

Climate Protection Grant Program

Climate Protection Committee Meeting
March 15, 2018

Abby Young, Climate Protection Manager



Goal and Objectives

Overarching Goal:

- To achieve Greenhouse Gas (GHG) reductions by accelerating implementation of the 2017 Clean Air Plan

Objectives:

- Support implementation of Clean Air Plan measures
- Achieve air quality co-benefits
- Accelerate local implementation of GHG-reduction policies and programs
- Engage and benefit impacted communities
- Implement innovative approaches
- Create replicable solutions for Bay Area and elsewhere

A scenic photograph of a white lighthouse perched on a rocky cliff overlooking the ocean. The sky is a clear, pale blue, and the water shows gentle waves. The lighthouse is the central focus of the image, with a few small buildings nearby.

Grant Program Structure

- \$4.5 million total available
- Awards: between \$100,000 - \$300,000
- Only public agencies are eligible applicants
 - Cities, counties, special districts, school districts, community choice energy programs, etc.
 - May partner with third parties (private businesses, non-profit organizations, other public agencies)

7.4



Funding Categories

Category 1: Reducing GHGs from Existing Buildings

- Addresses large source of GHGs
- Fills significant funding and policy gaps
 - Current policies tend to focus on new construction
- Supports one of the Governor’s “5 Climate Pillars”
- Examples of eligible activities:
 - Training programs for technology venders, contractors and installers
 - New building codes, streamlining permit fees and processes, etc.
 - Development of funding mechanisms for building owners
 - Incentives for switching from natural gas to electricity or renewables, or switching to low-GHG refrigerants



Funding Categories

Category 2: Innovative Strategies

- Game-changing strategies resulting in long-term, transformative impacts
- Creative, new projects and policy approaches in any sector
- Must address a specific barrier to achieving GHG reductions
- Complement efforts of Technology Implementation Office
- Examples of eligible activities:
 - Design and implementation of innovative funding mechanisms
 - Combinations of policy drivers and incentives to stimulate market demand for transformative technologies
 - Innovative use of social marketing to drive large-scale behavior change



Outreach to Stakeholders

Extensive Early Outreach on Program Design:

- Survey of local government staff on funding and resource needs
- Meetings with local government staff across Bay Area
- Meetings with variety of community-based non-profit organizations
- Discussions with other climate funders
- Coordination with Air District programs: Technology Implementation Office, Strategic Incentives, Community Engagement
- Input on Draft Guidelines from public agency staff (per direction from Climate Protection Committee)

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Stakeholder Input/Feedback

- Support goals, objectives and funding categories
- Seek additional funding for broader range of eligible project types
- Request specific examples of eligible activities
- Request at least 30 days to prepare proposals
- Identify areas needing additional clarification



Launch and Outreach

Outreach to Eligible Applicants after Launch:

- Direct email to public agency staff
- Presence on Air District website
- Kick-off webinar archived on website
- Workshops across region
- Ongoing support from Air District staff
- Engage with Board of Directors to get the word out



Next Steps

Board of Directors approve Grant Program Guidelines	April 4
Open call for projects	April 4
Convene application workshops	April
Applications due	May 11
Review, evaluate and score proposals	May/June
Present awards to Board for approval	June
Execute grant agreements	June/July



How You Can Help

1. Notify public agencies in your jurisdictions of this opportunity
 - Air District staff will provide a sample email with link to the Call for Proposals and Guidelines
2. Have your staff work with Air District staff to set up outreach workshops

Thank you!

AGENDA: 5



BAY AREA
AIR QUALITY
MANAGEMENT
DISTRICT

Update on the Air District's Basin-Wide Methane Strategy

March 15, 2018

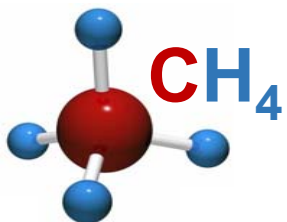
**Idania Zamora, PhD, Senior Engineer
Office of Rules and Strategic Policy**



Outline

- Methane Strategy Overview
- Update on key efforts
 - Methane Emissions Inventory
 - Organic Recovery Strategy
 - Regulatory Efforts





Why Focus on Methane?

A High Impact Strategy to Slow the Rate of Climate Change

- Methane is 34 times more potent than CO₂
- Methane is removed faster from the atmosphere (12 years vs. a range of 20 – 200 years for CO₂)



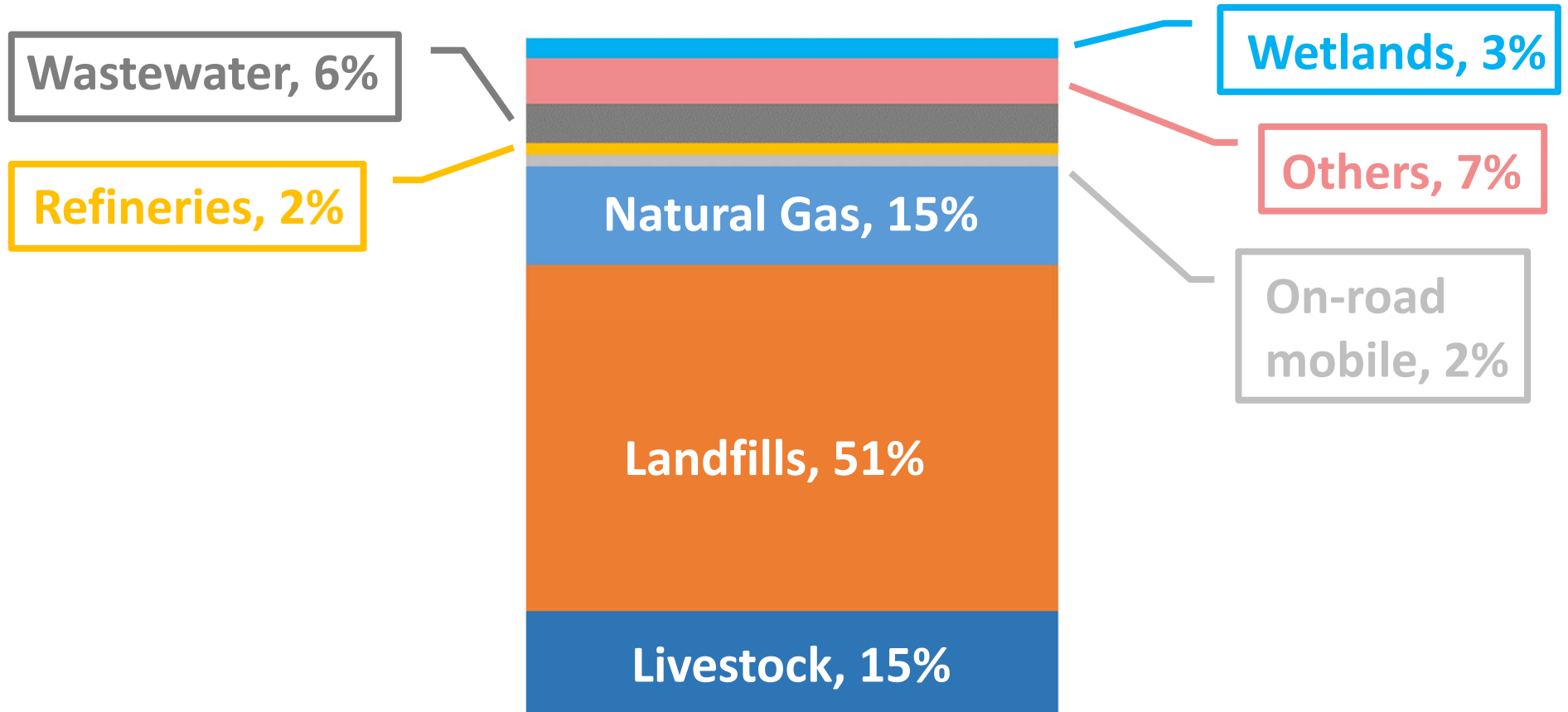
- Public health and further climate benefits from reduction of climate, criteria and toxic co-pollutants
- Economic benefits from recovered energy and products

- Air Districts have critical role in meeting State's methane emissions reduction goal of 40% by 2030 (SB 1383)
- Air District has full suite of actions within its authority



Methane in the Bay Area

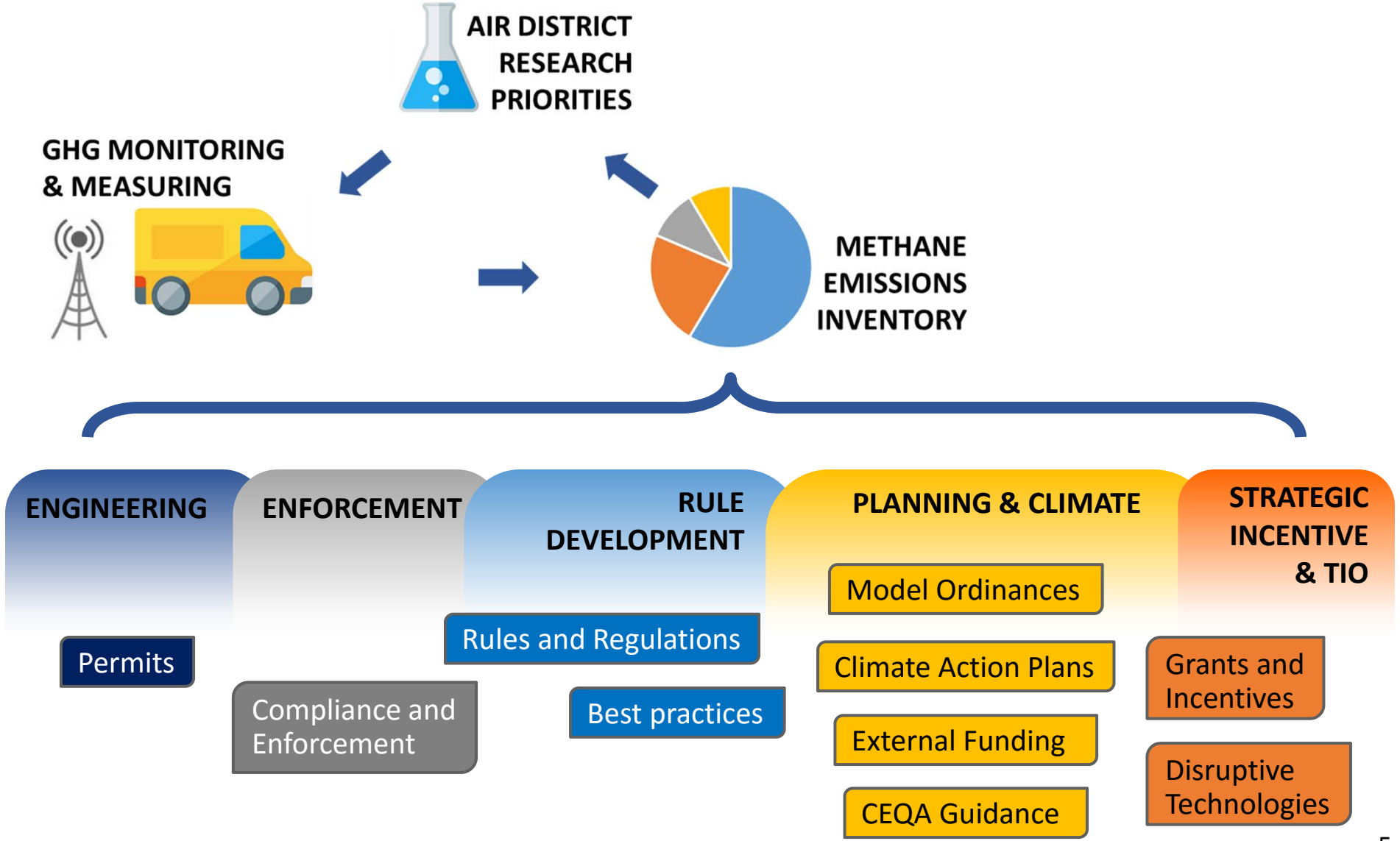
Current Inventory



Estimated 2015 Emissions =
10 Million MT CO₂e (20-yr GWP)

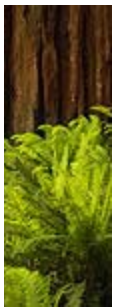
Basin-Wide Methane Strategy

Coordination Framework



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Methane Emissions Inventory

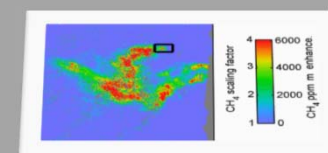
Identifying Underestimated CH₄ Sources

TIERED APPROACH

Aircraft-based flux estimates
with in situ measurements



Aircraft surveys with visible/infrared
imaging spectrometer (AVIRIS-NG)

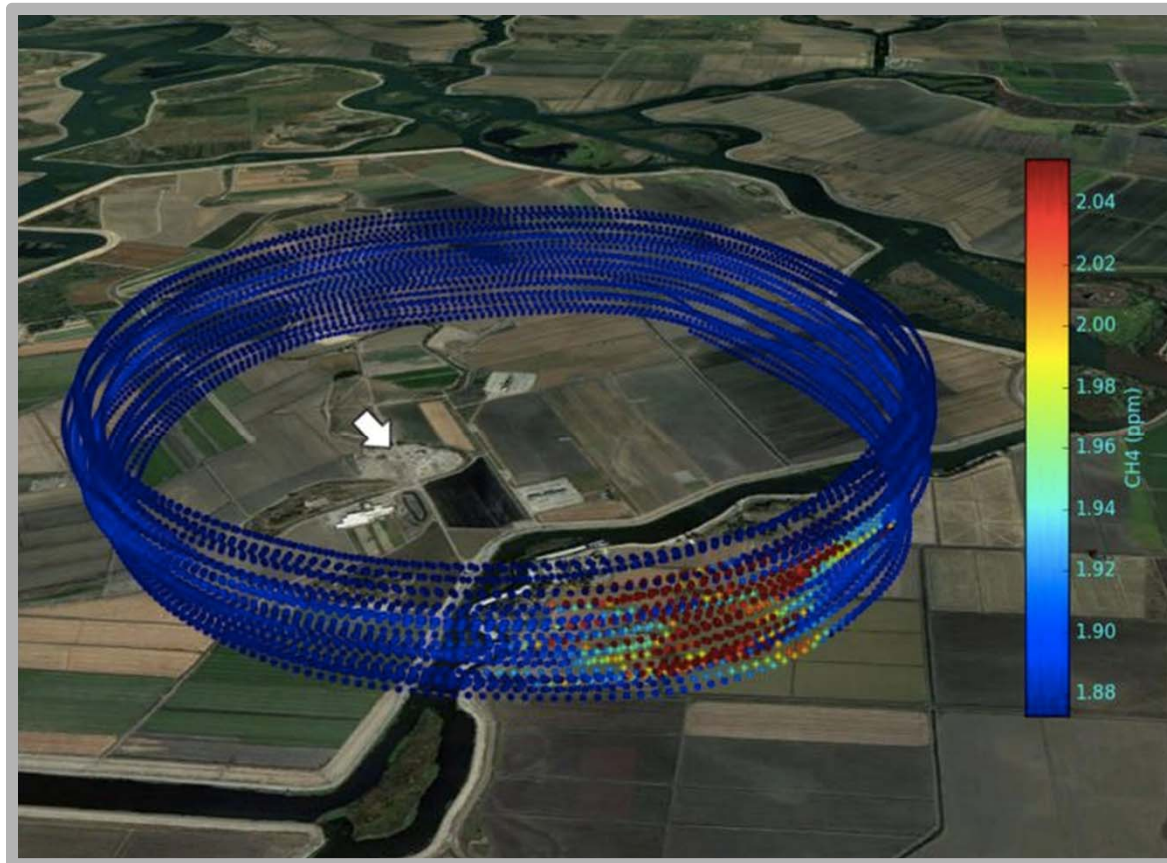


On-site leak detection (mobile van)
and flux evaluation (infrared cameras)

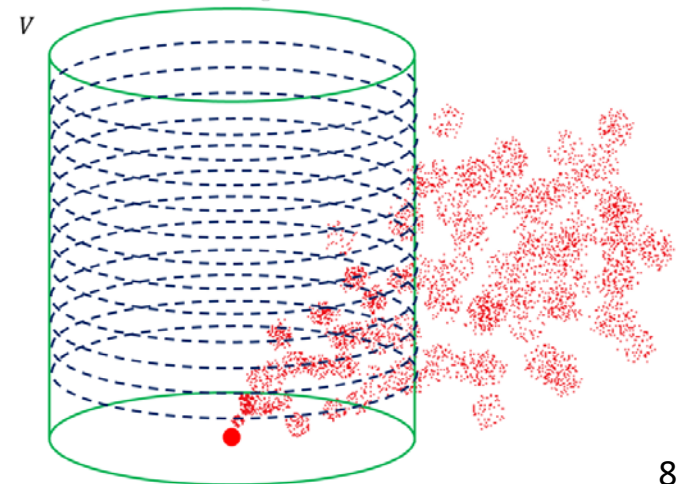


Tier 1: Estimating Facility-wide Emissions

Curtain flights



Methane emissions from facility are carried downwind while being mixed upward to turbulent air motion



All methane emissions pass through the curtain, eventually!

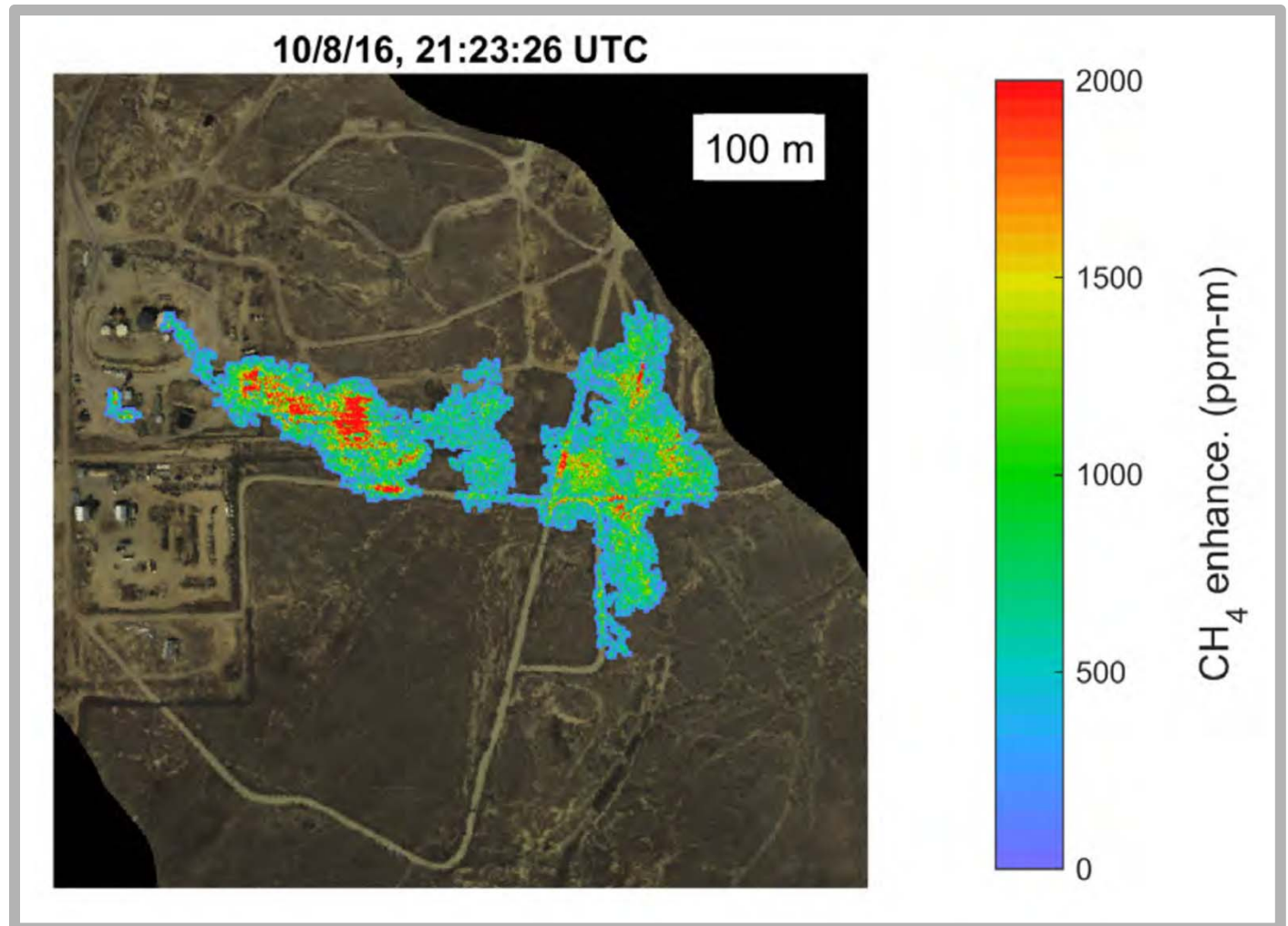
Conley et al., 2017

Tier 2: Locating Emissions Inside Facilities

NASA JPL Flights with AVIRIS-NG

Typical methane plume

*Picture:
Natural gas storage tank
at Kern Front
oil field*



Duren et al., 2017



Tier 3: Measuring Source Emissions

Onsite Leak Detection and Quantification

Identify emission ‘hotspots’, perform source attribution, and quantify emissions from processes or equipment



- *FLIR Camera*
 - Screening
- *GHG Research Van*
 - Fast measurements of CO₂, CH₄, & N₂O
 - Source apportionment using chemical tracers
- *Source Testing / other*
 - Quantifying emissions

Outline

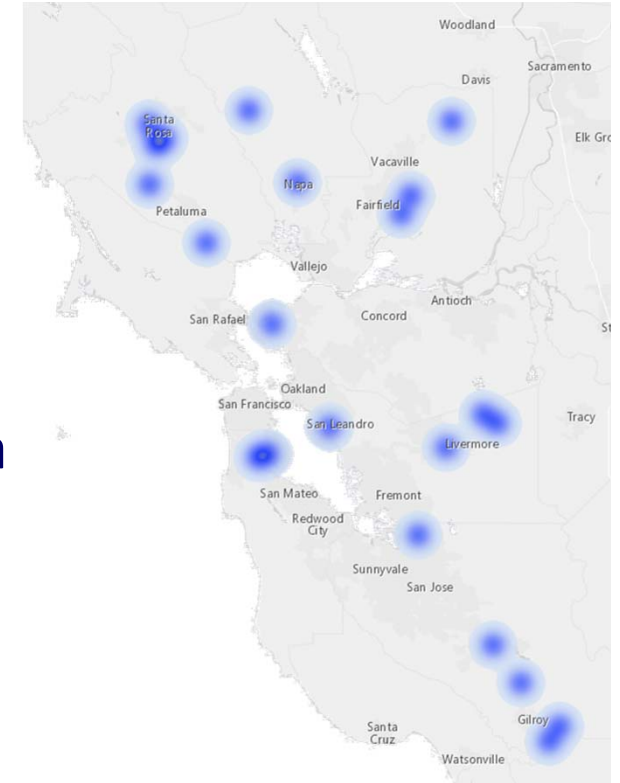
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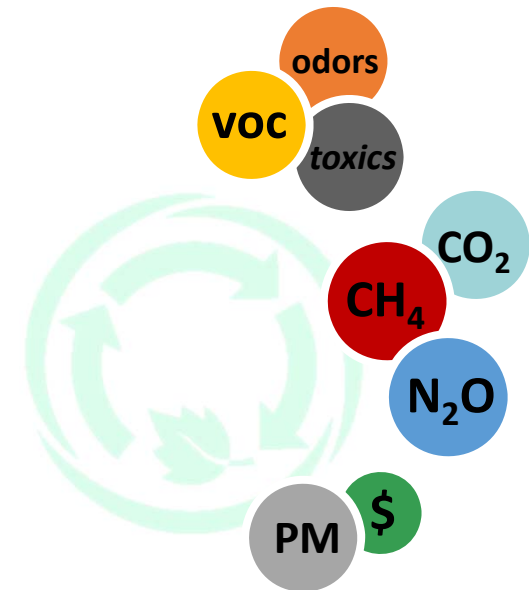
Basin-Wide Methane Strategy

Organics Recovery Strategy

- Support State goal of 75% diversion by 2025
 - 15+ new large facilities needed in Bay Area
- Prevent criteria, toxic and climate pollutant emissions, and odors
- External Stakeholder Meetings



**COORDINATE ACROSS NEW SUITE OF RULES,
PERMITTING, AND ENFORCEMENT TO ENABLE
LOW-CARBON ORGANICS RECOVERY LIFECYCLE**



Outline

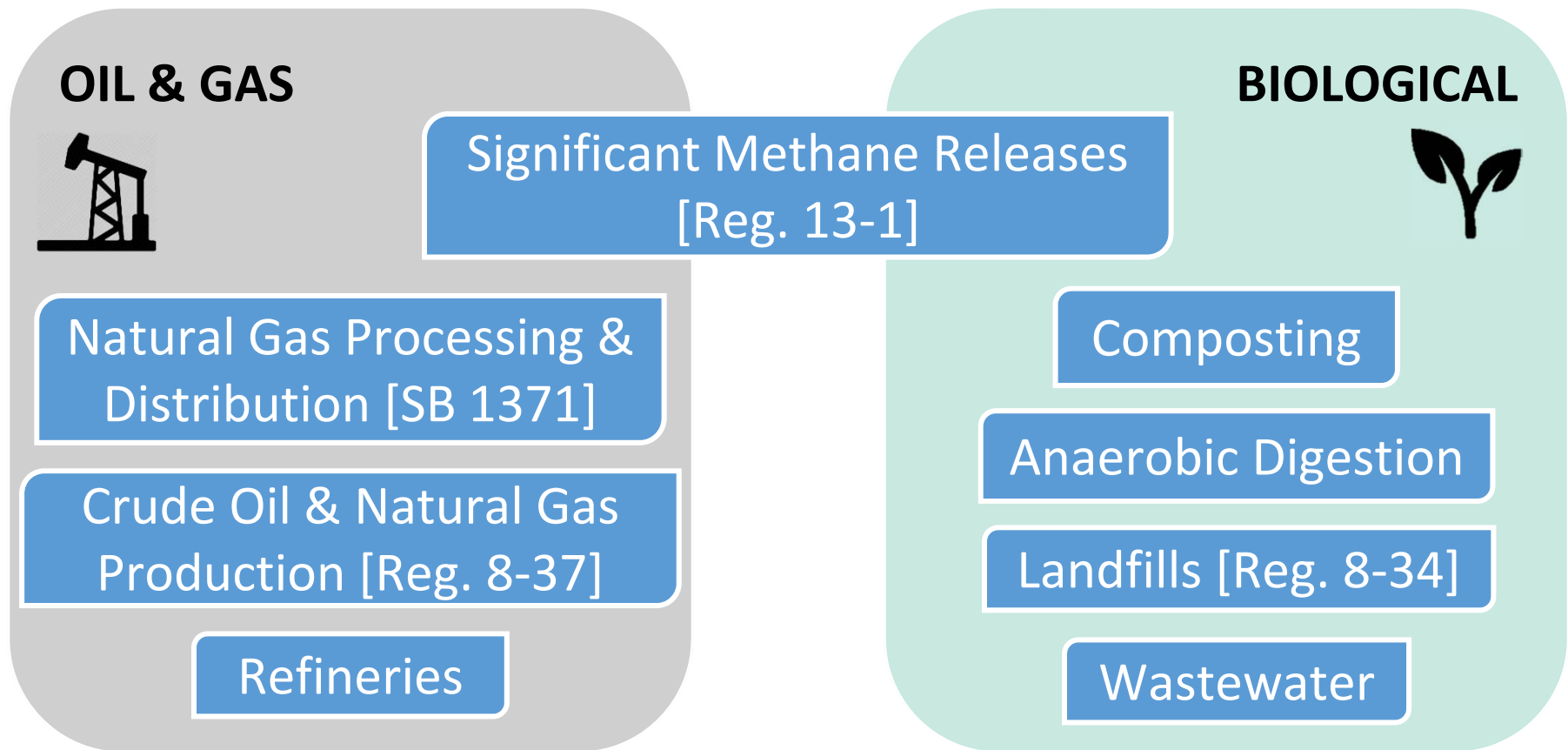
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Basin-Wide Methane Strategy

Regulatory Efforts

METHANE RULE DEVELOPMENT MAP



Basin-Wide Methane Strategy

2018 Methane Rules

REG 13-1 SIGNIFICANT METHANE RELEASES

PURPOSE Allow the Air District to compel facilities to fix major leaks; will act as *backstop* while source-specific rules are adopted

CONCEPT Prohibits methane releases throughout District

SCHEDULE

WORKSHOPS
APRIL 2018

TO BOARD
2018



NEW RULES COMPOSTING & ORGANIC WASTE OPERATIONS

CONCEPT Adopt a suite of rules that address emissions from storing, transferring and processing organic materials at composting, anaerobic digestion and other waste-related facilities such as landfills.

SCHEDULE
(first rule)

WORKSHOPS
2018

TO BOARD
2018



Basin-Wide Methane Strategy

2018 Methane Rules (cont'd)

SB 1371 NATURAL GAS LEAK ABATEMENT PROGRAM

PURPOSE *Prevent methane leaks from the natural gas distribution system*

WORK WITH CALIFORNIA PUBLIC UTILITIES COMMISSION (CPUC)
during Phase II to achieve quantifiable methane emissions reductions

SCHEDULE

PHASE I

Completed 2017

PHASE II

2018 – 2020

CH₄



REG 8-37 CRUDE OIL AND NATURAL GAS PRODUCTION

PURPOSE *Address emissions from smaller oil and gas production facilities exempted by Air Resource Board's Oil & Gas Rule*

CONCEPT *Consider a lower leak threshold to achieve cost-effective methane and VOC emissions reductions and protect public health*

SCHEDULE

OIL & GAS STUDY

JAN-MAR 2018

WORKSHOPS

2018

TO BOARD

2018

CH₄

VOC

TOXICS

