

AIRNET Workshop 2

June 2025



**GREAT PLAINS
INSTITUTE**

Better Energy. Better World.



Agenda



Introductions



Recap of the last meeting



Goals for the day



Review of draft monitoring plans



Discussion, voting, and alterations to proposed monitoring plan



Siting: Identify locations for air monitors



Next steps

Introductions

Name

Were you here for the first meeting?

How are you feeling today?

Updates from MPCA

- ▶ 2023 Legislative session funding. Project period to end June 2027.
- ▶ Draft report to be submitted to the Legislature Feb 2026
- ▶ 3 total projects awarded:
 - ▶ AIRNET
 - ▶ Clean Air for all - UofM UROC, Liberty community church
 - ▶ 25 nodes
 - ▶ Combination of indoor and outdoor pollution monitoring
 - ▶ Primarily in Minneapolis
 - ▶ Also using some form of a stationary mobile monitor
 - ▶ Neighbors for Clean Air - OSLUV, MN state Mankato, Frogtown, Hamline-Midway
 - ▶ Primarily heavy metal monitoring
 - ▶ Frogtown neighborhood and Hamline Midway area

Recap of Workgroup 1: GESCC

- ▶ Introductory air quality information
 - ▶ Interested? Watch Webinar 1 of EPA's Community Air Monitoring Fundamentals
- ▶ Discussion and prioritizing of our top interests for the project:
 1. Transportation & traffic
 2. Schools/youth health
 3. Northern Iron

Community	Concern #1	Concern #2	Concern #3
NENO	Transportation & traffic	Non-transportation industry	Health Impacts
West 7th	Transportation & traffic	FCC trash truck lot	Other local industry
PPCC	Northern Iron	Transportation & traffic	Health Impacts
GESCC	Transportation & traffic	Youth	Northern Iron
UPDC	Transportation & traffic	Backyard burning	Health Impacts

Goals for the Day

1. Review draft monitoring plans and select the path forward
2. Begin finding locations where we can site air monitors

Draft Monitoring Plans

These drafts are meant to serve as conversation starters but are based on input/priorities from the first workgroup sessions, current science, and existing technology.

All plans include approximate numbers. Final draft proposals will include more accurate sensor numbers

GESCC

GESCC Plan #1: Understanding Traffic and Transportation and Youth Exposure

Objective:

- ▶ We want to monitor passenger and light-duty vehicle transportation pollution in the neighborhood to understand where traffic pollution is coming from and how it impacts our youth

Focus:

- ▶ Passenger vehicles and light-to-medium duty trucks (non-diesel).

This project will extensively monitor **NO₂** and **PM_{2.5}** at locations of high traffic and at locations that have relatively less traffic pollution as a comparison.

Monitors:

- ▶ 5 NO₂ & PM_{2.5} monitors



GESCC Plan #2: Understanding Mixed Use Truck Traffic and Transportation and Youth Exposure

Objective:

- ▶ We want to monitor mixed use vehicle transportation pollution in the neighborhood to understand where traffic pollution is coming from and how it impacts our youth

Focus:

- ▶ Multiple forms of transportation including gas- and diesel- powered vehicles, as well as trains

This project will extensively monitor **Black C, NO₂ and PM_{2.5}** at locations of high traffic and at locations that have relatively less traffic pollution as a comparison.

Monitors:

- ▶ 4 NO₂ & PM_{2.5} monitors
- ▶ 2 Black Carbon monitors

Locations:

- ▶ Near major intersections, high-traffic areas, and communities of concern, and at comparison locations with relatively little traffic.

GESCC Plan #3: Understanding Mixed Use Truck Traffic and Transportation and Youth Exposure

Objective:

- ▶ We want to monitor passenger and light-duty vehicle transportation pollution in the neighborhood to understand where traffic pollution is coming from and how it impacts our youth

Focus:

- ▶ Multiple forms of transportation including gas- and diesel- powered vehicles, as well as trains

This project will extensively monitor **Black C, NO₂ and PM_{2.5}** at locations of high traffic and at locations that have relatively less traffic pollution as a comparison.

Monitors:

- ▶ 3 NO₂ & PM_{2.5} monitors
- ▶ 3 Black Carbon monitors

Determining next steps



What questions do you have about each of these options?



Does one of them meet our monitoring interests?



What concerns might you have with this choice?



What changes might you want to make?

Siting Air Monitors

What are the requirements for a siting location?

Each site must help us meet our air monitoring goals.

Secure space: Placed out of reach of the public, could be on a porch, deck, on the backside of a building, or in a fenced outdoor space.

Appropriate attachment or location:

- ▶ Attached to an existing pole or support (e.g. a flag pole, a porch column, gutter downspouts)
- ▶ Attached to temporary T-posts in the ground
- ▶ In an industrial cage
- ▶ Drilled into a building/fence

Access: Need to be accessible by project staff during regular business hours for occasional maintenance.

Power: A normal 120V outdoor plug, or space for a solar panel. Most air monitors pull very little power.

Wi-fi/Cellular data: Consistent cellular or wi-fi connection, depending on the device.

Other requirements:

- ▶ The unit should be in a space with decent airflow (i.e. not in a corner).
- ▶ The unit should not be placed on a roof, which can be difficult to access.

Some Examples



Where can we monitor? Homes, businesses, other locations



High traffic areas



Major intersections



Near expected
sources



In neighborhoods



Near communities
of concern (youth,
seniors, etc.)

Next Steps

- ▶ Take information from today & create final air monitoring plan
- ▶ Send out for feedback in late July
- ▶ Late summer/early fall: begin monitoring!

Contact us:

Story Schwantes

Story.Schwantes@tdenviro.com

Dr. Monika Vadali

mvadali@gpisd.net