South Coast Air Quality Management District
Assembly Bill 617 (AB 617)
Diesel Mobile Sources Workshop

Dr. Pami Mukherjee
Air Quality Specialist
Community Engagement & Air Programs

Thursday, June 12, 2025

Who is South Coast Air Quality Management District (South Coast AQMD)?

Regional air pollution control agency in California

- Responsible for cleaning the air and protecting the health of its residents
- Encompasses Orange county and large portions of Los Angeles, Riverside, and San Bernardino counties
- Approximately 17 million people

Primary responsibilities

- Develop Air Quality Management Plan to meet federal and state air quality standards
- Control emissions from stationary sources, through adoption of air quality rules
- Regulate over 27,000 facilities
- Respond to air quality complaints
- Monitor air quality

Overview of AB 617 Program

- Signed into law July 26, 2017
- Invests resources and focuses on localized actions to reduce air pollution in disadvantaged communities
- Purposeful and ongoing involvement of community members towards the emission reductions goals

Community Air Plans

- Community Emission Reductions Plans (CERPs)
- Community Air Monitoring Plans (CAMPs)

Clean Technology Investments

Rules Requiring Best Available Retrofit Control Technology (BARCT)

Easier Access to Emissions Data

AB 617 Designated Communities

South Coast AQMD AB 617 Communities

2018-Designated Communities

- East Los Angeles, Boyle Heights, West Commerce (ELABHWC)
- Wilmington, Carson, West Long Beach (WCWLB)
- San Bernadino, Muscoy (SBM)

2019-Designated Communities

- Eastern Coachella Valley (ECV)
- Southeast Los Angeles (SELA)

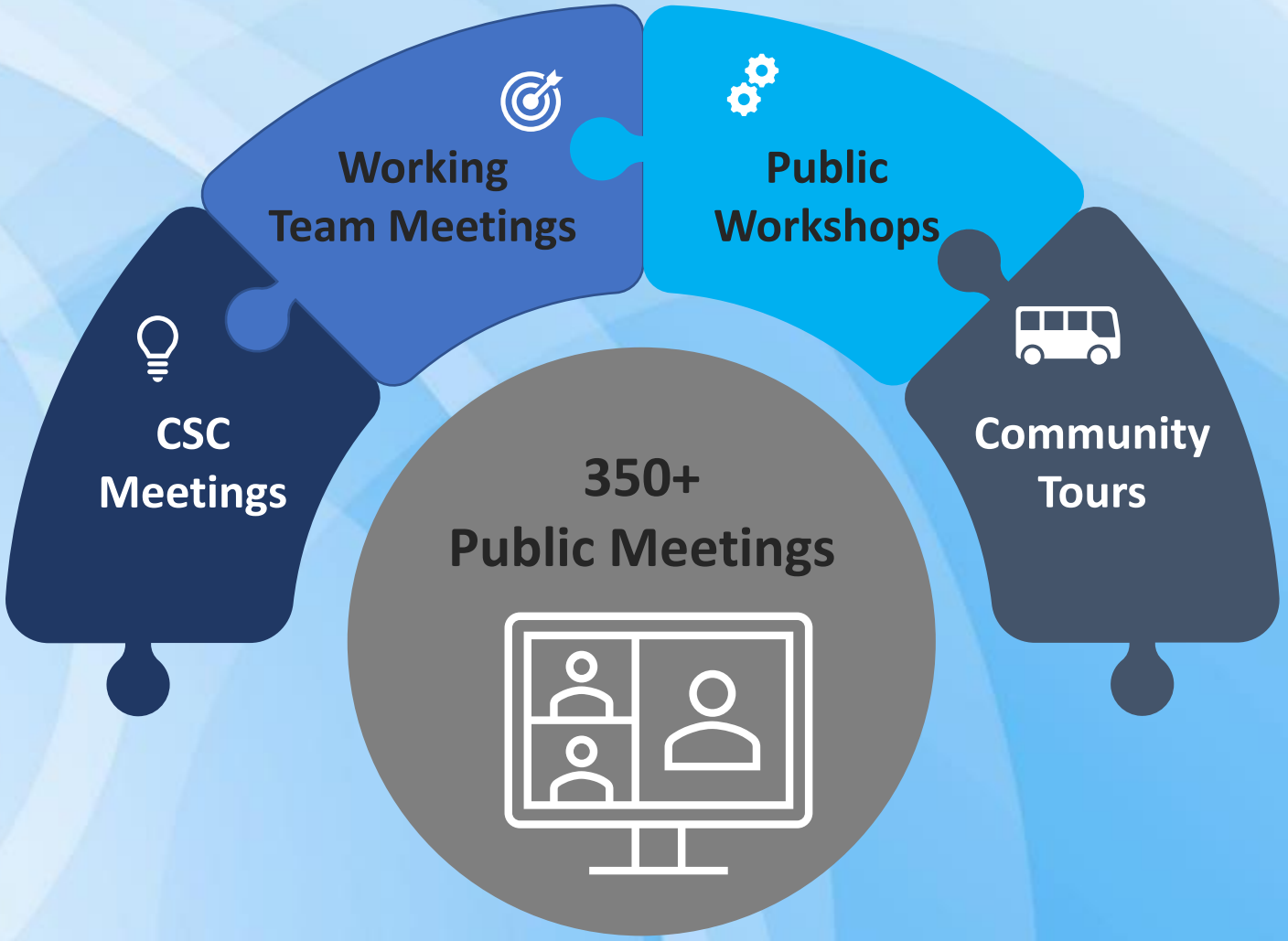
2020-Designated Community

- South Los Angeles (SLA)

Community Engagement

Community Steering Committee (CSC)

- Residents
- Community Leaders
- Community Organizations
- Government Agencies
- Businesses
- Industry



Community Emissions Reduction Plans (CERPs)

CERP Elements

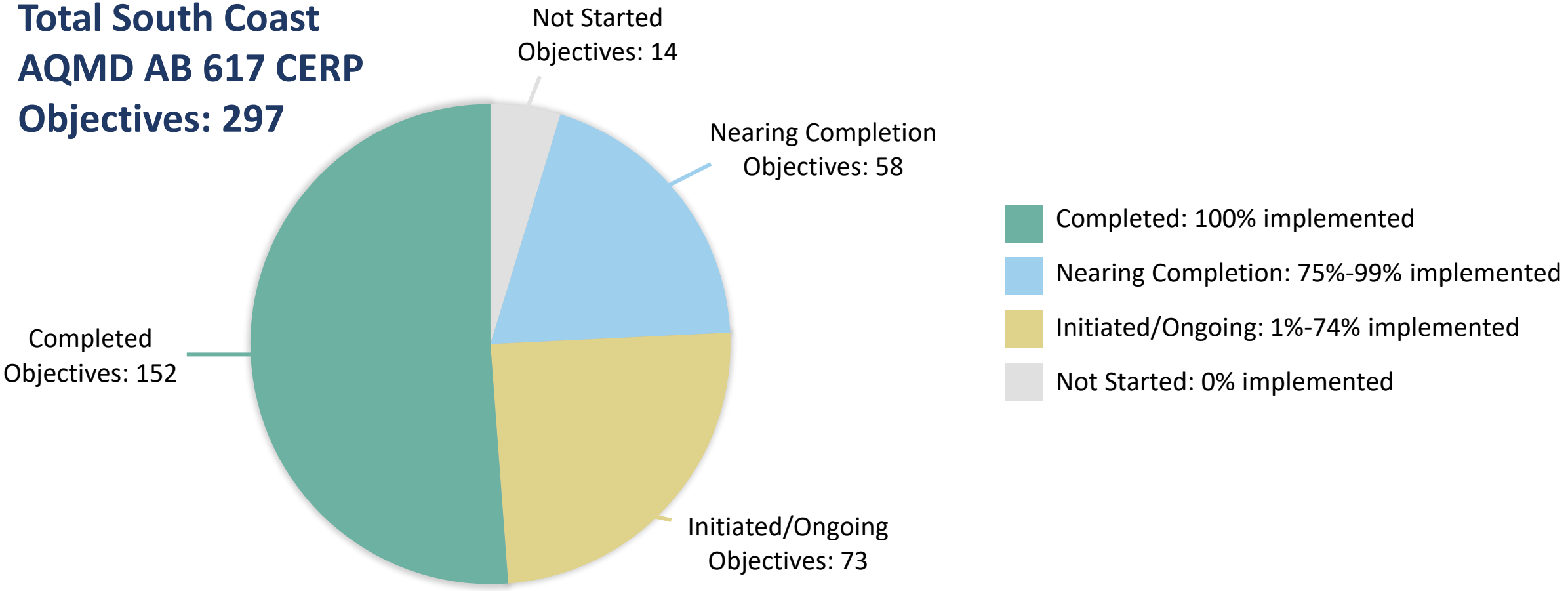
- Air Quality Priorities
- Goals
- Strategies
- Objectives

CERP Strategies

- Air Monitoring
- Focused Enforcement
- Inter-Agency Collaboration
- Incentive Programs
- Public Information and Outreach
- Rules and Regulations

Progress of CERP Implementation
(As of March 31, 2025)

Total South Coast AQMD AB 617 CERP Objectives: 297



For more information on South Coast AQMD AB 617 CERP objectives, please view the AB617 CERP Implementation Dashboard by clicking on the following link: AB617 Progress ExB

Community-Identified Air Quality Priority

Diesel Mobile Sources Emissions is an Air Quality Priority in each of the CERPs

Diesel Mobile Sources

Bus and Rail Yards

Trucks

Ports

Warehouses

SBM
- 25 CERP Objectives

ELABHWC
- 15 CERP Objectives

WCWLB
- 20 CERP Objectives

ECV
- 7 CERP Objectives

SELA
- 20 CERP Objectives

SLA
- 13 CERP Objectives

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Workshop Goals and Objectives

Learn about impacts of various diesel mobile sources emissions on air quality and public health

Inform community about ongoing regulatory and incentive efforts to mitigate these impacts

Share available resources to reduce emissions and exposure

Community participation through theme-based interactive sessions

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Workshop Agenda

- **Impact of Diesel Mobile Sources on Air Quality and Public Health**
  Dr. Jill Johnston, University of California, Irvine
  Laurel Plummer, Office of Environmental Health Hazard Assessment
- ***Diesel mobile sources/truck traffic: Monitoring Strategy***
  Dr. Julia Montoya-Aguilera, South Coast Air Quality Management District
- **Multiple Air Toxics Exposure Study**
  Dr. Nico Schulte, South Coast Air Quality Management District
- **Community Interactive Session I: Risk Assessment Map**
- **Enforcement Effort**
  Dr. Crystal Reul-Chen, California Air Resources Board
  Victor Yip, South Coast Air Quality Management District
- **Community Interactive Session II: Community Concerns Identification Exercise**
- **Clean Air Incentive Projects**
  Alyssa Yan, South Coast Air Quality Management District
- **Community Interactive Session III: Open Discussion**

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AIR QUALITY AND HEALTH EFFECTS

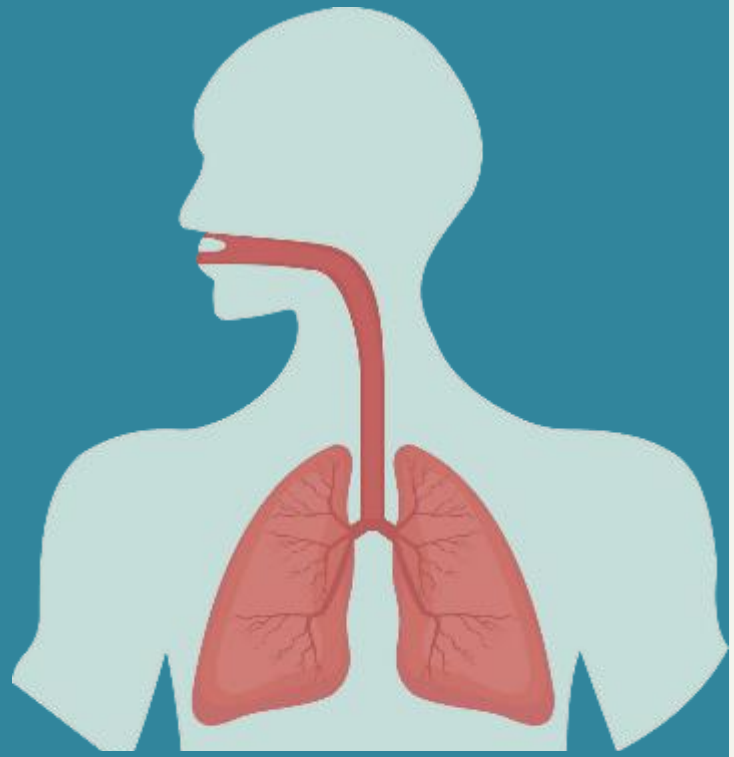
Jill Johnston, PhD

EJRL
ENVIRONMENTAL JUSTICE RESEARCH LAB

UC Irvine Joe C. Wen
School of Population & Public Health
Department of Environmental & Occupational Health

https://bit.ly/cejrl

Part 1: What is Diesel?



Diesel Exhaust is a Complex Mixture

Diesel Particulate Matter

Toxic metals

Elemental Carbon

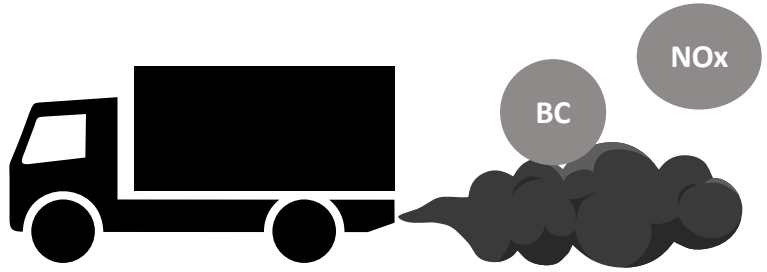
Sulfur Dioxide

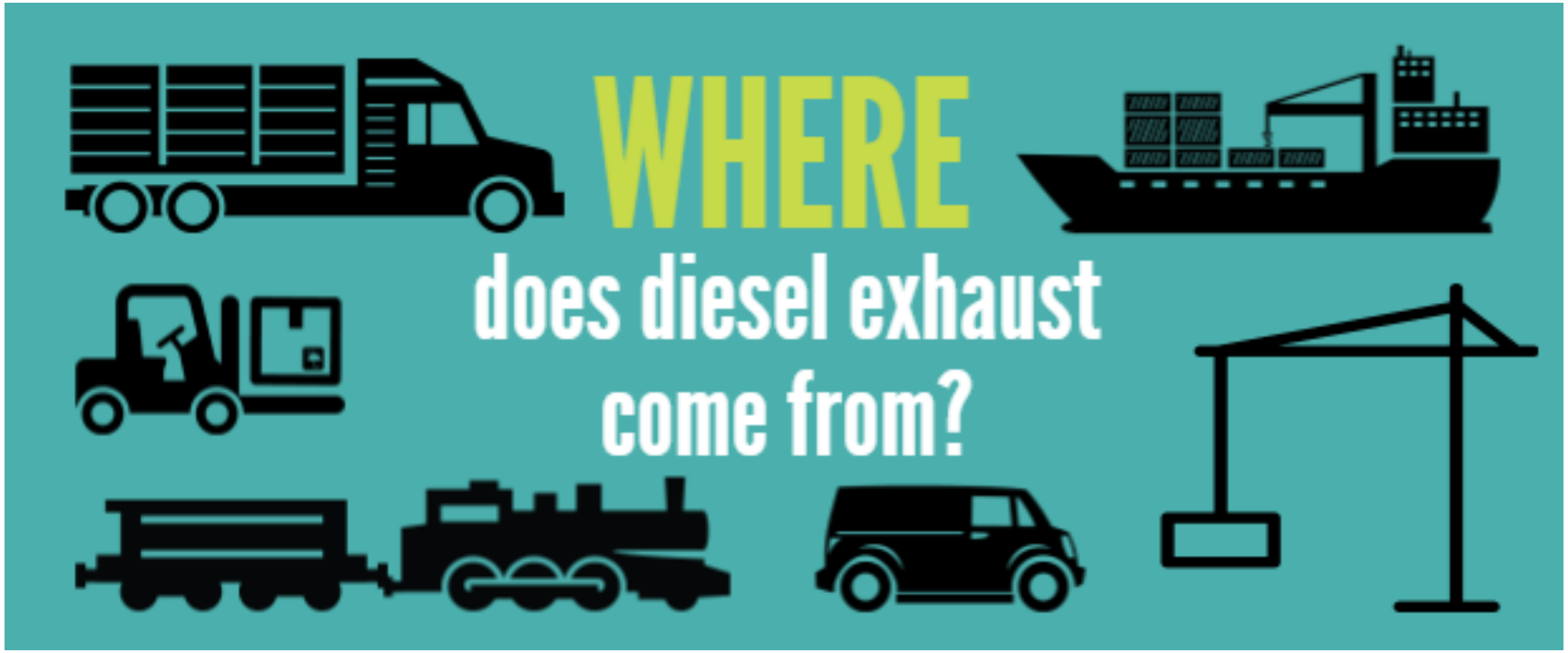
Polycyclic Aromatic Hydrocarbons

Carbon Monoxide

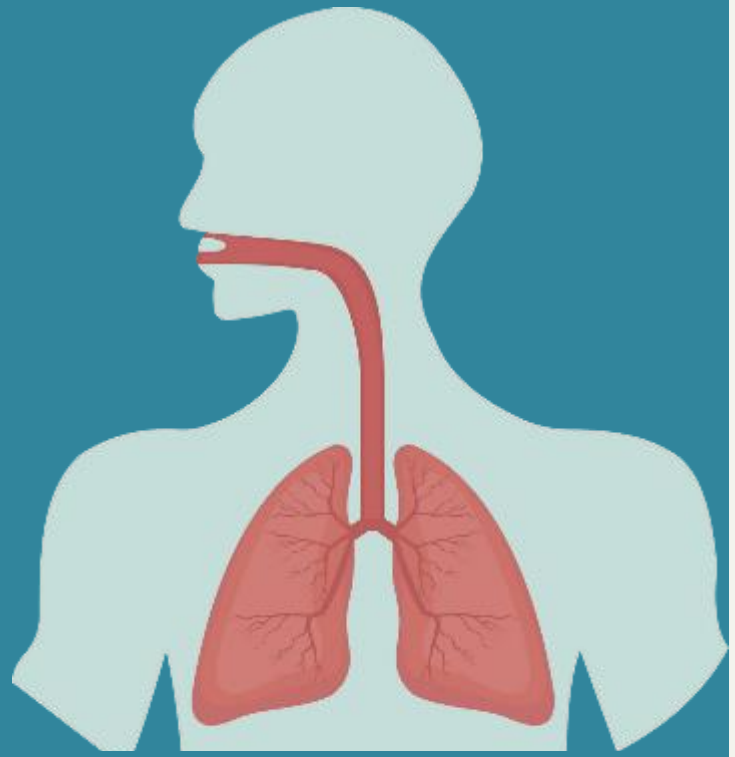
Nitrogen Oxides

Volatile Organic Compounds




WHERE
does diesel exhaust
come from?

Part 2: Health Effects of Diesel Air Pollution



HEALTH IMPACTS OF PARTICULATE MATTER

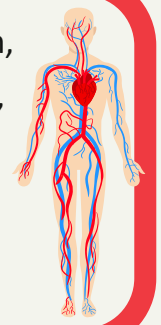
Upper respiratory tract

When molecules are larger, they can enter the nose or throat

Lower respiratory tract

Smaller particles are more easily absorbed enter the lower airway and cause inflammation

Bloodstream, whole body, brain



Tiny particles cross into the blood and brain, and can lead to cardiovascular disease as well as cognitive defects.

Public Health Impacts of Diesel Emissions

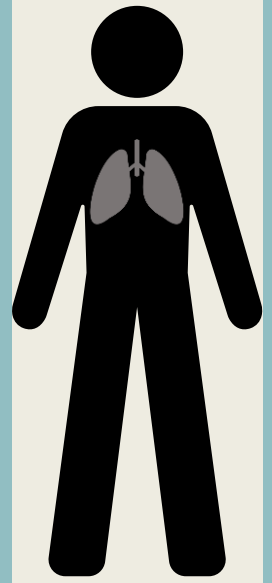
Diesel is a toxic air contaminant (TAC).

It is estimated that diesel emissions are responsible for 70 % of California's known cancer risk from air toxics (TACs).

Diesel emissions are a significant contributor to overall PM2.5 levels

Short-term impacts:

- Irritation to the eyes, nose, throat and lungs
- Cough
- Headache
- Nausea



Long-term effects:

- Lung and Bladder Cancer
- Heart disease Reduced lung function in children
- Development of new allergies

Source: CARB (California Air Resources Board)

PUBLIC HEALTH IMPACTS ACROSS LIFE COURSE

Health Impacts of traffic-related air pollution

Infants:

- low birthweight.
- premature
- problems with behavior learning or developing autism

Children/ Teens:

- asthma attacks
- ear, nose, throat infections
- reduced lung size
- obesity

Adults:

- heart disease
- stroke

Pregnant Parents:

- pregnancy issues / low-birth weight
- high blood pressure

Seniors :

- heart attack
- lung issues
- memory loss
- shorter life span

NEW RESEARCH: IMPACTS ON BRAIN HEALTH

Affects **adults** by increasing risk of:

- Alzheimer's disease and dementia
- Cognitive decline
- Parkinson's disease
- Depression symptoms

Affects children by increasing risk of:

- ADHD
- Slower processing of information
- Autism
- Depressive & anxiety symptoms

Risk Considerations of Diesel PM

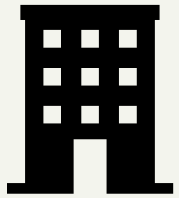
WHO IS MOST AFFECTED?

Workers:

- Railroad workers
- Truck drivers
- Dock workers
- Other jobs near diesel exhaust

Residents who live near:

- Rail yards
- Ports
- Freeways with diesel trucks
- Warehouses

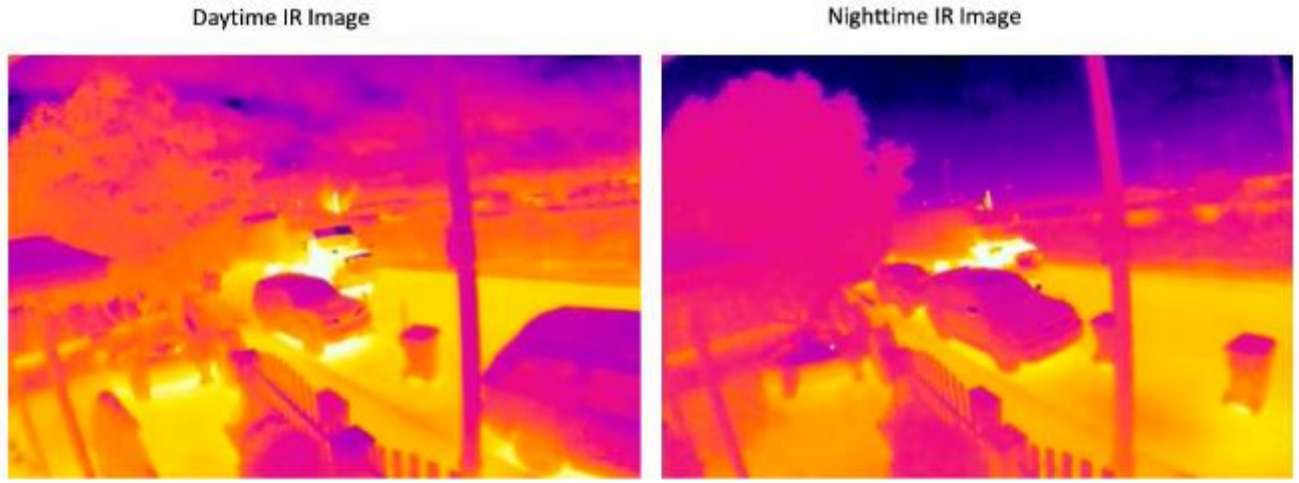


Case Study: Wilmington

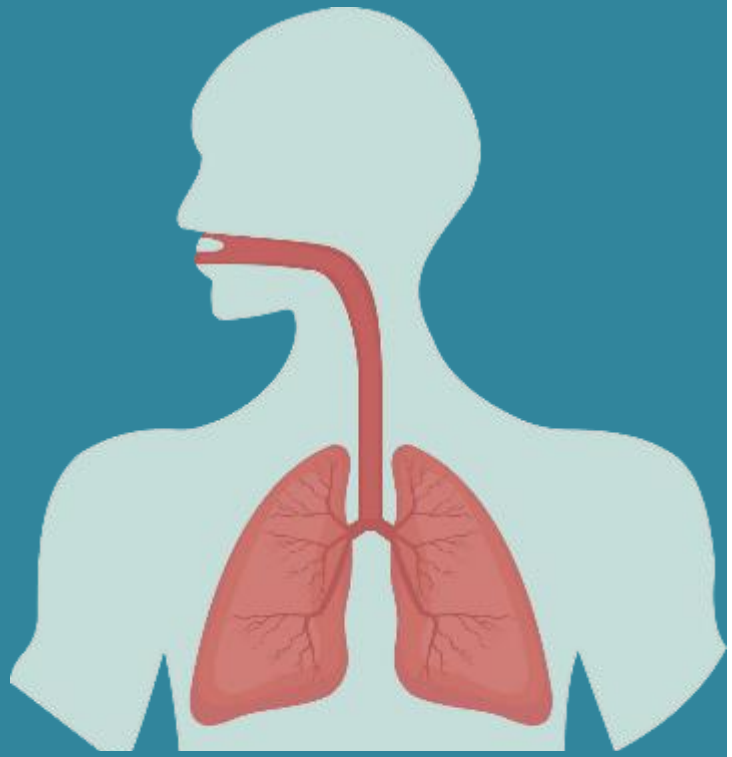
In October 2023, USC and UCI researchers recorded truck traffic on a residential street over a week in Wilmington near the Port of Los Angeles.

Truck traffic was recorded 24/7 for a week.

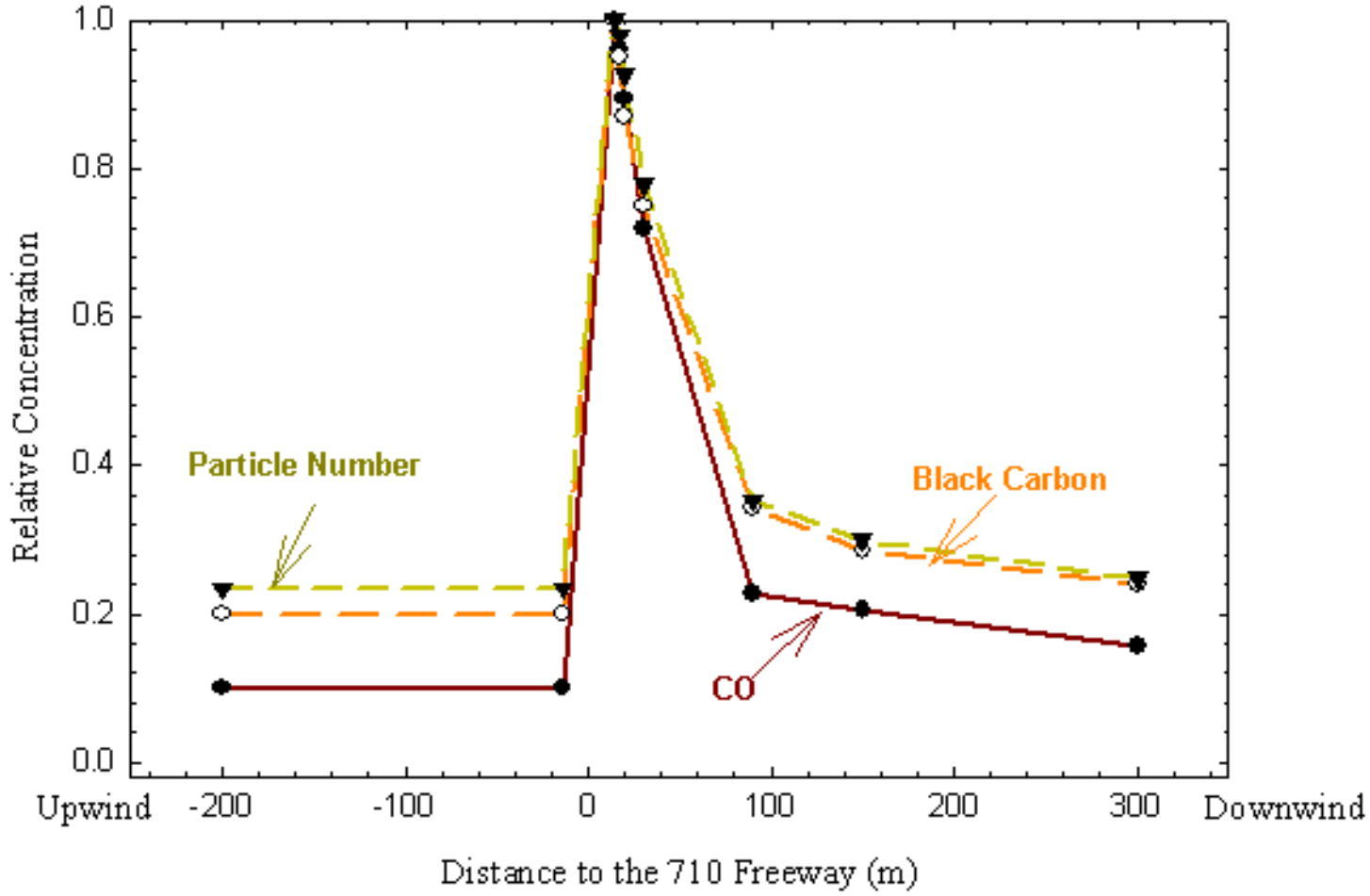
Over **17,000 trucks** passed through this street over the course of a single week



Part 3: Proximity Matters



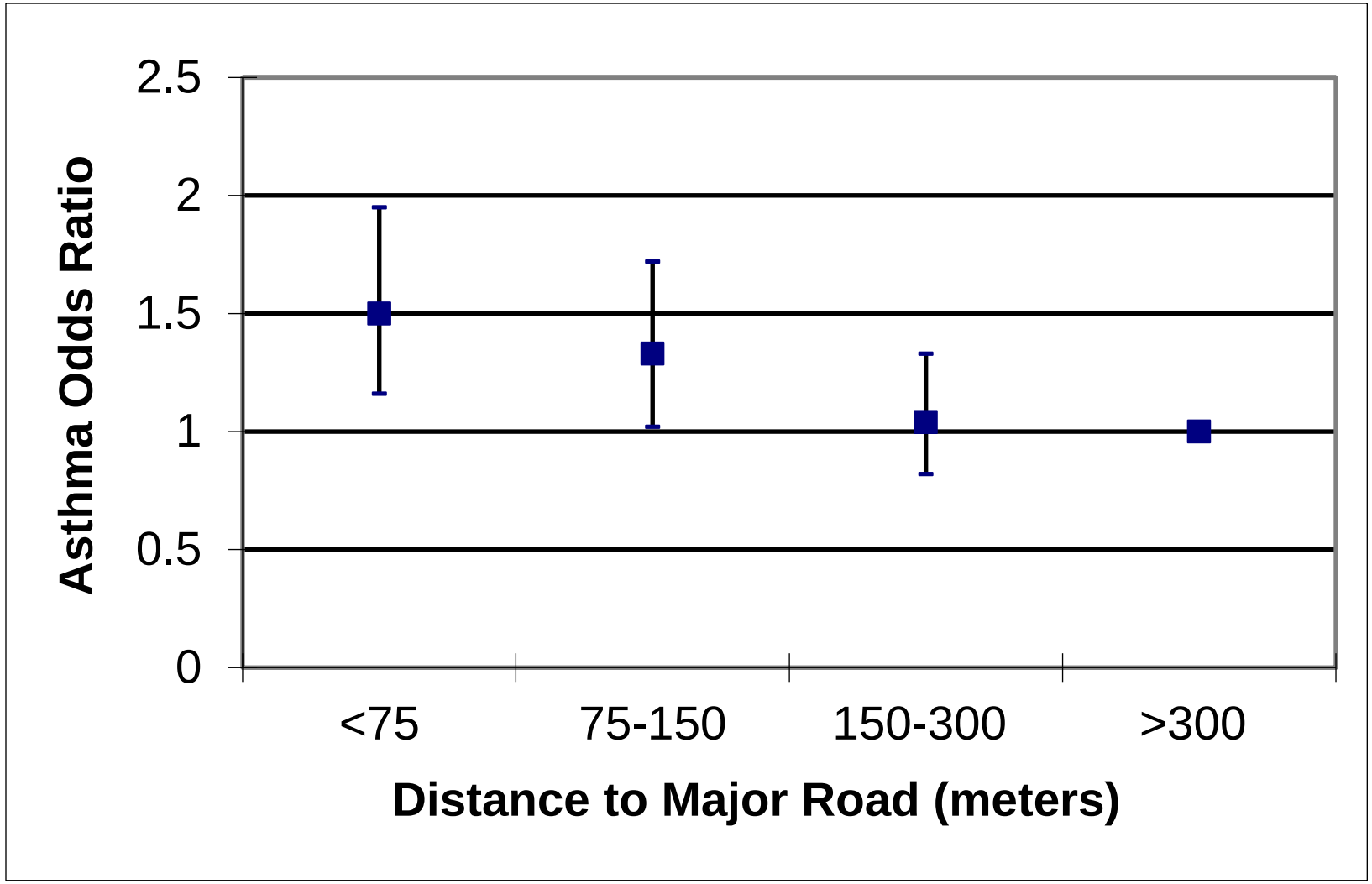
Air Quality is Worse Near a Freeway



Black carbon as diesel marker and other pollutants are high near freeway (e.g. NO2, benzene,…)

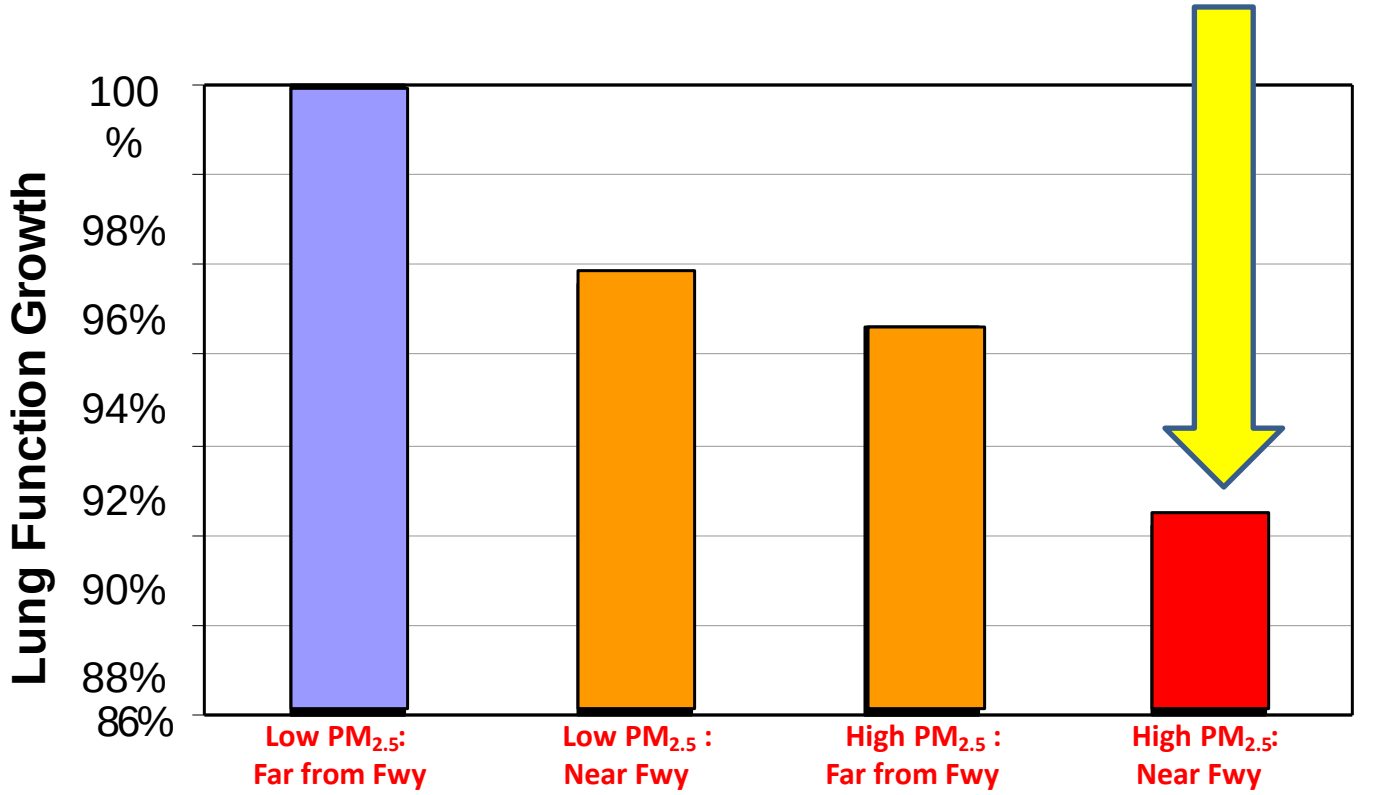
(Zhu et al., 2002, 2006)

Asthma & Proximity to Roadways



Proximity To Traffic Matters

Lungs of children who live in areas with bad regional air pollution and near freeway traffic are impacted the most

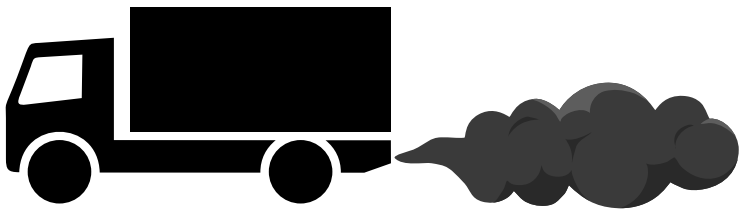


Regional $PM_{2.5}$: Freeway Distance

Credit: Jim Gauderman, USC

Summary

- Exposure to diesel exhaust is linked to lung cancer and other health effects
- Disproportionate health impacts in communities along freight transport corridors
    - Ports
    - Railyards
    - Freeways
    - Warehouses
- Zero emissions technology can improve local air quality and public health



Thank you!

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Driving Disparities: Vehicle Pollution and $PM_{2.5}$ in Our Communities

Diesel Mobile Sources Workshop for AB617 Community Steering Committees

June 12, 2025

OEHHA

SCIENCE FOR A HEALTHY CALIFORNIA

What Are We Doing Today?

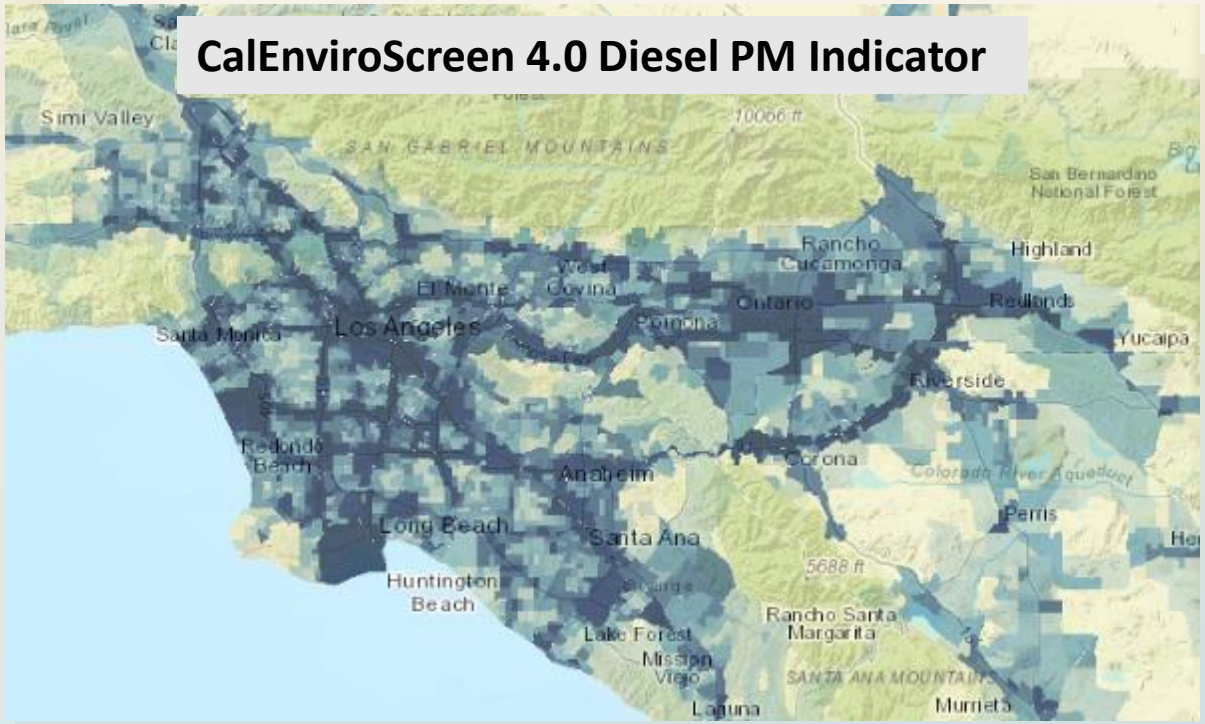
What is the problem?

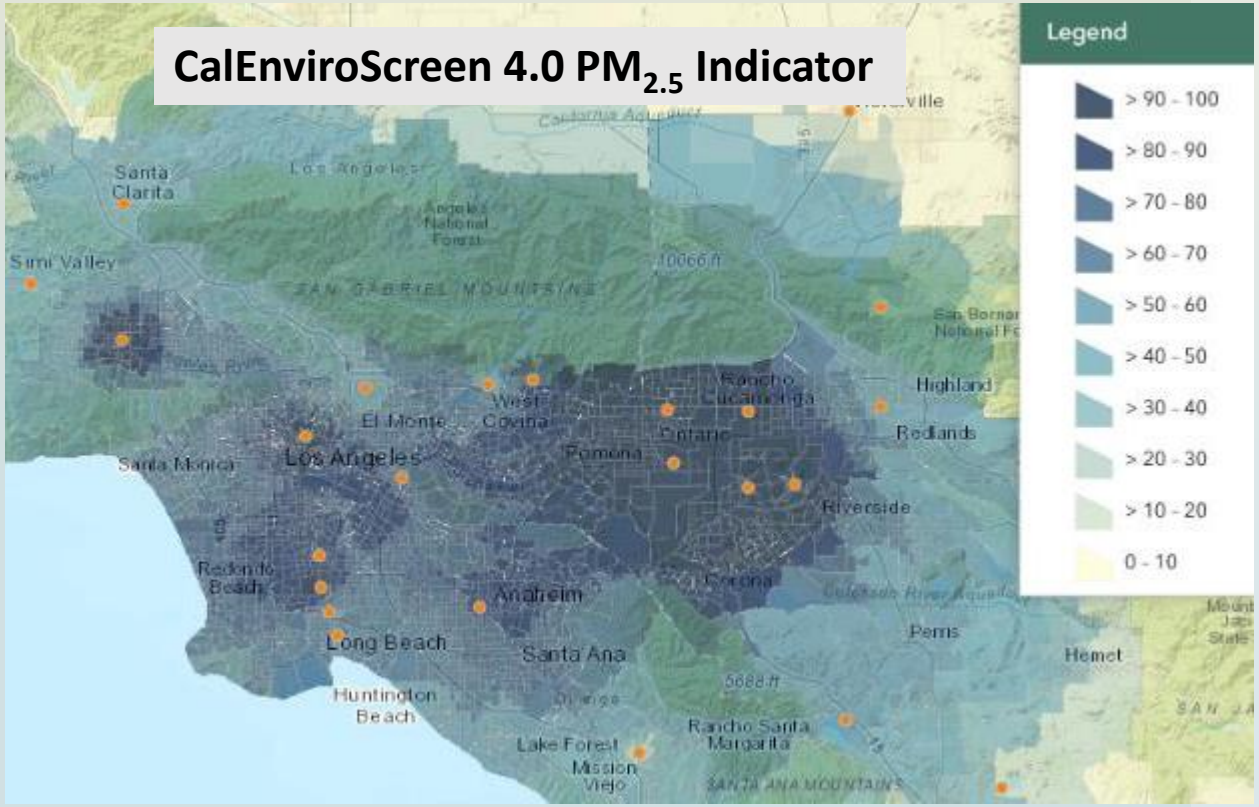
Why does our research matter?

How did we approach our research?

What did we find?

What is the problem?





Source: OEHHA CalEnviroScreen 4.0

Why does our research matter?

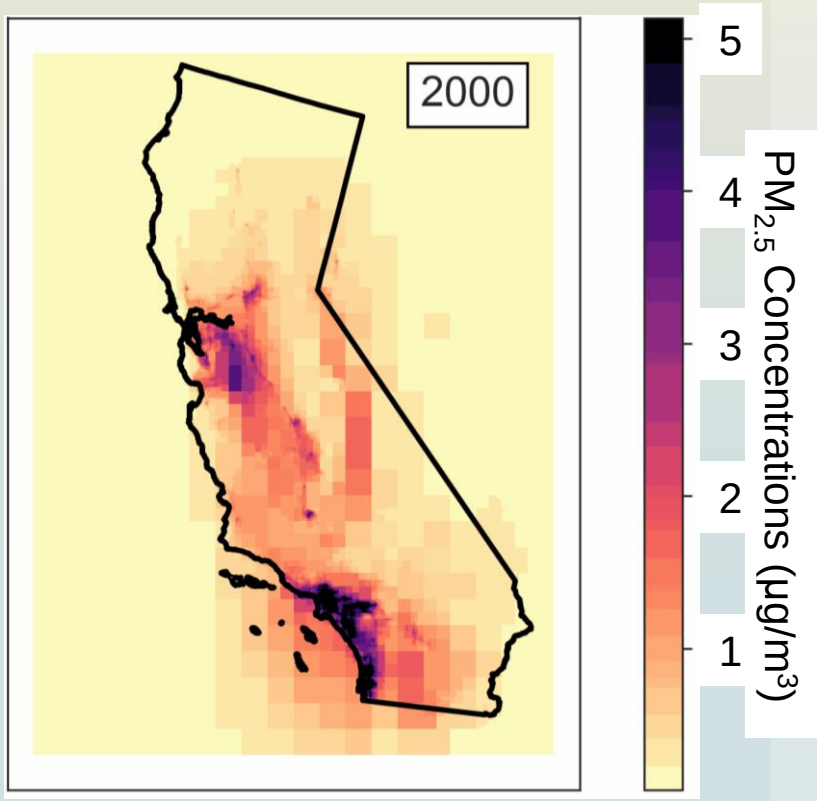
How did we approach our research?

EMFAC

1. All Vehicles
   - 2 Light-Duty
   - 3 Medium-Duty
   - 4 Heavy-Duty
   - 5 Other Vehicles

ECHO-AIR

$PM_{2.5}$ Concentrations from All On-Road Mobile Sources

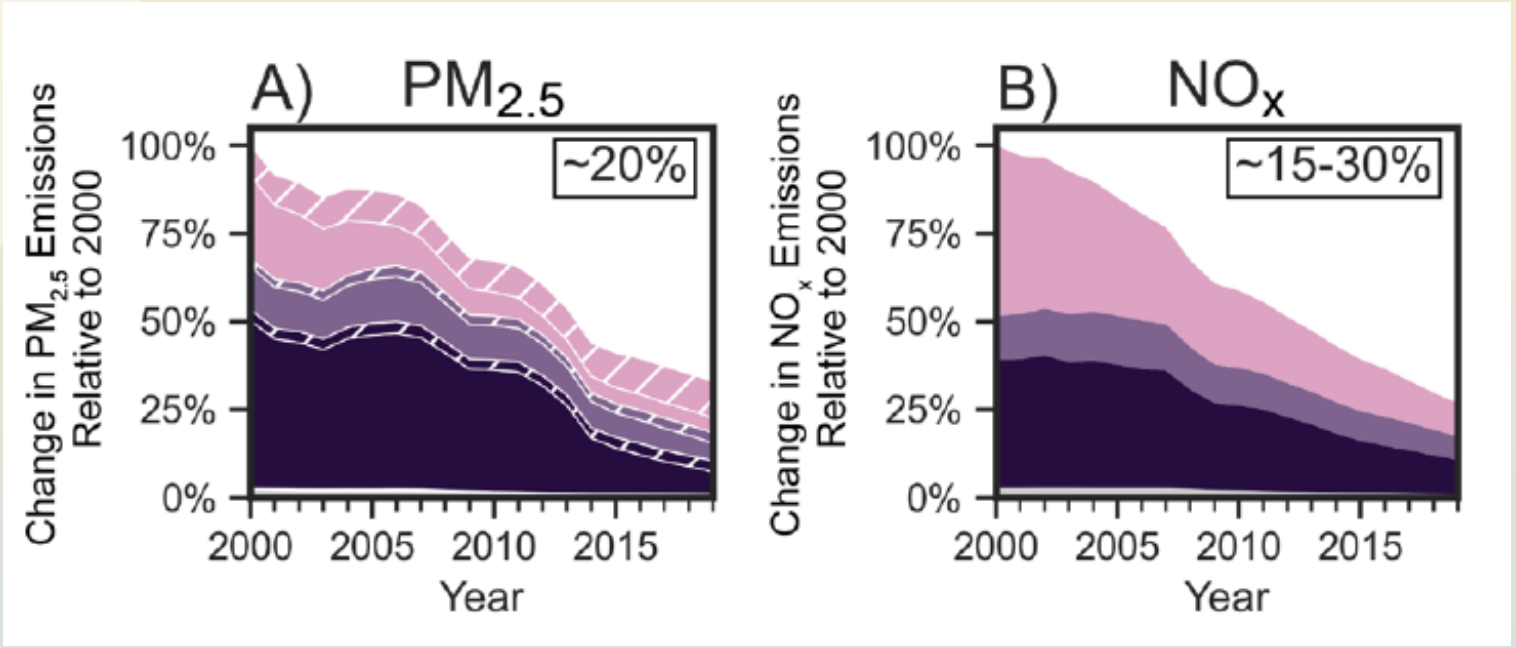


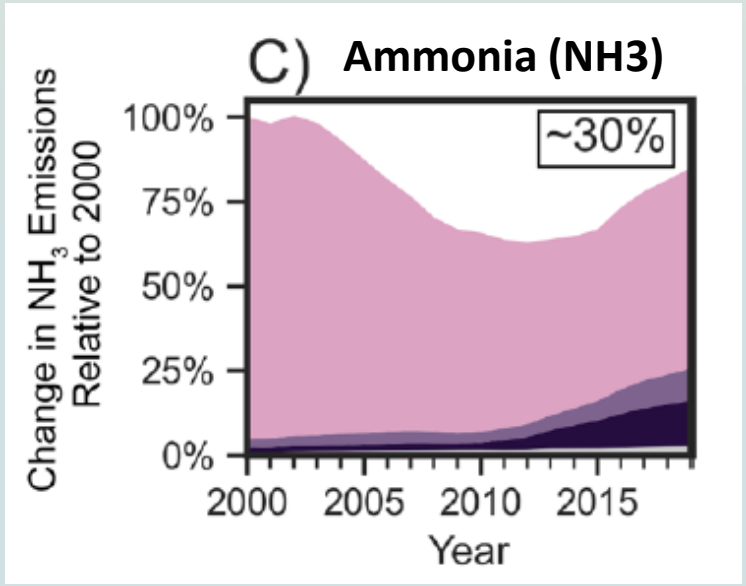
Koolik *et al.*, 2024

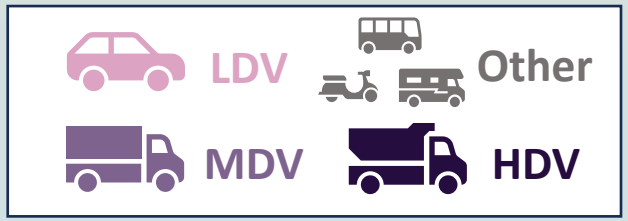
What did we find?

Decreased Emissions from Heavy-Duty Diesel Trucks

(UCLA Library)





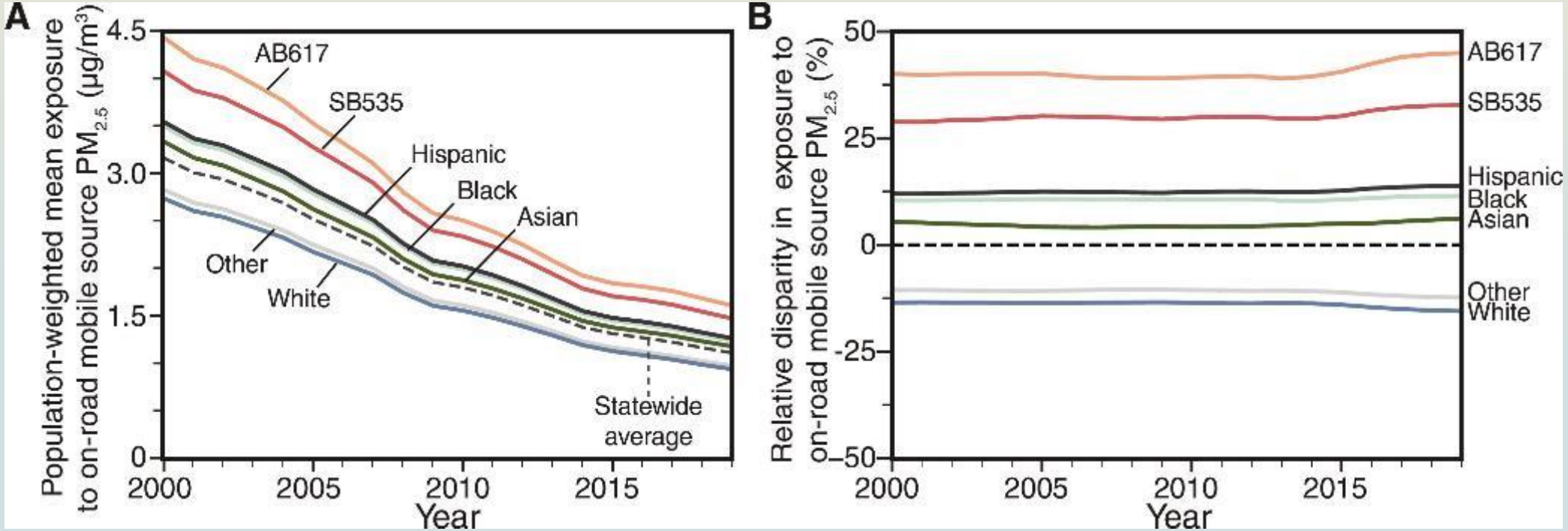


Koolik *et al.*, 2024

There are STILL Disparities Even with Significant Reduction in $PM_{2.5}$ Exposure from Vehicles

Public Health Metric

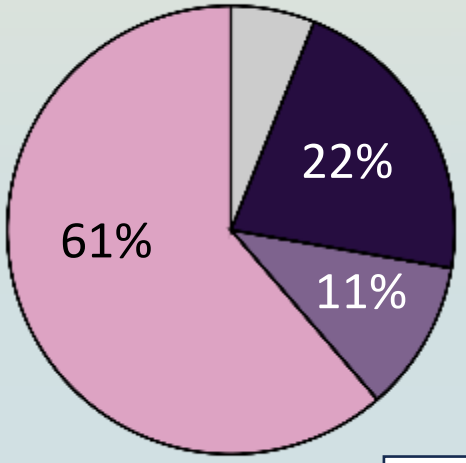
Equity Metric

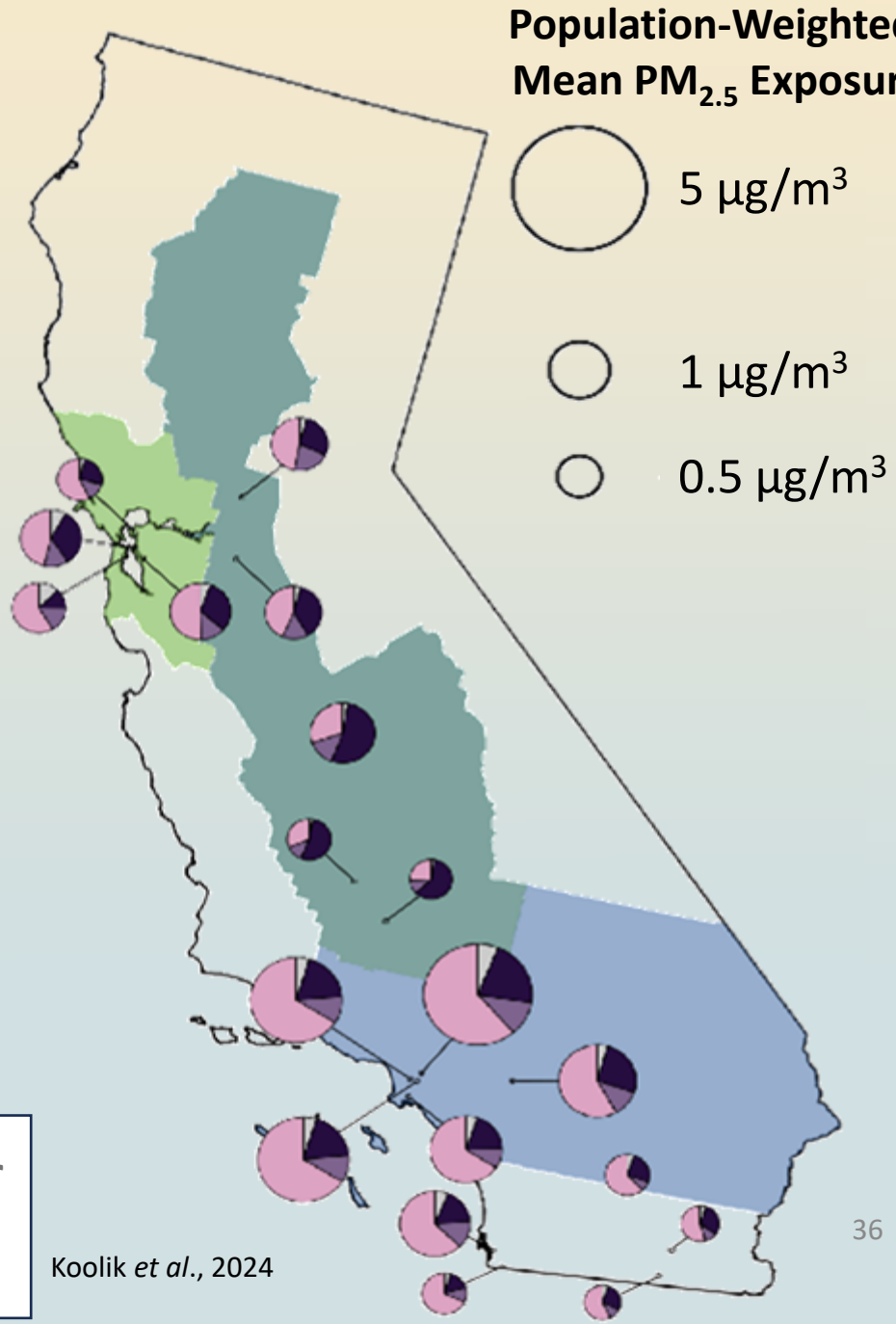


Koolik *et al.*, 2024

Highest $PM_{2.5}$ Exposure from Vehicles in South Coast AB617 Communities

East Los Angeles, Boyle Heights, West Commerce

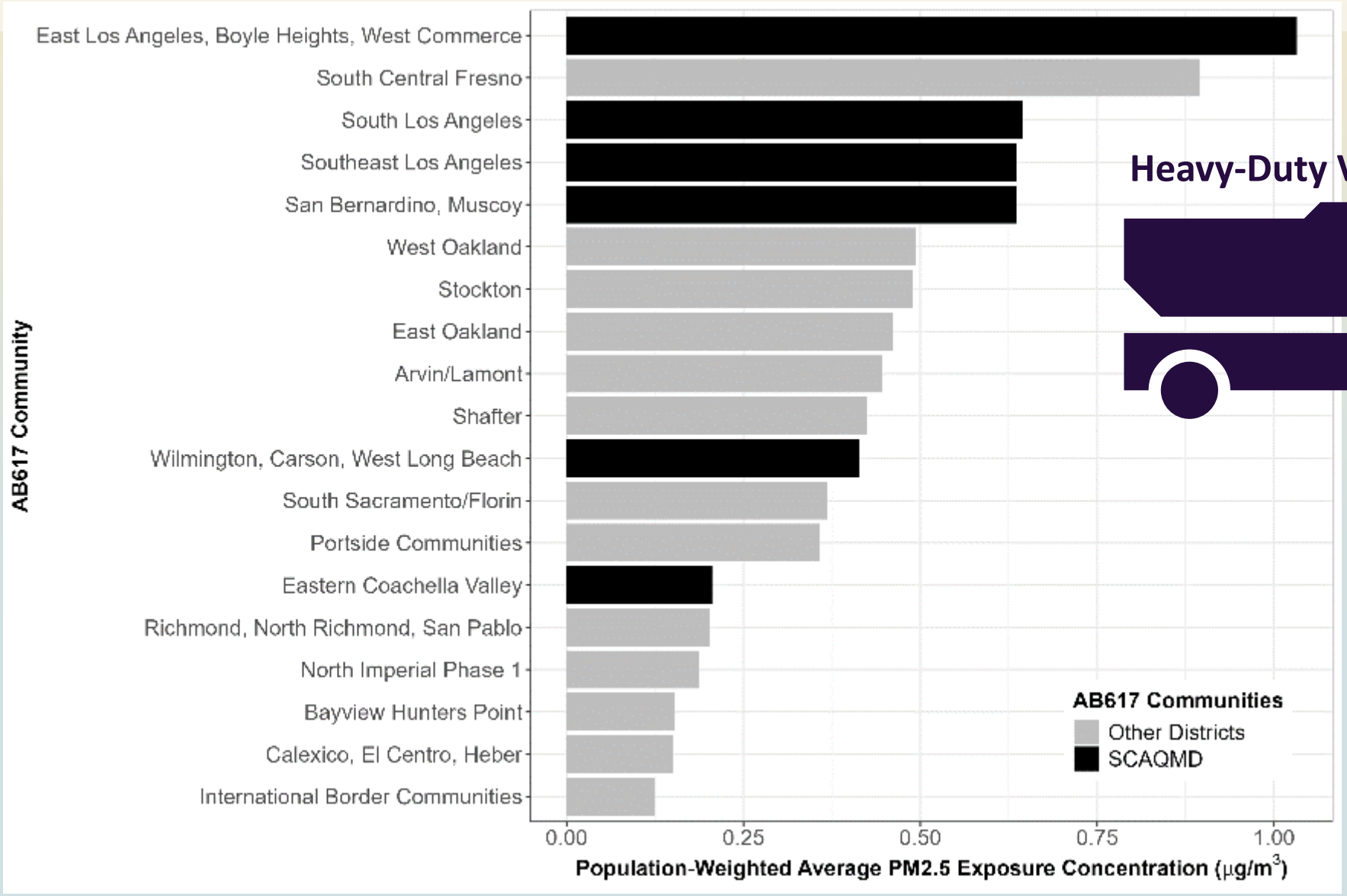




LDV Other MDV HDV

Koolik *et al.*, 2024

Highest Exposure to Heavy-Duty Diesel Truck Emissions in South Coast AB617 Communities



What did we find?

- 65% reduction in $PM_{2.5}$ exposure from vehicles over the last 20 years, but disparities still exist
- To reduce disparities, we need place-based efforts, like the AB617 program, that are shaped by the people most affected

Source: CARB

Thank you!

Laurel Plummer Laurel.Plummer@oehha.ca.gov
Paula Torrado Plazas Paula.TorradoPlazas@oehha.ca.gov

Koolik LH, Alvarado Á, Budahn A, Plummer L, Marshall JD, Apte JS. 2024. PM2.5 exposure disparities persist despite strict vehicle emissions controls in California. Science Advances 10:eadn8544, https://doi.org/doi:10.1126/sciadv.adn8544

DIESEL MOBILE SOURCES/ TRUCK TRAFFIC

AIR MONITORING STRATEGY

JULIA MONTOYA-AGUILERA, Ph.D.

Air Quality Specialist

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South Coast AQMD

AB 617 COMMUNITY AIR MONITORING PLAN (CAMP)

Purpose: To support implementation of the Community Emissions Reduction Plan (CERP). Air monitoring strategies were selected based on community air quality priorities.

- Established air monitoring goals and objectives set by the CSC
- Identified air monitoring approaches selected by the CSC
- Described how air monitoring data collected can support CERP actions

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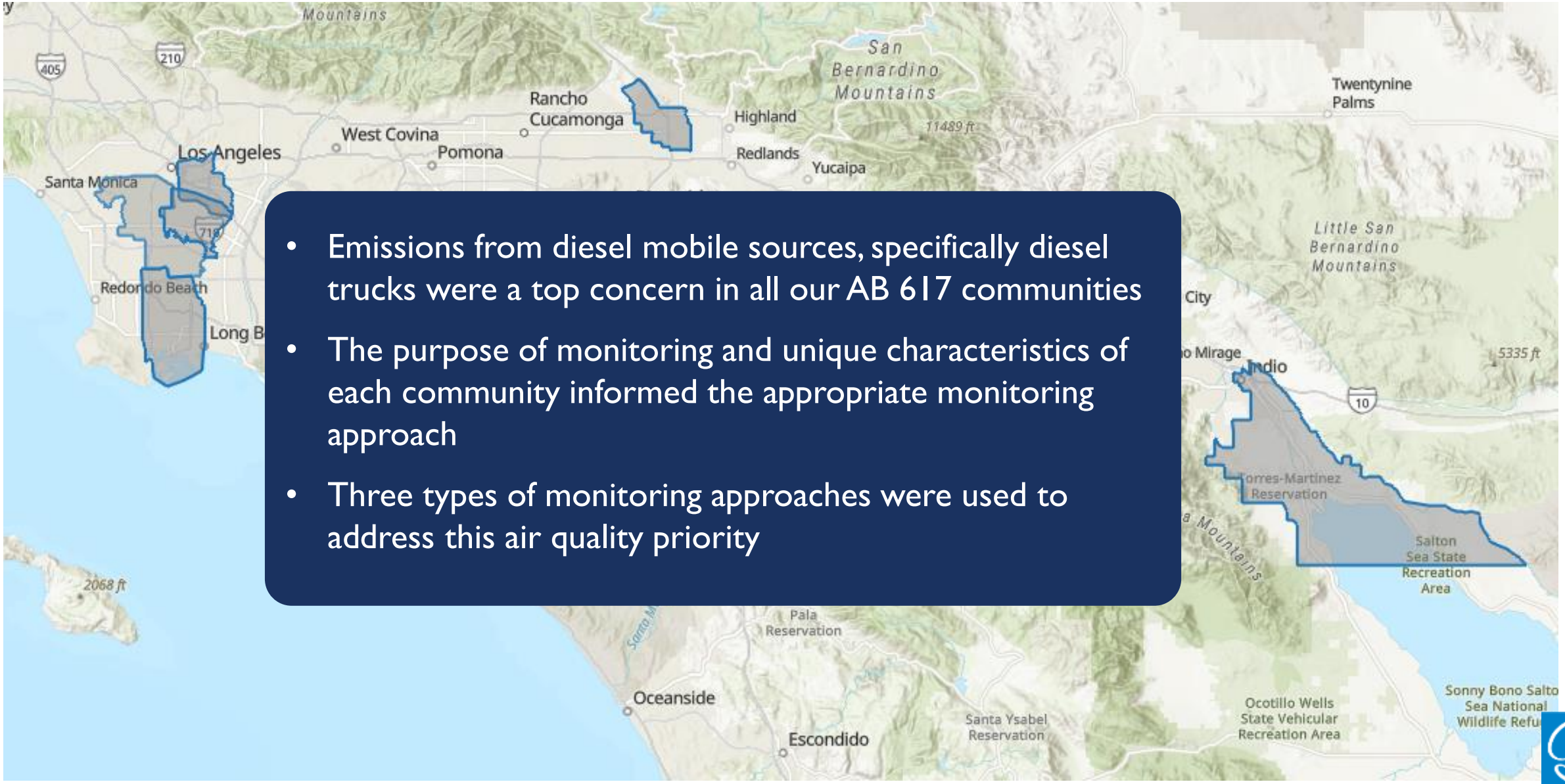

- Emissions from diesel mobile sources, specifically diesel trucks were a top concern in all our AB 617 communities
- The purpose of monitoring and unique characteristics of each community informed the appropriate monitoring approach
- Three types of monitoring approaches were used to address this air quality priority

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TYPES OF AIR MONITORING

Stationary Monitoring

Objectives

- Long-term monitoring to capture temporal trends
- Near real-time data reporting

Limitations

- Resource intensive
- Long installation time
- Measurements at only one location

Mobile Monitoring

Objectives

- Wide-area monitoring
- Identify locations with elevated levels of pollution

Limitations

- Snapshot in time
- Mostly limited to daytime measurements
- Complex data analysis and reporting

Air Quality Sensors

Objectives

- Community education and engagement
- Supplement fixed monitoring stations

Limitations

- Limited number of pollutants
- Data quality
- Unknown lifespan

YEAR 1 COMMUNITIES

These CAMP strategies were developed for Year 1 communities to measure emission markers from diesel mobile sources

East Los Angeles, Boyle Heights, West Commerce (ELABHWC)

Stationary monitoring

- Resurrection Church
- Central Los Angeles

Mobile monitoring

- South Coast AQMD
- Contractor

San Bernardino, Muscoy (SBM)

Stationary monitoring

- San Bernardino

Mobile monitoring

- South Coast AQMD
- Contractor

Sensor network

Wilmington, Carson, West Long Beach (WCWLB)

Stationary monitoring

- Nine air monitoring stations

Mobile monitoring

- South Coast AQMD

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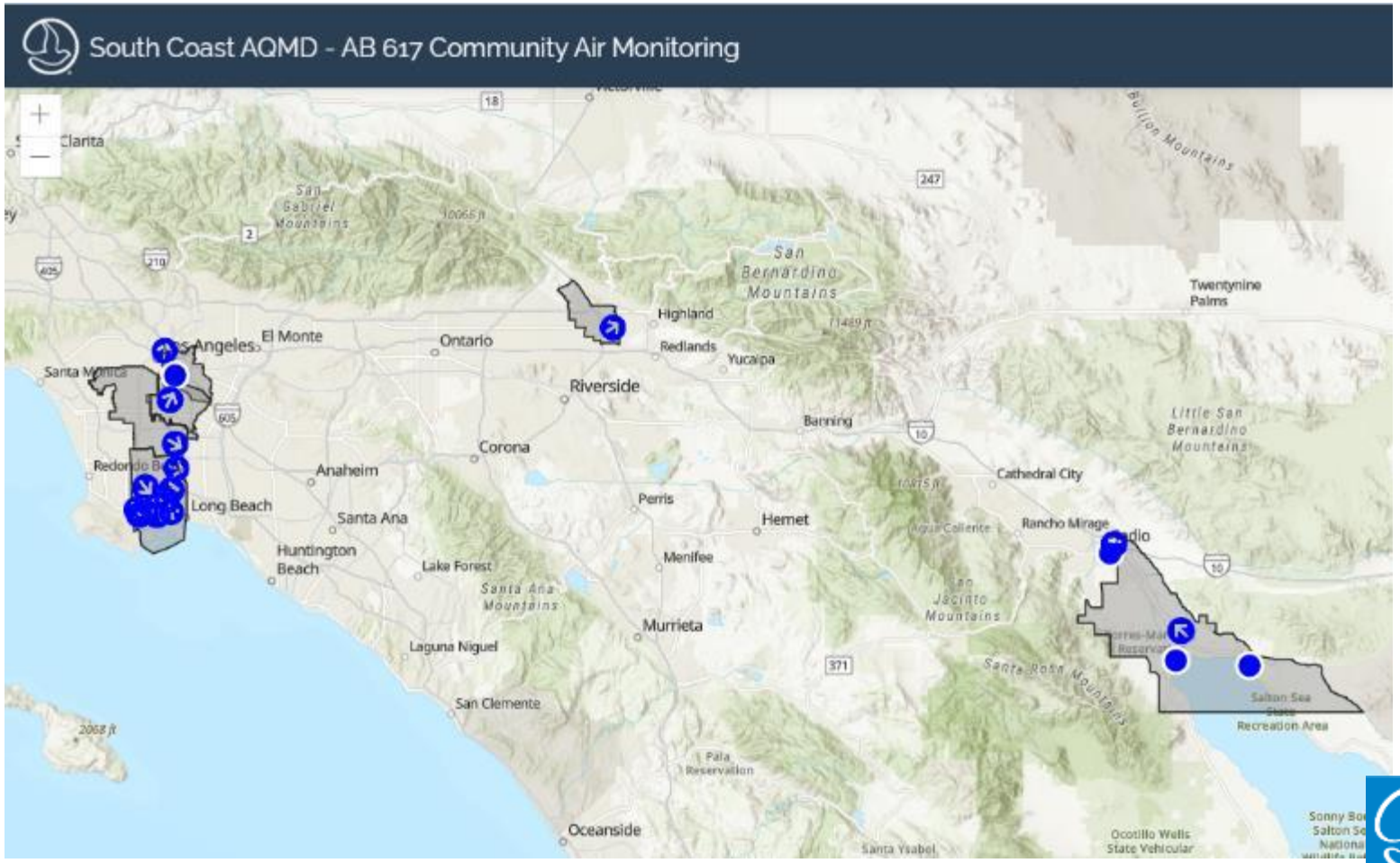
STATIONARY MONITORING

- At least one air monitoring station in each AB 617 community

- Stationary measurements provide near-real time information about pollution levels in the community
  - Link to AB 617 Data Display Tool: www.aqmd.gov/ab617-data-display-tool

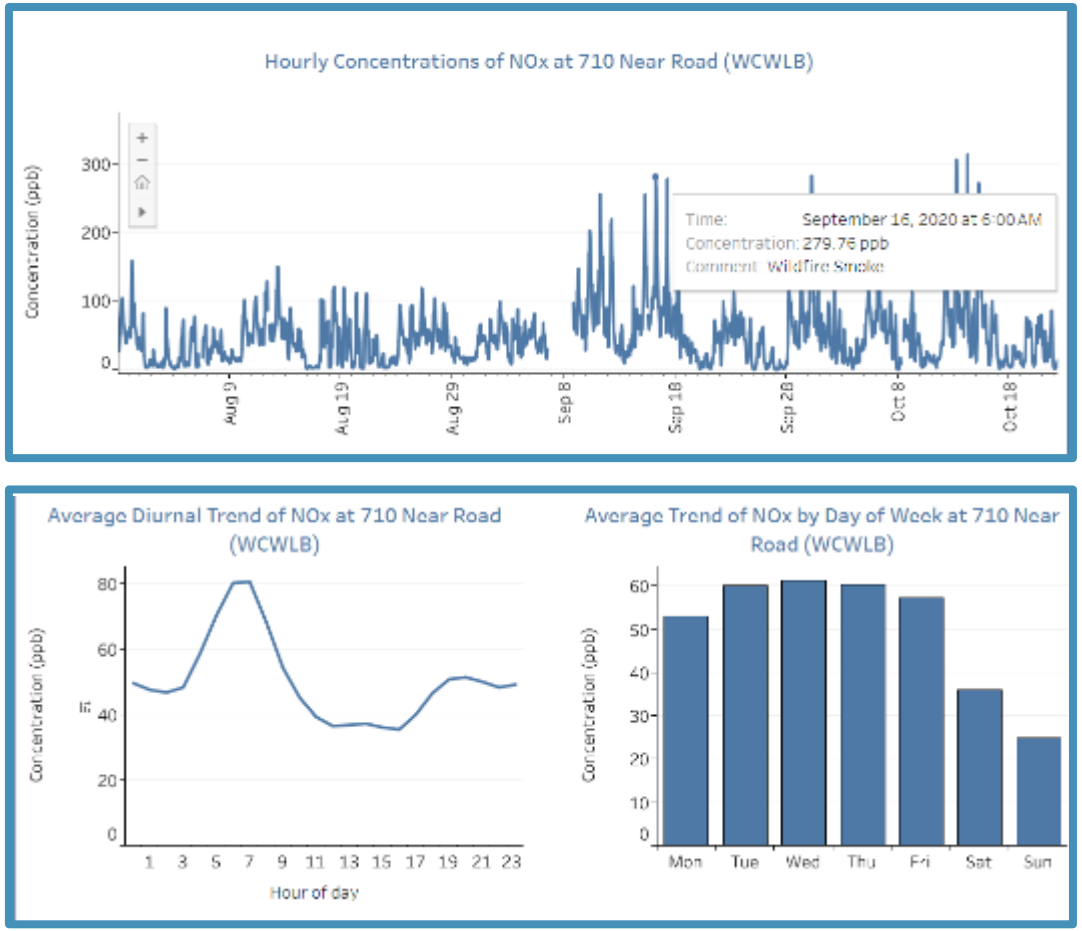
- Stationary measurements are used to track long-term trends in pollution levels
  - Link to Continuous Trends Analysis Dashboard: www.aqmd.gov/ab617/monitoring/trends



Screenshot of AB 617 Data Display Tool

STATIONARY MONITORING

- Stationary measurements are useful for exploring trends in pollution levels over time
- Levels of oxides of nitrogen (NOx) measured at 710 Near Road site were elevated on weekdays during the morning rush hours
  - Similar observations at other air monitoring sites



Screenshots of Continuous Trend Analysis Dashboard

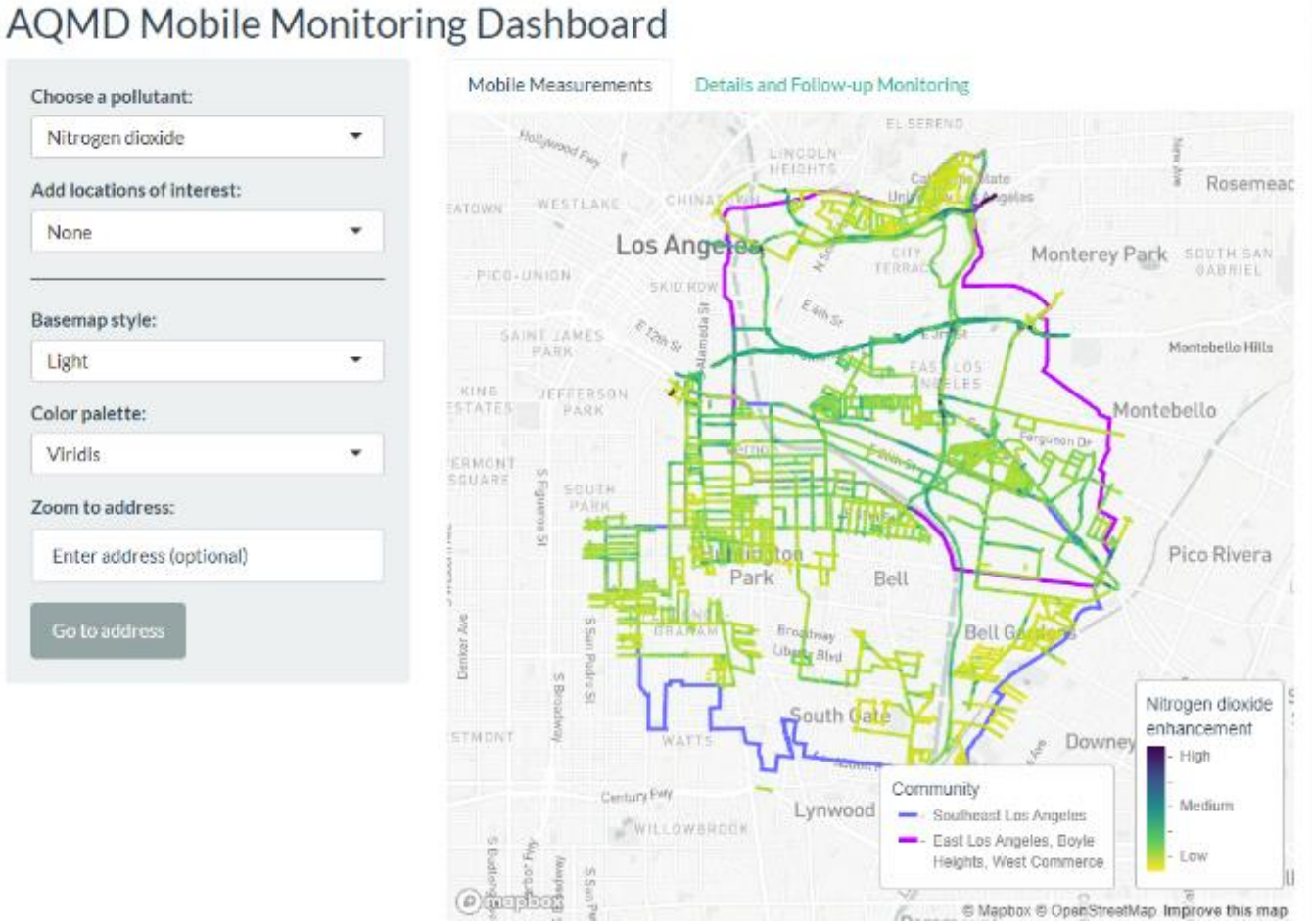
South Coast AQMD

MOBILE MONITORING
DIESEL EXHAUST MARKERS

- South Coast AQMD and its contractor conducted comprehensive mobile measurements of diesel exhaust markers
  - Black carbon (BC), Nitrogen dioxide (NO_2), Particle number (PN)
- Concentration levels of these markers were slightly elevated near railyards, but were highest along freeways and major roadways
- Levels were generally lower in residential areas
- Monitoring data informed the prioritization criteria for residential filtration

Diesel PM
Mobile Platform

Aclima
Mobile Platform

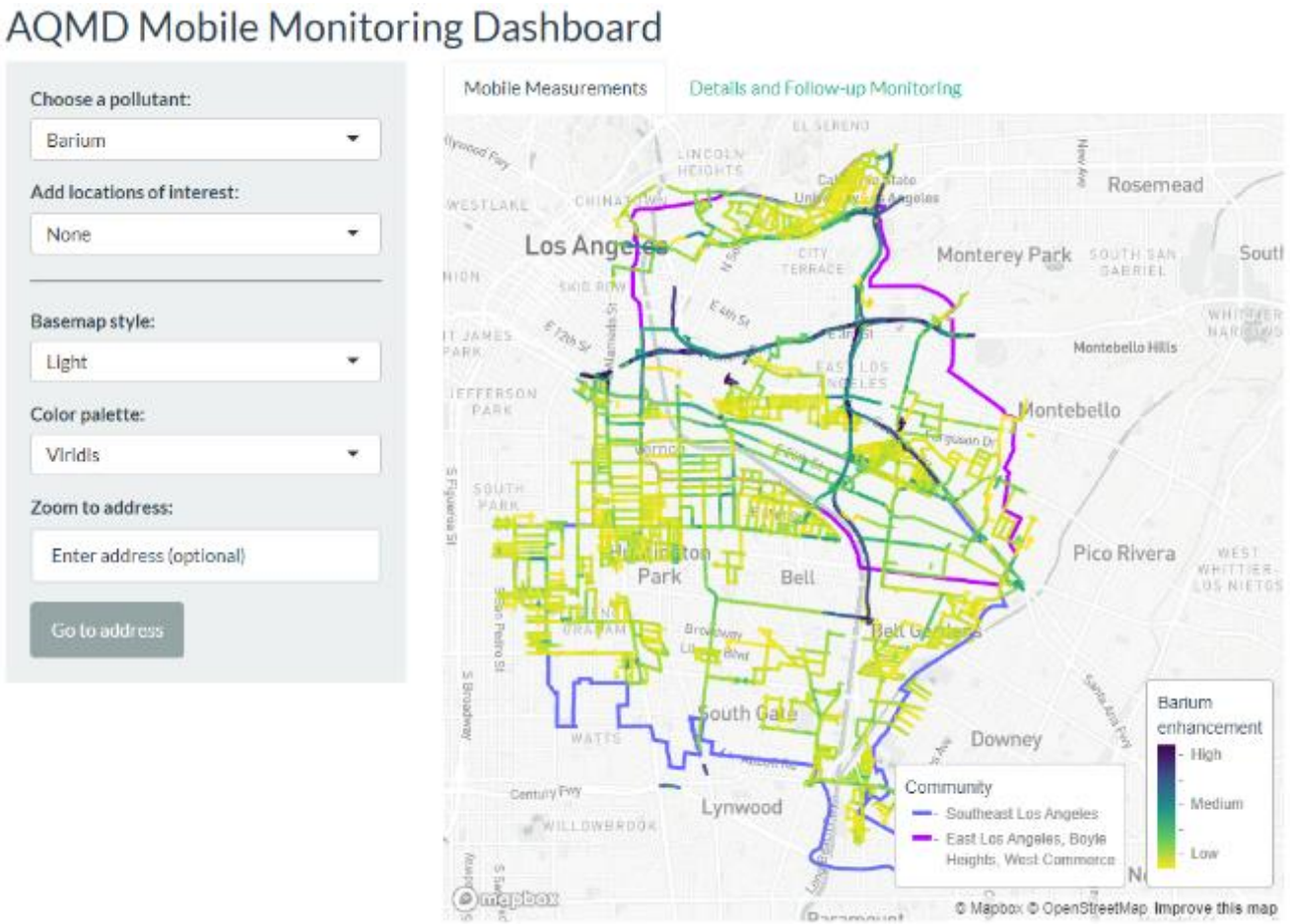


Screenshot of AQMD Mobile Monitoring Dashboard for ELABHWC and SELA
Available at www.aqmd.gov/ab617/monitoring/elabhwc

MOBILE MONITORING
NON-EXHAUST POLLUTANTS

- South Coast AQMD conducted comprehensive mobile measurements of non-exhaust emission markers levels
  - Metals associated with break and tire wear emissions, including Ba, Cu, Zn, Fe
- Consistent elevated levels of metals were observed along freeways, major roadways, and on- and off-ramps
- Relatively elevated levels of metals were observed near some clusters of metal processing facilities
- Monitoring data was used to prioritize facilities for inspections by the compliance & enforcement team

Multi-Metals Mobile Platform



Screenshot of AQMD Mobile Monitoring Dashboard for ELABHWC and SELA
Available at www.aqmd.gov/ab617/monitoring/elabhwc

South Coast AQMD

YEARS 2 AND 3 COMMUNITIES

These CAMP strategies were developed for Years 2 and 3 communities to measure emission markers from diesel mobile sources

Southeast Los Angeles (SELA)

Stationary monitoring

- Huntington Park

Mobile monitoring

- South Coast AQMD

South Los Angeles (SLA)

Stationary monitoring

- Compton

Mobile monitoring

- South Coast AQMD

Eastern Coachella Valley (ECV)

Sensor network

Stationary monitoring

- Mecca
- Indio

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AIR QUALITY SENSORS

Purpose

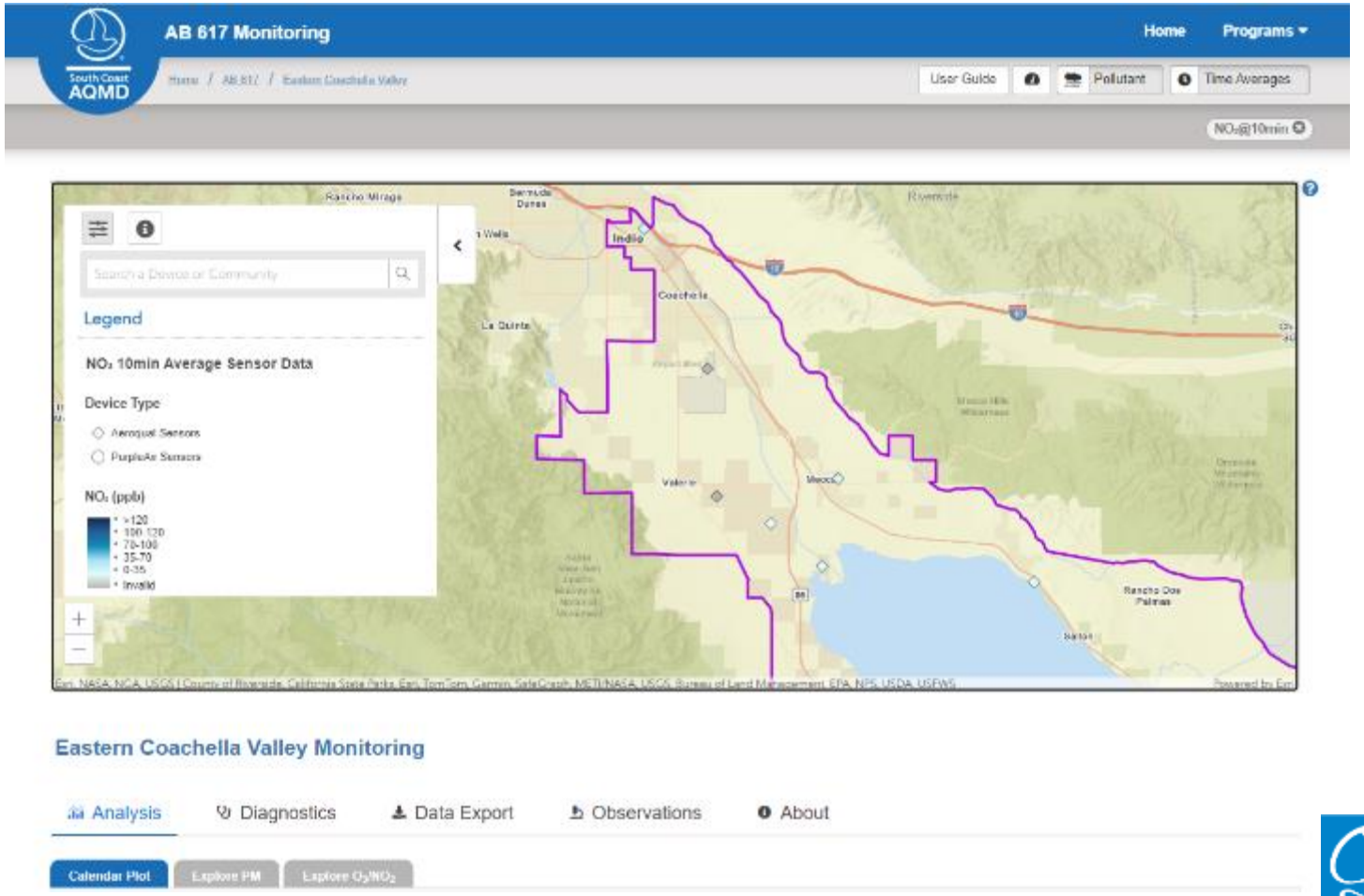
- Supplement fixed monitoring station
- Provide real-time data access and visualization
- Provide tools for community education and engagement in air monitoring

$PM_{2.5}$

PM_{10}

NO_2

O_3



Screenshot of Aeroqual (AQY) Sensor Data Dashboard for ECV
Available at www.aqmd.gov/ab617/monitoring/ecv

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STATIONARY MONITORING
ECV PM/DUST CHARACTERIZATION STUDY

- In addition to truck traffic, other concerns unique to ECV include fugitive dust emissions from unpaved roads, the surrounding desert, agriculture, and the Salton Sea
- This study will help us better understand how these different sources contribute to PM in ECV

<u>Purpose</u>:

- **Identify main sources of PM/dust**
- **Quantify their contributions to particle pollution in the community**

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AB 617 MONITORING WEBPAGE

www.aqmd.gov/ab617/monitoring

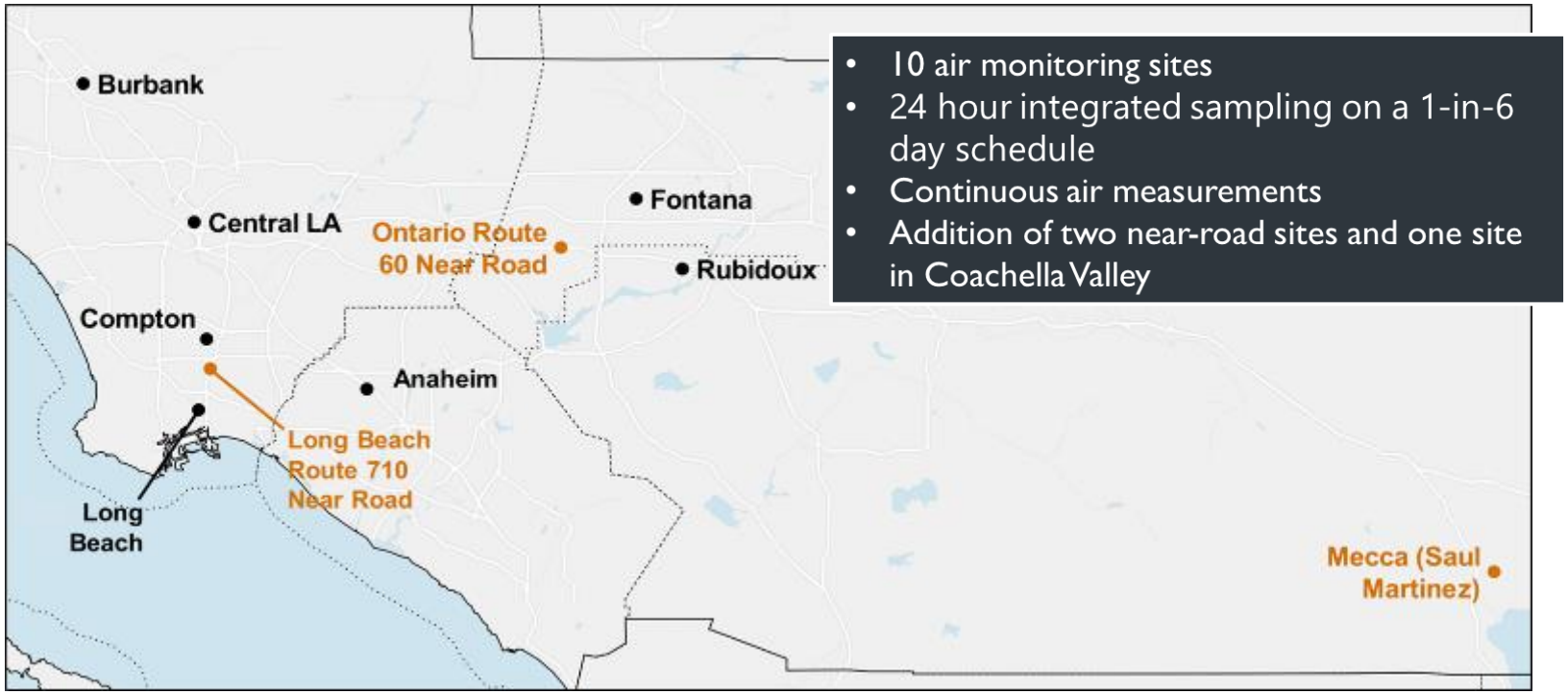
- Access air monitoring plans (CAMP)
- Access real-time air monitoring data (monitoring stations and air quality sensors)
- Access historical air monitoring data (continuous and time-integrated samples)
- Tutorial videos on how to use the data dashboards
- Access informational handouts and progress reports

South Coast AQMD

MULTIPLE AIR TOXICS EXPOSURE STUDY (MATES) VI

Goals

- Provide public information about air toxics and associated health risks throughout the region
- Evaluate progress in reducing air toxics exposure
- Provide direction to future toxics control programs



What's new?

- **Mecca site added**
- **Study to evaluate brake and tire wear contribution to PM**

Learn more at: www.aqmd.gov/matesvi

South Coast AQMD

CONTACT INFORMATION

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909-396-2122

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Multiple Air Toxics Exposure Study: AB617 Diesel Mobile Source Workshop

June 12, 2025

Nico Schulte, PhD

Program Supervisor

Air Quality Assessment

Planning, Rule Development, and Implementation

South Coast AQMD

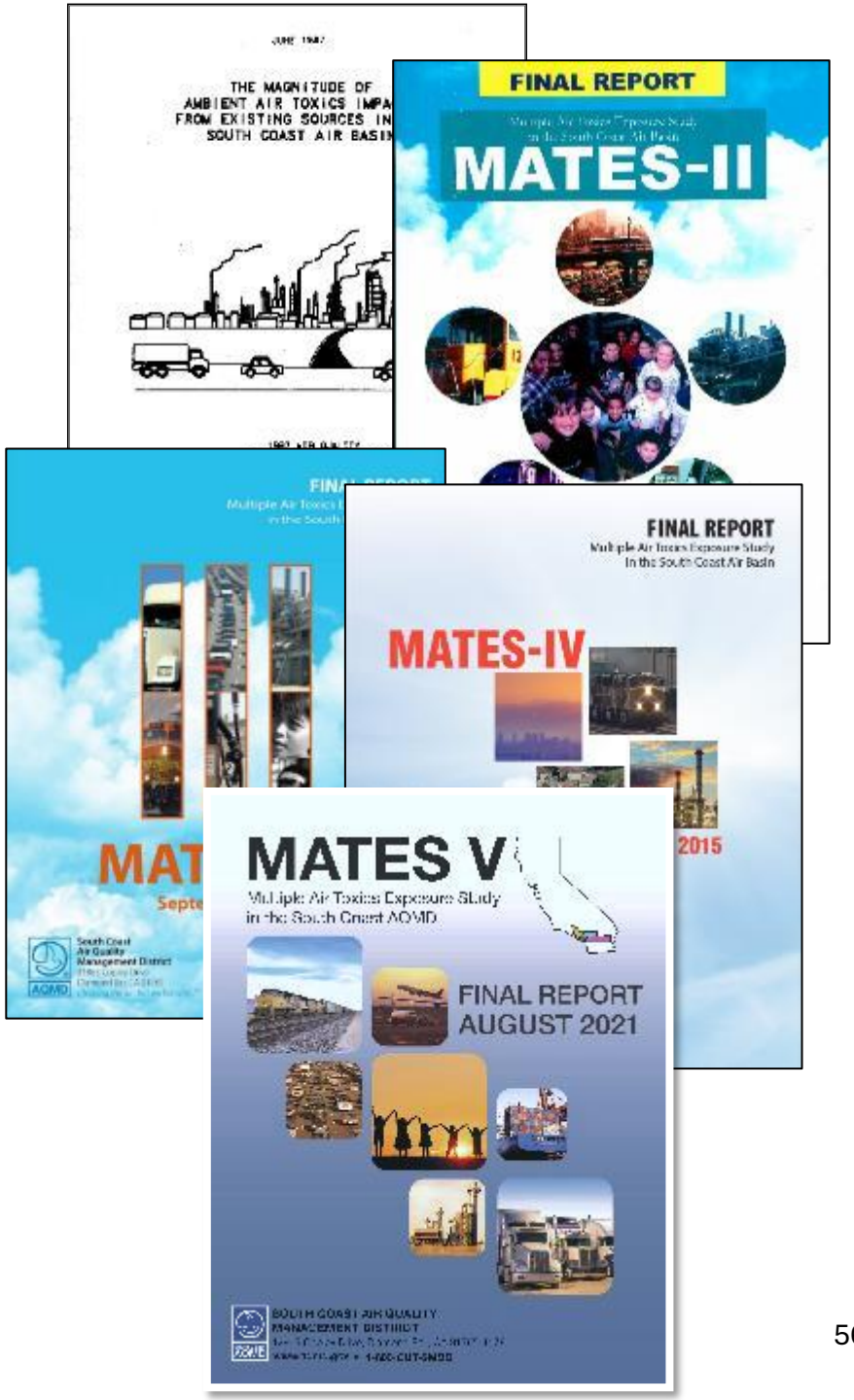
MATES Program Overview
Resumen del programa MATES

- Provide public information about air toxics and associated health risks throughout the region

  Brindar información pública sobre los contaminantes tóxicos del aire y los riesgos asociados para la salud en toda la región

- Evaluate progress in reducing air toxics exposure

  Evaluar el progreso en la reducción de la exposición a contaminantes tóxicos del aire



Other Goals (*Otros objetivos*)

- Provide data for future control programs
  Proporcionar datos para futuros programas de control
- Interpret measured data
  Interpretar datos medidos
- Identify unknown sources
  Identificar fuentes desconocidas

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How is Cancer Risk Determined?

¿Cómo se determina el riesgo de cáncer?

Comprehensive Air Toxics Measurements
Mediciones exhaustivas de compuestos tóxicos en el aire

Air Toxics Modeling
Modelado de compuestos tóxicos en el aire

- **Cancer Risk**: The likelihood that a person will develop cancer over a 70 year lifetime after exposure to a pollutant for 30 years*

  ***Riesgo de cáncer**: La probabilidad de que una persona desarrolle cáncer durante una vida de 70 años después de estar expuesta a un contaminante durante 30 años**

- Uses methods from the California Office of Environmental Health Hazards Assessments to estimate risk

  Utiliza métodos de la Oficina de Evaluación de Peligros para la Salud Ambiental de California para estimar el riesgo

*We also evaluated non-cancer risk using a different metric

También evaluamos el riesgo no cancerígeno utilizando una métrica diferente

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Modeled Cancer Risk

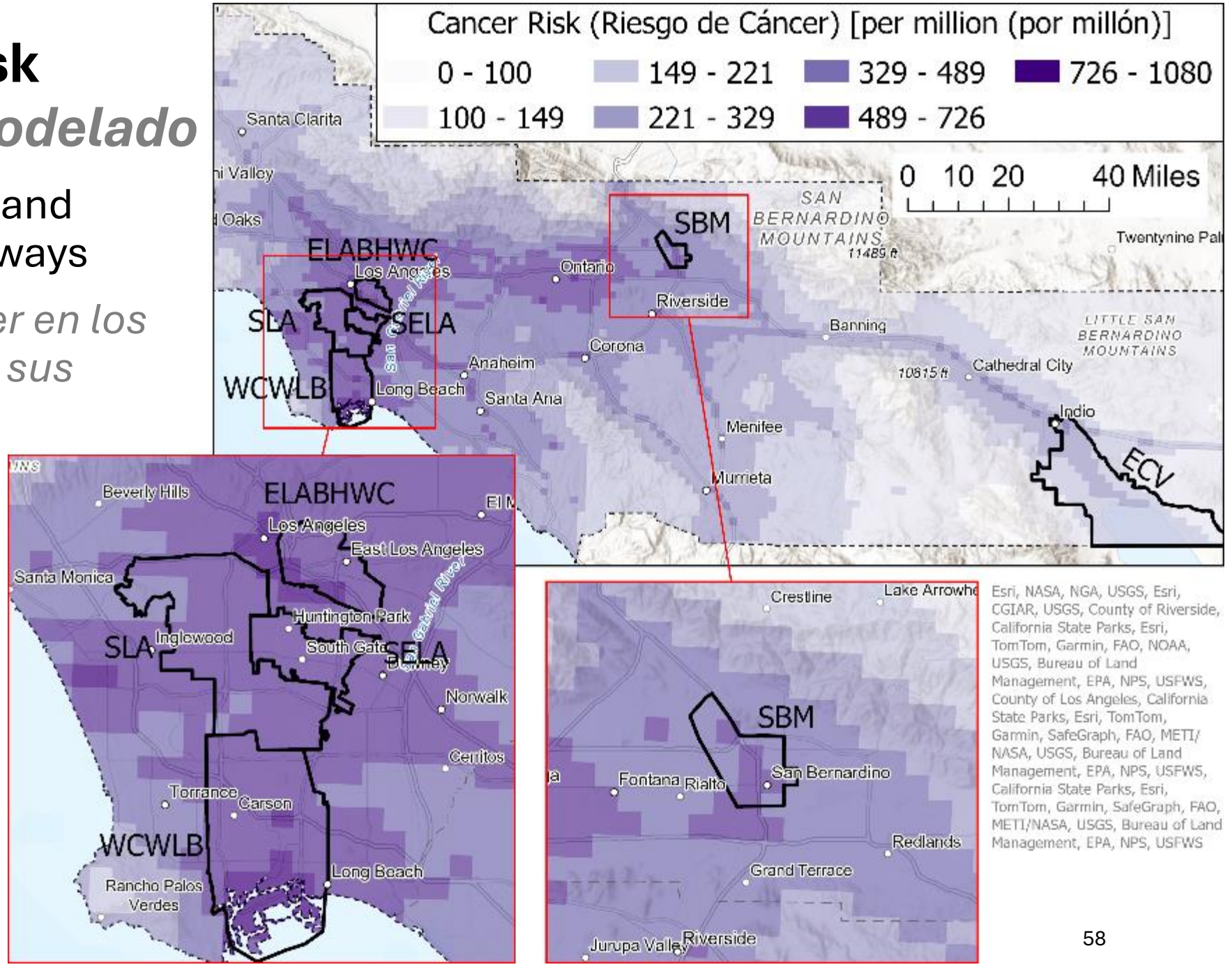
Riesgo de cáncer modelado

- Highest cancer risk in and around ports and freeways

  Mayor riesgo de cáncer en los puertos y autopistas y sus alrededores

- AB617 communities risk is higher than Basin averages

  El riesgo en las comunidades AB617 es más alto que los promedios de la Cuenca

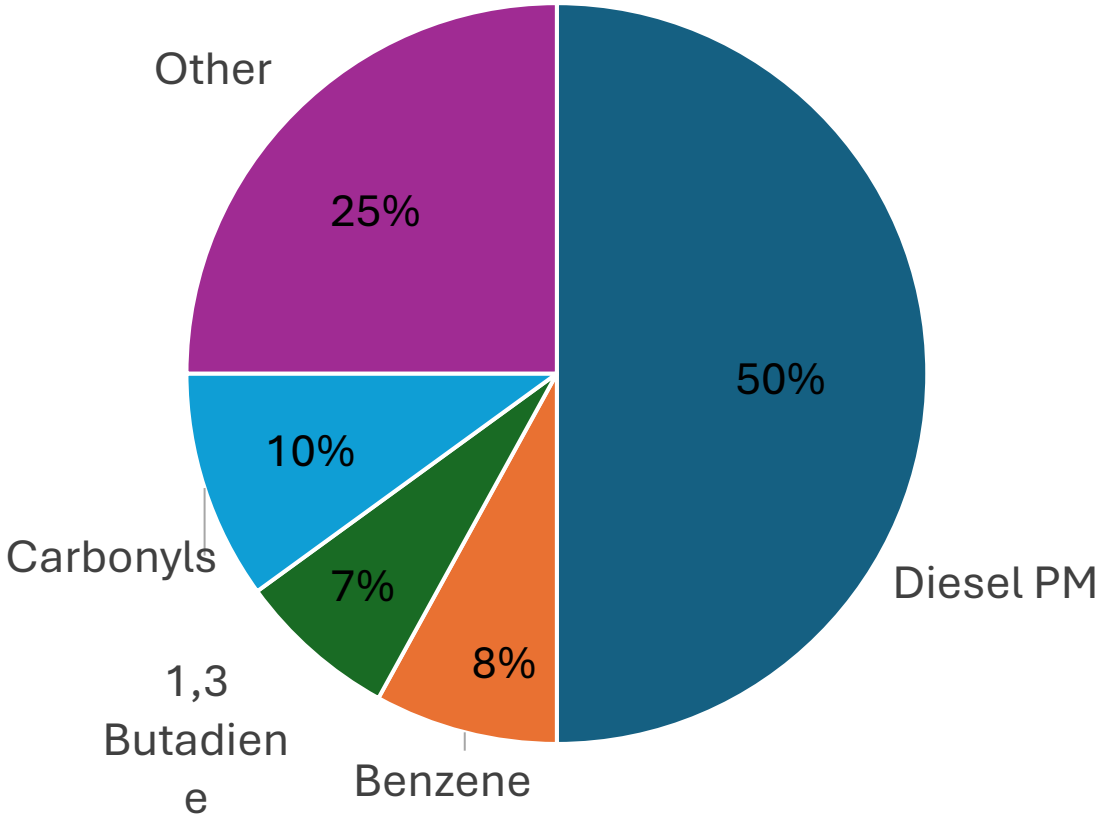


Portion of cancer risk caused by each air toxic

Porción del riesgo de cáncer causada por cada contaminante del aire

- Diesel PM is the largest contributor to air toxics cancer risk in all communities

  La materia particulada (MP) de diésel es el mayor contribuyente al riesgo de cáncer por contaminantes del aire en todas las comunidades



Based on measured concentrations in MATES V

Basado en concentraciones medidas en MATES V

Diesel Particulate Matter (DPM)
La materia particulada de diésel (MPD)

- The solid material in diesel exhaust is known as Diesel Particulate Matter (DPM)

  El material sólido en las emisiones de escape diésel se conoce como materia particulada diésel (MPD)

- Composed of known or suspected cancer-causing substances such as benzene, arsenic, and formaldehyde

  Compuesto por sustancias conocidas o sospechosas de causar cáncer, como el benceno, arsénico y formaldehído

- Sources (*Fuentes*)
  - Emissions from trucks, buses, trains, ships, and other equipment with diesel engines
  - *Emisiones de los camiones, autobuses, trenes, barcos y otros equipos con motores diésel*

From https://www.portoflosangeles.org/

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Modeled Cancer Risk Trend

Tendencia del riesgo de cáncer modelado

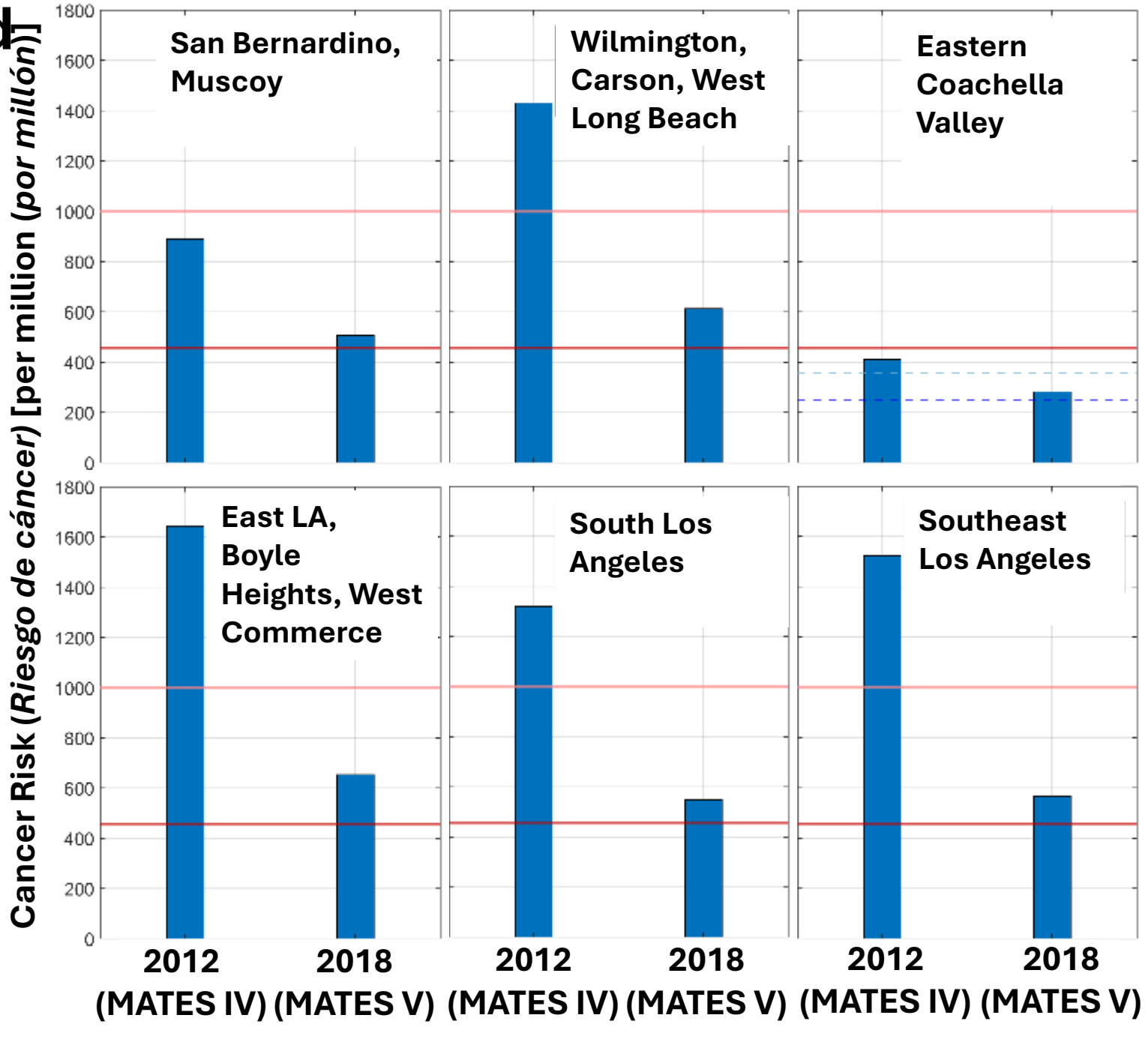
- Average risk has decreased from 2012 to 2018 in all communities*

  *El riesgo promedio ha disminuido desde 2012 hasta 2018 en todas las comunidades**

*Cancer risk decreased 50% on average from 2012 to 2018

El riesgo de cáncer disminuyó en un 50% en promedio desde 2012 hasta 2018

Average Risk in ***Riesgo promedio en***
Basin (*Cuenca*)
2012
2018
Coachella Valley (*Valle de Coachella*)
2012
2018

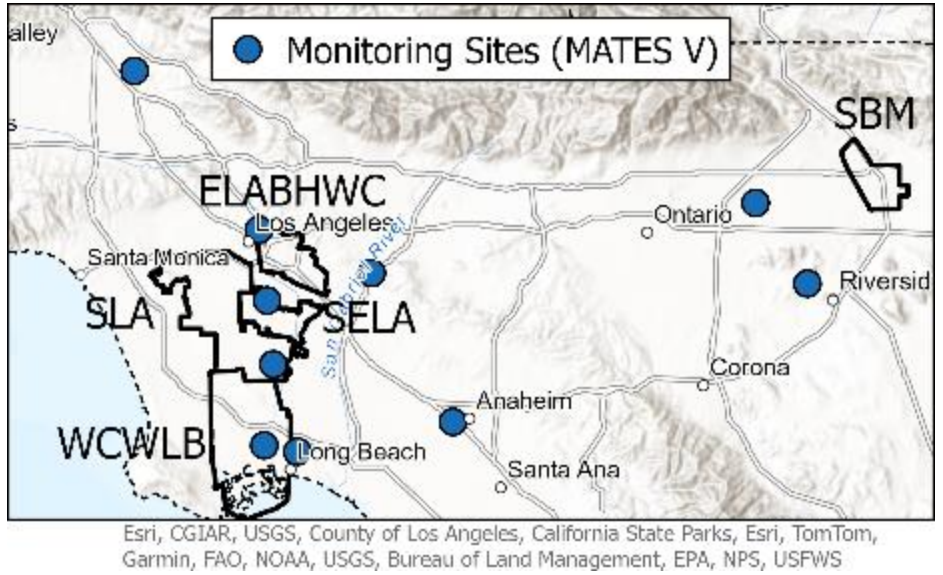


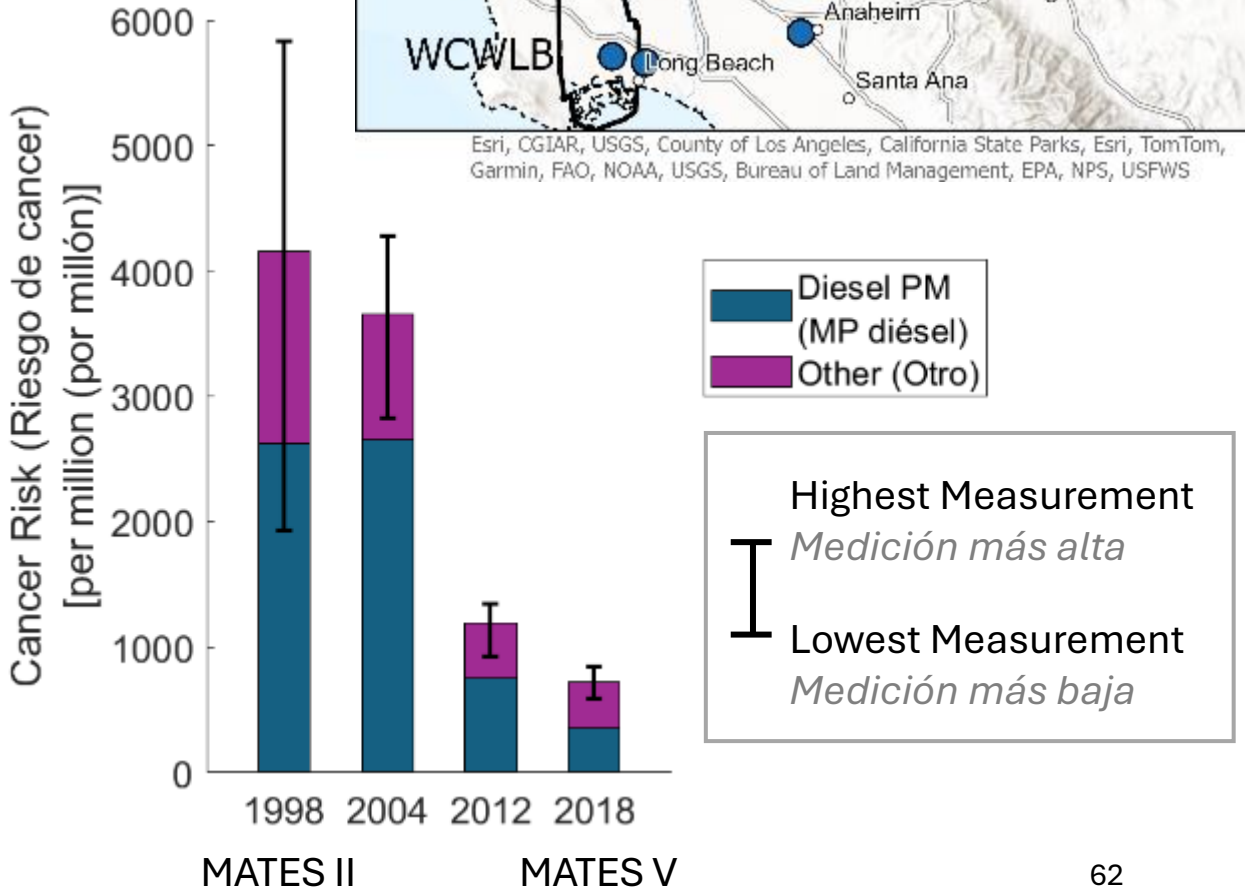
Measured Cancer Risk Has Decreased

El riesgo medido de cáncer ha disminuido

- Cancer risk due to Diesel PM and other air toxics has decreased significantly since 1998 at all monitoring sites

  El riesgo de cáncer debido a MP diésel y otras sustancias tóxicas del aire ha disminuido significativamente desde 1998 en todos los sitios de monitoreo





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What's New for MATES VI?

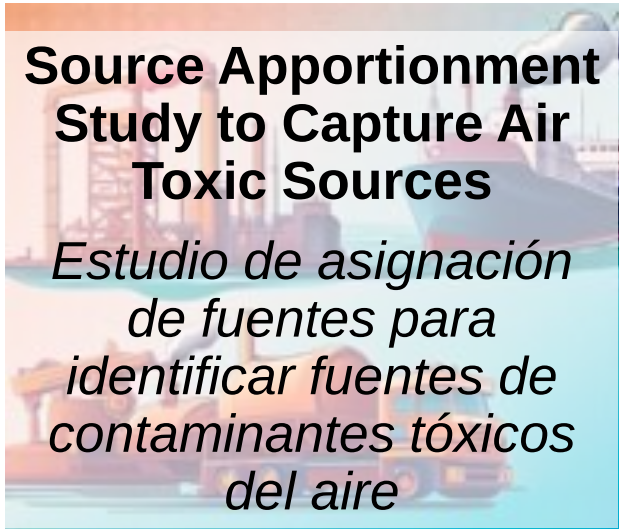
¿Qué hay de nuevo en MATES VI?

Measurements at Two Near-Road Sites

Mediciones en dos sitios cercanos a carreteras

Expansion of Measurements to the Coachella Valley

Ampliación de las mediciones al Valle de Coachella



Source Apportionment Study to Capture Air Toxic Sources

Estudio de asignación de fuentes para identificar fuentes de contaminantes tóxicos del aire

Ethylene Oxide Measurements and Risk Analysis

Mediciones y análisis de riesgo de óxido de etileno

Improvements to Emission Inventory and Air Quality Model

Mejoras en el inventario de emisiones y el Modelo de Calidad del Aire

Initial Evaluation of Brake & Tire Wear Contribution to PM

Evaluación inicial de la contribución del desgaste de frenos y llantas al MP

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MATES Data Visualization – Health Risk Data

Visualización de datos de MATES - Datos de riesgo para la salud

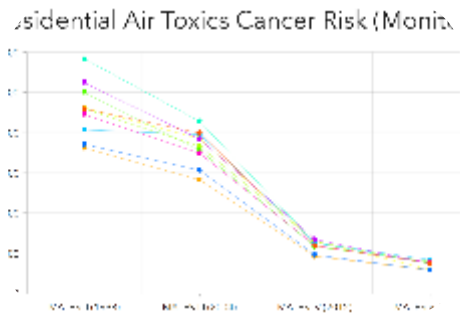
www.aqmd.gov/MATES5map

Cancer Risk

Riesgo de cáncer

Chronic Hazard Index

Índice de peligro crónico

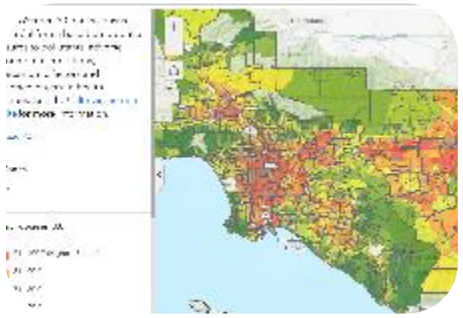


Trends

Tendencias

Criteria Pollutants

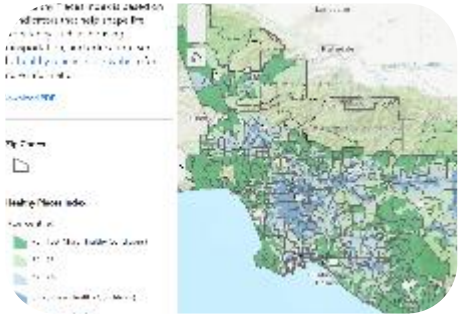
Contaminantes de criterio



CalEnviroScreen

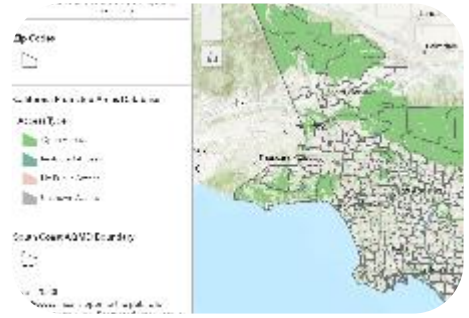
Disadvantaged Communities

Comunidades vulnerables



Healthy Places Index

Índice de lugares saludables



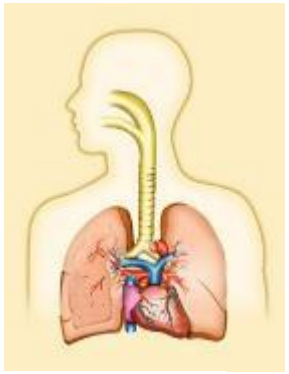
Green Space

Espacio verde

South Coast AQMD

Learn why and How to Protect Yourself from Poor Air Quality

Aprenda por qué y cómo protegerse de la mala calidad del aire



Air Quality Index (AQI) Basics

Fundamentos del Índice de Calidad del Aire (AQI)

Know Your Air Quality

Conozca la calidad de su aire

Know the Health Effects of Air Pollution

Conozca los efectos en la salud de la contaminación del aire

Download the South Coast AQMD App and sign up for alerts

Descargue la aplicación de South Coast AQMD y regístrese para recibir alertas ***www.AirAlerts.org***

Take Action to Protect Yourself

Tome medidas para protegerse

Activity Guides

Guías de actividades

Wildfire Smoke and Ash Safety

Seguridad ante el humo y las cenizas

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Demonstration
Demostración

www.aqmd.gov/MATES5map

Visit the MATES V Map to answer these questions

Visite el Mapa de MATES V para responder a estas preguntas

- How do I check the cancer and non-cancer health risk due to air toxics at my house?

  ¿Cómo puedo consultar el riesgo de cáncer y el riesgo para la salud no cancerígeno por contaminantes del aire en mi casa?

- How do I see trends of air toxics health risks at monitor sites?

  ¿Cómo puedo ver las tendencias de los riesgos para la salud por contaminantes del aire en los sitios de monitoreo?

South Coast AQMD

CALIFORNIA
AIR RESOURCES BOARD

CARB Diesel Mobile Source Enforcement

June 12, 2025

Dr. Crystal Reul-Chen, South Coast Community Enforcement Liaison

crystal.reul-chen@arb.ca.gov

Who has Authority to Regulate Diesel Mobile Sources?

CARB's Diesel Mobile Source Programs

Heavy duty vehicles:

Model year requirements ensure on-road trucks have modern emissions controls

Inspection and maintenance program ensures emission controls are well maintained

Idling restrictions

Off road diesel equipment:

Covers equipment used at railyards, ports, construction sites, warehouses, mines, airports, and more

Transport refrigeration units (TRUs):

Includes TRUs on cold storage trucks and cargo containers

Heavy-Duty Trucks: Truck and Bus Program

Older vehicles without emissions controls create much higher emissions, including diesel particulate matter and NOx.

Truck and Bus Program includes model year requirements to make sure the engines are new enough to be equipped with modern emission control systems:

- In general, heavy-duty diesel engines must be 2010 or newer
- Limited exemptions allow older model year engines, including for emergency use or very low mileage operations

Heavy-Duty Trucks: Heavy-Duty Inspection/Maintenance Program Clean Truck Check (CTC)

CTC ensures emission control systems are operating correctly by requiring:

- Owners to conduct regular testing twice a year
- CARB Enforcement to inspect emission control systems in collaboration with CHP at roadside inspection often using CARB's remote sensing system, known as PEAQS, to identify the highest emitting vehicles for inspection
- Stationary PEAQS to operate 24/7 at various locations screening for high emitting vehicles

CARB

Heavy Duty Trucks: Idling

Trucks can legally idle while parked for 5 minutes everywhere in California.

Where can't trucks idle for more than 5 minutes?

Within 100 feet of these restricted areas, even with a certified Clean Idle engine/sticker:

When can trucks idle for more than 5 minutes?

- ☑ With certified Clean Idle engines
- ☑ In adverse weather conditions
- ☑ Using power take-off devices
- ☑ In traffic
- ☑ During mechanical failure
- ☑ For certain inspections

- Idling limits only apply to diesel trucks over 14,000 pounds GWVR (not pick-up trucks and other smaller trucks)
- Idling requirements only impact whether a vehicle is permitted to remain running while parked
- Idling restrictions do not impact how many vehicles operate in an area, and do not impact whether a vehicle is high emitting

CARB

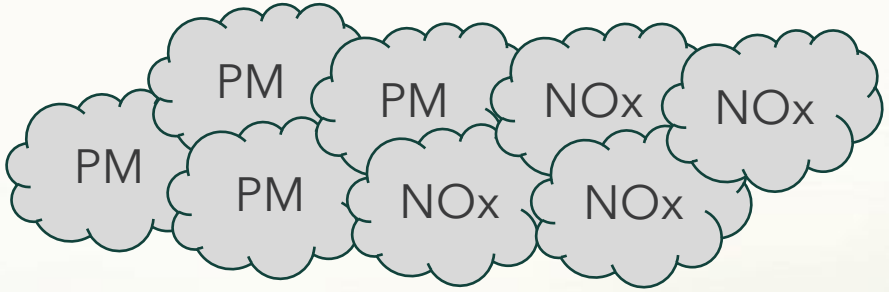
Ways to Track CARB's Enforcement Efforts in Your Community

Enforcement Data Portal

https://ww2.arb.ca.gov/our-work/programs/enforcement-policy-reports/enforcement-data-portal

CARB

"High Emitter" Problem



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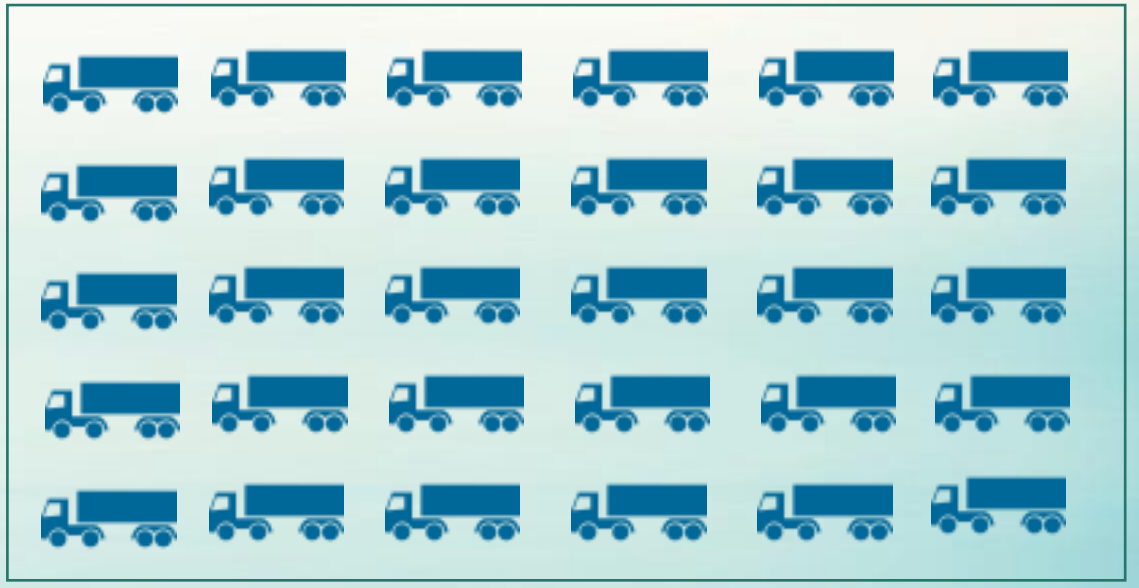


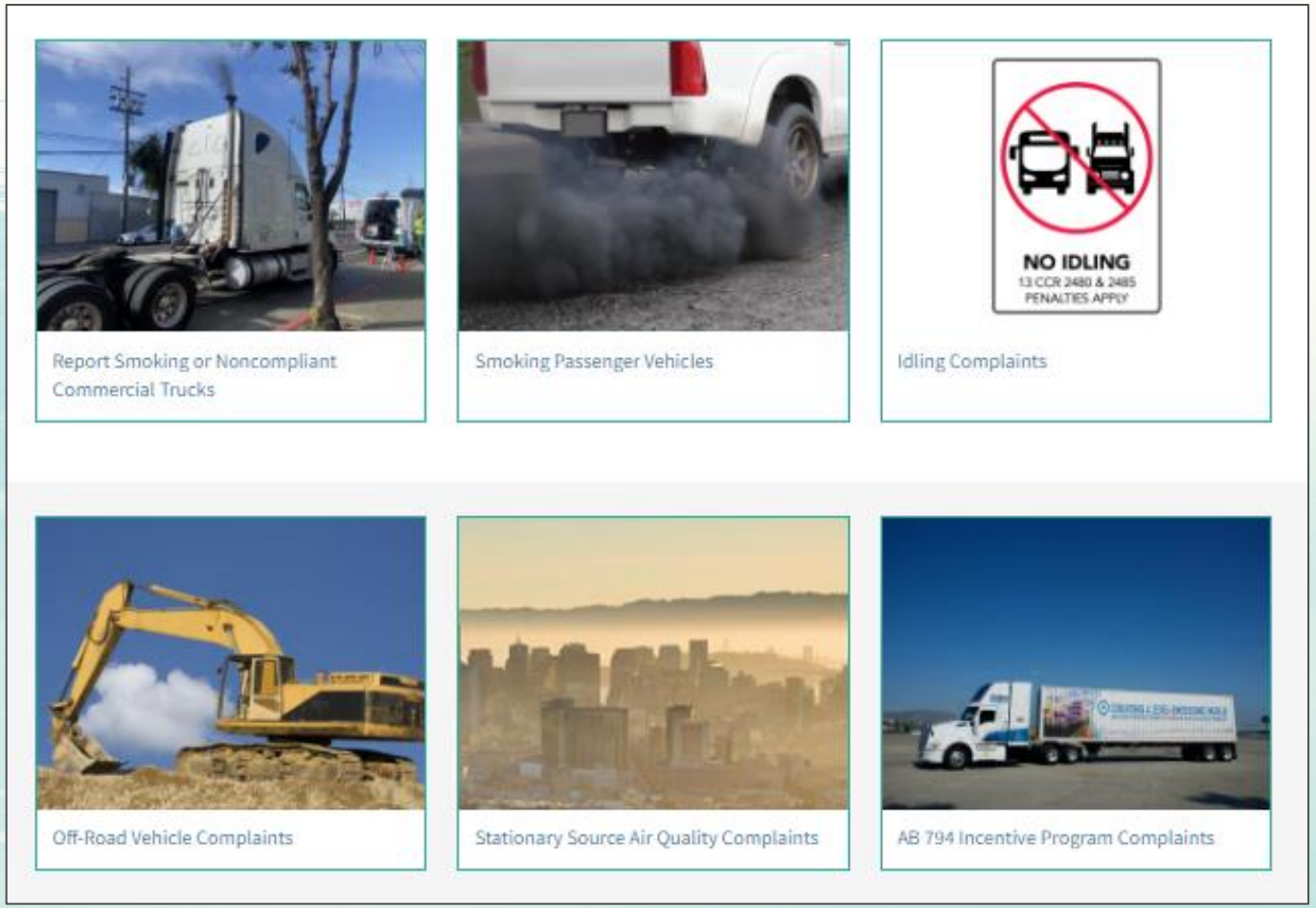
One high emitting vehicle can create as much emissions as 60 - 300 clean trucks! This shows the importance for diesel vehicles to have **modern emission control systems** that are **working properly**

CARB

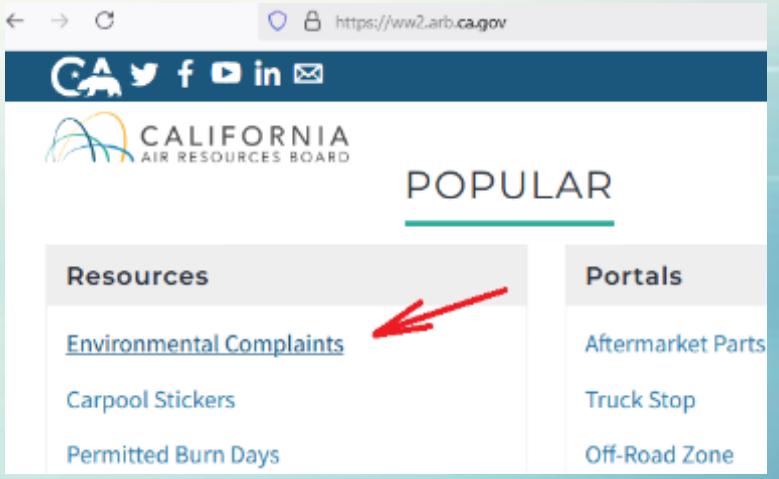
Ban-Weiss, George et al. *Measurement of Black Carbon and Particle Number Emission Factors from Individual Heavy-Duty Trucks.*. ES&T.. 2009.

Preble, Chelsea et al. *Effects of Particle Filters and Selective Catalytic Reduction on Heavy-Duty Diesel Drayage Truck Emissions at the Port of Oakland*.. ES&T.. 2015.

Lodging a Diesel Mobile Source Complaint



This page can also be found from CARB's main website, by scrolling down to Popular -> Resources



https://ww2.arb.ca.gov/environmental-complaints; envirotip@arb.ca.gov or call 1-800-952-5588

CARB

South Coast Air Quality Management District

Heavy-Duty Diesel Vehicle Idling Enforcement

GVWR for Commercial Trucks

Light Duty - Class 1-3
6,000 - 14,000 lbs

Medium Duty - Class 4-6
14,001 - 26,000 lbs

Heavy Duty - Class 7-8
26,001 - 33,000 lbs and over

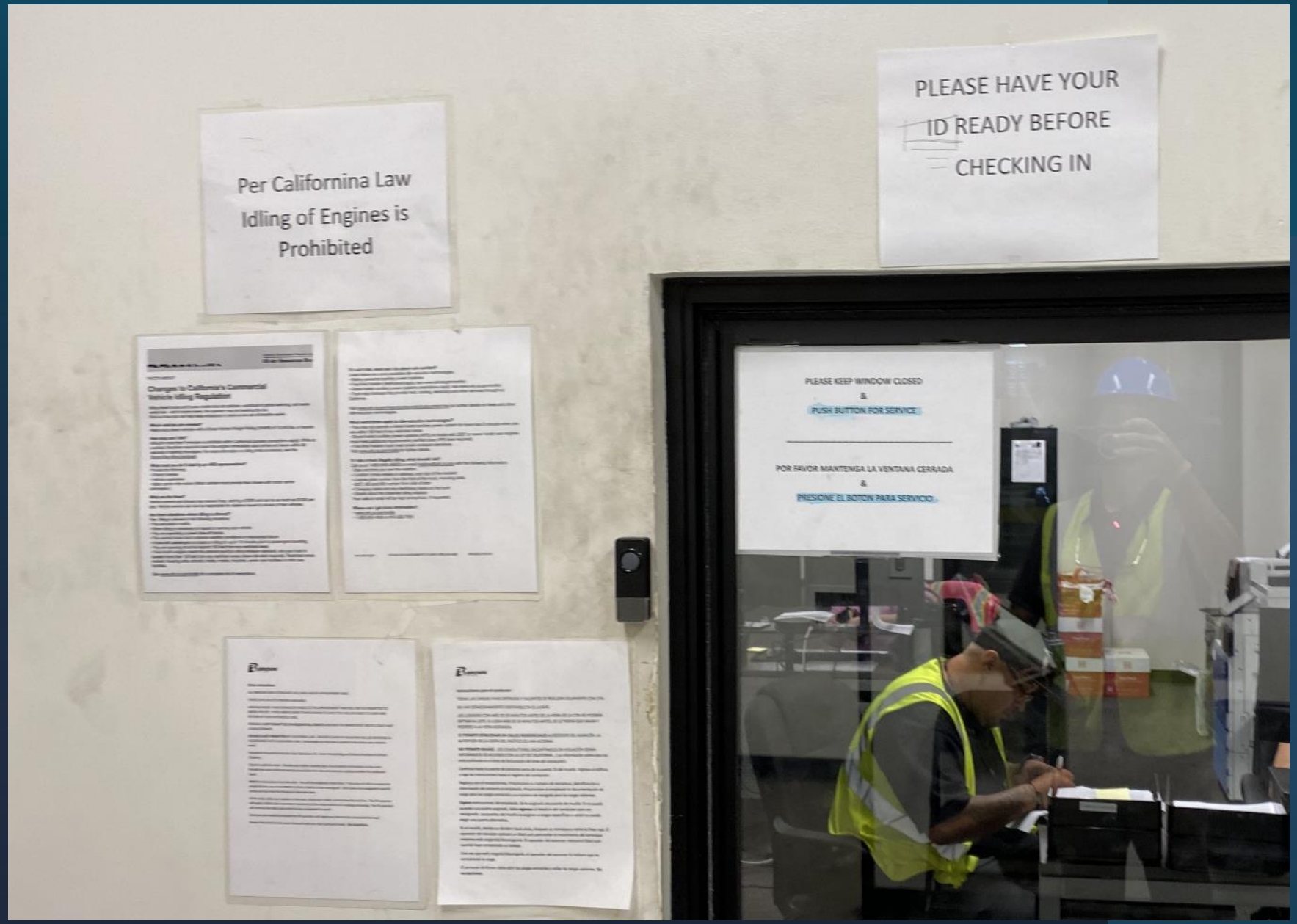

4500
HEAVY DUTY
CERTIFIED
CLEAN IDLE
Cummins
BOB
ALLEN
DANVILLE, KY


CERTIFIED
CLEAN IDLE
PACCAR
PART# Y53-1075
US


LEGEND
L 70590
QX
LOGISTIX
MC 1036799
USDOT 3279824
L7485


SCHNEIDER
48688
SCHNEIDER


NO IDLING
13 CCR 2480 & 2485
PENALTIES APPLY
12NOON TO 2PM
TUESDAY
STREET SWEEPING


Per Californina Law
Idling of Engines is
Prohibited
PLEASE HAVE YOUR
ID READY BEFORE
CHECKING IN
PLEASE KEEP WINDOW CLOSED
&
PUSH BUTTON FOR SERVICE
POR FAVOR MANTENGA LA VENTANA CERRADA
&
PRESIONE EL BOTON PARA SERVICIO

How To File A Complaint

There are 3 ways to file:

Call 1-800-CUT-SMOG
(1-800-288-7644)

Visit www.AQMD.gov/Complaints

Use the South Coast AQMD Mobile App

Download the app here

How To File A Complaint (cont.)

Please have ready:

Date and time of air quality event

Type of air quality event:
odors, dust, asbestos, smoke, etc.

Odor description:
gas, chemical, rotten eggs, etc.

Address or location of suspected source

Questions for our Field Enforcement Staff?

CARB

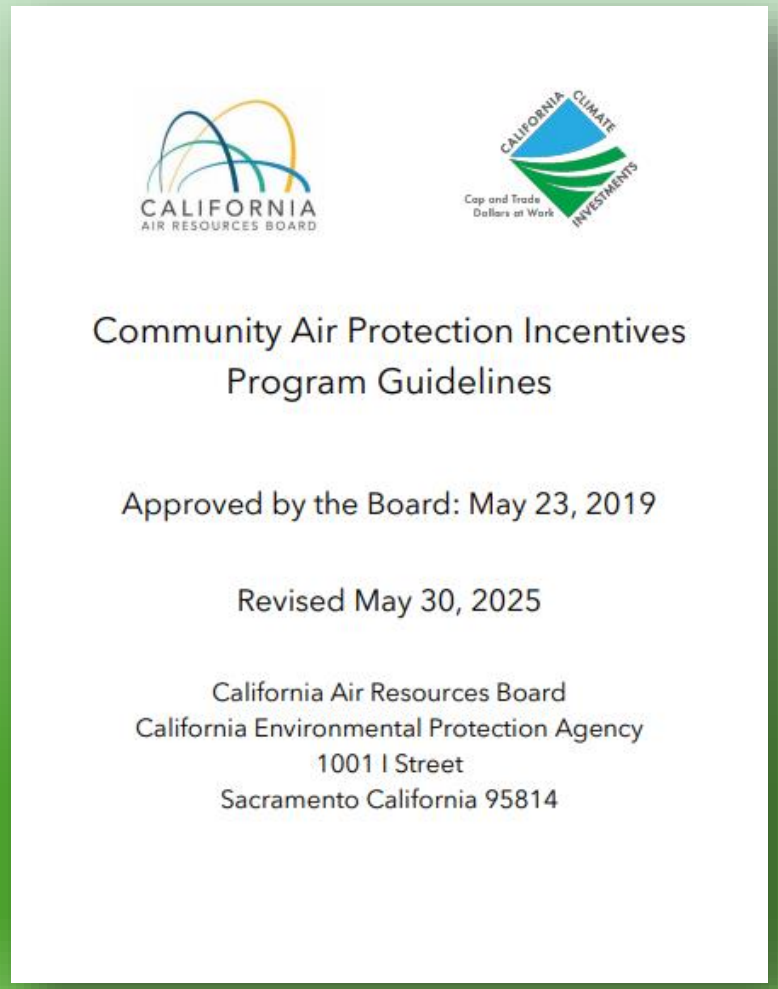
Clean Air Incentive Projects

Diesel Mobile Source Incentives Update

Alyssa Yan
Technology Advancement Office

CAPP INCENTIVE 2025 GUIDELINES

GUÍAS DE INCENTIVOS DE CAP PARA 2024



- Final Draft Provided on May 2025
  - Public Workshop Recording and Presentation
  - CARB CAPP website
- Categories:
  - Mobile Source Projects
  - Zero Emission Infrastructure
  - Community Identified Projects

- Aprobado por La Junta de CARB en Abril de 2024
  - Grabación del taller público y Presentación
- Página web de CARB CAPP
- Categorias:
  - Proyectos de fuentes moviles
  - Infraestructura de cero emisiones

EXAMPLES OF MOBILE SOURCE ELIGIBLE PROGRAMS

EJEMPLOS DE PROGRAMAS ELEGIBLES PARA FUENTES MÓVILES

Carl Moyer Memorial Air Quality Standards Attainment

Cumplimiento de los estándares de calidad del aire en el monumento a Carl Moyer

(Carl Moyer)

Surplus Off-Road Opt-In for NOx

Excedente Opt-in para fuentes de NOx fuera de la carretera

(SOON)

Proposition 1B Goods Movement Emission Reduction

Propuesta 1B Reducción de emisiones de movimiento de mercancías

(Prop 1B)

Truck Loaner Program

Programa de préstamo de camiones

PROJECT CATEGORIES

CATEGORÍAS DE PROYECTOS

Project Category	Examples
On-Road	• Trucks (drayage and other) • Transit buses • Solid waste • Public agency/utility vehicles • Emergency vehicles (e.g., fire apparatus)
Off-Road	• Construction Equipment • Agricultural Equipment • Cargo Handling Equipment • Marine Engine Repower • Locomotive • Ship-Side Shore Power • Portable Equipment • Transportation Refrigeration Units (TRU)
Infrastructure	• Electric chargers • Alternative fueling stations for zero-emission and near zero-emission vehicles

South Coast AQMD

FUNDING AMOUNTS

Project Category	Funding
On-Road	• Up to 80% - Fleet size of 20 or less vehicles *Hasta el 80% - Tamaño de flota de 20 vehículos o menos* • Up to 50% - Fleet size greater than 20 vehicles *Hasta el 50% - Tamaño de flota de 20 vehículos o más*
Off-Road	• Up to 80% - Replacement Hasta el 80% - Reemplazo • Up to 85% - Replacement to Near-Zero and ZE *Hasta el 85% - Reemplazo a casi cero y ZE* • Up to 85% - Engine Repower *Hasta el 85% - Repotenciación del motor*
Infrastructure	• Up to 60% for all projects *Hasta el 60% para todos los proyectos* • Up to 100% for Public School Buses (Battery Charging and Alternative Fuel) *Hasta el 100% para autobús escolar público (Carga de baterías y combustible alternativo)*

SOUTH COAST AQMD PROJECT SELECTION CRITERIA

CRITERIOS DE SELECCIÓN DE PROYECTOS DE SOUTH COAST AQMD: INCENTIVOS CAPP

Mobile source projects domiciled in AB 617 community

- Provide direct emissions reduction benefits
- Contribute to CERP emissions reduction targets
- Trucks operated a majority of time in the community
- Every eligible project within designated AB 617 communities was funded

Other zero emission projects (vehicles and infrastructure)

Other near-zero emission projects, where zero emission is not feasible

Projects in a priority population community and within 5 miles of AB 617 community

Proyectos de fuente móvil domiciliados en la comunidad AB 617*

- Proporcionar beneficios directos de reducción de emissions
- Contribuir a los objetivo de reducción de emisiones de CERP
- Los camiones operados la mayor parte del tiempo en la comunidad
- Cada proyecto dentro de las comunidades designadas AB 617 fue financiado

Otros proyectos de cero emisión (vehículos e infraestructura)

Otros proyectos de emissions cercanas a cero, donde cero emisiones no son factibles

Proyectos en una comunidad de población prioritaria y dentro de 5 millas de una comunidad AB 617

Community Air Protection Program (CAPP)

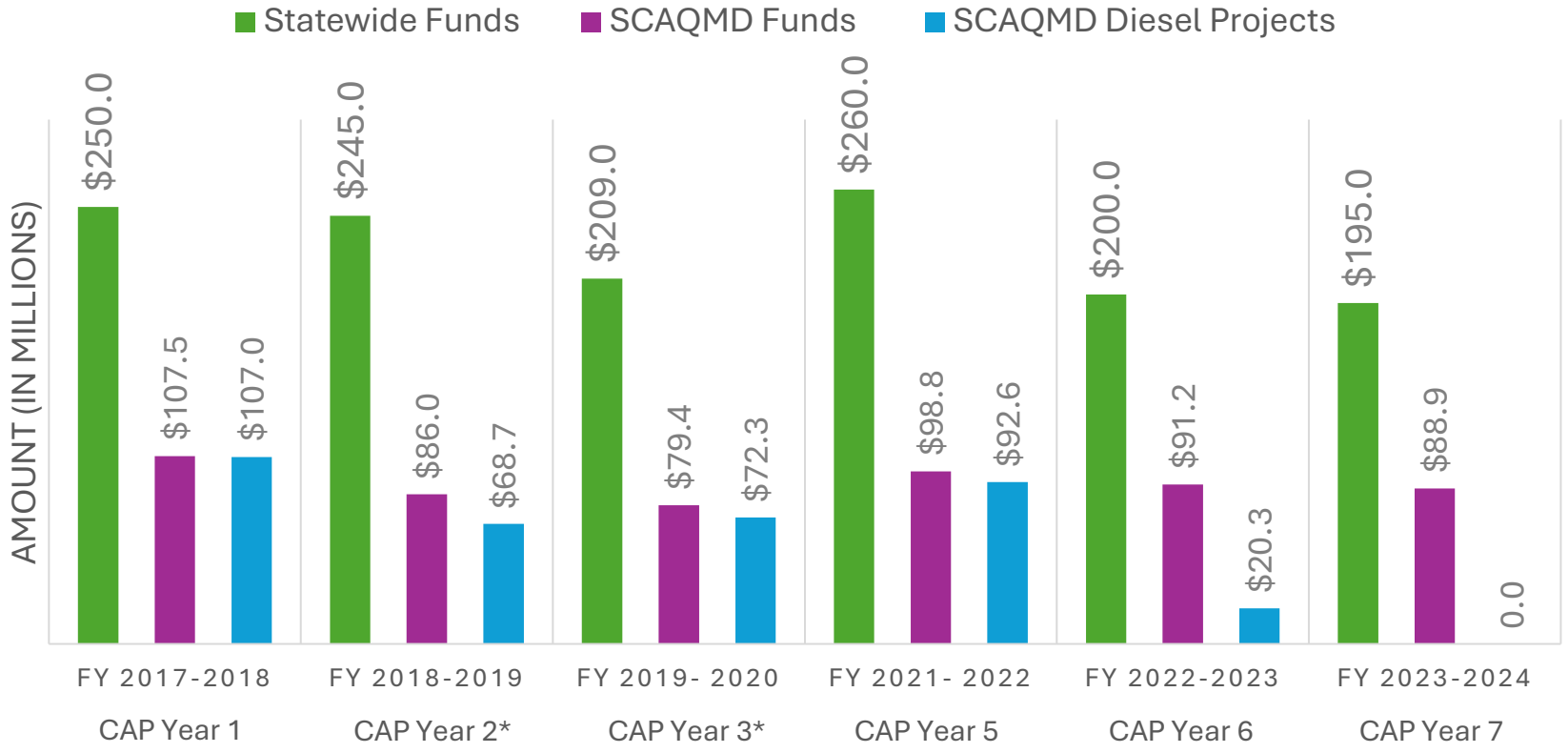
- Support Goals of AB 617
- Approved by Governor as part of the State budget each year

Approximately
$1.26 Billion
In Total Funding

South Coast AQMD Received Approximately
$551.8 Million
In Total Funding

South Coast AQMD Awarded Approximately
$260.5 Million
In Total Funding

HISTORIC ALLOCATION



Total Engines Funded for Replacement/Repower by SCAQMD:

FY 2017-2018 CAP Year 1	FY 2018-2019 CAP Year 2	FY 2019-2020 CAP Year 3	FY 2022-2024 CAP Year 5+6
446	392	80	232

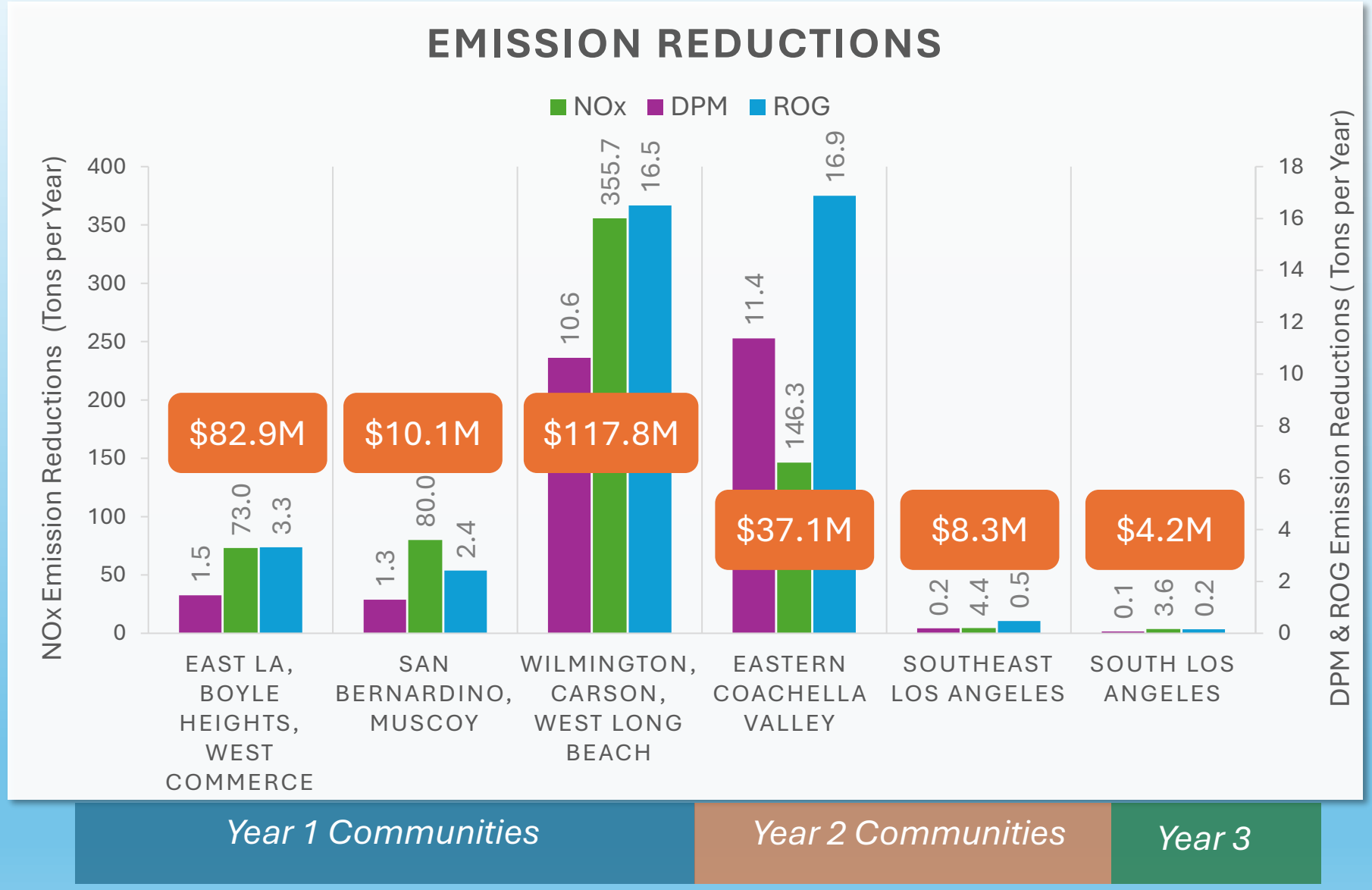
California Climate Investments
Cap and Trade Dollars at Work

*Other Projects awarded under CAP Year 2 & 3 including air filtration, Green Spaces and Truck Loaner Programs are not included in the above table

TOTAL INVESTMENT IN MOBILE SOURCE INCENTIVES

- Approximate Emission Reductions based on CAPP Funding Year*

Approximately
$260.5 Million
In Total Funding



*Future incentive-based emission reductions dependent on program funding

QUESTIONS & DISCUSSION

CONTACT INFORMATION
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South Coast AQMD

Carl Moyer Program 2025

Financial Incentives for Purchasing Zero and Low-Emission Heavy-Duty Vehicles, Engines, and Equipment

Deadline on July 1, 2025, at 1:00 PM

On March 14, 2025 South Coast AQMD will open applications for the Carl Moyer Program, including the SOON (Surplus Off-Road Opt-In for NOx) Provision. Applications will be accepted under Carl Moyer Program Announcement #PA2025-03 and SOON Program Announcement #PA2025-04.

$48.4 Million
Funding Available

CARL MOYER PROGRAM IS CURRENTLY AVAILABLE (*CLOSING JULY 1ST AT 1 PM PST*)

carlmoyer@aqmd.gov

Future Funding

Technology	Typical Cost	Implementation Difficulty	Diesel PM Emission Reductions	NOx Emission Reductions
Class 8 Low NOx Truck (0.02 g/bhp-hr NOx) *Camión bajo en emisiones de NOx de Clase 8 (0.02 g/bhp-hr NOx)*				
Class 8 Zero Emission Truck *Camión de Cero Emisión de Clase 8*				
Zero Emission Transit Bus *Autobús de Tránsito de Cero Emisión*				
Infrastructure			N/A	N/A
Clean Diesel Locomotive *Locomotora de Nivel 4*				
Clean Diesel Off-Road Equipment *Equipo de construcción (que no se utiliza en carreteras) de Nivel 4*				
Zero Emission Off-Road Equipment				
Clean Diesel Marine Vessel				
Clean Diesel Agricultural Equipment				

*Based on average cost-effectiveness from previously awarded inventive projects. Averages are subject to change given new project applications, incentive program criteria and/or funding limits

Prioritization Survey

- Are there any additional projects that you want to suggest?
  - ¿Hay algún proyecto adicional que quieran sugerir?

- Please select up to 3 projects that should be a top priority
  - Por favor seleccione hasta 3 proyectos que deberían ser una máxima prioridad

https://forms.office.com/g/ScGUWDtUSF?origin=lprLink

PUBLIC COMMENT / COMENTARIO PÚBLICO

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*9 Raise Hand / Levantar La Mano
*6 Unmute / Activar El Sonido