

# Community Engagement with Air Quality Sensors

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# Wisconsin's Non-Regulatory Air Quality Monitoring

## Community Engagement

- Industrial Sand Mines (2015 – 2020)
- Various complaints about industrial activities
- Wildfires (2021 & 2023)

## Sensor Projects

- Dylos, FEM, FRM studies (2017)
- Purple Air Study State Correction factor (2019)
- USEPA ORD Long Term Performance Project (2019)
- ARP Milwaukee Community Engagement Study (2024)



# Groups Engaged in Air Quality in WI

## Northern WI

- Town of Superior and Fire Department

## West Central

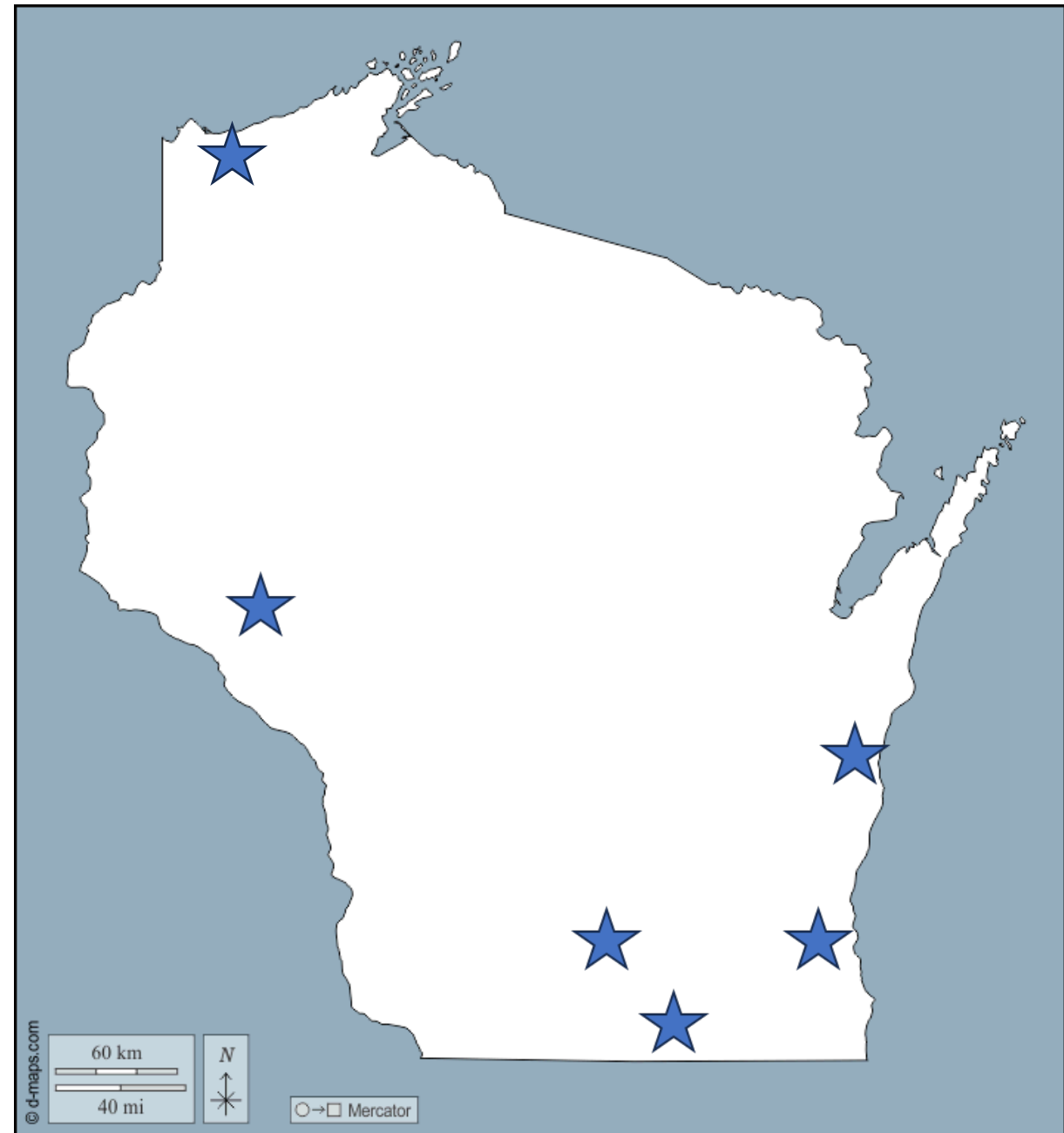
- Industrial Sand Mine groups
- Eau Claire Libraries

## Central

- Town of Middleton
- City of Madison
- Beloit Community Group

## Southeast and lakeshore

- Sheboygan Ozone Reduction Alliance (SORA)
- Love My Air WI
- Fresh Air Collective MKE





## ARP Milwaukee Community Engagement Study Goals

- Regulatory and Mobile Monitoring to determine hotspots in neighborhood
- Inform the public on air quality monitoring data and how to interpret the AQI
- Community Outreach Underway – Kick off May 30

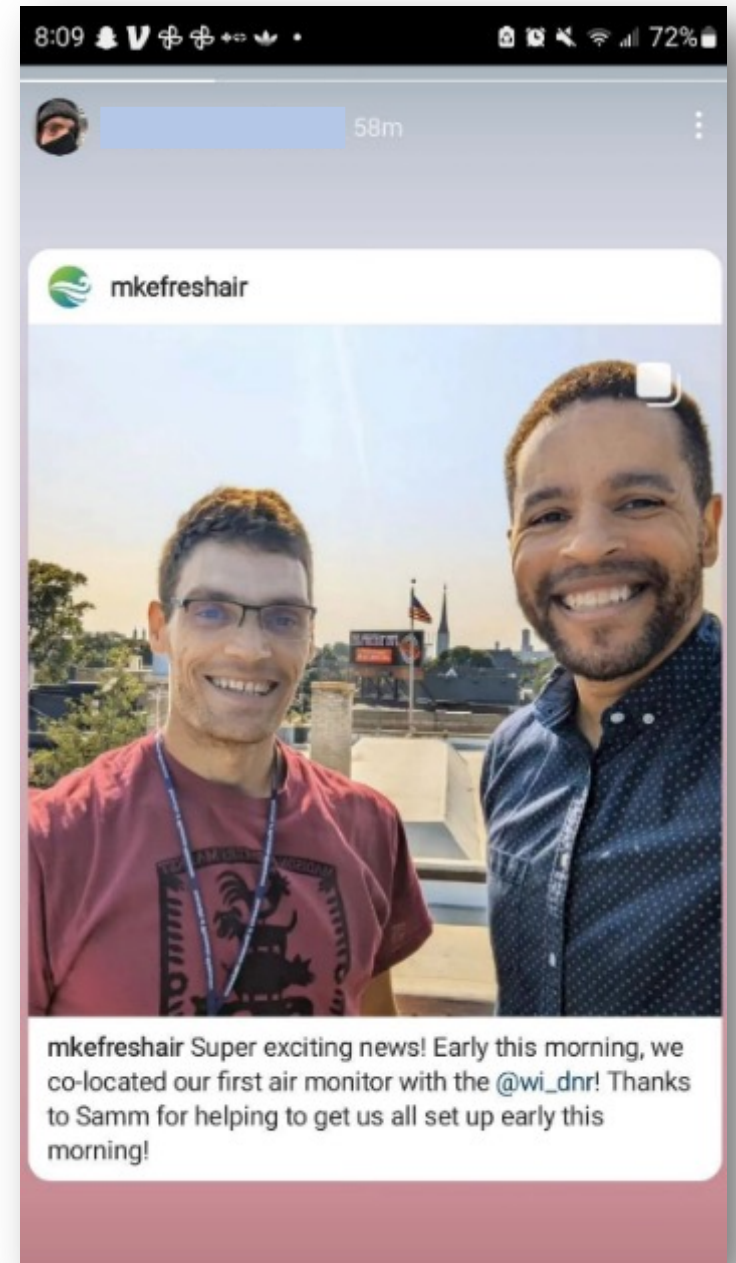
# Challenges with Sensors

- Do not undergo standardized testing and quality assurance
- Many have proprietary tech that restrict users from calibrating, or they provide data in ways that are difficult to compare with regulatory sites
- Lack of general knowledge on siting criteria, sensor selection, maintenance and displaying or sharing data for use
- Issues with sensor under- or overreporting concentrations in certain situations (i.e. high humidity, intense PM events)



# Community Group Engagement Benefits

- Improved public understanding of air quality
  - Increased public safety in the event of elevated levels of pollution
  - Protects children who are more susceptible to health impacts associated with elevated levels of air pollutants
- Increased awareness of the work we do and the importance of data quality
- Unintended benefit of increased public perspective and value of regulatory monitoring network.
- Builds trust among the public and agency



# Sensor Policy Direction

- Government Accountability Office Report (2020)
- GAO: Air Quality Sensors - Policy Options to Help Address Implementation Challenges (2024)
- U.S. Senate Committee on Environment and Public Works Hearing on "Examining the State of Air Quality Monitoring Technology" (April 2024)





# CONNECT WITH US

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OFF THE RECORD"