



BOARD OF DIRECTORS
STATIONARY SOURCE COMMITTEE
November 12, 2025

COMMITTEE MEMBERS

KEN CARLSON– CHAIR
DIONNE ADAMS
JOHN GIOIA
GABE QUINTO
STEVE YOUNG

LYNDA HOPKINS – VICE CHAIR
BRIAN COLBERT
RICO MEDINA
LENA TAM

**MEETING LOCATION(S) FOR IN-PERSON ATTENDANCE BY
COMMITTEE MEMBERS AND MEMBERS OF THE PUBLIC**

Bay Area Metro Center
1st Floor Yerba Buena
375 Beale Street
San Francisco, CA 94105

Alameda County
Board of Supervisors District 3
101 Callan Ave., Suite 103
San Leandro, CA 94577

Benicia City Hall - Conference Room 2
250 East L Street
Benicia, CA 94510

Pittsburg City Hall
65 Civic Ave., Room, 301A
Pittsburg, CA 94565

THE FOLLOWING STREAMING OPTIONS WILL ALSO BE PROVIDED

These streaming options are provided for convenience only. In the event that streaming connections malfunction for any reason, the Stationary Source Committee reserves the right to conduct the meeting without remote webcast and/or Zoom access.

The public may observe this meeting through the webcast by clicking the link available on the air district's agenda webpage at www.baaqmd.gov/bodagendas.

Members of the public may participate remotely via Zoom at <https://bayareametro.zoom.us/j/89336554369>, or may join Zoom by phone by dialing (669) 900-6833 or (408) 638-0968. The Webinar ID for this meeting is: 893 3655 4369

Public Comment on Agenda Items: The public may comment on each item on the agenda as the item is taken up. Members of the public who wish to speak on a matter on the agenda will have two minutes each to address the Committee on that agenda item, unless a different time limit is established by the Chair. No speaker who has already spoken on an item will be entitled to speak to that item again.

The Committee welcomes comments, including criticism, about the policies, procedures, programs, or services of the District, or of the acts or omissions of the Committee. Speakers shall not use threatening, profane, or abusive language which disrupts, disturbs, or otherwise impedes the orderly conduct of a Committee meeting. The District is committed to maintaining a workplace free of unlawful harassment and is mindful that District staff regularly attend Committee meetings. Discriminatory statements or conduct that would potentially violate the Fair Employment and Housing Act – i.e., statements or conduct that is hostile, intimidating, oppressive, or abusive – is *per se* disruptive to a meeting and will not be tolerated.

STATIONARY SOURCE COMMITTEE MEETING AGENDA

WEDNESDAY, NOVEMBER 12, 2025

10:00 AM

Chairperson, Ken Carlson

1. **Call to Order - Roll Call**

The Committee Chair shall call the meeting to order and the Clerk of the Boards shall take roll of the Committee members.

2. **Pledge of Allegiance**

CONSENT CALENDAR (Item 3)

The Consent Calendar consists of routine items that may be approved together as a group by one action of the Committee. Any Committee member or member of the public may request that an item be removed and considered separately.

3. **Approval of the Draft Minutes of the Stationary Source Committee Meeting of July 9, 2025**

The Committee will consider approving the Draft Minutes of the Stationary Source Committee Meeting of July 9, 2025.

INFORMATIONAL ITEM(S)

4. **Overview of Socioeconomic Analyses for Air District Rulemaking**

The Committee will discuss an overview of socioeconomic impact analyses conducted for Air District rulemaking, including background on the rule development process, statutory requirements and impact analysis, and opportunities for providing additional and supplemental information on health and equity benefits and expanded impact analyses. This item will be presented by Leonid Bak, Economist/Senior Advanced Projects Advisor in the Regulatory Development Division.

5. **Update on Amendments to Rule 11-18**

The Committee will discuss an update on the amendments to Regulation 11: Hazardous Pollutants, Rule 18: Reduction of Risk from Air Toxic Emissions at Existing Facilities (Rule 11-18). The amendments are intended to address Rule

11-18 implementation efficiency, particularly concerning Health Risk Assessments and Risk Reduction Plans. The update will include background on the Rule 11-18 program, draft amendments to Rule 11-18, and an overview of the rule development and stakeholder engagement process to date. This item will be presented by Dr. Andrea Anderson, Senior Air Quality Specialist in the Regulatory Development Division.

OTHER BUSINESS

6. Public Comment on Non-Agenda Matters

Pursuant to Government Code Section 54954.3, members of the public who wish to speak on matters not on the agenda will be given an opportunity to address the Committee. Members of the public will have two minutes each to address the Committee, unless a different time limit is established by the Chair. The Committee welcomes comments, including criticism, about the policies, procedures, programs, or services of the District, or of the acts or omissions of the Committee. Speakers shall not use threatening, profane, or abusive language which disrupts, disturbs, or otherwise impedes the orderly conduct of a Committee meeting. The District is committed to maintaining a workplace free of unlawful harassment and is mindful that District staff regularly attend Committee meetings. Discriminatory statements or conduct that would potentially violate the Fair Employment and Housing Act – i.e., statements or conduct that is hostile, intimidating, oppressive, or abusive – is per se disruptive to a meeting and will not be tolerated.

7. Committee Member Comments

Any member of the Committee, or its staff, on his or her own initiative or in response to questions posed by the public, may: ask a question for clarification, make a brief announcement or report on his or her own activities, provide a reference to staff regarding factual information, request staff to report back at a subsequent meeting concerning any matter or take action to direct staff to place a matter of business on a future agenda. (Gov't Code § 54954.2)

8. Time and Place of Next Meeting

Wednesday, December 10, 2025, at 10:00 a.m. The meeting will be held in-person at the Bay Area Metro Center and at satellite locations as may be specified on the meeting agenda using a remote teleconferencing link. Members of the Stationary Source Committee and the public may attend at any of those in-person locations, and members of the public may also attend virtually via webcast.

9. Adjournment

The Committee meeting shall be adjourned by the Chair.

CONTACT:

MANAGER, EXECUTIVE OPERATIONS
375 BEALE STREET, SAN FRANCISCO, CA 94105
vjohnson@baaqmd.gov

(415) 749-4941
FAX: (415) 928-8560
BAAQMD homepage:
www.baaqmd.gov

- Any writing relating to an open session item on this Agenda that is distributed to all, or a majority of all, members of the body to which this Agenda relates shall be made available at the Air District's offices at 375 Beale Street, Suite 600, San Francisco, CA 94105, at the time such writing is made available to all, or a majority of all, members of that body.

Accessibility and Non-Discrimination Policy

The Bay Area Air District (Air District) does not discriminate on the basis of race, national origin, ethnic group identification, ancestry, religion, age, sex, sexual orientation, gender identity, gender expression, color, genetic information, medical condition, or mental or physical disability, or any other attribute or belief protected by law.

It is the Air District's policy to provide fair and equal access to the benefits of a program or activity administered by Air District. The Air District will not tolerate discrimination against any person(s) seeking to participate in, or receive the benefits of, any program or activity offered or conducted by the Air District. Members of the public who believe they or others were unlawfully denied full and equal access to an Air District program or activity may file a discrimination complaint under this policy. This non-discrimination policy also applies to other people or entities affiliated with Air District, including contractors or grantees that the Air District utilizes to provide benefits and services to members of the public.

Auxiliary aids and services including, for example, qualified interpreters and/or listening devices, to individuals who are deaf or hard of hearing, and to other individuals as necessary to ensure effective communication or an equal opportunity to participate fully in the benefits, activities, programs and services will be provided by the Air District in a timely manner and in such a way as to protect the privacy and independence of the individual. Please contact the Non-Discrimination Coordinator identified below at least three days in advance of a meeting so that arrangements can be made accordingly.

If you believe discrimination has occurred with respect to an Air District program or activity, you may contact the Non-Discrimination Coordinator identified below or visit our website at www.baaqmd.gov/accessibility to learn how and where to file a complaint of discrimination.

Questions regarding this Policy should be directed to the Air District's Non-Discrimination Coordinator, Diana Ruiz, Acting Environmental Justice and Community Engagement Officer at (415) 749-8840 or by email at druiz@baaqmd.gov.

BAY AREA AIR DISTRICT
375 BEALE STREET, SAN FRANCISCO, CA 94105
FOR QUESTIONS PLEASE CALL (415) 749-4941

EXECUTIVE OFFICE:
MONTHLY CALENDAR OF AIR DISTRICT MEETINGS

NOVEMBER 2025

<u>TYPE OF MEETING</u>	<u>DAY</u>	<u>DATE</u>	<u>TIME</u>	<u>ROOM</u>
Board of Directors Meeting - CANCELLED	Wednesday	5	10:00 a.m.	1 st Floor Board Room
Board of Directors Stationary Source Committee	Wednesday	12	10:00 a.m.	1 st Floor, Yerba Buena Room
Board of Directors Community Equity, Health, and Justice Committee	Wednesday	12	1:00 p.m.	1 st Floor, Yerba Buena Room
Board of Directors Policy, Grants and Technology Committee	Wednesday	19	10:00 a.m.	1 st Floor Board Room
Board of Directors Finance and Administration Committee	Wednesday	19	1:00 p.m.	1 st Floor Board Room
Community Advisory Council Meeting	Thursday	20	6:00 p.m.	1 st Floor, Yerba Buena Room

DECEMBER 2025

<u>TYPE OF MEETING</u>	<u>DAY</u>	<u>DATE</u>	<u>TIME</u>	<u>ROOM</u>
Board of Directors Nominating Committee	Wednesday	3	9:00 a.m.	1 st Floor Board Room
Board of Directors Meeting	Wednesday	3	10:00 a.m.	1 st Floor Board Room
Advisory Council Meeting	Monday	8	10:00 a.m.	1 st Floor Board Room
Advisory Council Meeting	Monday	8	1:00 p.m.	1 st Floor Board Room
Board of Directors Stationary Source Committee	Wednesday	10	10:00 a.m.	1 st Floor, Yerba Buena Room
Board of Directors Community Equity, Health, and Justice Committee	Wednesday	10	1:00 p.m.	1 st Floor, Yerba Buena Room

DECEMBER 2025

TYPE OF MEETING

DAY

DATE

TIME

ROOM

**Board of Directors Policy, Grants and
Technology Committee**

Wednesday

17

10:00 a.m.

1st Floor Board Room

**Board of Directors Finance and
Administration Committee**

Wednesday

17

1:00 p.m.

1st Floor Board Room

MV 10/16/25 – 11:05 a.m.

G/Board/Executive Office/Moncal

BAY AREA AIR DISTRICT
Memorandum

To: Chairperson Ken Carlson and Members
of the Stationary Source Committee

From: Philip M. Fine
Executive Officer/APCO

Date: November 12, 2025

Re: Approval of the Draft Minutes of the Stationary Source Committee Meeting of
July 9, 2025

RECOMMENDED ACTION

Approve the Draft Minutes of the Stationary Source Committee Meeting of July 9, 2025.

BACKGROUND

None.

DISCUSSION

Attached for your review and approval are the Draft Minutes of the Stationary Source Committee Meeting of July 9, 2025.

BUDGET CONSIDERATION/FINANCIAL IMPACT

None.

Respectfully submitted,

Philip M. Fine
Executive Officer/APCO

Prepared by: Marcy Hiratzka
Reviewed by: Vanessa Johnson

ATTACHMENT(S):

1. Draft Minutes of the Stationary Source Committee Meeting of July 9 2025

Bay Area Air Quality Management District
Stationary Source Committee Special Meeting

Costa County Administration Building
1025 Escobar St.
Conference Rooms 110 A, B, & C
Martinez, CA 94553

Wednesday, July 9, 2025

DRAFT MINUTES

*This meeting was webcast, and a video recording is available on the website of the
Bay Area Air Quality Management District at
www.baaqmd.gov/bodagendas*

CALL TO ORDER

1. **Opening Comments:** Stationary Source Committee (Committee) Chairperson, Ken Carlson, called the meeting to order at 10:00 a.m.

Roll Call:

Present, In-Person (Costa County Administration Building, 1025 Escobar St., Conference Rooms 110 A, B, & C, Martinez, CA 94553): Chairperson Ken Carlson; Vice Chairperson Lynda Hopkins; and Directors Dionne Adams, John Gioia, Gabe Quinto, Lena Tam, and Steve Young.

Absent: Directors Brian Colbert and Rico E. Medina.

2. **PLEDGE OF ALLEGIANCE**

CONSENT CALENDAR

3. **APPROVAL OF THE DRAFT MINUTES OF THE STATIONARY SOURCE COMMITTEE MEETING OF JUNE 11, 2025**

Public Comments

No requests received.

Committee Comments

None.

Committee Action

Director Tam made a motion, seconded by Director Adams, to **approve** the Draft Minutes of the Stationary Source Committee meeting of June 11, 2025; and the motion **carried** by the following vote of the Committee:

AYES:	Adams, Carlson, Gioia, Quinto, Tam, Young.
NOES:	None.
ABSTAIN:	Hopkins.
ABSENT:	Colbert, Medina.

INFORMATIONAL ITEMS

4. GREEN EMPOWERMENT ZONE

Note: The Green Empowerment Zone (GEZ) was formed by Assembly Bill 844 and includes thirteen cities and portions of the unincorporated area of Contra Costa County. The GEZ “builds upon the comparative advantage provided by the regional concentration of highly skilled energy industry workers by prioritizing access to tax incentives, grants, loan programs, workforce training programs, and private sector investment in the renewable energy sector (Governing Board of the Green Empowerment Zone).” The Governing Board of the GEZ is currently led by Air District Board member, John Gioia, who serves as Chair.

John Kopchik, Director of Contra Costa County’s Department of Conservation and Development, gave the presentation *Overview of the Green Empowerment Zone*, including: key topics to be covered; overview of the GEZ; authorizing legislation Assembly Bill (AB) 844 (Grayson); GEZ as approved on April 19, 2024; current GEZ Board members; proposed cleanup Legislation Senate Bill (SB) 227 (Grayson); Contra Costa County’s role in the GEZ; High-Road (HR) strategy for clean energy manufacturing; University of California at Berkeley (UCB) Strategy A: research on priorities and growth strategies; UCB Strategy B: technical assistance to facilitate HR partnerships and inform strategies; UCB Strategy C: policy recommendations to accelerate HR growth; Marketing Committee; and complementary countywide initiatives.

Dr. Jessie HF Hammerling, Co-Director of UCB’s Green Economy Program, also gave comments, as a partner in this endeavor.

Public Comments

Public comments were given by Maureen Brennan, Rodeo resident.

Committee Comments

The Committee and staff discussed refinery workers’ concerns about the just transition to a low-carbon economy, and the desire for maximum transparency by policy makers who will be implementing recommendations; whether there are similar models or initiatives/efforts in California state with the same objective (identify projects and programs that will best utilize public dollars and most quickly improve a given area’s economic vitality in a coordinated effort

to support the development of the clean energy economy); the matrix of all involved permitting agencies, including the Air District's current efforts to streamline its permitting process; the suggestion that a new seat be created on the GEZ specifically for an Air District Board member; concerns that the closure of Bay Area refineries will trigger an oil war at the scale of international conflicts driven by oil resources; concerns regarding subsidiary businesses that rely on Bay Area refineries as their main clients; the amount of time it can take for a community to fully recover from an economic downturn caused by the loss of a major industry; barriers to attracting new energy economy businesses; and how quickly a petroleum refinery may be closed and decommissioned.

Committee Action

No action taken.

5. REFINERY COMMUNITY AIR MONITORING PROGRAM OVERVIEW

Dr. Kate Hoag, Assistant Meteorology and Measurement Manager, gave the staff presentation *Refinery Community Air Monitoring Program Update*, including: outline; refinery community air monitoring programs; other air and emissions monitoring programs; community air monitoring stations near refineries; steps in constructing and air monitoring station; update on refinery air monitoring stations; refinery community fenceline air monitoring requirements; current refinery fenceline implementation; Chevron fenceline air monitoring settlement agreement; motivation for improved fenceline monitoring requirements; potential improvements under consideration; and tentative rule development timeline.

Public Comments

Public comments were given by Kathy Kerridge, Benicia resident; Jan Warren, Interfaith Climate Action Network of Contra Costa County; Charles Davidson, Hercules resident; and Maureen Brennan, Rodeo resident.

Committee Comments

The Committee and Air District staff discussed the public's desire for: real-time data that is published with integrity, to know emission sources, when emission levels exceed thresholds, subsequent health impacts, subsequent action that needs to be taken, and meaningful interpretations of data by health professionals; whether the Air District has collaborated with, or mimicked the efforts of PurpleAir to add an additional data layer in fenceline communities, as PurpleAir is a tool that many people already use; the advocacy for communities that do not contain refineries within their jurisdiction, but are still impacted by transported emissions from neighboring communities, to also receive monitoring stations; the level of stakeholder engagement; whether the Air District is satisfied with the current fenceline monitoring technology; whether refineries use the same monitoring technology; the fact that some air pollution floats over fenceline monitors; and the belief that the public has higher expectations than what the Air District can currently deliver.

Committee Action

No action taken.

6. **INCIDENT RESPONSE PROGRAM OVERVIEW**

A. Incident Response Program Overview

Dr. Meredith Bauer, Deputy Executive Officer for Engineering and Compliance, and Joe Lapka, Principal Air Quality Specialist, gave the staff presentation *Incident Response Program Overview*, including: outline; Strategic Plan framework; Strategy 4.8 (Air Quality Incidents) commitments; Incident Response and Program scope and improvements; ongoing coordination efforts; communication updates; Particle Fallout Sampling Program for refinery communities; progress on Core Sampling Network; progress on the Community Workgroup and its responsibilities; Strategic Plan: and action to improve incident response.

B. After Incident Review: February 1, 2025 Martinez Refining Company (MRC) Fire

Ed Giacometti, Compliance and Enforcement Manager, gave the staff presentation *After Incident Review (February 1, 2025 at MRC)*, including: outline; MRC Refinery fire overview; immediate response: Air District Inspection Team and communications; responding agencies; follow-up response: post-incident investigation and public communication; enforcement actions; and air quality and risk screening.

C. Contra Costa Health Department MRC Fire Incident Update

Nicole Heath, Director of Hazardous Materials for Contra Costa Health, gave the presentation *MRC 2025 Fire*, including: description of event; health impacts of release; risk assessment; summary; Swiss Cheese Model representation; and Contra Costa Health next steps.

Public Comments

No requests received.

Committee Comments

The Committee and staff discussed the history of Contra Costa County's Industrial Safety Ordinance (adopted January 1999) that authorizes the County to regulate safety at facilities that produce certain regulated substances; concern that during incidents, those answering the Air District's complaint phone line sometimes are not aware of the incidents; during a hazardous materials incident, the amount of time between the issuance of a Level 2 public notification and a Level 3 public notification, and which entity determines the hazardous levels of the incident; the advantages and disadvantages of over and under-notification to the public during an incident; and perceived levels of improvement in communication over the years in Contra Costa County.

Committee Action

No action taken.

OTHER BUSINESS

7. PUBLIC COMMENT ON NON-AGENDA MATTERS

No requests received.

8. COMMITTEE MEMBER COMMENTS

None.

9. TIME AND PLACE OF NEXT MEETING

At the end of the meeting, the next meeting of the Stationary Source Committee was to be Wednesday, September 10, 2025. After the meeting adjourned, the date was changed to Wednesday, October 8, 2025, , and then, to November 12, 2025, at 10:00 a.m. at 375 Beale Street, San Francisco, CA 94105. The meeting will be in-person for the Stationary Source Committee members and members of the public will be able to either join in-person or via webcast.

10. ADJOURNMENT

The meeting was adjourned at 12:50 p.m.

Marcy Hiratzka
Clerk of the Board

BAY AREA AIR DISTRICT
Memorandum

To: Chairperson Ken Carlson and Members
of the Stationary Source Committee

From: Philip M. Fine
Executive Officer/APCO

Date: November 12, 2025

Re: Overview of Socioeconomic Analyses for Air District Rulemaking

RECOMMENDED ACTION

None; the Committee will discuss this item, but no action is requested at this time.

BACKGROUND

The Bay Area Air District is responsible for creating and modifying rules and regulations that cover sources of pollution that fall within the Air District's regulatory authority. California Health and Safety Code section 40728.5 requires that the Air District consider the socioeconomic impact of rules and rule amendments that will significantly affect air quality or emissions limitations. Section 40728.5 includes requirements for the Board of Directors to actively consider the socioeconomic impact of these rules and regulations and to make a good faith effort to minimize the socioeconomic impacts, and includes details on the socioeconomic impacts to be considered.

DISCUSSION

Rule Development and Socioeconomic Analysis Requirements

The Air District develops new rules and rule amendments to be considered by the Board of Directors for adoption. The California Health and Safety Code includes a number of requirements for evaluating and considering different impacts as part of the rule development process, including evaluations of emission reductions, compliance costs, cost-effectiveness and incremental cost-effectiveness, environmental impacts, and socioeconomic impacts. Requirements for socioeconomic impact assessments are described in California Health and Safety Code, Section 40728.5, which states that the "...agency shall, to the extent data are available, perform an assessment of the socioeconomic impacts of the adoption, amendment, or repeal of the rule or regulation," and that "the district board shall actively consider the socioeconomic impact of regulations and make a good faith effort to minimize adverse socioeconomic impacts." "Socioeconomic impact" is defined in the Health and Safety Code as:

1. The type of industries or business, including small business, affected by the rule or regulation.
2. The impact of the rule or regulation on employment and the economy of the region affected by the adoption of the rule or regulation.
3. The range of probable costs, including costs to industry or business, including small business, of the rule or regulation.
4. The availability and cost-effectiveness of alternatives to the rule or regulation being proposed or amended.
5. The emission reduction potential of the rule or regulation.
6. The necessity of adopting, amending, or repealing the rule or regulation to attain state and federal ambient air standards.

Air District staff performs some of these assessments as part of other analyses and requirements (such as evaluating emission reductions, cost-effectiveness of alternatives, necessity findings), and often works with vendors and consultants to assess socioeconomic impacts to industries, businesses, and regional employment and economy from the proposed rulemaking. This assessment process involves identifying entities impacted by the proposed regulation, estimating the economic value of these entities to the Bay Area (through Input-Output models such as IMPLAN [Impact Analysis for Planning] and REMI [Regional Economic Models, Inc.]), estimating compliance costs, and analyzing the current economic performance of entities and the impact of the regulation on the continued economic performance (i.e., assumptions of profit reduction/loss, jobs losses).

These assessments provide useful information, but there can be some limitations. For example, standard methods for these analyses often focus on regional macroeconomic indicators and are not always able to answer more nuanced questions on local and specific community-level impacts. These analyses are also not designed to provide information on changes to consumption patterns resulting from regulation; while direct impact is measured, analysis of changes in consumption patterns resulting from a change to a regulation are not currently conducted nor required. In addition, some groups have expressed concerns about the adequacy or completeness of the analyses, although a precise impact assessment is difficult to achieve due to limited availability and uncertainty of data (e.g., proprietary business data, profit details, and relevant cross-sectional data to measure impact on certain specific areas or people groups).

Additional Information for Decision Making Processes

In light of these concerns, the Air District has made efforts to provide additional and supplemental information to the Board and public for rulemakings where appropriate and feasible. These types of information are not statutorily required, but can provide useful information and context for decision making. These include modeling-based assessments on health and equity benefits for proposed rulemaking, as well as expanded analysis and more detailed assessments of potential socioeconomic and economic impacts.

Modeling-based assessments of health and equity benefits can be used to estimate potential reductions in health impacts from reduced air pollution emissions associated with Air District rulemaking. These assessments use different tools to estimate these impacts, including:

- Air quality models to link source emissions to ambient concentrations;
- Exposure models with population data to evaluate pollution exposures and disparities across subgroups of race and ethnicity; and
- Health impacts models and studies to estimate health impacts and valuations.

Recent examples of such modeling-based methods include health and equity assessments for Amendments to Regulation 6, Rule 5: Particulate Emissions from Refinery Fluidized Catalytic Cracking Units (Rule 6-5) in 2021 and Amendments to Regulation 9, Rule 4 (Rule 9-4) and Regulation 9, Rule 6 (Rule 9-6) addressing nitrogen oxides (NOx) emissions from Natural Gas Space and Water Heaters in 2023.

The Air District has also made efforts to provide and prepare additional and expanded socioeconomic impact analyses for rulemakings when appropriate and feasible. These analyses often go beyond statutory requirements, and can provide additional information for the Board and public on potential impacts of a rulemaking, such as pass down compliance costs from industry to consumers, special impacts to small businesses and/or households, and additional context on the regional economic impact, location, and market structure of the affected industries. Recent examples of these expanded socioeconomic analyses include:

- 2023 Amendments to Rule 9-4 and Rule 9-6 (NOx from Natural Gas Space and Water Heaters) – This analysis evaluated the direct impacts of increased compliance costs on residential consumers installing and replacing space and water heaters. The analysis explored potential equity impacts at the household-level by different income groups, housing tenure, and poverty level. The analysis also assessed potential shifts in consumer spending and potential job losses (both direct and indirect/induced), as well as potential costs and impacts of related electric utility infrastructure upgrades.
- 2025 Amendments to Rule 6-3 and Regulation 5 (Woodburning) – This analysis explored potential socioeconomic impacts from both direct costs on residential consumers and business impacts. The analysis explored impacts at the household level by different income groups and poverty level, as well as potential shifts in spending and potential job losses (both direct and indirect/induced).

The Air District continues to evaluate and explore opportunities to incorporate this additional analysis and information in future work. In 2023, the Air District conducted a request for qualifications for contractors with these expanded capabilities, and continues to evaluate opportunities to incorporate this work into a number of different projects. Potential future projects may include additional analysis of socioeconomic impacts associated with the Air District's amendments to Regulation 3: Fees. The Air District typically amends Regulation 3 annually to revise fee schedules and fees charged to various entities. The California Health and Safety Code does not require the Air District

to analyze socioeconomic impacts from these amendments, but this analysis may provide the Board and public with additional information on impacts of increased fees on businesses and the regional economy. The Air District also anticipates expanding socioeconomic analyses for projects with the potential for broad and widespread impacts, including rulemakings with direct impacts to households and small businesses, as data availability allows.

BUDGET CONSIDERATION/FINANCIAL IMPACT

None.

Respectfully submitted,

Philip M. Fine
Executive Officer/APCO

Prepared by: David Joe
Reviewed by: Leonid Bak

ATTACHMENT(S):

1. Socioeconomic Analysis Presentation



Overview of Socioeconomic Analyses for Air District Rulemaking

Stationary Source Committee

November 12, 2025

Leonid Bak

Economist / Senior Advanced Projects Advisor
Regulatory Development Division

Presentation Outline

- Background on Rule Development Requirements
- Statutory Requirements for Socioeconomic Impacts
- Overview of Socioeconomic Analyses
- Additional Information for Decision Making Processes
 - Health and Equity Assessments
 - Expanded Analysis of Socioeconomic and Economic Impacts

Rule Development Requirements

- Air District develops new rules and rule amendments to be considered by the Board of Directors for adoption
- Number of requirements for evaluating and considering different impacts as part of the rule development process include estimates of:
 - Emission reductions
 - Compliance costs
 - Cost-effectiveness and incremental cost-effectiveness
 - Environmental impacts
 - Socioeconomic impacts

Statutory Requirements

- **California Health and Safety Code, Section 40728.5**
 - “...agency shall, to the extent data are available, perform an assessment of the socioeconomic impacts of the adoption, amendment, or repeal of the rule or regulation.”
 - “The district board shall actively consider the socioeconomic impact of regulations and make a good faith effort to minimize adverse socioeconomic impacts...”

Statutory Requirements (cont.)

- “Socioeconomic impact” means the following:
 - (1) The type of industries or business, including small business, affected by the rule or regulation
 - (2) The impact of the rule or regulation on employment and the economy of the region affected by the adoption of the rule or regulation
 - (3) The range of probable costs, including costs to industry or business, including small business, of the rule or regulation

Statutory Requirements (cont.)

- “Socioeconomic impact” means the following (cont.):
 - (4) The availability and cost-effectiveness of alternatives to the rule or regulation being proposed or amended
 - (5) The emission reduction potential of the rule or regulation
 - (6) The necessity of adopting, amending, or repealing the rule or regulation to attain state and federal ambient air standards

Overview of Socioeconomic Analyses

- Air District performs some of these assessments as part of other analyses and requirements (such as evaluating emission reductions, cost-effectiveness of alternatives, necessity findings)
- Impacts to industries, businesses, and regional employment and economy assessed with support of socioeconomic consultants

Socioeconomic Analysis: Current Process

Identify Industry

- Identify entities impacted by the proposed regulation
- Estimate economic value of these entities to the Bay Area via input-output (I-O) models, such as IMPLAN (Impact Analysis for Planning) and REMI (Regional Economic Models, Inc.)

Identify Costs

- Estimate average cost of device and implementation to comply with regulation (including cost-effective alternatives)

Assess the Impact

- Analyze economic performance of entities
- Estimate emissions reduction and need for regulatory action
- Estimate impact of regulation (i.e., costs) on continued economic performance (i.e., assumptions of profit reduction/loss, jobs losses)

Limitations of Analysis

- Analysis is focused on regional macroeconomic indicators
 - Does not answer more nuanced local/community-level questions
- Socioeconomic analyses are not designed to provide information on changes to consumption patterns resulting from regulation
 - Direct impact is measured currently, but analysis of impacts on changes in consumption patterns resulting from a change to a regulation, i.e., induced impact estimates, are not currently conducted nor required

Limitations of Analysis (cont.)

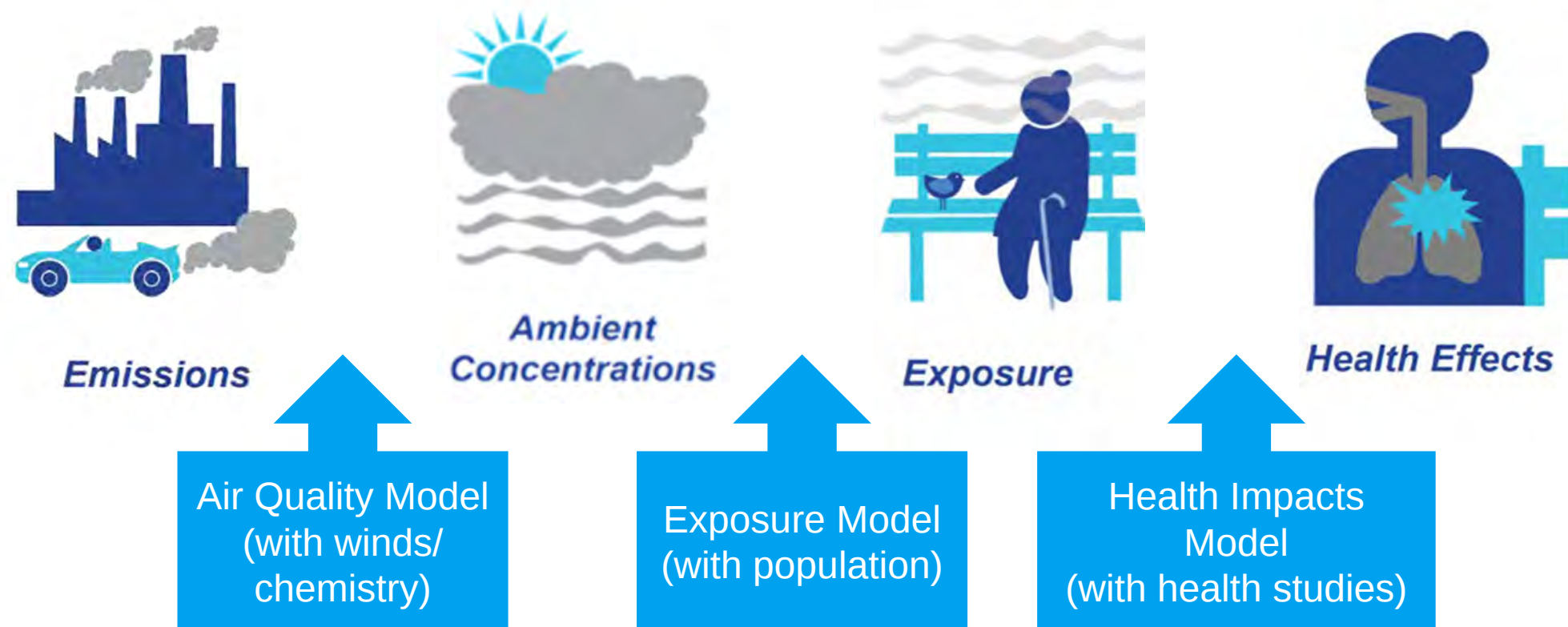
- While some groups have expressed concerns about the adequacy or completeness of the analyses, a precise impact assessment is hard to achieve due to data availability – proprietary business data, such as profit details, relevant cross-sectional data to measure impact on certain specific areas or people groups

Additional Information for Decision Making

- Types of information that are not statutorily required, but can provide supplemental information to the Board and public
 - Modeling-based assessments on health and equity benefits for proposed new rules or amendments
 - Expanded analysis or more detailed assessment of potential socioeconomic and economic impacts

Health and Equity Assessments

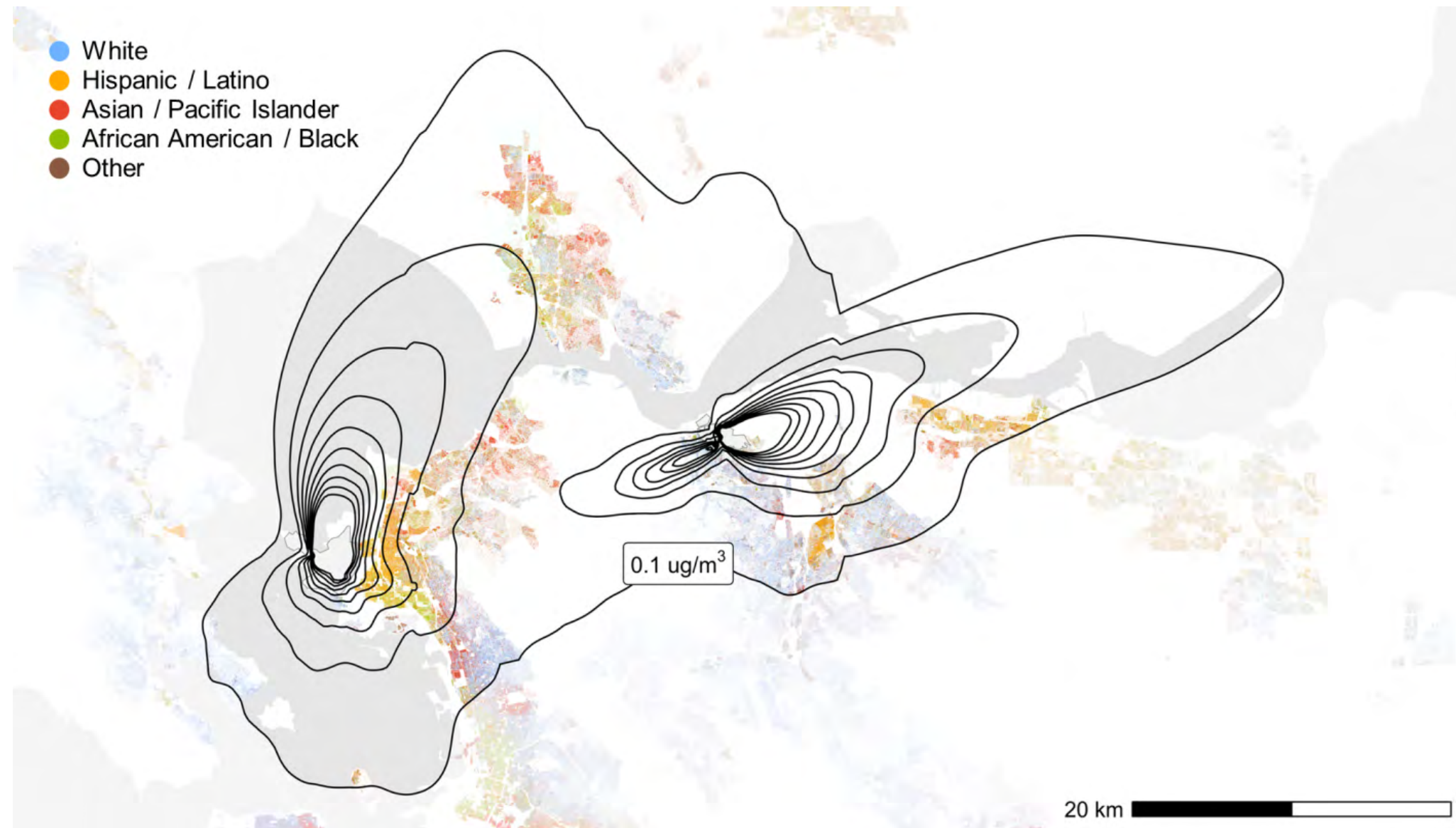
- Modeling can link proposed emission reductions to health impact reductions



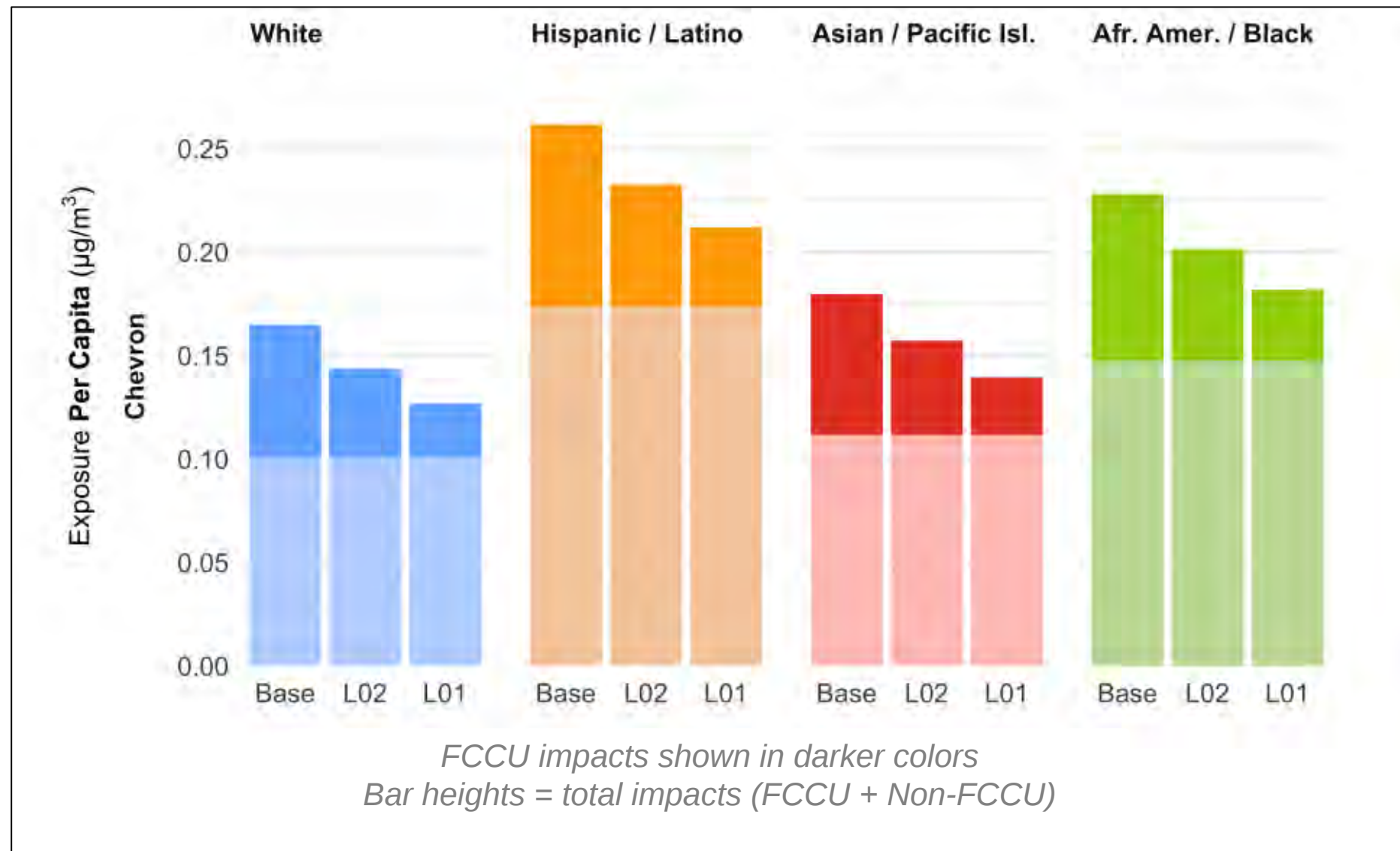
Health and Equity Assessments: Examples

- Examples from past rulemakings:
 - 2021 Amendments to Rule 6-5: Particulate Emissions from Refinery Fluidized Catalytic Cracking Units (FCCUs)
 - 2023 Amendments to Rules 9-4 and 9-6: Nitrogen Oxides (NOx) from Natural Gas Space and Water Heaters
- Modeled contributions to annual average particulate matter (PM_{2.5}) at 1 kilometer scale
- Evaluated corresponding exposure levels and disparities
- Estimated health benefits and valuations from rulemakings

2021 Amendments to Rule 6-5: Refinery FCCUs – Modeled PM_{2.5} Levels & Residential Demographics



2021 Amendments to Rule 6-5: Refinery FCCUs – Exposure Disparities



2021 Amendments to Rule 6-5: Refinery FCCUs – Health Benefits

Modeled Health Endpoints

Premature mortality

Cardiovascular: heart attacks, hospital admissions

Restricted activity days

Work loss days

Asthma: exacerbations, Emergency Room visits, hospital admissions

Respiratory illness: upper/lower tract, bronchitis, chronic lung disease

Expected PM_{2.5} exposure reductions →

Decreased mortality & morbidity →

Overall valuations (\$)

Expanded Socioeconomic Impact Analysis

- Often beyond statutory requirement, but can provide additional information for the Board and public
- Additional analysis relevant or appropriate often specific to project of interest and dependent on data availability:
 - Pass down of compliance costs from industry to consumers
 - Special impacts to small businesses
 - Cumulative regional economic impact, location, and market structure of the affected industries
 - Incremental impacts of potential alternative control options

Expanded Socioeconomic Impact Analysis: Example

- **2023 Amendments to Rules 9-4 and 9-6: NOx from Natural Gas Space and Water Heaters**
 - Direct cost impacts on residential consumers
 - Household level impacts – Income groups, housing tenure, poverty level
 - Shifts in consumer spending and potential job losses (direct and indirect/induced)
 - Potential costs of related infrastructure upgrades

Expanded Socioeconomic Impact Analysis: Example (cont.)

- **2025 Amendments to Rule 6-3 and Regulation 5 (Woodburning)**
 - Industry impacts and direct cost impacts on residential consumers
 - Household level impacts – Income groups, poverty level
 - Shifts in consumer spending and potential job losses (direct and indirect/induced)

Expanded Socioeconomic Impact Analysis: Potential Future Work

- Evaluating and expand vendor capabilities as needed:
 - Air District selected vendors in 2023 from a Request For Proposals (RFP) solicitation process with capabilities for additional/expanded analysis (given appropriate data is available for analysis)
 - Evaluate the need for potential expansion of capabilities in the future (Request For Qualifications [RFQs], RFPs, etc.)

Expanded Socioeconomic Impact Analysis: Potential Future Work (cont.)

- Expanding analysis when appropriate and feasible for specific projects
- Amendments to Regulation 3: Fees
 - Socioeconomic analysis not required for these amendments under California Health and Safety Code, Section 40728.5
 - Additional information on impacts to industries/businesses
- Other future rulemaking projects with potential impacts:
 - Broad and widespread impacts
 - Direct small business and/or household impacts
 - Data availability to support level of analysis

Questions & Discussion

For more information:

Leonid Bak | Economist/Sr. Advanced Projects Advisor | lbak@baaqmd.gov

BAY AREA AIR DISTRICT
Memorandum

To: Chairperson Ken Carlson and Members
of the Stationary Source Committee

From: Philip M. Fine
Executive Officer/APCO

Date: November 12, 2025

Re: Update on Amendments to Rule 11-18

RECOMMENDED ACTION

None; the Committee will discuss this item, but no action is requested at this time.

BACKGROUND

Rule 11-18 was adopted by the Air District in 2017 to address facilities whose emissions of toxic air contaminants result in significant risks to nearby residents and workers. The purpose of Rule 11-18 is to focus on existing facilities causing the highest health impacts across the Bay Area and require these facilities to reduce those impacts.

Concerns from community groups and Air District committees have highlighted delays in implementing Rule 11-18, particularly in finalizing health risk assessments (HRAs) and Risk Reduction Plans (RRPs). Additionally, the Richmond-North Richmond-San Pablo Path to Clean Air (PTCA) Community Emission Reduction Plan (CERP), calls for improvements in Rule 11-18 to improve efficiency and transparency. In response, the Air District is developing amendments to expedite risk reduction and improve program implementation.

To address these needs, the Air District is developing amendments to Rule 11-18 in two phases:

- Phase 1 (current): focused on procedural improvements and implementation efficiency; and
- Phase 2 (future): focused on evaluating and potentially increasing rule stringency.

DISCUSSION

Draft Amendments

The Air District published draft amendments to Rule 11-18, draft Rule 11-18 Implementation Procedures, and a Preliminary Staff Report in August 2025 for public review and comment. The draft amendments aim to streamline program administration to implement the risk reduction components of the rule as soon as feasible. Key changes include:

- Health Risk Assessments
 - o Require facilities to prepare preliminary HRAs using Air District-approved modeling protocols. The protocols will apply standardized methods customized with site-specific information, allowing for greater efficiency by leveraging facility-specific knowledge and resources and enabling more preliminary HRAs to move forward simultaneously;
 - o Retain and exercise Air District authority to review, correct, and approve HRA inputs and results;
 - o Establish specific deadlines for facilities to respond to Air District comments and corrections;
 - o Formalize the current practice of holding a public comment period on the preliminary HRA concurrent with the existing 90-day comment period for the facility; and
 - o Add language outlining what happens when new emissions data affects the facility's HRA results and risk action level (RAL) status.
- Risk Reduction Plans
 - o Revise the terminology and timeline associated with the Air District's review of draft RRP's from a 20-day "completeness review" to a 60-day "review" prior to public comment; and
 - o Clarify the circumstances under which extensions to the implementation of an RRP or risk reduction measure may be granted.
- Rule 11-18 Implementation Procedures Document
 - o Align with the draft amended rule language;
 - o Improve clarity and readability; and
 - o Define the role, scope, and process for the Dispute Resolution Panel (DRP).

Public Engagement and Comments

The Air District held a public comment period on these materials through October 13, 2025, and conducted a virtual public workshop on October 2, 2025. Comments received during the comment period and workshop addressed a number of topics, including:

- General support for the amendments
- Questions regarding resources and technical assistance for facilities
- Concerns regarding amended rule timelines and processes, including:

- o Finalization of emissions inventories after preliminary HRAs are submitted
- o Timelines for facility revisions and responses to Air District comments
- o Timelines associated with public agency contracting and bidding requirements
- Concerns regarding constraints and scope of the Dispute Resolution Panel
- Air District staff is continuing to review and consider all comments received as part of the further development of these amendments. Air District staff anticipates preparing the final proposed amendments, along with other supporting documents, for public review and comment in the first half of 2026. Final proposal materials will be presented at a Public Hearing, where staff anticipates submitting the proposed rule amendments for consideration by the Air District Board of Directors.

BUDGET CONSIDERATION/FINANCIAL IMPACT

None.

Respectfully submitted,

Philip M. Fine
Executive Officer/APCO

Prepared by: Andrea Anderson
Reviewed by: Victor Douglas

ATTACHMENT(S):

1. Rule 11-18 Presentation



Update on Amendments to Rule 11-18

Stationary Source Committee

November 12, 2025

Andrea Anderson, Ph.D.
Senior Air Quality Specialist
Regulatory Development Division

Presentation Outline

- Background of Rule 11-18: Reduction of Risk from Air Toxic Emissions at Existing Facilities
- Draft Amendments
 - Rule Language
 - Implementation Procedures
- Public Engagement and Comments
- Next Steps

Background of Rule 11-18: Reduction of Risk from Air Toxic Emissions at Existing Facilities

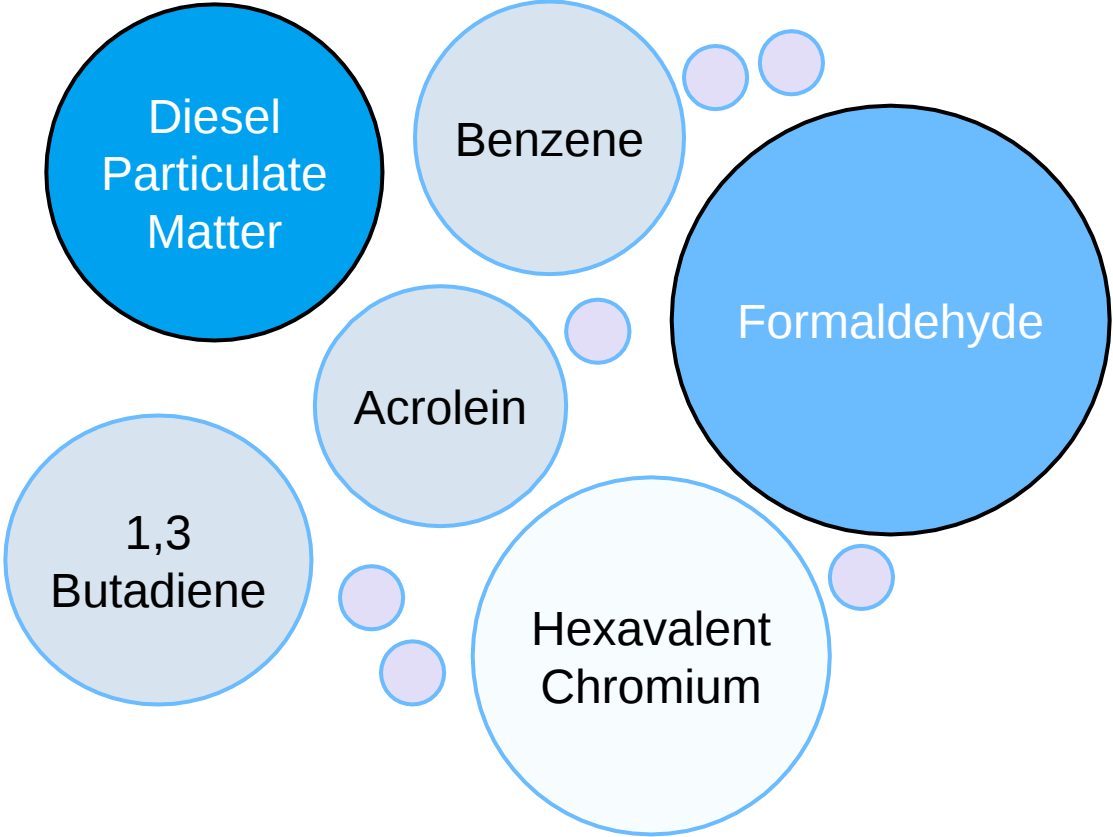
Overview of Rule 11-18

Goal: Reduce the risk from toxic air emissions from existing facilities in the Bay Area

Air Toxics

An air pollutant which may cause or contribute to an increase in mortality or an increase in serious illness, or which may pose a present or potential hazard to human health

→ Approx. 200 individual chemicals, including:



Air Toxics in the Bay Area

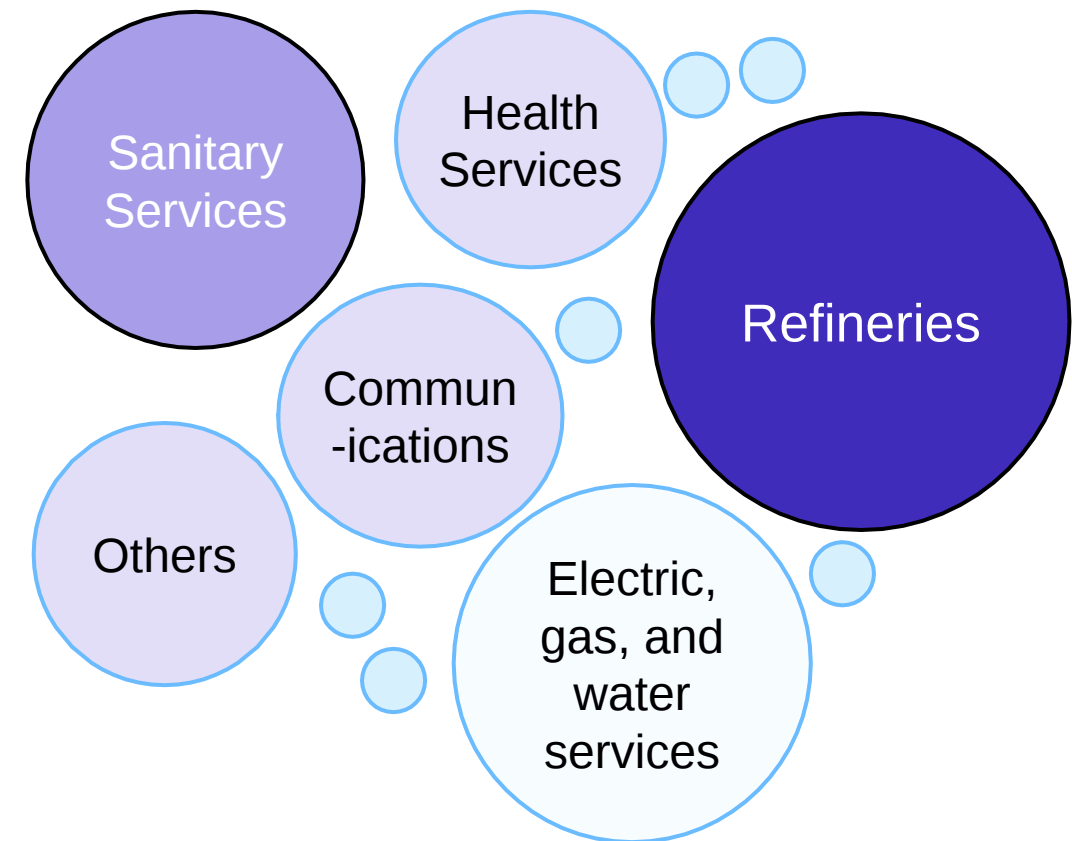
Thousands of facilities currently report their air toxic emissions to the Air District

- Estimated 350 facilities will be reviewed¹
- Many types of facilities

Types of sources at these facilities:

- Diesel-fueled internal combustion engines
- Combustion sources
- Waste water treatment
- Evaporative and fugitive emissions

Types of Facilities with Highest Prioritization Scores



¹The list of facilities subject to Rule 11-18 is updated annually. The most up-to-date list can be accessed at the following link:

<https://www.baaqmd.gov/community-health/facility-risk-reduction-program/facility-risk-reduction-list>

Major Steps in the Rule 11-18 Process

Goal: Reduce the risk from toxic air emissions from existing facilities in the Bay Area.



Health Risk Assessments (HRAs): **Identify facilities** that pose elevated health risks due to toxic air contaminant emissions by evaluating if HRA results exceed Risk Action Levels.



Risk Reduction Plan (RRPs): If HRA results exceed Risk Actions Levels, require those facilities to **reduce health risks**.

Requirements to reduce health risks:

Develop and implement a **Risk Reduction Plan** to (a) reduce facility health risks below Risk Action Levels, or (b) install **best available retrofit controls** on each significant source of health risk

Feedback on Rule 11-18 Driving Amendments

Major concern:

Delays in Rule 11-18 implementation and risk reduction progress

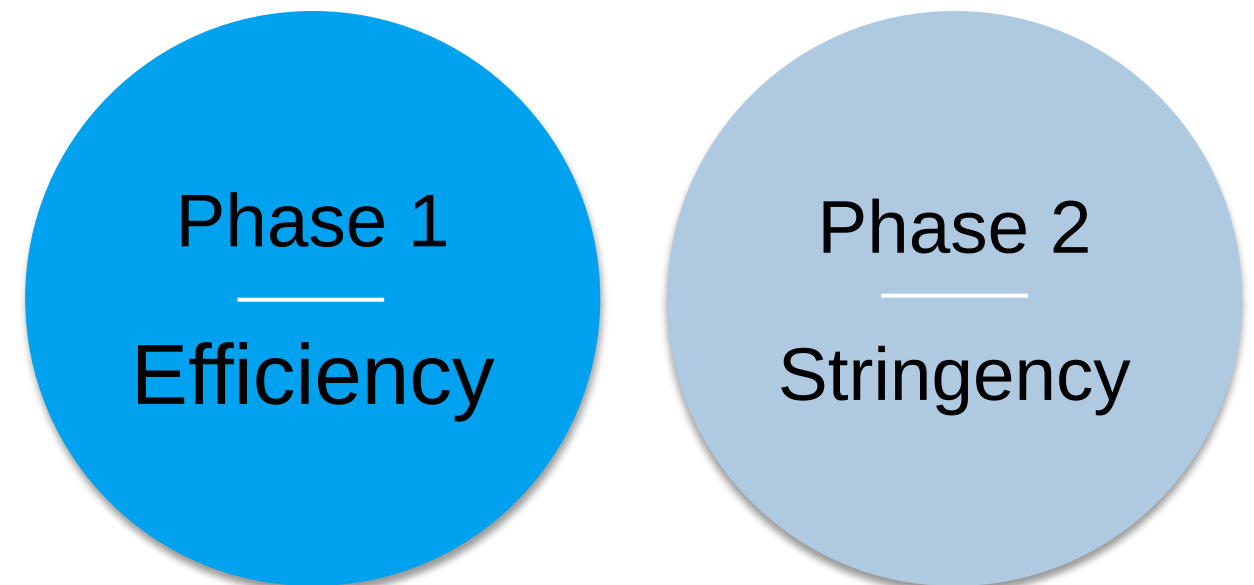
Raised at:

- Air District Stationary Source Committee
- Assembly Bill (AB) 617 Community Steering Committees
- Richmond-North Richmond-San Pablo Path to Clean Air (PTCA)
Community Emissions Reduction Plan (CERP): Fuel Refining Strategy 4.1

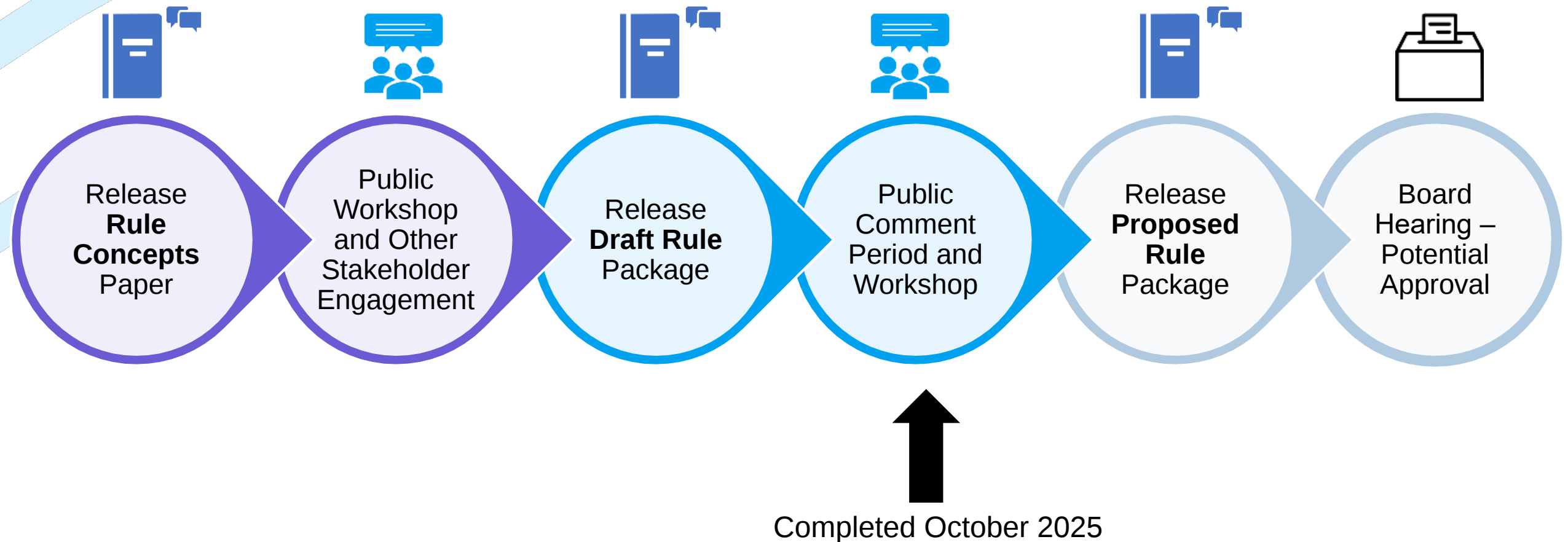
Air District Actions

- Working on and enacting process improvements
- Website additions and updates for improved transparency
- Significant community outreach efforts

- Initiated 2-phased **rule amendment** process:



Rule Development Progress



Draft Amendments

- Rule Language
- Implementation Procedures

Draft Amendments Overview

Draft Amendments to Rule 11-18

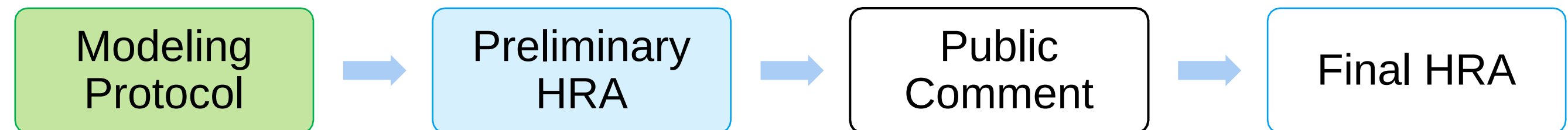
- Health Risk Assessments
- Risk Reduction Plans

Draft Amendments to Implementation Procedures

Draft Rule Amendments: *Health Risk Assessments*



- Require facilities to prepare preliminary HRAs using Air District-approved modeling protocols
 - Standardized methods
 - Customized with site-specific information
- Retain and exercise Air District authority to review, correct, and approve HRA inputs and results
- Establish specific deadlines for facilities to respond to Air District comments and corrections



Draft Rule Amendments: *Health Risk Assessments* (cont.)



- Add language outlining what happens when new emissions data (e.g. source test data) affect the facility's HRA results and risk action level status
- Facilities can recalculate and request reconsideration of their Prioritization Score
- Formalize the current practice of holding a public comment period on the preliminary HRA concurrent with the existing 90-day comment period for the facility

Draft Rule Amendments: *Health Risk Assessments* (cont.)



These draft amendments would enhance efficiency by:

- Saving considerable Air District time inputting modeling parameters:
 - Source locations
 - Stack heights
 - Meteorological data
 - Terrain data
- Leveraging facility-specific knowledge and resources instead of back and forth between Air District and facility
- Enabling more preliminary HRAs to move forward simultaneously
- Allowing for emissions inventory review with a preliminary HRA available: this allows focused review on the most impactful line items rather than having detailed discussions about each item before we know its impacts

Draft Rule Amendments: *Risk Reduction Plans*

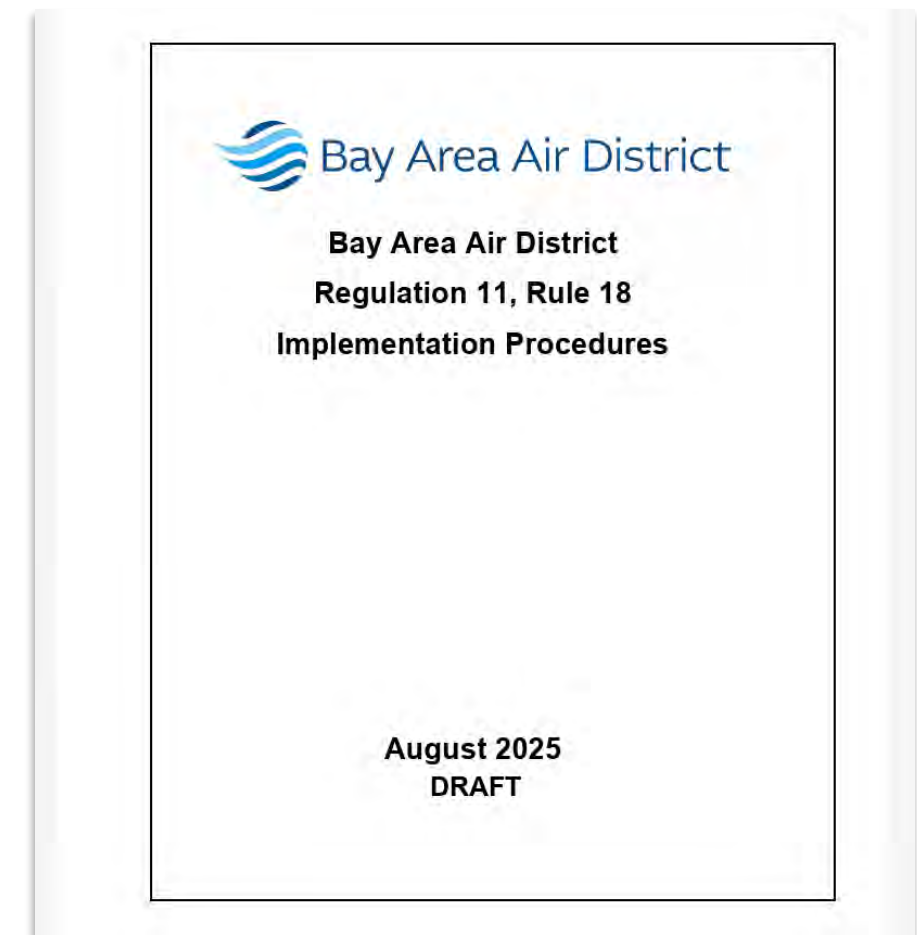


- Revise the terminology and timeline associated with the Air District's review of draft RRPs from a 20-day “completeness review” to a 60-day “review” prior to public comment; and
- Clarify the circumstances under which extensions to the implementation of an RRP or risk reduction measure may be granted

Overview of Implementation Procedures



- The Implementation Procedures are a set of procedural guidelines developed to support consistent and transparent application of Rule 11-18
- The Implementation Procedures were most recently revised in 2024 after a public comment period



Draft Implementation Procedures: *General*



- Draft amendments made to reflect the revised requirements and procedures described in the draft amendments to Rule 11-18 (e.g. steps for facilities conducting preliminary HRAs)
- Administrative corrections and clarifications

Draft Implementation Procedures: *Dispute Resolution Panel*



- In the 2017 Board Resolution approving Rule 11-18 and a 2019 settlement agreement with Western States Petroleum Association (WSPA), the Air District included provisions to convene a panel of technical experts
- This Dispute Resolution Panel (DRP) is intended to advise the Air District regarding technical disputes that may arise regarding implementation of Rule 11-18 at refineries

Draft Implementation Procedures: *Dispute Resolution Panel (cont.)*



- **Eligibility:** Limit to facilities defined as refineries.
- **Submission Content:** Requests must identify specific disagreements with an Air District determination, propose specific remedies, and include supporting materials.
- **Limits on Requests:** One request per plan (HRA/RRP), each covering up to three distinct issues (each with a specific disagreement and proposed remedy).

Draft Implementation Procedures: *Dispute Resolution Panel (cont.)*



- **Scope of Disputes:**
 - After the Air District responds to comments on preliminary HRAs, disputes are limited to inventory and methodology issues
 - After the Air District responds to comments on draft RRP, disputes are limited to technical feasibility, economic burden, determinations on best available retrofit controls for toxics, or updated inventories
- **Timeliness and Prior Participation:** Only issues, remedies, or materials raised during the public comment period may be included, unless they address post-comment period changes made to the HRA or RRP

Public Comments and Next Steps

Public Engagement: Overview

Virtual **Public Workshop** held on October 2

- 50 attendees
- Majority industry representatives

7 written comments also received

- 2 from community members
- 5 from industry or consulting

Comments and workshop recording posted on the Air District **website**



Image Source: Microsoft 365

Public Comments: **Community**

- Both from AB 617 Richmond–North Richmond–San Pablo Community Steering Committee
 - **General support** for the draft amendments, and for a more stringent Rule 11-18.
 - Concerns that smaller facilities may need additional technical help, not just oversight from the Air District.

Public Comments: Industry

Timeline and process flexibility

- Nearly all industry commenters object to 14-day turnaround times for revisions; request 30–60 days minimum.

Inventory and modeling issues

- Concerns with finalizing emissions inventories (the key input into the HRAs) after preliminary HRAs are submitted.

Workload planning

- Clarification on Air District response timelines to better facilitate their planning of response resources
- Request accommodation of staffing and budget constraints when setting deadlines

Transparency and consistency

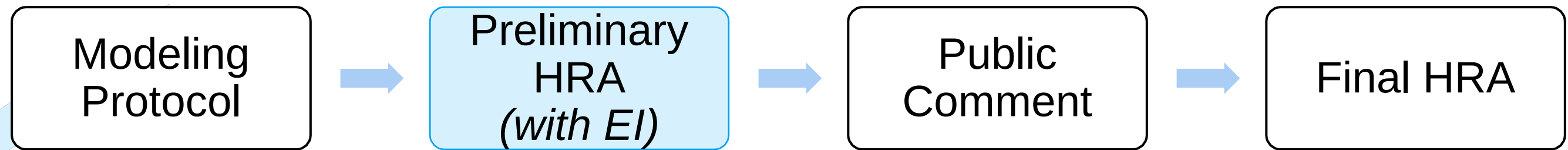
- Desire for clearer, documented Air District decision-making.

Dispute Resolution Panel

- Opposed constraints on the scope of the Dispute Resolution Panel.
- Request that DRP be codified in Rule 11-18.

Includes WSPA, California Council for Environmental and Economic Balance (CCEEB), Air Liquide, Bay Area Clean Water Agencies (BACWA), and Trinity Consultants

Change of Emissions Inventory (EI) Review Timing



- **Problem:** Ideal to approve EI first, but in practice this has proven inefficient due to lack of prioritization
- **Solution:** Prioritize the most important emissions as indicated by the Preliminary HRA

Next Steps

- Review and consider public feedback from draft rule package
- Emissions and costs impacts
- Socioeconomic impact analysis
- Environmental analysis under the California Environmental Quality Act

Questions & Discussion

For more information:

Air District Rule Development | ruleddevelopment@baaqmd.gov