

# Community Air Initiatives

## San Bernardino, Muscoy Community Steering Committee Meeting #1

*Thursday, November 8, 2018  
San Bernardino, CA*



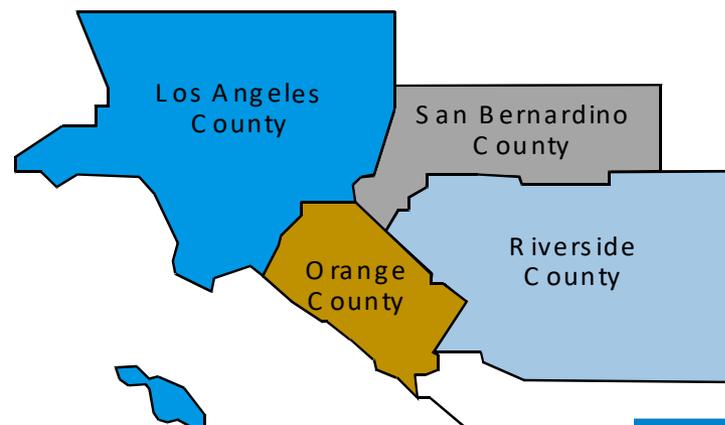


# Who is the SCAQMD?

**Regional Government Agency Responsible for Protecting Our Residents from the Health Effects of Air Pollution**

What we do

- Develop **Air Quality Management Plan**
- Adopt air quality **rules and regulations**
- Issue **permits**
- Conduct periodic **inspections** and respond to **air quality complaints**
- **Enforce District rules** through inspections and complaints
- Issue **violations** and assess **penalties** as appropriate
- Develop and deploy **clean technology**
- Conduct **air monitoring**
- **Engage** with all stakeholders through **public outreach**



# Relevant Agencies and Authorities

## National

U.S. Environmental Protection Agency



California Water Resources Control Board

California Occupational Safety and Health Administration



## State

California Air Resources Board



Department of Toxic Substances Control



The Office of Environmental Health Hazard Assessment



## Regional / Local

South Coast Air Quality Management District



San Bernardino County Department of Public Health



Southern California Association of Governments



City of San Bernardino

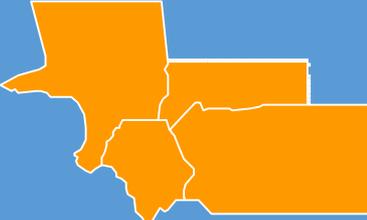


**Land use authority**

County of San Bernardino



# Air Quality: Regulatory Structure

<i>U.S. Environmental Protection Agency</i>	<i>California Air Resources Board</i>	<i>Local Air Districts (SCAQMD)</i>
<ul style="list-style-type: none"><li>• Adopts Health-Based National Air Quality Standards</li><li>• Regulates Interstate Sources (Trucks, Trains, etc.)</li></ul> 	<ul style="list-style-type: none"><li>• Adopts Health-Based State Air Quality Standards</li><li>• Regulates Cars, Trucks, Fuels, Consumer Products</li></ul> 	<ul style="list-style-type: none"><li>• Monitor Air Quality; Issue Health Alerts</li><li>• Prepare Clean Air Plans</li><li>• Regulate over 27,000 Stationary Sources</li><li>• Issue over 10,000 permits annually</li></ul> 

# Key elements of AB 617

**Community  
Air  
Monitoring**

**Community  
Emission  
Reduction  
Plans**

Community  
Steering  
Committee

**Easier  
Access to  
Emissions  
Data**

**Community  
centered**

**Best  
Emission  
Controls**

**Clean  
Technology  
Investments**

# Community Steering Committee

## Purpose

Identify and prioritize air pollution issues

Guide strategies for:

- Community air monitoring
- Emissions reduction program

Provide input on community definition

Develop approaches and assist with community outreach

Track progress

## Who should/will be part of it?



Active residents and community leaders



Local business owners or workers



Community organizations

Others

Agencies, e.g. Local land use, public health, etc.

# Community Air Initiatives Program Structure and Timeline



## Identify Community Air Quality Concerns

- Committee Input
- Technical Data

Oct 2018-  
Jan 2019



## Prioritize Sources of Emissions and Areas with High Exposure Concerns

- Target areas/pollutants for air monitoring
- Target sources/places for emissions or exposure reduction

Jan 2019-  
Mar 2019



## Develop Strategies to Reduce Emissions and Exposures and Metrics for Tracking Progress

- Community Air Monitoring Plan
- Community Emissions Reduction Plan

Mar 2019-  
Oct 2019

# CSC Role and Meeting Expectations

## Role of the Committee:

- Advisory Role
- Emphasis on Building Consensus
- Open to the Public

## Meeting Expectations:

- Primary or Alternate member – only one participates on the CSC at each meeting
- Raise tent cards if you want to speak
- Stay on topic
- Staff will be available to discuss other questions after meeting

# Air Pollution: Background



# Key types of air pollution



Greenhouse Gases



Criteria Pollutants



Toxic Air Contaminants

Global

Regional

Local

## Examples:

- Carbon Dioxide (CO<sub>2</sub>)
- Methane (CH<sub>4</sub>)
- Chlorofluorocarbons (CFCs)
- Hydrofluorocarbons (HFCs)
- Nitrous Oxide (N<sub>2</sub>O)

## Examples:

- Carbon Monoxide (CO)
- Lead (Pb)
- Nitrogen Dioxide (NO<sub>2</sub>)
- **Particulate Matter (PM)**
- **Ozone (O<sub>3</sub>)**
- Sulfur Dioxide (SO<sub>2</sub>)

## Examples:

- Diesel PM
- Arsenic
- Hexavalent Chromium
- Benzene
- Nickel
- Mercury
- ... dozens more

# How we tackle air pollution “Air Quality Planning”

1



Use data:  
- Monitoring  
- Inventory  
- Modeling

2



Develop plans  
and strategies

3



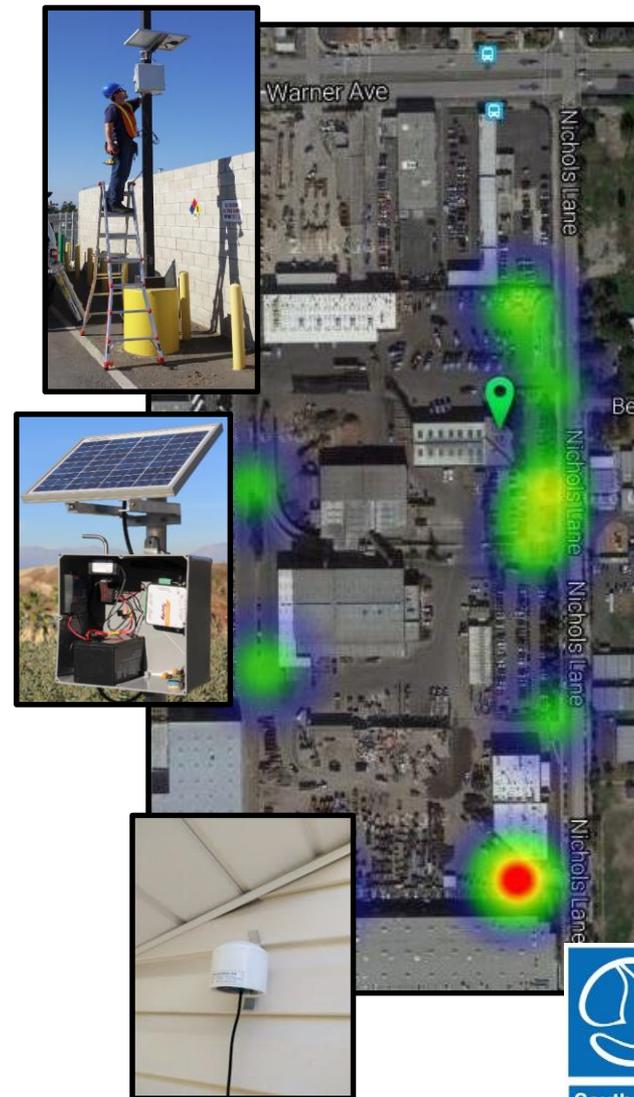
Put plans into  
action and  
Track  
progress

# Monitoring efforts

## Regulatory monitoring stations



## Low-Cost Sensor Networks



## Mobile Laboratories



# What actions can we take?

- **Rules & Enforcement**
- **Enforceable agreements**
- **Incentive funding** for Cleaner Technologies





*Los Angeles*

*San Bernardino*

# Existing Air Pollution Data

*Riverside*

*Orange*

**San Bernardino and Muscoy  
Community**



# Air Pollution Sources in the San Bernardino and Muscoy Community



What pollutants are coming from these sources?  
How much from each source?



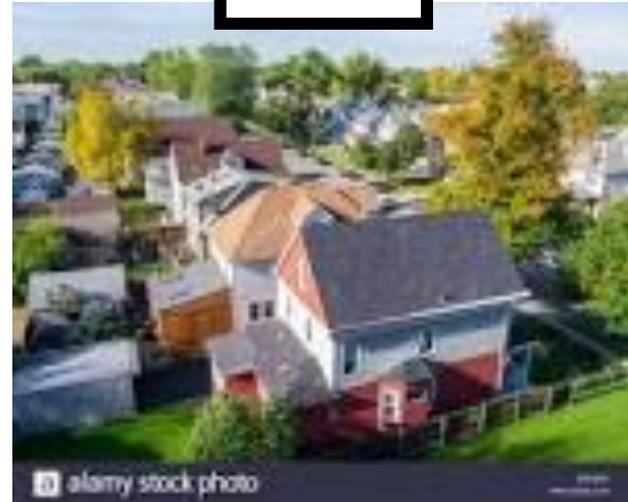
Helps us identify what pollution sources need to be addressed through this program

# Emission Source Categories

Point



Area



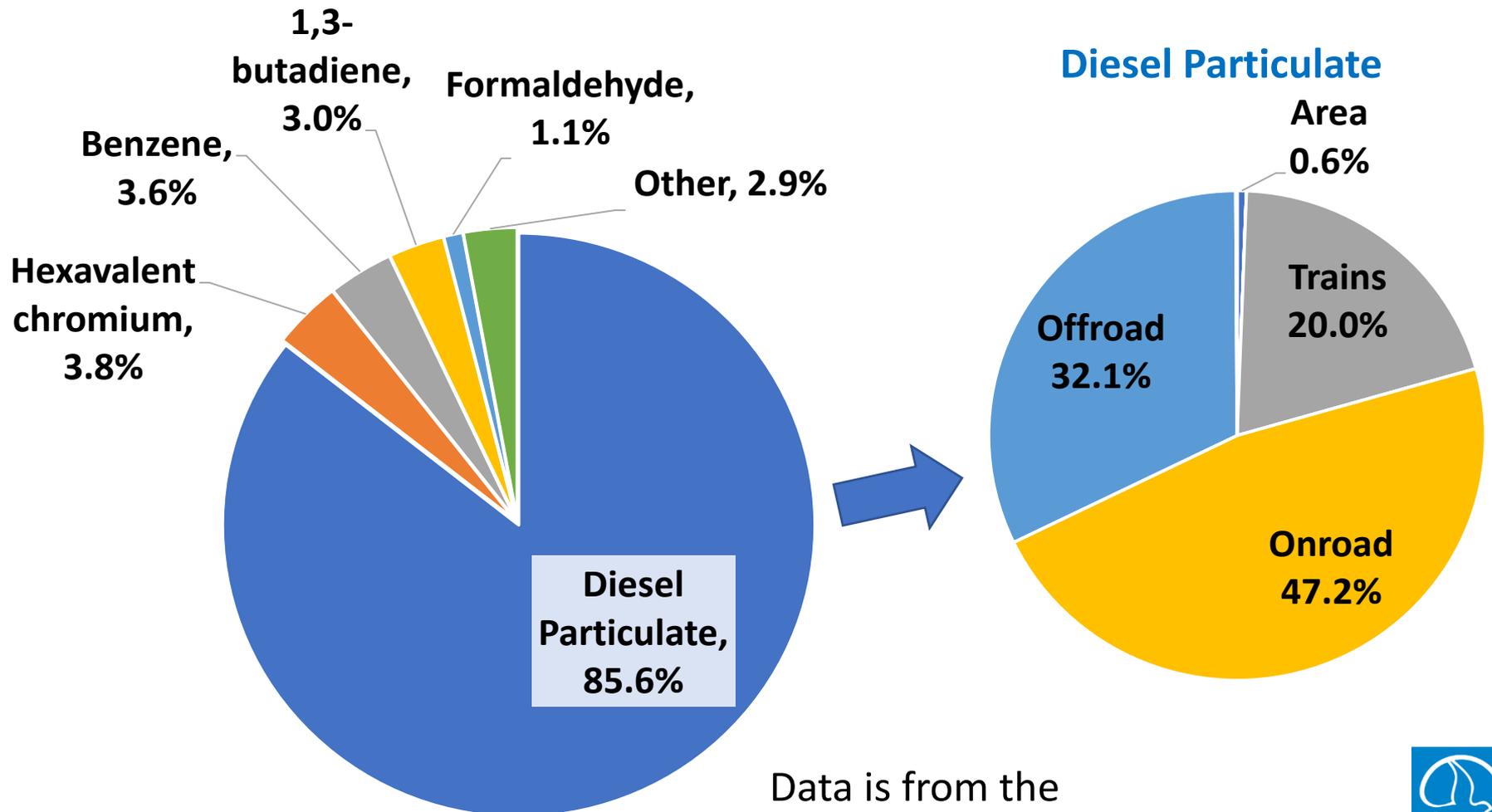
On-road Mobile



Off-road Mobile



# What are the Sources of Air Toxic Pollutants?



San Bernardino and Muscoy Community

Data is from the  
Multiple Air Toxics Exposure  
Study IV (MATES IV)

# Summary of the Air Pollution Emission Profiles by Major Source Category

- Air toxics cancer risk is mostly driven by Diesel PM from both on-road and off-road mobile sources
  - VOC and metal emissions from all types of sources are also important (including stationary sources)
- There is a lot of existing data that can be used as the basis for plan development
- We are working on new data, modeling and monitoring, which will inform planning efforts when available

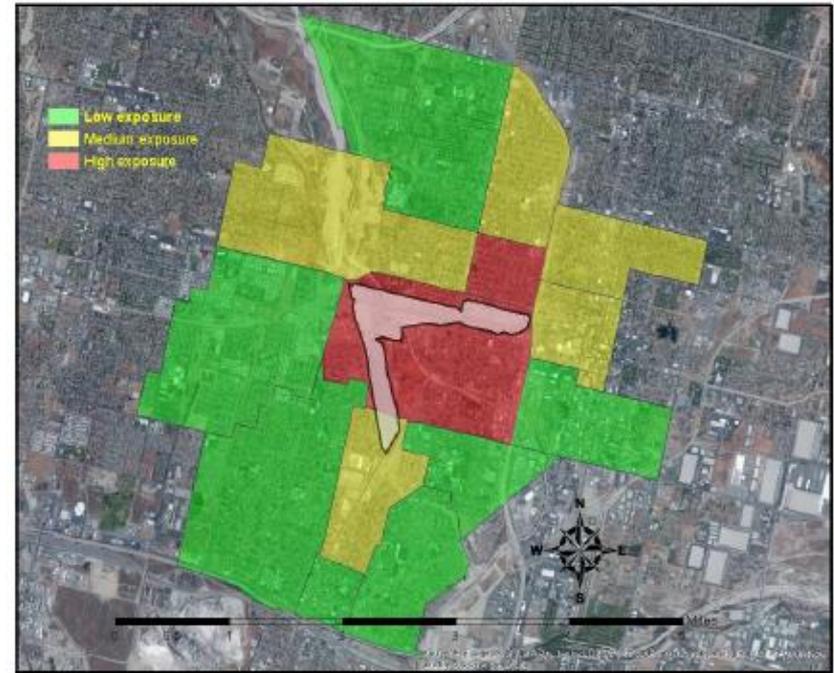
# ENRRICH study

*Environmental Railyard Research  
Impacting Community Health*

**Purpose:** Public Health  
Assessment of residents near  
the San Bernardino Railyard

## Looked at:

- Children's health (e.g. asthma)
- Adult health (e.g. cancers)
- Perceptions of air quality and rail yard



LOMA LINDA  
UNIVERSITY



# Air Monitoring near BNSF Rail Yard (MATES IV)

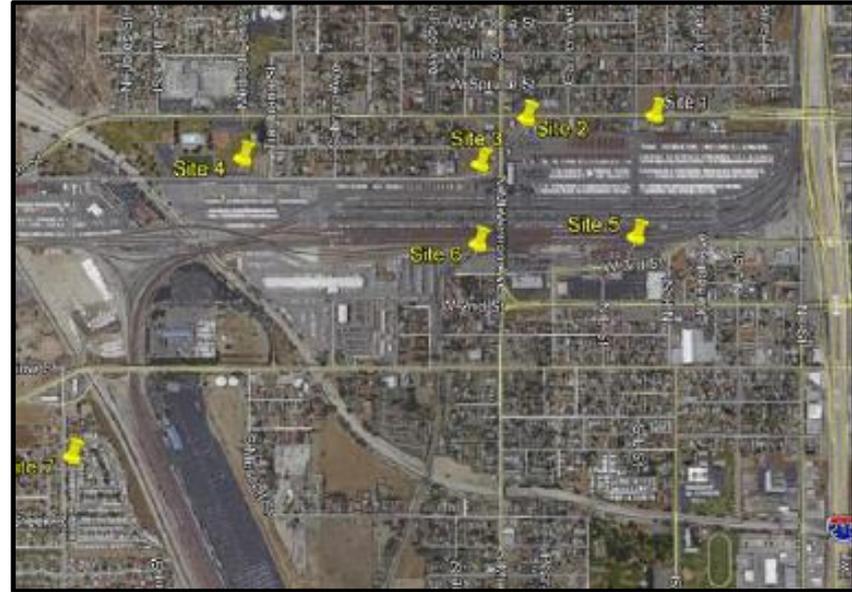
## Reasoning:

- Black Carbon is an indicator for diesel pollution in urban areas.
- Ultrafine particles come from combustion (e.g. engines)

## Findings

- Black Carbon and Ultrafine particles concentrations were **elevated** compared to typical levels in the region

Note that this was a “fenceline” study, so there were no measurements collected in the residential areas.



# Community Mapping

**San Bernardino, Muscoy Community**



# Air Quality Concerns Mapping Activity

## Purpose:

- To get input about specific air pollution concerns in this community
  - Which facilities
  - Which areas
  - Which concerns

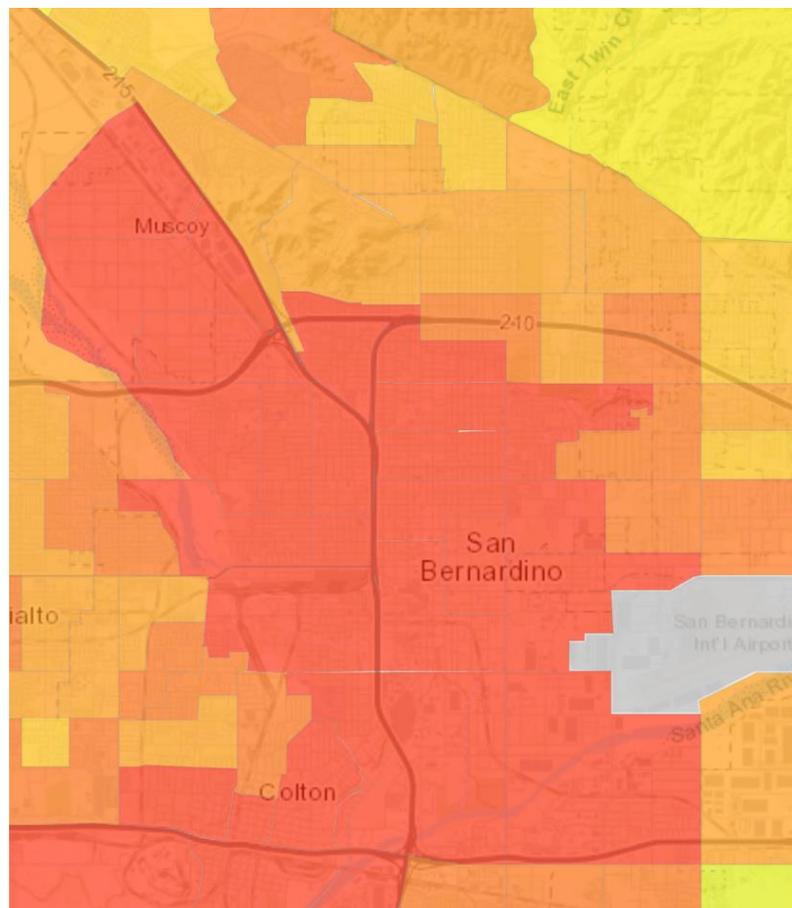
## What we will do with this information:

- Organize list of concerns
- Evaluate how they compare with the technical data
- Work with CSC to prioritize concerns that can be addressed through AB 617 Community Air Initiatives in this community



# How we developed the preliminary Community “Boundaries”

- Used CalEnviroScreen 3.0 and MATES IV data to identify disadvantaged areas with local air pollution
- Help us finalize which areas within the area we identified should be the focus of our work through this program



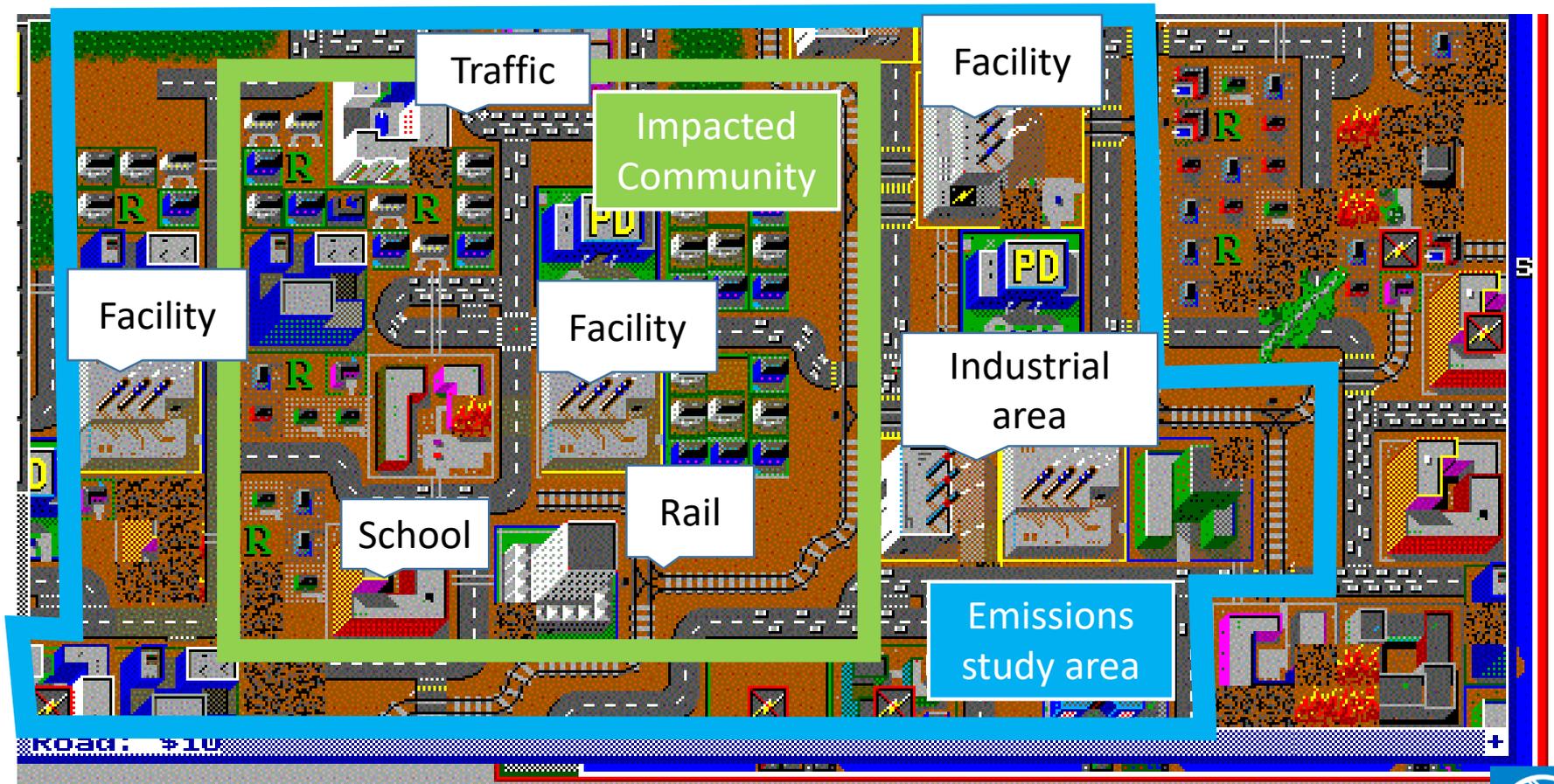
# Community “Boundaries”

- Purpose: to guide where AB 617 resources in this community will be focused
  - Monitoring
  - Incentives
  - Emissions Reductions
- How to do this:
  1. Identify the main “impacted area”
  2. Identify “emissions study area” which includes the “impacted area”, plus nearby air pollution sources

NOTE: Neighborhoods outside the “impacted area” will still benefit from reducing air pollution emissions near the boundary.

NOTE: Our rules, enforcement and other programs still apply to all facilities in our region

# Community Boundaries - Example







# Clean Air Incentives



# SCAQMD's Main Incentive Programs



## Carl Moyer Program

- Trucks
- Transit buses
- Refuse trucks
- Public agency/utility vehicles
- Emergency vehicles
- Construction/Ag
- Marine Vessels
- Shore Power
- Locomotives
- Cargo Handling
- Infrastructure



[www.AQMD.gov/Moyer](http://www.AQMD.gov/Moyer)



- 1998 – Present
- \$467 Million
- 6,708 vehicles
- Emissions Reduced (tpy):  
NOx: 7,598 PM: 222

## Prop 1B

- Trucks & TRU
- Locomotives
- Shore Power
- Cargo Handling



- 2009 - Present
- \$485 Million
- >7,300 vehicles
- Emissions Reduced (tpy):  
NOx: 7,086 PM: 220

# SCAQMD's Main Incentive Programs

## Replace Your Ride

- Light-Duty Vehicles
- Alternative Mobility Options (transit passes, Uber, Lyft)
- Electric vehicle chargers

[www.ReplaceYourRide.com](http://www.ReplaceYourRide.com)



- 2015 - Present
- \$24 Million
- 3,100 vehicles
- Emissions Reduced (tpy):  
NOx: 29 HC: 67 CO: 8,031

## Lower Emission School Bus Program

- School buses
- Infrastructure
- CNG tank replacements



- 2001 - Present
- \$280 Million
- 5,000 vehicles
- Emissions Reduced (tpy):  
NOx: 219 PM: 25

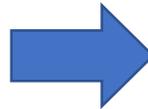
# Incentive Projects for Community Air Protection Carl Moyer and Prop1B (AB134) (2017)

- \$101 million project funds from AB 134
- 89% are located in disadvantaged and low-income communities



## Projects include:

- Off-road equipment – cleanest equipment available
- Near-zero emission transit vehicles
- Locomotives



- **San Bernardino/Muscoy (\$21,925,447)**
- **Cold Creek Estates LLC**
- **Russ Bell Equipment**
- **Sukut**
- **Omnitrans**
- **BNSF Railway Company**

# Additional Incentives for Community Air Protection (SB856) (2018)

- **\$245 million (statewide)**
  - Mobile Sources
  - Charging Infrastructure
  - Stationary Sources
  - Projects for Community Emission Reduction Programs

**Early or Extra  
emissions reductions  
beyond rules and  
regulations**

**Disadvantaged  
and low-income  
communities**

# Developing New Incentive Projects

- Guidelines needed for added incentive strategies
- What are the pollutants that pose higher risk, and where do they come from?



- Risk-weighted emissions inventory for this area suggests:
  - Diesel particulate matter from trucks, rail, cargo handling
  - Heavy warehouse and railyard activity
  - Looking at added burden from stationary sources



Other sources and actions may be identified in the Community Emission Reduction Program



# Next Steps on New CAP Incentives

- CARB seeks your comments and ideas on the key sources to address with incentive funds!
  - Tonight
  - Other meetings or phone calls
  - Emails to [carlhelp@arb.ca.gov](mailto:carlhelp@arb.ca.gov)
- CARB will develop new guidelines in first half of 2019
  - Add key stationary sources with incentives potential
  - Consider new mobile sources (e.g., commercial lawn and garden)
  - Other programs/projects identified in Emission Reduction Programs
- Continue progress on mobile sources and zero-emission infrastructure as new guidelines are developed



# Steering Committee Charter and Meeting Logistics



# CSC charter

## What is it?

A document that **outlines the conditions** under which the community steering committee is organized, and defines its goals, membership process, roles and responsibilities



## Why is it needed?

It formally **authorizes the existence of the committee** and provides a reference source for the future. The charter gives a direction and a purpose from start to end.

## How is it approved?

All community members must approve CSC charter **by signing the CSC participation agreement**. By doing this, each CSC member agrees to the principles, goals and expected conduct during the development of the Community Air Plan

# Some questions for the CSC

1. Any feedback on the charter?
2. Would it be helpful if we had a short bio from everyone that we can post on our website?
3. Meeting Co-hosts – anyone interested?
  - One person from San Bernardino
  - One person from Muscoy
4. Outreach help to CSC members without email access
5. We are thinking of putting together a single Community Initiative Technical Advisory Group
  - Discuss data and methods for modeling, monitoring, inventory
  - 2-3 members from each of our three Year 1 communities plus technical experts
  - Quarterly meetings at SCAQMD Diamond Bar Headquarters
  - Would anyone here like to be part of it? Any nominations?
6. Any agenda requests?

# Next Steps

- Complete the Survey
  - We will share results, which will help us plan future meetings
- Materials to review before the next meeting:
  - Final charter, for you to sign and return
  - Summary of air pollution concerns identified today
- Next meeting: January 2019 (date TBD)
- Likely Topics:
  - Community boundaries
  - Air pollution monitoring
  - Prioritization of community air pollution concerns
  - Rulemaking update on Best Available Retrofit Control Technology

# Questions?

More information on AB 617:

[www.aqmd.gov/AB617](http://www.aqmd.gov/AB617)

Email: [AB617@aqmd.gov](mailto:AB617@aqmd.gov)

Follow us [@SouthCoastAQMD](https://www.instagram.com/SouthCoastAQMD)



South Coast  
AQMD