological Data
	Other

E = Existing, A = Proposed to Add, T = Proposed to Terminate Sampling Frequency: 1/1 = Everyday, 1/3 = 1-in-3 day, 1/6 = 1-in-6 day







## Site description:

This monitoring site is located on the roof of the City Hall Building in Virginia, a mid-sized city surrounded by openpit mining and iron-ore processing plants. The site is approximately one mile northeast of U.S. Highway 53 in the downtown business district. Land use in the surrounding area is a mix of residential, commercial, and industrial activities.

#### **Monitoring objectives:**

- Demonstrate compliance with NO<sub>2</sub>, SO<sub>2</sub>, PM<sub>2.5</sub> and PM<sub>10</sub> NAAQS.
- Demonstrate compliance with TSP MAAQS.
- Support AQI reporting and forecasting for PM<sub>2.5</sub>.
- Characterize metals concentrations.

#### **Planned changes:**

# **Duluth - Michigan Street**

#### Site information:

AQS Site ID: **27-137-7549** MPCA Site ID: **7549** 

Address: 1532 W Michigan St

City: **Duluth**County: **St. Louis** 

Location Setting: Urban Center City

Latitude: 46.7694 Longitude: -92.1194 Elevation: 204 m Year Established: 1994

## Monitoring parameters:

		PM <sub>2.5</sub> FRM
		PM <sub>2.5</sub> Continuous
_		PM <sub>2.5</sub> Speciation
		PM <sub>10</sub>
	T	TSP/Metals
	T	VOCs
	T	Carbonyls
		Carbon Monoxide
		Ozone
		SO <sub>2</sub>
		NOx
		Meteorological Data
		Other

E = Existing, A = Proposed to Add, T = Proposed to Terminate
Sampling Frequency: 1/1 = Everyday, 1/3 = 1-in-3 day, 1/6 = 1-in-6 day







#### Site description:

This monitoring site is located in central Duluth along I-35 and the Duluth-Superior Harbor. This site was established to characterize air toxics from a variety of emissions sources along the I-35 corridor and Duluth-Superior Harbor. Residential neighborhoods located along the hillside are within two blocks of the monitoring site.

### **Monitoring objectives:**

- Demonstrate compliance with TSP MAAQS.
- Characterize air toxics (VOCs, carbonyls, and metals).

#### **Planned changes:**

As discussed in the Network Assessment section of this plan, the MPCA will discontinue air toxics monitoring at this site. As a result, this site will close in 2025.

## Duluth - U of M

#### Site information:

AQS Site ID: **27-137-7550** MPCA Site ID: **7550** 

Address: 1202 East University Circle

City: **Duluth**County: **St. Louis** 

Location Setting: Suburban

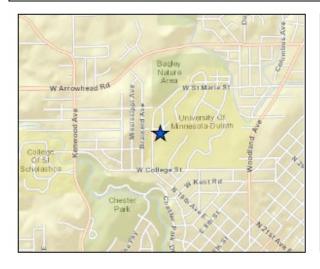
Latitude: 46.8182 Longitude: -92.0894 Elevation: 351 m Year Established: 1998

## Monitoring parameters:

	PM <sub>2.5</sub> FRM
Е	PM <sub>2.5</sub> Continuous
	PM <sub>2.5</sub> Speciation
	$PM_{10}$
	TSP/Metals
	VOCs
	Carbonyls
	Carbon Monoxide
Ε	Ozone
	s0 <sub>2</sub>
	NOx
	Meteorological Data
	Other

E = Existing, A = Proposed to Add, T = Proposed to Terminate Sampling Frequency: 1/1 = Everyday, 1/3 = 1-in-3 day, 1/6 = 1-in-6 day







### Site description:

This monitoring site is located on the roof of the WDSE television studios in northern Duluth, on the University of Minnesota – Duluth campus. The site is less than one mile west of Woodland Avenue, 500 meters south of Saint Marie Street, and 500 meters north of College Street. The area surrounding the campus is predominantly residential, with some commercial and retail businesses. WSDE was selected as a site representative of urban neighborhoods that are located at higher elevations in Duluth.

#### **Monitoring objectives:**

- Demonstrate compliance with PM<sub>2.5</sub> and ozone NAAQS.
- Support AQI reporting and forecasting for ozone.

#### Planned changes:

## **Duluth – Laura MacArthur School**

#### Site information:

AQS Site ID: 27-137-7554 MPCA Site ID: 7554 Address: 720 N Central Ave

City: **Duluth** 

County: **St. Louis** 

Location Setting: Suburban

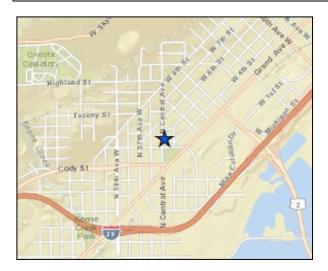
Latitude: 46.7437 Longitude: -92.1660 Elevation: 197 m Year Established: 2012

## **Monitoring parameters:**

Г		
		PM <sub>2.5</sub> FRM
	Е	PM <sub>2.5</sub> Continuous FEM
_		PM <sub>2.5</sub> Speciation
1.		$PM_{\mathtt{10}}$
		TSP/Metals
_		VOCs
		Carbonyls
		Carbon Monoxide
		Ozone
		SO <sub>2</sub>
		NO <sub>x</sub>
		Meteorological Data
		Other
1	J	

E = Existing, A = Proposed to Add, T = Proposed to Terminate Sampling Frequency: 1/1 = Everyday, 1/3 = 1-in-3 day, 1/6 = 1-in-6 day







## Site description:

This monitoring site is located on the roof of the Laura MacArthur elementary school in west central Duluth. It is located in a neighborhood with mixed commercial and residential land use, approximately ½ mile north of the I-35 corridor and the industrial area bordering the Duluth-Superior Harbor.

## Monitoring objectives:

- Demonstrate compliance with PM<sub>2.5</sub> NAAQS.
- Support AQI reporting and forecasting for PM<sub>2.5</sub>.

#### Planned changes:

# **Duluth - Waseca Road**

### Site information:

AQS Site ID: 27-137-7555 MPCA Site ID: 7555

Address: Waseca Industrial Rd

City: **Duluth** County: St. Louis Location Setting: Urban Center City

Latitude: 46.7306 Longitude: -92.1634 Elevation: 194 m

Year Established: 2001

## **Monitoring parameters:**

E = Existing, A = Proposed to Add, T = Proposed to Terminate Sampling Frequency: 1/1 = Everyday, 1/3 = 1-in-3 day, 1/6 = 1-in-6 day









### Site description:

This monitoring site is located in western Duluth, between a residential neighborhood and several facilities along the Duluth-Superior Harbor. This site was established to monitor fugitive emissions from a variety of facilities that handle and ship materials including aggregate, bentonite clay, and coal. Other air emissions sources in this area include a paper mill and power plant. Residential neighborhoods are located approximately 400 meters west of the site.

## **Monitoring objectives:**

- Demonstrate compliance with TSP MAAQS.
- Characterize metals.

## Planned changes:

# Shakopee – B.F. Pearson School

#### Site information:

AQS Site ID: 27-139-0505

MPCA Site ID: **505** Address: **917 Dakota St** 

City: **Shakopee** County: **Scott** 

Location Setting: Suburban

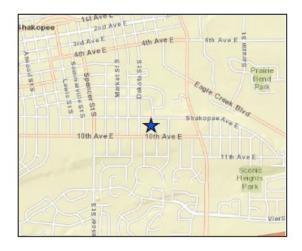
Latitude: **44.7894** Longitude: **-93.5125** Year Established: **2000** 

## Monitoring parameters:

	PM <sub>2.5</sub> FRM
Е	PM <sub>2.5</sub> Continuous
	PM <sub>2.5</sub> Speciation
	$PM_{\mathtt{10}}$
	TSP/Metals
	VOCs
	Carbonyls
	Carbon Monoxide
Е	Ozone
	<sub>2</sub> O <sub>2</sub>
	NO <sub>x</sub>
	Meteorological Data
	Other

E = Existing, A = Proposed to Add, T = Proposed to Terminate Sampling Frequency: 1/1 = Everyday, 1/3 = 1-in-3 day, 1/6 = 1-in-6 day







#### Site description:

This monitoring site is located on the roof of B.F. Pearson Elementary School in Shakopee. This location provides air quality data representative of suburban neighborhoods, which are dominated by residential areas, light commercial zones, retail zones, and roadways.

#### **Monitoring objectives:**

- Demonstrate compliance with PM<sub>2.5</sub> and ozone NAAQS.
- Support AQI reporting and forecasting for PM<sub>2.5</sub> and ozone.

#### Planned changes:

## Saint Cloud - Talahi School

#### Site information:

AQS Site ID: **27-145-3052** MPCA Site ID: **3052** 

Address: 1321 University Ave SE

City: **Saint Cloud**County: **Sherburne** 

Location Setting: Suburban

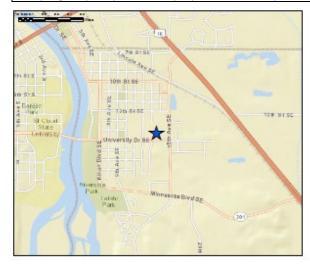
Latitude: 45.5497 Longitude: -94.1335 Elevation: 320 m Year Established: 1998

## Monitoring parameters:

E	PIVI2.5 FRIVI
	PM <sub>2.5</sub> Continuous FEM
<u> </u>	PM <sub>2.5</sub> Speciation
d	$PM_{10}$
1	TSP/Metals
۸	s)OO
C	Carbonyls
C	Carbon Monoxide
O E	Ozone
Sı	<sup>2</sup> OS
Z	×ON
2	Meteorological Data
0	Other

E = Existing, A = Proposed to Add, T = Proposed to Terminate Sampling Frequency: 1/1 = Everyday, 1/3 = 1-in-3 day, 1/6 = 1-in-6 day







## Site description:

This monitoring site is located on the roof of the Talahi Elementary School at the corner of 15<sup>th</sup> Avenue Southeast and University Avenue Southeast in Saint Cloud. The site is approximately three miles east of the Saint Cloud City Center and less than one mile southwest of U.S. Highway 10. The surrounding area is predominantly residential, with commercial and retail businesses located to the north along U.S. Highway 10.

#### **Monitoring objectives:**

- Demonstrate compliance with PM<sub>2.5</sub> and ozone NAAQS.
- Support AQI reporting and forecasting for PM<sub>2.5</sub> and ozone.

## Planned changes:

# St. Paul Park Refinery 436

#### Site information:

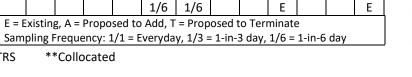
AQS Site ID: 27-163-0436

Address: 649 5th St City: St. Paul Park County: Washington Location Setting: Suburban

Latitude: 44.8473 Longitude: -92.9956 Elevation: 245 m Year Established: 1989

## **Monitoring parameters:**

Sampling Frequency: 1/1 = Everyday, 1/3 = 1-in-3 day, 1/6 = 1-in-6 day











## Site description:

This monitoring site is located in St. Paul Park and is one of two sites in the St. Paul Park Refining Company air quality monitoring network. The monitoring shelter is located in an alley corridor just off 5<sup>th</sup> Street. The alley corridor runs along the north boundary of the maintenance garage. The refinery complex is located four blocks northeast of the monitoring site. A commercial freight railroad line is located 200 meters west of the site.

#### **Monitoring objectives:**

- Demonstrate compliance with SO<sub>2</sub> NAAQS.
- Demonstrate compliance with H<sub>2</sub>S MAAQS.
- Characterize air toxics (VOCs and carbonyls).

### Planned changes:

# **Bayport - Point Road**

#### Site information:

AQS Site ID: 27-163-0446

MPCA Site ID: **446** Address: **22 Point Rd** 

City: Bayport

County: Washington

Location Setting: Suburban

Latitude: **45.02798** Longitude: **-92.77415** Elevation: **230 m** 

Year Established: 2007

## **Monitoring parameters:**

	PM <sub>2.5</sub> FRM
	PM <sub>2.5</sub> Continuous
	PM <sub>2.5</sub> Speciation
	$PM_{10}$
Т	TSP/Metals
Т	SOON
Т	Carbonyls
	Carbon Monoxide
	Ozone
	<sup>2</sup> OS
	NO <sub>x</sub>
	Meteorological Data
	Other

E = Existing, A = Proposed to Add, T = Proposed to Terminate Sampling Frequency: 1/1 = Everyday, 1/3 = 1-in-3 day, 1/6 = 1-in-6 day







#### Site description:

This monitoring site is located off Point Road, in an open field north of Andersen Window Corporation and south of the Xcel Energy Allen S. King Plant. This site was selected in order to sample between the two primary emissions sources, to provide some degree of source separation. Monitoring began in 2007 in response to citizen concerns about the potential impact of emissions from Andersen Windows and the Allen S. King Plant on air quality in Bayport.

## Monitoring objectives:

- Characterize air toxics (VOCs, carbonyls, and metals).
- Demonstrate compliance with TSP MAAQS.
- Assess neighborhood exposure to air emissions.

#### Planned changes:

As discussed in the Network Assessment section of this plan, the MPCA will discontinue air toxics monitoring at this site. As a result, this site will close in 2025.

## St. Croix Watershed Research Station

#### Site information:

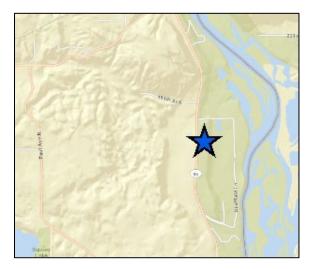
AQS Site ID: 27-163-6016 MPCA Site ID: 6016 Address: St. Croix Trail N City: Marine on St. Croix County: Washington Location Setting: Rural Latitude: 45.1680 Longitude: -92.7651 Elevation: 221 m Year Established: 2012

## Monitoring parameters:

Г	L	
		PM <sub>2.5</sub> FRM
		PM <sub>2.5</sub> Continuous
		PM <sub>2.5</sub> Speciation
		$PM_{10}$
		TSP/Metals
		VOCs
		Carbonyls
		Carbon Monoxide
	Е	Ozone
		SO <sub>2</sub>
		$NO_x$
		Meteorological Data
		Other
1		

E = Existing, A = Proposed to Add, T = Proposed to Terminate
Sampling Frequency: 1/1 = Everyday, 1/3 = 1-in-3 day, 1/6 = 1-in-6 day







## Site description:

This site is located at the Science Museum of Minnesota's St. Croix Watershed Research Station. The St. Croix Watershed Research station is located two miles south of Marine on St. Croix, Minnesota, approximately 35 miles from St. Paul. Land use surrounding the station is a mix of agricultural and residential.

## **Monitoring objectives:**

- Demonstrate compliance with ozone NAAQS.
- Support AQI reporting and forecasting for ozone.

## Planned changes:

# St. Michael Elementary School

#### Site information:

AQS Site ID: **27-171-3201** MPCA Site ID: **3201** 

Address: 101 Central Ave W

City: **St. Michael** County: **Wright** 

Location Setting: Suburban

Latitude: **45.2092**Longitude: **-93.6690**Elevation: **288 m**Year Established: **2003** 

## Monitoring parameters:

	PM <sub>2.5</sub> FRM
Ε	PM <sub>2.5</sub> Continuous FEM
	PM <sub>2.5</sub> Speciation
	$PM_{\mathtt{10}}$
	TSP/Metals
	NOCs
	Carbonyls
	Carbon Monoxide
Ε	Ozone
	50 <sub>2</sub>
	$NO_X$
	Meteorological Data
	Other

E = Existing, A = Proposed to Add, T = Proposed to Terminate Sampling Frequency: 1/1 = Everyday, 1/3 = 1-in-3 day, 1/6 = 1-in-6 day







## Site description:

This monitoring site is located on the roof of the St. Michael Elementary School in St. Michael. The school is located approximately two miles south of I-94, in a residential neighborhood with nearby commercial and retail businesses. This site provides representative data for areas undergoing rapid development from rural to suburban residential land use.

## Monitoring objectives:

- Demonstrate compliance with for PM<sub>2.5</sub> and ozone NAAQS.
- Support AQI reporting and forecasting for PM<sub>2.5</sub> and ozone.

#### Planned changes:

## **Great River Bluffs State Park**

#### Site information:

AQS Site ID: 27-169-9000 IMPROVE Site ID: GRRI1 Address: 43605 Kipp Drive

City: **Winona**County: **Winona** 

Location Setting: Rural Latitude: 43.9373 Longitude: -91.4052 Elevation: 370 m Year Established: 2002

## Monitoring parameters:

		PM <sub>2.5</sub> FRM
		PM <sub>2.5</sub> Continuous
	1/3	PM <sub>2.5</sub> Speciation**
		$PM_{10}$
		TSP/Metals
		VOCs
_		Carbonyls
		Carbon Monoxide
		Ozone
		502
		$NO_X$
		Meteorological Data
		Other

E = Existing, A = Proposed to Add, T = Proposed to Terminate
Sampling Frequency: 1/1 = Everyday, 1/3 = 1-in-3 day, 1/6 = 1-in-6 day

<sup>\*\*</sup>IMPROVE





#### Site description:

This regional-scale monitoring site is located at Great River Bluffs State Park, which runs along the Mississippi River in southeast Minnesota. Land uses surrounding the 3,000-acre state park are primarily agriculture and managed forests. The site is operated by park personnel, with support from MPCA, under an interagency agreement.

## Monitoring objectives:

• Characterize fine particle chemistry to quantify existing conditions, track trends, and develop plans to protect visibility in Class 1 wilderness areas.

## **Planned changes:**

## **Hovland**

#### Site information:

AQS Site ID: (none) NADP Site ID: MN08 Address: (open field)

City: **Hovland** County: **Cook** 

Location Setting: Rural Latitude: 47.8472 Longitude: -89.9625 Elevation: 224 m Year Established: 1996

## **Monitoring parameters:**

	PM <sub>2.5</sub> FRM
	PM <sub>2.5</sub> Continuous
	PM <sub>2.5</sub> Speciation
	PM <sub>10</sub>
	TSP/Metals
	NOCs
	Carbonyls
	Carbon Monoxide
	Ozone
	SO <sub>2</sub>
	NOx
	Meteorological Data
Ε	Other*

E = Existing, A = Proposed to Add, T = Proposed to Terminate
Sampling Frequency: 1/1 = Everyday, 1/3 = 1-in-3 day, 1/6 = 1-in-6 day

<sup>\*</sup>Acid Deposition





#### Site description:

This NADP acid rain monitoring site is located in Cook County, near the small community of Hovland, in northeastern Minnesota. The site is located in a two-acre clearing along County Road 69, ½ mile north of State Highway 61 and Lake Superior. Land use within one mile of the site is a mix of residential along the Lake Superior shoreline and county, state, and federal forests inland along the Arrowhead Trail. Significant air emission sources are located more than 50 miles from the site and consist of pulp and paper mills, lumber mills, taconite-processing facilities, and a coal fired power plant. The power plant is currently on track to cease operations in 2018.

#### **Monitoring objectives:**

- Characterize precipitation chemistry to track long-term spatial and temporal trends, support research, and assess the effectiveness of State and Federal SO<sub>2</sub> emission reduction programs.
- Demonstrate compliance with the Minnesota Wet Sulfate Deposition Standard (Minn. R. 7005.4010 to 7005.4050).

## Planned changes:

## Marcell

#### Site information:

AQS Site ID: (none)
NADP Site ID: MN16

Address: Marcell Experimental Forest

City: Balsam Lake County: Itasca **Location Setting: National Forest** 

Latitude: 47.5311 Longitude: -93.4686 Elevation: 431 m Year Established: 1978

### **Monitoring parameters:**

г	Ī	
		PM <sub>2.5</sub> FRM
		PM <sub>2.5</sub> Continuous
		PM <sub>2.5</sub> Speciation
		PM <sub>10</sub>
		TSP/Metals
–		VOCs
_		Carbonyls
		Carbon Monoxide
		Ozone
		SO <sub>2</sub>
		NOx
		Meteorological Data
	Ε	Other*
î.		

E = Existing, A = Proposed to Add, T = Proposed to Terminate Sampling Frequency: 1/1 = Everyday, 1/3 = 1-in-3 day, 1/6 = 1-in-6 day







## Site description:

This NADP acid rain and mercury-monitoring site is located in Itasca County, approximately 20 miles north of Grand Rapids, in a two-acre clearing at the Marcell Experimental Forest. This area is within the Chippewa National Forest. U.S. Forest Service personnel operate and maintain this site with support from the MPCA. Land use within one mile of the site is dominated by managed forests and seasonal residences on the area lakes. Significant air emission sources are located more than 20 miles from the site, and consist of pulp and paper mills, lumber mills, and a coal-fired power plant.

#### **Monitoring objectives:**

- Characterize precipitation chemistry to track long-term spatial and temporal trends, support research, and assess the effectiveness of State and Federal SO<sub>2</sub> and mercury emissions reduction programs.
- Demonstrate compliance with the Minnesota Wet Sulfate Deposition Standard (Minn. R. 7005.4010 to 7005.4050).

#### Planned changes:

<sup>\*</sup>Acid and Hg Deposition

# **Camp Ripley**

#### Site information:

AQS Site ID: (none) NADP Site ID: MN23 Address: (open field)

City: **Pillager** County: **Morrison**  Location Setting: Rural Latitude: 46.2494 Longitude: -94.4972 Elevation: 410 m Year Established: 1983

## **Monitoring parameters:**

	-											
PM <sub>2.5</sub> FRM	PM <sub>2.5</sub> Continuous	PM <sub>2.5</sub> Speciation	$PM_{10}$	TSP/Metals	VOCs	Carbonyls	Carbon Monoxide	Ozone	SO <sub>2</sub>	NOx	Meteorological Data	Other*
												Ε
E = Ex	isting,	A = Pı	ropose	ed to A	Add, T	= Pro	posed	to Ter	minat	:e	•	•

Sampling Frequency: 1/1 = Everyday, 1/3 = 1-in-3 day, 1/6 = 1-in-6 day







#### Site description:

This NADP acid rain and mercury-monitoring site is located in Morrison County, south of Pillager, in a two-acre forest clearing. Land use within one mile of the site is primarily forest cover, with some agricultural activity. This site is located on the western boundary of the Camp Ripley Military Reservation. It is south of the Brainerd Lakes area, which is the nearest population center and a seasonal tourism destination in north central Minnesota. Significant air emission sources are located more than 20 miles from the site. The MPCA and the U.S. Geological Survey (USGS) sponsor operation and maintenance at this site.

## **Monitoring objectives:**

- Characterize precipitation chemistry to track long-term spatial and temporal trends, support research, and assess the effectiveness of State and Federal SO<sub>2</sub> and mercury emissions reduction programs.
- Demonstrate compliance with the Minnesota Wet Sulfate Deposition Standard (Minn. R. 7005.4010 to 7005.4050).

#### Planned changes:

<sup>\*</sup>Acid and Hg Deposition

## Lamberton

#### Site information:

AQS Site ID: (none)
NADP Site ID: MN27

Address: U of M SW Agricultural Research Center

City: **Lamberton**County: **Redwood** 

Location Setting: Rural Latitude: 44.2369 Longitude: -95.3010 Elevation: 343 m Year Established: 1979

## Monitoring parameters:

PM <sub>2.5</sub> FRM PM <sub>2.5</sub> Continuous PM <sub>2.5</sub> Continuous PM <sub>1.0</sub> TSP/Metals VOCs Carbonyls Carbon Monoxide Ozone SO <sub>2</sub> NO <sub>x</sub> Meteorological Dē m Other*
--

E = Existing, A = Proposed to Add, T = Proposed to Terminate
Sampling Frequency: 1/1 = Everyday, 1/3 = 1-in-3 day, 1/6 = 1-in-6 day







## Site description:

This NADP acid rain and mercury-monitoring site is located at the University of Minnesota Southwest Agricultural Research and Outreach Center just north of U.S. Highway 14, near Lamberton. The primary land use in the area is row-crop agriculture. University of Minnesota (U of M) personnel operate and maintain this site with support from the MPCA.

## Monitoring objectives:

- Characterize precipitation chemistry to track long-term spatial and temporal trends, support research, and assess the effectiveness of State and Federal SO<sub>2</sub> and mercury emissions reduction programs.
- Demonstrate compliance with the Minnesota Wet Sulfate Deposition Standard (Minn. R. 7005.4010 to 7005.4050).

#### Planned changes:

<sup>\*</sup>Acid and Hg Deposition

# **Grindstone Lake**

#### Site information:

AQS Site ID: (none)
NADP Site ID: MN28

Address: Audubon Center of the North Woods

City: **Sandstone** County: **Pine**  Location Setting: Rural Latitude: 46.1208 Longitude: -93.0042 Elevation: 337 m

Year Established: 1996

## **Monitoring parameters:**

Г		
		PM <sub>2.5</sub> FRM
		PM <sub>2.5</sub> Continuous
_		PM <sub>2.5</sub> Speciation
		PM <sub>10</sub>
		TSP/Metals
		VOCs
		Carbonyls
		Carbon Monoxide
		Ozone
		SO <sub>2</sub>
		NOx
		Meteorological Data
	Ε	Other*
1	J	

E = Existing, A = Proposed to Add, T = Proposed to Terminate Sampling Frequency: 1/1 = Everyday, 1/3 = 1-in-3 day, 1/6 = 1-in-6 day







## Site description:

This NADP acid rain monitoring site is located approximately five miles west of I-35 at the Audubon Center of the North Woods, on the eastern shore of Grindstone Lake in Pine County. Land use is in the area is a mix of agriculture and forest cover. Significant air emission sources are located more than 20 miles from the site.

#### **Monitoring objectives:**

- Characterize precipitation chemistry to track long-term spatial and temporal trends, support research, and assess the effectiveness of State and Federal SO<sub>2</sub> emissions reduction programs.
- Demonstrate compliance with the Minnesota Wet Sulfate Deposition Standard (Minn. R. 7005.4010 to 7005.4050).

#### Planned changes:

<sup>\*</sup>Acid Deposition

# **Wolf Ridge**

#### Site information:

AQS Site ID: (none)
NADP Site ID: MN99

Address: 6282 Cranberry Rd

City: **Finland** County: **Lake**  Location Setting: Rural Latitude: 47.3875 Longitude: -91.1958 Elevation: 351 m Year Established: 1996

## **Monitoring parameters:**

Г		
F F		PM <sub>2.5</sub> FRM
		PM <sub>2.5</sub> Continuous
۸ .		PM <sub>2.5</sub> Speciation
		PM <sub>10</sub>
		TSP/Metals
T		VOCs
D		Carbonyls
		Carbon Monoxide
4 - T - :		Ozone
		SO <sub>2</sub>
-		NOx
		Meteorological Data
	Е	Other*
1	J	

E = Existing, A = Proposed to Add, T = Proposed to Terminate Sampling Frequency: 1/1 = Everyday, 1/3 = 1-in-3 day, 1/6 = 1-in-6 day







#### Site description:

This NADP acid rain monitoring site is located in Lake County, approximately two miles inland from Lake Superior. The site is located at Wolf Ridge Environmental Learning Center, which is approximately five miles east of Finland on County Road 6. Land use near the site is a mix of residential along Lake Superior and county, state, and federal forests managed for timber and recreation. Significant air emission sources include a taconite ore processing plant 15 miles southwest at Silver Bay and a coal-fired power plant 25 miles to the northeast at Schroeder (on track to close in 2018). Wolf Ridge Environmental Learning Center personnel operate and maintain the site with support from the MPCA.

#### **Monitoring objectives:**

- Characterize precipitation chemistry to track long-term spatial and temporal trends, support research, and assess the effectiveness of State and Federal SO<sub>2</sub> emissions reduction programs.
- Demonstrate compliance with the Minnesota Wet Sulfate Deposition Standard (Minn. R. 7005.4010 to 7005.4050).

## **Planned changes:**

<sup>\*</sup>Acid Deposition