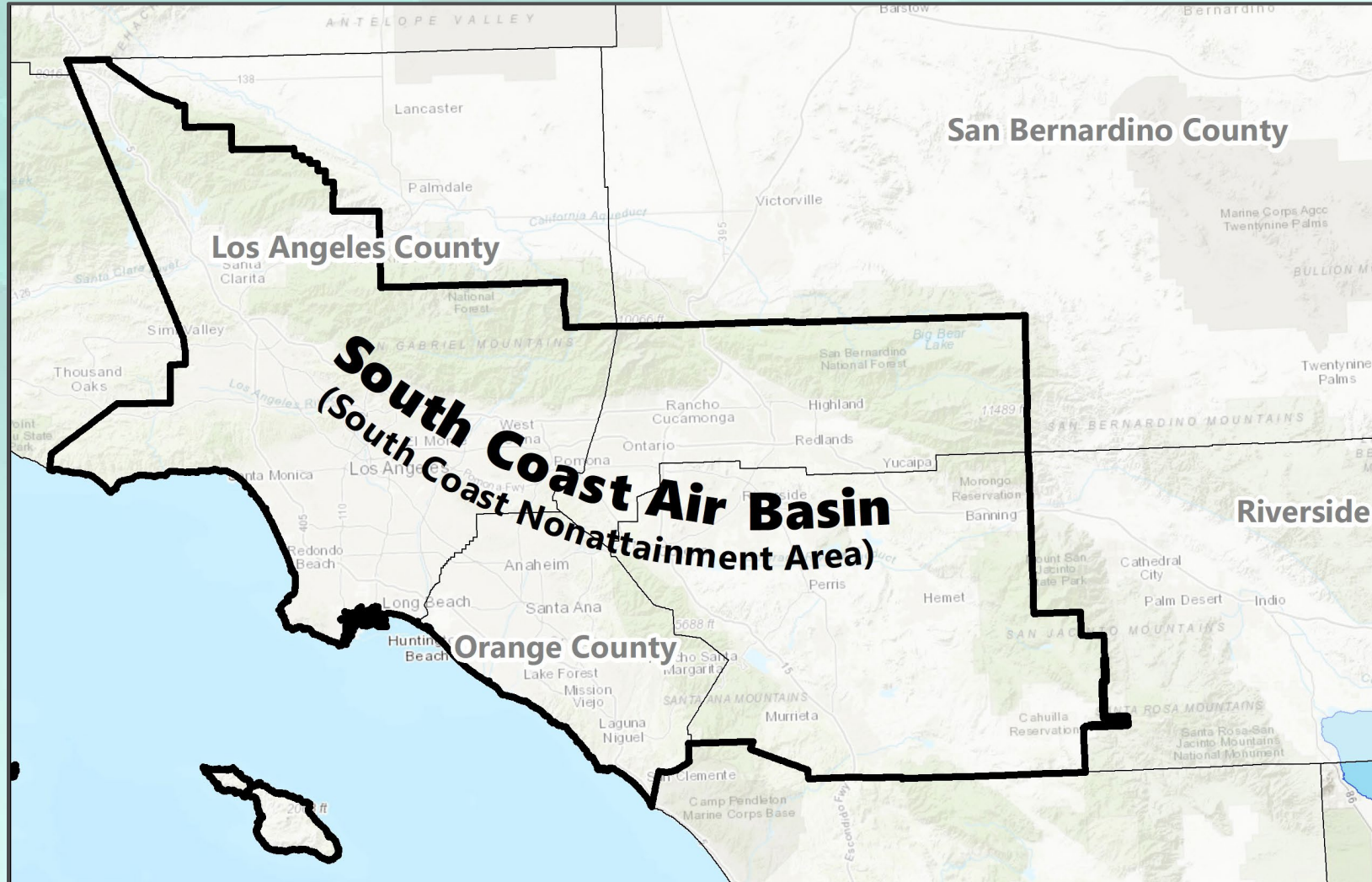




# **South Coast Air Basin Attainment Plan for the 2012 Annual PM<sub>2.5</sub> Standard**

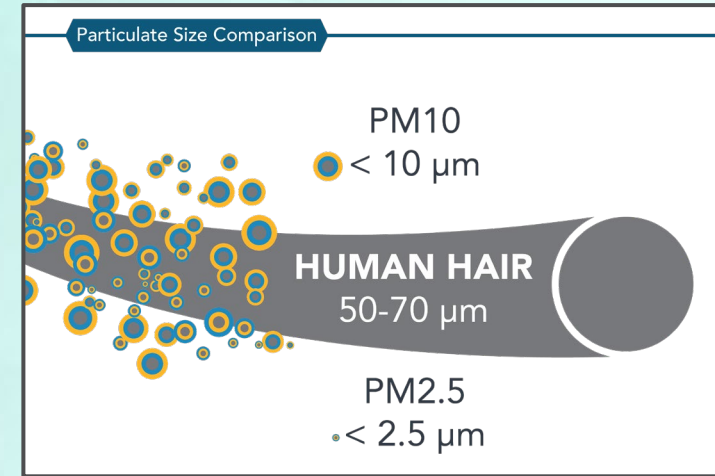
June 27, 2024

# South Coast Air Basin



# Fine Particulate Matter (PM2.5)

- PM2.5 can be directly emitted or formed in the air from NO<sub>x</sub>, ammonia, SO<sub>x</sub>, & VOC emissions
- Health effects include:
  - lung cancer
  - ischemic heart disease
  - stroke



*Image courtesy of U.S. EPA*



# Sources of PM2.5 in South Coast



Direct PM2.5

NOx

Ammonia

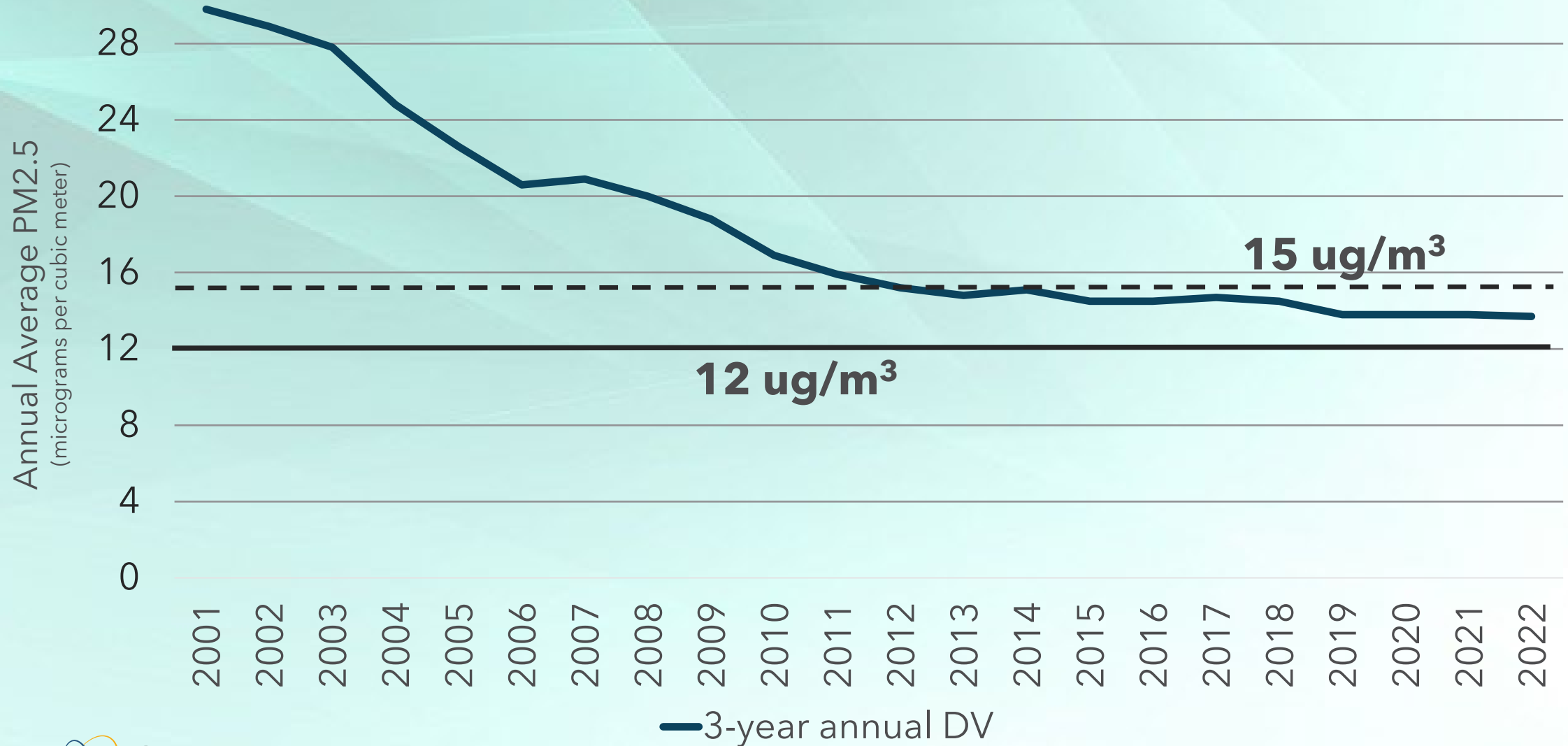


# Annual PM2.5 Standards

EPA sets annual PM2.5 standards to address health impacts associated with long-term exposure to PM2.5 pollution



# South Coast Annual PM2.5 Trends



# Planning for the 2012 Annual PM2.5 Standard

2015

- South Coast designated Moderate nonattainment area with a 2021 attainment deadline

2017

- 2016 AQMP included Moderate and Serious area SIPs
- Requested reclassification as a Serious nonattainment area
- Showed attainment by 2025 Serious area deadline

2020 -  
2023

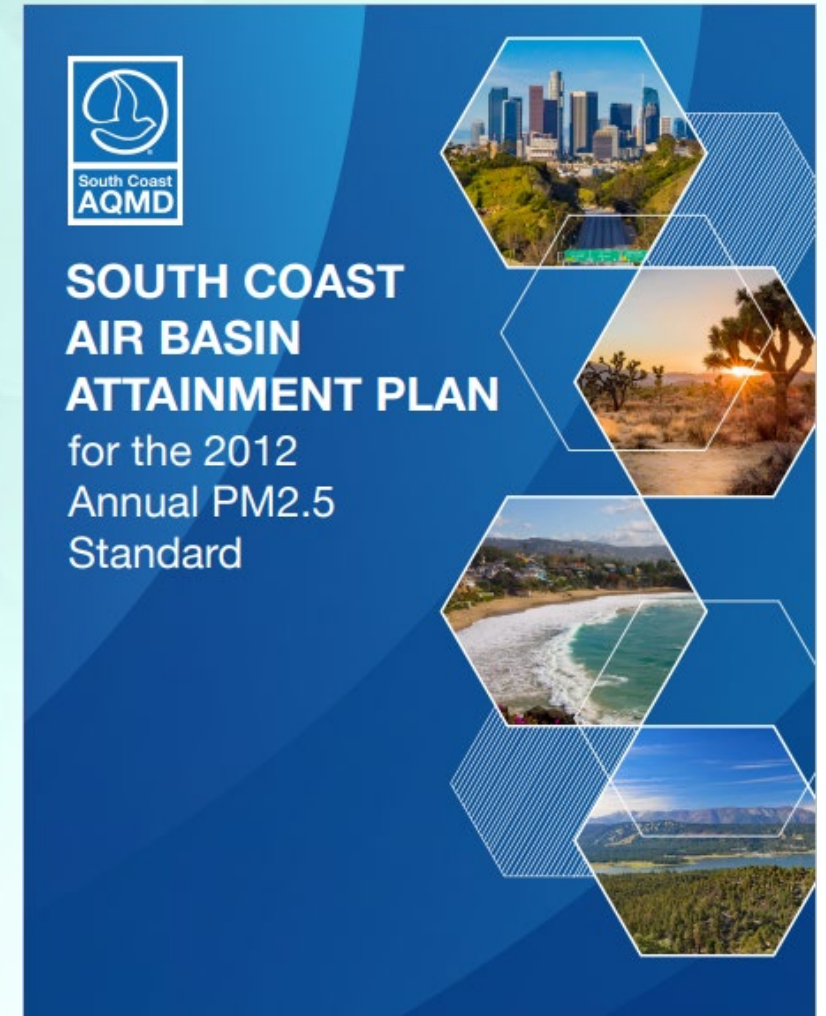
- EPA approved Moderate elements, reclassified to Serious
- Serious SIP elements were over 7 years old
- CARB and AQMD withdrew Serious SIP in 2023





# 2024 South Coast PM2.5 Plan

- Developed to meet Serious area PM2.5 requirements with latest information
- Requests 5-year extension with a 2030 attainment deadline
- Extensive public process
  - 4 regional hearings
  - 2 public workshops
  - 2 discussions at MS committee
- Adopted by AQMD on June 7, 2024





# PM2.5 Plan Control Strategy based on Recent State and District Plans



# Recently Adopted CARB Measures Providing Reductions in 2030



<b>2022 State SIP Strategy</b>
<b>On-Road Heavy-Duty</b>
Advanced Clean Fleets Regulation
<b>On-Road Light-Duty</b>
Advanced Clean Cars II
Clean Miles Standard
<b>Off-Road Equipment</b>
Amendments to the In-Use Off-Road Diesel-Fueled Fleets Regulation
Commercial Harbor Craft Amendments
Transport Refrigeration Unit Regulation Part I
<b>Primarily-Federally and Internationally Regulated Sources - CARB Measures</b>
In-Use Locomotive Regulation

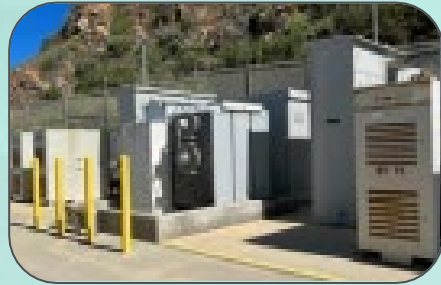


# Remaining CARB Commitments Providing Reductions in 2030



<b>2022 State SIP Strategy</b>
<b>On-Road Heavy-Duty</b>
Zero-Emissions Trucks Measure
<b>Off-Road Equipment</b>
Tier 5 Off-Road Vehicles and Equipment
Transport Refrigeration Unit Regulation Part 2
Cargo Handling Equipment Amendments
<b>Other</b>
Zero-Emission Standard for Space and Water Heaters
<b>2016 State SIP Strategy</b>
<b>Off-Road Equipment</b>
Zero-Emission Forklift

# AQMD Measures Providing Reductions in 2030



## Measures from the 2022 AQMP

Emergency Standby Engines

Diesel Electricity Generating Facilities

Incinerators

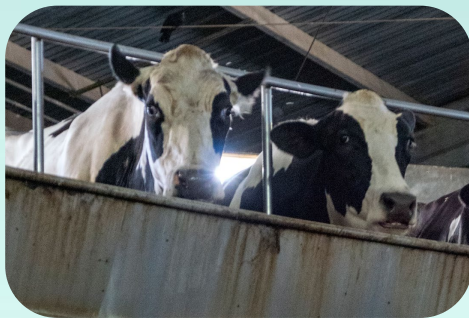
## Measures from the 2016 AQMP

Livestock Waste at Confined Animal Facilities

Direct Land Application of Chipped and Ground Uncomposted Greenwaste



# AQMD Actions Identified as Most Stringent Measures



## New MSM Measures

Residential Wood-burning Devices

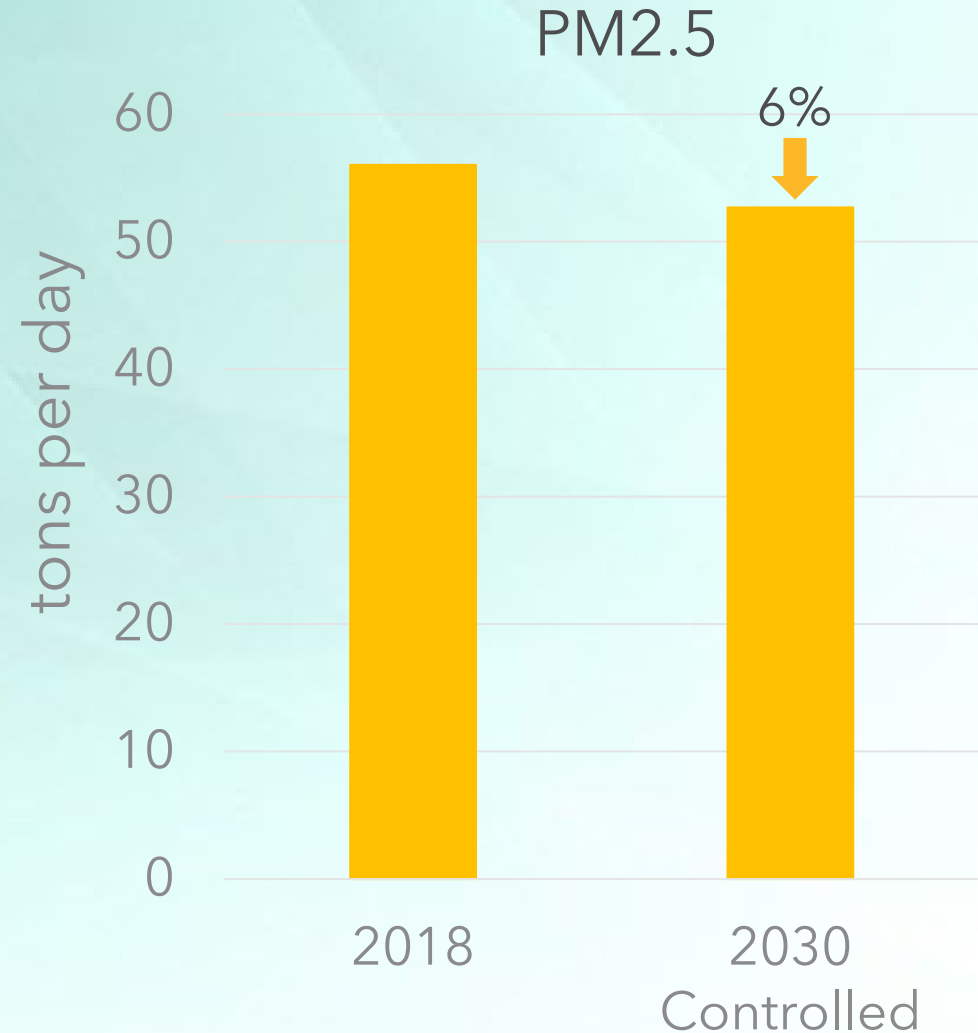
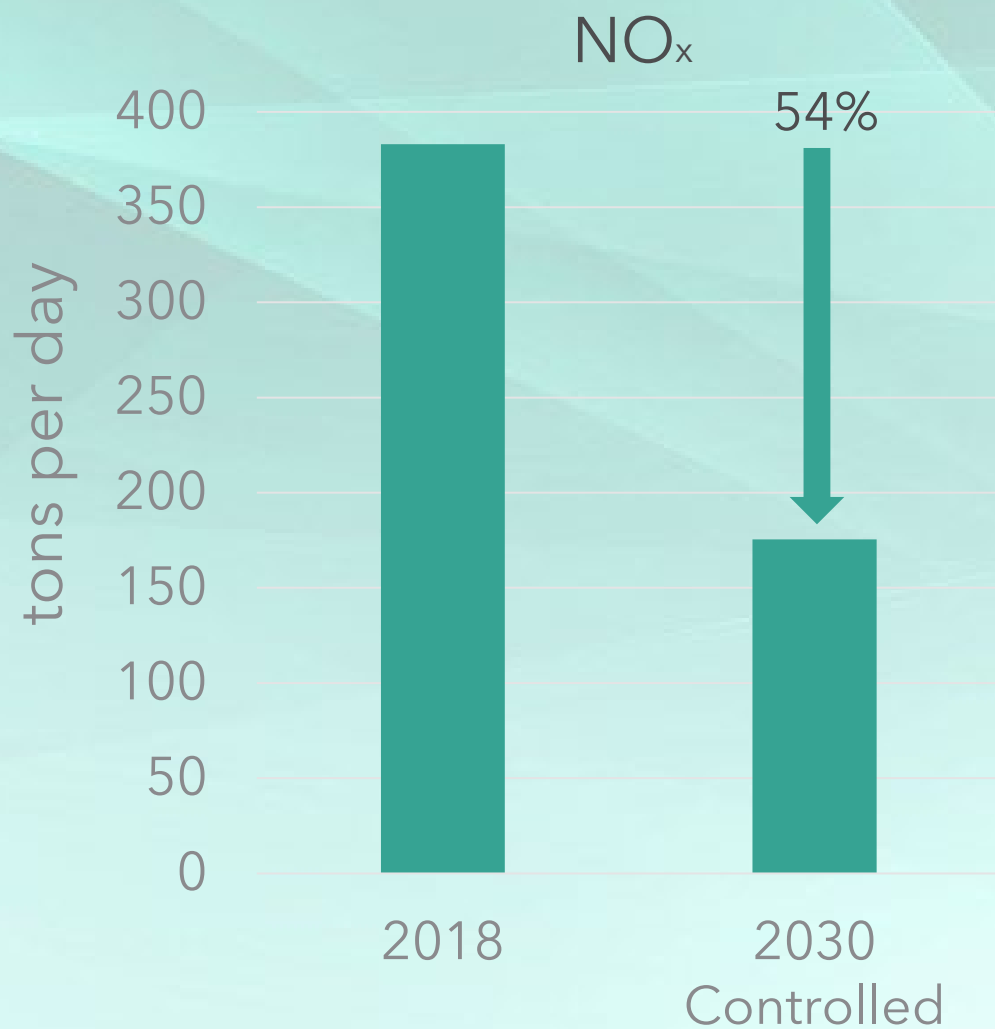
Control Of Emissions from Restaurant Operations

Livestock Waste at Confined Animal Facilities\*

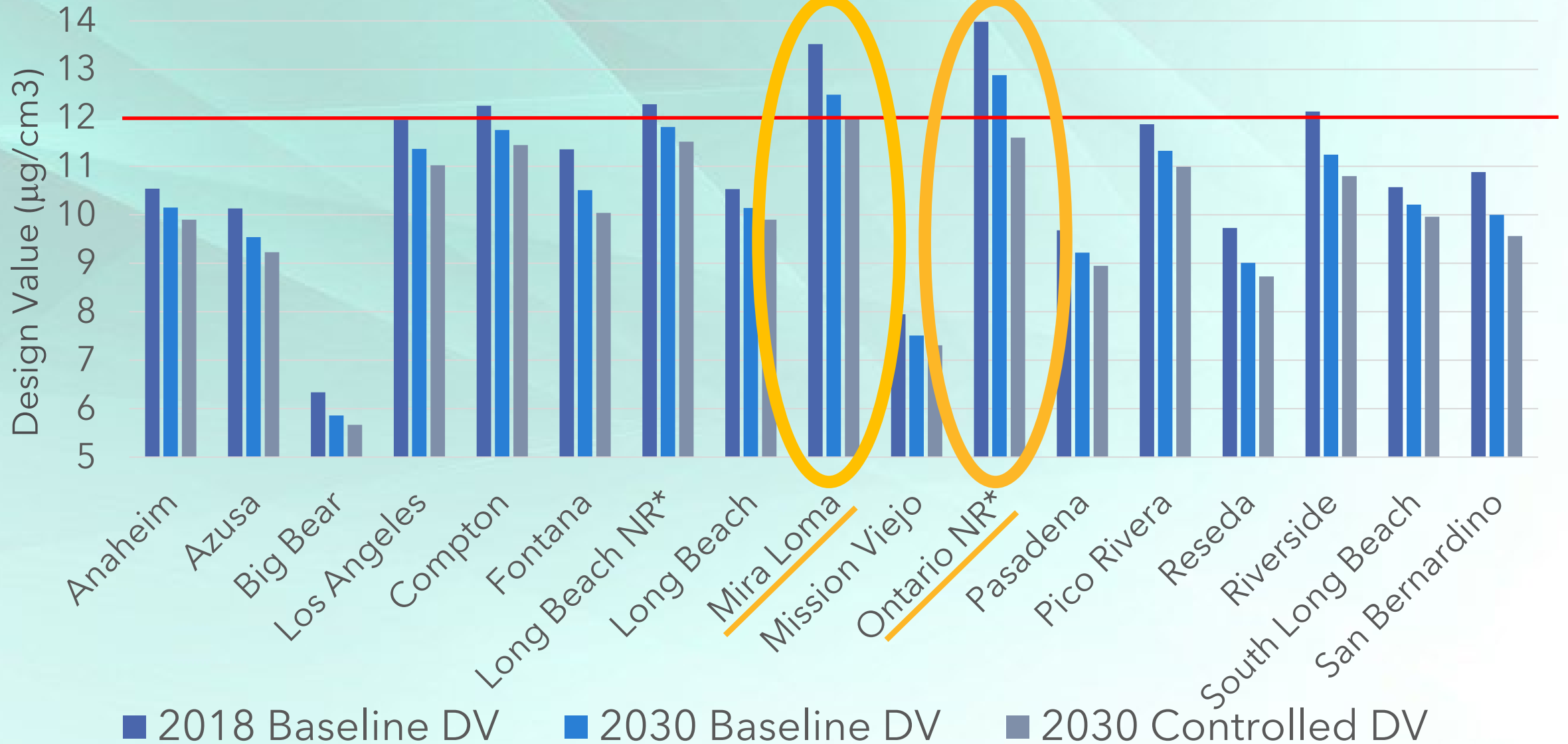
Direct Land Application of Chipped and Ground Uncomposted Greenwaste\*

\*Also Provides Quantified Reductions in 2030

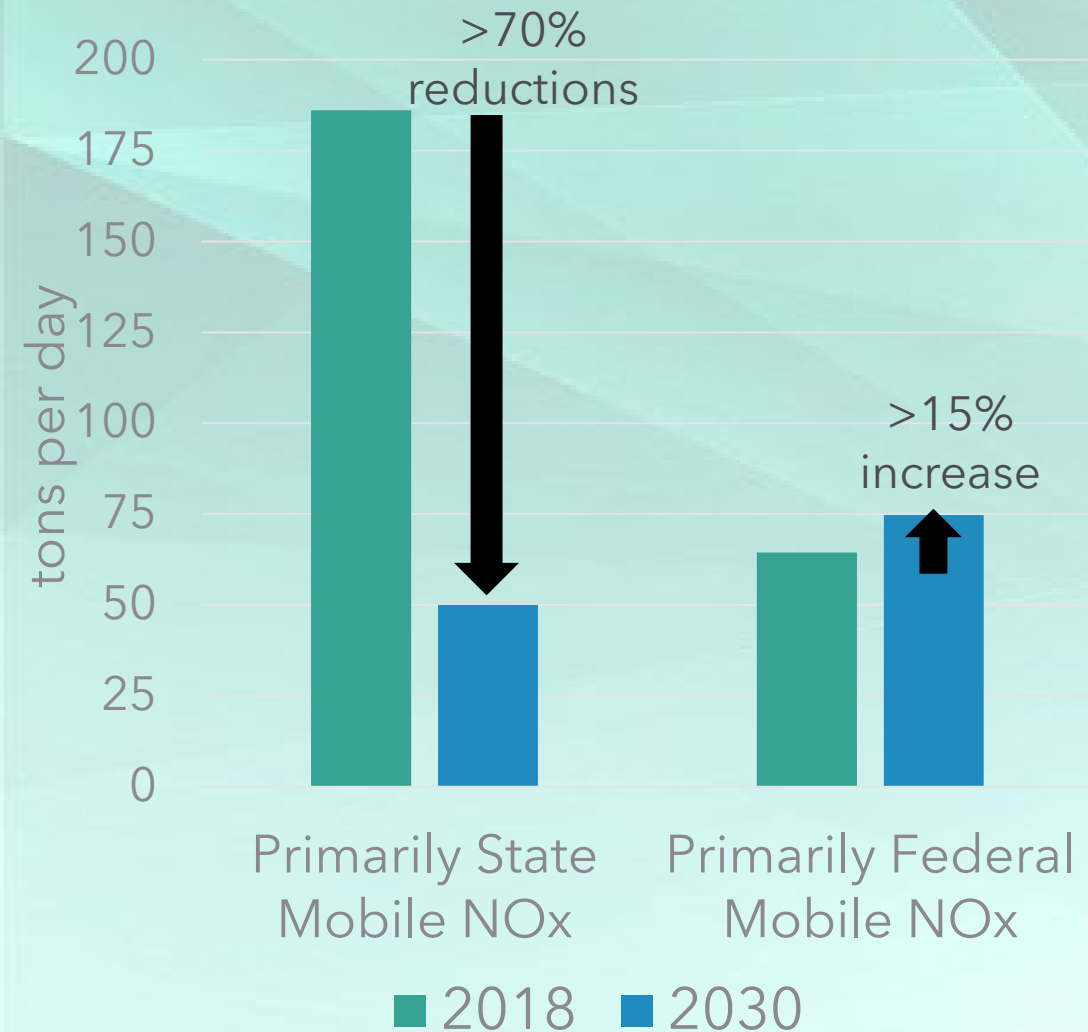
# CARB and AQMD Controls Provide the Reductions Needed for Attainment



# Modeled Attainment in 2030



# Federal Actions to Support Attainment

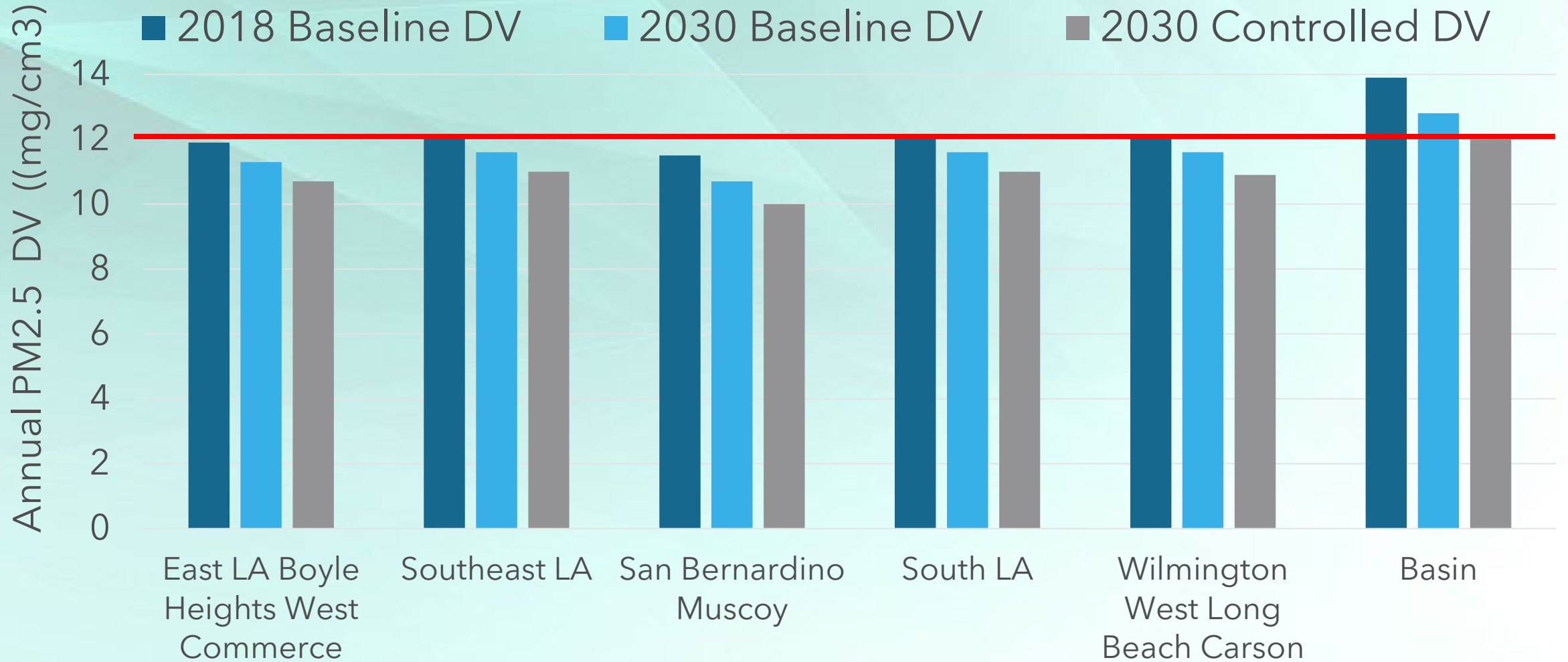


- 1) Approve CARB waivers and authorizations
- 2) Set more stringent emissions standards for sources under their authority
- 3) Provide resources to direct the cleanest ships, trains & planes to South Coast





# PM2.5 Plan Provides Benefits in AB 617 Communities



# 2024 PM2.5 Plan Meets Act Requirements

Requirement	2024 South Coast PM2.5 Plan	CARB Report
Emission Inventory	✓	
Best Available Control Measures/Best Available Control Technology	✓	
Control Measures / Reduction Commitment	✓	✓
Attainment Demonstration	✓	
Reasonable Further Progress	✓	
Contingency Measure	✓	
Motor Vehicle Emissions Budgets		✓
Most Stringent Measures	✓	

# Staff Recommendation

Staff recommends that the Board:

1. Adopt State commitment to achieve aggregate emission reductions (9.1 tpd NO<sub>x</sub>, 0.2 tpd ammonia, and 0.5 tpd PM<sub>2.5</sub> in 2030) and motor vehicle emissions budgets in CARB Staff Report
2. Adopt the 2024 South Coast PM<sub>2.5</sub> Plan
3. Direct staff to submit the 2024 South Coast PM<sub>2.5</sub> Plan and the CARB Staff Report to EPA as a revision to the California SIP

**Thank you**