CALIFORNIA
AIR RESOURCES BOARD

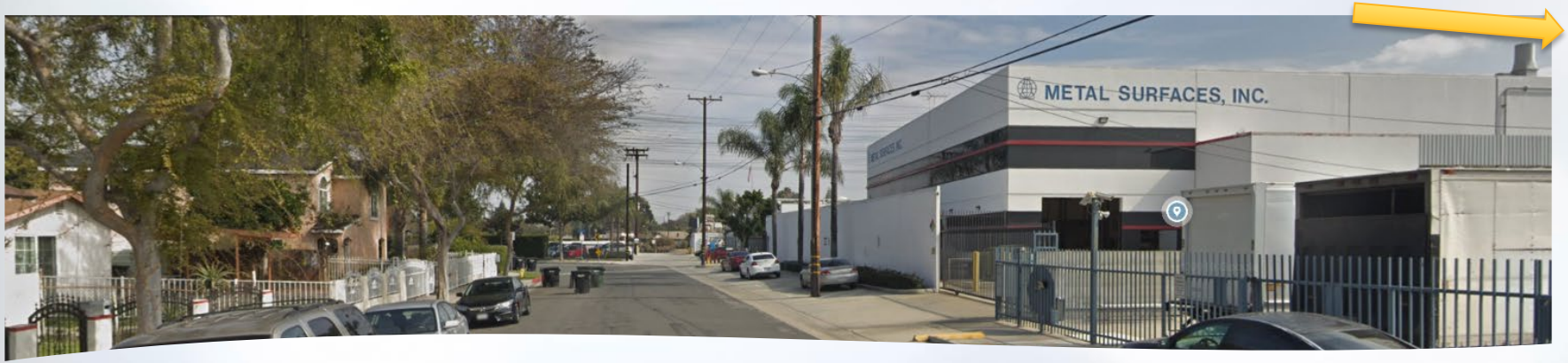
Proposed Amendments to Criteria Pollutant and Air Toxics Emissions Reporting Regulations

November 19, 2020

Amendments to Modernize Criteria Pollutant and Air Toxics Emissions Reporting

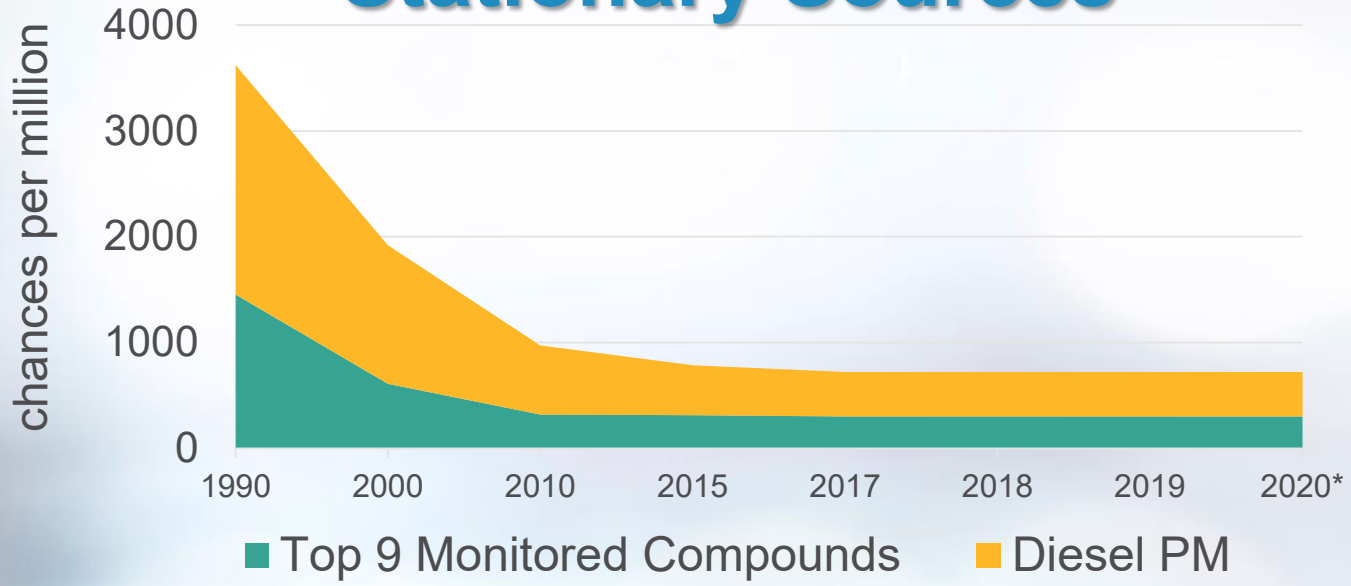
- Regulation for the Reporting of Criteria Air Pollutants and Toxic Air Contaminants (CTR):
  - Annual emissions reporting for criteria pollutants and toxic air contaminants from specified, permitted facilities
- Emissions Inventory Criteria and Guidelines (EICG):
  - Emissions reporting and health risk evaluation requirements to support the AB 2588 Toxic Hot Spots Program

Current Inventories Do Not Meet Today's Needs



- Data is inconsistent, incomplete, hard to find and understand
- Air toxics list has not been significantly updated since 1990's
- Data is not available for many community sources

The Risks in Many Communities are Driven by Both Mobile and Stationary Sources



*2018-2020 extrapolated

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Improved Emissions Inventories Are Needed

- Inform priorities for toxic control regulations
- Develop and track progress on AB 617 community actions
- Address new chemicals
- Respond to all communities to provide more complete and accurate data

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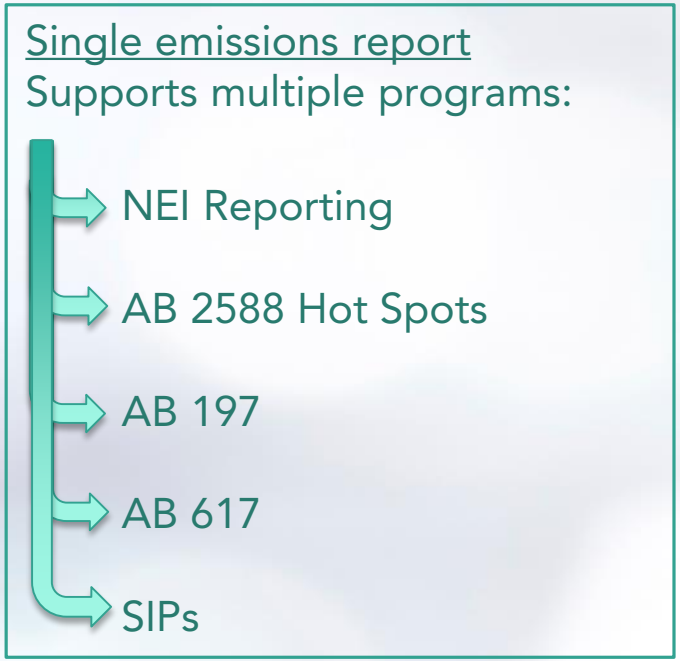
Two Regulations – Harmonizing Requirements to Meet Multiple Needs

- Chemicals of concern added
- New sources for reporting added
- Reporting standardized statewide
- Risk quantification and source test requirements strengthened



Addressing Stakeholder Concerns

Resource Concerns	Proposal to Address
Number of sectors and chemicals	Phase-in sectors and chemicals over several years
Availability of ems factors	Report usage (not ems)
Impact on small facilities	Abbreviated Reporting
High implementation costs for large sources	Minimize source testing and adjust chemical phase-in
High district cost	Expand implementation timeline and develop online reporting tool

Five Year Sector Phase-In Reduces Startup Workload

Air Districts with AB 617 Communities

South Coast
Bay Area
San Joaquin
Sacramento
San Diego
Imperial

Business Group	Reporting Year				
	2023	2024	2025	2026	2027
1st Third	Report 2022 data	*No reporting for any groups*			All groups report annually
2nd Third			Report 2024 data		
3rd Third				Report 2025 data	

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Other Districts Start After Additional Year

Full Reporting Starting in 2028

	Reporting Year					
Business Group	**2023**	**2024**	**2025**	**2026**	**2027**	**2028**
1st Third	*No reporting for any groups*	Report 2023 data	*No reporting for any groups*			All groups report annually
2nd Third				Report 2025 data		
3rd Third					Report 2026 data	

Chemical Phase-in Prioritizes Critical Chemicals

Phase 1: 181 new high priority chemicals

Those with new RELs, metal compounds, nitro-PAHs, VOC-exempt compounds, PFAS compounds

Phase 2: Remaining ~700

Known to have health impacts but with less data, report every 4 years

What Does This Mean for a Small Facility?

- Simplified reporting for many facilities (~half of all reporting)
- Report single activity number
  - Gas stations: gallons dispensed
  - Backup generators: hours of operation
- No expected workload from chemical list

Please list the total gallons dispensed per month and the annual total for just the above selected fuel type.
Please complete a separate form for each different fuel dispensed.

January	140,091 Gallons	July	166,183 Gallons
February	135,770 Gallons	August	169,572 Gallons
March	158,351 Gallons	September	162,660 Gallons
April	165,224 Gallons	October	172,119 Gallons
May	165,246 Gallons	November	158,710 Gallons
June	156,839 Gallons	December	154,506 Gallons

Total Annual Fuel Throughput: 1,905,411 Gallons

Monthly Throughput Limit (see your permit): Not specified Gallons

Annual Throughput Limit (see your permit): 4,200,000 Gallons

What Does This Mean for Midsize Industrial Sources

Aerospace Example

- Chemical list:
  - Facility currently reports 58 toxics
  - Likely increase of 5-6 chemicals in first phase in, 2023-2026
  - Additional 5-6 chemicals starting with second phase in 2027
- Frequency:
  - Currently once every 4 years or not at all
  - Report once during 2023-2026
  - Annual reporting with 2026 data

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What Does This Mean for Large Industrial Sources?

Facility	Number of Chemicals reported in 2018
Oil Refinery	37
Cement Plant	113

- 5-10 percent increase in number of chemicals reported
- No change to reporting frequency

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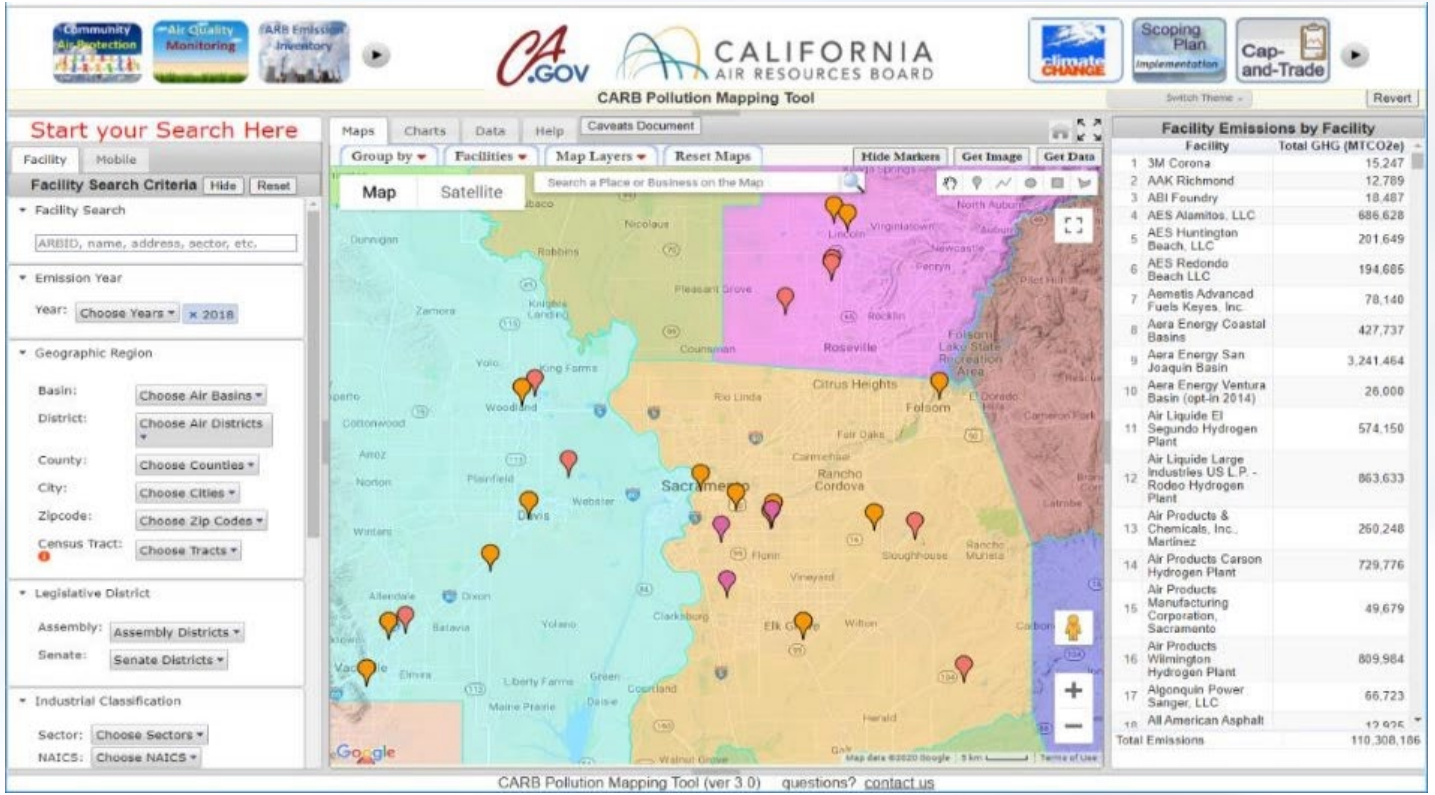
Extensive Outreach Effort

- Staff conducted 5 in-person workshops for CTR, one webinar for EICG, and a joint webinar
- Staff sent letters to over 1,500 facilities and associations
- Email to 22,200 additional groups/individuals
- Over 75 individual calls to local Chambers of Commerce and small business associations

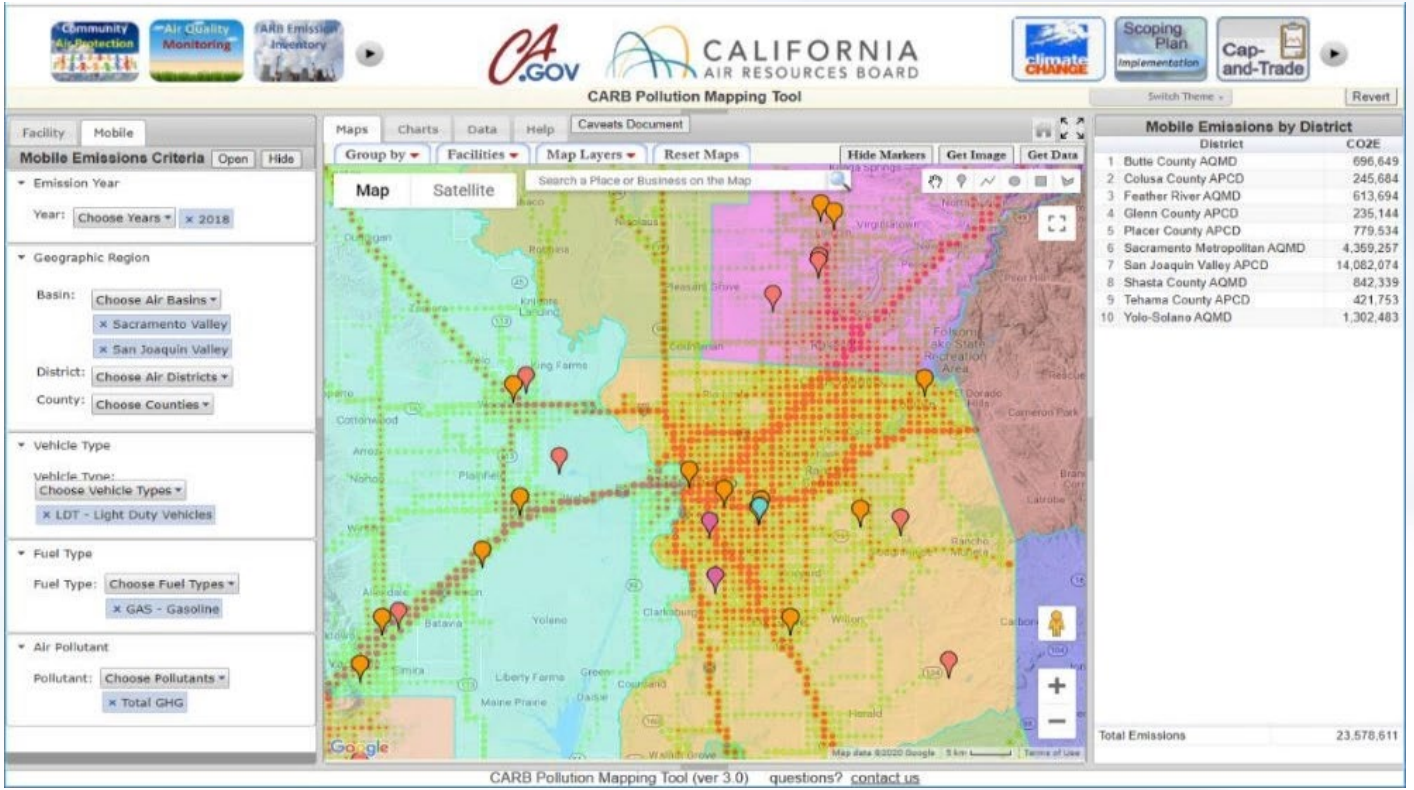
Inventory Improvements
Better Data, Better Tools

Current Mapping Tool: MRR facility emissions only



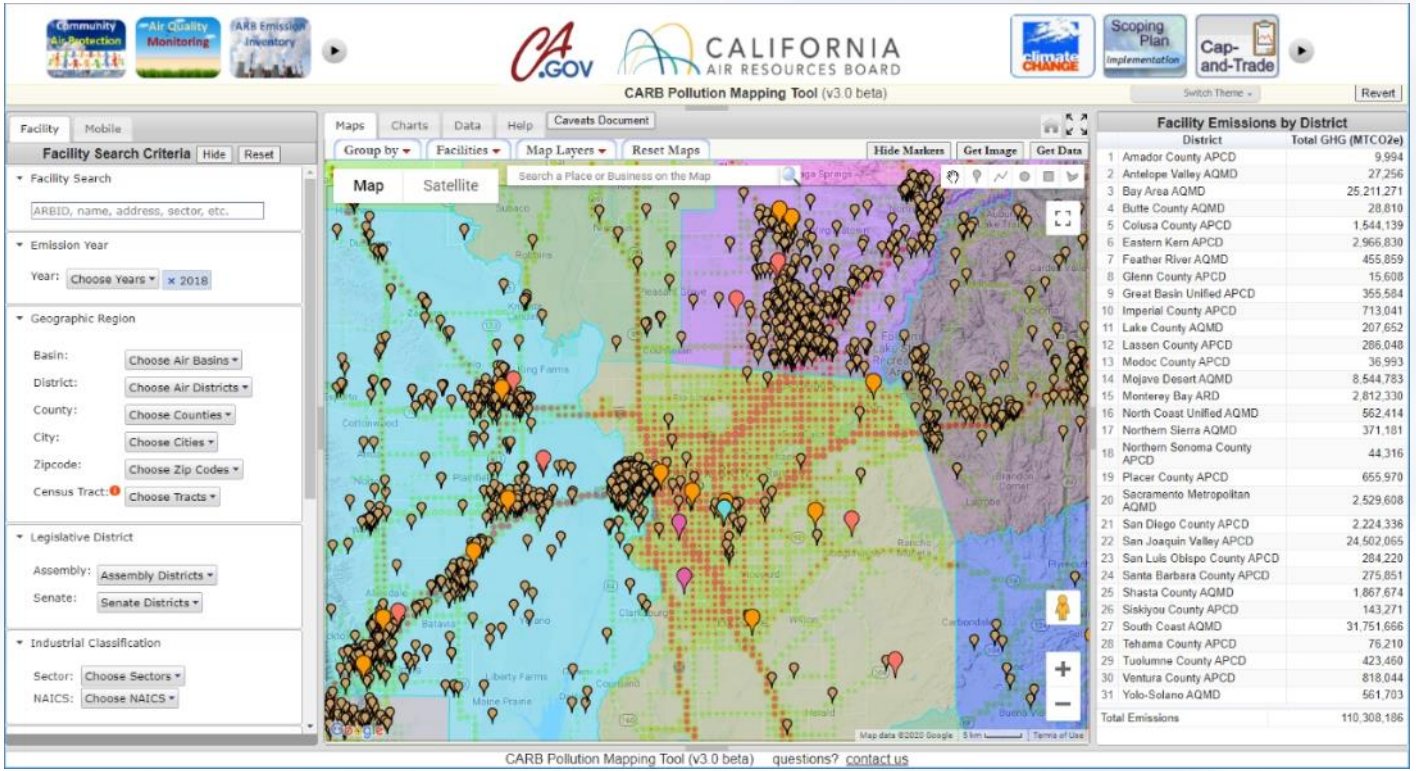
Inventory Improvements Better Data, Better Tools – Adding Mobile Emissions

Mapping Tool: MRR facilities and mobile source emissions



Anticipated Inventory Improvements
Better Data, Better Tools

Mapping Tool: <u>All</u> reported facilities and mobile source emissions



Importance of Collecting Air Toxics Data

- Emissions data are needed to identify chemicals that are widespread, persistent, or increasing
- Prioritize chemicals of high concern for developing provisional health values using the following:
  - If human or animal toxicity studies are available, leverage the work to rapidly develop health values
  - If studies are not available, use new methods or types of data
  - For established hazards, it is important to understand exposure

Leveraging Health Values

- Adapt values from other health agencies
- Assess broad classes of chemicals
- Provisional qualitative hazard assessments
  - Identify health outcomes of concern to communities
  - Make inferences about susceptible populations
- Provisional quantitative assessments
  - Identify potent chemicals that may warrant follow-up

Using New Methods and Types of Data

- Assess chemicals similar in structure (“read-across”)
- Evaluate “upstream” precursors to an adverse health outcome
- Identify low-dose biological activity at the cellular or molecular level (includes “high-throughput” testing)
- Evaluate evidence that a chemical shows “key characteristics” that are associated with toxicity

Proposed 15-Day Changes

- Require annual reporting only for chemicals with provisional health values or RELs
- Streamline phase-in for lower priority chemicals
- Evaluate reporting of lowest priority chemicals
- Ensure industry sector phase-in for medium and small air districts is implementable
- Adjust and phase in emissions threshold for medium and small air districts
- Minor corrections and clarifications to both regulations

Implementation Steps

- Working groups with CAPCOA, industry, OEHHA, Stakeholders
  - Air toxics emission factors and source testing
  - Data messaging and visualization
  - Health evaluations and RELs
  - Data management and IT development
- Annual progress reports to Board on implementation

Staff Recommendation

- Approve the proposed amendments to both the EICG and CTR regulations, with 15-day changes.