

# South Central Los Angeles Project to Understand the Sources and Health impacts of local air pollution (SCLA -PUSH)

Jill Johnston, PhD & Amanda Jimenez, University of Southern California  
Paula Torrado Plazas, Physicians for Social Responsibility - Los Angeles



- Introductions
- **Part 1:** Project Motivation - Pollution Burden in South LA
- **Part 2:** Our Project SCLAPUSH
- **Part 3:** Community Air Monitoring and Ground Truthing Data
- **Part 4:** Community Leadership & Successes
- **Part 5:** Moving Forward



# Speakers



Jill Johnston, PhD  
Assistant Professor of Preventive Medicine  
Director, Community Engagement  
University of Southern California

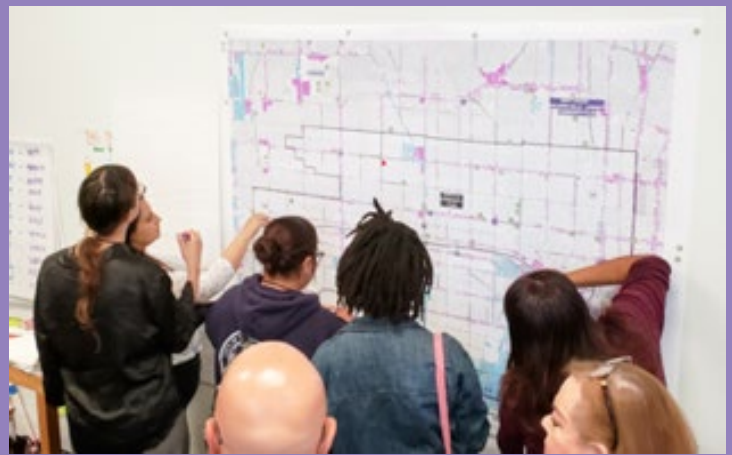


Paula Torrado,  
Air & Toxics Policy Analyst  
SCLA-PUSH Project Manager  
Physicians for Social  
Responsibility - LA

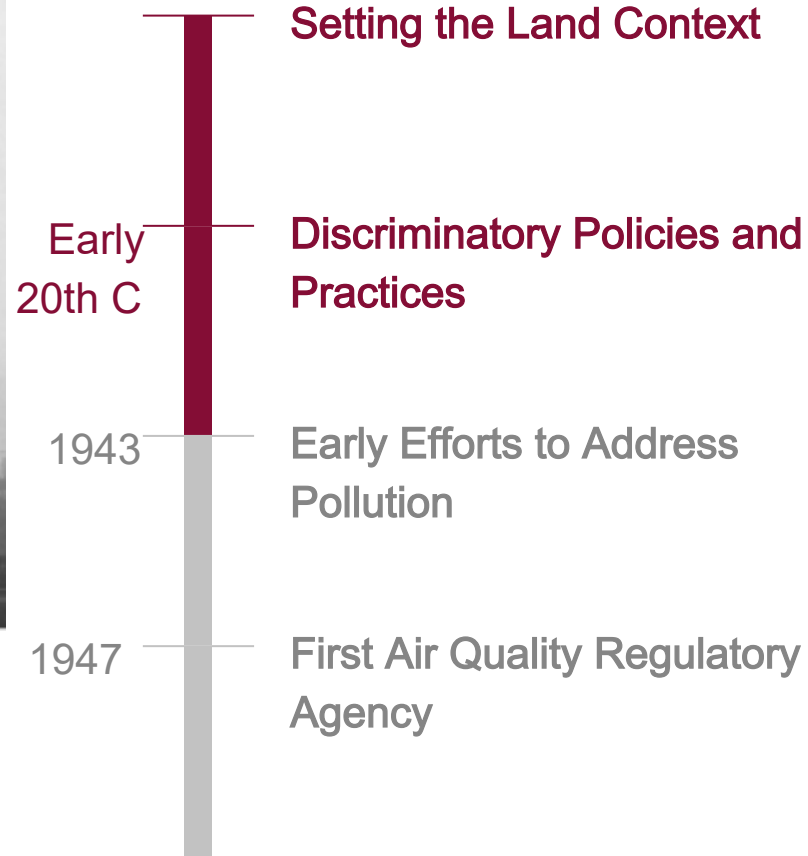
# Part 1: Project Motivation - Pollution Burden in South



LA



# Grounding us in our Community & History



# Grounding us in our Community & History

## Environmental Justice & Organizing In South Los Angeles



1985-  
1987

**Environmental Justice  
Milestones**

2005

**Inform Environmental  
Regulations**

2012

**Advocate to Invest in Alternative  
Energy Sources**

2013

**Build Grassroots Power to Divest from  
Polluting Industry**



# The AB 617 Program: Neighborhood Air Toxics



In 2017, Governor Brown signed [Assembly Bill 617](#) to develop a new community focused program to more effectively **reduce exposure to air pollution** and **preserve public health**.

The bill directs the California Air Resources Board (CARB) to take measures to protect communities disproportionately impacted by air pollution.



PARTNERSHIPS  
WITH COMMUNITIES



NEW STATEWIDE  
STRATEGIES TO  
REDUCE EMISSIONS



TARGETED  
COMMUNITY  
CLEAN AIR PLANS



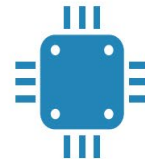
METRICS  
TO TRACK &  
REPORT PROGRESS



COLLABORATIONS  
WITH LAND USE  
& TRANSPORTATION  
AGENCIES



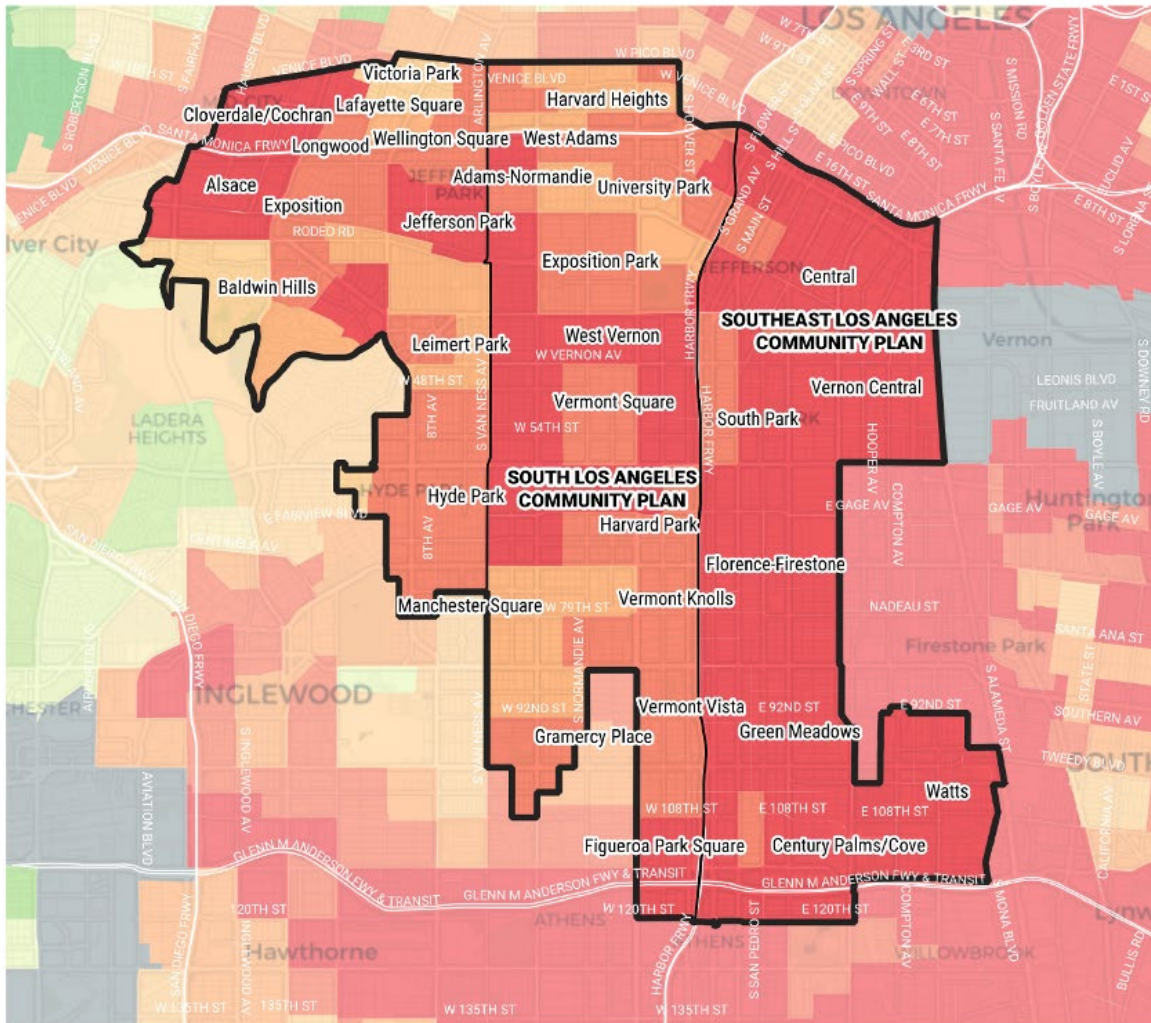
CLEAN TECHNOLOGY  
INCENTIVE INVESTMENTS



EXPANDED  
AIR MONITORING



IMPROVED  
DATA  
ACCESSIBILITY



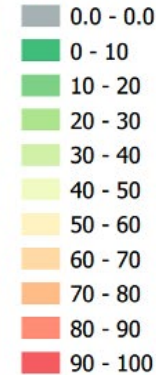
## South Central Los Angeles Community

Updated: 2.24.2021

 South Central Los Angeles Community Area

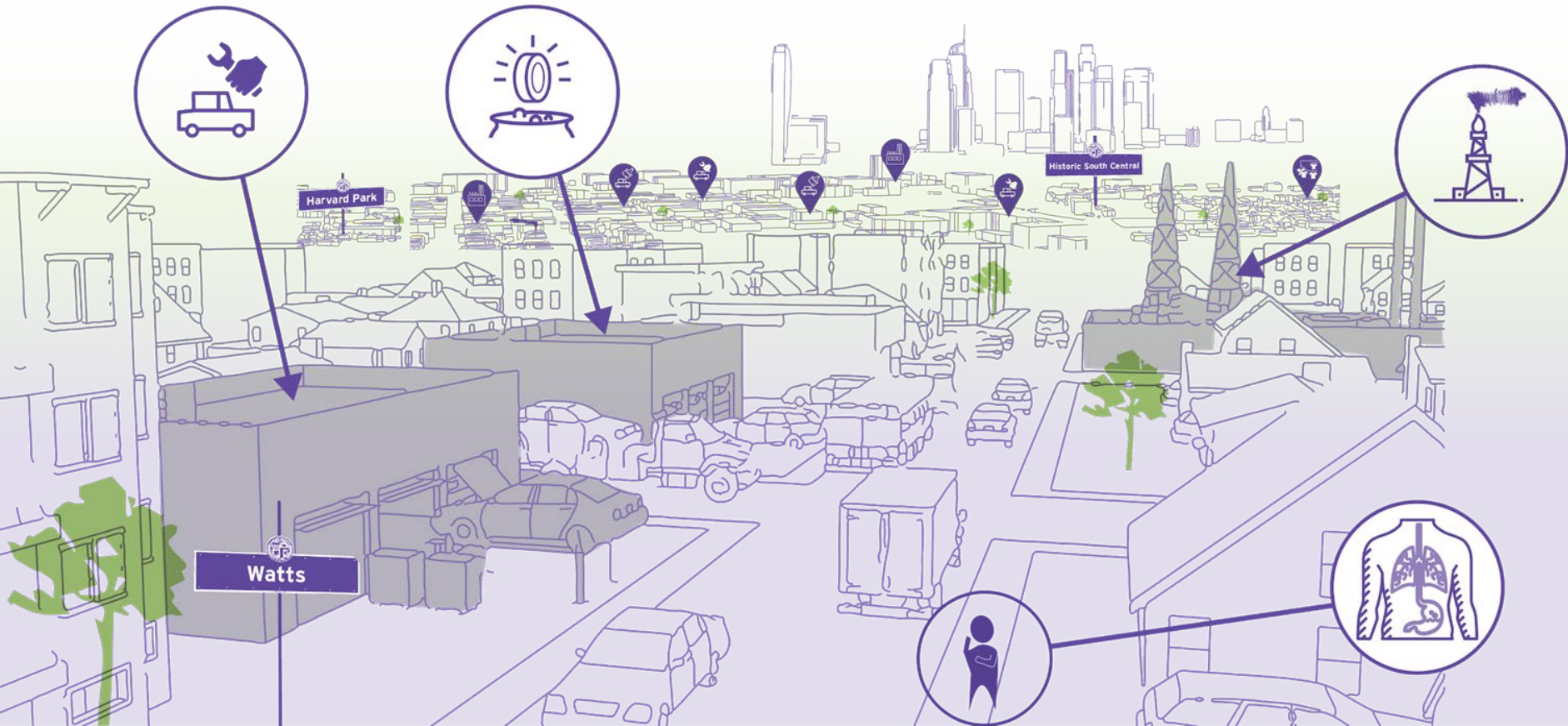
 LACITY Community Plans

CalEnviroScreen 3.0 Results  
Percentile of Vulnerability





# What's Up With the Air in South Central LA?



Harvard Park

Watts

Historic South Central

# Pollution Burden South Central Los Angeles



# Part 2: Who is SCLA-PUSH ?



## Community - Academic Partnerships



# What are the project goals?



## BUILD OUR CAPACITY

Build our capacity to understand the character of air pollution, its health impacts and the regulatory process.



## MOBILIZE OUR COLLECTIVE POWER

Mobilize our collective power to conduct community-driven science to address systemic failures in air pollution data collection



## ENSURE SOUTH CENTRAL LA COMMUNITIES

Ensure South Central LA communities receive a fair share of resources available to improve air quality and community health.



## ADVANCE A JUST TRANSITION

To advance a community-centered Just Transition toward cleaner air and healthier communities



# The Approach



- Aim to build capacity, environmental health literacy and inform policy
- Grounded in community's local expertise and lived experience
- Uses participatory air monitoring together with groundtruthing
- Language justice framework



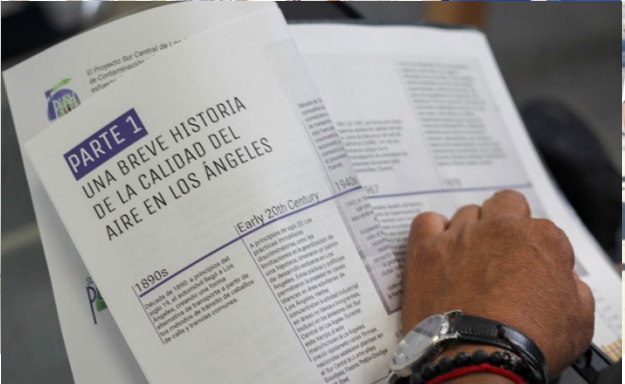
**Air Quality Academies**

**Mapping Workshops**

**Community Walks**



# South Central LA - Air Quality Academy



# Building Capacity - Air Quality Ambassadors

## THE AIR QUALITY AMBASSADOR

### A DEEPER DIVE INTO AB 617



The *Air Quality Ambassador* is charged with fostering, protecting, and preserving the rights of the community to breathe clean air and live in areas free of toxic exposure. The *Air Quality Ambassador* is a keeper of the community's voices and translates community wisdom into positive health outcomes by being an agent of change in policy and regulatory decision-making spaces.

## THE COMMUNITY RESEARCHER

### MOVING BEYOND MONITORING



The *Community Researcher* is a resident who shares personal experience of overexposure to air pollution and meaningfully represents the community by participating in crucial research that identifies key air pollution monitoring issues and persistent health inequalities. The *Community Researcher* designs, interprets air quality data, and identifies culturally appropriate solutions to improve air quality.

## THE RADICAL SCIENTIST

### CONNECTING THE AIR QUALITY DOTS



The *Radical Scientist* elevates the community's interests through research. Radical Scientists understand that science is for the people and not for industrial profits. The *Radical Scientist* revolutionizes science by incorporating qualitative data on daily stressors and quality of life issues into applied research and subsequent policy solutions.

## THE CREATIVE MAPPER

### POWER OF MAPPING IN TELLING COMMUNITY STORIES



The *Creative Mapper* deeply understands the community's treasures and challenges, both historically and geographically. A *Creative Mapper* carefully translates the voices and experiences of community. The *Creative Mapper* is able to tell compelling stories through maps that can support research and policy decision-making.



# Ground Truthing - Neighborhood Air Quality



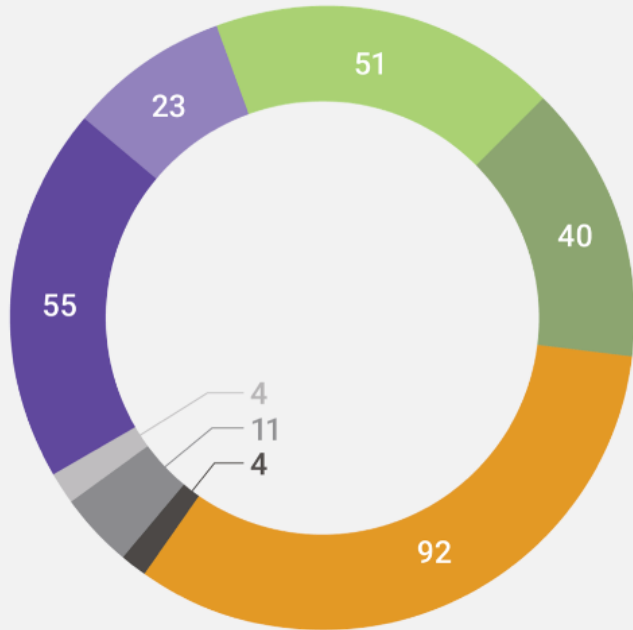
# Part 3: Key Community Findings



# Industrial Land Use Profile in South Central LA



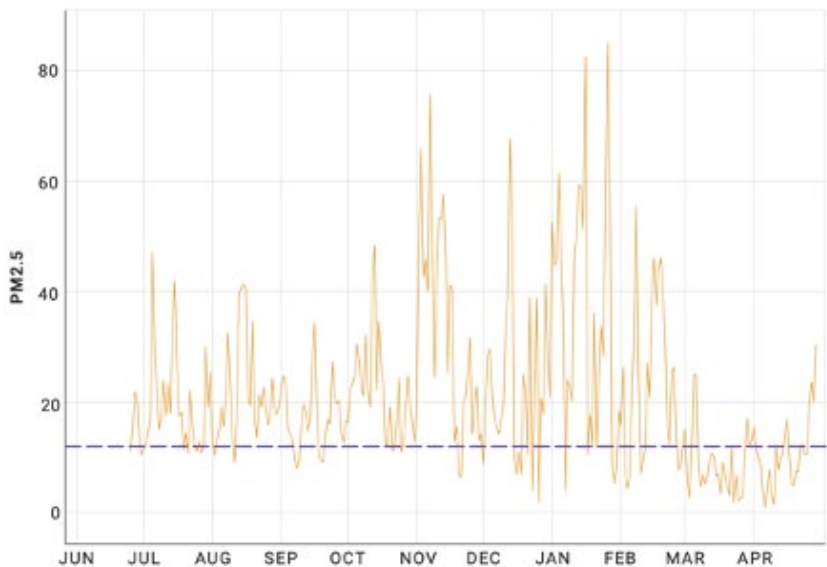
FACILITIES-OF-CONCERN AS CLASSIFIED BY SCAQMD



<span style="display: inline-block; width: 15px; height: 15px; background-color: #4b2c82; margin-right: 5px;"></span> <b>Auto Body</b>	<b>55</b>
<span style="display: inline-block; width: 15px; height: 15px; background-color: #8e7cc3; margin-right: 5px;"></span> <b>Auto Repair</b>	<b>23</b>
General Auto Repair	21
Other Auto Repair	2
<span style="display: inline-block; width: 15px; height: 15px; background-color: #90d190; margin-right: 5px;"></span> <b>Gas Stations</b>	<b>51</b>
Gas Stations with Convenience Stores	4
Other Gas Stations	47
<span style="display: inline-block; width: 15px; height: 15px; background-color: #70ad47; margin-right: 5px;"></span> <b>Dry Cleaners and Laundries</b>	<b>40</b>
Dry Cleaners	36
Coin-Op Laundry	4
<span style="display: inline-block; width: 15px; height: 15px; background-color: #f4a460; margin-right: 5px;"></span> <b>Manufacturing (textiles, general, and chemicals)</b>	<b>92</b>
<span style="display: inline-block; width: 15px; height: 15px; background-color: #333333; margin-right: 5px;"></span> <b>Metals Manufacturing</b>	<b>4</b>
<span style="display: inline-block; width: 15px; height: 15px; background-color: #808080; margin-right: 5px;"></span> <b>Oil &amp; Gas Extraction, Transport, and Storage</b>	<b>11</b>
Crude Petroleum & Natural Gas Extraction	4
Natural Gas Distribution	1
Fuel Dealers	2
Petroleum Wholesalers	4
<span style="display: inline-block; width: 15px; height: 15px; background-color: #a6a6a6; margin-right: 5px;"></span> <b>Warehousing</b>	<b>4</b>
<b>Total</b>	<b>280</b>



# Community Air Monitoring: PM2.5



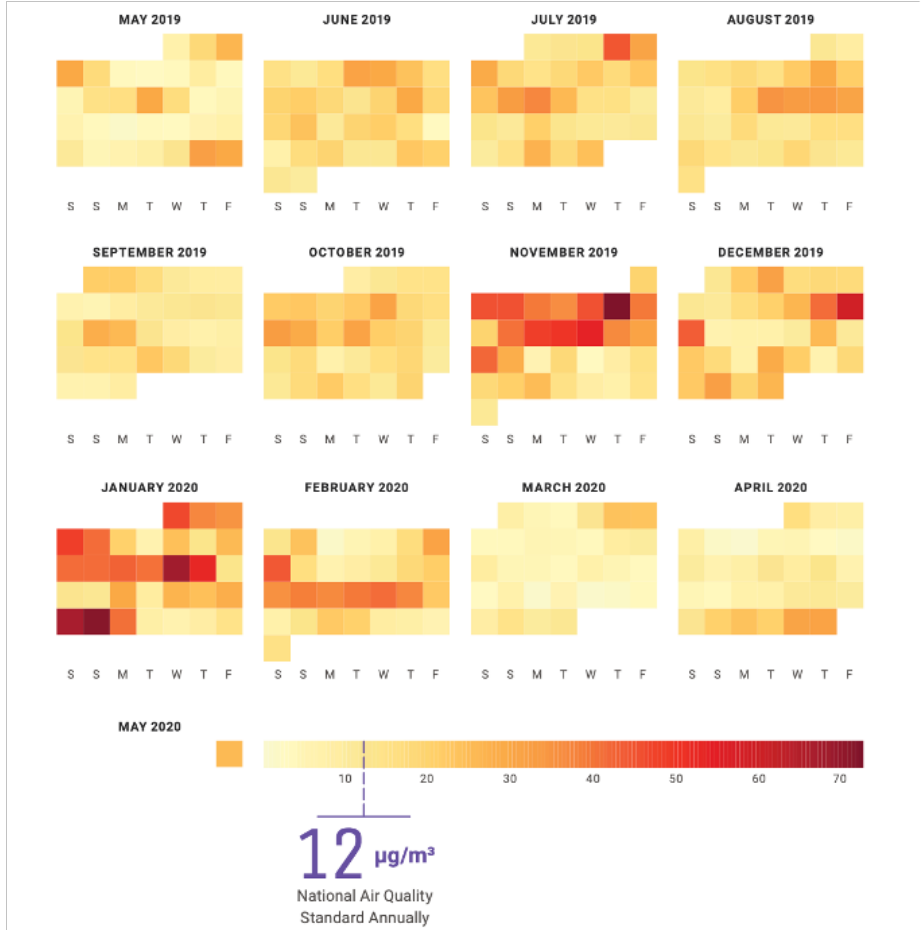
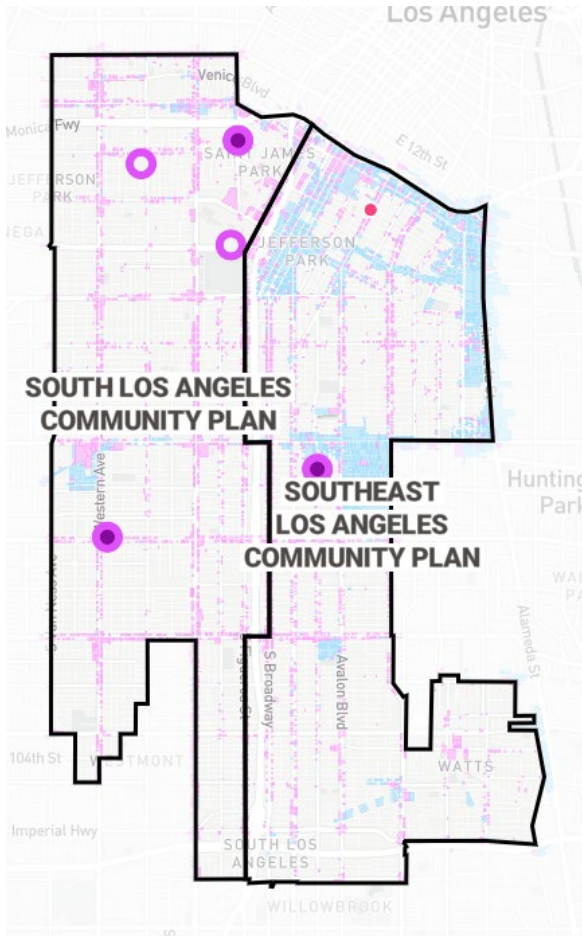
2019 - 2020

**12** µg/m<sup>3</sup>  
National Air Quality  
Standard Annually

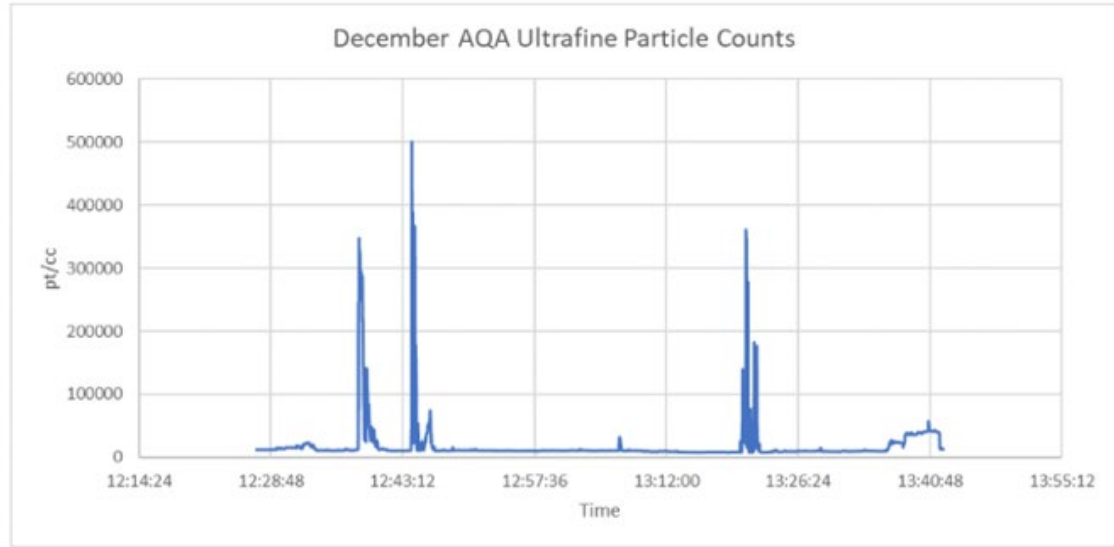


MONTH  
2019 - 2020

# Community Air Monitoring: PM2.5



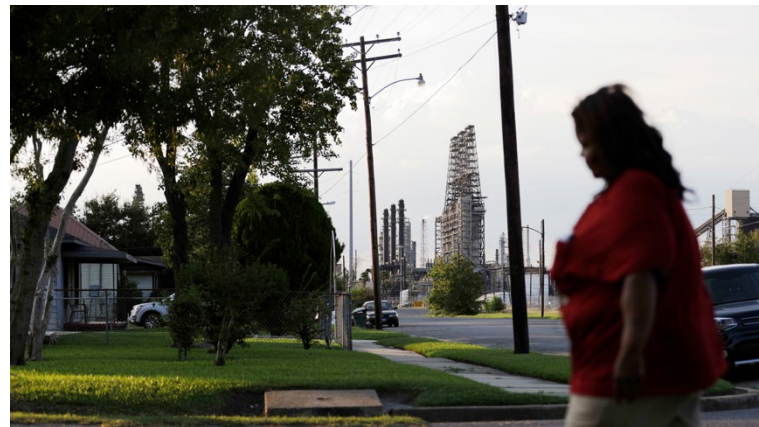
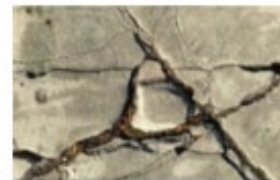
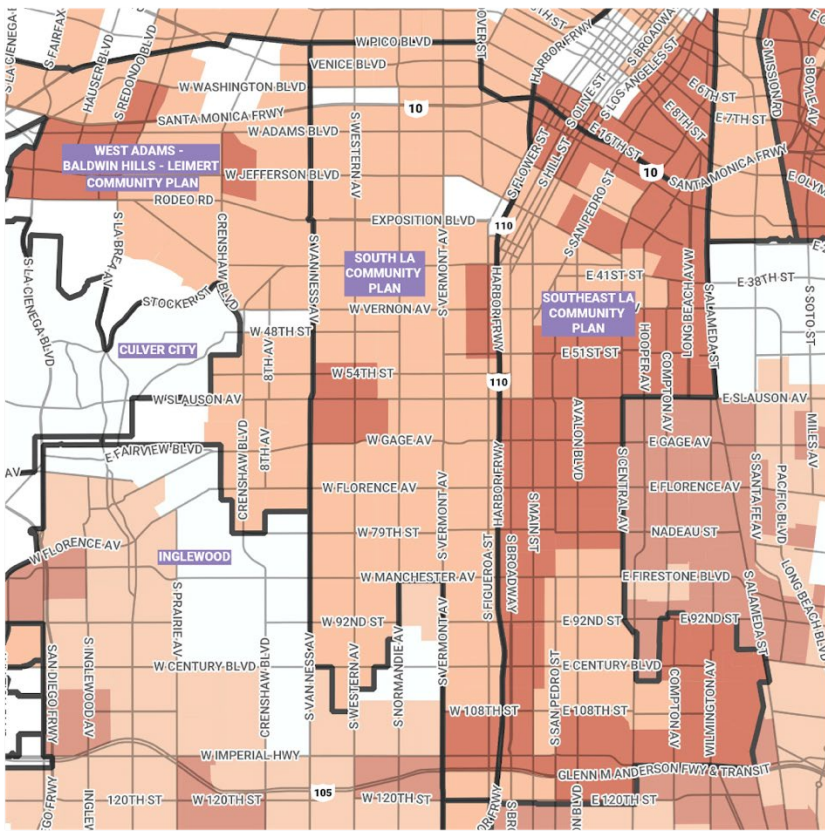
# Measuring Diesel: Ultrafine Particle Counts



Ultrafine Particle Count for AQA 4

Area	Expected Concentration
Coastal air – near the beach	5,000 pt/cc
Indoor air – home or office	15,000 pt/cc
Outdoor air – near major streets	60,000 pt/cc
Freeway air – diesel truck spikes	300,000 – 600,000 pt/cc

# Cumulative Burden & Community Stressors

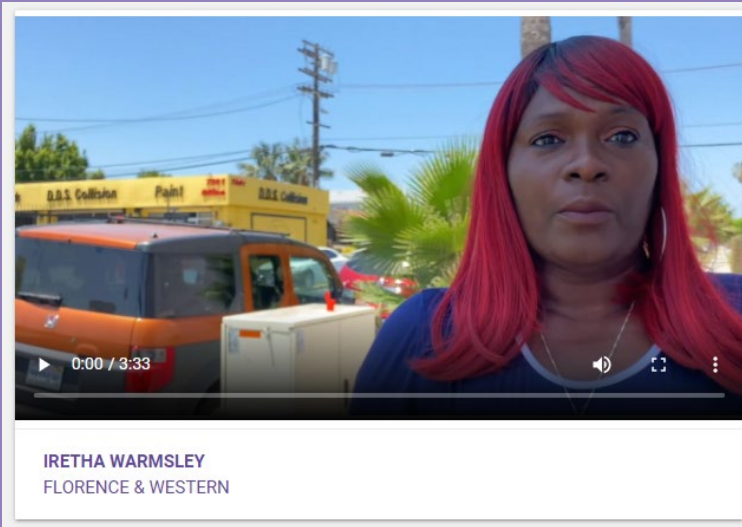


CalEnviroScreen Score

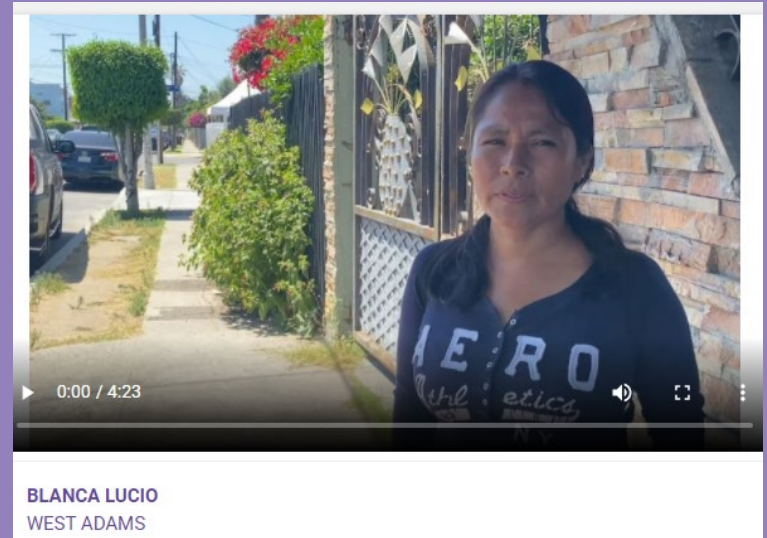
TOP 5% TOP 25%



# Part 4: Community Leadership & Successes



Iretha Warmasley: “Within 2 blocks we’ve ran into...auto shop, body shop, electric car repair shop all in the same area. We need to push, we need to fight, we deserve to breath clean air.”



Blanca Lucio: “What i’ve learned from the Air Quality Academy is how to identify [industries] that are contaminating our air and why it is important...The oil wells have caused a lot of damage.”



# Our Community Wins in South LA



- Since our inception, we have trained over 70 residents as air quality experts and community scientists
- Ground-truthed 6 census tracts in the South and Southeast community plan areas
- Installed 5 new monitors to increase data availability around air pollution.
- Trained Air Quality Ambassadors to engage in air quality policy through AB617
- Successfully advocated for an AB617 Community selection

# PART 5: Moving Towards Solutions



# Thank you!



**For more information:**

Jill Johnston

[jillj@usc.edu](mailto:jillj@usc.edu),

Paula Torrado

[ptorrado@psr-la.org](mailto:ptorrado@psr-la.org)

[www.sclapush.org](http://www.sclapush.org)

