Mobile Monitoring In East LA-Boyle Heights-West Commerce

With support from the South Coast AQMD, Aclima conducted three months of block-by-block air quality measurements July 1 – September 30, 2021. Our analysis of this baseline dataset is now complete.

Pollutants Measured and Analyzed:

- Fine particulate matter (PM$_{2.5}$)
- Black Carbon (BC)
- Nitrogen Dioxide (NO$_2$)
- Ozone (O$_3$)
- Volatile Organic Compounds (VOCs)
- Carbon Dioxide (CO$_2$)
- Carbon Monoxide (CO)
- Nitric Oxide (NO)
- Methane (CH$_4$)
- Ethane (C$_2$H$_6$)
Aclima connects mobile air quality data to the needs of the community through extensive research and numerous interviews with Community Steering Committee members, community and environmental justice groups, air regulators, and residents.

Hyperlocal monitoring serves the Community Emissions Reductions Plan (CERP) and Community Steering Committee with the ability to assess, prioritize, and evaluate community air pollution concerns and interventions at the block-to-block level.

In this report, we use Action Indicators to visualize specific areas of concern defined in the CERP and during Steering Committee meetings: diesel emissions, particulate matter, traffic impacts, air quality near schools, ambient methane levels, and more.

When paired with South Coast AQMD and community-identified concerns, our Action Indicators facilitate improved prioritization and evaluation of emission reductions strategies to improve air quality for everyone in the East LA-Boyle Heights-West Commerce area.
CERP Action Opportunities → Aclima Action Indicators → Prioritized Areas

Action opportunities outlined in the CERP address community concerns

Action Indicators distill hyperlocal data into actionable areas of focus.

Prioritized areas for further investigation and intervention evaluation
Action Indicators

Particulate Matter Indicator Near Schools

Particulate Matter Indicator: Exposure Reduction

Here we investigate PMI within a 1,000 foot radius of sensitive receptors where people live, work, and play – schools, childcare centers, community centers, libraries, parks, and public housing. Percent segments refers to the number of High plus Medium TPI segments divided by the total number of segments in the 1,000 foot radius. This map only shows High and Medium TPI road segments that are within the circles rather than all segments with High and Medium TPI throughout the map.

This map shows these sensitive receptors in relation to the PMI. It may be unsurprising that many of these same locations also show up in High traffic areas.

As seen in the map, several public housing locations are adjacent or in close proximity to busy freeways and located in residential areas. Multi-family units like Ramona Gardens, Pico Gardens, LA Family Housing, and Found Inc. all fall into this category. The 16th and
Sensitive Sites

Visualize schools, healthcare facilities (hospitals and other), early learning and care sites, community centers, libraries, public housing projects, parks, and more in conjunction with each Action Indicator.
Regulatory Comparison

Mobile mapping data complements regional data provided by regulatory monitors with hyperlocal data that reveals average air quality conditions where people live, work, and breathe.

Comparing Aclima maps to regulatory data from stationary monitors

Regulatory air monitors are stationary and report air quality from one location for an entire area. Aclima mobile mapping data is gathered at different times of day and week throughout a community to give a zoomed in, hyperlocal view of how air quality differs from one block to the next. This is why lived experiences don’t always match the regulatory site’s data. Viewing sensitive receptors and stationary facilities on these maps helps us understand the potential sources and the impact of emissions on the people who live here. Mobile mapping data complements regional data provided by regulatory monitors with hyperlocal data that reveals average air quality conditions where people live, work, and breathe.

Updated February 15, 2022
Address Lookup

Generate a detailed air quality report for any address within this measurement area.
Available online beginning February 17, 2022: https://aq.aclima.io/ca/elabhwcc
Gratitude to our amazing East LA-Boyle Heights-West Commerce Data Collection Team!
Deep-Dive Workshops & Feedback Sessions

We know that this is a lot to digest, and we would love to have an opportunity to hear your feedback.

Email communities [at] aclima.io and Scott (scott.andrews [at] aclima.io) if you would like to participate in a deep-dive workshop with our team and to let us know if there are any additional data layers or other information we could include to make the tool more useful for your needs.
THANK YOU.