



BAY AREA
AIR QUALITY
MANAGEMENT
DISTRICT

Update on Odor Control Actions at South Bay Waste Operations

Stationary Source Committee Meeting
September 17, 2018

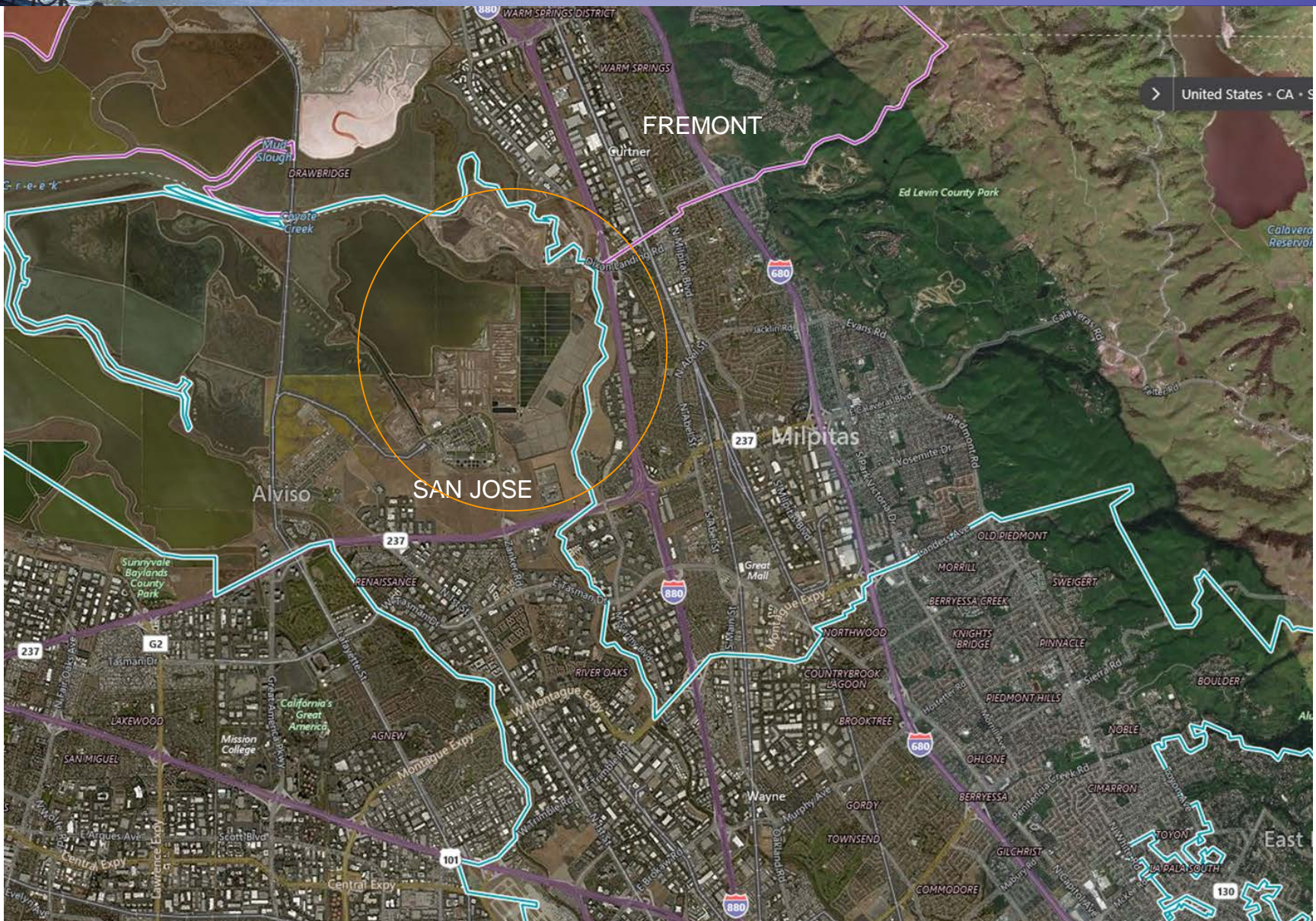
Tracy Lee
Manager, Compliance & Enforcement



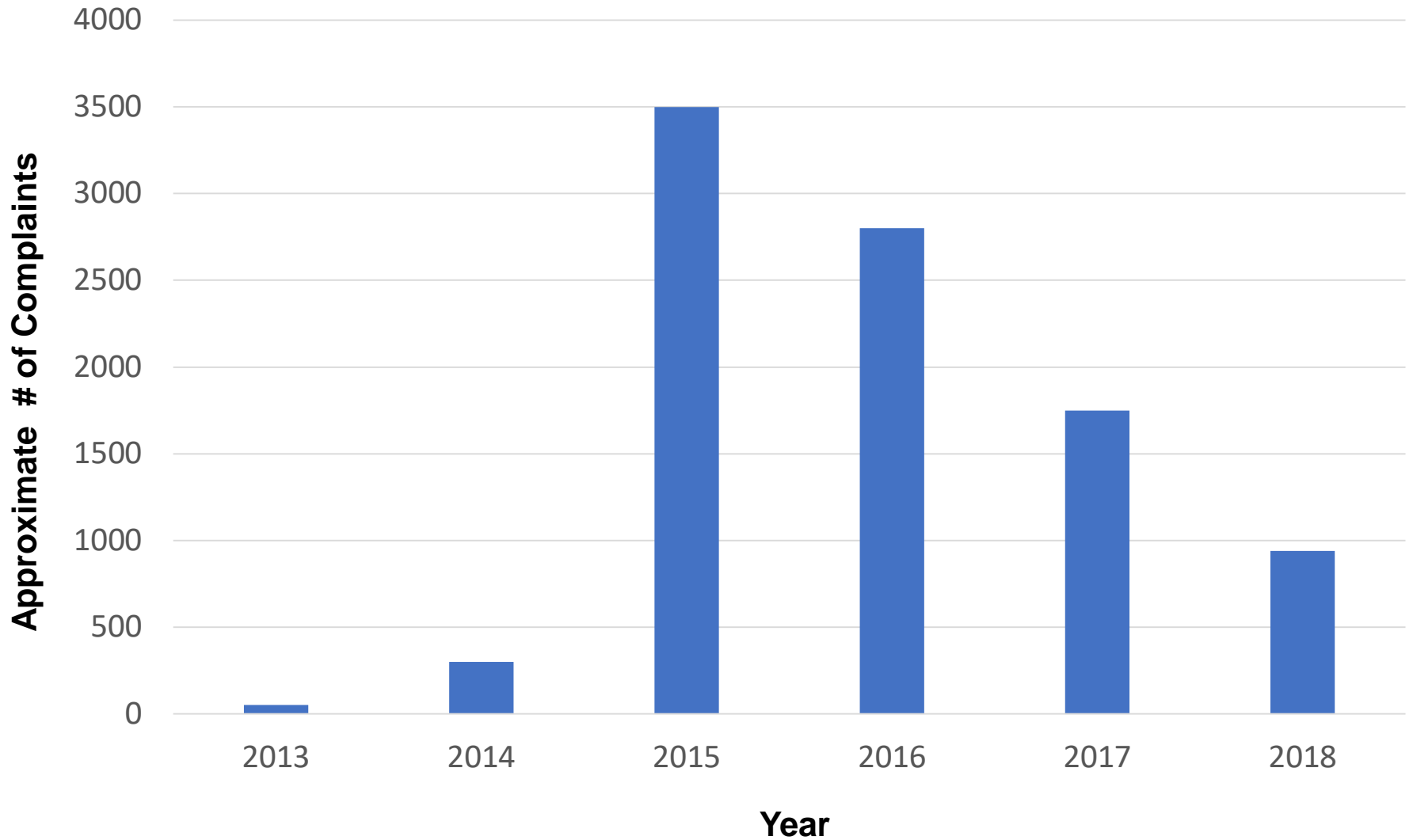
Update on Odor Control Actions at South Bay Waste Operations

- Area Overview
- Complaint Summary
- Odor Sources
- Enforcement Actions & Strategies
- South Bay Odor Stakeholder Group
- Next Steps

Area Overview



Complaint Summary





Odor Sources

1) International Disposal Corp of CA (Newby Island)

- Landfill
- Material Recovery Facility
- Composting Operation

2) Zero Waste Energy Development (ZWED)

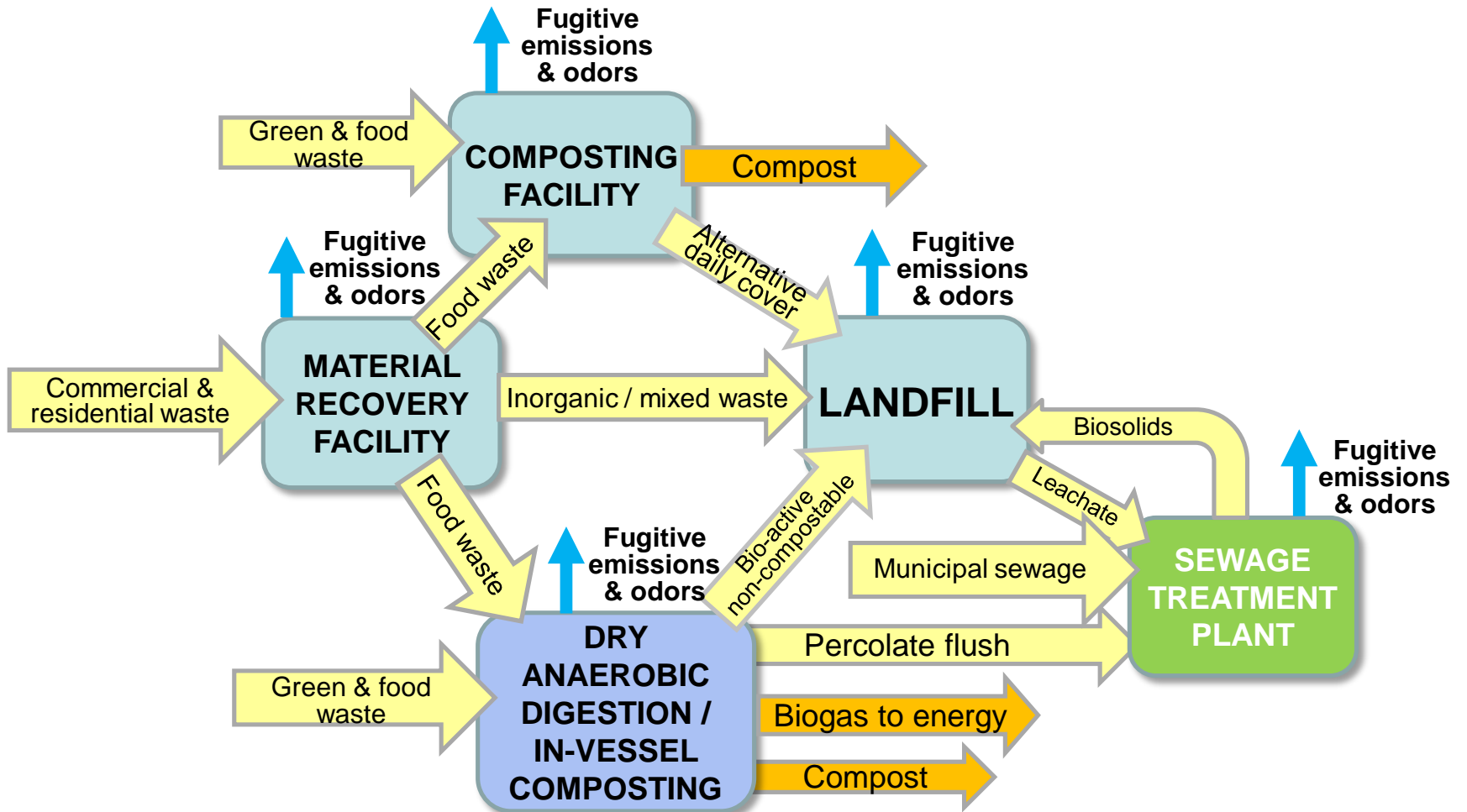
- Dry Anaerobic Digestion
- In-vessel Composting

3) San Jose Santa Clara Regional Wastewater Facility

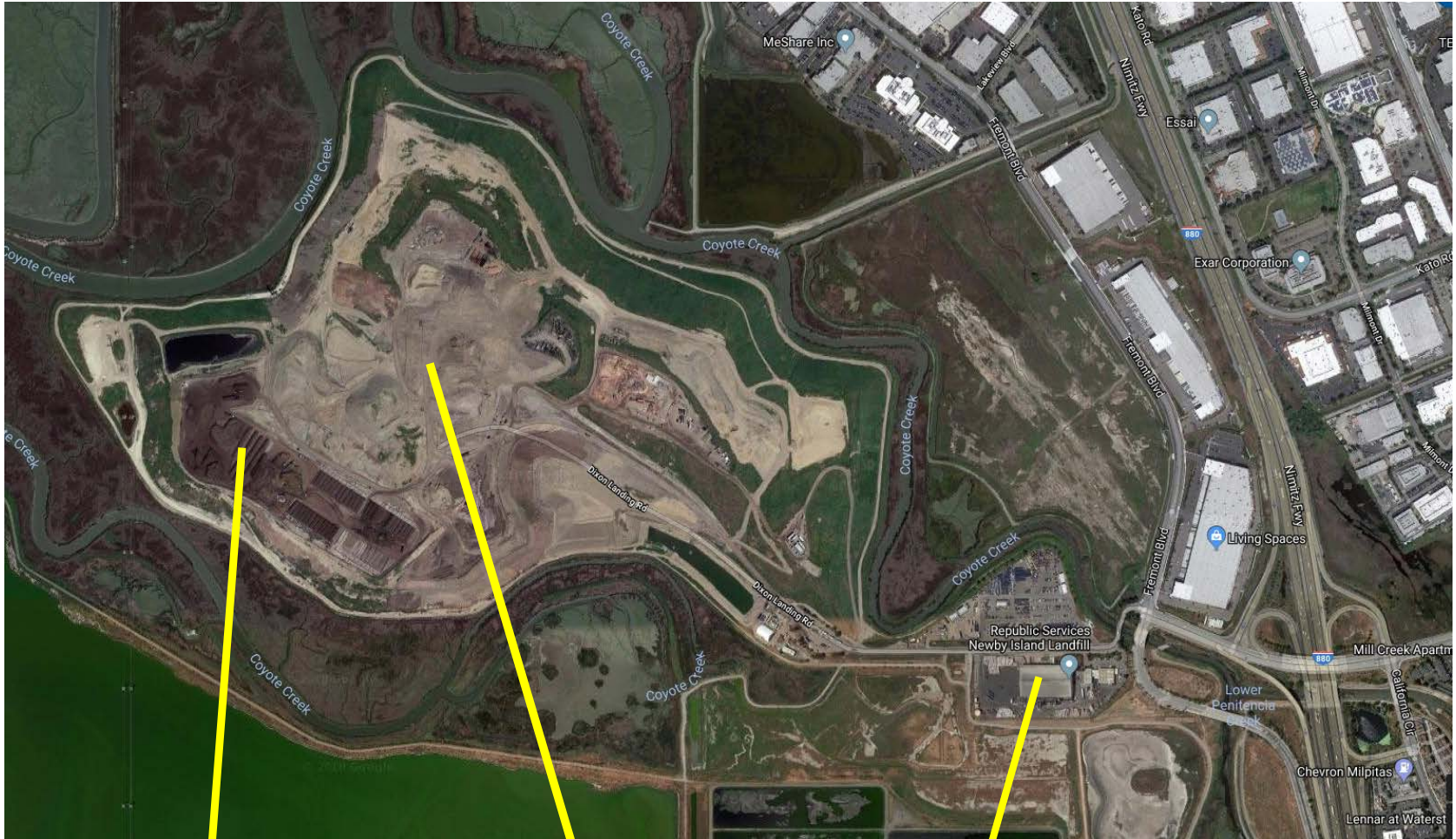
- Sewage Treatment Plant
- Sludge Ponds & Drying Beds



Odor Sources



Newby Island Resource Recovery Park



Compost
Operation

Landfill

Material
Recovery Facility (MRF)

Newby Island Landfill





Newby Island Compost

Green/Food Waste



Covered Aerated Static Piles (CASP)

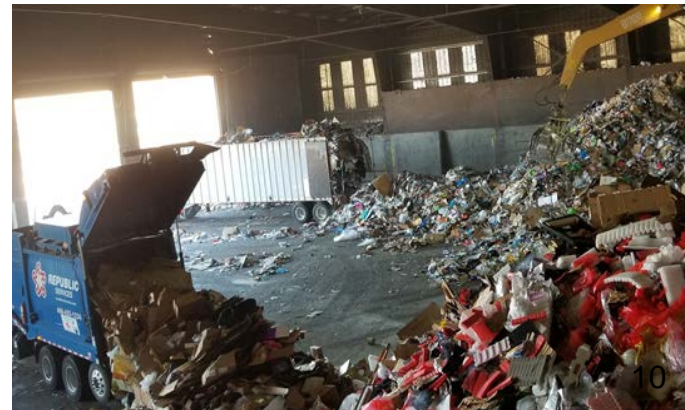


Compost Windrows



Newby Island MRF

Material Recovery Facility





ZWED





San Jose Santa Clara Regional Wastewater Facility





Jurisdiction & Enforcement Authority

California Health and Safety Code § 41700

Except as otherwise provided in Section 41705, a person shall not discharge from any source whatsoever quantities of air contaminants or other material that cause injury, detriment, nuisance, or annoyance to any considerable number of persons or to the public, or that endanger the comfort, repose, health, or safety of any of those persons or the public, or that cause, or have a natural tendency to cause, injury or damage to business or property.

§ 41705 - Section 41700 does not apply to odors emanating from operations that produce, manufacture, or handle compost, as defined in Section 40116 of the Public Resources Code, if the odors emanate directly from the compost facilities or operations.



Enforcement Actions

International Disposal Corp of CA (Newby Island)

- 12 Public Nuisance violations for garbage odors at Material Recovery Facility (MRF)
- 1 Public Nuisance violation for biosolids odor
- 7 violations for Reg 8-34, landfill surface & component leaks
- 3 permit violations
- 2 source test violations

Zero Waste Energy Development (ZWED)

- 17 permit violations

San Jose Santa Clara Regional Wastewater Facility

- 1 Public Nuisance violation for biosolids odor
- 2 permit violations



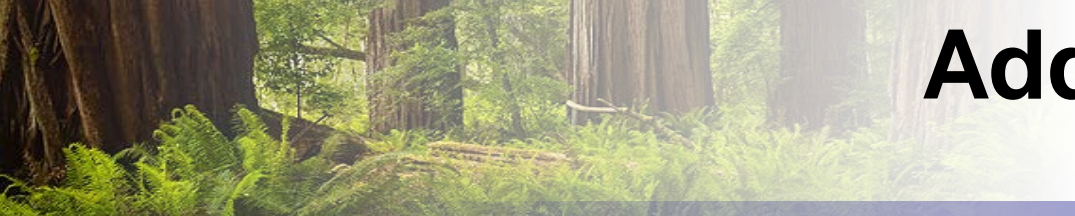
Enforcement Strategies

- Dedicate additional staffing to respond and investigate complaints
- Increase inspections frequencies
- Inspect similar sources and operations to understand processes and industry best practices
- Provide staff training opportunities
- Seek opportunities to strengthen permit requirements and Air District regulations



Additional Strategies

- Partnership with Local Enforcement Agency (LEA) and CalRecycle
- Understand organizational jurisdiction and enforcement authority, permit requirements and policies and procedures
- Improve coordination efforts to investigate complaints
- Enhance enforcement referral process

A photograph of a lush forest with tall trees and green ferns in the foreground, serving as a background for the top left portion of the slide.

Additional Strategies (cont.)

- South Bay Odor Stakeholder Group (SBOSG)
 - Consists of local government and state representatives, regulatory and enforcement agencies, industry and community members
 - Open and transparent process to understand community concerns and resolve problems
 - Provide updates on complaint investigations and findings



Next Steps

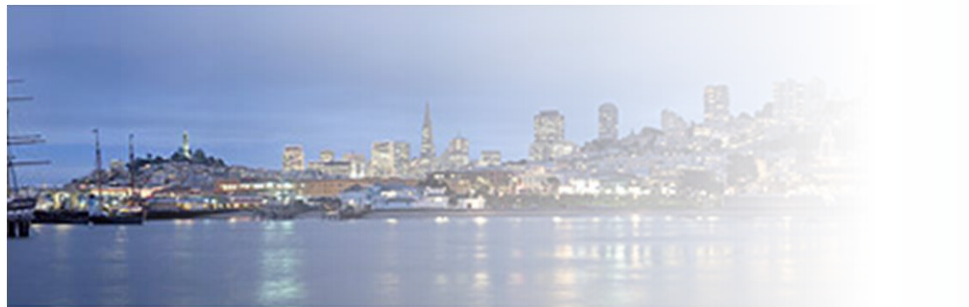
- Continue Air District Enforcement & Engineering efforts in coordination with LEA to ensure compliance of operations
- Update Complaint Policy & Procedures
- Rule Development Work:
 - Amend Regulation 7, Odorous Substances
 - Develop Rule 13-2, Organic Materials Handling
 - Develop Rule 13-3, Composting Operations



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AGENDA: 5

Regulation 13: Climate Pollutants, Rule 1: Significant Methane Releases



September 17, 2018

San Francisco, CA

William Thomas Saltz

Office of Rules and Strategic Policy

- Why Focus on Methane
- Methane Rule Development Overview
- Draft Regulatory Concepts
- Rule Development Schedule
- Conclusion

Why Focus on Methane?

CH₄



- Methane is 86 times more potent than carbon dioxide (CO₂) *[on a 20-year horizon]*
- Air Districts support State's CH₄ emissions reduction goal of 40% by 2030 (SB 1383)
- Current Inventory: 10 Million MT CO₂e *[20 yr. GWP]*
 - ***Top-down studies indicate Bay Area methane emissions may be 1.3 – 2.3 times higher [Fairley and Fischer 2015; Jeong et al., 2017]***



Methane Rule Development

Map to systematically reduce methane emissions

OIL & GAS



Significant Methane Releases [Reg. 13-1]

Regulation 13: Climate Pollutants

Natural Gas Processing & Distribution [SB 1371]

Crude Oil & Natural Gas Production [Reg. 8-37]

Refineries

BIOLOGICAL



Organic Material Handling [Reg. 13-2]

Composting [Reg. 13-3]

Anaerobic Digestion

Landfills [Reg. 8-34]

Wastewater



Methane Rule Development Stakeholder Outreach Effort

Eight separate meetings with
a variety of stakeholders

Petroleum Refineries

Landfill Operations

Wastewater
Treatment

Natural Gas Storage
and Distribution



Draft Regulation 13, Rule 1

General concepts

13-1: Significant Methane Releases

PURPOSE *to compel facilities to abate major releases rapidly; will act as **backstop** while source-specific rules are adopted*

CONCEPT *Limits emissions from significant CH4 releases*

SCHEDULE

WORKSHOPS
Fall 2018

TO BOARD
Early 2019



Draft Regulation 13, Rule 1

Regulatory Review

STANDARDS

Methane releases shall be abated if

EMISSIONS

> 10,000 PPM

FIX TIMES

Releases

**MINIMIZE RELEASE
WITHIN 3 DAYS**

**ABATE RELEASE TO 500 PPM
WITHIN 14 DAYS**

Recurrent releases

**MINIMIZE RELEASE
WITHIN 3 DAYS**

**ABATE RELEASE TO 500 PPM
WITHIN 7 DAYS**



Draft Regulation 13, Rule 1

Regulatory Review (cont'd)

LIMITED EXEMPTIONS

- **All sources:** if methane emissions < 10 lb/day for each of 3 consecutive days
- **Refinery flares:** if operator can show that each flare sufficiently destroys the methane
- **Maintenance or repairs:** exempt if minimization requirements are met within 3 days
- **Landfill working face:** exempt if minimization requirements are met within 3 days

Draft Regulation 13, Rule 1

Regulatory Review (cont'd)

Other Requirements

- **Post Abatement Monitoring**
- **Recordkeeping**
- **Reporting**



Draft Regulation 13, Rule 1

Next Steps

- **Workshops and Comment Period**

Early Fall 2018

Submit written comments
to: wsaltz@baaqmd.gov



- **Amend Draft Rule as Appropriate**
- **Publish Proposed Rule and Staff Report**
- **Public Hearing in late 2018/early 2019**

Rule 13-1

Questions



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Update on Rule Development Efforts for Rule 13-2: Organic Material Handling and Rule 13-3: Composting Operations



Robert Cave
Senior AQ Specialist- Rule Development
Stationary Source Committee Meeting
September 17, 2018



Outline

- Background on organic material processing and composting operations
- Current regulatory framework addressing these operations
- Update on preliminary rule development efforts
- Next Steps



Organic Materials Handling and Composting Operations

- Composting is a controlled biological process
- Aerobic conditions (in the presence of oxygen)
- Microorganisms convert organic matter into a soil amendment known as “Compost”
- Less than ideal conditions can yield:
 - VOCs and other odor causing compounds.
 - Methane from anoxic conditions (in the absence of oxygen)



Organic Materials Handling and Composting Operations

- All facilities have the potential of odors and methane emissions
- Well-run facilities are less likely to have issues
- Location is part of the equation
- Since 2010, the Air District received nearly 10,000 odor complaints related to solid waste processing facilities
- Most are from a small number processing organic waste
- Composting operations are exempt from Air District public nuisance provisions



Organics Diversion Mandates

- Senate Bills 32, 605, and 1383 require State agencies to reduce statewide disposal of organic waste by:
 - 50% of 2014 levels by 2020
 - 75% of 2014 levels by 2025
- Composting in California - white paper
 - Co-produced by CARB, CAPCOA, and CalRecycle
 - Estimates a 100% increase in organic material processing capacity for facilities in the Air District
 - 12–15 new facilities processing an additional 700-900 thousand tons of feedstock per year.



Rule Concepts

- **Stockpile Management**
 - Residency limits for storage piles, periodic complete removal prior to addition of new material
 - Height restrictions, moisture content, bulking agents for food residuals/manure/biosolids
 - Ventilation and odor control requirements for buildings
- **Active Composting**
 - Finished compost covers or biofiltration
 - Control requirements dependent on feedstock
 - Metrics for determining end of active phase



Rule Concepts (cont.)

- Monitoring and Recordkeeping
 - Types, quantity, residence times of feedstock
 - Operational metrics (temperature, moisture, solvita index)
- Testing Methods



Preliminary Rule Development

- Methane Strategy Expert Panels
 - November 2017 – Composting and Anaerobic Digestion
 - June 2018 – Composting Training and Operators Perspective
- Organic Recovery Sector Regional Convening
 - June 2018 – Discussion on the development of the Bay Area’s organic materials recovery sector
- Site visits to organic material handling and composting operations
 - Composting operations in Alameda, Napa, Santa Clara and Solano
 - Organic material handling operations in Alameda and Santa Clara



Next Steps

- Public workshops in November 2018
 - Regulatory concepts for both rules along with those for Regulation 13 and Regulation 7
- Draft rule workshops will be held in the first quarter of 2019
- Public Hearing for Board of Directors consideration in Summer 2019



Questions

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