

May 2026

2027 Minnesota Air Monitoring Network Planning and Public Comments

Draft 2027 Minnesota Air Monitoring Network Plan

2027 Minnesota Air Monitoring Network Planning and Public Comments

Draft 2027 Minnesota Air Monitoring Network

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.

Authors

Kurt Anderson
Maria Chiu
Kellie Gavin
Sanna Mairet
Chloe Meyer
Ashley Olson
Sydney Schultz
Tesheena Singh
Michael Smith

Kristin Siewert
Joseph Smith
Owen Seltz
Daniel Steltz
Matthew Taraldsen
Mina Tehrani
Eric Wilcox Freeburg
David Wischnack
Nicholas Witcraft

Contributors/acknowledgements

Yong Cai
Jerrod Eppen
Jeff Laren
Nate Niebeling
Jacob Nelson
Binh Nguyen
Luke Salisbury
Margaret McCourtney
Mike Schneider

Editing

Jennifer Holstad

Minnesota Pollution Control Agency

520 Lafayette Road North | Saint Paul, MN 55155-4194 |

651-296-6300 | 800-657-3864 | Or use your preferred relay service | Info.pca@state.mn.us

This report is available in alternative formats upon request, and online at www.pca.state.mn.us.

Table of contents

Table of contents	1
List of tables	1
List of figures	1
Acronyms, abbreviations, and definitions	2
Introduction	3
1. 2026 Site parameter networks	3
2. Methods and equipment	6
3. Environmental Justice	8
4. Network assessments	11
4.1 Regional network assessment	11
5. Network changes	12
5.1 2026 network changes	13
5.2 2027 Proposed changes.....	13
6. Public inspection period	13

List of tables

Table 1. 2026 Site Parameters – Greater Minnesota.	4
Table 2. 2026 Site parameters – Twin Cities metropolitan area.	5
Table 3. Number of sites per parameter network in 2026	6
Table 4. Methods and equipment used for parameter networks in Minnesota.	7
Table 5. PM _{2.5} Collocation in 2026.....	8
Table 6. 2026 network changes.....	13

List of figures

Figure 1: MPCA 2026 monitor locations and environmental justice areas of concern of Minnesota.....	9
Figure 2: MPCA 2026 monitor locations and environmental justice areas of concern in Twin Cities metro.	10

Acronyms, abbreviations, and definitions

Air toxics – suite of parameters that includes VOCs, carbonyls, and metals

AQS – Air Quality System: EPA's repository of ambient air quality data

ARP – American Rescue Plan

BAM – Beta Attenuation Monitor

CAA – Clean Air Act

CFR – Code of Federal Regulations

CO – carbon monoxide

Criteria pollutants – the six pollutants regulated by the 1970 Clean Air Act

CSN – Chemical Speciation Network

Design Value – a statistic that describes the air quality status of a given location relative to the level of the National Ambient Air Quality Standards (NAAQS)

DNR – Department of Natural Resources

EPA – U.S. Environmental Protection Agency

FEM – Federal Equivalent Method

FRM – Federal Reference Method

GC/MS – Gas Chromatography/Mass Spectrometry

H₂S – hydrogen sulfide

Hg – mercury

HPLC – High Pressure Liquid Chromatography

ICP/MS – Inductively Coupled Plasma/Mass Spectrometry

IMPROVE – Interagency Monitoring of Protected Visual Environments

LADCO – Lake Michigan Air Directors Consortium

MAAQs – Minnesota Ambient Air Quality Standard

MDH – Minnesota Department of Health

MPCA – Minnesota Pollution Control Agency

NAAQS – National Ambient Air Quality Standard

NADP – National Atmospheric Deposition Program

NCore – National Core Monitoring Network

NO – nitric oxide

NO₂ – nitrogen dioxide

NO_x – oxides of nitrogen

NO_y – total reactive nitrogen

O₃ – ozone

PAMS – Photochemical Assessment Monitoring Stations

Pb – lead

PM_{2.5} – particulate matter less than 2.5 microns in diameter (fine particulate matter)

PM_{10-2.5} – particulate matter between 2.5 and 10 microns in diameter (coarse particulate matter)

PM₁₀ – particulate matter less than 10 microns in diameter

PQAO – Primary Quality Assurance Organization

SLAMS – State and Local Air Monitoring Stations

SO₂ – sulfur dioxide

SPM – special purpose monitoring

TO-11A – EPA method for analyzing carbonyls utilizing HPLC

TO-15 – EPA method for analyzing VOCs utilizing GC/MS

TRS – total reduced sulfur

TSP – total suspended particulate matter

U of M – University of Minnesota

VOC – volatile organic compound

Introduction

This part of the 2027 Minnesota Air Monitoring Network Plan includes details on which parameters are measured at each location and what equipment is used. It also details changes proposed for the 18 months following its publication. There is also an opportunity for the public to comment on air monitoring activities conducted by the Minnesota Pollution Control Agency (MPCA) and the changes that are being proposed.

The MPCA monitors different types of measurable air properties, called parameters. The group of sites where a parameter is monitored is referred to as a parameter network. Generally, parameters refer to pollutants such as fine particles or air toxics, but parameters also include non-concentration data such as wind speed and temperature. There are currently 63 sites across Minnesota that are being monitored for various parameters (Table 1 and Table 2), using appropriate methods and equipment (Table 4).

The MPCA monitors the six criteria pollutants established by the 1970 CAA to show compliance with the NAAQS. The criteria pollutants are particulate matter (PM_{2.5} and PM₁₀), lead (Pb), ozone (O₃), nitrogen dioxide (NO₂), sulfur dioxide (SO₂), and carbon monoxide (CO).

Other types of particulate matter are also collected in Minnesota. Total suspended particulate matter (TSP) is monitored to show compliance with Minnesota Ambient Air Quality Standards (MAAQS). Chemical speciation of PM_{2.5} is currently monitored at five sites in Minnesota through the IMPROVE network and CSN. Speciation data are used for trends analysis and to better understand the sources of fine particles.

The MPCA also monitors pollutants that pose a potential risk to human health and the environment but are not regulated by national standards. These pollutants include air toxics, such as volatile organic compounds (VOCs), carbonyls, and metals; acid rain; and mercury (Hg). Acid rain and mercury are monitored across Minnesota through the NADP network.

Compounds containing sulfur are monitored, as they may cause irritation to the eyes, nose, and throat. Hydrogen sulfide (H₂S) is monitored to show compliance with the MAAQS. Total reduced sulfur (TRS), which contains H₂S, is monitored near industrial sources. TRS is used as a conservative measurement to demonstrate compliance with the H₂S MAAQS.

Temperature, wind speed, wind direction, barometric pressure, and relative humidity strongly influence the concentrations and transport of pollutants. Meteorological data are collected at seven sites in the Twin Cities metropolitan area. Meteorological data from other sources near air monitoring stations can also be used to help interpret air quality monitoring data.

Generally, parameters are monitored either continuously or as integrated data, using various methods and equipment (Table 4). Continuous data give incremental readings on a real-time basis, such as every 5 or 15 minutes or every hour. Integrated samples are usually 24-hour averages, collected midnight to midnight once every three days, once every six days, or once every twelve days. Continuous data are collected and analyzed at the site. For integrated data, samples are collected at sites and transported to the MPCA lab for further analysis.

1. 2026 Site parameter networks

Site parameter networks are groups of sites across the state that monitor the same parameter. Tables 1 and 2 list which parameters are measured at sites across Minnesota in 2026. Table 3 summarizes how many sites are in each parameter network.

Table 1. 2026 Site Parameters – Greater Minnesota.

Site ID	City name	Site name	PM _{2.5} FRM	Continuous PM _{2.5}	PM _{2.5} Speciation	PM ₁₀	TSP/Metals/Pb	Ozone	Nitrogen oxides	Sulfur dioxide	Carbon monoxide	VOCs	Carbonyls	Other parameters
27-005-2013	Detroit Lakes	FWS Wetland Management District		X				X						
27-007-2304***	Red Lake	Red Lake Nation - Hospital		X										
27-007-2305***	Red Lake	Red Lake Nation – DNR						X						
27-013-5510	Mankato	Rosa Parks Elementary		X				X						
27-017-7417***	Cloquet	Fond du Lac Band		X				X						
27-021-3410***	Cass Lake	Leech Lake Nation: Cass Lake		X										
27-031-7810***	Grand Portage	Grand Portage Band		X										
27-035-3204	Brainerd	Brainerd Lakes Regional Airport		X				X						
27-049-5302	Stanton	Stanton Airfield						X						
27-075-0005 MN18* BOWA1**	Ely	Boundary Waters		X	X			X						Acid and Hg Deposition, IMPROVE
27-083-4210	Marshall	Southwest Minnesota Regional Airport		X		X ^c		X						T640X
27-095-3051***	Mille Lacs	Mille Lacs Band						X						
27-109-5008	Rochester	Ben Franklin School		X				X						
27-109-5009	Rochester	Folwell School					X				X	X		
27-115-3061***	Hinckley	Lake Lena		X										
27-137-0032	Duluth	Oneota Street				X								Collocated PM ₁₀
27-137-0034 MN32* VOYA2**	International Falls	Voyageurs NP – Sullivan Bay			X			X						Acid Deposition, IMPROVE
27-137-7001	Virginia	Virginia City Hall		X		X ^c	X	X	X					T640X
27-137-7550	Duluth	U of M – Duluth		X				X						
27-137-7554	Duluth	Laura MacArthur School		X										
27-137-7555	Duluth	Waseca Road					X							Collocated TSP/Metals
27-145-3052	Saint Cloud	Talahi School		X				X						
27-171-3201	Saint Michael	Saint Michael		X				X						
GRR1**	Winona	Great River Bluffs			X									IMPROVE
MN02*	Red Lake	Red Lake												Hg Deposition, Hg Litterfall
MN06*	Not in a city	Leech Lake												Hg Deposition
MN08*	Hovland	Hovland												Acid Deposition
MN16*	Balsam Lake	Marcell Experimental Forest												Acid and Hg Deposition
MN23*	Pillager	Camp Ripley												Acid and Hg Deposition
MN27*	Lamberton	Lamberton												Acid and Hg Deposition
MN99*	Finland	Wolf Ridge												Acid Deposition

* NADP Site ID ** IMPROVE Site *** Tribal monitor ^cPM₁₀ Continuous

Table 2. 2026 Site parameters – Twin Cities metropolitan area.

Site ID	City name	Site name	PM _{2.5} FRM	Continuous PM _{2.5}	PM _{2.5} Speciation	PM ₁₀	TSP/ Metals/ Pb	Ozone	Nitrogen oxides	Sulfur dioxide	Carbon monoxide	VOCs	Carbonyls	Other parameters
27-003-1001 MN01*	East Bethel	Cedar Creek						X						Acid Deposition
27-003-1002	Blaine	Anoka Airport	X	X	X	X ^C	X	X	X ^T	X ^T	X ^T	X	X	^T NCore trace level gases, PM _{10-2.5} , Meteorological Data, CSN, PAMS, T640X
27-003-6021	Anoka	Federal Ammunition					X ^L							Meteorological Data, 1 in 3 day sampling
27-037-0020	Rosemount	Flint Hills Refinery 0020					X ^L		X	X	X	X	X	Collocated TSP and Metals, TRS, Meteorological Data
27-037-0423	Rosemount	Flint Hills Refinery 0423					X ^L		X	X	X	X	X	TRS, Meteorological Data
27-037-0443	Rosemount	Flint Hills Refinery 0443								X				
27-037-0465	Eagan	Gopher Resources					X ^L							Collocated TSP and Metals, 1 in 3 day sampling
27-037-0470	Apple Valley	Apple Valley		X										Collocated PM _{2.5} FEM
27-037-0480	Lakeville	Near Road I35		X					X		X			Meteorological Data
27-053-0909	Minneapolis	Lowry Avenue		X		X ^C	X ^L					X	X	Meteorological Data, T640X
27-053-0910	Minneapolis	Pacific Street		X		X ^C	X ^L							T640X
27-053-0915	Minneapolis	Minneapolis Public School Maintenance					X					X	X	
27-053-0954	Minneapolis	Arts Center								X	X			
27-053-0961	Richfield	Richfield Intermediate School										X	X	
27-053-0962	Minneapolis	Near Road I35/I94	X	X			X ^L	X	X		X	X	X	Collocated PM _{2.5} FRM-FEM, Meteorological Data, Collocated VOCs and Carbonyls
27-053-0963	Minneapolis	H.C. Andersen School	X	X	X		X					X	X	CSN, Collocated PM _{2.5} FRM-FEM
27-053-0966	Minneapolis	City of Lakes				X	X					X	X	
27-053-1007	Minneapolis	Humboldt Avenue					X					X	X	
27-053-1904	Minneapolis	East Phillips Community		X			X							Meteorological Data
27-053-1909	Minneapolis	Bottineau / Marshall Terrace				X ^C	X					X	X	T640X
27-053-2006	St. Louis Park	St. Louis Park		X										
27-123-0866	St. Paul	Red Rock Road				X								Collocated PM ₁₀
27-123-0868	St. Paul	Ramsey Health Center	X			X ^C						X	X	
27-123-0871	St. Paul	Harding High School	X	X			X					X	X	Collocated PM _{2.5} FRM
27-123-0875	St. Paul	West Side					X							
27-123-0890	St. Paul	Northern Iron					X					X	X	Meteorological Data
27-123-0880	St. Paul	Frogtown					X					X	X	
27-139-0505	Shakopee	Shakopee		X				X						
27-163-0437	Newport	City of Newport					X					X	X	
27-163-0436	St. Paul Park	St. Paul Park Refinery								X		X	X	TRS, Collocated VOCs and Carbonyls
27-163-6016	Marine on St. Croix	Marine on St. Croix						X						

*NADP Site ID

^LSource-oriented Lead

^CPM₁₀ Continuous

Table 3. Number of sites per parameter network in 2026

	Number of sites in greater Minnesota	Number of sites in the Twin Cities metro area	Total number of sites in Minnesota
All Sites	32	31	63
PM _{2.5} FRM	0	5	5
Continuous PM _{2.5}	16	10	26
PM _{2.5} Speciation	3	2	5
PM ₁₀ Daily	1	2	3
PM ₁₀ Continuous	2	5	7
TSP and Metals	3	19	22
Ozone	14	5	19
Oxides of Nitrogen	1	5	6
Sulfur Dioxide	1	6	7
Carbon Monoxide	0	6	6
VOCs	1	17	18
Carbonyls	1	17	18
NADP	10	1	10

2. Methods and equipment

Table 4 lists methods and equipment used by MPCA in 2026. The Minnesota Air Monitoring Minimum Requirements and 2026 Monitor Classifications part of this plan provides tables that list each AQS monitor’s method, scale, objective, and collocation, where required.

The MPCA makes changes to equipment for multiple reasons such as replacing older equipment with newer technology or replacing periodic samplers with continuous monitors. These changes increase efficiency and reduce costs, allowing us to better serve the citizens of Minnesota.

The following method changes were made to existing monitors in 2026:

- PM_{2.5} monitors and samplers
 - All Partisol 2025 samplers were replaced with Met One E-SEQ-FRM samplers
 - 27-053-2006: removed collocated FRM (Partisols) and installed T640 on 4/28/26
 - 27-053-0962: added a Met One FRM to collocate with a T640 on 4/28/26
- PM₁₀ Continuous monitors
 - 27-053-0909: PM₁₀ BAM replaced with T640X on 3/26/26
 - 27-053-1909: PM₁₀ BAM replaced with T640X summer 2026

Table 4. Methods and equipment used for parameter networks in Minnesota.

Parameter	Methods and equipment	Analyzing agency
Acid Deposition	Weekly wet-only precipitation collection	NADP
Carbonyls	HPLC from DNPH tubes collected using ATEC Model 2200 sampler	MPCA
Carbonyls - PAMS	HPLC from DNPH tubes collected using ATEC Model 8000 sampler	MPCA
CO	Infrared Absorption – Teledyne API Models 300E/T300	MPCA
CO trace level	Infrared Absorption – Teledyne API Model T300U	MPCA
H ₂ S	Honeywell Analytics SPM Flex	MPCA
Mercury Deposition	Weekly wet-only precipitation collection	NADP
Metals	ICP/MS from TSP filters	MPCA
Meteorological Data	Various meteorological sensors	MPCA
NO/NO _y trace level	Chemiluminescence – Teledyne API Model T200U	MPCA
NO _x	Chemiluminescence – Teledyne API Models 200A/T200	MPCA
NO ₂	Cavity Attenuated Phase Shift (CAPS) - Teledyne API Model T500U	MPCA
O ₃	Ultraviolet Absorption – Teledyne API Models 400E/ T400	MPCA
PM ₁₀	Gravimetric – Andersen Hi-Vol samplers	MPCA
PM ₁₀ Continuous	Beta Attenuation – MetOne Instruments BAM-1020 Broadband spectroscopy – Teledyne T640X	MPCA
PM _{10-2.5}	Broadband spectroscopy – Teledyne T640X	MPCA
PM _{2.5} FEM	Broadband spectroscopy – Teledyne T640 and T640X	MPCA
PM _{2.5} FRM	Gravimetric – Met One E-SEQ-FRM PM2.5 with VSCC	MPCA
PM _{2.5} Speciation - CSN	MetOne Instruments SAAS Speciation Sampler; URG3000N Carbon Samplers	EPA
PM _{2.5} Speciation	IMPROVE Sampler	IMPROVE
SO ₂	Pulsed Fluorescence – Teledyne API Models 100E/T100	MPCA
SO ₂ trace level	Pulsed Fluorescence – Teledyne API Model T100U	MPCA
TRS	SO ₂ analyzer (pulsed fluorescence) with thermal oxidizer	MPCA
TSP	Gravimetric – High Volume samplers	MPCA
VOCs (24-hour)	GC/MS analysis of samples collected using an ATEC Model 2200 sampler	MPCA
VOCs (hourly)	CAS/Chromatatec Auto GC	MPCA

In 2026, collocated PM_{2.5} FRM samplers at site 27-053-2006 were replaced with a continuous PM_{2.5} monitor. The CFR has collocation requirements for particulate sampling. Table 6 summarizes PM_{2.5} collocations in Minnesota in 2026. The Minnesota Air Monitoring Minimum Requirements and 2026 Monitor Classifications section of this plan contains more information on methods and collocation.

Table 5. PM_{2.5} Collocation in 2026

Site ID	City name	Site name	Collocated monitor types
27-003-1002	Blaine	Anoka County Airport	FEM (T640X) – FRM
27-037-0470	Apple Valley	Westview School	FEM (T640) – FEM (T640)
27-053-0962	Minneapolis	Near Road I-35/I-94	FEM (T640) – FRM
27-053-0963	Minneapolis	Andersen United Middle School	FEM (T640) – FRM
27-123-0871	St. Paul	Harding High School	FRM (T640) – FRM

3. Environmental Justice

The Minnesota Pollution Control Agency (MPCA) defines environmental justice as the fair treatment and meaningful involvement of all people regardless of race, color, national origin, or income with respect to the development, implementation, and enforcement of environmental laws, regulations, and policies. This will be achieved when everyone benefits from the same degree of environmental protection and has equal access to the decision-making processes that contribute to a healthy environment.

The MPCA is striving to understand how air pollution may disproportionately affect some communities. Current and continuing efforts to involve and inform communities include issuing several reports and community focused websites with data portals.

- [The Air We Breathe report | Minnesota Pollution Control Agency](#)
- [Life and Breath Metro 2022 - MN Data](#)
- [Anoka | Federal Ammunition | Minnesota Pollution Control Agency](#)
- [Workbook: Air monitoring - St. Paul West Side community air monitoring](#)
- [North Minneapolis | Industrial air monitoring | Minnesota Pollution Control Agency](#)

The [MPCA’s Environmental justice website \(https://www.pca.state.mn.us/about-mpca/mpca-and-environmental-justice\)](https://www.pca.state.mn.us/about-mpca/mpca-and-environmental-justice) shares additional information on MPCA’s efforts around environmental justice.

Current efforts

Along with new census data, the MPCA updated the criteria for census tracts to be considered environmental justice areas of concern. The MPCA now considers tribal areas and census tracts with higher concentrations of low-income residents, people of color, and people of limited English proficiency as areas of increased concern for environmental justice. The four criteria that are currently used to define environmental justice areas of concern are census tracts where:

- At least 40% of residents are people of color
- At least 35% of people reported income less than 200% of the federal poverty level
- At least 40% of people have limited English proficiency
- Located within Indian Country, which is defined as federally recognized reservations and other Indigenous lands

Using this definition, out of 63 statewide monitors, 13 are within one area of environmental concern, 11 are within two overlapping areas, and seven fall within the boundaries of three types of environmental justice concern areas (Figure 1 and Figure 2). None of the census tracts in Minnesota meet all four environmental justice criteria, therefore none of the monitors are in an area that meet all four criteria.

Overall, 31 of the 63 monitors are in environmental justice areas. 32 of the 63 monitors do not fall within an environmental justice area of concern.

Figure 1: MPCA 2026 monitor locations and environmental justice areas of concern of Minnesota.

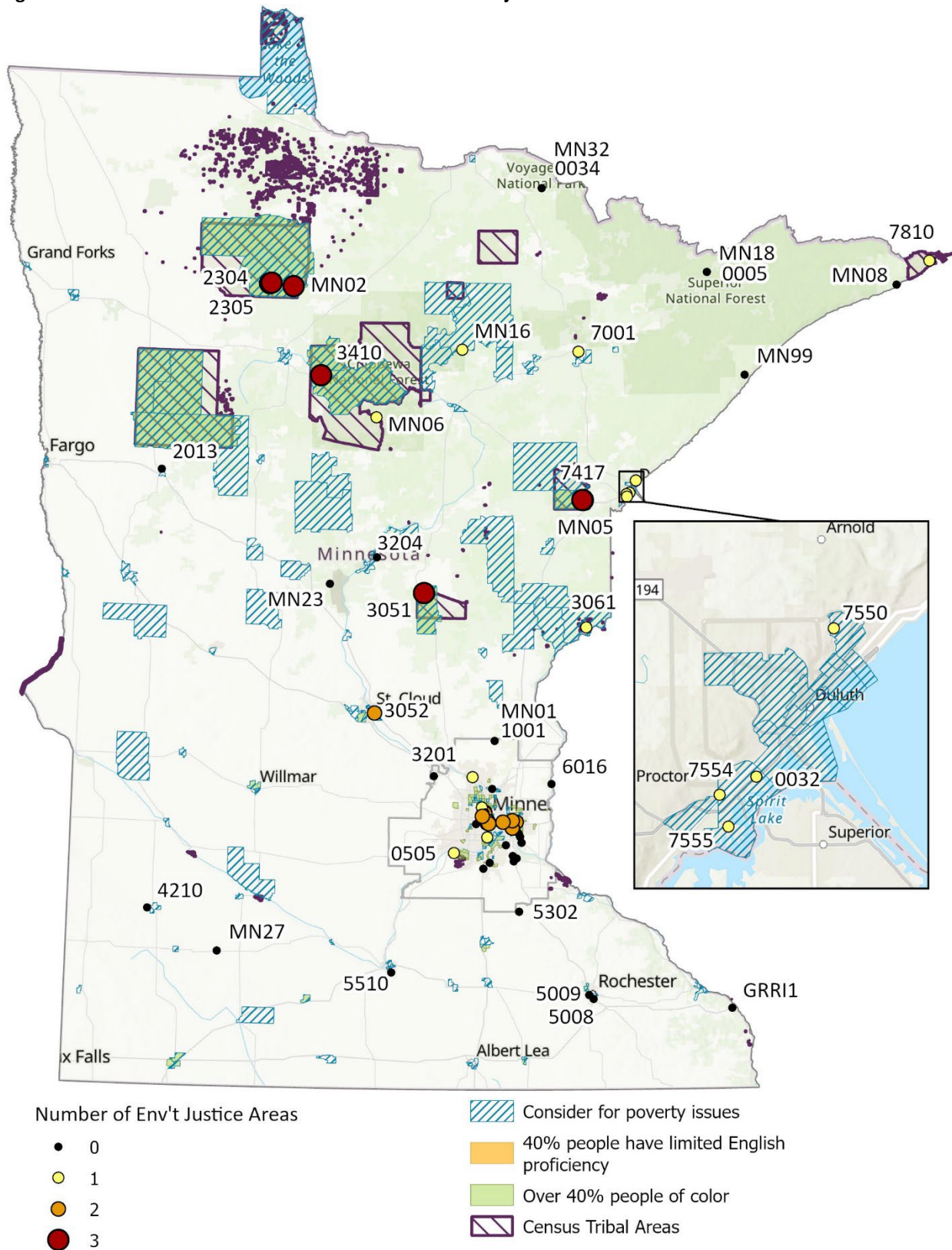
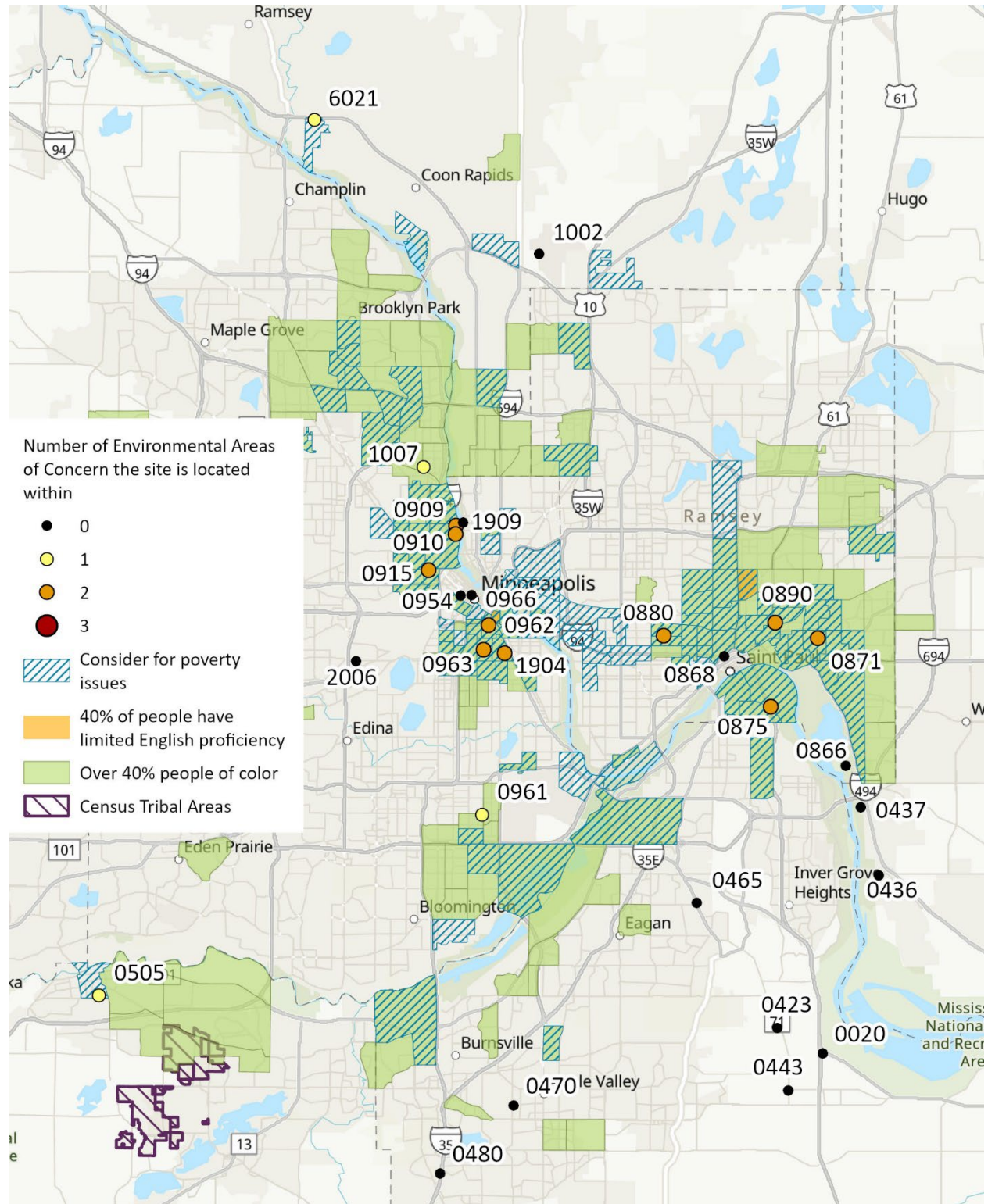


Figure 2: MPCA 2026 monitor locations and environmental justice areas of concern in Twin Cities metro.



Conclusion

The effects of historical and current structural inequities are made clear through the disparities of air pollution health impacts. The MPCA is committed to reducing these disparities and reducing air pollution in areas of environmental justice concern. Through strengthening and fully utilizing our community relationships, increasing our outreach and communication, and being present in these communities, the MPCA continues to work towards the meaningful involvement of those most impacted by air pollution. Through our efforts to incorporate environmental justice in our air monitoring decisions, the MPCA continues to strive for the fair treatment of all people. To explore the MPCA's resources on environmental justice and air pollution, visit the [Environmental justice and air webpage](https://www.pca.state.mn.us/air/environmental-justice-and-air) (<https://www.pca.state.mn.us/air/environmental-justice-and-air>).

4. Network assessments

4.1 Regional network assessment

In addition to this air monitoring network plan, the EPA requires states to complete a network assessment every five years. Under the direction of the Lake Michigan Air Directors Consortium (LADCO), Minnesota has collaborated with Illinois, Indiana, Michigan, Ohio and Wisconsin to develop network assessments in 2010, 2015, 2020 and 2025. The results of the Network Assessments can be found on [LADCO's website](https://www.ladco.org/reports/monitoring-reports/) (<https://www.ladco.org/reports/monitoring-reports/>).

Assessments are performed to provide state and local networks information on whether their networks meet monitoring objectives, whether new sites are needed, whether existing sites are no longer needed, and whether new technologies are appropriate for incorporation into the network. The network assessment provides an interactive tool to examine the regional air monitoring network, including network history, types of pollutants monitored, attainment status, concentration trends, and gridded emissions. The layered maps in this assessment tool provide further information with pop-up boxes for each monitor or feature, offering details such as location, site IDs, design values, and other associated information.

Beyond the primary requirements of this assessment, the StoryMap associated with 2025 Network Assessment for the Region 5 States: Illinois, Indiana, Michigan, Minnesota, Ohio, and Wisconsin also provides the following:

- Pros, cons, and best practices for the use of low-cost air quality sensors
- Visualization tool to plot air toxics data over time for selected monitors
- Template to help guide monitoring agencies through decisions about whether to shut down, relocate, or add monitors
- Risks to monitoring networks from extreme weather events

The 2025 Network Assessment for the Region 5 States' main takeaway was the validation of the existing network design, confirming that current stations are meeting legal requirements and are appropriately sited to capture likely highest pollutant concentrations based on data and historical trends.

The assessment confirmed the strategic efficacy of the current ambient air monitoring network for both PM_{2.5} and Ozone.

- Ozone: All existing sites are legally required to be maintained, resulting in no recommended action for removal. Considering the lack of spatial distribution, the recent monitoring additions in the Red Lake Nation and Mankato areas were confirmed as appropriate recent changes to the network.

- **PM_{2.5}:** A decision was made not to remove any of the 10 sites that technically met EPA criteria for shutdown, mainly because most serve important Air Quality Index (AQI) and/or Tribal purposes. Two Duluth PM_{2.5} monitors (U of M and Laura MacArthur School) will be kept, despite proximity, due to the critical nature of the city, geographic variation (down/up slope), and the need to cover distinct demographics.

Some other key findings of the 2025 Network Assessment include:

- Criteria pollutant monitoring networks are adequate to meet EPA’s minimum monitoring criteria.
- Monitoring networks are not at fine enough spatial scale to answer all important air quality questions. Low-cost air quality sensors can provide better spatial coverage and can be used in tandem with regulatory monitors. Minnesota’s criteria pollutant monitoring network is not dense enough to measure neighborhood level disparities in air quality, but we are increasing our use of small air quality sensors to cover gaps in our air monitoring network, especially in areas of environmental justice concern.
- New monitoring sites should only be added with additional permanent sources of funding.
- Some monitors could be shut down without losing crucial information about regional-scale pollution.
 - No ozone monitors meet EPA’s criteria for shutting down a monitor.
 - Only 17 PM_{2.5} monitors meet the shut-down criteria for both the annual and PM_{2.5} NAAQS, of which 9 are in Minnesota. All of the PM_{2.5} monitors eligible for disinvestment are outside of Twin Cities. While these monitors are eligible for disinvestment from legal standpoint, they provide important spatial and temporal coverage, therefore there is not plan to shut down these monitors at this time.
- With extreme weather events becoming more prevalent, air monitoring agencies should have plans to make networks more resilient.
- Minnesota’s air toxics network is concentrated in the Twin Cities and Duluth due to logistical challenges with transporting samples. Within those areas, the air toxics network is generally representative of the air quality experienced in different neighborhoods.

While no immediate changes are recommended for Minnesota’s network, the emergence of mobile trailer monitoring presents new opportunities. West Side Community is a great candidate for mobile monitoring due to community interest and recent readings¹⁰. This approach should be explored for potentially establishing new regulatory PM_{2.5} monitoring.

Given anticipated compliance challenges from growing population and warmer temperatures, the team should plan for more regular network assessment, potentially conducting them on a quarterly basis.

5. Network changes

Changes to the MPCA Air Monitoring Network are intended to improve the effectiveness of monitoring efforts and to ensure compliance with the EPA National Ambient Air Monitoring Strategy. Some changes are planned well in advance and are detailed in the Network Plan each year. Other changes are a result of legislation, administrative directives, land-use changes, loss of funding, enforcement actions, or are in response to complaints, and cannot be foreseen when this report is created. This section of the document contains all changes that were made in 2026 and the changes that are planned for 2027.

5.1 2026 network changes

- In 2026, the 1-in-6 day PM_{2.5} FRM sampler in St. Louis Park (27-053-2006) was replaced by an hourly FEM monitor. Since this site hosted collocated PM_{2.5} FRM samplers, the following steps were taken to maintain collocation requirements for PM_{2.5}:
 - An FRM sampler was added to site 27-053-0962 so it is collocated for FRM-FEM
 - The collocation at 27-123-0871 was switched from FRM-FEM to FRM-FRM
- In March 2026, the continuous PM₁₀ BAM monitor at site 27-053-0909 was replaced by a T640X monitor. This change also added PM_{2.5} continuous data to this site.
- In Summer 2026, the continuous PM₁₀ BAM monitor at site 27-053-1909 will be replaced by a T640X monitor. This change will also add PM_{2.5} continuous data to this site.

Table 6. 2026 network changes

Site ID	City name	Site name	PM _{2.5} FRM (1-in-6 day)	PM _{2.5} continuous
27-053-0962	Minneapolis	Near Road I-35/I-94	A	
27-053-0909	Minneapolis	Lowry Ave		A
27-053-1909	Minneapolis	Bottineau / Marshall Terrace		A
27-053-2006	St. Louis Park	St. Louis Park	R	A

R = removed
A = added

5.2 2027 Proposed changes

In 2027, the following change is proposed:

- Site 27-123-0868 (Ramsey Health Center)
 - The continuous PM₁₀ BAM monitor will be replaced by a T640X monitor. This change will also add PM_{2.5} continuous data to this site.
 - This site might have to be relocated since the building was vacated in summer 2026.

6. Public inspection period

This plan is available for public inspection and comment from May 19, 2026 through June 18, 2026. The public is also welcome to comment on our air monitoring activities at any time throughout the year.