AGENDA: 4

Bay Area Air District

Toxic Air Contaminant Control Annual Report

Stationary Source Committee

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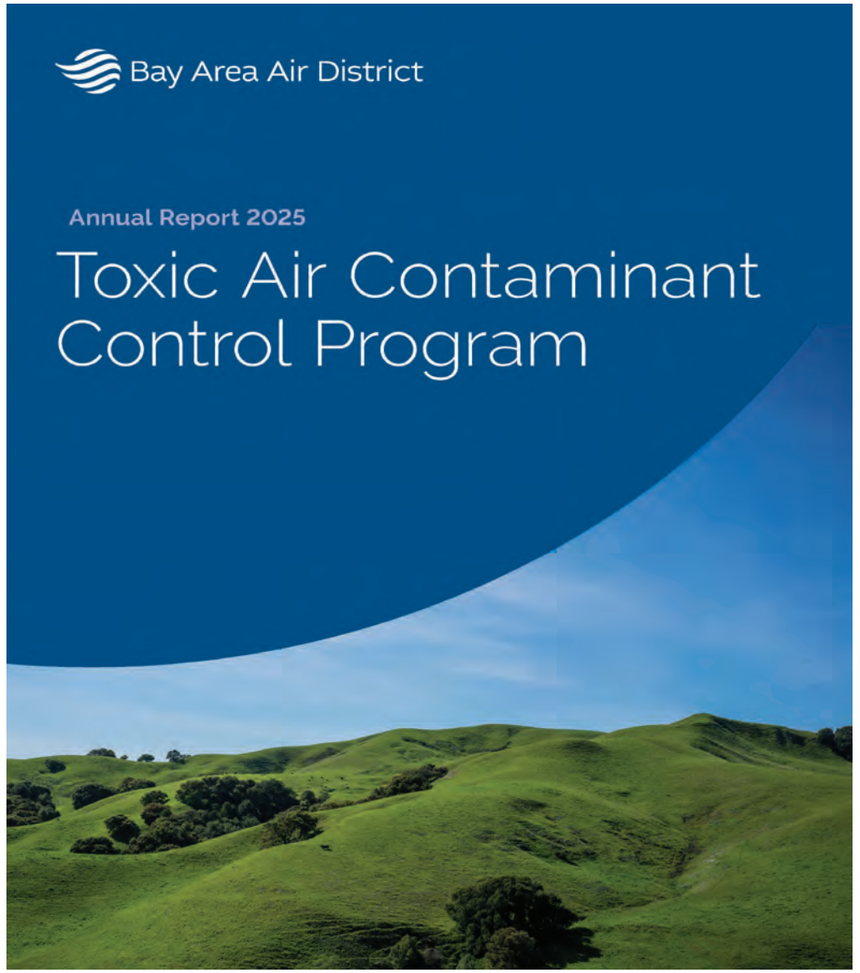
Presentation Outline

- Introduction and Purpose of Report
- Overview of Toxic Control Initiatives
- Air Toxic Programs
  - Air Toxics New Source Review
  - Facility Risk Reduction Programs
  - Air Toxics Emissions Inventory
  - Air Toxics Ambient Air Monitoring
  - Community Health Protection Programs
- Conclusions
- Acknowledgments

Introduction and Purpose of Report

- Fulfills mandatory reporting requirements under Assembly Bill (AB) 2588 Air Toxics Hot Spots Program (CA Health & Safety Code 44363)
- Provides consolidated, updated information on all Air District toxics air contaminant control programs



What are Air Toxics?

Definition: Pollutants known/suspected to cause cancer or serious health effects

Differs from Criteria Pollutants:

- No national ambient standards (unlike ozone, particulate matter, carbon monoxide, nitrogen oxides, sulfur dioxide, lead)
- Primarily local impacts near emission sources

Key Examples:

- Industrial chemicals: Benzene, hexavalent chromium, formaldehyde
- Diesel particulate matter (DPM) (major toxic driver in California)

Regulatory Approach:

- Risk-based assessment and control technology requirements
- Source-specific toxic rules
- AB 617 provides community monitoring and emission reduction focus that includes toxics

Overview of Toxic Control Initiatives

- Air Toxics New Source Review – Preconstruction evaluation for new or modified sources emitting toxic air contaminants
- Facility Risk Reduction Programs – Identification, assessment, and mitigation of health risks for existing facilities
- Air District Toxic Control Regulations – Regulations to control toxic emissions from local sources
- Air Toxics Emissions Inventory – Identification and reporting of toxic air contaminants from permitted facilities
- Air Toxics Ambient Air Monitoring – Assessment of concentrations through fixed monitoring stations and targeted studies including mobile monitoring campaigns
- Community Health Protection Programs – Targeted initiatives to reduce air quality disparities and improve health outcomes

Air Toxics New Source Review

- **Background:** Established in 1987, the Air Toxics New Source Review (NSR) Program has evolved through multiple significant updates (2001-2021) to strengthen toxic air contaminant management
- **Program Implementation:** Completed 235 health risk assessments in 2024-2025, with 22% in overburdened communities

	HRAs Received	HRAs Completed	Projects in OBC	Percentage of Completed Projects in OBC	Site-wide Projects	Percentage of Completed Site-wide Projects
2024 Quarter 2 (April – June)	61	64	15	23%	39	61%
2024 Quarter 3 (July – September	56	69	20	29%	44	64%
2024 Quarter 4 (October – December)	69	56	3	5%	8	14%
2025 Quarter 1 (January – March)	70	46	14	30%	26	57%
Total	256	235	52	22%	117	50%

HRA: Health Risk Assessment
OBC: Overburdened Community

Facility Risk Reduction Programs

Air Toxics Hot Spots Program

Overview: Identify and reduce toxic air emissions from facilities with locally elevated health impacts.

Status Update:

- Reported 2023 toxic emissions to California Air Resources Board (CARB)
- Finalized 2023 toxic emissions inventory and updated Facility Toxic Emission and Prioritization Tool
  - **What is Prioritization?** A screening methodology to rank facilities based on the quantity and toxicity of emissions and the proximity to nearby populations
- Based on 2023 inventory, the Air District has identified 764 high priority facilities
- Verified all facilities with completed HRAs were below public notification thresholds

Facility Risk Reduction Programs (Cont.)

Regulation 11, Rule 18

Overview: Reduce health risks from existing facilities

Status Update:

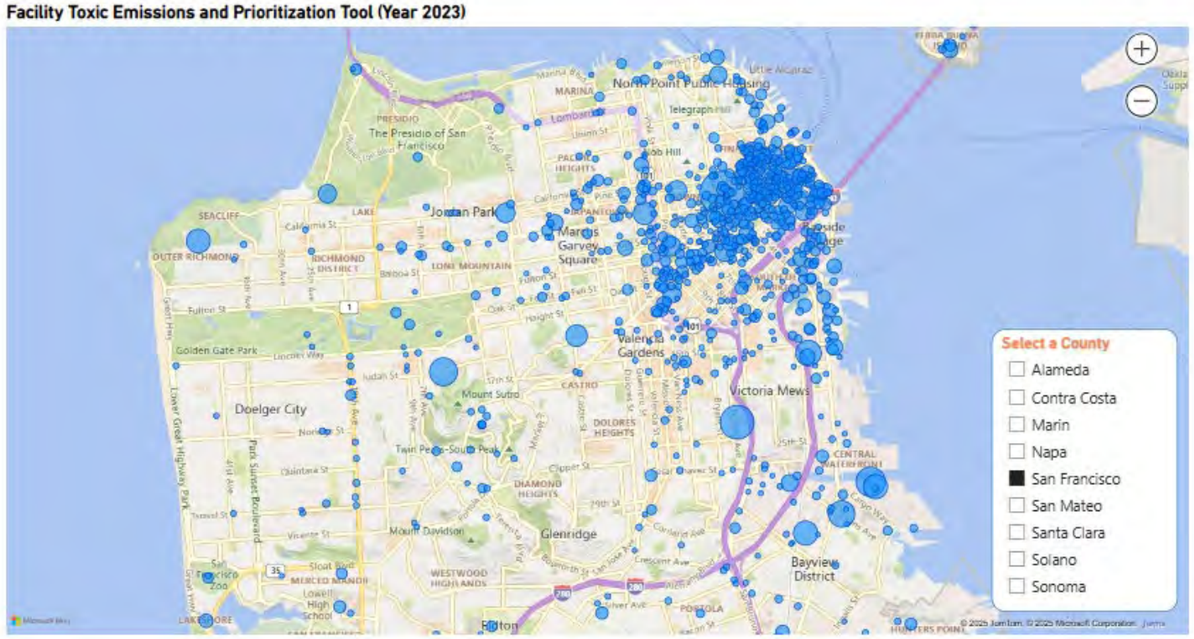
- Completed toxic emissions inventory review for multiple facilities
- Completed HRA modeling protocol for Chevron (March 2025)
- Amended rule language anticipated May 2025

Air Toxics Emissions Inventory

- The Air District maintains a database of permitted and registered facilities in the Bay Area and their associated air toxics emissions
- Air toxics emissions are updated annually and posted on the Air District website for public access
- Under AB 617, the Air District develops community-scale emissions inventories that include air toxics emissions estimates for stationary and mobile sources
- Air District emissions inventories support rule development, air quality modeling applications, enforcement actions, and monitoring efforts
- Under the strategic plan, preliminary regional air toxics inventory that includes area and mobile sources will be available in September 2026

Facility Air Toxics Emissions Inventory (cont.)

- In 2024, the Air District created the web-based Facility Toxic Emissions and Prioritization Tool for permitted sources
- This interactive map helps members of the public identify air toxics sources in their communities
- Facilities are displayed as bubbles that are sized according to their prioritization score (relative to other facilities shown on the map)



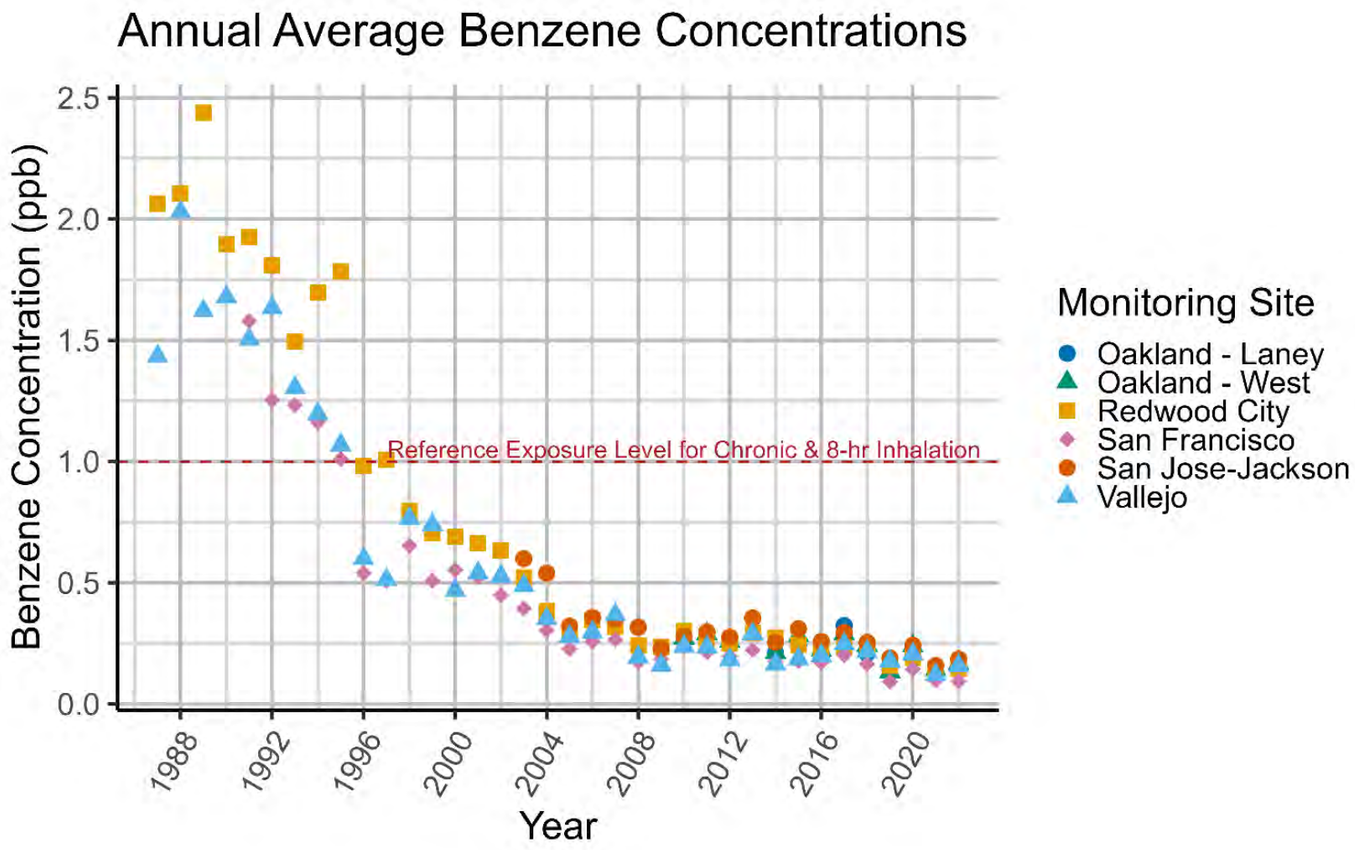
Air Toxics Ambient Air Monitoring

The Air District measures air toxics in ambient air as part of several monitoring programs:

- Long-term ambient air monitoring stations
  - Measurements of several toxics air contaminants at over 20 monitoring stations
- Major Stationary Source Community Air Monitoring Program
  - Expanding monitoring of certain TACs and other pollutants near large stationary pollution sources, starting with refineries
  - New monitoring site in Benicia began operations in July 2024
- Community air quality investigations using a variety of monitoring approaches
  - Monitoring project in East Oakland to be completed by May 2026
  - Monitoring project in Bayview-Hunters Point in initial planning stage

Air Toxics Ambient Air Monitoring (cont.)

- Data collected at long-term monitoring sites can be useful for evaluating trends in different air toxics compounds
- For example, benzene concentrations have decreased (improved) considerably since the 1980s and 1990s, though those improvements have leveled off in more recent years



Community Health Protection

The Air District implements several programs that assess and address public health risks in communities disproportionately impacted by air pollution:

- The AB 617 Community Air Protection Program
- Air District Grant Programs
- Bay Area Healthy Homes Initiatives

Through these programs, the Air District collaborates with community partners and other agencies to reduce exposures and improve public health

Current AB 617 Communities

1. West Oakland
2. Richmond-North Richmond-San Pablo
3. East Oakland
4. Bayview Hunters Point/ Southeast San Francisco

Community Health Protection (cont.)

2024 Highlights

- For the West Oakland AB 617 community, the Air District completed a 5-Year progress report which showed that DPM emissions in the community were reduced by 31% between 2017 and 2024
- For grant and incentive programs, the Air District executed 124 funding agreements totaling ~$77 million to reduce criteria pollutant emissions and toxic DPM from heavy-duty mobile sources

Zero Emissions Projects replaced older highly polluting diesel equipment, resulting in a lifetime reduction of about 21 tons of DPM

Conclusions

38 Years of Impact

- Air District has been implementing toxic control programs for 38 years
- These programs have successfully reduced public exposures to air toxics both regionally and locally

Cross-Divisional Approach

- The Air District's air toxic programs involve nearly every division
- Collaborative efforts ensure comprehensive toxics management

2024-2029 Strategic Plan: Protecting Vulnerable Communities

- Strategy 2.7 Understand your Local Air Pollution - Reducing disparate impacts from air pollution
- Strategy 2.3 Make Data Accessible - Increasing accessibility of toxic emissions and health risk information
- Strategy 4.12 Report Progress - Improving transparency for Air District decisions

Acknowledgements

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- Daniel Alrick, Principal Air & Meteorological Monitoring Specialist
- Jennifer Ofodile, Principal Air Quality Specialist

Strategic Incentives Division

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Questions/Feedback

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