



BAY AREA
AIR QUALITY
MANAGEMENT
DISTRICT

BOARD OF DIRECTORS
STATIONARY SOURCE COMMITTEE

October 9, 2024

COMMITTEE MEMBERS

VACANT – CHAIR
KEN CARLSON
LYNDA HOPKINS
GABE QUINTO
STEVE YOUNG

MARK ROSS – VICE CHAIR
JOHN GIOIA
OTTO LEE
VICKI VEENKER

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

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

**Office of Contra Costa County
Supervisor John Gioia
Conference Room
11780 San Pablo Ave., Suite D
El Cerrito, CA 94530**

**Office of Santa Clara County
Supervisor Otto Lee
70 W Hedding St
East Wing, 10th Floor
San Jose, CA 95110**

**City of Palo Alto City Hall
250 Hamilton Ave.
Palo Alto, CA 94301**

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/85657261948>, or may join Zoom by phone by dialing (669) 900-6833 or (408) 638-0968. The Webinar ID for this meeting is: 856 5726 1948

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, OCTOBER 9, 2024

10:00 AM

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 September 11, 2024

The Committee will consider approving the Draft Minutes of the Stationary Source Committee Meeting of September 11, 2024.

INFORMATIONAL ITEM(S)

4. Update on Fugitive Dust Rulemaking Efforts

The Committee will discuss updates to the fugitive dust rulemaking efforts, including background on fugitive dust sources, an overview of previous activity on this effort, and current project status. This item will be presented by Eric Lara, Senior Air Quality Specialist in the Rules and Strategic Policy Division.

5. Briefing on Rulemaking Opportunities for Publicly-Owned Treatment Works

The Committee will discuss opportunities to further reduce emissions from publicly-owned treatment works, more commonly known as sewage treatment facilities. This effort was included as a measure in the West Oakland Community Emission Reduction Plan. This item will be presented by Christopher Easter, Senior Air Quality Specialist in the Rules and Strategic Policy 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, November 13, 2024, 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.

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 Quality Management 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, Suma Peesapati, at (415) 749-4967 or by email at spesapati@baaqmd.gov.

BAY AREA AIR QUALITY MANAGEMENT DISTRICT

375 BEALE STREET, SAN FRANCISCO, CA 94105

FOR QUESTIONS PLEASE CALL (415) 749-4941

EXECUTIVE OFFICE:

MONTHLY CALENDAR OF AIR DISTRICT MEETINGS

OCTOBER 2024

<u>TYPE OF MEETING</u>	<u>DAY</u>	<u>DATE</u>	<u>TIME</u>	<u>ROOM</u>
Board of Directors Stationary Source Committee	Wednesday	9	10:00 a.m.	1 st Floor, Yerba Buena Room
Board of Directors Community Equity, Health, and Justice Committee	Wednesday	9	1:00 p.m.	1 st Floor, Yerba Buena Room
Board of Directors Finance and Administration Committee	Wednesday	16	10:00 a.m.	1 st Floor Board Room
Board of Directors Policy, Grants and Technology Committee	Wednesday	16	1:00 p.m.	1 st Floor Board Room
Advisory Council Meeting	Wednesday	30	9:30 a.m.	1 st Floor Board Room

NOVEMBER 2024

<u>TYPE OF MEETING</u>	<u>DAY</u>	<u>DATE</u>	<u>TIME</u>	<u>ROOM</u>
Board of Directors Meeting	Wednesday	6	10:00 a.m.	1 st Floor Board Room
Board of Directors Finance and Administration Committee	Wednesday	6	11:30 a.m.	1 st Floor Board Room
Board of Directors Stationary Source Committee	Wednesday	13	10:00 a.m.	1 st Floor, Yerba Buena Room
Board of Directors Community Equity, Health, and Justice Committee	Wednesday	13	1:00 p.m.	1 st Floor, Yerba Buena Room
Board of Directors Finance and Administration Committee – CANCELLED AND RESCHEDULED to Wednesday, November 6, 2024, at 11:30 a.m.	Wednesday	20	10:00 a.m.	1 st Floor Board Room
Board of Directors Policy, Grants and Technology Committee	Wednesday	20	1:00 p.m.	1 st Floor Board Room
Board of Directors Community Advisory Council Meeting	Thursday	21	6:00 p.m.	1 st Floor, Yerba Buena Room

BAY AREA AIR QUALITY MANAGEMENT DISTRICT

Memorandum

To: Vice Chairperson Mark Ross and Members
of the Stationary Source Committee

From: Philip M. Fine
Executive Officer/APCO

Date: October 9, 2024

Re: Approval of the Draft Minutes of the Stationary Source Committee Meeting of
September 11, 2024

RECOMMENDED ACTION

Approve the Draft Minutes of the Stationary Source Committee Meeting of September 11, 2024.

BACKGROUND

None.

DISCUSSION

Attached for your review and approval are the Draft Minutes of the Stationary Source Committee Meeting of September 11, 2024.

BUDGET CONSIDERATION/FINANCIAL IMPACT

None.

Respectfully submitted,

Philip M. Fine
Executive Officer/APCO

Prepared by: Marcy Hiratzka
Reviewed by: Vanessa Johnson

ATTACHMENTS:

1. Draft Minutes of the Stationary Source Committee Meeting of September 11, 2024

Bay Area Air Quality Management District
375 Beale Street, Suite 600
San Francisco, CA 94105
(415) 749-5073

Stationary Source Committee Meeting
Wednesday, September 11, 2024

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:** Neither the Stationary Source Committee (Committee) Chairperson, nor Vice Chairperson, were present at the meeting. Per (§)5 (Conduct of Meetings) of the Board Rules of Procedure, “In the absence of the Chairperson, the Vice-Chairperson shall preside. In the absence of both officers, the Clerk of the Boards shall call the meeting to order. The Directors present shall then, by majority vote of those present, appoint a temporary presiding officer.” The Clerk called the meeting to order at 10:02 a.m., and took roll to establish a quorum:

Roll Call:

Present, In-Person (Bay Area Metro Center, 375 Beale Street, Yerba Buena Room, San Francisco, California, 94105): Directors Ken Carlson, John Gioia, and Lynda Hopkins.

Present, In-Person (Office of Contra Costa County Supervisor John Gioia, 11780 San Pablo Ave., Suite D Conference Room, El Cerrito, CA 94530): Directors Gabe Quinto and Steve Young.

Present, In-Person (City of Palo Alto City Hall, 250 Hamilton Ave., Palo Alto, CA 94301): Director Vicki Veenker.

Present, In-Person (Office of Santa Clara County Supervisor Otto Lee, 70 W Hedding St, East Wing, 10th Floor, San Jose, CA 95110): Director Otto Lee.

Absent: Vice Chairperson Ross.

The Clerk then asked for a motion and second to appoint a member of the Committee to preside.

Committee Action

Director Carlson made a motion, seconded by Director Gioia, to **appoint** Director Lynda Hopkins to preside over the Stationary Source Committee meeting of September 11, 2024; and the motion **carried** by the following vote of the Committee:

AYES: Carlson, Gioia, Hopkins, Lee, Quinto, Veenker.
NOES: None.
ABSTAIN: None.
ABSENT: Ross, Young.

Committee member, Lynda Hopkins, acknowledged the 23rd anniversary of the September 11, 2001 attacks.

2. PLEDGE OF ALLEGIANCE

CONSENT CALENDAR

3. APPROVAL OF THE DRAFT MINUTES OF THE STATIONARY SOURCE COMMITTEE MEETING OF JULY 17, 2024

Public Comments

No requests received.

Committee Comments

None.

Committee Action

Director Carlson made a motion, seconded by Director Gioia, to **approve** the Draft Minutes of the Stationary Source Committee meeting of July 17, 2024; and the motion **carried** by the following vote of the Committee:

AYES: Carlson, Gioia, Hopkins, Lee, Quinto, Veenker.
NOES: None.
ABSTAIN: None.
ABSENT: Ross, Young.

INFORMATIONAL ITEMS

4. UPDATES TO THE 2024 - 2025 REGULATORY AGENDA

Victor Douglas, Director of the Rules and Strategic Policy Division, gave the staff presentation *Update to the 2024-2025 Regulatory Agenda*, including: requested action; outcome; outline; updating our prioritization process; regulatory commitments; recent updates – appliance rules changes for US Environmental Protection Agency (EPA) State Implementation Plan (SIP) approval, Strategic Plan commitments for fenceline and community monitoring, Strategic Plan commitments to minimize flaring; Permitting Efficiencies (Strategy 4.1); and next steps.

Public Comments

Public comments were given by Jan Warren, Interfaith Climate Action Network of Contra Costa County; and Gary Hughes, biofuelwatch.org.

NOTED PRESENT: Director Young was noted present at 10:25 a.m.

Committee Comments

The Committee and staff discussed changes that the EPA is making to the Air District’s submitted appliance rules to ensure federal enforceability of the rules and consistency with the current SIP, and whether the Air District’s SIP Letter of Commitment to the EPA requires Board approval; whether the Air District plans to propose additional regulations focusing on Nitrogen Oxides (NO_x) emissions; whether diesel generators that emit fewer emissions exist, and whether the Air District may enforce regulations requiring such technology; the desire for the Air District to prioritize refinery flaring, permitting efficiencies, and fence-line air monitoring rulemakings; the anticipated timeline for the Air District’s whitepaper on refinery flaring; and whether the Air District plans to propose an indirect source regulation and whether that would be agendaized at the Board’s Stationary Source Committee or Policy, Grants, and Technology Committee.

Committee Action

No action taken.

5. UPDATE ON INDIRECT SOURCES

Mark Tang, Assistant Manager in the Planning Division, and Laura Cackette, Principal Environmental Planner, gave the staff presentation *Update on Indirect Sources*, including: outcome; outline; recap of March presentation; recap of background; recap of objective; regulatory landscape of other air districts, California Air Resources Board, and new legislation; emissions data; resources needed for rule development and implementation; local action to address indirect sources; proactive long-range planning; example: Draft Contra Costa County 2045 General Plan; local land use decisions; example best practices for indirect sources; next steps discussion; and detailed emissions.

Public Comments

Public comments were given by Mars Keith, Sierra Club; Jan Warren, Interfaith Climate Action Network of Contra Costa County; Emma Ishii, Asian Pacific Environmental Network (APEN); and Sarah Chen Small, Communities for a Better Environment.

Committee Comments

The Committee and staff discussed the comparison of the size of the Air District’s Rules and Strategic Policy Division with those of other California air districts, and the desire to prioritize hiring additional employees in that division; a realistic amount of rulemakings that can be accomplished in the next two years with the Air District’s current number of Rules and Strategic Policy staff; the public’s desire for action that will result in immediate emissions reductions, and how action from local jurisdictions may achieve that (over having to wait for state regulations to be implemented); the example of a new

FedEx distribution center in Richmond that is designed to have zero emissions within five years of operation and is regarded as the greenest distribution facility in the west, with infrastructure enabled to support its electric fleet; the desire for an indirect source regulation that would address both existing and new facilities; the suggestion of engaging with indirect source entities that attract mobile sources of pollution to impress upon them the importance of protecting overburdened, disadvantaged communities and encouraging their investments into particular areas; whether emissions from marine vessels are decreasing, and the suggestion of mapping vessels' locations to assess their proximity to AB 617 communities and measuring wind patterns; the definition of "hoteling ships"; the fact that the League of California Cities is in opposition to Assembly Bill 98 (Carrillo, Juan and Reyes) Planning and Zoning: Logistics Use: Truck Routes, and how those efforts may affect any indirect source rule of the Air District's; the desire for port electrification; whether an indirect source regulation could address the driving of autonomous vehicles that impact certain communities; the estimated number of existing facilities that may be indirect sources in the Bay Area and the potential growth trajectory (under more stringent land use regulations); the suggestion that the Air District partners with local jurisdictions in which indirect sources may be located and provide them with general plan policies and conditions for new warehouse facilities; and California Attorney General Rob Bonta's involvement with indirect source rules.

Committee Action

No action taken.

OTHER BUSINESS

6. PUBLIC COMMENT ON NON-AGENDA MATTERS

No requests received.

7. COMMITTEE MEMBER COMMENTS

None.

8. TIME AND PLACE OF NEXT MEETING

Wednesday, October 9, 2024, 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.

9. ADJOURNMENT

The meeting was adjourned at 11:48 a.m.

Marcy Hiratzka
Clerk of the Board

BAY AREA AIR QUALITY MANAGEMENT DISTRICT

Memorandum

To: Vice Chairperson Mark Ross and Members
of the Stationary Source Committee

From: Philip M. Fine
Executive Officer/APCO

Date: October 9, 2024

Re: Update on Fugitive Dust Rulemaking Efforts

RECOMMENDED ACTION

No action requested at this time.

BACKGROUND

Air District staff is developing draft amendments to Regulation 6: Particulate, Rule 1: General Requirements and Rule 6: Prohibition of Trackout to strengthen fugitive dust requirements. Fugitive dust emissions continue to be a large contributor to air pollution in the Bay Area, and community stakeholders in Assembly Bill (AB) 617 communities, including Bayview-Hunters Point, Richmond-North Richmond-San Pablo, and East and West Oakland, have raised concerns about exposures to fugitive dust in overburdened communities.

The Air District's Advisory Council published the [Particulate Matter Reduction Strategy Report](#) in late 2020; the report concluded that particulate matter was the "most important health risk driver in Bay Area air quality..." Particulate matter has also been identified as a major concern and priority for reduction in the AB 617 West Oakland Community Action Plan and the Richmond-North Richmond-San Pablo Path to Clean Air plan. While the Air District's existing programs have reduced regional particulate matter emissions from facilities, controlling fugitive dust emissions and exposures remains challenging due to several barriers. Fugitive dust emissions are often episodic and unpredictable in nature as a result of intermittent dust-generating activities and wind events, both of which can cause materials with low moisture content to become airborne. Additionally, fugitive dust emissions often originate from a wide array of sources, some of which may be temporary (e.g., construction projects) and difficult to estimate with limited data or current methodology.

Staff released the [Fugitive Dust White Paper](#) that documented the current knowledge and data about sources of fugitive dust and identified potential policy responses. The Fugitive Dust White Paper also analyzed existing fugitive dust emissions control regulations at other air pollution control agencies in California, Nevada, and Arizona, and identified potential recommendations for further consideration in Air District rulemaking.

DISCUSSION

Following the release of the Fugitive Dust White Paper and consideration of public comments received, staff has initiated rule development efforts to further address these fugitive dust impacts and concerns. Staff is conducting further research and developing draft rule amendments focused on the following regulatory concepts identified in the white paper:

1. Add requirements to implement specific best management practices for various operations and activities that generate and emit fugitive dust
2. Develop a registration program for projects with dust-generating potential
3. Clarify and update property line requirements for fugitive dust
4. Update test methods for adequately wetted and properly stabilized materials
5. Develop fenceline monitoring requirements

Preliminary research and work on this effort indicate that rule amendments could impact a large number of sites, including bulk material handling sites, disturbed surface sites, and construction projects. Staff estimate that these categories include approximately 750 total sites in the Bay Area – including approximately 600 large construction projects. In addition, each of these sites may have a variety of dust-generating activities, including material handling and storage, vehicle travel, and demolition activities.

Staff is working on further refining these concepts and developing draft rule language, and anticipate releasing draft rule revisions for public review and comments in Quarter 1 of 2025. Given the potential scope of affected facilities, other interested stakeholders, and community concern, staff will continue extensive stakeholder outreach and engagement to inform all stakeholders and solicit public comments and input.

BUDGET CONSIDERATION/FINANCIAL IMPACT

None.

Respectfully submitted,

Philip M. Fine
Executive Officer/APCO

Prepared by: Eric Lara
Reviewed by: Victor Douglas and David Joe

ATTACHMENTS:

1. Update on Fugitive Dust Rule Amendment Effort Presentation



BAY AREA
AIR QUALITY
MANAGEMENT
DISTRICT

AGENDA: 4

Update on Fugitive Dust Rule Amendment Effort

**Stationary Source Committee Meeting
October 9, 2024**

**Eric Lara
Senior Air Quality Specialist
elara@baaqmd.gov**

Presentation Requested Action

- No action required
- Informational item

Presentation Outcome

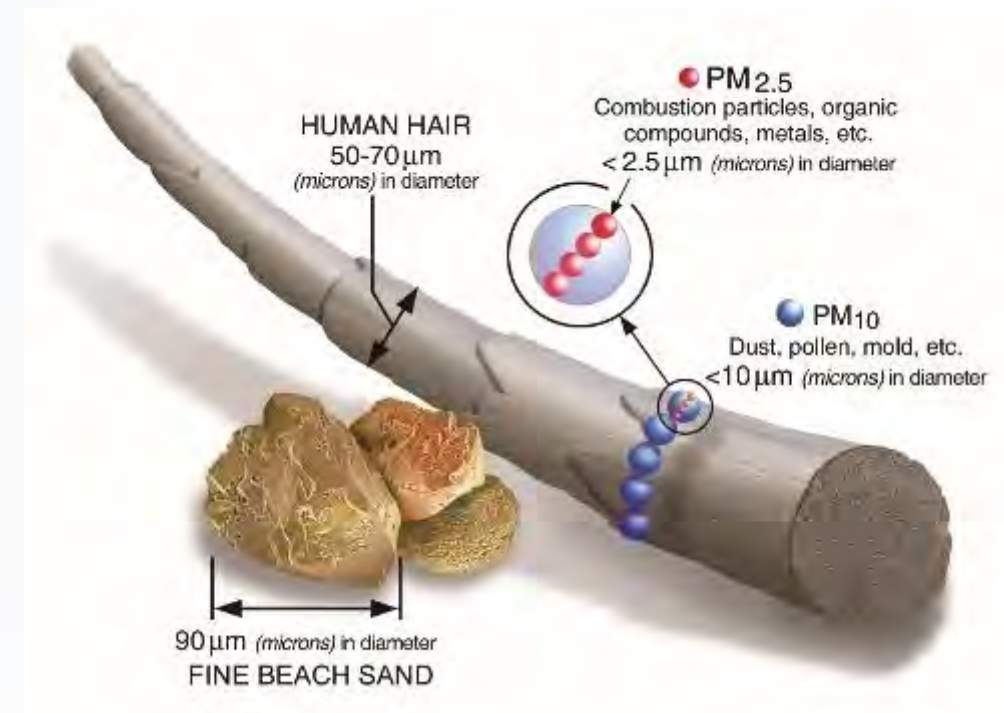
To provide a project update on the fugitive dust rule amendment effort and to gather feedback on potential near-term actions.

Presentation Outline

- Fugitive Dust Background
- Recap of White Paper
- Project Status Overview
- Proposed Strategies
- Next Steps & Discussion

Fugitive Dust Background

- Particulate Matter (PM₁₀) describes inhalable particles 10 micrometers in diameter or smaller
 - PM₁₀ can pass through the throat and travel into the lungs and may cause adverse health effects
- Fugitive dust is PM₁₀ generated from open air operations and not released from a stack or point source
 - Fugitive dust is often episodic and caused by mechanical or wind driven events
 - Chemical composition of fugitive dust may vary depending on the source or activity type
 - Fugitive dust accounted for 62% of total PM₁₀ emissions in the Bay Area in 2023
 - A significant concern from impacted communities



Source: <https://www.epa.gov/pm-pollution/particulate-matter-pm-basics#PM>

Sources of Fugitive Dust



Recap of White Paper

Impetus:

- [West Oakland Community Action Plan](#) (WOCAP) and [Path To Clean Air](#) (PTCA) measures identified fugitive dust for further study
- Advisory Council prioritization in [PM Reduction Strategy Report](#)

Goals:

- Identify and explore opportunities to reduce localized PM emissions, increase compliance, and improve practical enforceability of requirements

Methods:

- Holistic review and gap analysis of rules in other districts and states
- Knowledge assessment of current best strategies to address fugitive dust

[Link](#) to White Paper

Fugitive Dust Rules Background

- **Rule 6-1: *General Requirements***

- Emission rates and concentration limits
- General visible emissions and opacity requirements
- Requirements for large permitted bulk material handling sites

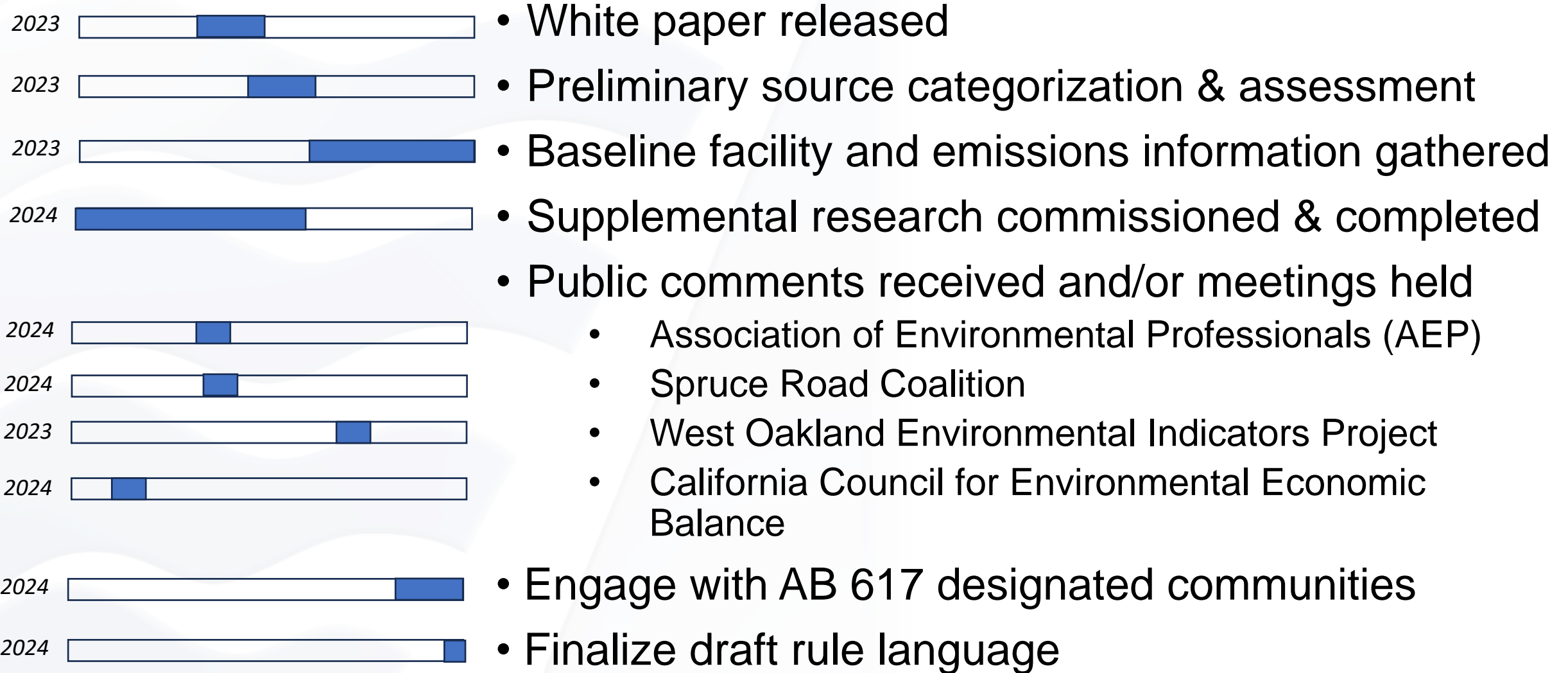
- **Rule 6-6 : *Prohibition of Trackout***

- Requirements for the prohibition of trackout
- Trackout refers to materials inadvertently carried out of a site by vehicles onto the public roadways
- Includes minimization measures to control trackout

Recap of White Paper Findings

- Requirements identified in other jurisdictions:
 - Best Management Practices (BMPs)
 - Site-specific controls
 - Dust control plans and registration requirements
- Potential opportunities to explore:
 - Moisture content and stabilization testing methodologies
 - Refinement of property line visible opacity limits
 - Additional trackout reduction measures
 - Controls and guidance for high winds
 - Permitting requirement enhancements

Project Status Overview



Scope and Focus of Rule Amendment Concepts

Add requirements to implement specific best management practices (BMPs) for various operations and activities

Develop a Registration Program for projects with dust-generating potential

Clarify and update Property Line requirements for fugitive dust

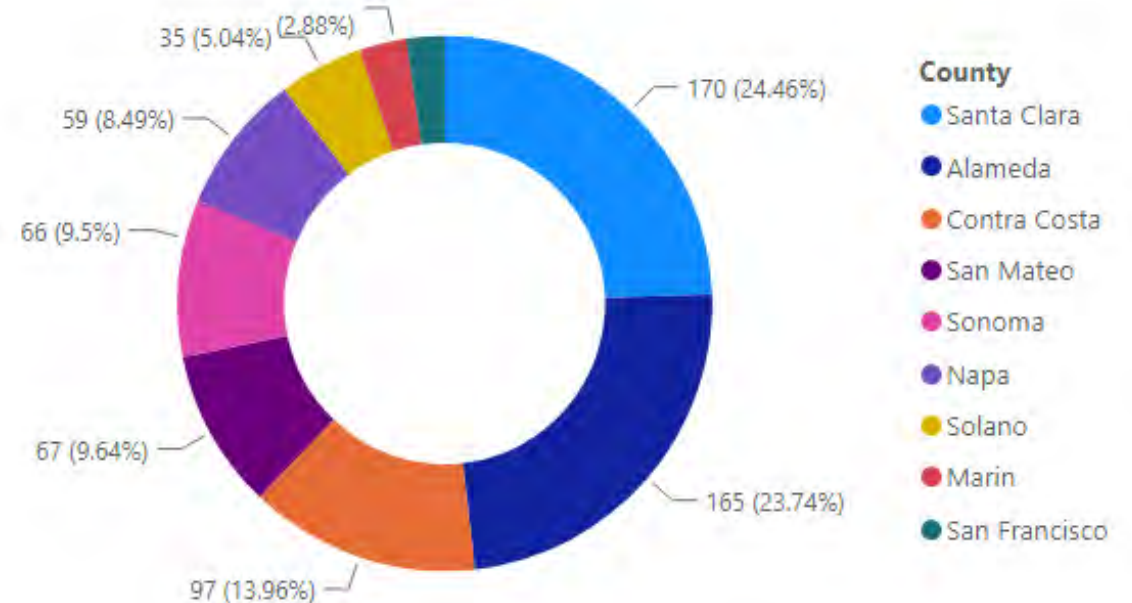
Update Test Methods for adequately wetted and properly stabilized materials

Develop fenceline monitoring requirements

Scale and Types of Sites in Bay Area

- Construction Projects
 - Approximately 600 active projects greater than 1 acre
 - Additional smaller sites
- Disturbed Surface Sites
 - Approximately 20 permitted sites
- Bulk Material Handling Sites
 - Approximately 120 permitted sites

Number of Sites by County



Operations and Activities of Concern

- Unpaved Roads
- Material Handling & Storage
- Material Transfer Processes



- Demolition Activities
- Property Exit Controls
- Street Sweeping & Watering

Next Steps and Milestones



Finalize Concepts



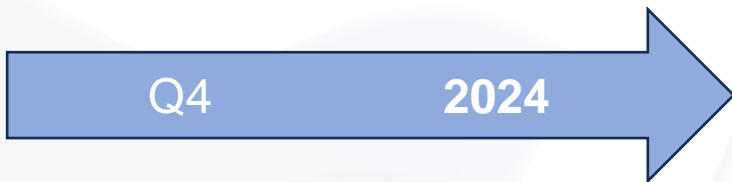
Continue to Engage Stakeholders



Release Preliminary Staff Report and Draft Rule Language



Conduct Public Workshops



BAY AREA AIR QUALITY MANAGEMENT DISTRICT

Memorandum

To: Vice Chairperson Mark Ross and Members
of the Stationary Source Committee

From: Philip M. Fine
Executive Officer/APCO

Date: October 9, 2024

Re: Briefing on Rulemaking Opportunities for Publicly-Owned Treatment Works

RECOMMENDED ACTION

No action requested at this time.

BACKGROUND

The Committee will discuss an update on the development of a white paper exploring potential actions to address emissions from publicly-owned treatment works (POTWs) (often referred to as sewage treatment works) and discuss next steps in this effort. POTWs are sources of several emissions of concern including: volatile organic compounds (VOCs), methane (CH₄), hydrogen sulfide (H₂S), and odorous compounds and are often located near communities most impacted by air pollution. Additionally, POTWs often operate anerobic digestion systems that tend to be the source of main concern. The POTW White Paper will also address stand-alone dry anaerobic digester systems for treatment of solid/organic waste, and has a similar emissions profile as POTWs. Anerobic digestion is a biological process of microorganisms breaking down organic materials without oxygen. The Bay Area Clean Water Agency (BACWA) has been engaged to provide information and support the White Paper process. BACWA is a joint powers agency comprised of the seven largest POTWs in the San Francisco Bay Area.

DISCUSSION

The Air District began development of a POTW White Paper because of Senate Bill (SB) 1383, the Air District *2017 Clean Air Plan*, and the West Oakland Community Action Plan, specifically Further Study Measure #4 which directs "...the District to work with California Air Resources Board (CARB) and East Bay Municipal Utility District (EBMUD) to support the identification of strategies and incentives to address community concerns about odors, health-related emissions, and disclosing to the community information about complaints and complaint resolutions from the EBMUD facility."

Air District regulations that currently apply to POTWs and anaerobic digestion include:

- Permitting Rules: Including Regulation 2, Rules 2, 5 and 6.
- Regulation 7: Odorous Substances
- Rule 8-2: Organic Compounds from Miscellaneous Operations
- Rules 9-1 and 9-2: Sulfur Dioxide and Hydrogen Sulfide
- Rule 11-18: Reduction of Risk from Toxic Air Emissions at Existing Facilities

The Air District has also evaluated relevant rules in other jurisdictions including South Coast Air Quality Management District Rule 1179.1, Antelope Valley Air Pollution Control District Rule 1179, Assembly Bill 2588, Assembly Bill 32, and United States Environmental Protection Agency regulations addressing permitting and water quality regulations.

The Air District recognizes data gaps for this sector include a misalignment between the top-down and bottom-up emissions inventory as well as the need for further understanding of source testing, data collection methods, potential control options, cost of emissions capture, and the key sources of emissions from these facilities.

The Air District anticipates releasing the POTW White Paper in quarter 1 of 2025, and continuing public engagement and outreach efforts in quarter 2 of 2025.

BUDGET CONSIDERATION/FINANCIAL IMPACT

None.

Respectfully submitted,

Philip M. Fine
Executive Officer/APCO

Prepared by: Christopher Easter
Reviewed by: Victor Douglas and David Joe

ATTACHMENTS:

1. Update on Publicly Owned Treatment Works White Paper Analysis Presentation



BAY AREA
AIR QUALITY
MANAGEMENT
DISTRICT

AGENDA: 5

Update on Publicly Owned Treatment Works White Paper Analysis

**Stationary Source Committee Meeting
October 9, 2024**

**Chris Easter
Senior Air Quality Specialist
ceaster@baaqmd.gov**

Outline

- Driver for White paper Efforts
- White paper Process
- Existing Regulatory Landscape
- Emissions Inventory
- Data Gaps
- Next Steps
- Feedback and Questions

Source Description

- **Public Owned Treatment Works (POTW)**

- Wastewater treatment systems run by municipalities (or states) to treat non-industrial sanitary sewage (and storm water)
- Emissions of concern: volatile organic compounds (VOCs), methane, hydrogen sulfide, odors
- POTWs typically have anaerobic digestion systems facilities

- **Anaerobic Digesters**

- Co-located at POTWs and also can operate as stand-alone systems
- Similar emissions profile as POTWs
- Dry systems typically operate at a higher percent of solids (20-40%) and wet systems normally operate with a lower levels of solids (10-20%)

Example POTW

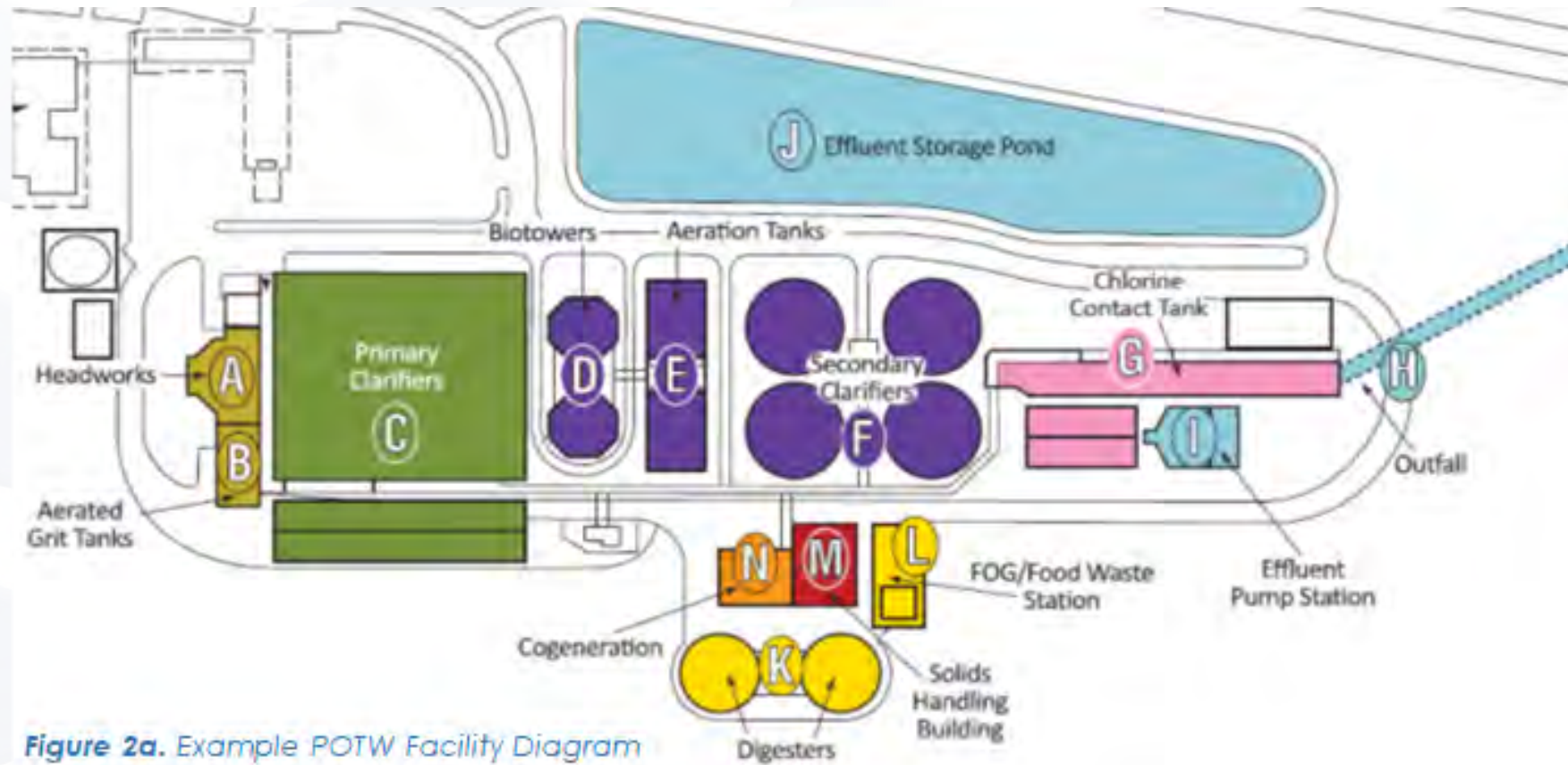


Figure 2a. Example POTW Facility Diagram

Central Marin Sanitation Agency conceptual diagram: <https://www.cmsa.us/public-ed/virtualtour>

Dry Anaerobic Digester Facility

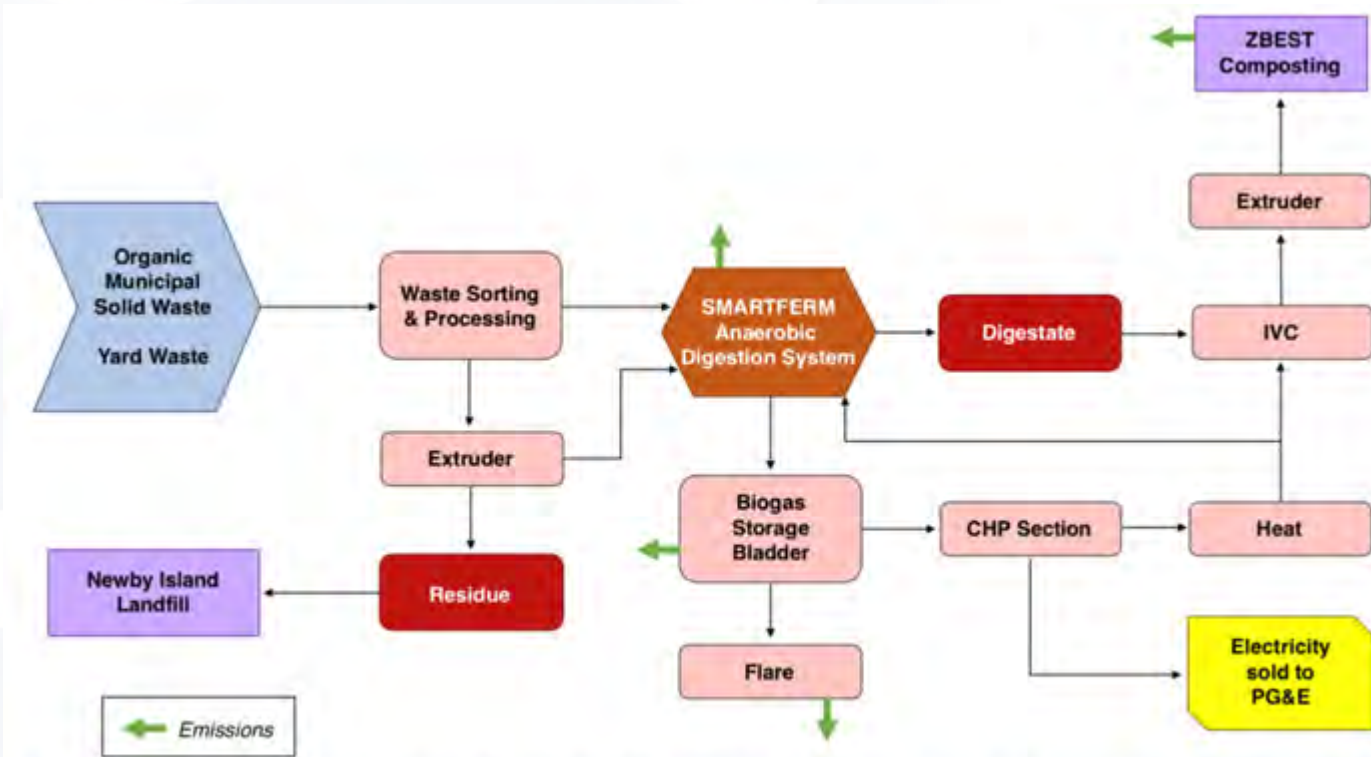


Figure 2b. Example dry anaerobic digester facility [ZWEDC, San Jose, CA]. CHP = combined heat and power unit; IVC = in-vessel composting funnel; SMARTFERM = AD technology from German company Eggersmann.

Kirchstetter et al (2019) Based on ZWDEC San Jose

Drivers for White Paper Efforts

- **Senate Bill (SB)1383**

- Mandates a statewide diversion of organic material by 50 percent of 2014 baseline levels by 2020, and 75 percent by 2025
- Anticipated increase in organic waste diverted to waste handling facilities including POTWs

- **2017 Clean Air Plan**

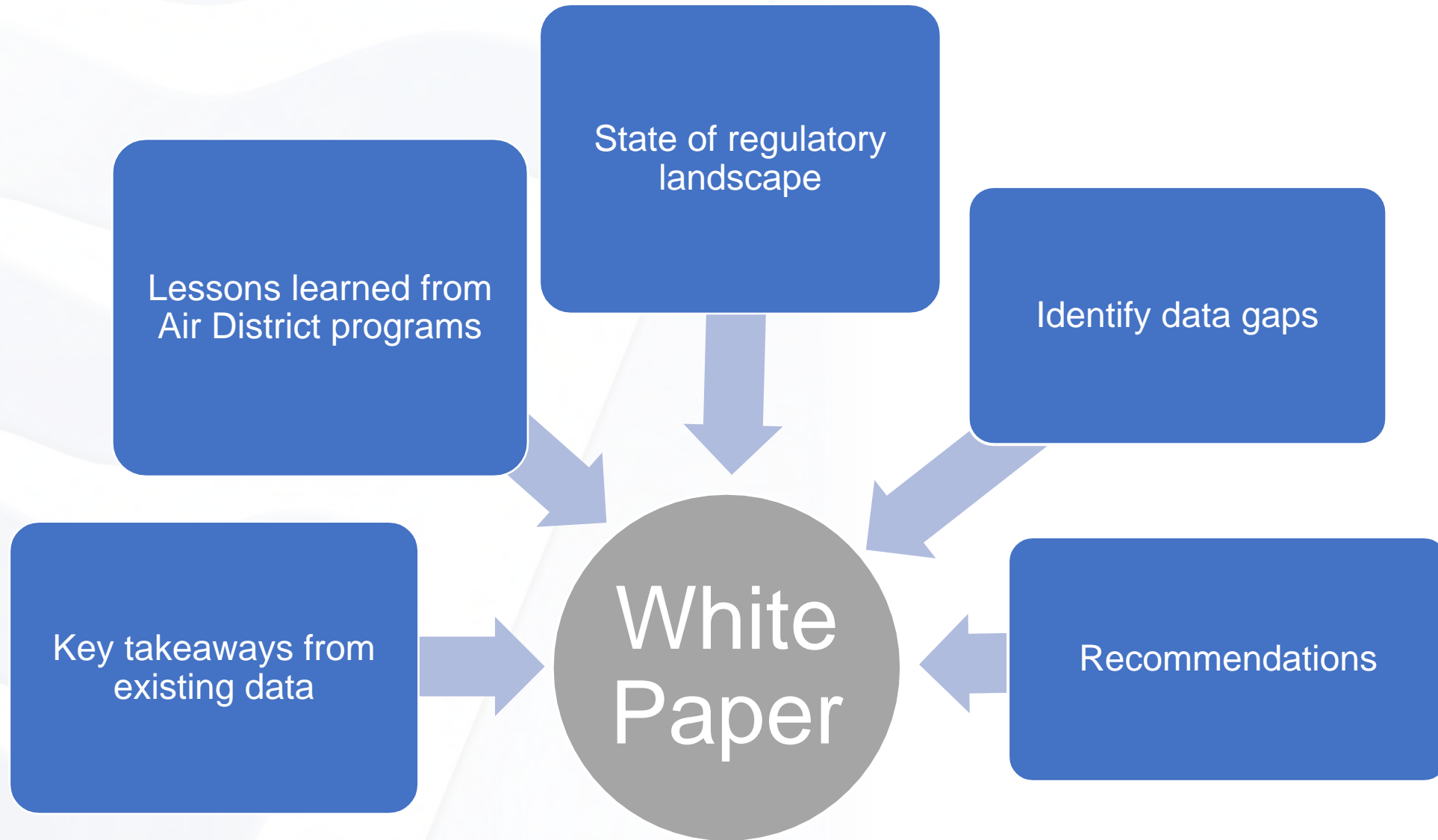
- 2019 concept paper for Regulation 13-4

- **Assembly Bill (AB) 617 – West Oakland Community Action Plan**

- Further Study Measure #4

“FSM 4 directs the District to work with California Air Resources Board (CARB) and East Bay Municipal Utility District (EBMUD) to support the identification of strategies and incentives to address community concerns about odors, health-related emissions, and disclosing to the community information about complaints and complaint resolutions from the EBMUD facility.”

White Paper Development



Air District Rules Applicable to POTWs

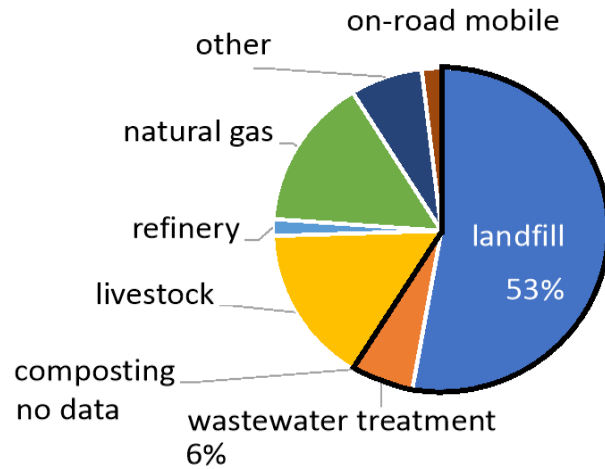
- **Permitting Rules** - Including Rules 2-2, 2-5 and 2-6
- **Regulation 7-** Odorous Substances
- **Rule 8-2** - Organic Compounds from Miscellaneous Operations
- **Rules 9-1 and 9-2** - Sulfur Dioxide, and Hydrogen Sulfide
- **Rule 11-18-** Reduction of Risk from Air Toxic Emissions at Existing Facilities

Regulatory Landscape – Other Jurisdictions

- **South Coast Air Quality Management District**
 - Adopted Rule 1179.1 in 2020 to address emissions of nitrogen oxide (Nox), Carbon Monoxide (CO), and VOC from combustion sources at POTWs
- **Antelope Valley Air Quality Management District**
 - Rule 1179 requires POTWs to prepare an Emissions Inventory Plan to account for emissions of VOCs and odorous compounds
- **State**
 - AB 2588 Air Toxics “Hot Spots” Program requirements
 - AB32 Global Warming Solutions Act
- **Federal**
 - Title V permitting requirements
 - Water quality regulations

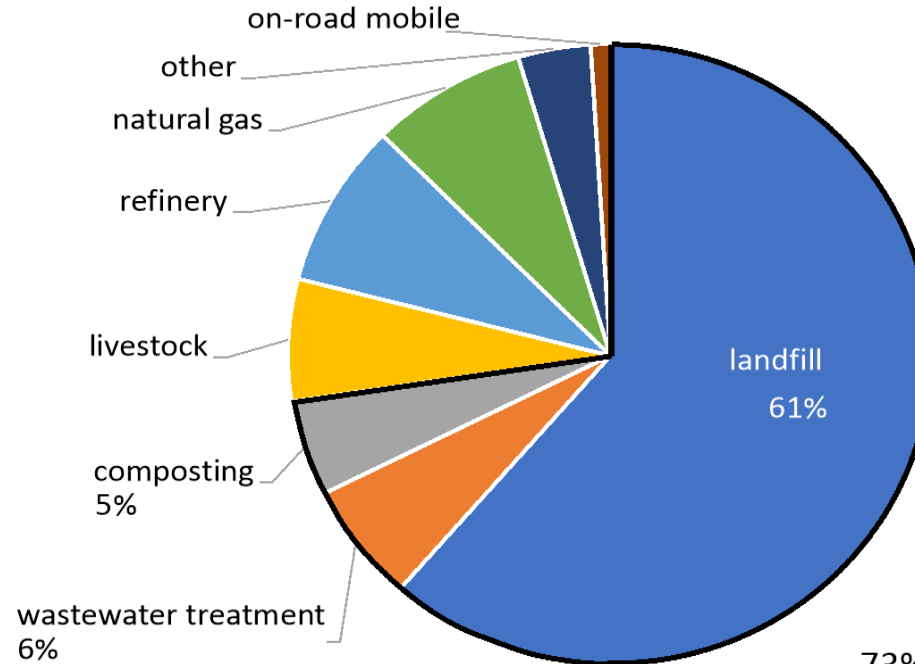
Methane Emissions Variance (Bottom-up vs Top-down)

Current Inventory - total = 10 MMTCO₂e
116.5 Gg CH₄



59% of sectors with CH₄ emissions

Revised Inventory - total = 19 MMTCO₂e
222.6 Gg CH₄

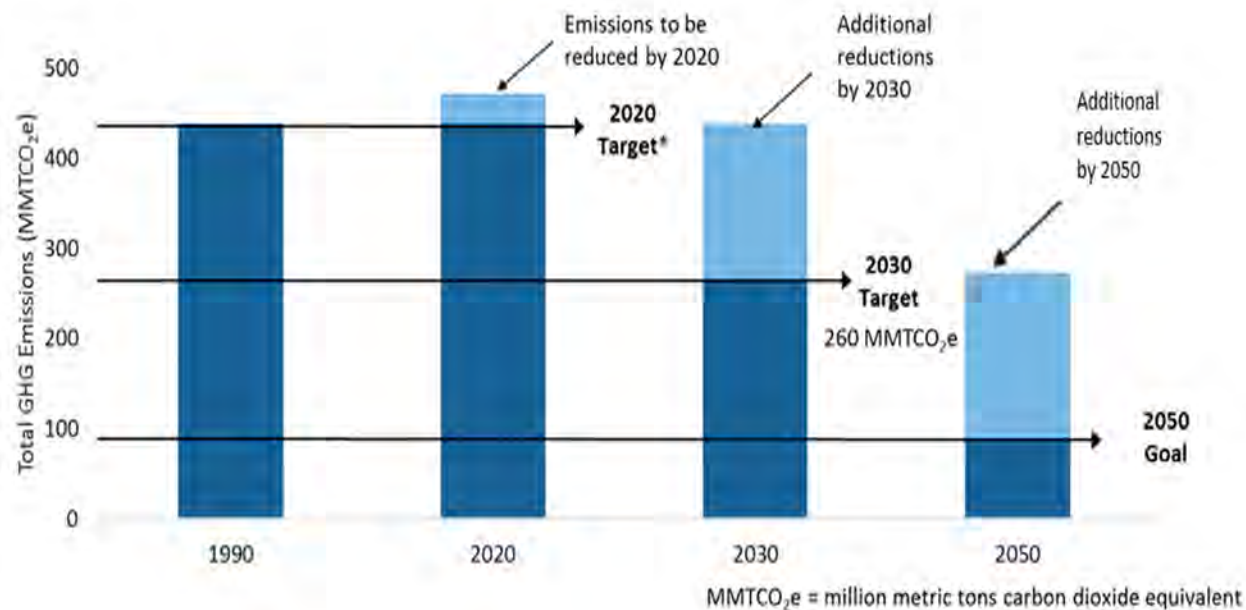


73% of sectors with CH₄ emissions

Comparison of current and revised Bay Area CH₄ inventories (from Guha et al., 2020), Total emissions shown were estimated using a 20-year GWP horizon.

SB 1383 – GHG Emissions Reduction Challenges

- Additional food waste diverted from landfills to wastewater treatment plants
- Anticipated increase in methane generation at POTWs and potential effect on emissions (reduction in waste/transfer of greenhouse gas (GHG) emissions to POTWs from Landfills)



CARB 2022: Overall State of California goals for GHG emissions reductions, from "Analysis of Progress Toward Achieving the 2030 Dairy and Livestock Sector Methane Emissions Target"

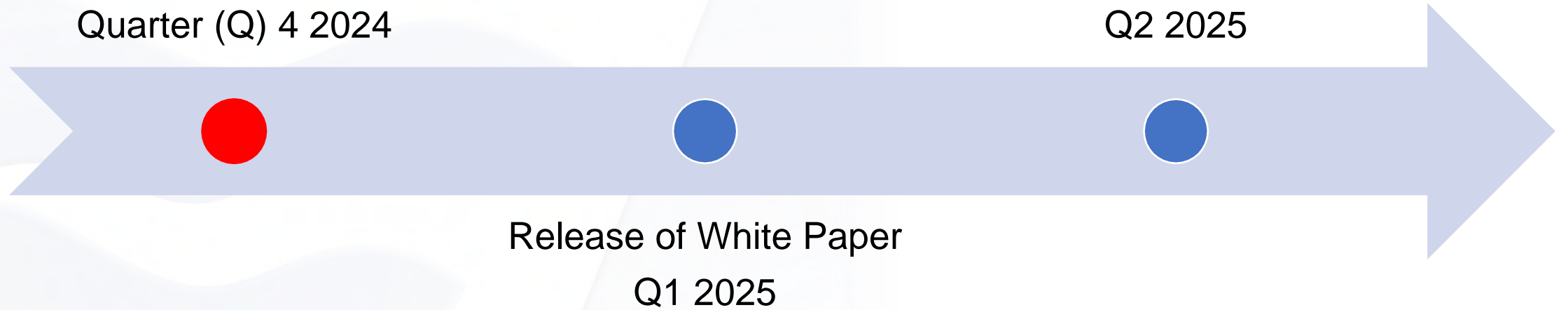
Data Gaps

- Variance in methane emissions between top down (Aerial Measurements) and bottom up (Current Emissions Inventory Methods)
- Improved source testing and monitoring data collection/methods
- Emissions from sewage treatment facilities and anaerobic digesters
- Control options and cost

POTW White Paper Process

Knowledge
Assessment, Gaps
Analysis and Internal
Review
Quarter (Q) 4 2024

Public engagement on
White Paper findings
Q2 2025



Feedback and Discussion

Thank you!