



# Community Air Protection Program Technical Summit



# Presentation Outline

- ✓ Overview of AB 617
- Concept Paper Elements
- Next Steps



# Focus on Community Action

## Community focused framework

- Community emissions reduction programs
- Accelerated retrofit of pollution controls on industrial facilities
- Community-level air quality monitoring
- Enhanced emissions reporting requirements
- Increased penalty provisions
- Grants to local community groups

# Program Elements

September 2018

- **CARB:** Identify initial communities and adopt planning framework (Monitoring Plan and Statewide Strategy)

January 2019

- **Air Districts:** Adopt expedited schedule for implementation of Best Available Retrofit Control Technology (BARCT)

July 2019

- **Air Districts:** Deploy community air monitoring campaigns

October 2019

- **Air Districts:** Adopt community emissions reduction programs

Fall 2019

- **CARB:** Select additional communities (and annually thereafter)

December 2023

- **Air Districts:** Implement BARCT requirements

# Coordinated Outreach

CARB

Air Districts

## Statewide Meetings

Discussion of:

- Development of multi-community action framework
- Process for selection of initial communities

## Community Meetings

Discussion of:

- Recommendations for initial communities
- Recommendations for incentive funding investments

# Community Identification

- Prioritize communities with highest exposure burdens for:
  - Development of community emissions reduction programs
  - Deployment of community air monitoring
- Focus on disadvantaged communities and sensitive receptors



# Planning Framework

## Monitoring Plan

- Review air monitoring technologies
- Review community air monitoring systems
- Establish criteria on best practices

## Statewide Strategy

- Develop methods for assessing exposure and sources
- Identify strategies for reducing emissions
- Establish criteria for community emissions reduction programs

# Presentation Outline

- Overview of AB 617
- ✓ Concept Paper
- Next Steps



# Program Framework Concept Paper

- Staff's initial proposals:
  - Process for identification and selection of communities
  - Strategies for reducing emissions and exposure
  - Criteria for community emissions reduction programs
  - Criteria for community air monitoring
  - Additional implementation elements and resources
- Mechanism to seek advice and feedback

# Guiding Principles for Program Development

- Expedite actions to improve public health
- Ensure community members are partners
- Ensure robust, transparent, and collaborative process
- Provide strong science-based foundation and enhance data accessibility
- Leverage resources and develop approaches to benefit communities statewide

# Community Assessment and Identification Process

Proposing process that draws upon both statewide assessment and local knowledge:

A dark blue horizontal bar with a white circle on the left side containing the text "Air district recommendations".

Air district recommendations

A dark blue horizontal bar with a white circle on the left side containing the text "Community recommendations".

Community recommendations

A dark blue horizontal bar with a white circle on the left side containing the text "CARB criteria for statewide process".

CARB criteria for statewide process

# Selection of Communities

- Expect smaller set of communities in first year
- Reflect variety of air quality challenges and solutions
- Represent well-characterized sources, known monitoring needs, and established community capacity
- Serve as models for communities with similar challenges
- Maintain list of communities for future years

# Strategies for Reducing Emissions and Exposure

- Suite of measures to expedite action
- Existing planning efforts provide foundational reductions
- Identify additional community-specific strategies
- Leverage existing authorities and innovative new strategies

# Criteria for Community Emissions Reduction Programs

- Define clear benchmarks for program development
- Ensure consistent standard of quality
- Recognize strategies are unique to each community
- Include robust public process and community partnerships



# Proposed Community Emissions Reduction Programs Elements

## AB 617 Requirements

- Emission reduction targets
- Specific reduction strategies
- Implementation schedule
- Enforcement plan

## Additional Elements

- Air quality goals
- Metrics to track progress
- Community steering committee
- Public engagement plan

## CEQA Analysis

- CEQA analysis as applicable

# Air Monitoring Components

- Assess capabilities of air monitoring technologies
- Review existing community air monitoring networks
- Criteria for community air monitoring campaigns
- Resources for community air monitoring
- Data display and communication



# Criteria for Community Air Monitoring Plans

- Produce data to support decision-making and action
- Guide process of planning air monitoring campaigns
- Support air districts and communities
- Address a variety of objectives and monitoring approaches

# Other Implementation Elements

## Technology Clearinghouse

Best available control technologies

Stationary, area-wide, and mobile sources

## Emissions Reporting

Annual reporting for specified facilities

Development of uniform methodologies

## Resource Center

Land use and transportation best practices

Community air monitoring resources

Education and outreach

# Funding to Benefit Communities

## \$250 Million for Incentive Funding to Support Immediate Reductions

CLEAN TECHNOLOGY INCENTIVES – \$250 MILLION



## \$5 M for Community Air Grants

- Funding to support:
  - ✓ Capacity building – training and support
  - ✓ Technical assistance
  - ✓ Community engagement
- Solicitation released mid-February

# Presentation Outline

- Overview of AB 617 Goals
- Concept Paper Elements
- ✓ Next Steps



# Framework Development Timeline

February 2018

- Concept Paper released; workshops and community meetings

March 2018

- CARB Board Meeting–AB 617 Implementation Update

May 2018

- Initial Draft Program Framework & resource center released

June 2018

- Workshops and community meetings

August 2018

- Final Draft Program Framework, community recommendations, & resource center released

# Environmental Analysis

- Environmental Analysis (EA) being prepared analyzing potentially significant adverse impacts caused by reasonably foreseeable actions.
- Meets requirements of CARB's certified program under the California Environmental Quality Act (CEQA).
- The CEQA Environmental Checklist (CEQA Guidelines Appendix G) is used to identify and evaluate potential indirect impacts.
- The EA will be an appendix to the Framework Document.

# Environmental Analysis to be Prepared

- The EA will include:
  - Description of reasonably foreseeable actions taken in response to the proposal
  - Programmatic level analysis of potential adverse impacts caused by reasonably foreseeable actions
  - Beneficial impacts
  - Feasible mitigation measures to reduce/avoid significant impacts
  - Alternatives analysis
- Input invited on appropriate scope and content of the EA
- Draft EA will be released for 45 day public comment period

# Breakout Sessions

1. Strategies and Community Emissions Reduction Programs
2. Community Air Monitoring
3. Emissions Reporting, Technology Clearinghouse, and Assessment Tools



# Strategies and Community Emissions Reduction Programs - Breakout Session



February 2018

# Breakout Session Presentation Outline

- ✓ Strategies for Reducing Emissions and Exposure
  - Criteria for Community Emissions Reduction Programs



# Strategies for Reducing Emissions and Exposure

- Suite of measures to expedite action
- Existing planning efforts provide foundational reductions
- Identify additional community-specific strategies
- Leverage existing authorities and innovative new strategies

# Comprehensive Suite of Strategies

- Each community will require individual mix of strategies:
  - Regulatory actions and targeted enforcement
  - Incentive funding to accelerate deployment of cleaner technologies
  - Land use and transportation planning tools
  - Mitigation strategies
- Accelerated implementation of BARCT
- Identification of new statewide measures

# New Statewide Measures

- CARB will identify new statewide measures
- Measures may include:
  - Airborne Toxic Control Measures
  - Mobile source measures



# Resources for Outreach, Land Use, and Transportation Strategies

Provide tools and resources on best practices

## By October 2018

- List of existing best practices and strategies
- Links to existing tool kits and resources

## After October 2018

- Develop new best practices, model ordinances, and tool kits
- Incorporate into Technology Clearinghouse

# Breakout Session Presentation Outline

- Strategies for Reducing Emissions and Exposure
- ✓ Criteria for Community Emissions Reduction Programs



# Criteria for Community Emissions Reduction Programs

- Define clear benchmarks for program development
- Ensure consistent standard of quality
- Recognize strategies are unique to each community
- Include robust public process and community partnerships



# Proposed Community Emissions Reduction Programs Elements

## AB 617 Requirements

- Emission reduction targets
- Specific reduction strategies
- Implementation schedule
- Enforcement plan

## Additional Elements

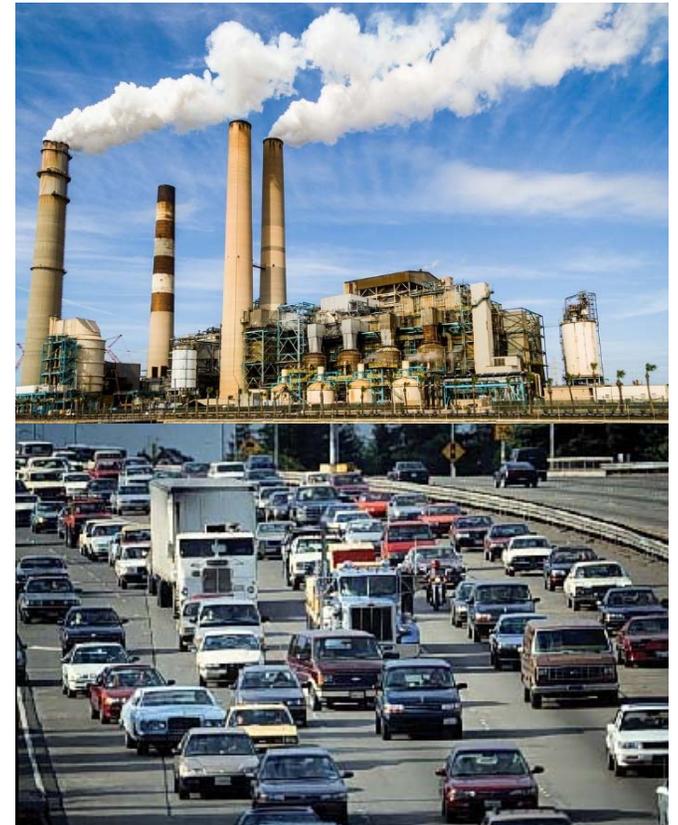
- Air quality goals
- Metrics to track progress
- Community steering committee
- Public engagement plan

## CEQA Analysis

- CEQA analysis as applicable

# Proposed Air Quality Goals

- Address disproportionate exposure burdens
- Considering health-based air quality goals:
  - Air quality standards
  - Toxics risk reduction
- Further health studies and data needed to track community-level health impacts



# Emission Reduction Targets

- Quantitative emission reduction targets
- Based on technical assessment:
  - Pollutants that are key drivers of health risk and exposure
  - Contributing sources
  - Regional versus local contributions



# Technical Assessment

Technical assessment should include:

- Best available measurement, inventory, and modeling data
- Community-level emissions inventory
- Evaluation of existing rule compliance
- Assessment of benefits of new regulations
- Sensitive receptor locations and sources of concern

# Specific Reduction Strategies

Evaluate and ensure compliance with existing strategies

Implement expedited BARCT schedule

Select strategies from statewide strategy

Review and update risk reduction audits

Consideration of feasibility, authority, and cost-effectiveness

# Implementation Schedule

- Dates for district board/implementing agency consideration and implementation timeframe
- Immediate, 3-year, 5-year, and 10-year milestones
- Encourage implementation of measures in parallel with program development to expedite reductions

# Proposed Metrics to Track Progress

- Annual metrics on implementation elements:
  - Emissions of criteria pollutants & air toxics
  - Implementation of regulations and strategies
  - Dollars invested and projects implemented
- Multi-year metrics on exposure and co-benefits:
  - Measured concentrations of applicable pollutants
  - Local economic impacts
  - Other community benefits

# Enforcement Plan

- Joint effort of air districts and CARB
- Tailored to address specific community issues
- May involve advanced measurement techniques
- Could include training and/or new reporting tools



# Community Engagement

## Community partnerships

- Form community steering committee

## Robust public process

- Regional workshops
- Community-level informational meetings
- Translate materials and interpretation services
- Designated contact person
- Dedicated website
- Air district board hearings



# CARB Review Process

- CARB staff will work to expedite review
- Staff evaluation will be based on:
  - Program criteria check-list
  - Appropriateness and adequacy of strategies and timelines
  - Public process and community partnerships

# Annual Reporting Requirements

- Status of all program strategies
- Updates on metrics for tracking progress
- Lessons learned to support similar communities
- Planned changes based on progress to-date



# **Community Air Protection Program Summit: Community Air Monitoring - Breakout Session**

**February 2018**

# Breakout Session Presentation Outline

- ✓ Criteria for Community Air Monitoring
  - Air Monitoring Data Display
  - Resources for Community Air Monitoring



# Air Monitoring Components

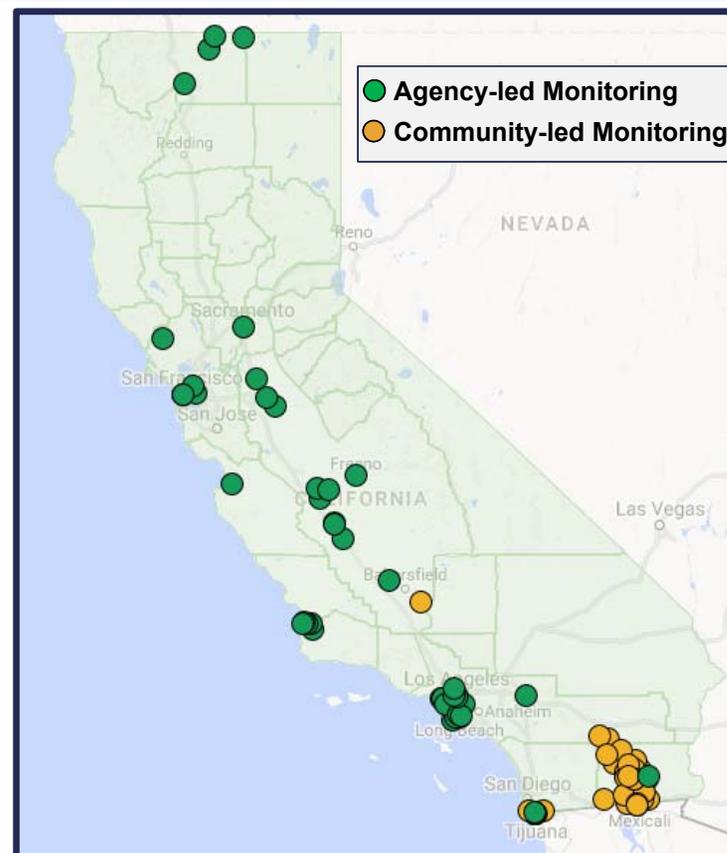
- Assess capabilities of air monitoring technologies
- Review existing community air monitoring networks
- Criteria for community air monitoring campaigns
- Resources for community air monitoring
- Data display and communication



# Learning from Successful Programs

Air District and community-led activities provide successful models

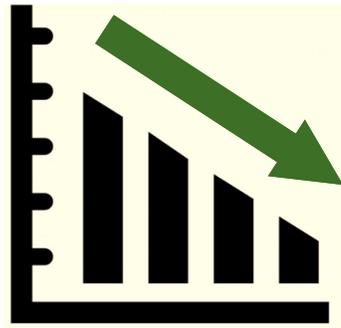
- IVAN Air Network
- South Coast STAR Grant, MATES, Paramount
- Bay Area CARE program
- West Oakland Environmental Indicators Project
- San Ysidro border traffic study
- Sacramento wood smoke study



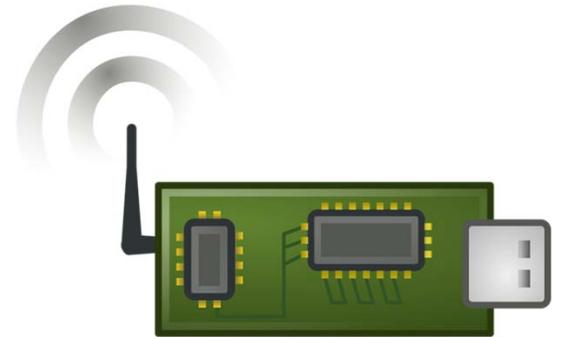
# Community Air Monitoring Objectives



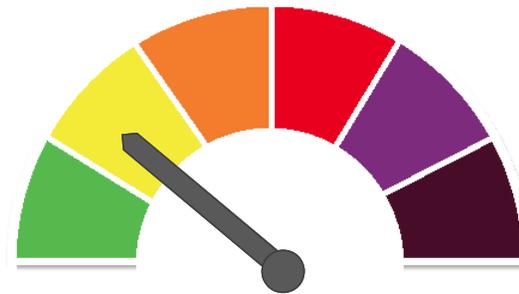
**IDENTIFY EMISSIONS  
SOURCES**



**TRACK PROGRESS**



**SCREEN FOR  
PROBLEMS**



**INFORM THE PUBLIC**

# Air Monitoring Methods



**Traditional  
Methods**



**Air  
Sensors**



**Mobile**



**Fence-line**



**Remote  
Sensing**

# Community Engagement



## Community partnerships

- Form community steering committee

## Focus of steering committee

- Understand community issues
- Develop community air monitoring plans
- Determine data display and interpretation needs

# Criteria for Community Air Monitoring Plans

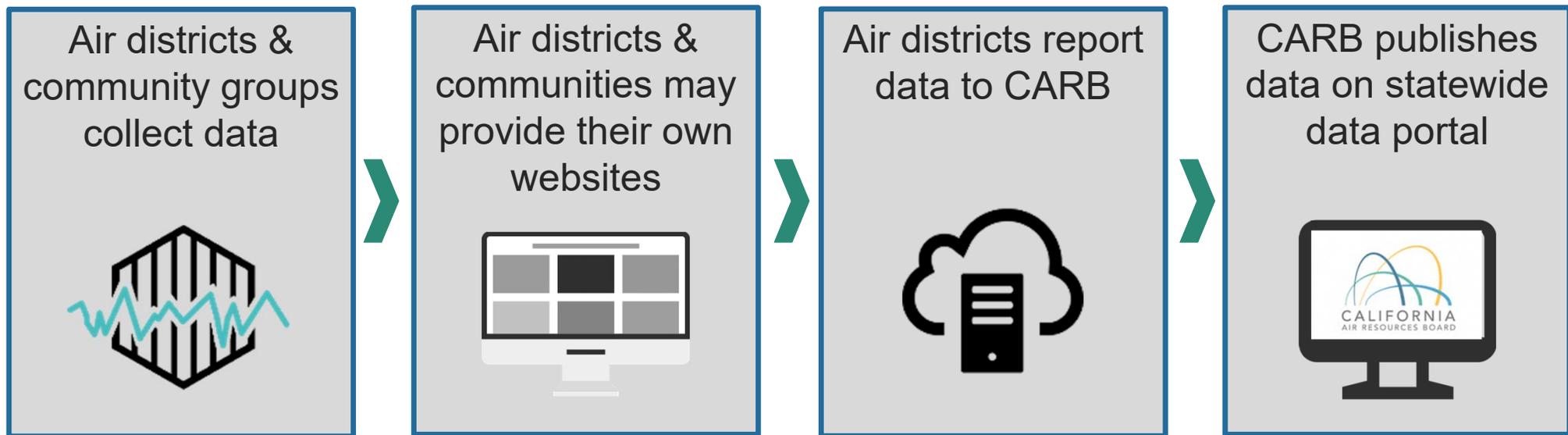
- Produce data to support decision-making and action
- Guide process of planning air monitoring campaigns
- Support air districts and communities
- Address a variety of objectives and monitoring approaches

# Community Air Monitoring Plan Elements



# Data Reporting Requirements

- Data must be publicly stored and accessible



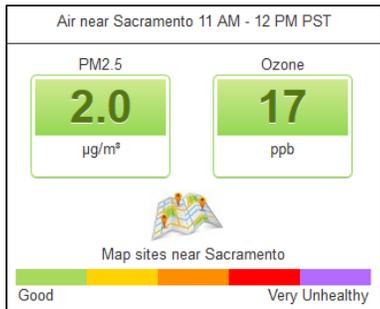
# Breakout Session Presentation Outline

- Criteria for Community Air Monitoring
- ✓ Air Monitoring Data Display
- Resources for Community Air Monitoring

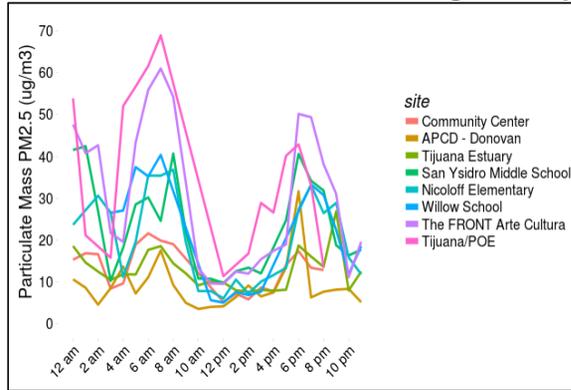


# Existing Monitoring and Web Portals

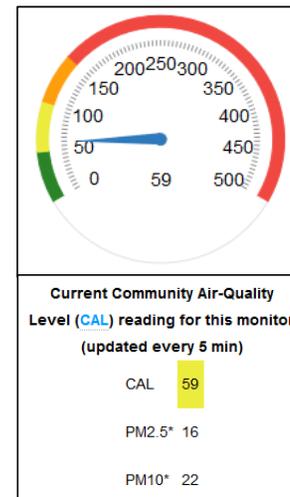
## Breathe Well



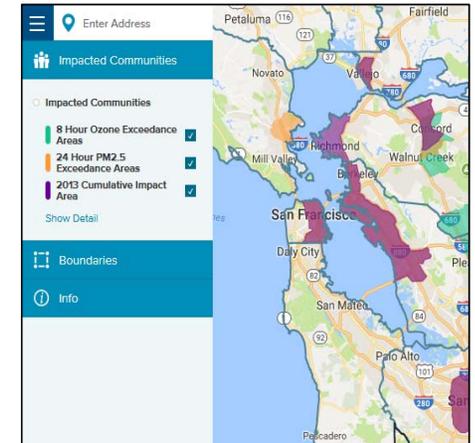
## San Ysidro Air Monitoring Study



## IVAN



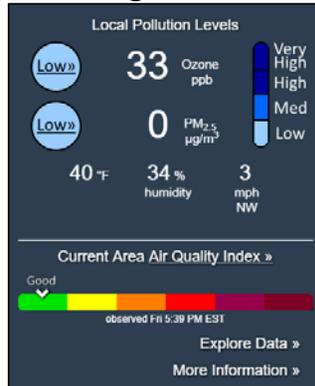
## CARE



## AirNow



## VillageGreen



# Goals of New Web Portal

## Availability

- Provide access to data across the State

## Timeliness

- Maximize timeliness of data availability

## Flexibility

- Support display of different types of monitoring data

## Transparent

- Provide information on data collection and processing

# Example Map Tool

Map Display Controls and Relevant Links

The screenshot displays a web-based map tool interface. At the top, there is a navigation bar with three tabs: "Map / Mapa", "Hourly Data / Datos horarios", and "About / Sobre Nosotros". The main area is divided into several sections:

- Left Panel (Map Display Controls):** A dark-themed sidebar with various controls. It includes a "DISPLAY CONTROLS" section with toggle switches for "Monitor Names" (OFF), "Monitor Icons" (ON), "Measurement Units" (ON), "Exceeds Threshold" (OFF), and "Large Text" (ON). Below this is a "WEATHER" section with a "WEATHER" toggle (ON) and a "Measurement Group" dropdown set to "Wind Speed". Underneath, it shows "NP MET 10 M" with four data cards: "HUMIDITY" (39.30%), "TEMPERATURE" (21.40 °C), "WIND" (2.70 m/s from SSW), and "RAIN" (0 mm since 9 am).
- Map:** A central map showing a portion of San Diego. Several colored circles (blue, orange, green) are overlaid on the map, representing different monitoring stations. Major roads like CA 905, SAN DIEGO FWY I-5, and SAN DIEGO FWY are visible.
- Right Panel (Local Pollution Levels):** A legend titled "Local Pollution Levels" with a color scale for "Particulate Matter" (0-10 to 70-80) and "Ozone ppb" and "PM<sub>2.5</sub> µg/m<sup>3</sup>".
- Bottom Right Panel (VOC monitor 9):** A panel for "VOC monitor 9" showing a "VOC (µg/m<sup>3</sup>)" reading of 1043 µg/m<sup>3</sup> in a red box. Below this is a "Colored chart with most recent day of data" showing a line graph of VOC levels over time. At the bottom, it shows "Odour (ou)" at 92 ou and "Wind Speed" at 7.7 m/s.

At-a-glance display

Colored chart with most recent day of data

# Breakout Session Presentation Outline

- Criteria for Community Air Monitoring
- Air Monitoring Data Display
- ✓ Resources for Community Air Monitoring



# Community Air Monitoring Resource Center

## Data Interpretation Tools



## Links to Resources, Best Practices



## Criteria for Air Monitoring Plans

**How To:**

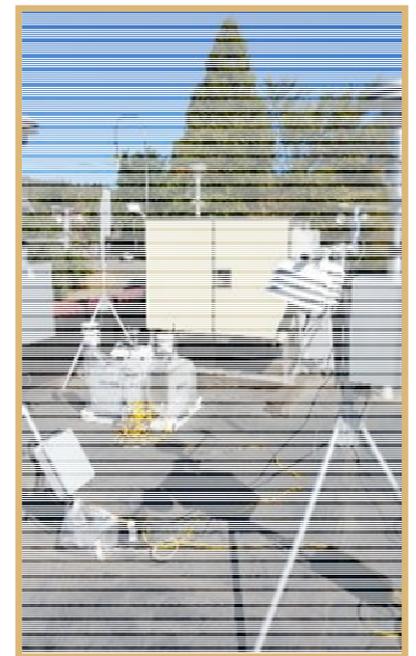
- ✓ Engage
- ✓ Plan
- ✓ Deploy
- ✓ Analyze
- ✓ Report

## Air Monitoring Updates & News

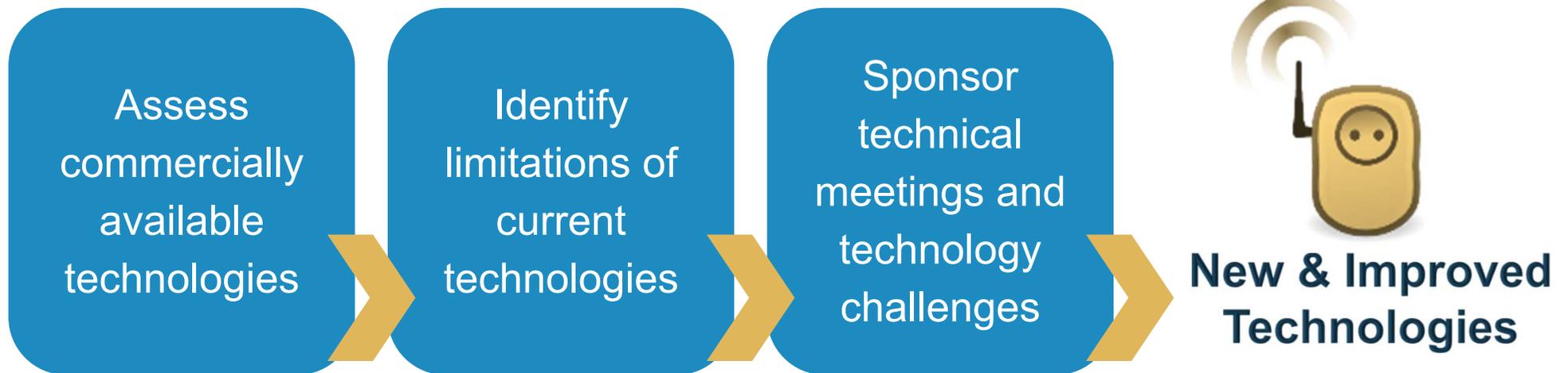


# Assess Air Monitoring Technologies

- Review air monitoring methods
- Evaluate performance of technologies
- Collaborate with air sensor evaluation programs
- Make reports publicly available



# Improve Monitoring Technologies



 **Air Sensors International Conference**  
<https://sehall4.wixsite.com/asic/home-landing>



# **Emissions Inventory, Technology Clearinghouse, Assessment Tools - Breakout Session**



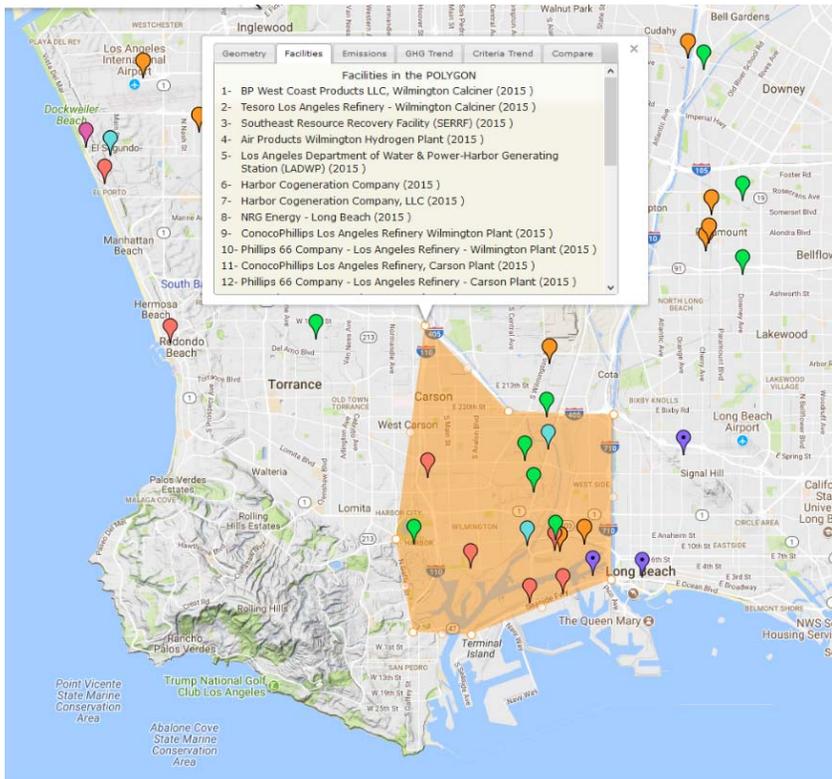
February 2018

# Breakout Session Presentation Outline

- ✓ Emissions Inventory
  - Technology Clearinghouse
  - Assessment Tools
    - Criteria for Identifying Impacted Communities
    - Methodologies for Assessing Contributing Sources



# Enhanced Emission Reporting



- Annual data for larger stationary sources
- Other relevant facility-level data
- Uniform, statewide reporting methodologies
- Allows for certification or verification

# Sources Subject to New Reporting Requirements

- “Stationary sources” subject to requirements:
  - Subject to Mandatory Reporting Rule for GHG emissions
  - **or**
  - Authorized to emit 250 tons per year or more of a nonattainment pollutant or its precursors
  - **or**
  - Receives an elevated Hot Spots prioritization score

# Emissions Reporting Methodologies

- Develop statewide regulation with phased approach
- Increase accessibility, be user friendly, support air district program needs

## Phase 1

- Establish annual reporting requirements for stationary sources

## Phase 2

- Phase-in uniform, statewide methodologies for stationary sources

# Development of Community Inventories

- Support community emissions reduction programs
- Develop guidelines for consistent methodologies
- Provide granular accounting of all sources within a community

# Breakout Session Presentation Outline

- Emissions Inventory
- ✓ Technology Clearinghouse
- Assessment Tools
  - Criteria for Identifying Impacted Communities
  - Methodologies for Assessing Contributing Sources



# Stationary Source Control Requirements

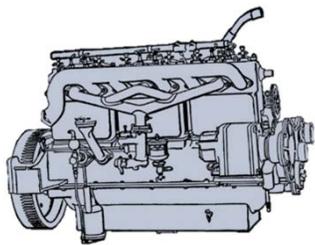
- **Best Available Control Technology (BACT):**
  - New facilities or equipment modifications
  - Requirements based on attainment designation
  - Lowest achievable emissions rate for each equipment type (by pollutant)
  - Established through facility permit
- **Best Available Retrofit Control Technology (BARCT):**
  - Existing facilities and equipment
  - Maximum degree of reduction achievable
  - Must consider energy, environmental, and economic impacts
  - Established through prohibitory rules

# Technology Clearinghouse

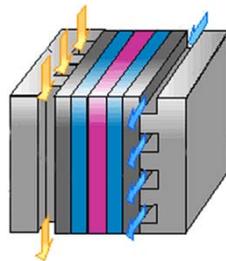
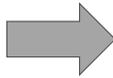
- Resource to help identify most stringent controls available
- Proposed clearinghouse:
  - Control technology determinations (BACT and T-BACT)
  - Existing rules and measures
  - Emerging control technologies
- Ability to visualize data and compare controls statewide

# Technology Advancement

- Clearinghouse will identify advanced technologies becoming available



IC Engine



Fuel Cell



Peaking Turbine (Power Plant)



Battery Storage

# Proposed Clearinghouse Phases

## Phase IA (Mid 2018)

- District BACT and T-BACT determinations
- District BARCT rules
- Enhance current clearinghouse system

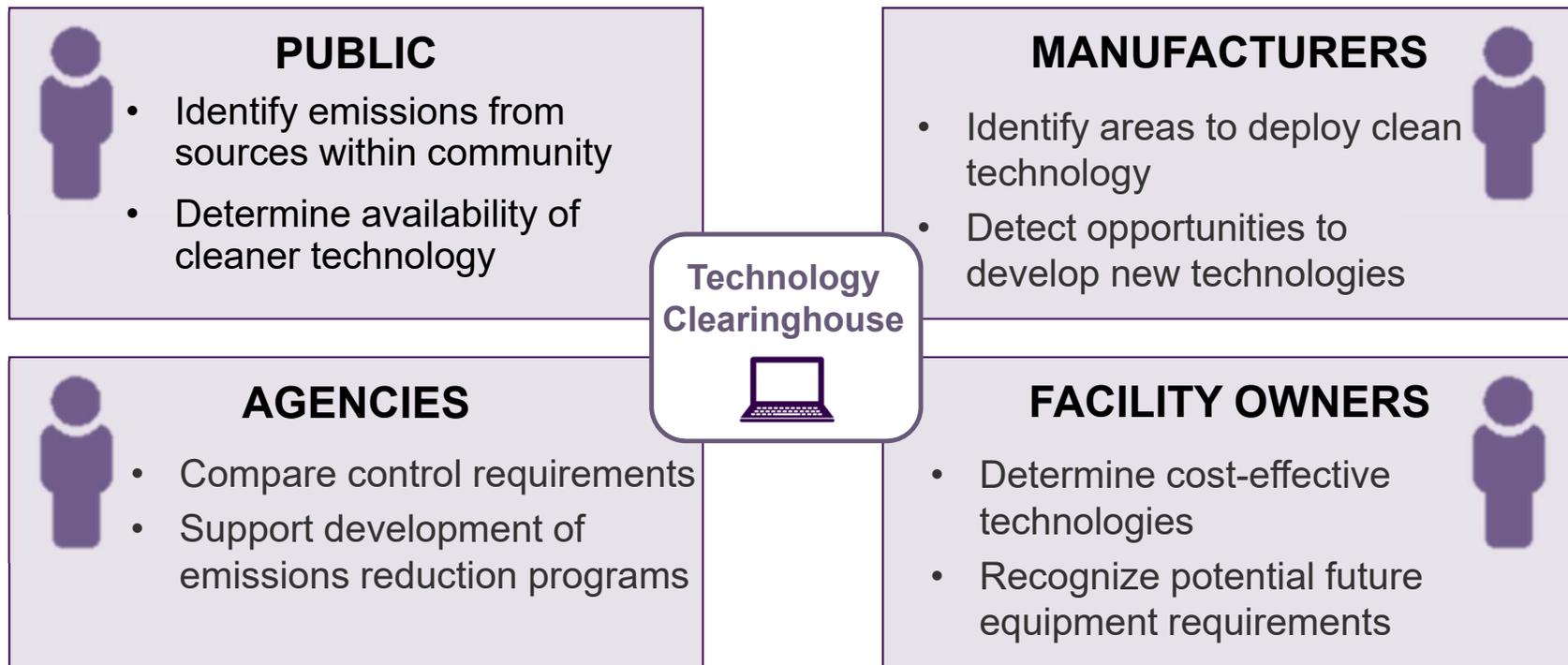
## Phase IB (Late 2018)

- Additional measures:
  - Mobile and area-wide sources
  - Airborne Toxic Control Measures
- Tools to compare technologies
- Highlight most stringent technologies/rules

## Phase II (Mid 2020)

- Develop new system
- User friendly design
- Identify next generation technologies
- Link to Pollution Mapping Tool

# Anticipated User Groups



# Breakout Session Presentation Outline

- Emissions Inventory
- Technology Clearinghouse
- ✓ **Assessment Tools**
  - Criteria for Identifying Impacted Communities
  - Methodologies for Assessing Contributing Sources



# Assessing Impacted Communities

Based on compilation of factors:

- Measured/modeled concentrations of criteria pollutants and air toxics
- Sensitive receptors, exposed population, and proximity to sources
- Density of sources and magnitude of emissions
- Public health indicators for incidence or exacerbation of disease
- Modeled cancer risk estimates
- Socio-economic factors

# Tools and Data Sources

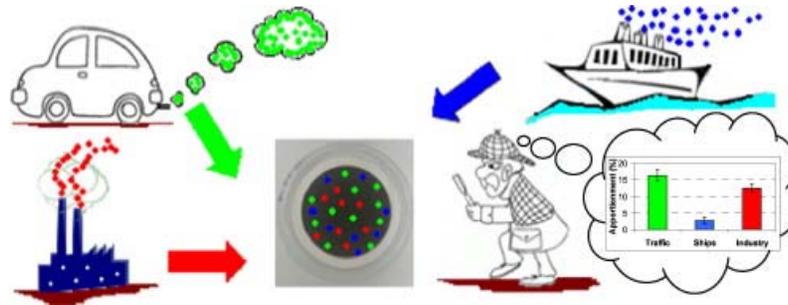
CalEnviroScreen and additional data sources:

Emissions Data	Monitoring/ Special Studies	Health Data	Other Data
<ul style="list-style-type: none"><li>• CARB Pollution Mapping Tool</li><li>• Mobile, area, stationary emissions</li></ul>	<ul style="list-style-type: none"><li>• Monitoring data</li><li>• Regional studies (MATES and CARE)</li><li>• Air quality modeling</li></ul>	<ul style="list-style-type: none"><li>• Health risk assessments</li><li>• National Air Toxics Assessment</li><li>• Health indicators</li></ul>	<ul style="list-style-type: none"><li>• Notices of violation</li><li>• Enforcement actions or complaints</li></ul>

# Assessing Source Contributions

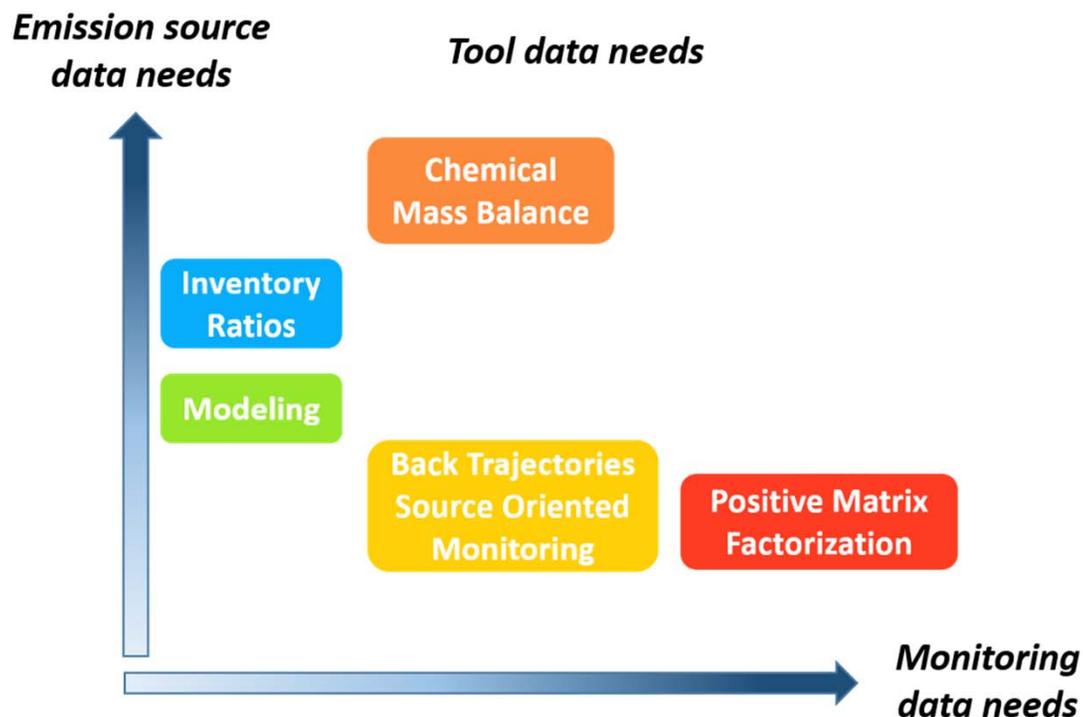
Develop methodologies to:

- Assess and identify contributing sources or categories of sources
- Estimate relative contribution of source categories to elevated exposure burden



# Source Apportionment Methodologies

- Informs emissions reduction programs
- Apply appropriate tools for each community
- Joint effort between CARB and local air districts



Tools are complementary and should be selected based on community specific parameters and best available data.



# Wrap-up Session



# Report Out from Breakout Sessions

1. Strategies and Community Emissions Reduction Programs
2. Community Air Monitoring
3. Emissions Reporting, Technology Clearinghouse, and Assessment Tools

# Next Steps

February  
2018

- Concept Paper released; workshops and community meetings

March 2018

- CARB Board Meeting – AB 617 Implementation Update

May 2018

- Initial Draft Program Framework & resource center released

June 2018

- Workshops and community meetings

August  
2018

- Final Draft Program Framework, community recommendations, & resource center released

# Contact Us

## CARB Office of Community Air Protection

- Website:
  - <https://ww2.arb.ca.gov/our-work/programs/community-air-protection-program-ab617>
- Email
  - [CommunityAir@arb.ca.gov](mailto:CommunityAir@arb.ca.gov)
  - [AireComunitario@arb.ca.gov](mailto:AireComunitario@arb.ca.gov)
- Click “Subscribe” for listserve:
  - Community Air (or) airecomunitario

The screenshot shows the CARB website's 'Community Air Protection' page. At the top, there are social media icons (Gov, Twitter, YouTube, LinkedIn) and a search bar. Below that is the CARB logo and a navigation menu with links for 'ABOUT', 'OUR WORK', 'RESOURCES', 'BUSINESS ASSISTANCE', 'RULEMAKING', and 'NEWS'. The main content area features an aerial photograph of a residential neighborhood. Below the photo, the text reads: 'Community Air Protection' with a 'BACK TO ALL TOPICS' link. The goal of AB 617 is to ensure that everyone benefits from our state's air quality efforts, especially those that live in the most severely pollution impacted areas of California. AB 617 provides for:

- Community level monitoring
- Statewide strategy to reduce emissions impacting communities
- Community-specific emission reduction plans
- Accelerated retrofit of pollution control equipment at existing facilities near communities
- Direct reporting of emissions to the CARB
- Increased penalties

At the bottom, there is an 'EMAIL UPDATES' section with a 'SUBSCRIBE' button circled in green and an arrow pointing to it. The CARB logo is visible in the bottom left corner.