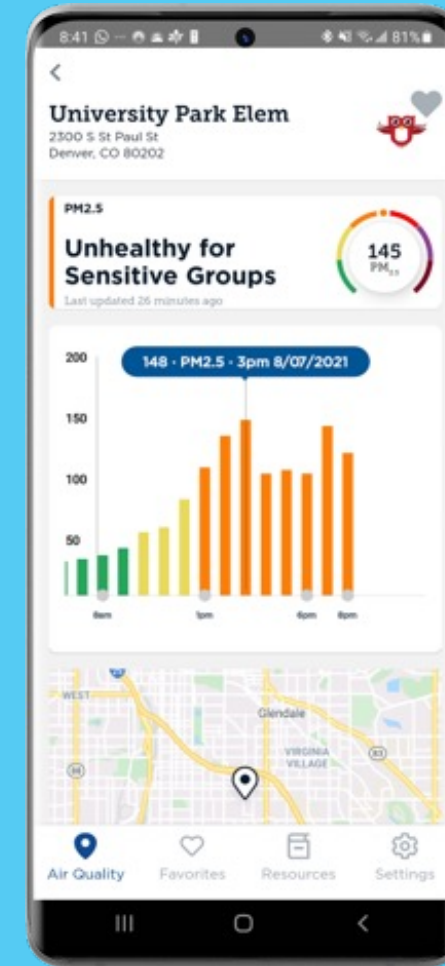
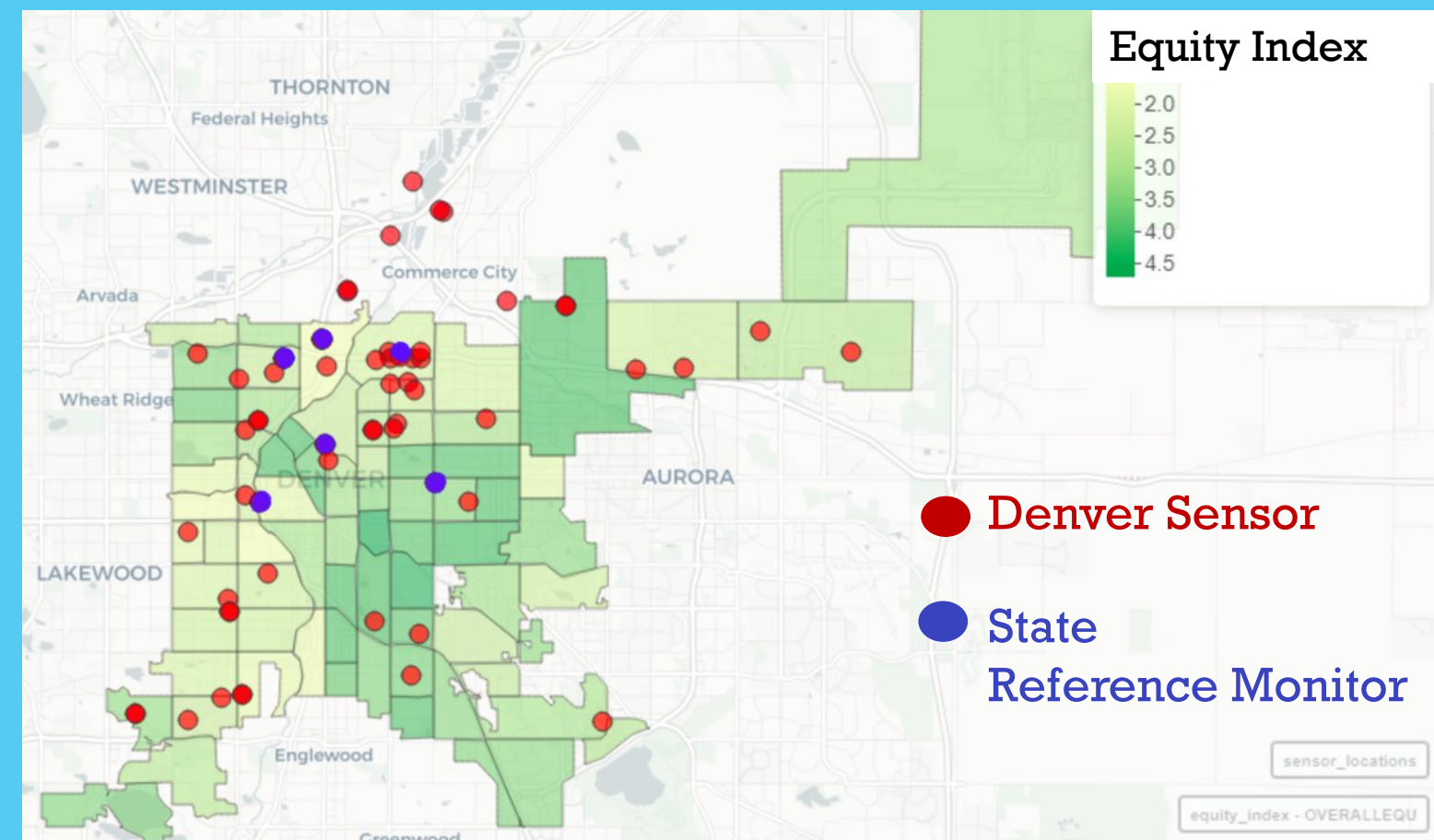


Tehya Stockman, PhD Candidate, University of Colorado Boulder
Environmental Engineering, Tehya.Stockman@colorado.edu

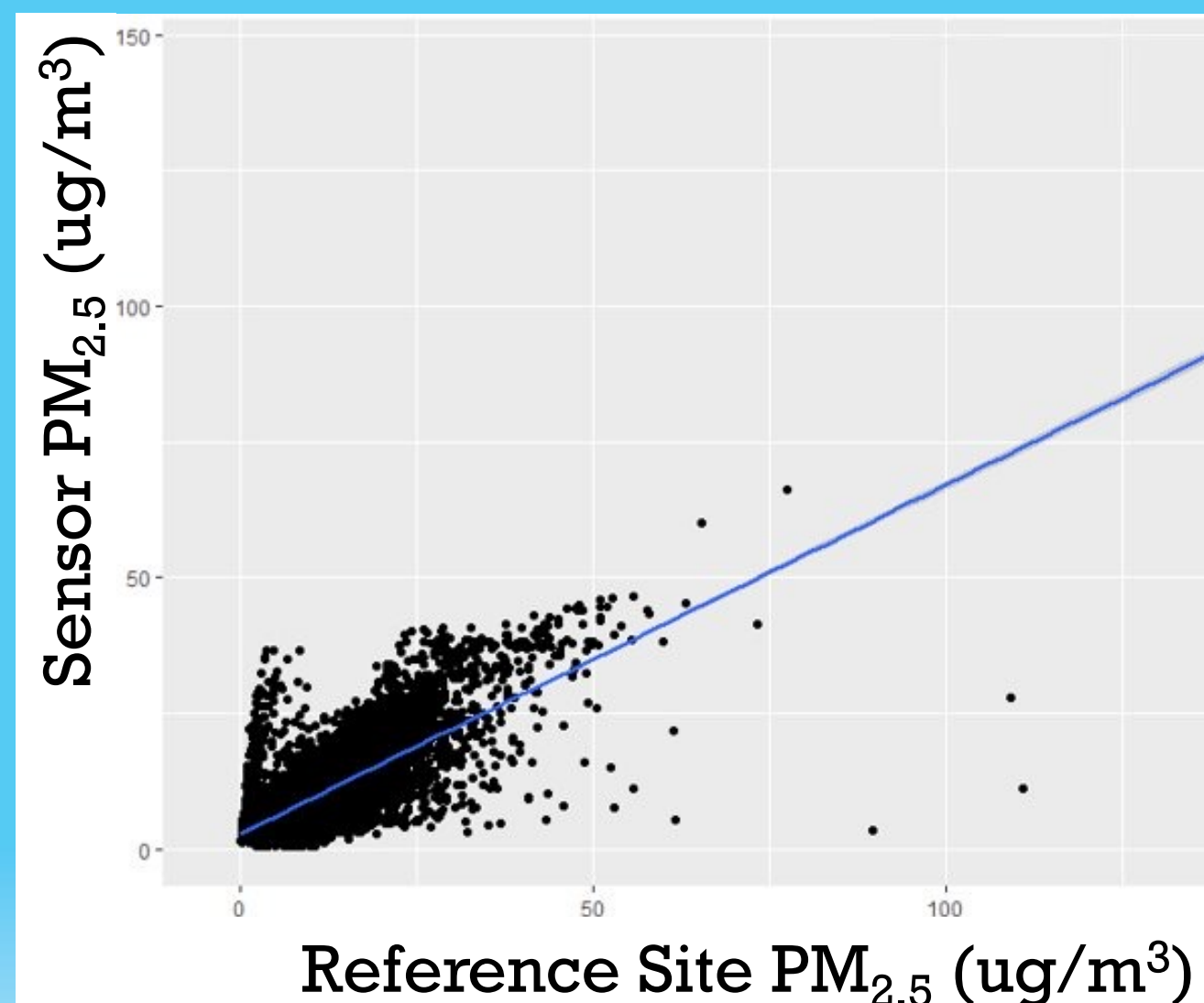
1. Denver runs a sensor network that we can use to understand air quality trends.



2. Many low-cost sensors have been developed to monitor air pollution...



...but there are some challenges.

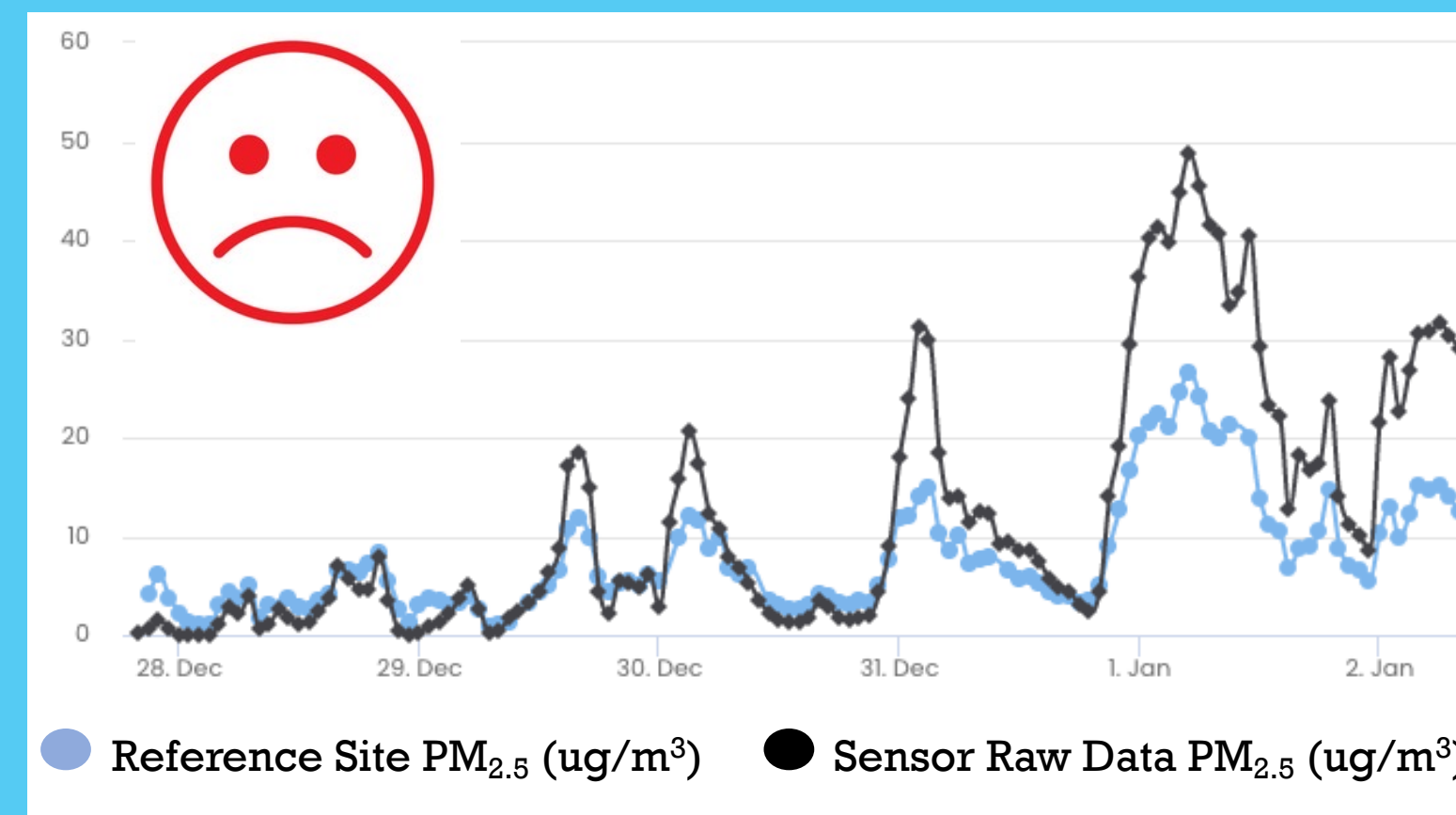


Sensors are not as accurate as state-run equipment.

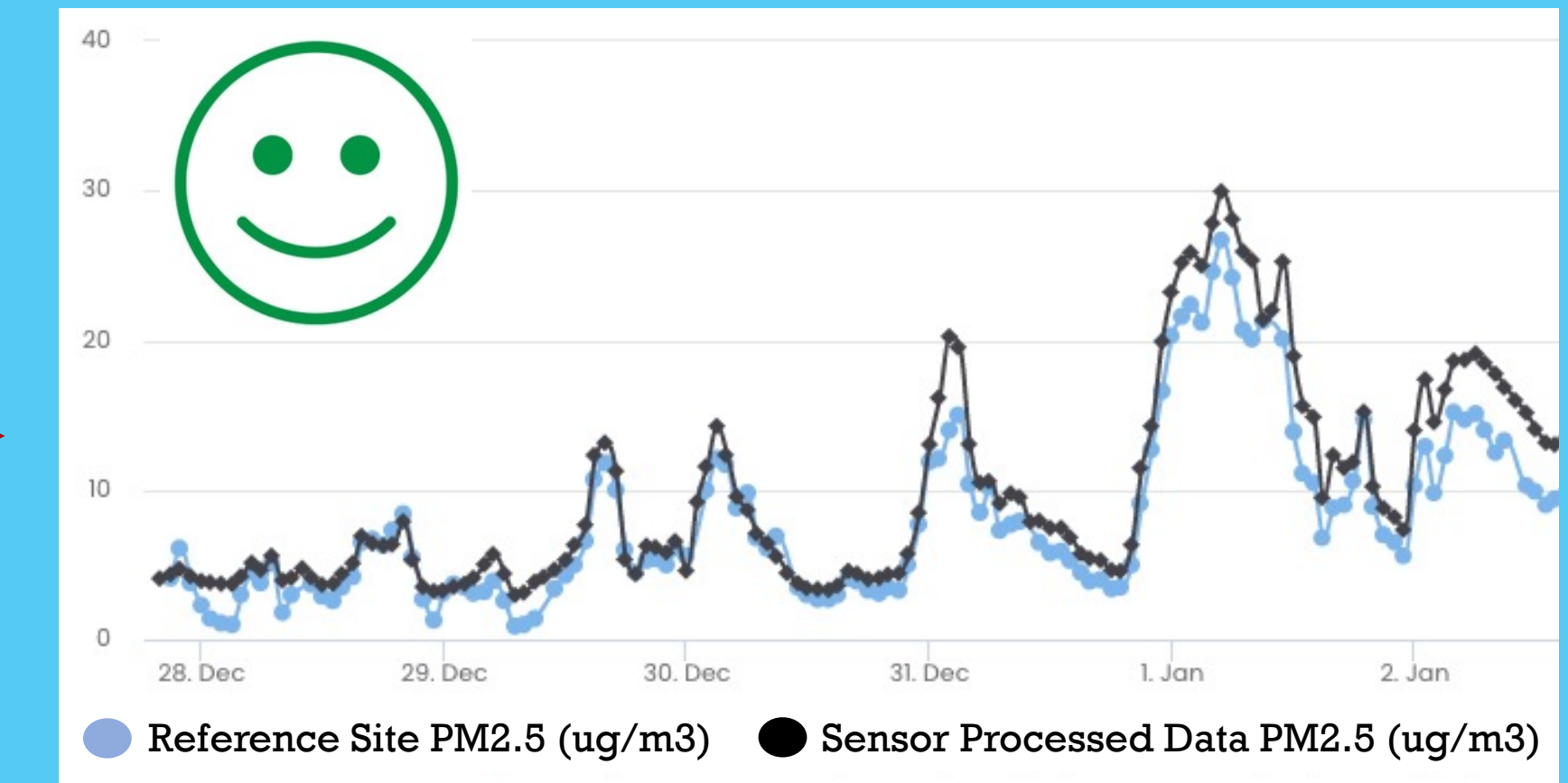
Data quality decreases over time.

Some events may not be captured by the sensors (dust, wildfires).

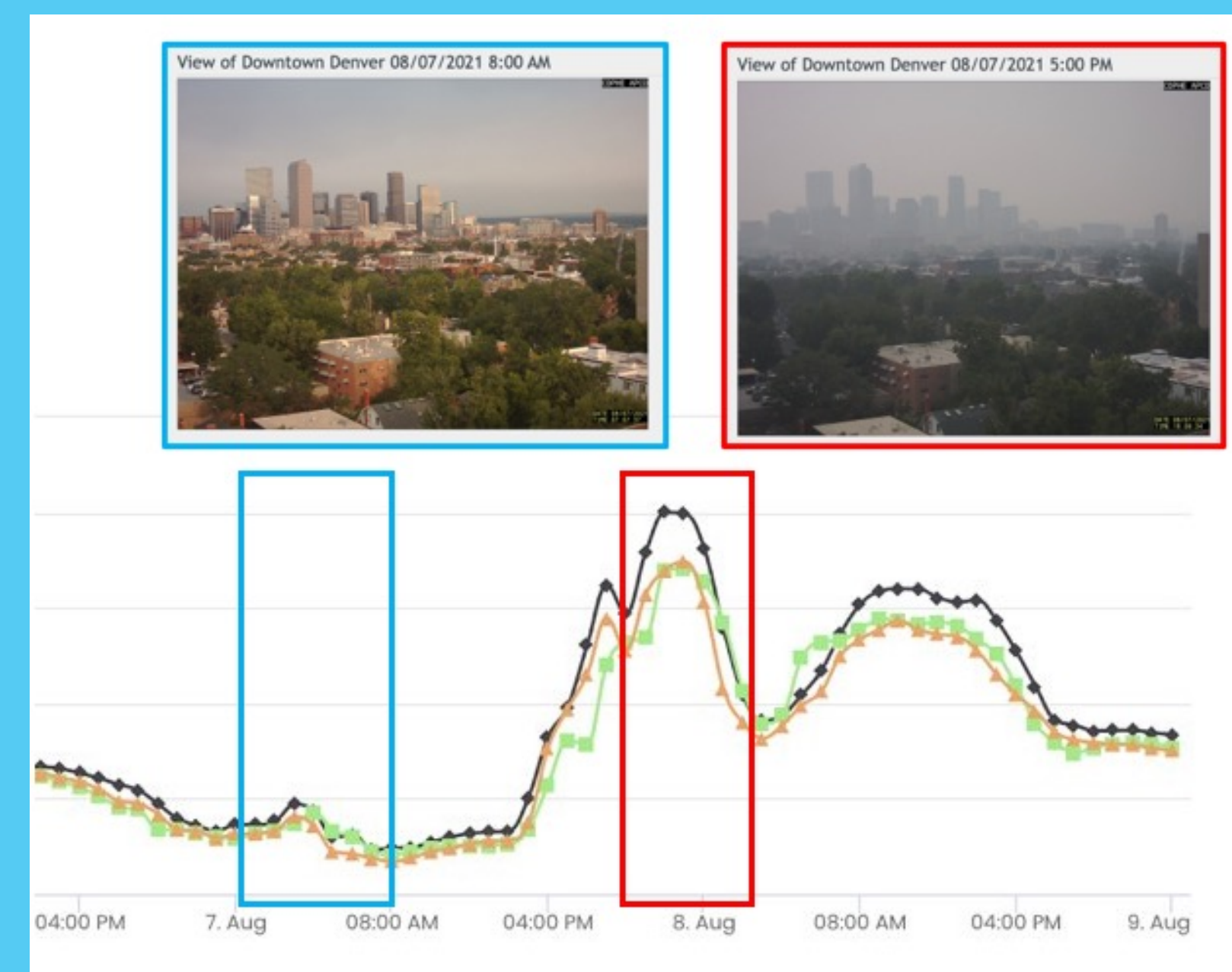
3. I am helping Denver make the low-cost sensor data trustworthy.



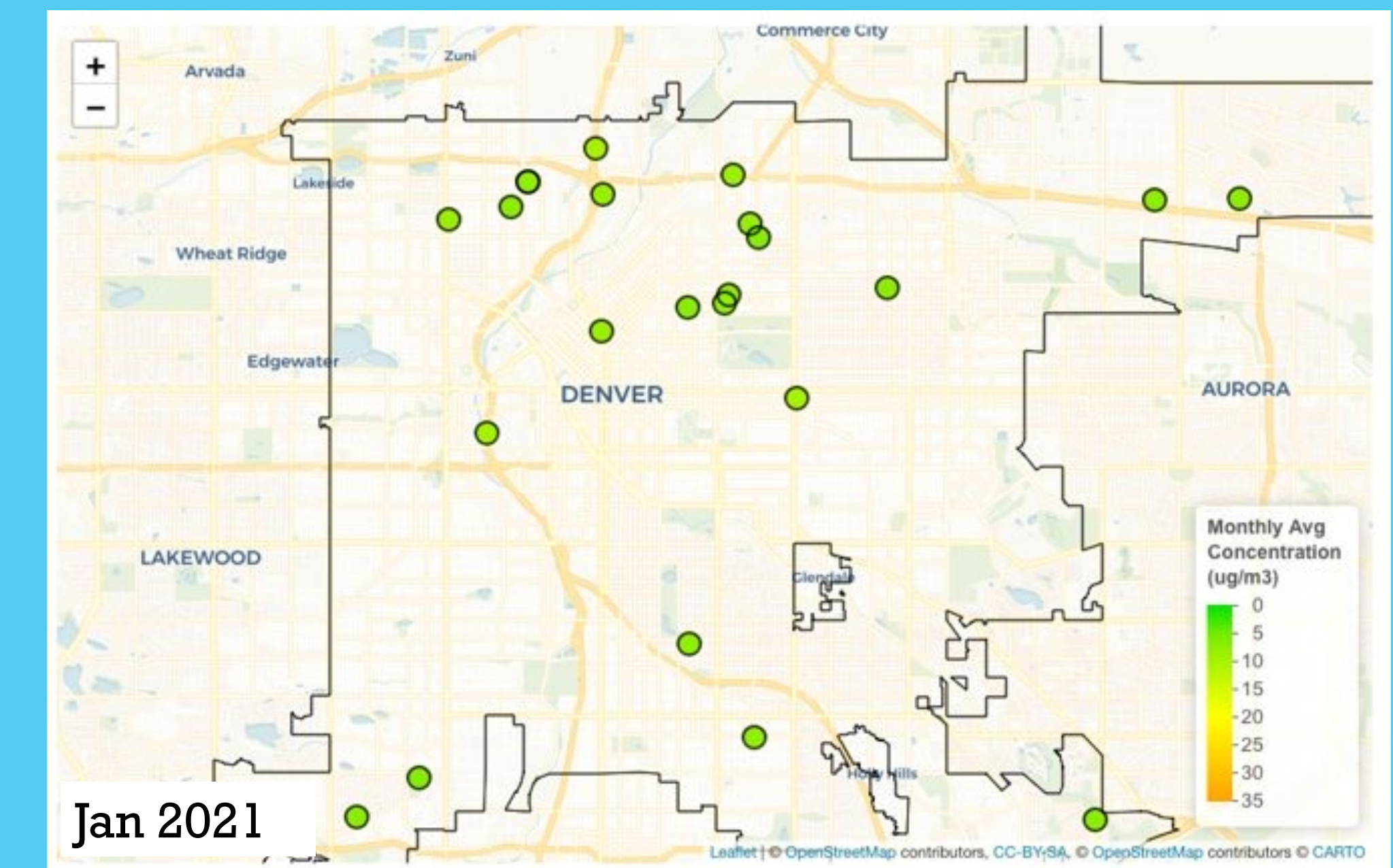
Correction Algorithm



4. With processed data, I am evaluating how air quality varies across Denver. Our goal is to see if particulate matter (PM_{2.5}) pollution is higher in some neighborhoods than others and if traffic impacts the pollution levels.



High variability in time



Low variability across Denver

5. We are developing methods that other municipalities can use across Colorado; we work with schools to inform the school community and beyond about real-time air pollution using low-cost sensors.



Learn more about the Love My Air Network!

