

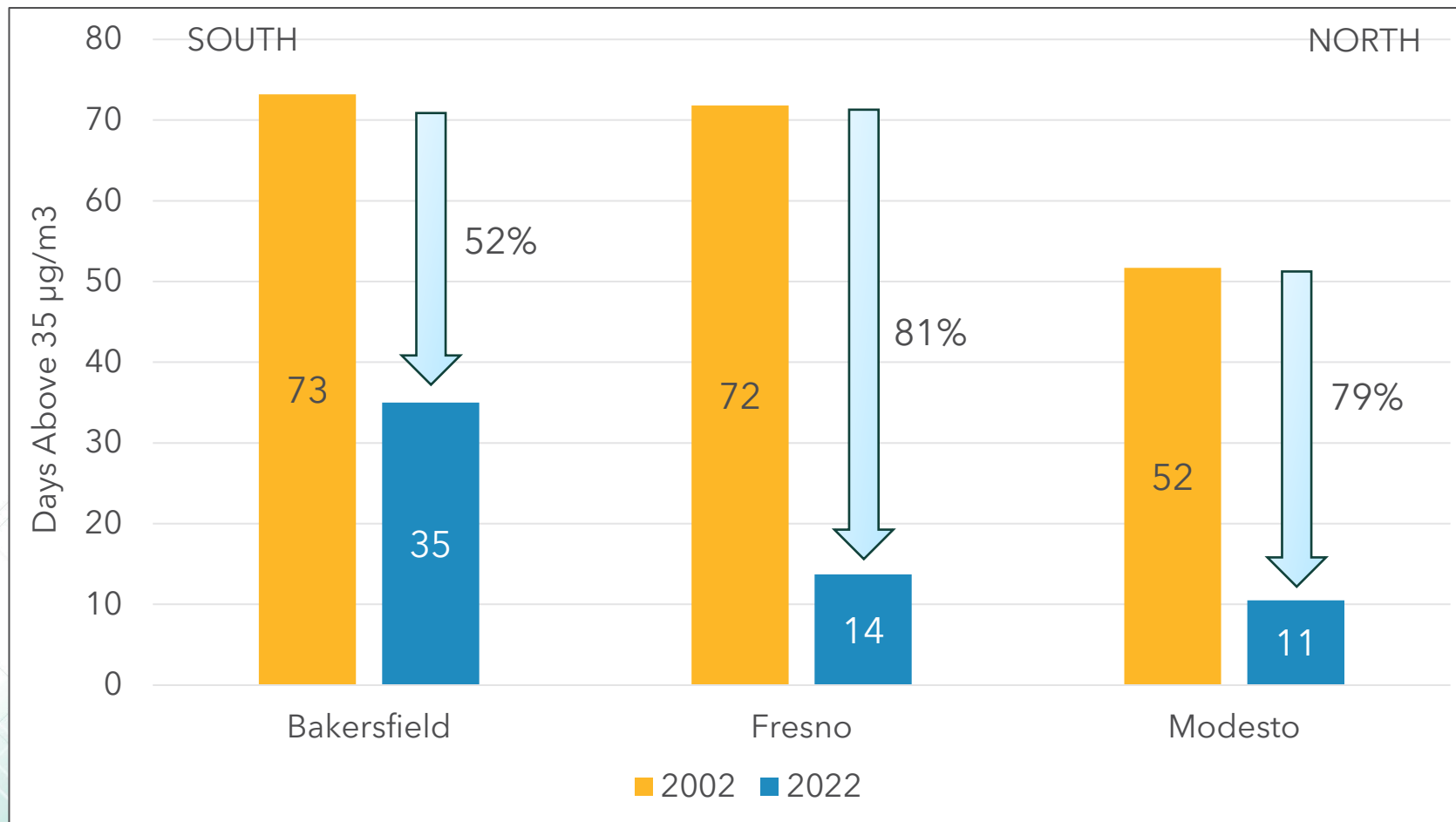


Public Meeting on San Joaquin Valley PM2.5 SIPs and PM2.5 Air Quality

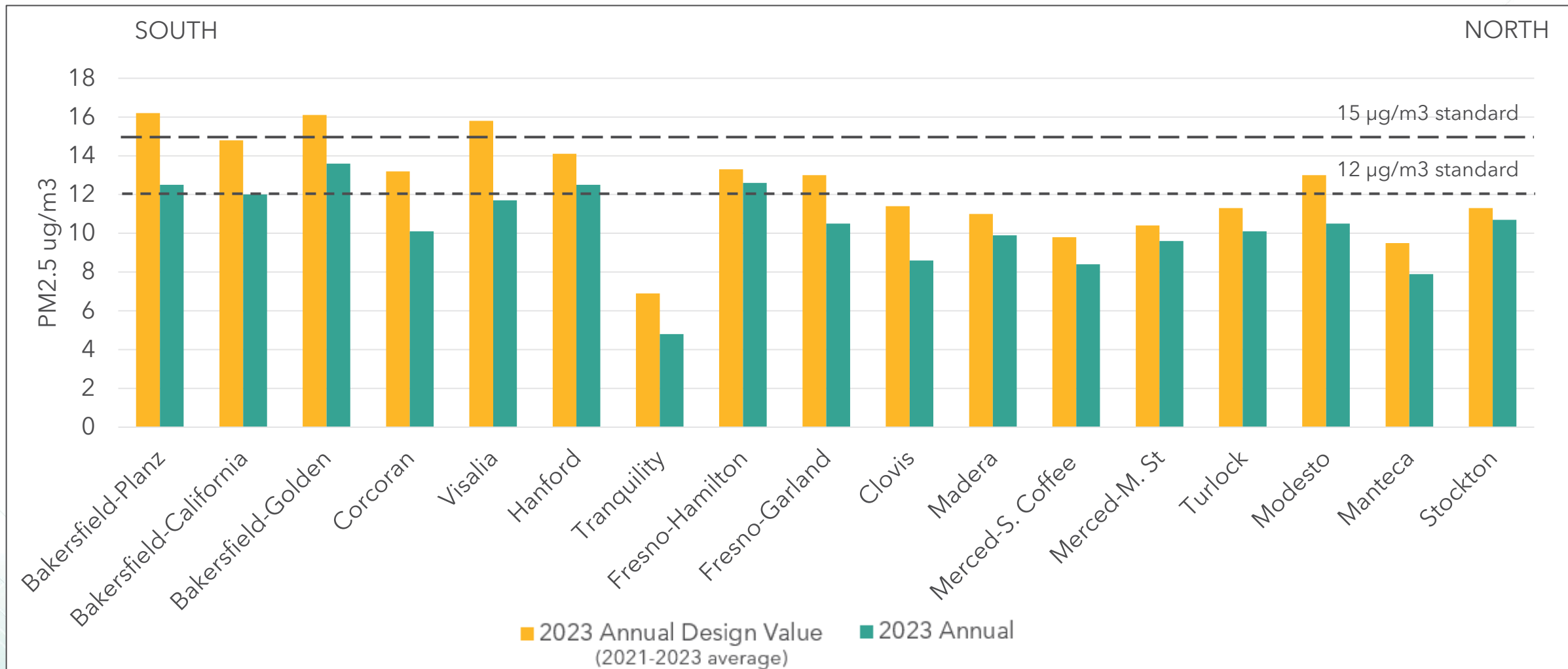
July 25, 2024

PM2.5 Air Quality Improvements

Fewer Days Above the 24-hour Standard



Annual PM2.5 Levels Improve



15 $\mu\text{g}/\text{m}^3$ Attainment Date Extension

- Clean Air Act allows for one-year attainment date extension if:
 - ✓ The area records annual average values below the standard, and
 - ✓ The State has met its commitments
- CARB submitted to EPA (June 21, 2024):
 - Request for attainment date extension with documentation showing the criteria were satisfied
 - Two proposed amendments requested by EPA

Amendments to the Valley Incentive Measure and the 15 $\mu\text{g}/\text{m}^3$ SIP Revision

Valley Incentive Measure

Amend to include a quantification of emission reductions for 2023 from existing Carl Moyer and FARMER agriculture equipment projects

15 $\mu\text{g}/\text{m}^3$ SIP Revision (2021)

Amend to document these reductions are being used as a substitute measure to meet the 2023 aggregate

CARB submitted to EPA for parallel processing on June 21, 2024

On July 8, 2024, EPA proposed:

1. Approval of amendments
2. To grant one-year extension of attainment date to Dec. 31, 2024

CARB Measures Providing Reductions

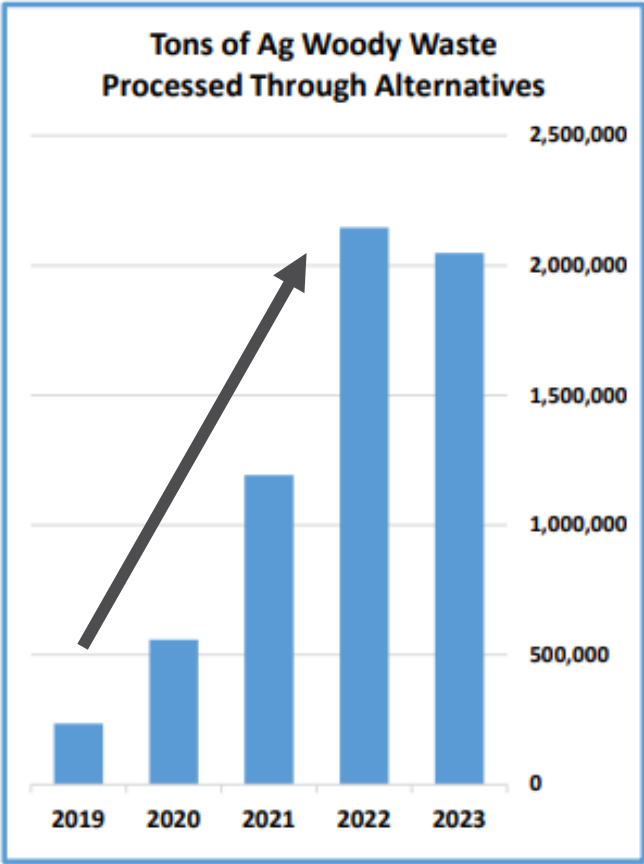
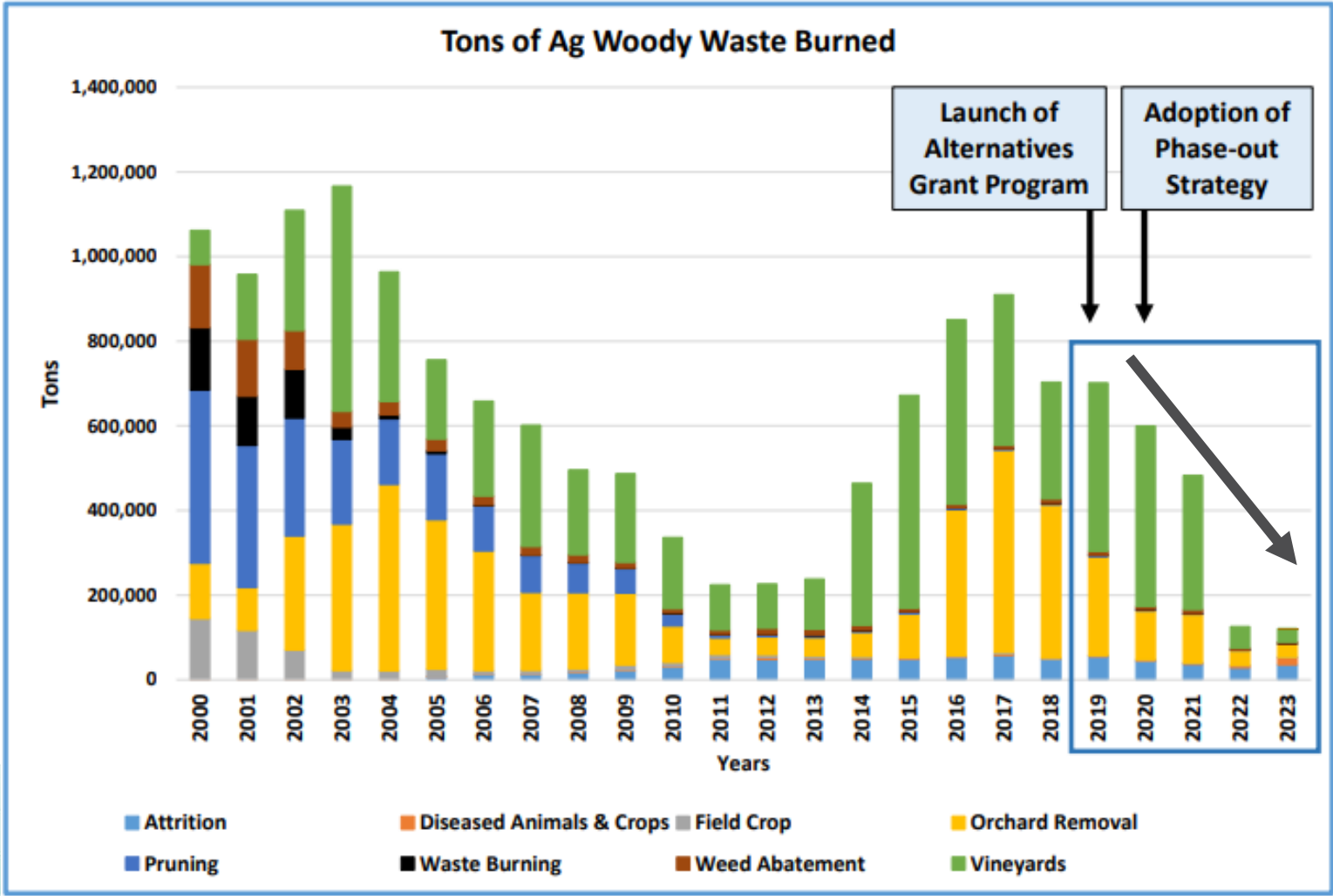
Measure	Adopted
Lower In-Use Emission Performance Level: Lower Opacity Limits for HD Vehicles (HDVIP/PSIP)	✓ May 2018
Lower In-Use Emission Performance Level: Amended Warranty Requirements for HD Vehicles	✓ June 2018
Innovative Clean Transit	✓ Dec. 2018
Zero-Emission Airport Shuttle Buses	✓ June 2019
Accelerated Turnover of Agricultural Equipment Incentive Measure	✓ Dec. 2019
Advanced Clean Trucks	✓ June 2020
Heavy-Duty Low-NOx Omnibus Rule	✓ Aug. 2020
HD Vehicle Inspection and Maintenance Program (HD I/M)	✓ Dec. 2021
Small Off-Road Engines	✓ Dec. 2021
Transport Refrigeration Units	✓ Feb. 2022
Advanced Clean Cars 2 (Reduced ZEV Brake and Tire Wear)	✓ Aug. 2022
Zero-Emission Off-Road Forklift Regulation Phase 1	✓ June 2024



District Measures Providing Reductions

Measure	Adopted
Rule 4692 Commercial Underfired Charbroiling (Hot-Spot Strategy)	✓ June 2018
Rule 4901 Wood Burning Fireplaces and Wood Burning Heaters (Hot-Spot Strategy)	✓ June 2019
Rule 4311 Flares	✓ Dec. 2020
Rule 4306 Boilers, Steam Generators, and Process Heaters - Phase 3	✓ Dec. 2020
Rule 4702 Internal Combustion Engines	✓ Aug. 2021
Rule 4354 Glass Melting Furnaces	✓ Dec. 2021
Rule 4352 Solid Fuel-Fired Boilers, Steam Generators, and Process Heaters	✓ Dec. 2021

District Phase-Out of Agricultural Burning

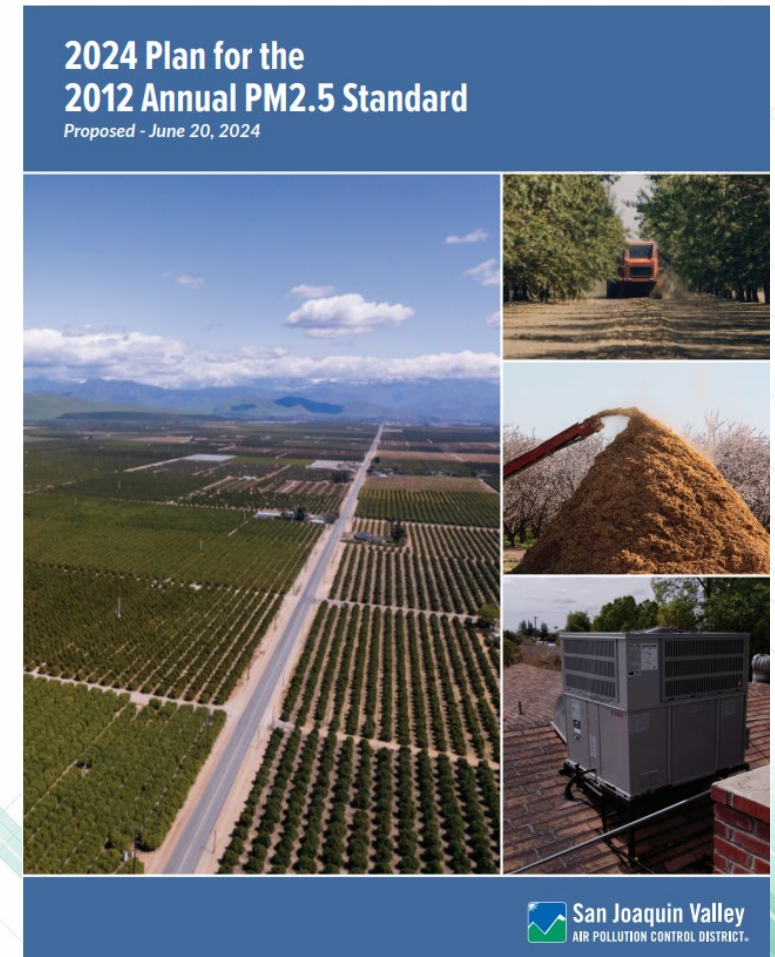


Source: SJVAPCD

2024 PM2.5 Plan

2024 PM2.5 Plan

- Developed to meet serious nonattainment area Clean Air Act requirements for the 12 $\mu\text{g}/\text{m}^3$ annual PM2.5 standard
- Joint CARB and District control strategy
- Adopted by District Governing Board on June 20, 2024
- Emission reduction commitments for 2030 attainment year



Background on Planning for 12 $\mu\text{g}/\text{m}^3$ Standard

January 2019: CARB adopted serious area SIP for 12 $\mu\text{g}/\text{m}^3$ standard early, as part of comprehensive 2018 PM_{2.5} Plan

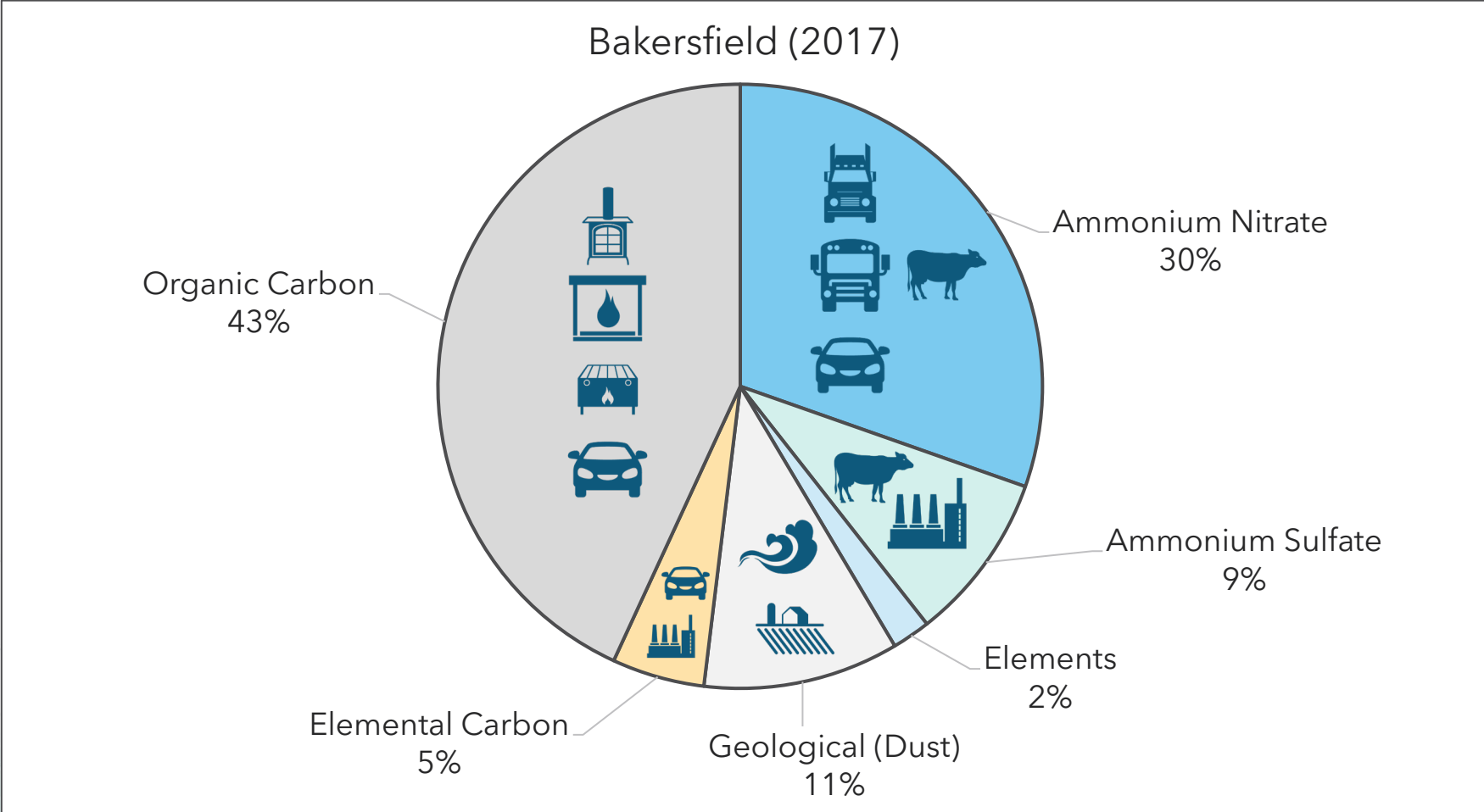
December 2021: EPA proposed approval of the 12 $\mu\text{g}/\text{m}^3$ SIP except contingency measures

October 2022: EPA re-proposed disapproval; CARB and District withdrew SIP and started process to develop new strategy

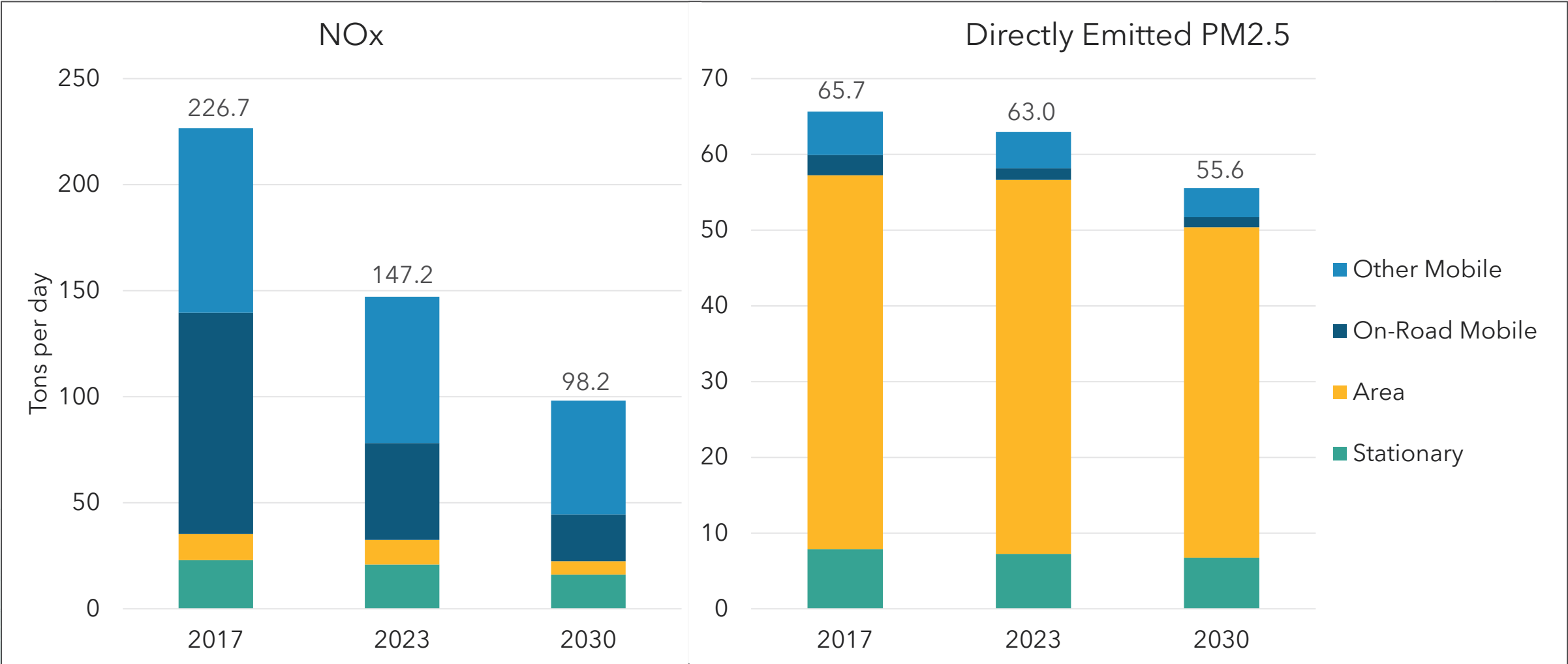
November 2023: CARB submitted initial required elements for new SIP

Today: Considering the 2024 PM_{2.5} Plan with remaining required SIP elements

PM2.5 Sources

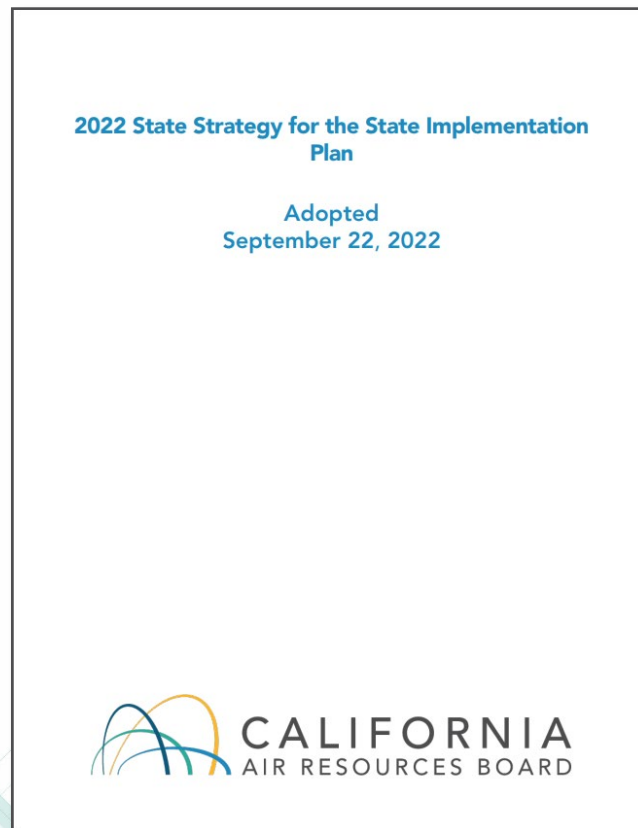


Baseline Emissions



2022 State SIP Strategy

- Adopted on September 22, 2022
- Includes new State measures to reduce emissions using all mechanisms available
- Identifies the level of action needed to meet air quality standards and protect public health
- Drives pace and scale of CARB rulemakings



2022 State SIP Strategy Measure Schedule

Measures	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
Clean Miles Standard	★		■							
Commercial Harbor Craft Amendments		★	■							
Amendments to the In-Use Off-Road Diesel-Fueled Fleets Regulation		★		■						
Advanced Clean Fleets			★	■						
In-Use Locomotive Regulation			★	■						
Tier 5 Off-Road Vehicles and Equipment					★				■	
Zero-Emission Standard for Space and Water Heaters					★					■
Transport Refrigeration Unit Regulation Part 2						★			■	
Cargo Handling Equipment Amendments							★			■
Zero-Emissions Trucks Measure								★		■

Red text: Waiting for waivers and authorizations

★ Adoption Year

★ Planned Adoption Year

■ Implementation Year

Remaining CARB Commitments

Remaining 2016 State SIP Strategy Measures	2030 NOx (tpd)	2030 PM2.5 (tpd)
Zero-Emission Forklift	<0.1	<0.1
Accelerated Turnover of Agricultural Equipment	3.0	NYQ
Subtotal	3.0	<0.1
Remaining 2022 State SIP Strategy Measures	2030 NOx (tpd)	2030 PM2.5 (tpd)
Zero-Emissions Trucks Measure	1.1	<0.1
Tier 5 Off-Road Vehicles and Equipment	0.6	<0.1
Transport Refrigeration Unit Part 2	1.3	<0.1
Cargo Handling Equipment Amendments	<0.1	<0.1
Zero-Emission Standard for Space and Water Heaters	1.1	0.1
Subtotal	4.3	0.2
Total CARB Aggregate Emissions Reductions Commitment	7.3	0.2

Numbers may not add up due to rounding

Agricultural Equipment Turnover Measure

- Previous commitment: reduce agricultural equipment NOx emissions via incentives by 11 tpd in 2024 and 10 tpd in 2025
- The 11 tpd NOx emission reduction commitment in 2024 has been met
- Some projects provide SIP-creditable emissions reductions in 2030
- SIP-creditable incentive measure brought to the Board in 2030 will document 2030 emissions reductions from already completed projects



Emissions Reductions in San Joaquin Valley from CARB Programs

CARB Programs in San Joaquin Valley	2030 NOx (tpd)	2030 PM2.5 (tpd)
Current Mobile Source Control Program*	115.6	3.2
2016 and 2022 State SIP Strategy Measures Adopted (not yet in baseline inventory)	12.9	0.5
CARB Aggregate Emissions Reductions Commitment	7.3	0.2
2016 State SIP Strategy Measure Remaining	3.0	<0.1
2022 State SIP Strategy Measures Remaining	4.3	0.2
Total Reductions	136.0	3.9

Numbers may not add up due to rounding

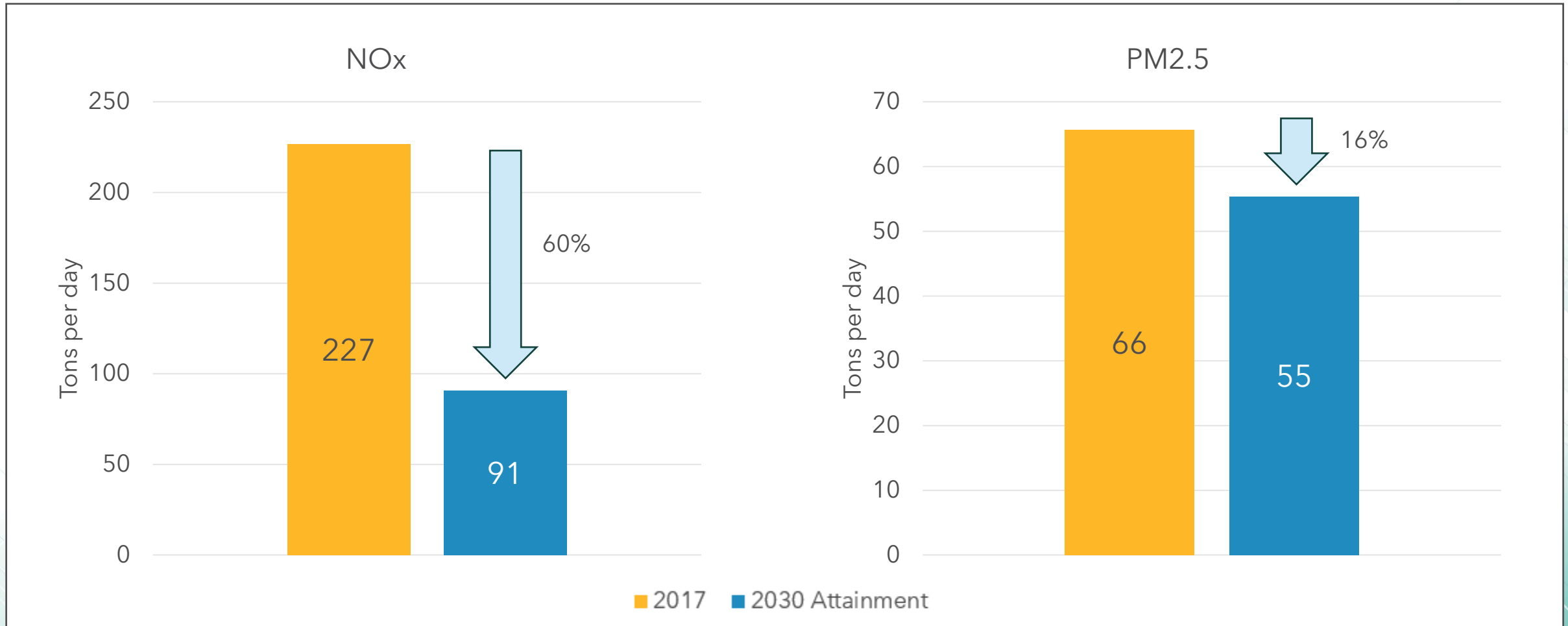
* Current Control Program represents the current baseline emissions with adopted CARB and District measures, 2022 CEPAM v1.00

Emissions Reductions from District Programs

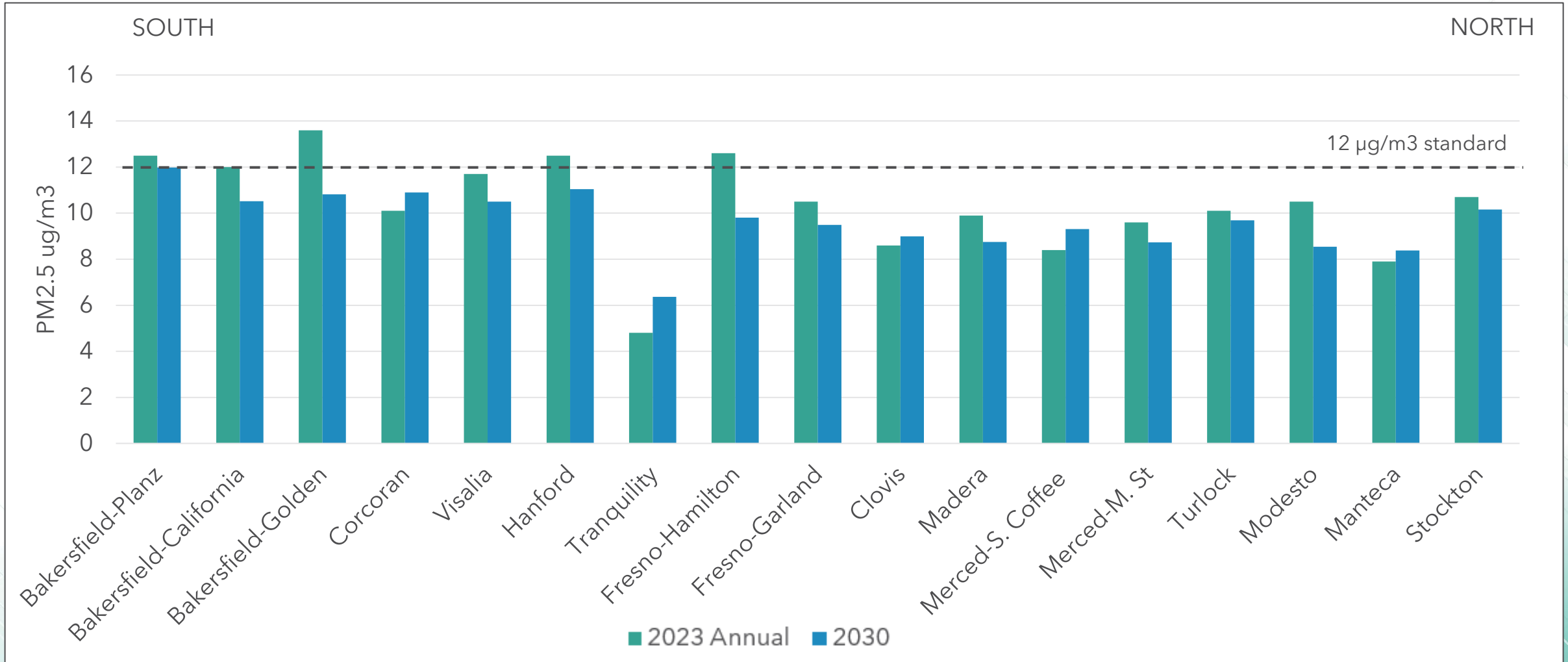
Measures	Action Date	Implementation Begins	2030 NOx (tpd)	2030 PM2.5 (tpd)
Adopted Control Strategy for Stationary and Area Sources			12.8	6.9
New Regulatory and Incentive-Based Aggregate Commitments				
Rule 4901 Residential Wood Burning	2025	2026	NYQ*	0.02
Rule 4550 Conservation Management Practices	2026	2028	NYQ	NYQ
Fireplace and Woodstove Changeout Program	Ongoing	Ongoing	NYQ	NYQ
Low-Dust Nut Harvester Replacement Program	Ongoing	Ongoing	NYQ	NYQ
Total Reductions			12.8	6.92

* Not Yet Quantified

CARB and District Controls Provide Reductions Needed for Attainment



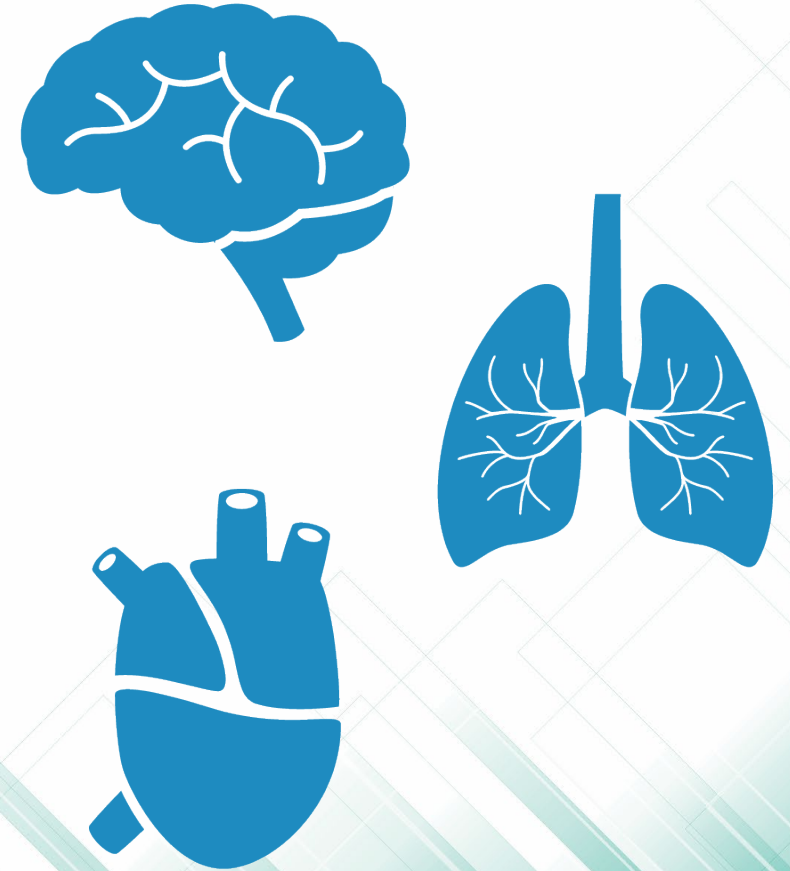
Modeled Attainment in 2030



Health Benefits Assessment

Implementation of 2024 PM2.5 Plan will reduce incidences of negative health outcomes in 2030

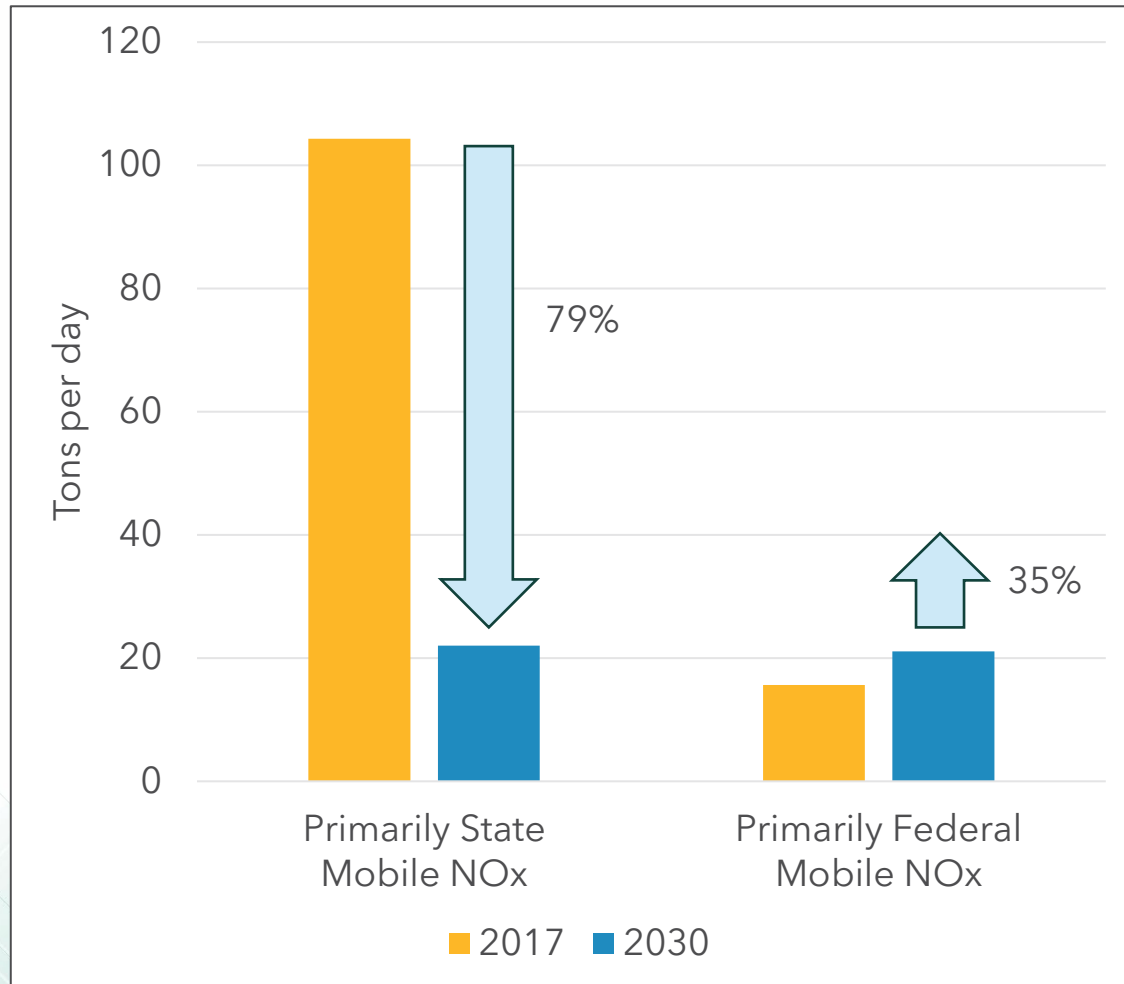
- 111 avoided deaths
- Almost 80,000 fewer cases of asthma symptoms in children
- Over 16,000 avoided work loss days



2024 PM2.5 Plan Meets Act Requirements

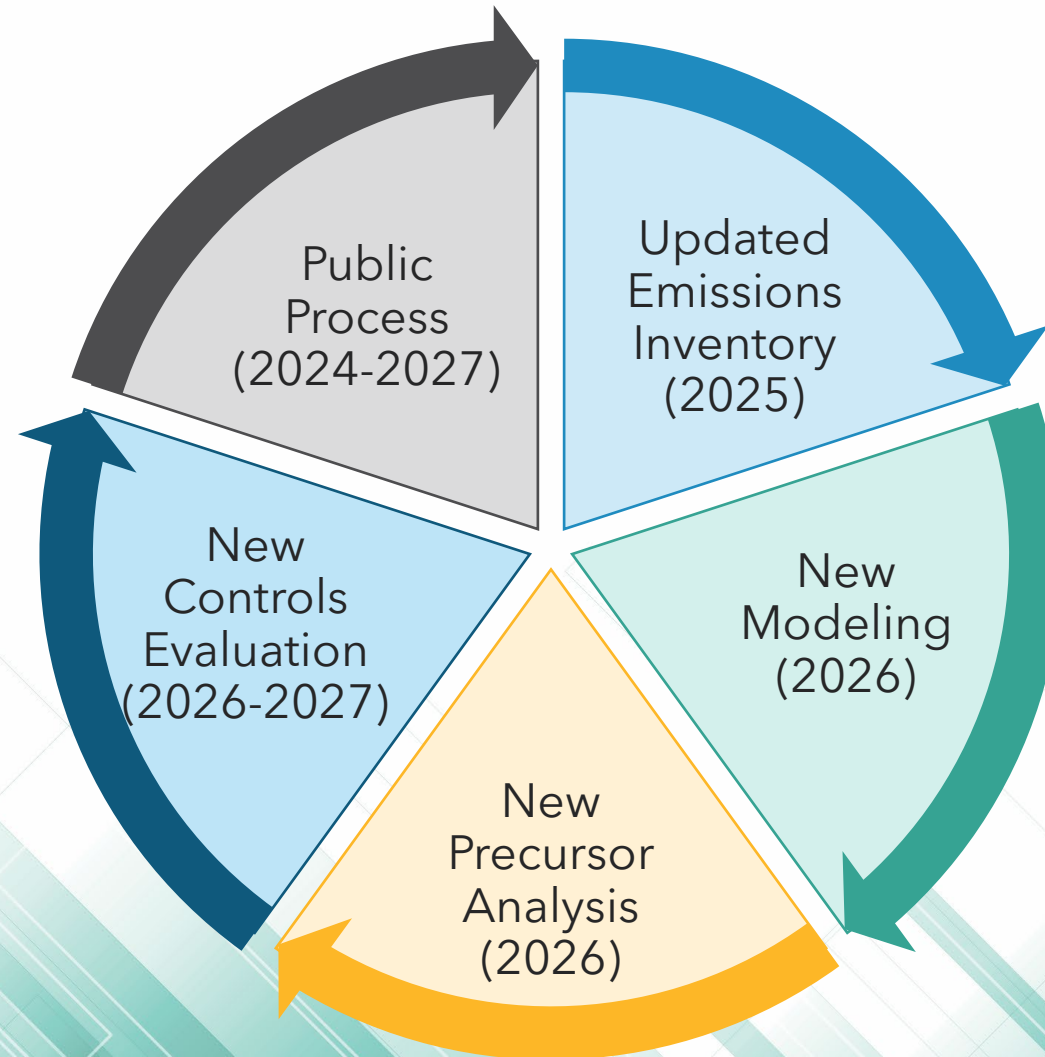
Requirement	2024 PM2.5 Plan	Initial SIP Requirement Submittal
Attainment Demonstration, Control Strategy	✓	✓
Emissions Inventory	✓	
Best Available Control Measures/Best Available Control Technology Demonstration	✓	✓
Most Stringent Measures Demonstration	✓	
Reasonable Further Progress Demonstration	✓	
Quantitative Milestones	✓	
Contingency Measures	✓	
Transportation Conformity Budgets	✓	
Optional Precursor Demonstration		✓
Requirements Addressed through Separate Submittals		✓

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 equipment, trains, and planes to the San Joaquin Valley

Upcoming Work for the 9 $\mu\text{g}/\text{m}^3$ Standard



Staff Recommendations

1. Adopt the San Joaquin Valley 2024 PM2.5 Plan and CARB Staff Report, including the CARB aggregate emissions reduction commitment of 7.3 tpd NO_x and 0.2 tpd PM2.5 in 2030;
2. Adopt the amendment to the Valley Incentive Measure;
3. Adopt the amendment to the 15 µg/m³ SIP Revision; and
4. Direct staff to submit the 2024 PM2.5 Plan and CARB Staff Report including the aggregate emissions reduction commitment and amendments to the Valley Incentive Measure and 15 µg/m³ SIP Revision to EPA as a revision to the California SIP.

Thank you