



BAY AREA
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DISTRICT

AGENDA: 4

Updates to the Air District's Incident Response Program and Recommended Action to Fund Enhanced Monitoring

March 13, 2024

Stationary Source Committee Meeting

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Presentation Outcome



- Provide a summary of the Incident Response Ad Hoc meetings, including updates and future direction for the Air District's Incident Response Program
- Recommend the allocation of funding for enhanced monitoring to improve the Incident Response Program

Presentation Outline



- Incident Response Program Scope
- Recap of Incident Response Ad Hoc Meetings
- Efforts to Improve Coordination, Communication, and Air Monitoring
 - Proposed Air Monitoring Actions
- Longer-term Aspirations for Incident Response
- Recommended Action

Recommended Action



Recommend the Board of Directors (Board) to approve the proposed enhanced monitoring for incident response utilizing reserves funding that was set aside in the FYE 2024 Board-approved budget.

Incident Response Program Scope



What is an incident?

- A non-routine release of an air contaminant that may cause adverse health consequences to the public or to emergency personnel responding to the release, or that may cause a public nuisance, or off-site environmental damage.



Incident Response Program Scope (cont'd)



Air District Roles and Objectives

- Support first responders to help minimize the impact of the incident on the public
- Incident investigation and enforcement of air quality regulations and requirements
- Assessment of air quality impacts as appropriate
- Coordination with other agencies on enforcement, and health impacts and messaging
- Provide timely and relevant information to the public

Recap of Ad Hoc Meetings








Four meetings throughout 2023

- Learn about the current Air District actions during and after incidents
- Discuss options to improve the Air District incident response program
- Provide guidance on strengthening the Air District incident response program, focusing on improving coordination, communication and air monitoring

Recap of Ad Hoc Meetings (cont'd)



Goals guiding new actions

-  Improved internal and external coordination → Coordination
 -  Provide information to the public more quickly
 -  Provide more and better information to the public
 -  Reach a wider audience
 -  Share and collect relevant air quality data → Air Monitoring
- Communication

Improving Coordination



- Update internal coordination procedures to streamline coordination during and after incidents
 - Promotes faster/better response and public information
- Improve coordination with local agencies to strengthen public messaging and facility accountability
- De-mystify the Air District's incident response for the public by creating a straight-forward overview of our response and after-event process.
 - Promotes transparency and an opportunity for productive community engagement before, during, and after incidents.

Improving Communications



- Public Notification Tool launched September 2023, improvements continue
- Increased frequency and speed of updates to social media and email lists
- Regular messaging updates to city and county health officers
- Proactively notify community members when there are incidents and what we know about the incidents



Improving Air Monitoring: New Program



“What is this stuff that’s landing on my car/porch/garden?”

Proposed Refinery Corridor Particulate Monitoring Program:

- Network of District-maintained particle fallout monitoring locations to provide ongoing sampling for background data and samples to be analyzed when there is an incident
- Fund and support community-conducted particle sampling to provide additional data when there is an incident
- Timely release of laboratory results and other relevant information with communication protocols co-designed by community partners
- Convene a refinery corridor community air monitoring workgroup to guide these efforts

Improving Air Monitoring (cont'd)



- Accelerated implementation for these proposed projects with contractor support (Bay Air Center)
- Estimated cost:
 - District-maintained network: \$50,000 to set up and \$310,000 per year to operate and maintain the District-maintained network
 - Community-conducted sampling program: \$90,000 to co-develop and \$360,000 per year to operate and maintain the community-conducted sampling program and workgroup
- This model of partnering with community to gather, share, and use air monitoring data could be expanded to other pollutants, areas, and incident types, or non-incident air quality challenges

Additional Monitoring Measures to Prioritize



- Co-develop community-conducted air sampling and reporting protocols for odor-related incidents
- Strengthen refinery monitoring programs by updating rules and guidelines
- Develop new air monitoring systems and team to expand air monitoring during incidents for more data for public reports and investigations



Future Directions



- Include more information about air quality impacts in public information
- Collaborate with local agency partners to provide more near real-time information that is understandable and actionable
 - More reliable public alerts
 - Information on cause, expected duration, type/amount of emissions, potential public health impacts, and suggested actions to limit impact/exposure

Recommended Action



Recommend the Board of Directors (Board) to approve the proposed enhanced monitoring for incident response utilizing reserves funding that was set aside in the FYE 2024 Board-approved budget.



Q&A



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AGENDA: 5

Updates on Implementation and Rule Concepts for Rule 11-18: Reduction of Risk from Air Toxic Emissions at Existing Facilities

**Stationary Source Committee Meeting
March 13, 2024**

Kevin Oei
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Presentation Outcome



Provide information and updates on Regulation 11, Rule 18:
Reduction of Risk from Air Toxic Emissions at Existing Facilities

- Rule implementation
- Proposed changes to Implementation Procedures (IP) document
- Proposed concepts for rule amendments

Presentation Outline



- Background
- Challenges with Rule Implementation
- Rule 11-18 Program Updates
- Step 1: Program Improvements
- Step 2: Proposed Rule Amendment Concepts
- Public Comments
- Next Steps

Presentation Requested Action



- None; informational item

Background



- **Goal**

- Identify facilities with elevated health risks due to stationary source emissions and require reduction of health risks

- **Requirements**

- Reduce facility health risks below *Risk Action Levels*, or
- Install best available retrofit controls for toxics on each *Significant Source* of health risk



Key Steps to Rule 11-18 Implementation Process



Implementation Procedures



- **What is Implementation Procedures document?**
 - A supporting document to Rule 11-18 that describes the procedures the Air District will follow to implement the rule

- **Why is Implementation Procedures document important?**
 - Provide roadmap to guide Air District and facilities through the process
 - Ensure consistency during Air District's implementation process
 - Define criteria that trigger a facility health risk assessment review
 - Provide guidance on procedures for calculating toxic emissions and conducting health risk assessments
 - Provide details on Air District's review and approval processes for risk assessments and risk reduction plans
 - Outline general expectations and procedures for Dispute Resolution Panel

Challenges with Rule 11-18 Implementation



- Public and Board have expressed concerns about Air District's implementation of Rule 11-18:
 - Air District delays in completing Health Risk Assessments (HRAs)
 - Length of time to implement risk reductions as allowed by current rule
- Public and Board have requested:
 - Program efficiency improvements
 - Interim risk reduction measures

Rule 11-18 Program Updates



- **Step 1 – Near-Term Program Improvements**
 - Update Implementation Procedures (based on current rule)
 - Improve transparency and public engagement
 - Reduce implementation time
 - Reallocate Engineering Resources
 - Improve program efficiency
- **Step 2 – Longer-Term Program Improvements**
 - Amend Rule 11-18
 - Revise Implementation Procedures (based on amended rule)



Step 1: Near-Term Program Improvements

Step 1: Rule 11-18 Program Improvements



▪ Recent Website Updates

- Updated Lists of Phase I & Phase II Facilities
- Updated Status Table for Phase I Facilities (weblink: [here](#))
- Posted proposed Implementation Procedures & supporting documents

▪ Resource Reallocation

- Reorganized Engineering Division
 - Retitled Risk Assessment & Reduction (RAR) Section
 - Reassigned plants and applications to other Engineering staff
- Resource Addition
 - Added 2 engineers to RAR Section in 4th Quarter of 2023
 - Completed HRA training for 8 engineers

Step 1: Rule 11-18 Program Improvements (Cont'd)



■ Public Engagement

- December 29, 2023
 - Posted proposed Implementation Procedures & draft rule concepts for comments
- February 15, 2024
 - Held virtual public workshop
- February 29, 2024
 - Public comment period ended



Step 2: Proposed Rule Amendment Concepts

Step 2: Proposed Rule Amendment Concepts



■ Goals

- To Improve Program Efficiency
- To Implement Risk Reductions Sooner

Step 2: Proposed Rule Amendment Concepts (Cont'd)



- **To Improve Program Efficiency**
 - Allow Early Voluntary Submission of Risk Reduction Plan (RRP)
 - Dispute Resolution Panel Process
 - Combined Comment Period

Step 2: Proposed Rule Amendment Concepts (Cont'd)



- **To Improve Program Efficiency (cont'd)**
 - Require Facilities to Provide HRAs
 - Facility submitting their own HRAs is a common practice
 - Existing procedure for other risk reduction programs and other Air Districts
 - HRAs required to follow strict, very prescriptive guidelines that limit the room for discretion
 - **Air District Oversight:** HRAs reviewed for accuracy and errors and to ensure that they meet the guidelines. Air District has the authority to approve or correct as appropriate.

Step 2: Proposed Rule Amendment Concepts (Cont'd)



- **To Implement Risk Reductions Sooner**
 - Earlier Risk Reduction Deadlines for High-Risk Facilities
 - Prioritize HRA in Priority Community and Update the Priority Community Definition
 - Limit facility RRP extensions

Public Comments



- Public comments provided at workshop:
 - Concerns regarding facility providing HRAs
 - Clarifications and questions on rule amendment details
 - Questions on finding information about program implementation and HRA status
- Written comment period ended 2/29

Next Steps



- April 2024
 - Publish Updated Implementation Procedures based on Current Rule
 - Publish Response to Comments on Implementation Procedures
- Q2/Q3 2024
 - Begin the rulemaking process
 - Develop and publish draft amendments for public review/comment and stakeholder engagement
 - Propose further updates to Implementation Procedures as needed

Questions?



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AGENDA: 6

Indirect Source Regulations Overview

**Stationary Source Committee Meeting
March 13, 2024**

**Dr. Philip M. Fine
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Presentation Outcome



- Informational item
- Provide background on indirect sources and current regulatory landscape and discuss next steps

Outline



- Introduction and Background
- Air Quality Issues
- Current Regulatory/Legal Landscape
- Next Steps Discussion

Introduction and Background



Clean Air Act - 42 U.S.C. § 7410(a)(5)

Any State may include in a State implementation plan, but the Administrator may not require as a condition of approval of such plan under this section, any indirect source review program.

For purposes of this paragraph, the term “indirect source” means a facility, building, structure, installation, real property, road, or highway which attracts, or may attract, mobile sources of pollution.

Introduction and Background (cont.)



California Code, Health and Safety Code - HSC § 40716

(a) In carrying out its responsibilities pursuant to this division with respect to the attainment of state ambient air quality standards, a district may adopt and implement regulations to accomplish both of the following:

(1) Reduce or mitigate emissions from indirect and areawide sources of air pollution.

(2) Encourage or require the use of measures which reduce the number or length of vehicle trips.

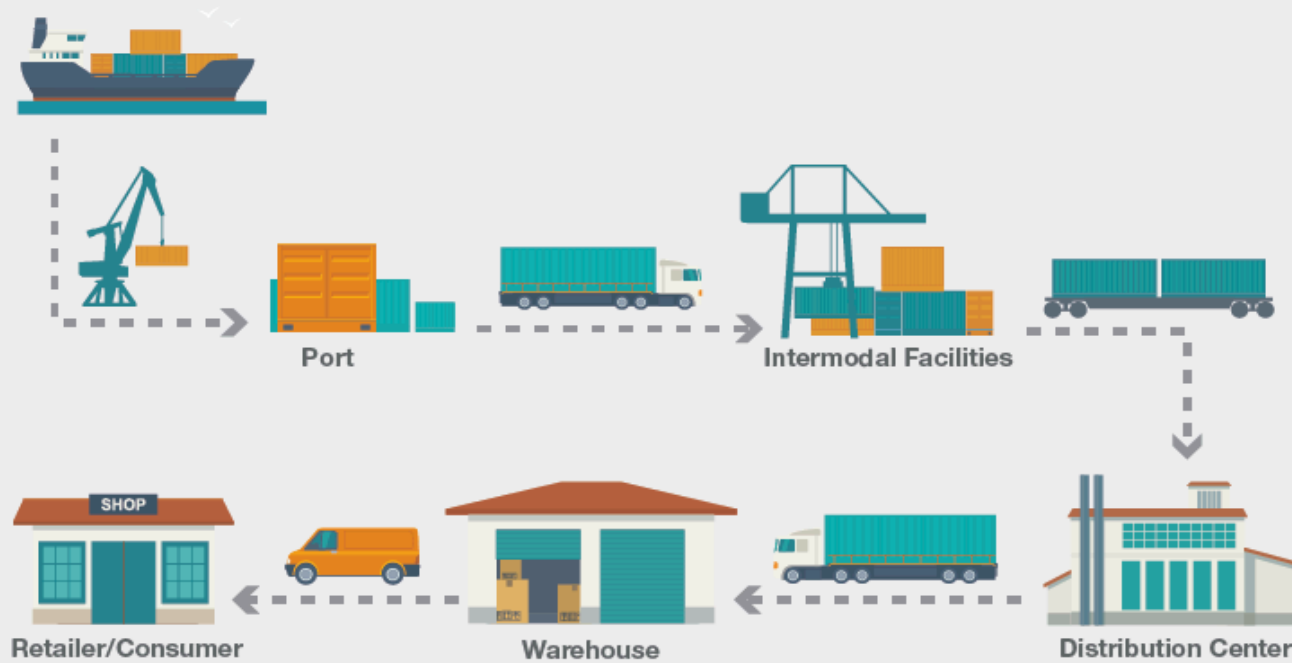
(b) Nothing in this section constitutes an infringement on the existing authority of counties and cities to plan or control land use, and nothing in this section provides or transfers new authority over such land use to a district.

Goods Movement in California



Figure 1

Example Pathway for How Goods Move From Production to Consumers



LAO, "Overview of California's Ports," August 23, 2022.

Indirect Emissions Infrastructure

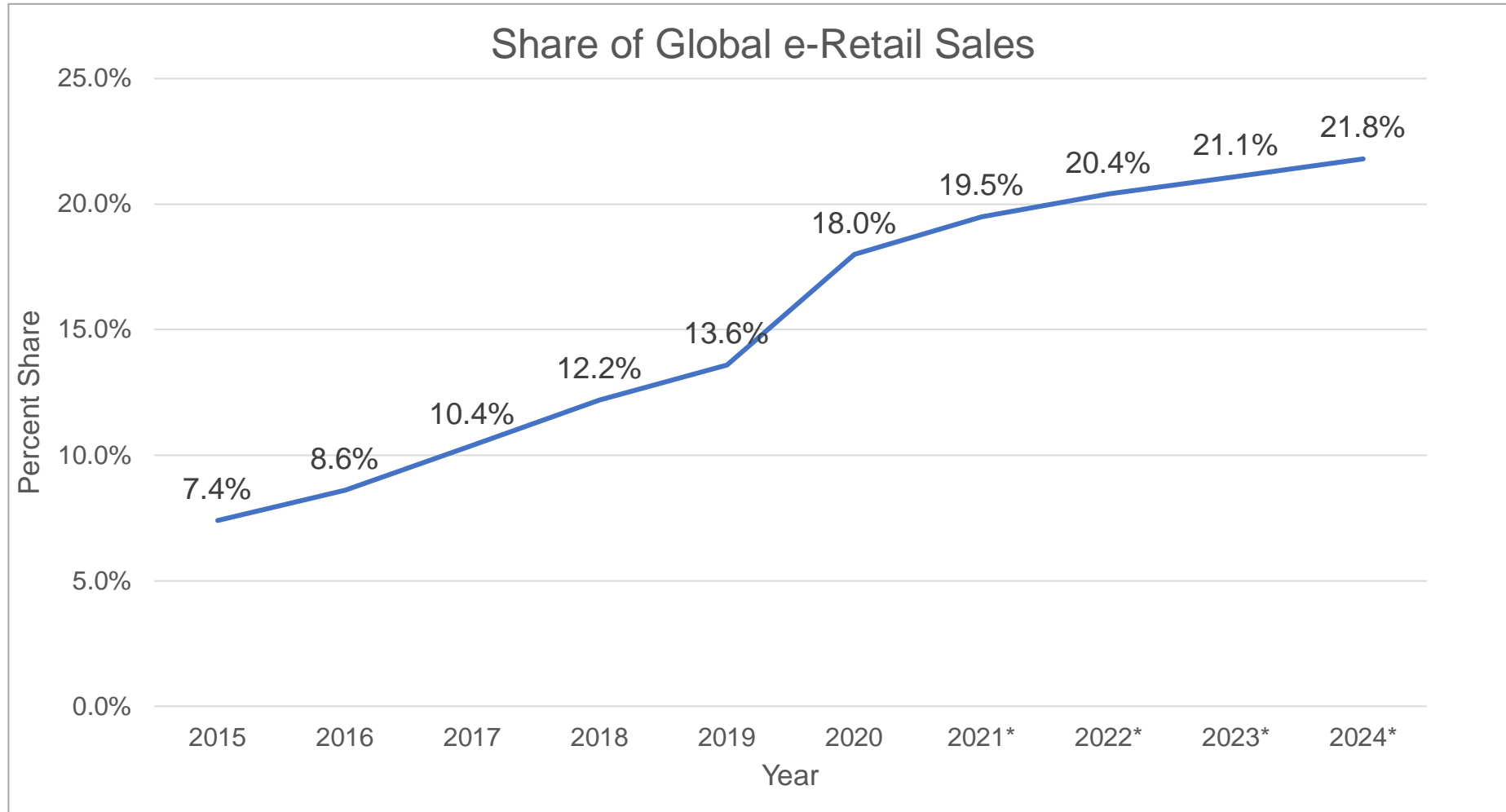


- California ports account for approximately one-third of all US containerized imports
- Growth of indirect source facilities associated with growth in goods movement and port activities

PORT	OPERATING ENTITY	TOTAL TONS OF CARGO, 2020
Port of Richmond	City of Richmond	21,050,741
Port of Oakland	City of Oakland	19,439,762
Port of Benicia	Ampports	Unknown

LAO, "Overview of California's Ports," August 23, 2022.

Growth of e-Commerce



Source: International Trade Association. "Impact of Covid Pandemic on e-Commerce," 2023.

COVID Impacts on e-Commerce



- The pandemic significantly expedited the growth of e-commerce
- e-Commerce experienced approximately a 32 percent increase in year-over-year increase in share of retail (2020 vs 2021)
- Accelerated e-commerce growth and technological advances in retail and on-line communications
- These changes in retail infrastructure appear persistent and permanent

Source: International Trade Association. "Impact of Covid Pandemic on e-Commerce," 2023.



Recent Indirect Source Projects in the Bay Area

- With growth in e-commerce, there is associated growth in distribution centers and warehouses
- Recent CEQA notices/documents issued for projects in the Bay Area:

Project	Date
3600 Alameda Avenue Project NOP	May 2022
455 Piercy Road Industrial Warehouse Project MND	July 2022
3636 Enterprise Avenue Industrial Project MND	August 2022
5853 Rue Ferrari Project MND	August 2022
San Francisco Gateway Project NOP	August 2022
San Francisco Gateway Project DEIR	December 2023
880 Doolittle Industrial Project NOP	December 2023

Air Quality Impacts from Indirect Sources



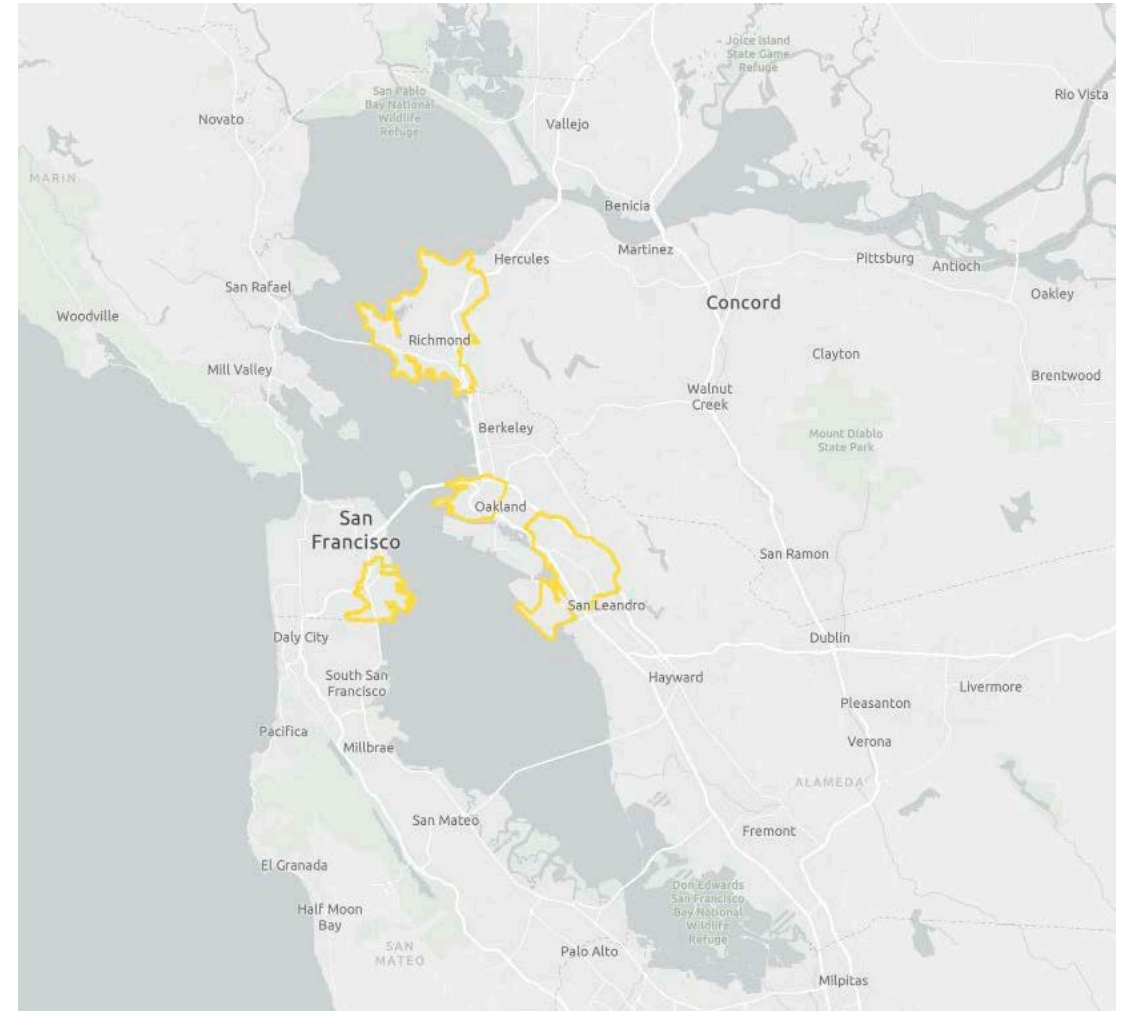
- Emissions from vehicle and equipment activity
 - On-site activity, operation, and idling at facilities
 - Increased vehicle activity, idling, and congestion in nearby communities
 - Particulate matter (PM), diesel PM (DPM), nitrogen oxides (NOx)
- Locations in and around overburdened communities
 - Historical land use compatibility issues
 - Environmental justice and equity challenges

Indirect Source Impacts on AB 617 Communities



Indirect Sources Impacting AB 617 Communities:

- Port of Richmond – *Richmond - North Richmond - San Pablo*
- Port of Oakland – *West Oakland*
- Proposed Amazon DC (SF Gateway) in Bayview (2.1 Million sq ft) – *Bayview Hunter's Point*
- Proposed 3600 Alameda Ave – *East Oakland*
- Proposed 880 Doolittle – *East Oakland*



Current Regulatory Landscape



- California Environmental Quality Act (CEQA) Guidelines
- CEQA Best Practices Document
- CARB Regulations
- Other air districts
 - SCAQMD
 - SJVAPCD
- Local Ordinances

California Environmental Quality Act (CEQA)



- Air District published updated CEQA guidelines in 2022
- Includes new chapter with best practices for centering Environmental Justice, Health, and Equity
- Identifies ways to assess and improve EJ practices in CEQA review for all projects
- By using this guidance, lead agencies should be able to:
 - Inform, consult, or engage overburdened and/or AB 617 communities in CEQA analysis and decision making
 - Identify projects located in overburdened and/or AB 617 communities
 - Analyze project-level impacts on overburdened and/or AB 617 communities
 - Determine whether the project is centering nondiscrimination and environmental justice through its mitigation plan, cumulative impact analysis, and alternatives analysis

CEQA Best Practices



- California Attorney General's Bureau of Environmental Justice released CEQA best practices and mitigation measures for warehouse projects (2022)
- Assist lead agencies in pursuing CEQA compliance and promoting environmentally-just development
- Community engagement, siting and design considerations, impact analysis best practices and mitigation
- Key Air Quality and Greenhouse Gas Analysis and Mitigation Components:
 - Analysis Best Practices – Cumulative impacts, quantitative air quality studies, health risk assessments
 - Construction Mitigation – Tier 4 engines, electrical power on site, idling restrictions
 - Operational Mitigation – Zero emissions equipment and vehicles, idling restrictions, solar requirements, EV charging stations, energy efficiency requirements

CARB Regulations



Medium and Heavy Duty Vehicles

- **Advanced Clean Trucks:**
 - Requirement to sell zero-emission trucks as an increasing percentage of California sales from 2024 to 2035
 - 2035: Zero-emission truck/chassis sales would need to be 55% of Class 2b – 3 truck sales, 75% of Class 4 – 8 straight truck sales, and 40% of truck tractor sales
- **Advanced Clean Fleets:**
 - Accelerating the deployment of zero-emission medium and heavy-duty trucks in order to achieve a zero-emission California truck and bus fleet by 2045
- **Zero Emission Transport Refrigeration Unit (TRU):**
 - Transition truck TRUs to zero-emission
 - Impose a stricter diesel PM emission standard for newly manufactured TRUs in the remaining categories
 - Require the use of lower global warming potential refrigerant and include facility reporting requirements

CARB Regulations (cont.)



Cargo Handling

- Mobile Cargo Handling Equipment (CHE) Regulation adopted in 2005
 - Reductions in toxic and criteria emissions, fully implemented by the end of 2017
 - CARB is currently assessing the availability and performance of zero-emission technology to further reduce emissions
- Governor's Executive Order N-79-20 signed in September 2020
 - Zero Emissions Forklift requirements
 - CARB proposed draft regulatory concepts in August 2021, currently in progress

Rail Activities

- In-Use Locomotive Regulation adopted in 2023
 - Operators required to pay into a spending account based on operator emissions
 - Companies will be able to use the funds to upgrade to cleaner locomotive technologies
 - Locomotives also will have a 30-minute idling limit
 - Switch, industrial and passenger locomotives built in 2030 or later required to operate in zero-emissions configurations while in California, and in 2035 for freight line haul

CARB Regulations (cont.)



Port Activities

- **At-Berth Regulation (2007)**
 - Affects ships at six California ports, including Oakland and San Francisco
 - Vessel visit limit requirements
 - 80% emissions reduction requirement
- **Updated “At-Berth Regulation” (2020)**
 - Achieve further emission reductions by including smaller fleets, additional vessel types (such as roll-on/roll-off vehicle carriers and tankers), and additional operations
- **Advanced Clean Fleets Regulation (2023)**
 - Includes Drayage Truck Requirements for seaports and railyards
 - Progress toward the directive of Executive Order (EO) N-79-20, which set a goal for 100 percent zero-emission drayage trucks in the State by 2035

South Coast AQMD



- **Specific Authority:** California Health and Safety Code section 40440 – SCAQMD may “provide for indirect source controls in those areas of the south coast district in which there are high-level, localized concentrations of pollutants or with respect to any new source that will have a significant effect on air quality.”
- **Rule 2305:** Warehouse Indirect Source Rule – Warehouse Actions and Investments to Reduce Emissions (WAIRE) Program
 - Applies to new and existing warehouses greater than or equal to 100,000 square feet in indoor floor space in a single building
 - Menu-based point system
 - Options include fleet electrification, charging infrastructure, mitigation fees, etc.
 - Rule phased in by warehouse size, increasing stringency
 - *California Trucking Association v. SCAQMD* ruling issued in December 2023
- **Proposed Rule 2304:** Indirect Source Rule for Commercial Marine Ports
 - Emissions controls for container terminals
 - NOx limits on ocean-going vessels and cargo handling equipment

San Joaquin Valley APCD



- **Specific Authority:** California Health and Safety Code section 40604: The San Joaquin Valley Unified Air Pollution Control District “shall adopt a schedule of fees to be assessed on areawide or indirect sources of emissions that are regulated. By the district to recover the costs of district programs related to these sources.”
- **Rule 9510: Indirect Source Review (ISR)**
 - New sources only
 - Size thresholds based on project type (heavy industrial, office, residential, etc.)
 - Emission reduction requirements for NO_x and PM₁₀
 - On-site project design elements or off-site fees

Local Ordinances



- County and City ordinances/guidelines:
 - North Richmond Heavy Distribution Use Prohibition (2023)
 - Zoning IS emissions sources away from sensitive land uses
 - Western Riverside Council of Governments (WRCOG) - Good Neighbor Guidelines For Siting New and/or Modified Warehouse/Distribution Facilities (2020)
 - Establishes best practices for IS sources
 - Idling restrictions
 - Education on health effects of DPM
 - City of Fontana Ordinance 1840 (2021)
 - Buffering zones and routing IS sources away from residential

Implementation Challenges – Case Law



National Association of Home Builders v. San Joaquin Unified Air Pollution Control District, 627 F.3d 730 (9th Cir. 2010)

“Emissions from any indirect source come from the direct sources located there. If an indirect source review program were not allowed in some circumstances to impute direct sources of emissions to an indirect source as a whole, there could be no regulation of the emissions from indirect sources and no indirect source review program could exist.”

California Building Industry Association v. San Joaquin Valley Air Pollution Control District, 178 Cal.App.4th 120 (2009)

“[T]he District is not attempting to do ‘indirectly’ that which it is prohibited from doing directly. The District is specifically authorized to both regulate and assess fees on developments that attract mobile sources of pollution, i.e., emissions generated by motor vehicles.”

76 Ops. Cal. Atty. Gen. 11 (Mar. 11, 1993)

“Although the ability to issue permits might well be helpful in ensuring timely or effective compliance with regulations pertaining to indirect sources, that alone is insufficient. Because of the controversial nature of indirect source review and the statutory reference to permits solely in connection with stationary sources, imposition of a permitting system upon indirect sources lacks the definitive indication of legislative intent required by the courts.”

Patrick Del Duca & Daniel Mansueto, *Indirect Source Controls: An Intersection of Air Quality Management and Land Use Regulation*, 24 Loy. L.A. L. Rev. 1131 (June 1991)

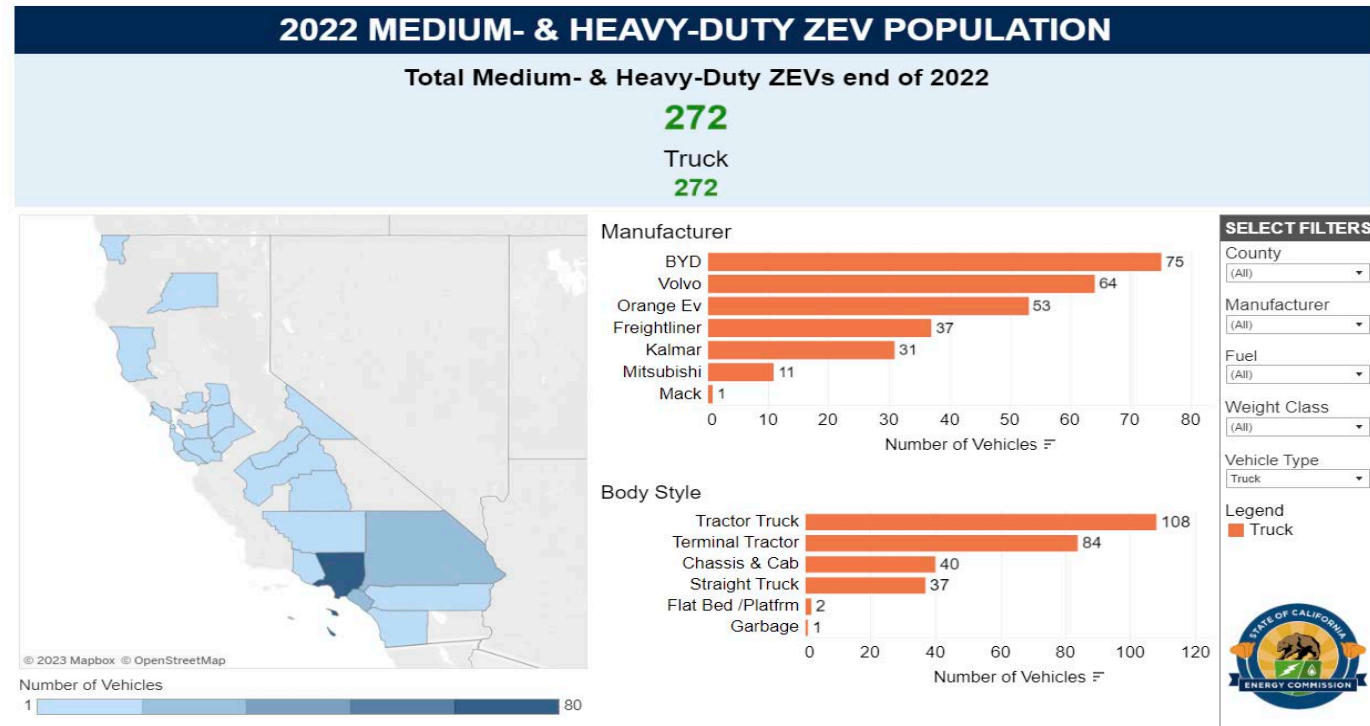
“[I]ndirect source controls directly impact land use by attempting to reduce emissions by shifting the transportation demand function.”

Source: CLA Annual Environmental Law Conference, Session 6: Regulating Indirect Sources, October 2023.

Implementation Challenges – ZEV Availability and Adoption



- Slow adoption: At end of 2022, only 272 ZEV trucks operated in California out of an estimated 504,000 Class 4-8 trucks
- 0.05% of trucks statewide are ZEVs



For additional information about the data and how to cite this visualization, see the [Dashboard](#).

Source: CLA Annual Environmental Law Conference, Session 6: Regulating Indirect Sources, October 2023.

Implementation Challenges – Electrification Infrastructure



- ZEVs require charging infrastructure
- Sufficient electricity transmission infrastructure/supply currently does not exist at all sources
- Some charging facilities and infrastructure cannot be developed without utility upgrades
- Timeline and approvals for utility upgrades

Source: CLA Annual Environmental Law Conference, Session 6: Regulating Indirect Sources, October 2023.

Next Step Discussion



- Continue to follow and track landscape and implementation of State and local programs
- Collaborate with local governments and other agencies on supporting development of policies, ordinances, and regulations
- Strategic efforts to look for opportunities and gaps in the landscape to leverage expertise and authority, including ISR