

# Love My Air Wisconsin and Faith-Based Youth Apprentices Pilot: Air Quality and Asthma Action

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## Plan

- According to the 2020 Wisconsin Asthma Burden Report, Milwaukee's asthma rate is 1.5 times higher (15%) than the state average, with some neighborhoods more affected than others.
- Milwaukee did not meet national air quality standards for ozone in 2025, as set by the U. S. Environmental Protection Agency (EPA).
- People in high-burden areas face extra challenges that affect many parts of daily life.

## Objectives:

- Love My Air Wisconsin (LMA WI) partners with Hephatha Lutheran Church to raise awareness about air quality and its effects on asthma.
- Prepare youth to be leaders who educate peers and their community.
- Use local data to guide community action to reduce air pollution exposure and protect health.

## Do

### Youth Training and Data Collection:

- Apprentices were trained to use AirBeam monitors and read PurpleAir sensor data to track air quality around their church, Hopkins Lloyd Community School and their neighborhood.
- Apprentices used Tropospheric Emissions: Monitoring of Pollution (TEMPO) Lite satellite tools to learn how air moves and where pollution comes from.
- Apprentices researched local asthma data and learned about environmental triggers.

### Community Engagement and Awareness:

- Apprentices led presentations on asthma triggers and environmental health at Hephatha Lutheran Church.
- Apprentices met with City of Milwaukee transportation staff to share feedback on proposed local street improvement projects.
- Apprentices began building peer education strategies.

## Study

- Air quality varied by location and time. However, low-cost sensors did not always capture the full picture of pollution exposure across a ZIP code.
- Apprentices found traffic-related air quality patterns using TEMPO Lite data, though cloud coverage limited some readings.
- Visual data boosted engagement, with community members asking more questions during presentations.
- Scheduling conflicts and competing priorities made it hard for apprentices to meet on a regular basis.
- Youth leadership is effective for peer education and engagement.
- Asthma education helps build the case for air quality awareness.
- Flexible program design is key to keeping youth involved over time.

## Act

- LMA WI shifted focus to long-term impact by developing an Asthma Champion model that includes air quality monitoring. This model can be shared with other groups and schools.
- Apprentices now lead asthma education for younger youth in their church and community.
- With support from Hephatha Lutheran Church's nurse, youth:
  - Monitor air quality alerts.
  - Share information with peers.
  - Encourage peers to take steps to protect themselves on poor air quality days.
- LMA WI will use a Train the Trainer model to allow flexible scheduling and continued engagement.
- LMA WI will keep using TEMPO Lite satellite data alongside low-cost sensor data to improve air quality tracking, gather feedback to refine programming and strengthen community outreach.

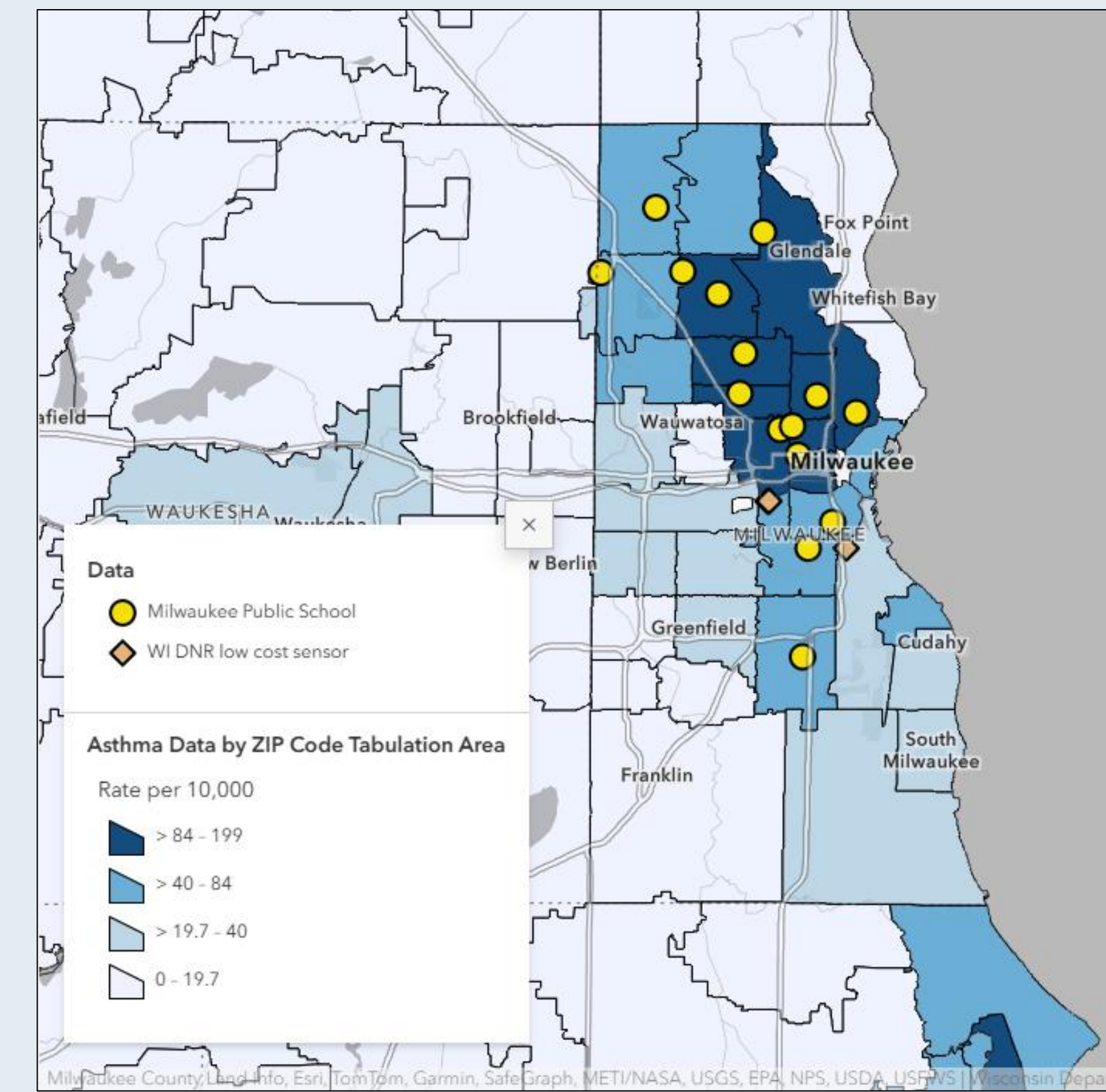


Figure 1: Asthma data across Milwaukee, regulator monitor and air sensor locations.

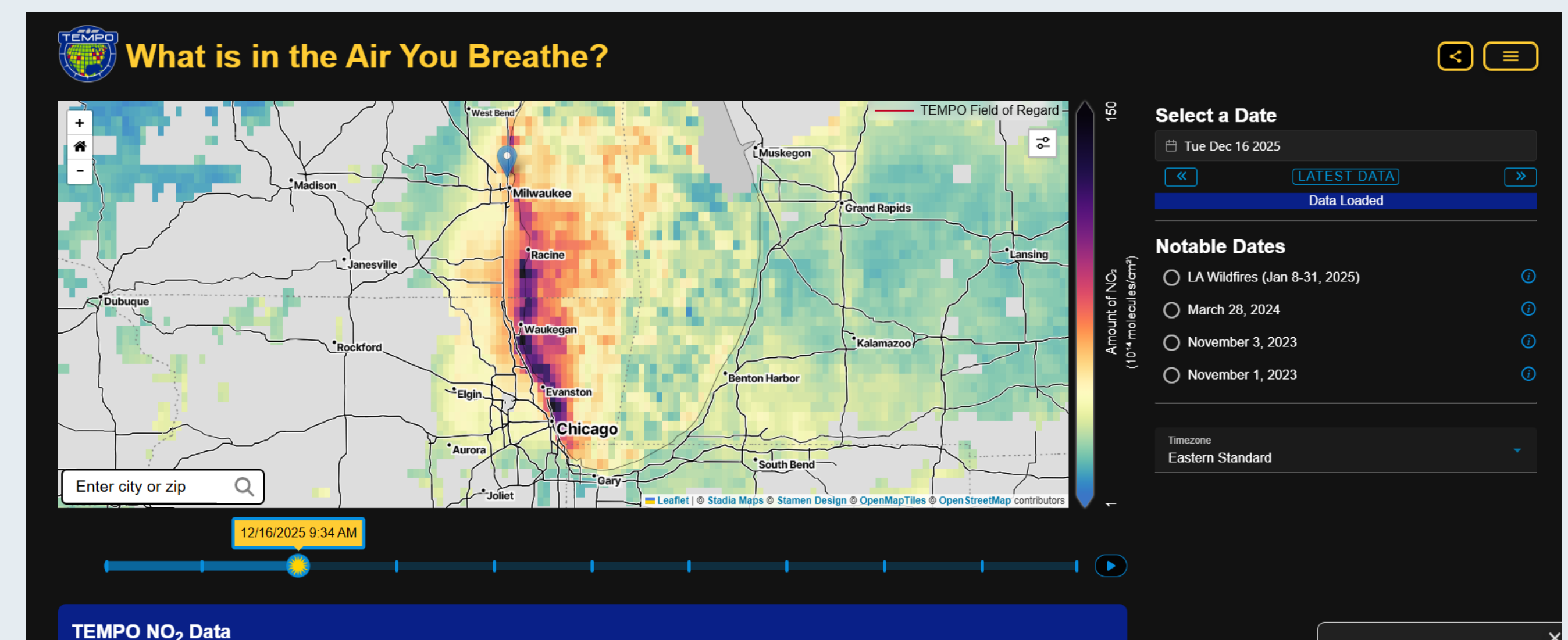


Figure 2: TEMPO Lite satellite image from Jan. 21, 2026, showing high levels of nitrogen dioxide and that Milwaukee's air quality may have been impacted by Chicago's air quality.