AB 617 Community Air Protection Program

Scientific Review Panel March 4, 2019

Today's Topics

- Update on Program Actions
- Proposed Areas of Engagement with SRP
- Profile of Initial Communities
- Overview of Emissions Reporting Requirements

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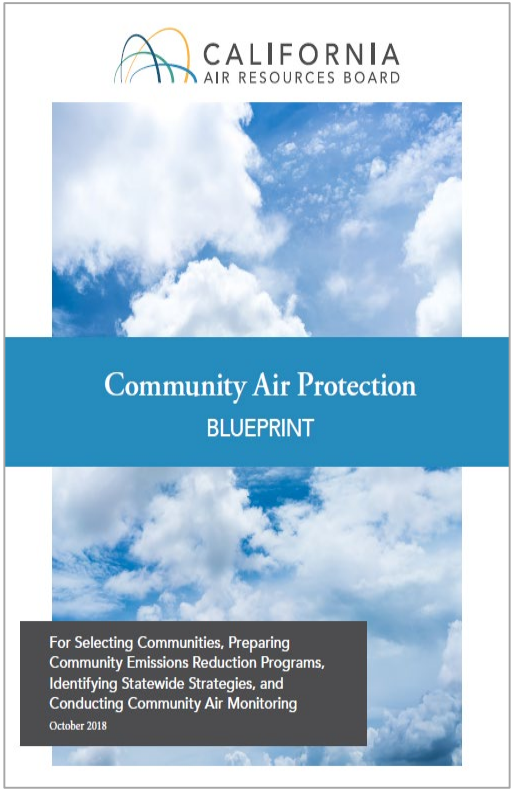
UPDATE ON PROGRAM ACTIONS

Blueprint for Program Implementation

Defines statewide strategies and sets requirements for:

- Public engagement and community partnerships
- Selecting communities
- Conducting community air monitoring
- Developing community emissions reduction programs



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Initial 10 communities serve as statewide models

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Additional Action in Initial Set of Communities

Air districts are working with communities to develop:

- Community emissions reduction programs (Oct 2019)
- Community air monitoring (July 2019)

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PROPOSED AREAS OF ENGAGEMENT WITH THE SRP

AB 617: Scientific Topics Related to Air Toxics in Communities

Office of Environmental Health Hazard Assessment

March 4, 2019

Statutory Role for the Scientific Review Panel in Implementation of AB 617

SRP consultation role in:

- CARB's preparation of a monitoring plan regarding the availability and effectiveness of toxic air contaminant and criteria air pollutant advanced sensing monitoring technologies and existing community air monitoring systems, as well as the need for and benefits of establishing additional community air monitoring systems. *[Health and Safety Code Section 42707.5(b)]*
- CARB's preparation of a statewide strategy to reduce emissions of toxic air contaminants and criteria air pollutants in communities affected by a high cumulative exposure burden. The state board shall update the strategy at least once every five years. *[Health and Safety Code Section 44391.2(b)]*

Scientific Topics for the SRP

I. Health Risk Values for Contaminants in AB 617 Communities

II. Addressing Cumulative Exposures in Communities

III. Tracking Community Health Benefits Through Indicators

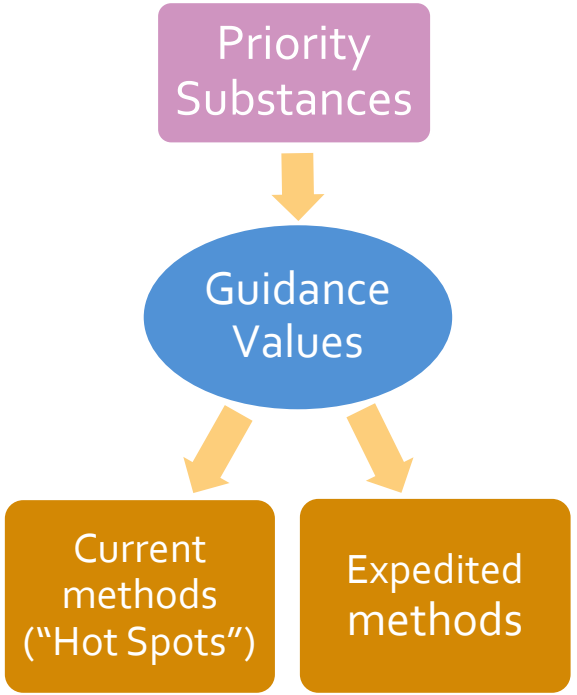
I.

Health Risk Values for Contaminants in AB 617 Communities

Background

- Data from AB 617 communities:
  - Emissions inventories
  - Air quality monitoring
- Likely missing guidance on health risks
- Health guidance values needed

Approach



I.

Health Risk Values for Contaminants in AB 617 Communities

Potential Work Products

- Summary of chemical-specific information from AB 617 communities.
- Proposed priority substances in AB 617 communities for development of health guidance values, and the rationale for their selection.
- Proposed new or updated health guidance values for priority substances.

Timeline

- First year communities:
  - Air monitoring by July 2019.
  - Emissions reduction programs by Oct 2019.
- Emissions inventories in Spring 2019, using existing data.
- Initial materials to SRP in late 2019.

II.

Addressing Cumulative Exposures in Communities

Background

- Communities face burdens from multiple sources of air pollution.
- Currents approaches available.
  - Cumulative risk methods (e.g., "Hot Spots" methodology)
  - Screening tools (e.g., CalEnviroScreen)
- Do not fully capture community risks and impacts.

Approach

- Draw from the data collected and/or developed in the AB 617 communities.
- Explore how cumulative impacts may be better understood and assessed.
- Apply existing approaches.
- Consider novel approaches to more fully and accurately characterize health risks.

II.

Addressing Cumulative Exposures in Communities

Potential Work Products

- Case studies from AB 617 communities showing cumulative impact/risk concerns. Include the extent to which existing tools are able to address cumulative risks.
- Potential ways to supplement or enhance existing approaches to cumulative impacts analysis.

Timeline

- Community emissions inventories will become available in 2019 and on an ongoing basis.
- Initial materials describing case studies to the SRP in late 2019.
- Development of materials proposing ways to enhance analysis of cumulative risks and impacts [Later phase].

III.

Tracking Community Health Benefits Through Indicators

Background

- Demonstrating health benefits of emissions reductions has scientific and data management challenges.
- Potential chemical exposures, doses, and subsequent health effects can be assessed with different degrees of ease and reliability.
  - Biomonitoring / biomarkers
  - Morbidity/mortality; health surveillance

Approach

- Stakeholder-engaged process.
- Convene experts in public forum:
  - Different scientific disciplines.
  - SRP members.
  - AB 617 community members.
- Introduce scientific topics.
- Consider challenges.
- Identify potential near-term metrics or measures that could be helpful.

III.

Tracking Community Health Benefits Through Indicators

Potential Work Products

- Public symposium or forum.
- Presentations from subject matter experts.
- Focus on community-based participatory research approaches.
- Potential topics:
  - Use of biomonitoring and/or biomarker data
  - Use of health outcome data
  - Best practices for community-academic research partnerships.

Timeline

- Hold public forum / symposium in 2020.

Questions & Discussion

PROFILE OF INITIAL COMMUNITIES

Considerations in Selecting Initial Communities

- Mix of communities representing different regions and sources
- Establish foundation for additional communities going forward
- Consistent with resources available for successful implementation

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Bay Area

Community	Key Sources
West Oakland	Port, Freight, Trucks
Richmond	Urban, Refineries, Freight

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Sacramento

Community	Key Sources
South Sacramento - Florin	Urban, Residential, Freeway

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San Joaquin Valley

Community	Key Sources
South Central Fresno	Urban, Residential, Industry
Shafter	Rural, Oil & Gas, Pesticides

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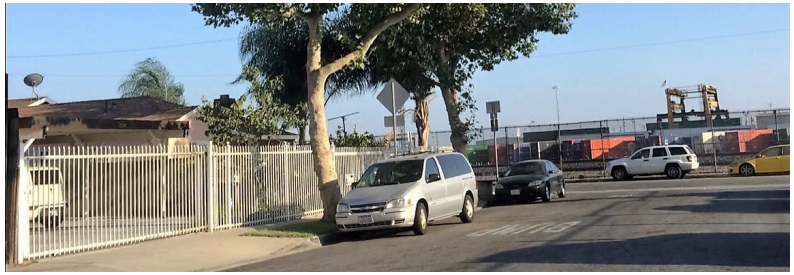
South Coast

Community	Key Sources
Wilmington/West Long Beach/Carson	Trucks, Ports, Refineries
East LA Neighborhoods/ Boyle Heights/West Commerce	Urban, Rail, Industry
San Bernardino/Muscoy	Trucks, Warehouses, Rail



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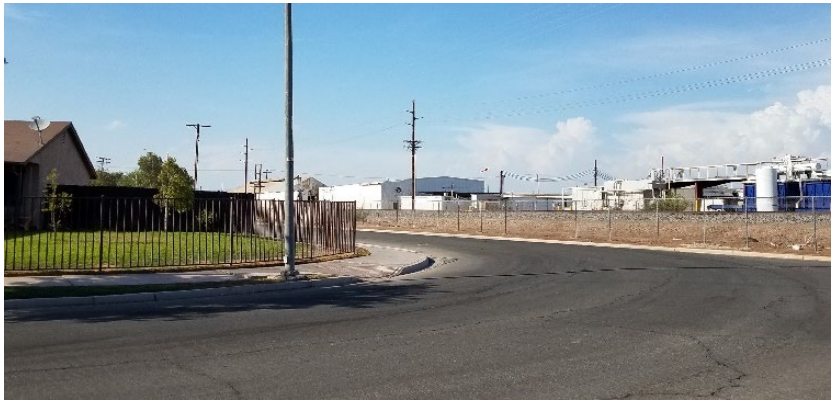
Imperial

Community	Key Sources
Calexico/Heber/El Centro	Border, Rural



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San Diego

Community	Key Sources
Barrio Logan/West National City/Logan Heights/Sherman Heights	Port, Small Industry

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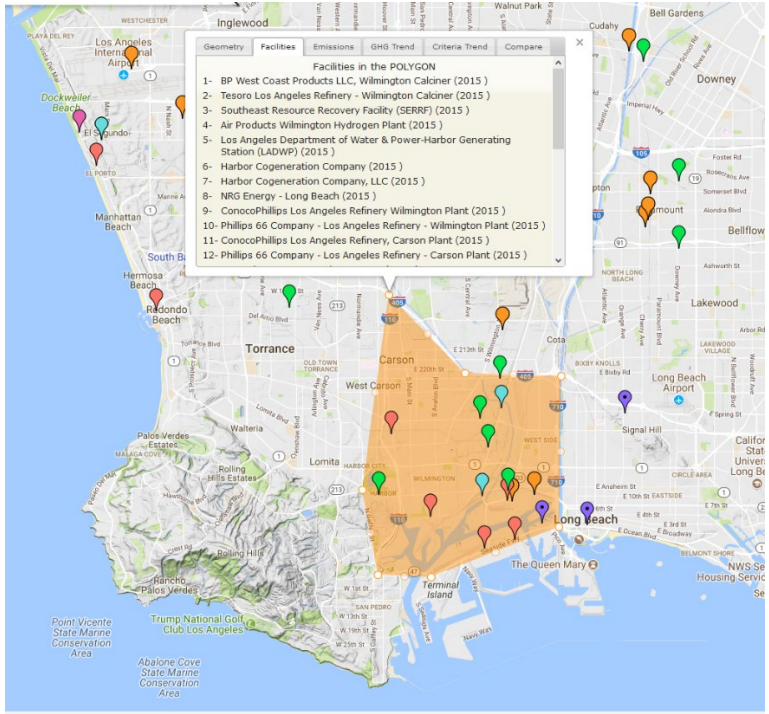
OVERVIEW OF EMISSIONS REPORTING REQUIREMENTS

Regulation for Criteria Pollutant and Toxic Air Contaminant Emissions Reporting

AB 617 Emissions Reporting Statute



- Annual emissions data for specified stationary sources
- Uniform, statewide reporting system
- Allows for collection of other relevant facility-level data
- Provides options for data certification or verification

Rulemaking Overview

- In December, the CARB Board approved for adoption the Criteria and Toxics Reporting (CTR) Regulation
- Prior to finalization, the Board directed staff to update the regulation
  - Modify the applicability criteria
  - Revise definitions, reporting requirements, and report contents

Regulatory Elements

Applicability

- Who is subject to reporting?

Reporting Requirements

- Data reporting
- Uniform contents

Implementation

- CARB and Air District collaboration

Next Steps

- Coordination with community representatives, air districts and industry stakeholders
- Public workshops March 5th to 14th
- Spring 2019: Release 15-Day formal comment package (2nd 15-day, if necessary)
- Provide final documents to OAL for review and approval

Contact Us

Criteria Pollutant and Air Toxics Reporting

Dave Edwards, Assistant Division Chief
david.edwards@arb.ca.gov
916.323.4887

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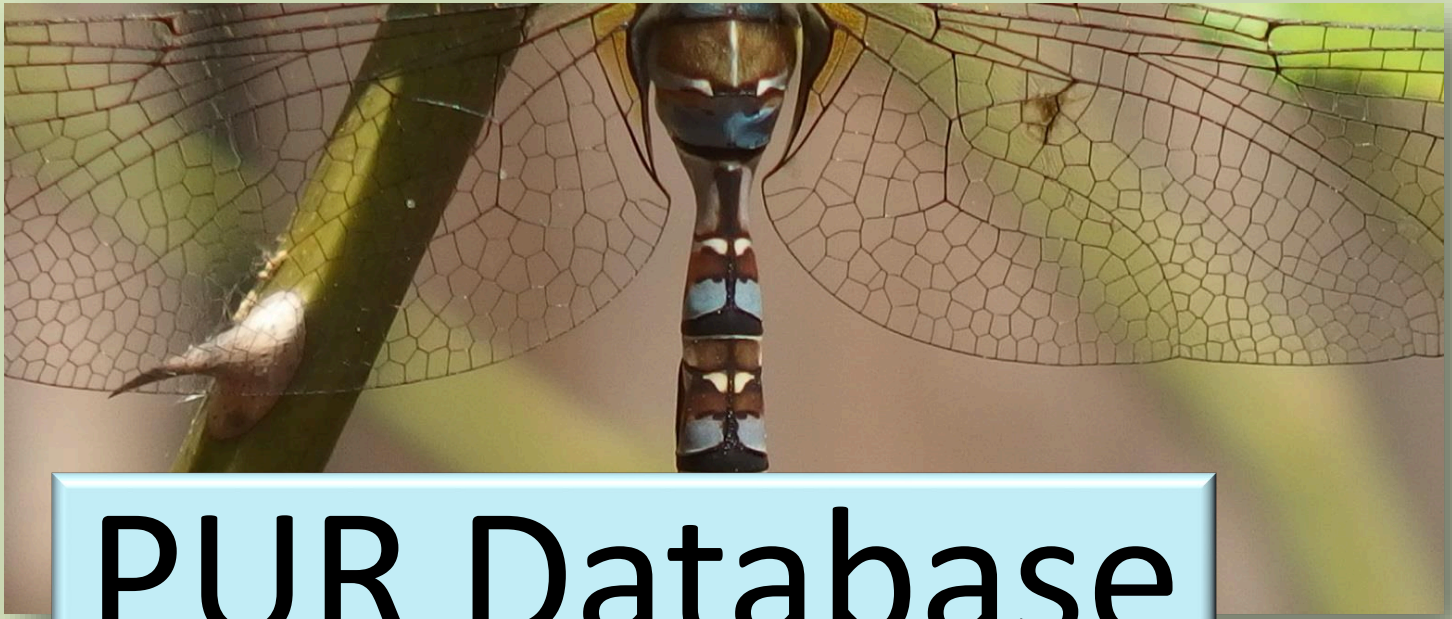
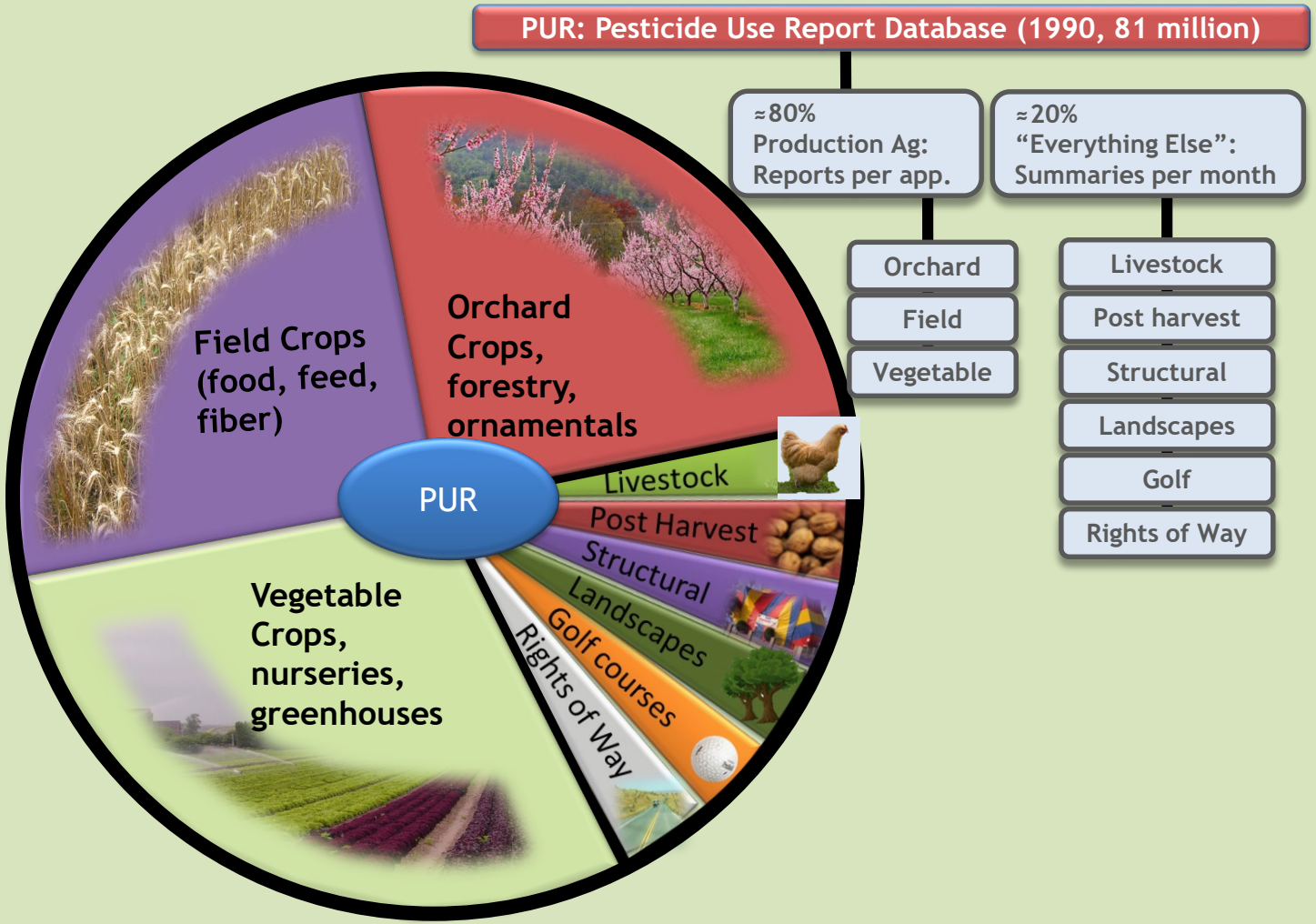


PUR Database

Scientific Review Panel, March 4, 2019

Outline:

- What information is in the Pesticide Use Reports database
- Proposed pesticide emission inventory


PUR: Pesticide Use Report Database (1990, 81 million)
≈80%
Production Ag:
Reports per app.
≈20%
"Everything Else":
Summaries per month
Orchard
Field
Vegetable
Livestock
Post harvest
Structural
Landscapes
Golf
Rights of Way
Field Crops (food, feed, fiber)
Orchard Crops, forestry, ornamentals
Vegetable Crops, nurseries, greenhouses
PUR
Livestock
Post Harvest
Structural
Landscapes
Golf courses
Rights of Way

Key information included in pesticide use reports

Information	Production Ag Reports (each application)	Non-Production Ag and Non-Ag Reports (monthly summary)
Product applied	Yes	Yes
Crop/site treated	Yes	Yes
Amount applied	Yes	Monthly total
Date applied	Date and time	Month
Application method	Yes	No
Acres/units treated	Yes	Monthly total
Location	Twnshp/rng/sec	County

Pesticide emission inventory for AB 617

- **Proposed** – DPR pesticide active ingredient (AI) emission inventory
  - Need to develop emission factors (fraction of AI that drifts or volatilizes) by AI and application method
  - Estimate AI emissions for each production agriculture application by: pounds AI applied × emission factor
  - Calculate annual total AI emissions for various spatial scales
  - Based on pesticide use report data, initially for fumigants and organophosphates