

# AB 617 Community Air Protection Program Steering Committee Meeting Draft Agenda

4/23/2019

6:00 pm – 8:00 pm

Perkins Elementary School (1770 Main Street, San Diego, 92113)

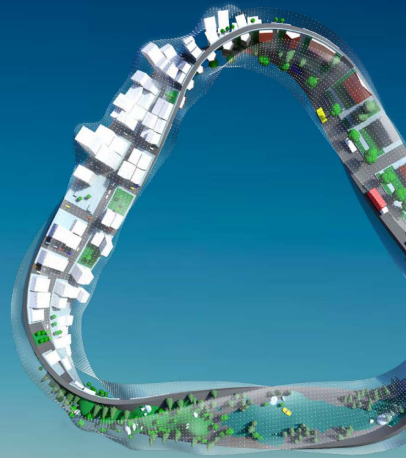
Note: A mobile monitoring vehicle was made available for viewing in the parking lot prior to the commencement of the meeting.

- Opening Remarks
  - Introduce Newest Member: Andrea Lopez-Villafana
  - Approval of 3/21/19 Meeting Notes and tonight's agenda  
Meeting Notes were approved
  - AB-617 Consultation Group Meeting Update
    - ❖ Discussed best practices
      - ✓ Trend is to have facilitator, should we?  
No direct comments.
      - ✓ Get feedback from committee on effectiveness of meeting, next meeting's agenda (hand out provided to get feedback)  
Comments were solicited
      - ✓ CARB's Liaisons to Communities
  - License Reader Update
- Steering committee vote on 2 new members
  - 1 Union representative seat – Sal Abrica (Teamsters)
  - 1 National City government official seat  
Both members were approved by majority vote of the Steering committee
- Public Comments
  - Each speaker is limited to 3 minutes  
There were no public comments during this period
- Update on Mobile Monitoring (Aclima)



Environmental intelligence  
for people and the planet

April 2019



## Agenda

- Hyper-local Mapping Review & County Contract 559672
- Progress
- Initial Findings

ACLIMA CONFIDENTIAL AND PROPRIETARY 2019

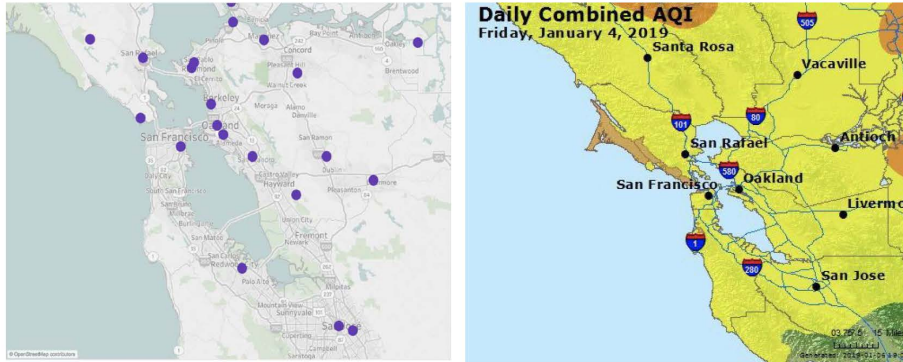


## Hyper Local Mapping

ACLIMA CONFIDENTIAL AND PROPRIETARY 2019



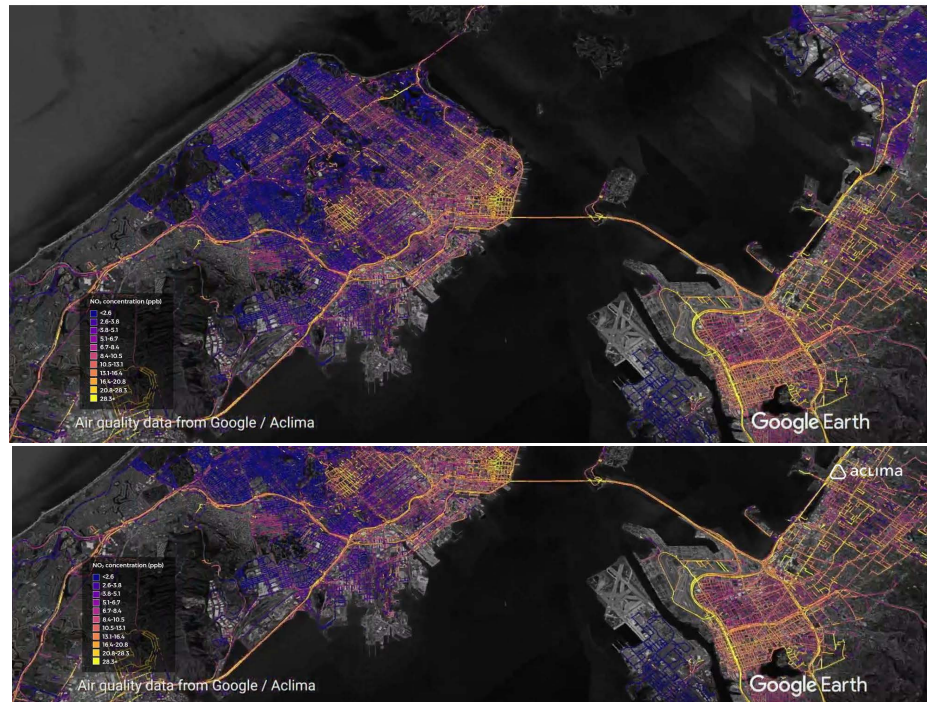
# Today: Sparse Coverage, Low Resolution



ACLIMA CONFIDENTIAL AND PROPRIETARY 2019



# Aclima Future: Hyper-local, high resolution



## Measuring what matters

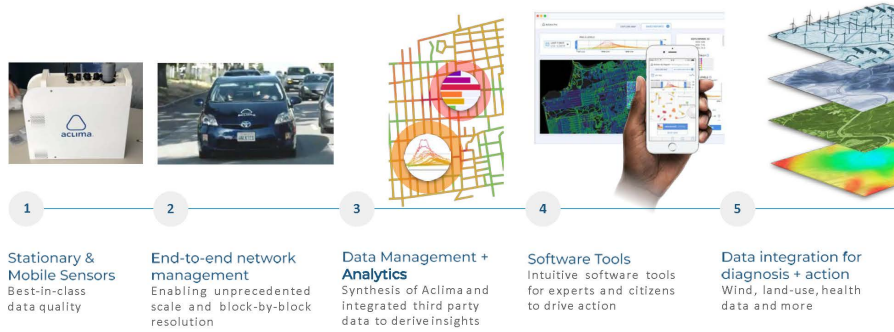
For a multi-pollutant view, we measure critical air pollutants, greenhouse gases, and more:

- Black Carbon
- Carbon Dioxide (CO<sub>2</sub>)
- Carbon Monoxide (CO)
- Methane (CH<sub>4</sub>)\*
- Nitric Oxide (NO)
- Nitric Dioxide (NO<sub>2</sub>)
- Ozone (O<sub>3</sub>)
- Particulate Matter (PM<sub>2.5</sub>)
- Total Volatile Organic Compounds (TVOC)\*
- Meteorology
- +More

ACLIMA CONFIDENTIAL AND PROPRIETARY 2019



## A Unified Platform



ACLIMA CONFIDENTIAL AND PROPRIETARY 2019



## In Partnership with Districts

Empowering rapid and effective AB 617 implementation, maximizing district resources and investment, supporting community engagement and responsiveness, and unlocking new science and innovation.



ACLIMA CONFIDENTIAL AND PROPRIETARY 2019



## In Partnership with Communities

Aclima's participatory development process engages community members directly in technology design.



ACLIMA CONFIDENTIAL AND PROPRIETARY 2019



## Benefits of the Aclima Platform

### Diagnose



IDENTIFY  
HOTSPOTS &  
SOURCES



UNDERSTAND  
GREENHOUSE  
GASES



REVEAL  
EXPOSURE



INTEGRATE  
LAND USE

### and Act



TARGET  
INTERVENTIONS



ENGAGE  
COMMUNITIES



TRACK  
PROGRESS



OPTIMIZE  
INVESTMENT

ACLIMA CONFIDENTIAL AND PROPRIETARY 2019

 aclima.

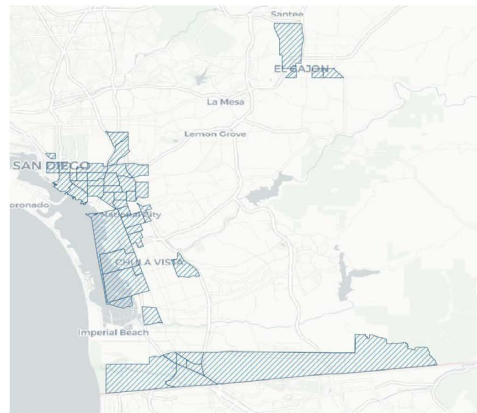
## Progress

ACLIMA CONFIDENTIAL AND PROPRIETARY 2019

 aclima.

### Summary Statistics March 1-30

- Mobile data collection began March 1, 2019
- 8,920 miles of data collection to achieve 20 runs in each of the 6 service areas
- Aclima completed 2,802 miles in March which equates to 31% progress
- As of March 30, each tract has been at least partially driven on average 7.4 times

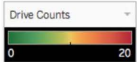
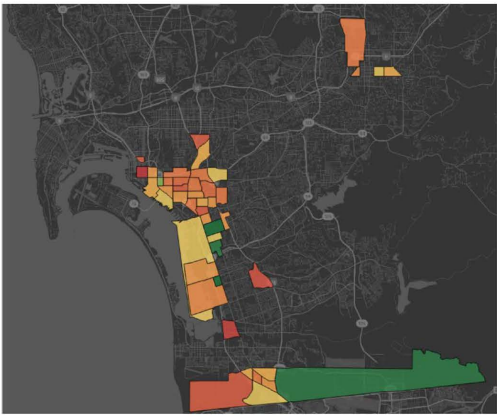


ACLIMA CONFIDENTIAL AND PROPRIETARY 2019

 aclima.

# Current Status

- On track for 20 runs by end of May/first half of June.
- Redder tracts have more complete runs, greener tracts have fewer complete runs.



ACLIMA CONFIDENTIAL AND PROPRIETARY 2019

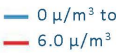
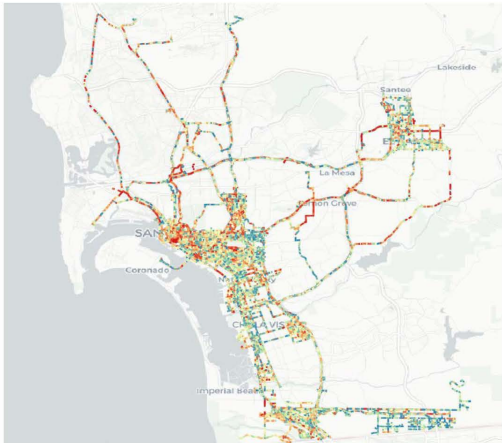


# Initial Findings

ACLIMA CONFIDENTIAL AND PROPRIETARY 2019



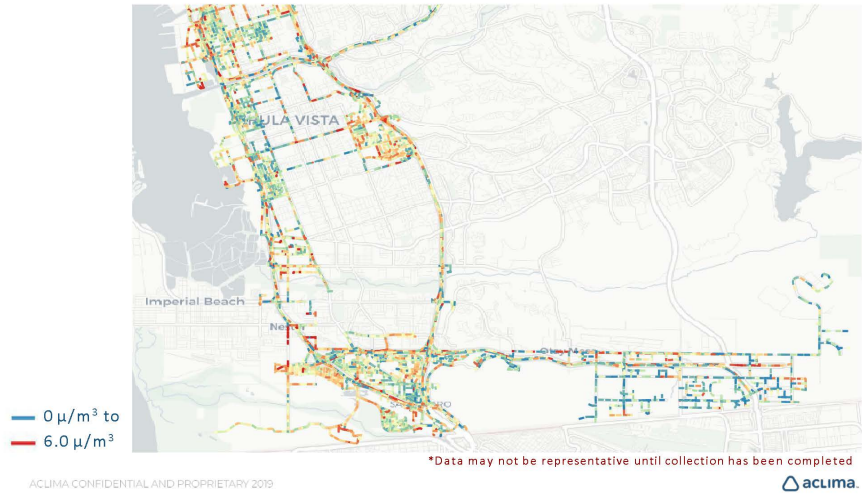
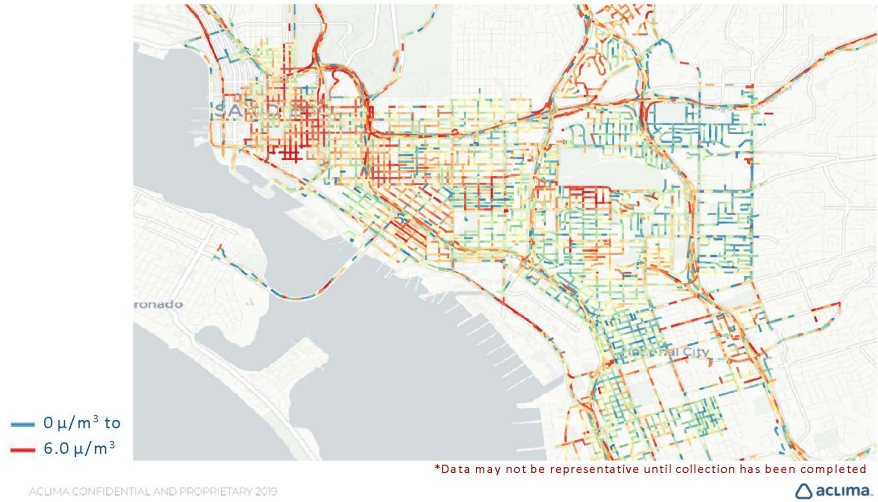
## Preliminary Mean Black Carbon aggregated by road segment



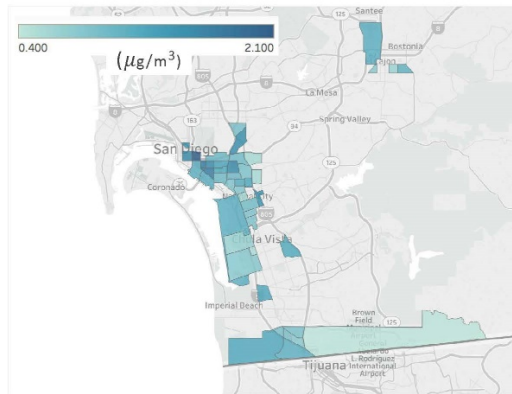
\*Data may not be representative until collection has been completed

ACLIMA CONFIDENTIAL AND PROPRIETARY 2019

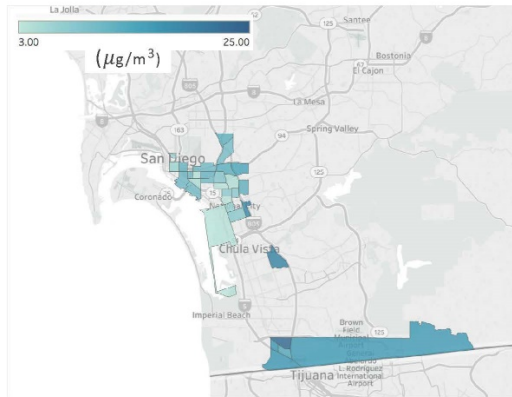




## Preliminary Mean Black Carbon aggregated by census tract



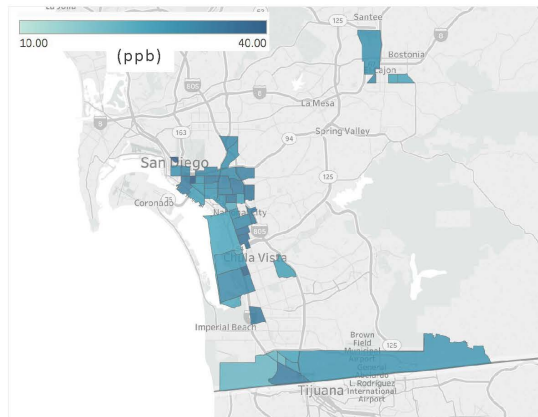
Preliminary  
Mean  
PM 2.5  
aggregated by  
census tract



\*Data may not be representative until collection has been completed  
acuma.

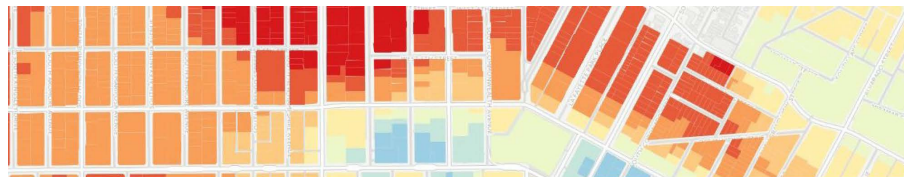
ACLIMA CONFIDENTIAL AND PROPRIETARY 2019

Preliminary  
Mean  
Ozone  
aggregated by  
census tract

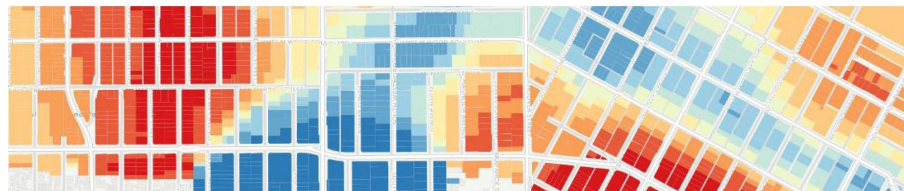


\*Data may not be representative until collection has been completed  
acuma.

ACLIMA CONFIDENTIAL AND PROPRIETARY 2019



Thank You



- Question: To what testing standard is the data provided by this mobile monitoring proved to be accurate?
- Answer: The preliminary data provided by the mobile monitoring is to identify hot spots to better identify areas to conduct District monitoring.
- Question: Regarding the breakdown of the analyzed pollutants for mobile monitoring, can you please provide a breakdown of black carbon, Ozone, CO<sub>2</sub>, PM<sub>2.5</sub>?



- Answer: Black carbon is a granular form of pure carbon that is the primary component of soot from diesel fueled vehicles; Ozone is formed from the reaction of oxygen-containing compounds with other air pollutants in the presence of sunlight; CO<sub>2</sub> is a growing pollutant from vehicles as it is one of the products of combustion. The carbon in the fuel bonds with the oxygen in the air. PM<sub>2.5</sub> is particulate matter that is less than or equal to 2.5 micrometers in diameter. The size of this particulate is a concern as it can penetrate deep within the lungs. As a comparison, a strand of human hair is much larger than 2.5 microns (75 microns).
  - Question: How does the mobile monitoring data consider routes that are based solely on freeway pollutants versus routes that are adjacent to industry?
  - Answer: This data and data statewide will be captured in a CARB database that will be available so comparisons can be made.
  - Question: What times are the cars running?
  - Answer: 24-hrs; in shifts of 8-10 hours
  - Question: The accuracy of the particulate sensor is 20%. How is that considered accurate?
  - Answer: The sensor is collocated with an EPA FRM/FEM instrument. The sensor is then adjusted to read the same as the FRM instrument. 20% is considered by EPA as acceptable.
  - Question: What does FRM mean?
  - Answer: Federal Reference Method.
- Larry Hofreiter (Port of San Diego)
    - Update on Port's Future Emission Reduction Plans

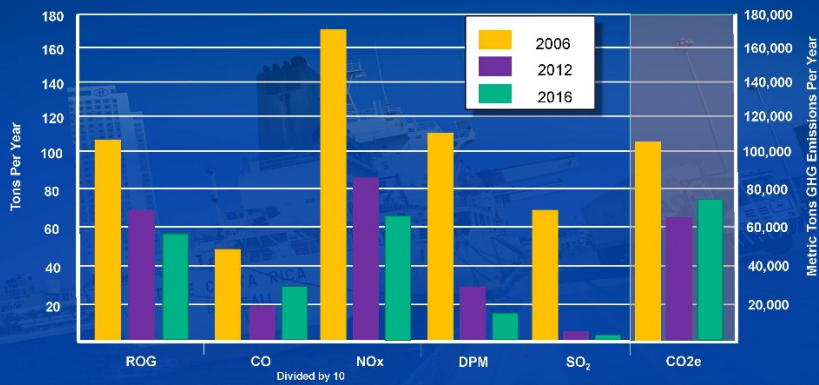




## Maritime Air Emissions Inventory

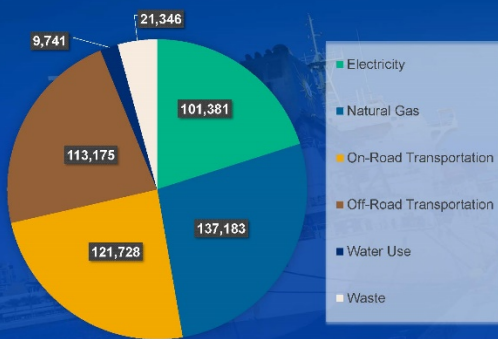
- Tracks emissions dating back to 2006
- Represents the third maritime-related air emissions inventory
- Emissions are estimated based on activities and characteristics of equipment
- Provide comparison and analysis of trends
- Informs the Climate Action Plan

## Comparison of Results



PORT OF SAN DIEGO

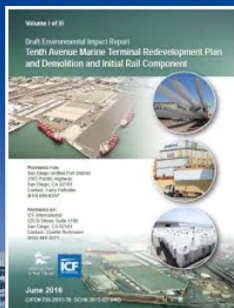
## Port-Wide Greenhouse Gas Emissions



- 47% of Port-wide emissions from transportation-related sources
- 13% of Port-wide emissions from maritime-related sources
- Passenger vehicles are the highest source of transportation emissions

PORT OF SAN DIEGO

## Tenth Avenue Marine Terminal Program EIR



- BMPs for Diesel Equipment during Operation
- Conveyor System for Dry Bulk with 95% control efficiency
- Vessel Speed Reduction Program
- At-Berth Emission Capture and Control System
- Renewable Energy
- Electric Cargo Handling Equipment Upgrades

PORT OF SAN DIEGO

## Achievements to Date

- Shore Power
- Clean Truck Program
- Electrification of drayage trucks, forklifts, and yard tractors
- Electrification of refrigerated containers



## Ecosystem of Funding to Support Freight Emission Reduction



~\$200M



\$23M (AB617 + Carl Moyer)



\$150M  
Application pending



\$17.5M



## Next Steps

- Summer 2019:
  - Focus on Increasing Grant Competitiveness
- Long Term:
  - Coordinate with AB617 Steering Committee



- Question: Is actual monitoring data used to determine data points in the emission inventory?
- Answer: No, the data is based on modeling only.
- Question: How do you apply for these grants and what do they apply to?
- Answer; I'll let Kathy answer that.
- Answer Kathy: Agencies and companies can apply for these grants.
- Question: Do the programs still require projects to scrap old equipment to qualify for incentives.
- Answer Kathy: Yes, old equipment have to be destroyed to qualify for new equipment.

- Presentation on State's Mobile Emission Rules (Liliana Nunez, CARB)



# Highlights on Statewide Strategies Benefitting Communities

Portside Environmental Justice Neighborhoods  
Steering Committee Meeting  
April 23, 2019

## Air Quality Agencies

### Federal



#### U.S. EPA

*Sets/enforces national air quality standards. Regulates interstate transportation.*



Trains



Ships



Planes

### State



#### CARB

*Regulates mobile sources of air pollution, greenhouse gases, and consumer products.*



Cars



Trucks



Buses

### Local



#### Local Air Districts

*Regulate stationary and local sources of air pollution.*



Factories



Refineries



Residential woodstove



## Existing Regulations and Control Measures

### Ports

Commercial Harbor Craft

Shore Power

Ocean-Going Vessels Fuel Rule

Cargo Handling Equipment

Drayage Trucks

### Rail

Cargo Handling Equipment

Drayage Trucks

### Mobile On-Road

Truck and Bus Regulation

Heavy-Duty Vehicle Inspection Program

Truck Idling Control Measure

### Mobile Off-Road

Transport Refrigeration Unit

Off-Road Diesel Vehicle Regulation

Small Off-Road Engines

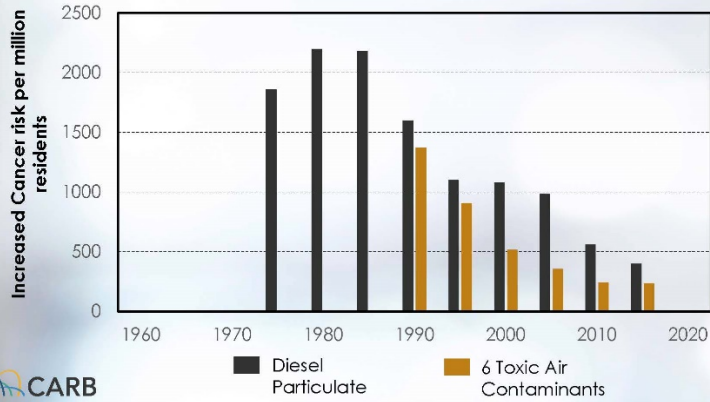
### Other Toxics

Chrome Plating Control Measure

Composite Wood Control Measure



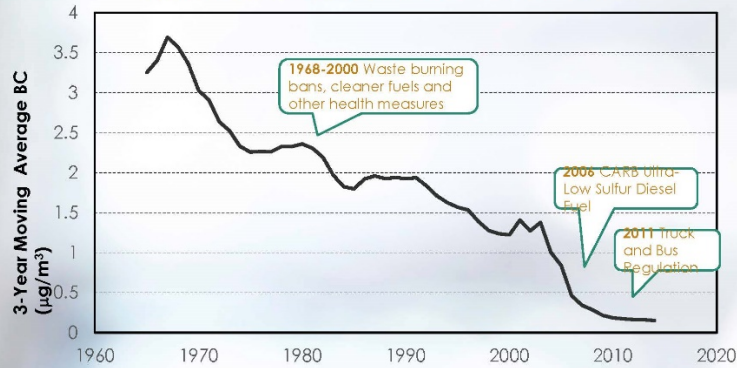
## Statewide Toxic Health Risks



CARB

4

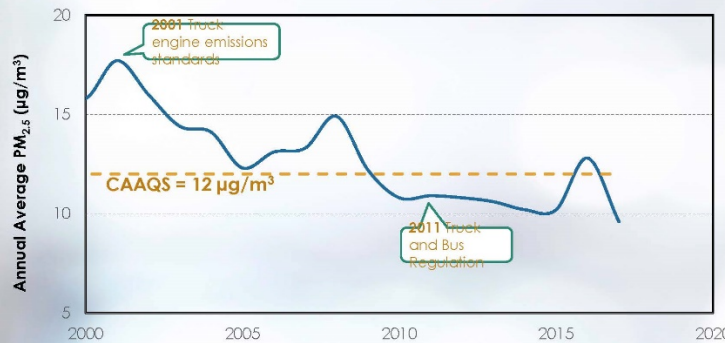
## Statewide Black Carbon



CARB

5

## Fine Particles (PM<sub>2.5</sub>) in San Diego County



CARB

CARB ADAM Air Quality Database

# CARB EMISSIONS REDUCTION STRATEGIES



7

## Recent Plans

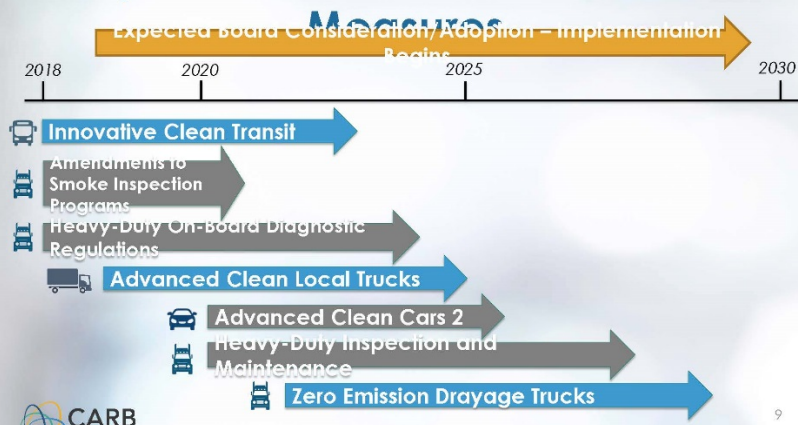


All dates for proposed rules are tentative and subject to change



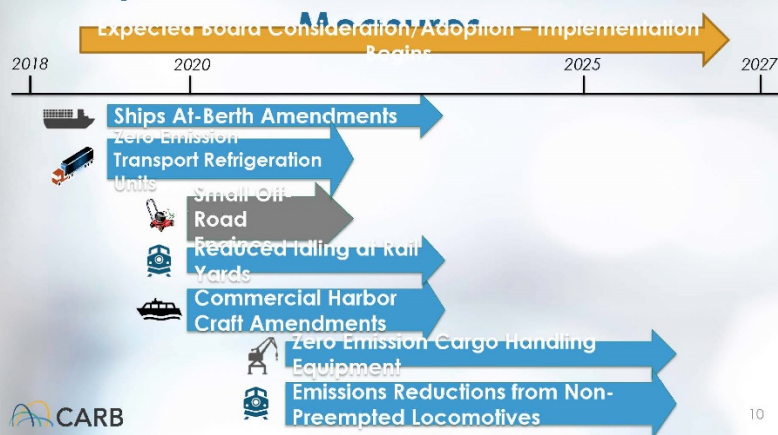
8

## Proposed On-Road Mobile Source Measures



9

# Proposed Off-Road Mobile Source

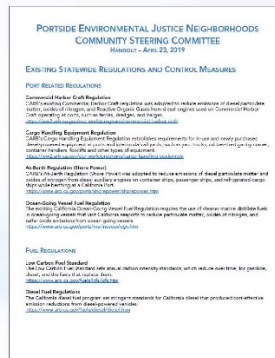


## Additional Proposed Control Measures

- Chrome Plating Control Measure Amendments
- Composite Wood Products Control Measure Amendments
- Commercial Cooking Suggested Control Measure

Expected Board Consideration Date= TBD

## Handout



## Contact Us

Liliana Nuñez  
Office of Community Air Protection, CARB  
[Liliana.Nunez@arb.ca.gov](mailto:Liliana.Nunez@arb.ca.gov) or 626-350-6561

Melissa Niederreiter, Community Liaison  
Office of Community Air Protection, CARB  
[Melissa.Niederreiter@arb.ca.gov](mailto:Melissa.Niederreiter@arb.ca.gov) or 916-323-



- APCD Update on AB-617 Progress

- Monitoring Update – David Shina, Andrew Langley

Explanation of the different monitoring equipment that takes up a small footprint – combined units take up a parking lot sized space.

Question: How loud are these units

Answer: The units are on right now, which are quieter than the refrigerator in the meeting room. If it is identified that the placement of these units will cause noise pollution to nearby residents, a barrier will be constructed to reduce noise.

Question: What will be the sampling frequency?

Answer: For metals; every six days. For Elemental Carbon; every three days.

- Emission Inventory Update – Omar Rana (ran out of time)
- Inspection Update – Mahiany Luther (ran out of time)

- Closing Remarks

- Discuss, Collect committee members feedback forms

Next scheduled meeting is 5/21/19 at Perkins Elementary School Cafeteria (1770 Main Street, San Diego, 92113 from 6:00 pm – 8:00 pm