

CARB's Landfill Methane Gas Regulation

South Central Coast
Basinwide Air Pollution
Control Council

January 22, 2026

SBCAPCD Mission: *To protect the people and the environment of Santa Barbara County from the effects of air pollution.*

Aeron Arlin Genet
Executive Director / APCO



Air Quality Impacts from Landfills

Pollutants of Concern:

- Ozone precursors
- Particulate matter
- Greenhouse gases

Emission sources at landfills:

- Landfill surface
- Enclosed ground flares
- Emergency standby generators
- LFG condensate/leachate
- Vehicles & earth moving equipment

Emission Controls:

- LFG collection system
- Ground flare
- Dust suppressant



10 landfills in Santa Barbara County

4 subject to CARB's LMR

3 active and 1 closed

California's Landfill Regulatory Context

FEDERAL



US EPA

STATE



CalEPA
California Environmental
Protection Agency

LOCAL



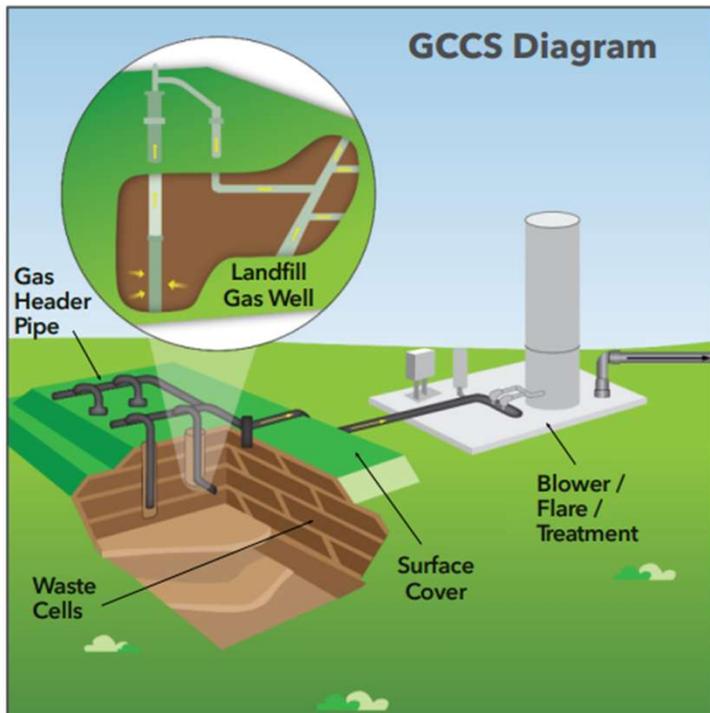
Local Air Districts



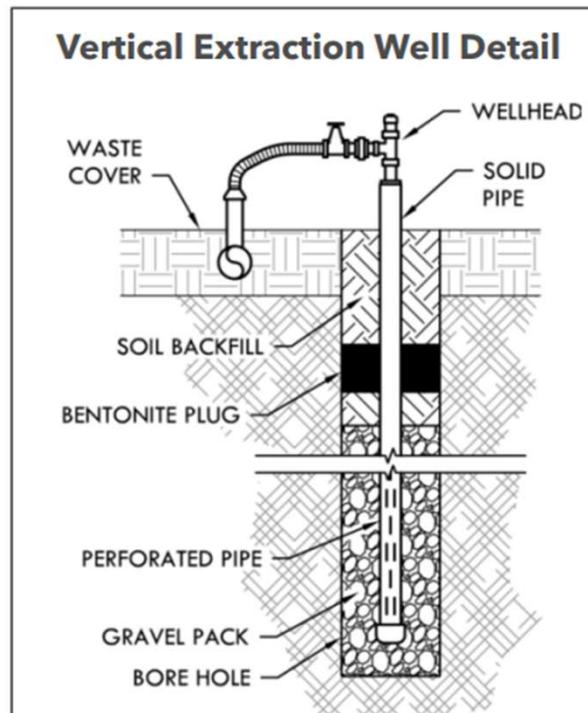
California's Landfill Methane Regulation (LMR)

- ▶ Adopted in 2010 as an early action measure under the Global Warming Solutions Act of 2006 (Assembly Bill 32)
- ▶ Designed to reduce methane emissions from landfills - also improves air quality and reduces odors
- ▶ More stringent requirements for controlling emissions and monitoring for leaks than federal rules at the time
- ▶ Most local air districts have agreements with CARB to primarily implement and enforce the LMR in their districts
- ▶ Applies to 188 landfills throughout the state, with 153 required to control emissions

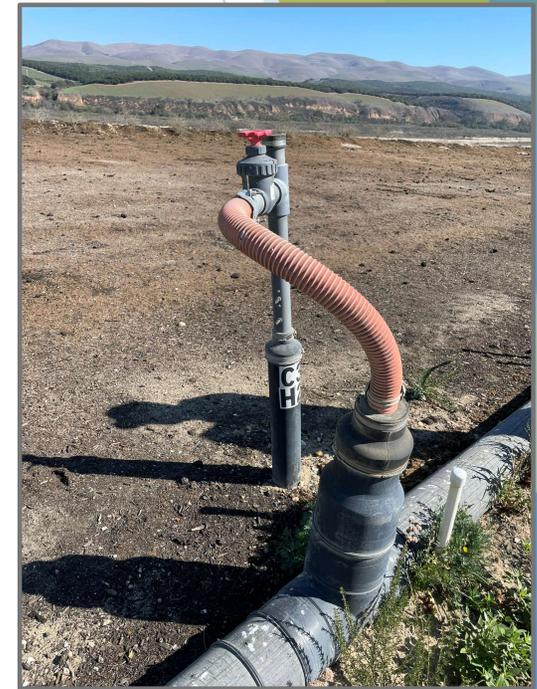
Gas Collection and Control Systems (GCCS)



Source: [EPA 2025](#); some labels added



Source: [LMOP 2024](#)



Santa Maria Landfill

Existing LMR Requirements

-  Install gas collection and control system (GCCS)
-  Monitor and fix leaks from surface and GCCS
-  Monitor and correct other performance parameters
-  Test control devices for 99% methane destruction
-  Keep records and report compliance data to regulators

Driving Factors for CARB Regulation Changes

Senate Bill 1383

- ▶ Requires California to reduce methane emissions by 40% below 2013 levels by 2030

Integrate Modern Technologies

- ▶ Satellite and Aircraft Monitoring
- ▶ Drone-Mounted Sensors

Public Health & Fire Safety

- ▶ Chiquita Canyon Landfill fire

Improving Responsiveness & Accountability



CARB's LMR Amendments - Summary of Changes



Improved Leak Monitoring

- ▶ Expanded spatial coverage, increased monitoring frequency, faster repairs



Expanded Gas Collection and Control System (GCCS) Monitoring

- ▶ More parameters measured during monthly wellhead monitoring
- ▶ New standards and mitigation measures



Enhanced GCCS Operational Requirements

- ▶ Limits on GCCS downtime and offline wells



Additional Requirements

- ▶ Expanded reporting requirements, enhanced clarity, improved enforceability

Integrating Remote Plume Detection



Require operator action when notified by CARB | monitor for leaks on the ground, repair any leaks found, report outcomes

Additive | does not replace operator's routine monitoring

Next Steps

CAPCOA / CARB Working Group

- ▶ Assessing workload impacts and logistics to implement new requirements

CARB's 15-Day Package to be released in February

Update MOU for APCD Board approval

Compliance requirements set to take effect - January 1, 2027



Foxen Canyon Landfill

Thank you!

