Public Workshop for the *Plan for the 2012 Annual PM2.5 Standard*

April 29, 2024

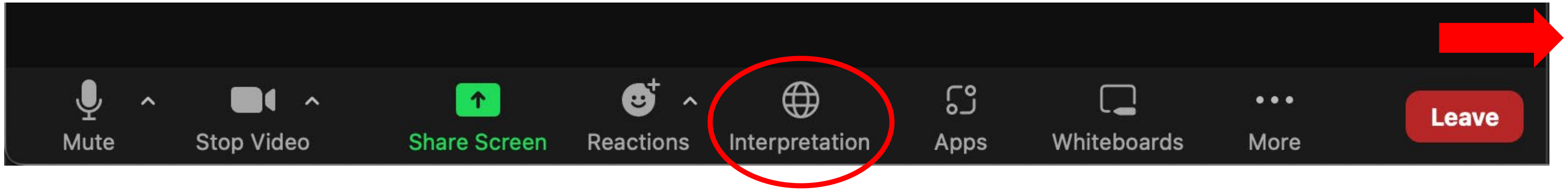
webcast@valleyair.org

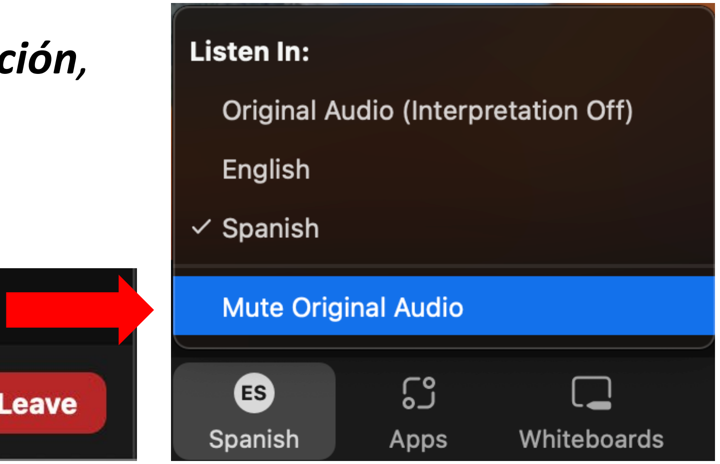
How to Listen to the Webinar in Spanish

Cómo Escuchar la Interpretación Español

En Una Computadora

1. *En los controles de la reunión o el seminario web, seleccione el **icono de interpretación**, que parece a un mundo en la parte debajo de la pantalla.*
2. *Seleccione español y silencie el audio original.*





En Un Teléfono o Tableta

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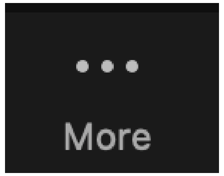

Para Hacer una Pregunta o un Comentario

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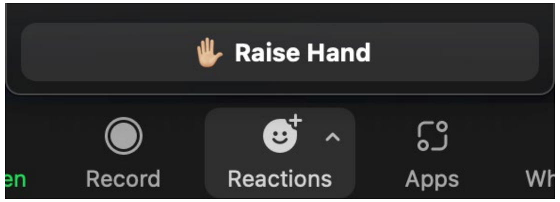


2012 PM2.5 Standard

2012 PM2.5 Standard

- EPA established 2012 PM2.5 standard January 15, 2013 (12 μg/m^3)
- District designated Moderate nonattainment in 2015
- District submitted *2016 PM2.5 Plan* with request for reclassification to Serious
- EPA approved Moderate Plan and reclassified District to Serious effective Dec. 2021
- Serious Plan due to EPA

2018 PM2.5 Plan

- Plan addressed 1997, 2006, and 2012 PM2.5 standards, earlier than required for 2012 standard
- EPA proposed full approval of Serious Plan for 2012 PM2.5 standard in Dec. 2021
- EPA reversed decision and proposed disapproval in Oct. 2022
- In response to EPA reversal, CARB withdrew Plan with District concurrence in Oct. 2022

Updated Serious Plan

- Will rely on *2018 PM2.5 Plan*, and include revisions incorporating latest guidance, feedback from EPA in latest proposals, public comments, and to meet federal Clean Air Act requirements
- Initial Plan elements adopted Oct. 19, 2023 and submitted to EPA Nov. 17, 2023

Valley’s Air Quality Challenges

- Valley’s challenges in meeting federal air quality standards unmatched due to unique combination of topography and meteorology
- Valley faced with variety of challenges including role as major goods movement corridor, high population growth, pollution transport from other areas, wildfires, drought
- Conditions require substantially greater emissions reductions in Valley to meet clean air targets than other regions

What is PM2.5?

Particles with a diameter of 2.5 microns and smaller

A mixture of solid particles and liquid droplets in the air

Emitted directly or formed indirectly through chemical reactions between gases

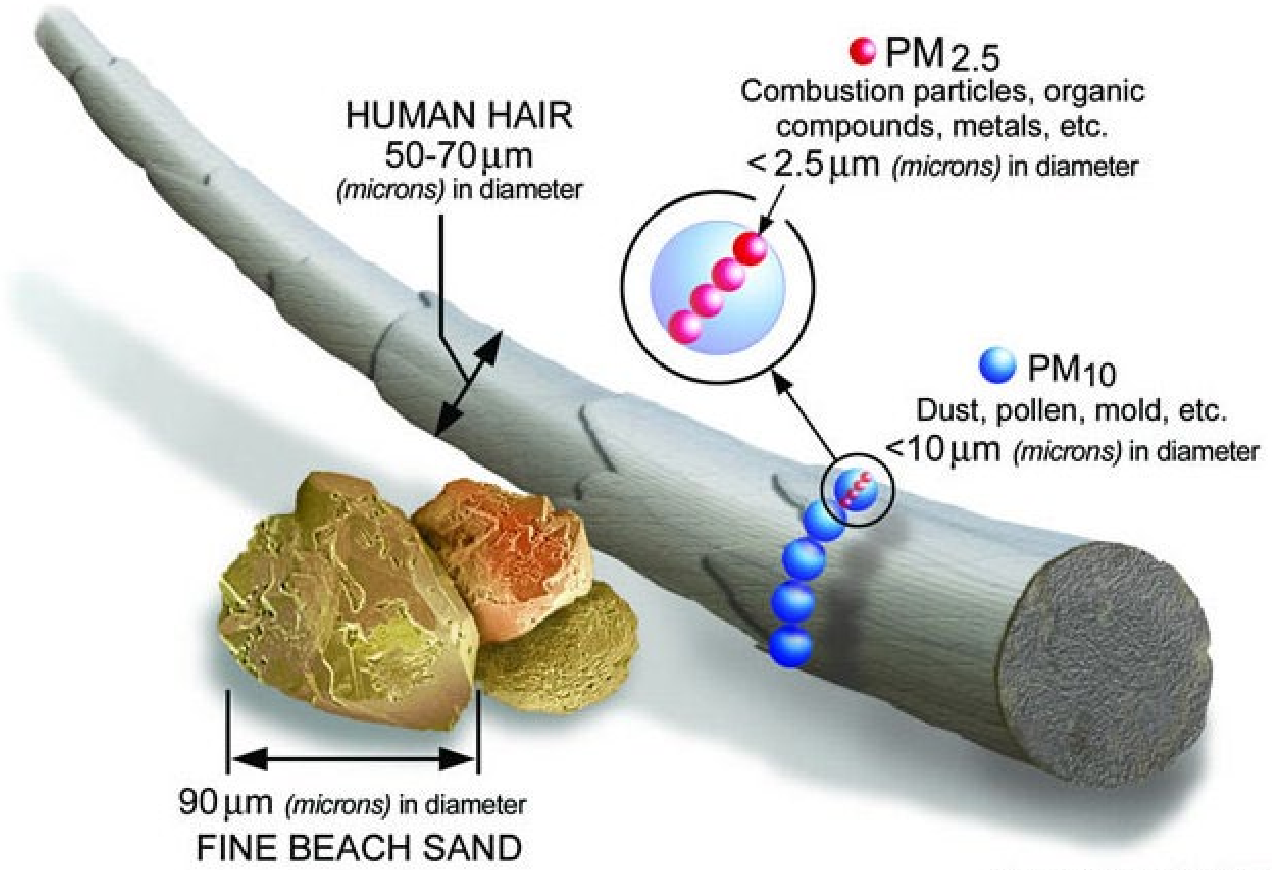
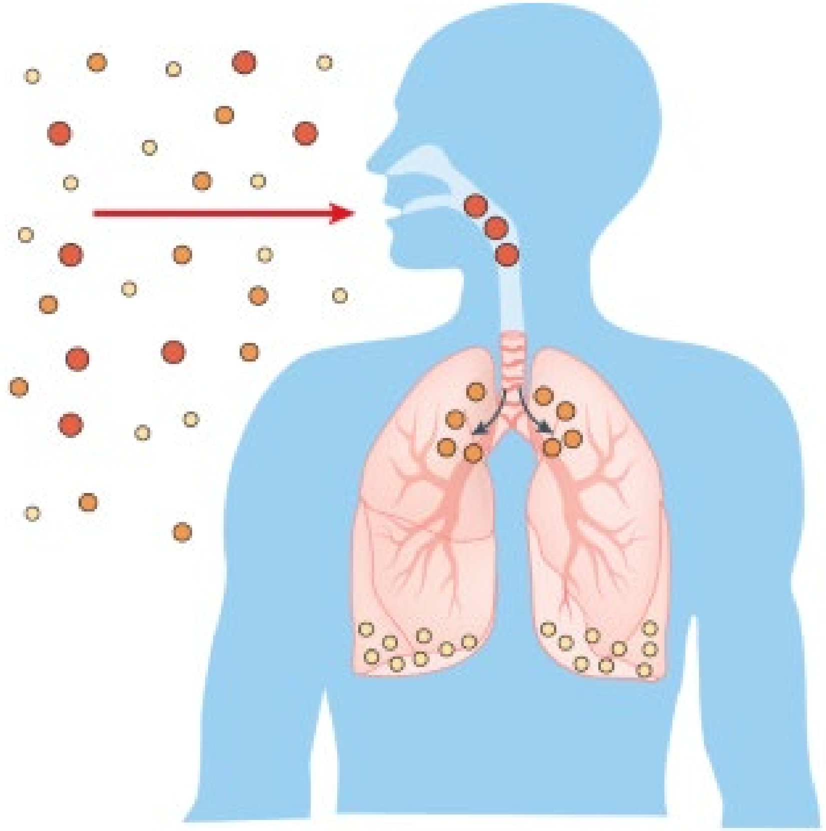


Image courtesy of the U.S. EPA

Protecting Public Health

The District's mission is to improve health and quality of life for all Valley residents through efficient, effective and entrepreneurial air quality management strategies

- The District strives to protect health of Valley residents through efforts to meet health-based state and federal ambient air-quality standards, based on science and prioritized where possible using health-risk reduction strategies
- Plan will demonstrate District/CARB's ongoing efforts to improve air quality in Valley through a comprehensive strategy
- Through this public process, District and CARB will evaluate health benefits of Plan strategy



Scientific Research Foundation for District Emissions Reduction Strategies

The District continues to serve as administrator of the San Joaquin Valleywide Air Pollution Study Agency (Study Agency)

EPA - CARB - Air Districts - Stakeholders

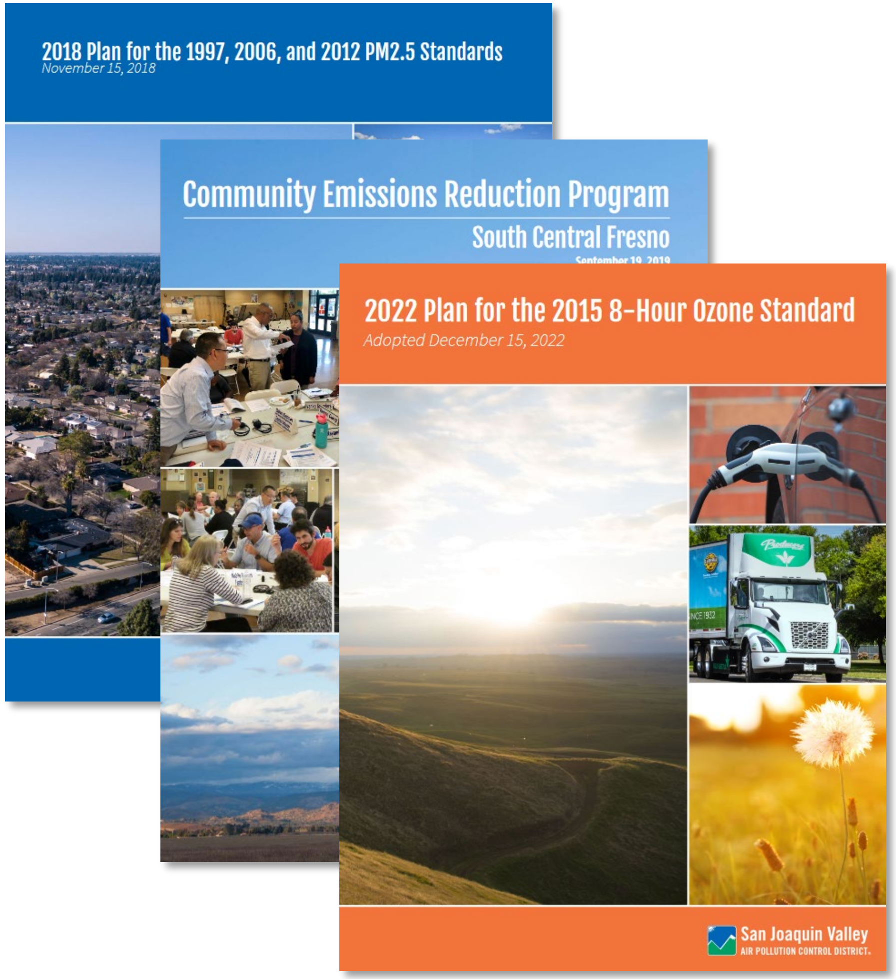
SJVAQS/AUSPEX Regional Modeling Adaptation Project (SARMAP)
California Regional Particulate Air Quality Study (CRPAQS)
Central California Ozone Study (CCOS)

Approximately $60 million of private and public funds towards cutting-edge Valley-based research

- Enhanced understanding of contributing factors to Valley air quality
- Technical tools to formulate equitable and effective emission control plans

Scientific Research Foundation for District Emissions Reduction Strategies (cont'd)

- District/CARB in process of implementing number of clean air strategies included in *2018 PM2.5 Plan* and *2022 Ozone Plan*
- District implementing community-level emission and exposure reduction strategies within AB 617 CARB-selected communities of South Central Fresno, Shafter, Stockton, and Arvin/Lamont
- District/CARB must continue to rely on sound, Valley-based research and science to help guide development and implementation of these efforts, as well as the revised *Plan for the 2012 PM2.5 Standard*



Foundation for Plan to Build On Strategies Already in Place

2024 PM2.5 Plan
(2012 Annual PM2.5 Standard)

2022 Ozone Plan
(2015 8-hour Ozone Standard)

2023 Maintenance Plan and Redesignation Request
(Revoked 1-Hour Ozone Standard)

2016 Ozone Plan
(2008 8-hour Ozone Standard)

2016 PM2.5 Plan
(2012 PM2.5 Standard)

2018 PM2.5 Plan
(1997, 2006, and 2012 PM2.5 Standards)

2012 PM2.5 Plan
(2006 PM2.5 Standard)

2013 Plan for the Revoked 1-hour Ozone Standard
(1979 1-hour Ozone Standard)

2015 PM2.5 Plan
(1997 PM2.5 Standard)

2004 Extreme Ozone Attainment Demonstration Plan
(Revoked 1-hour Ozone Standard)

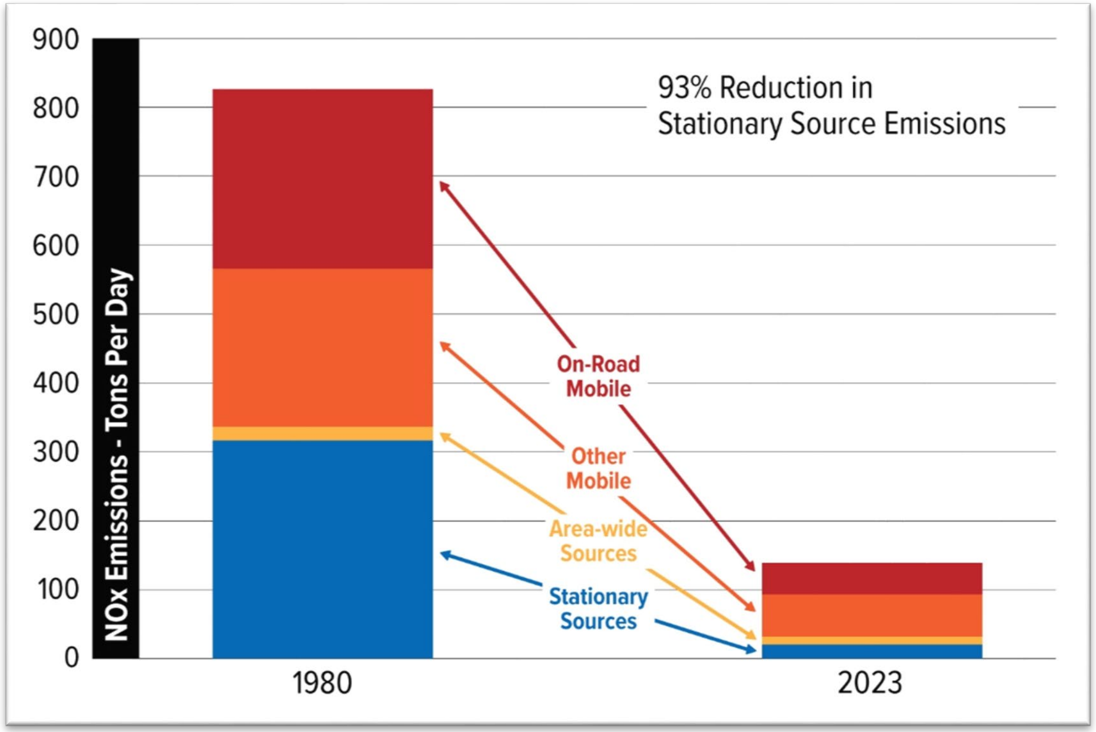
2007 PM10 Maintenance Plan
(1987 PM10 Standard)

2007 Ozone Plan
(1997 8-hour Ozone Standard)

2008 PM2.5 Plan
(1997 PM2.5 Standard)

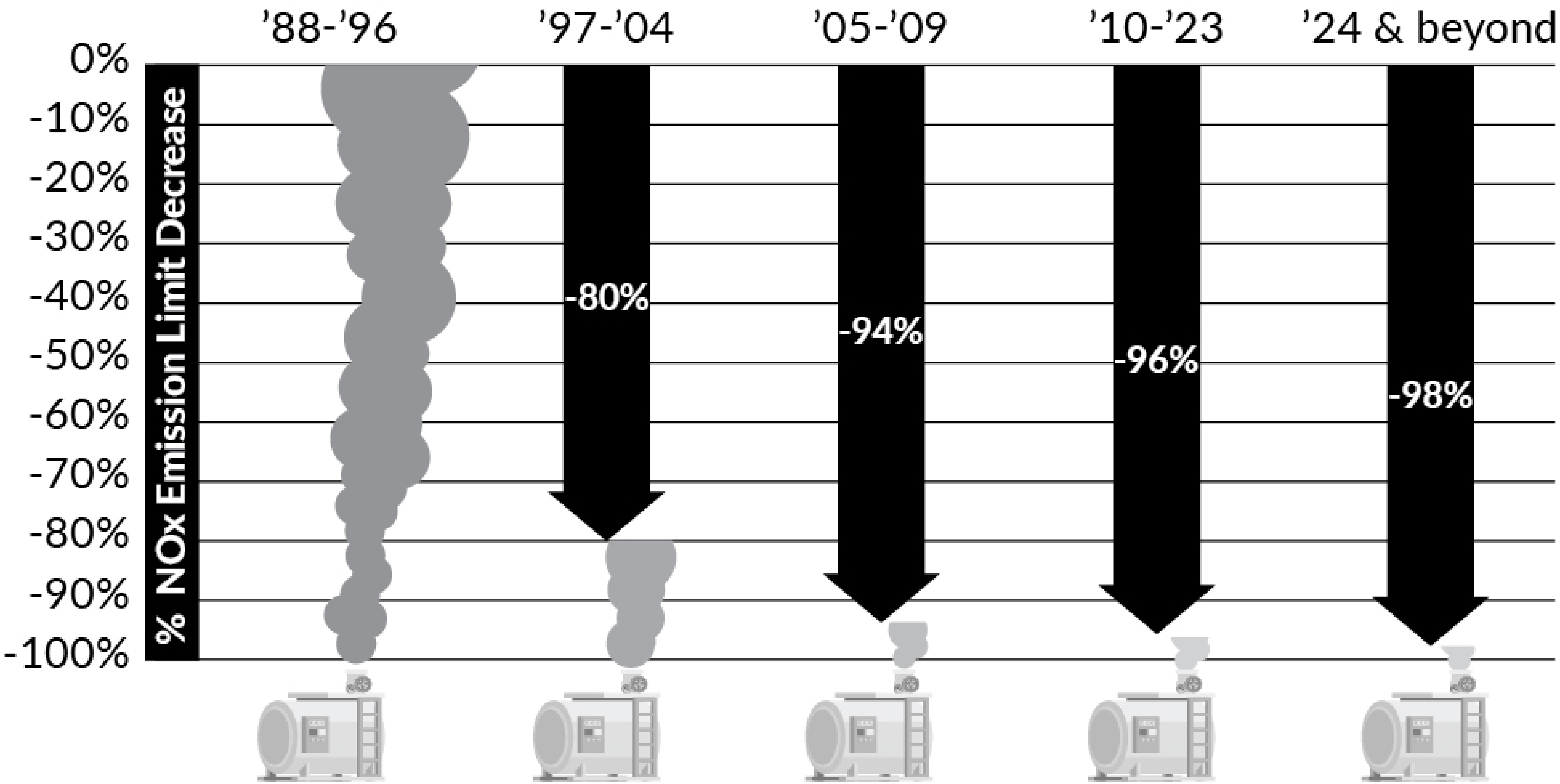
Adopted Controls Are Improving Air Quality

- District has adopted numerous attainment plans and air quality control strategies to address federal standards
  - Stationary source ozone and PM-forming NOx emissions reduced by over 90% through hundreds of regulatory actions
- CARB has adopted numerous mobile source emissions controls
- District/CARB combined efforts represent nation's toughest emissions control program



- Strong incentive programs ($6.2 billion in public/private investment)
- Through significant clean air investments, Valley continues to make major improvements with respect to air quality
- While significant improvements have been made, more reductions needed

Example: Significant Emissions Reductions from Industrial Boilers



Sources of Pollution

- Emissions come from a variety of sources in the Valley, all contributing to regional air pollution

Regulatory Authority

FEDERAL

EPA

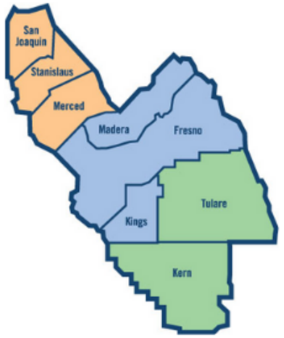
Regulates stationary, area, and mobile sources including interstate transportation

STATE

CARB

Regulates mobile and area sources of pollution

LOCAL



Local Air Districts

Regulates stationary and area sources of air pollution

OTHER

Other Agencies

Regulate emissions from specific sectors

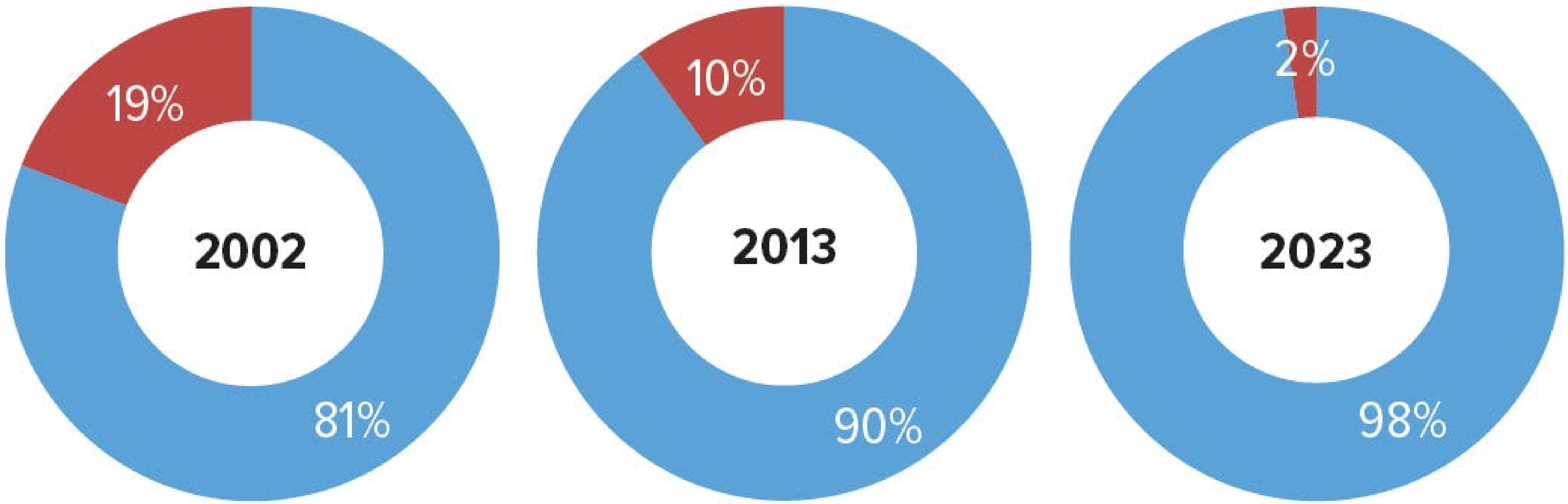
District's Comprehensive Strategy

Valley Emission Reduction Strategy

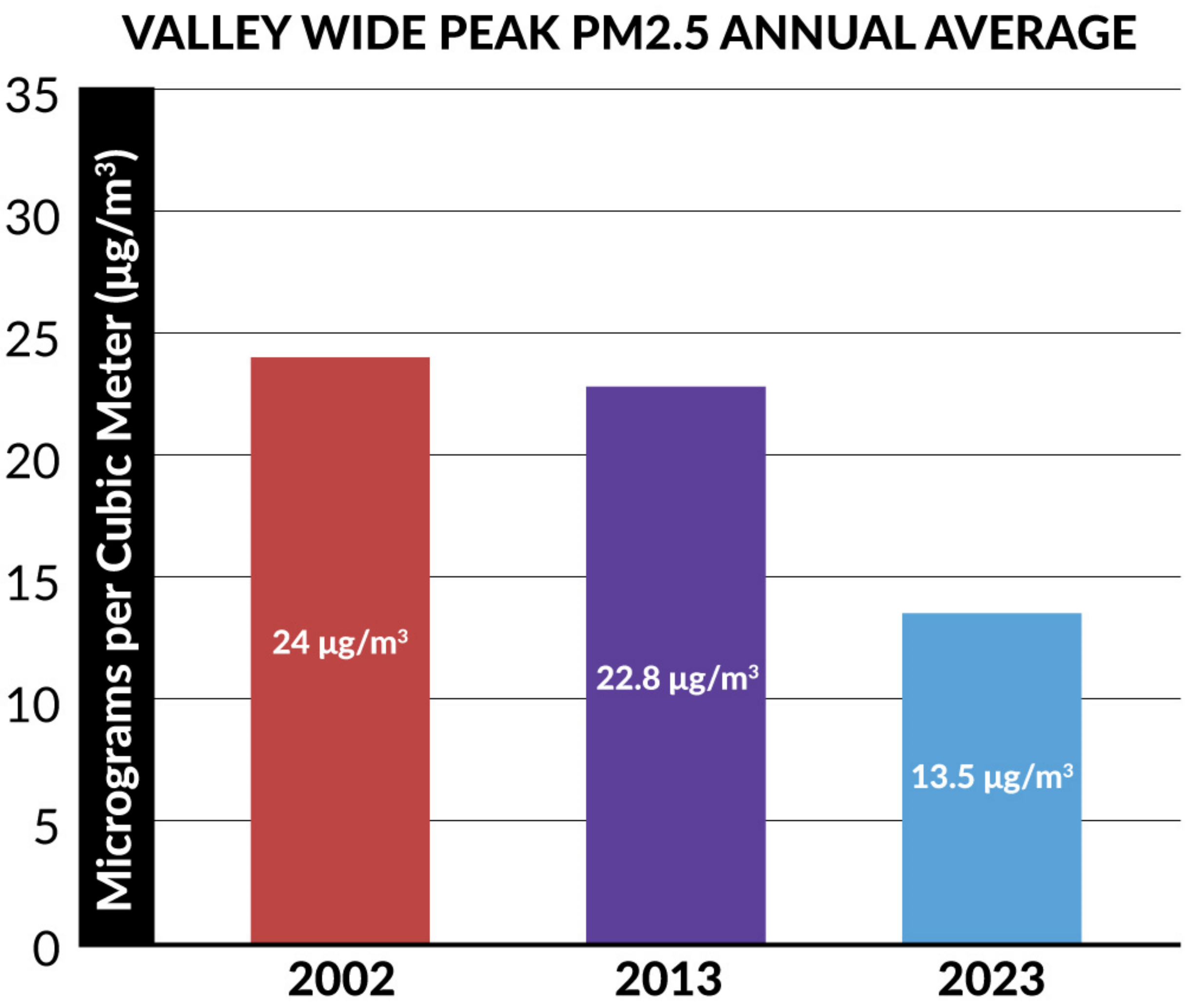
- District Regulatory Measures
- Incentive-Based Measures
- State Mobile Source Strategy
- Public Education and Outreach
- Technology Advancement and Demonstration
- Transition to Zero-Emission Technologies
- Federal Mobile Source Measures

Progress in Improving Valley PM2.5

DAYS MEETING vs DAYS EXCEEDING the 35 µg/m³ PM2.5 STANDARD EACH YEAR

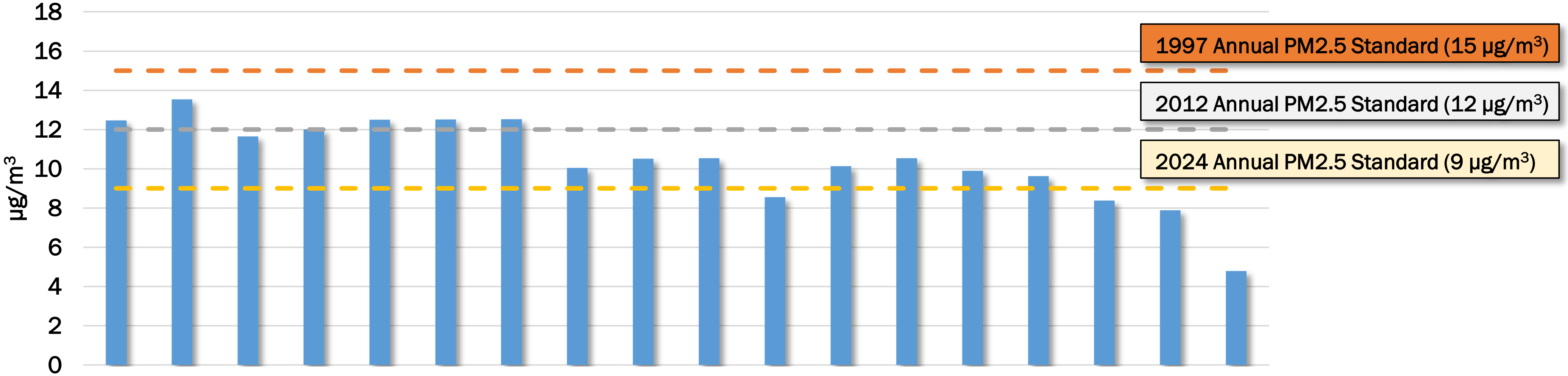


Progress in Improving Valley PM2.5

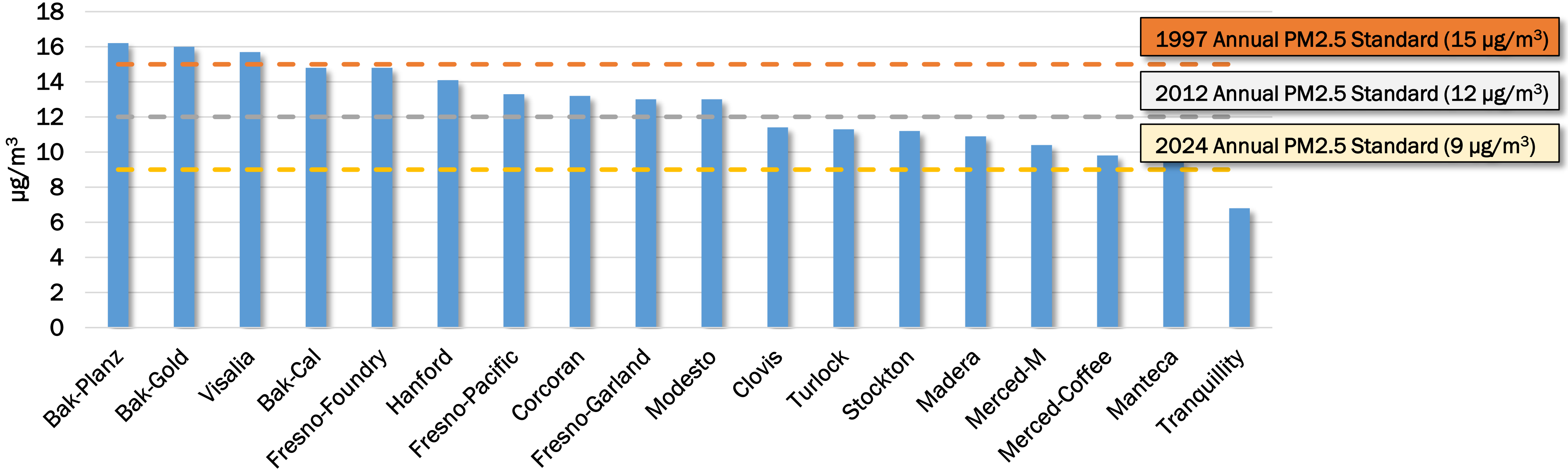


Progress Toward Attainment of 2012 Standard

2023 PM2.5 Annual Average by Site



2021-23 PM2.5 Design Value by Site



Federal Clean Air Act Requirements

Precursor Demonstration ✓	Requirements for Major Sources ✓	Emissions Inventory ✓
Best Available Control Measures (BACM) ✓	Attainment Demonstration	Contingency Measures
Quantitative Milestones	Reasonable Further Progress (RFP)	Most Stringent Measures (MSM)

Initial SIP Requirements Submitted to EPA

Emissions Inventory	District and CARB developed a comprehensive, accurate, and current inventory of actual emissions of relevant pollutants in the Valley
Precursor Demonstration	CARB modeling and District analysis demonstrates SOx, VOC, ammonia do not contribute significantly to PM2.5 formation in the Valley
BACM	District, CARB, and Metropolitan Planning Organizations (MPOs) implementing BACM for the control of direct PM2.5 and NOx
Requirements for Major Sources	District adopted revisions to District Rule 2201 (Modified Stationary Source Review Rule) in April 2023, which fulfills these requirements

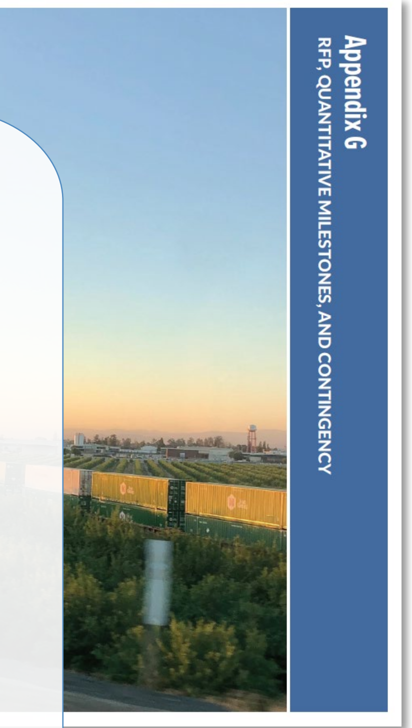
2024 PM2.5 Plan addresses remaining CAA requirements for Serious nonattainment areas

Reasonable Further Progress (RFP) and Quantitative Milestones (QM)

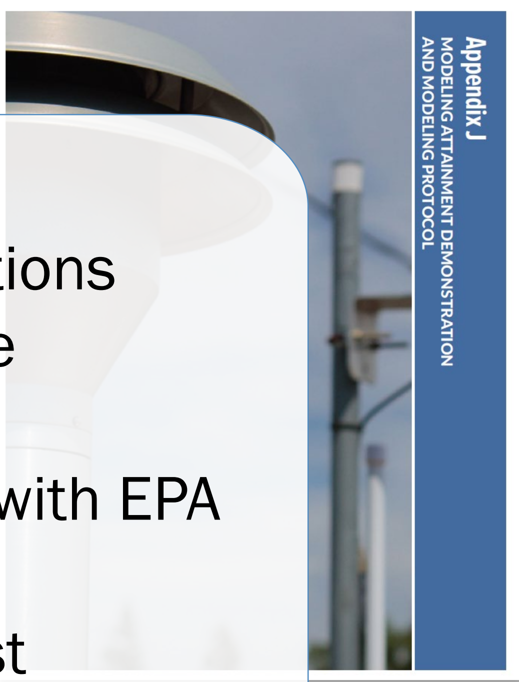
- **Requirements:**
  - **RFP:** Demonstrate annual incremental reductions in emissions of PM2.5 and PM2.5 precursors to ensure attainment of the 2012 PM2.5 standard as expeditiously as practicable
  - **QM:** To be achieved every 3 years until area is redesignated attainment and which demonstrate RFP toward attainment
- Analysis demonstrates linear progress in PM2.5 and NOx emissions reductions leading up to attainment
- RFP years of 2019, 2022, 2025, 2028, 2030
- QM years of 2025, 2028, 2031
  - Analysis presents schedule of control measures and estimated emissions reductions to be achieved by each milestone year

Contingency Measures

- **Requirement:** Provide for implementation of specific measures if area fails to attain or meet a milestone for RFP or attainment
- District/CARB recently addressed contingency measures for 1997, 2006, 2012 (moderate) PM2.5 standards based on draft EPA guidance
  - EPA proposed approval 12/20/23
- Plan includes contingency measures, based on feasibility analysis:
  - Rule 4901 (Residential Wood Burning)
  - Rule 8051 (Open Areas)
  - Statewide Smog Check Contingency Measure


Appendix G
RFP, QUANTITATIVE MILESTONES, AND CONTINGENCY

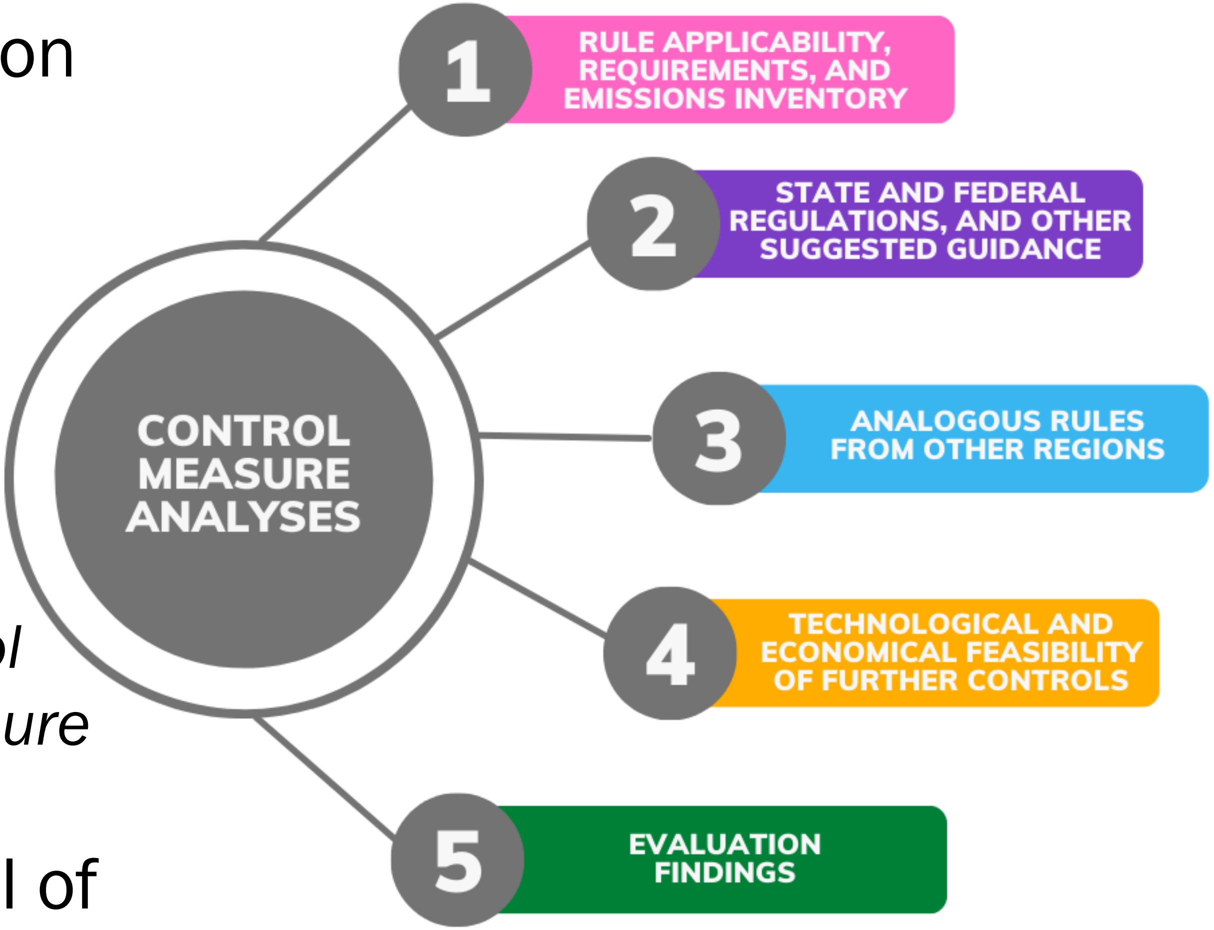
Attainment Demonstration



- **Requirement:** Demonstrate that specific annual emissions reductions included in a SIP are sufficient to attain the primary NAAQS by the attainment date
- District/CARB conducted extensive modeling analysis consistent with EPA guidance to estimate future PM2.5 design values
- Modeling demonstrates that even with implementation of the best available control measures (BACM), attainment by 2025 is impracticable
- Modeling demonstrates District/CARB proposed control strategy will achieve necessary emissions reductions to provide for attainment in 2030

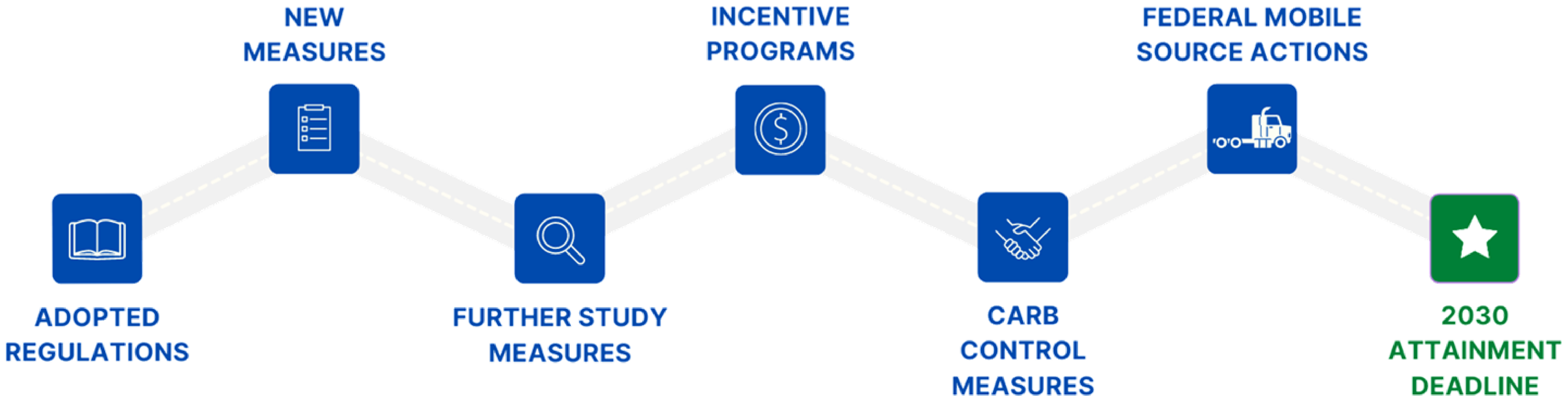
Most Stringent Measures

- **Requirement:** Provide for implementation of most stringent measures (MSM) feasible for implementation
- Plan includes robust control measure analyses for all NOx and PM rules
  - ***Appendix C:*** *District Control Measures*
  - ***Appendix D:*** *State Control Measures*
  - ***Attachment A:*** *Local Transportation Control Measure Review and Most Stringent Measure Analysis*
- Plan demonstrates MSM for the control of direct PM2.5 and NOx for CARB and District sources, no later than 2029



Attainment Strategy

- District/CARB control strategy includes comprehensive suite of regulatory and incentive-based measures
- Necessary emissions reductions to reach attainment of standard by 2030
  - Adopted control measures achieving 10.1 tons per day (tpd) PM2.5 and 128.5 tpd NOx emissions reductions from 2017 to 2030



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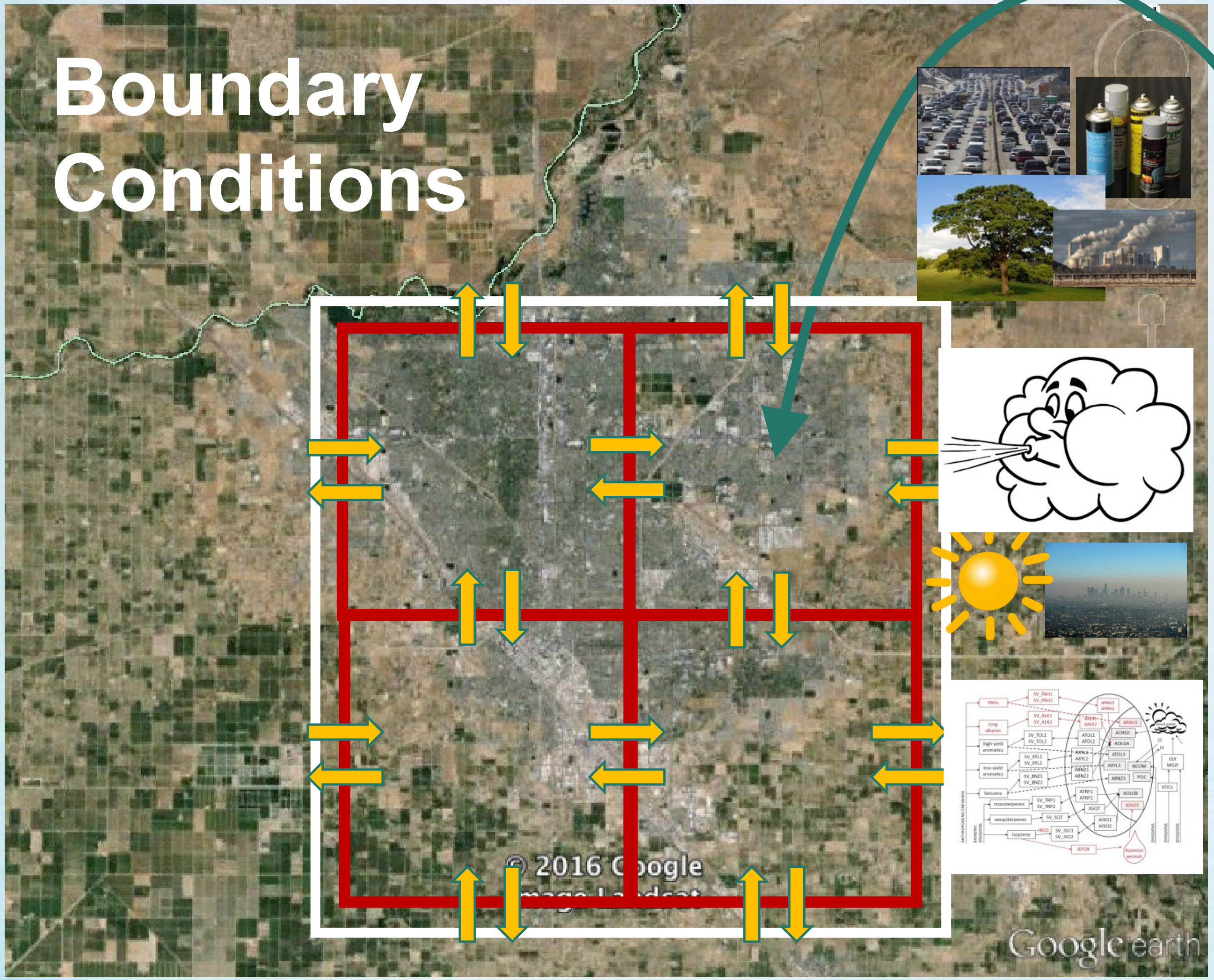
Attainment Modeling for San Joaquin Valley (SJV) $PM_{2.5}$ State Implementation Plan (SIP): 12 µg/m^3 Annual Standard

California Air Resources Board

April 29, 2024

Modeling Overview



Numerical representation of atmospheric processes

Emissions

human induced

natural (plants)

Meteorology

Winds, temp.,

Mixing Height

Chemistry

NOx, VOCs, Ozone

Aerosol (PM)

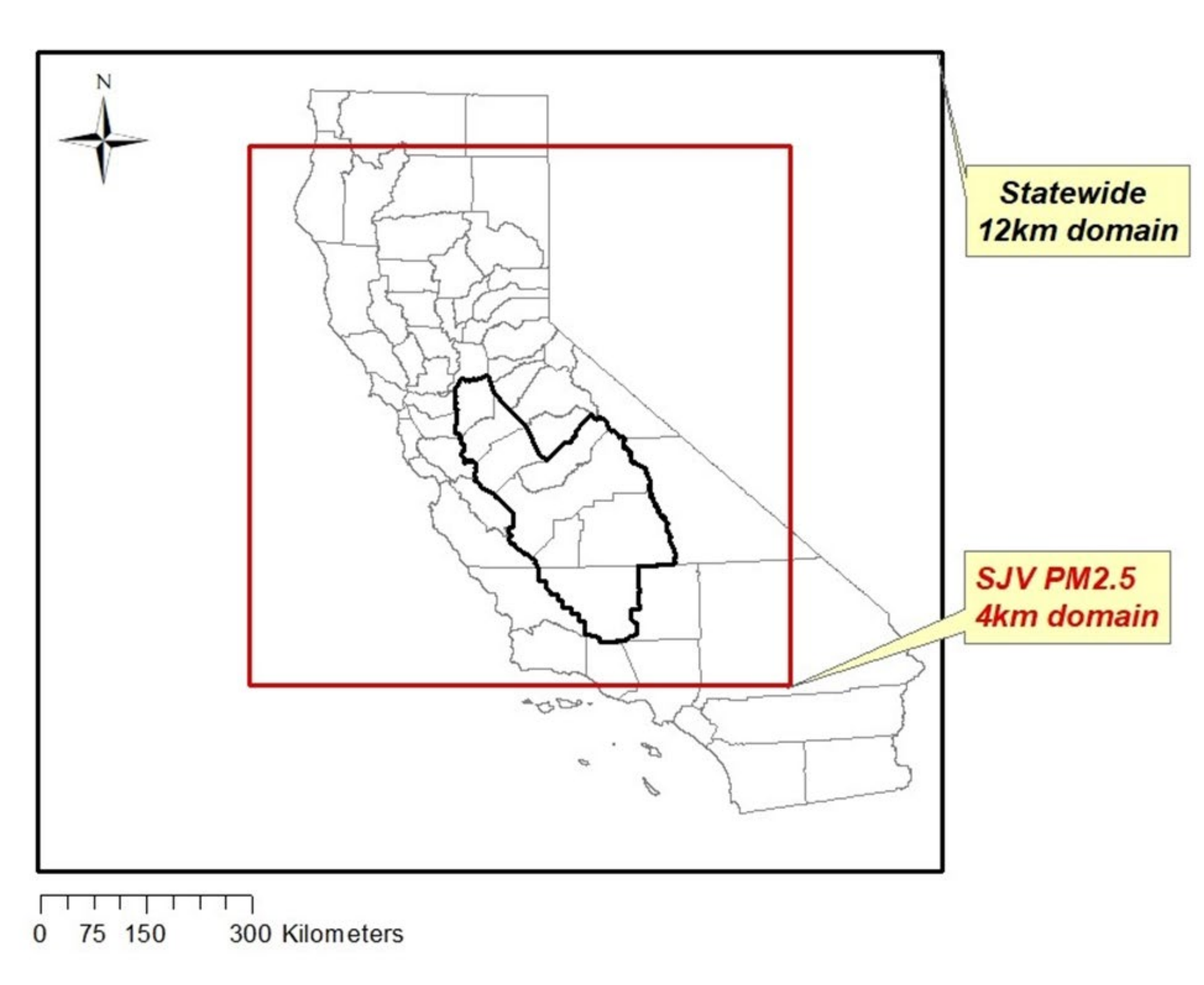
NH_4NO_3, OC, etc.

Boundary Conditions

External conditions

Air Quality Modeling Setup

- Air quality model: CMAQv5.3.3 with gas-phase chemistry (SAPRC07tic) and aerosol processes (aero7)
- Meteorology: WRF model
- Chemical boundary conditions: GEOS-Chem global air quality model
- Biogenic emissions: MEGAN3.0 model
- Anthropogenic emissions: CEPAM 2019v1.04 (EPA's SMOKE emissions processor)



CARB

Model Attainment Demonstration

- Predicting Future Year 2030 $PM_{2.5}$ Design Value – combine model and observations
  - Use the relative modeled response to emissions changes (from 2017 to 2030) to estimate how the design value will change in the future

$$DV_{2030} = DV_{2017} \times RRF$$

- DV_{year} = design value for a specific year …. OBSERVED
- RRF = relative response factor (modeled change in $PM_{2.5}$) …. MODELED
- Used for individual $PM_{2.5}$ species and then summed to get the total $PM_{2.5}$ design value
- Consistent with the approach used in past SIPs

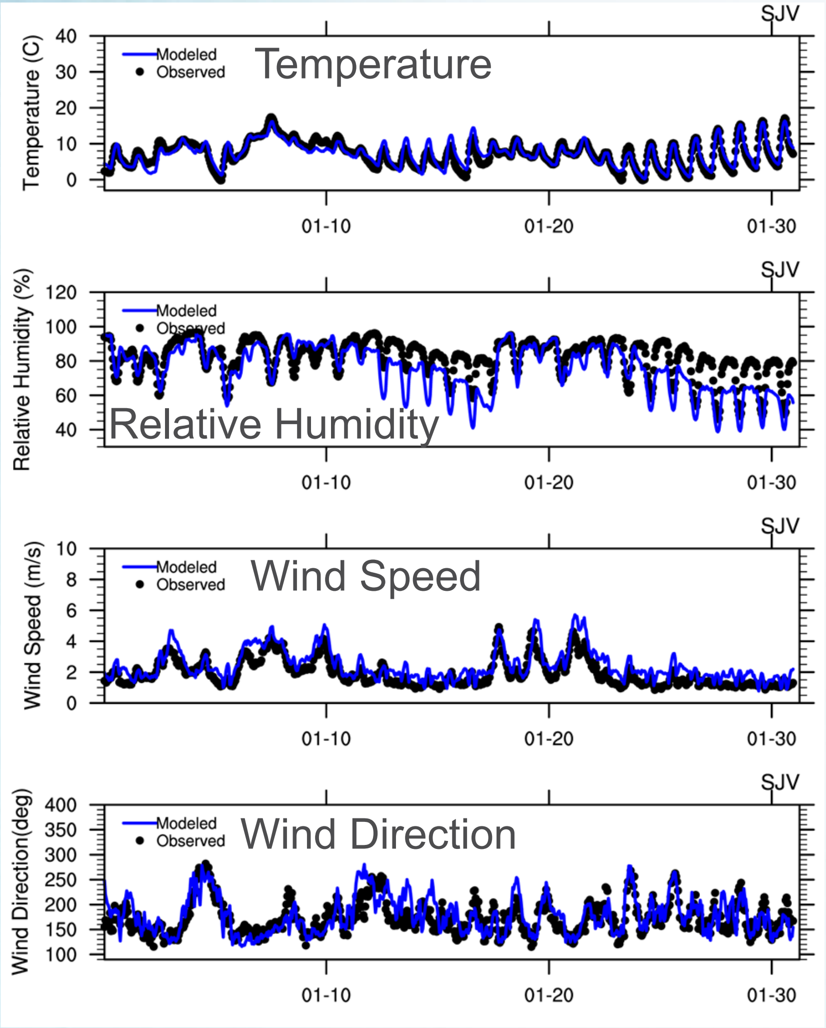
2017 Base Year Design Values (DV)

- Annual $PM_{2.5}$ DV represents a 3-year average of the annual average $PM_{2.5}$ concentrations
- To minimize the influence of year-to-year variability in demonstrating attainment, the average of three DVs is used (referred to as the baseline DV)
- 2017 baseline DV is calculated as average of 2017, 2018, and 2019 annual DVs

Site	2017 baseline annual DVs ($\mu g/m^3$)
Bakersfield-Planz	16.97
Hanford	15.73
Bakersfield-Golden	15.52
Visalia	15.43
Bakersfield-Cali. Ave.	15.12
Corcoran	14.95
Fresno-Hamilton &Winery	13.99
Fresno-Garland	13.69
Turlock	12.7
Clovis	12.69
Merced-S Coffee	12.28
Stockton	12.21
Madera	12.11
Merced-Main Street	11.73
Modesto	11.16
Manteca	10.37
Tranquility	8.19

CARB

Evaluation of Modeled Meteorological Fields



Time series of **observed** and **modeled** meteorological parameters for January 2017

- Important the model can accurately represent observed meteorology
  - Meteorology is key driver for air pollution
- Complex topography, land-sea interactions, ag/urban mix
- Iterative process (many simulations)
- CARB's meteorological modeling is able to reproduce transport patterns, daily/seasonal variability, weather systems, and regional differences

CARB

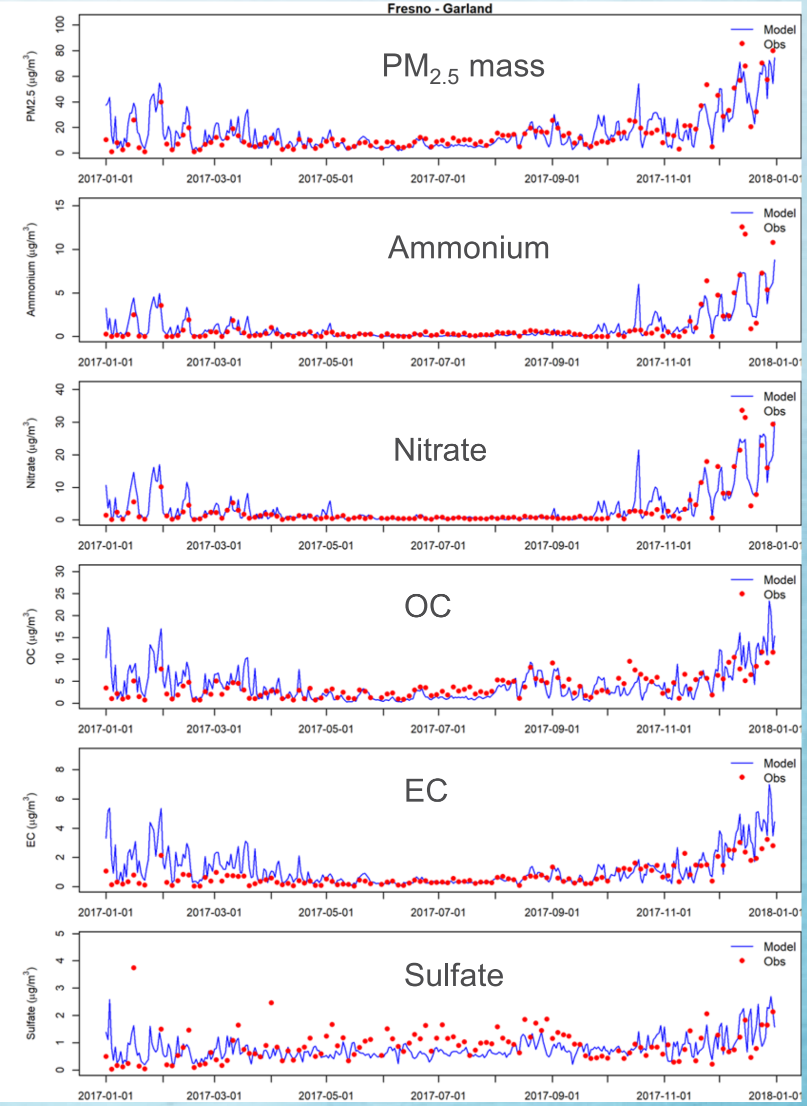
Evaluation of Air Quality Model Performance

- Compare modeled $PM_{2.5}$ to surface measurements

- Key for having confidence in the modeling
  - Meteorology
  - Emissions Inventory
  - Chemistry

- Modeling system reproduces peak concentrations and daily/seasonal variations in PM2.5 and its components

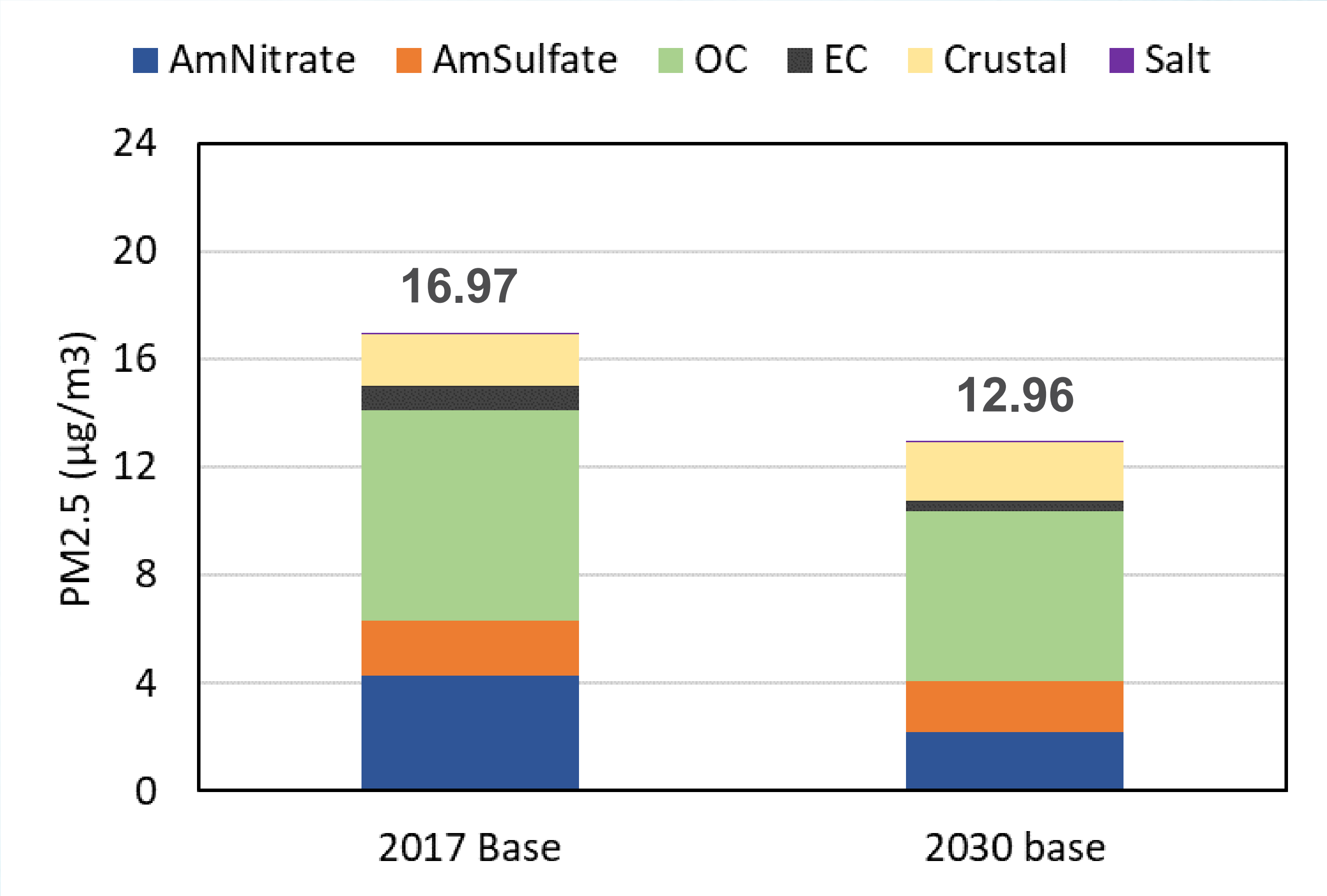
$PM_{2.5}$ Species at Fresno



CARB

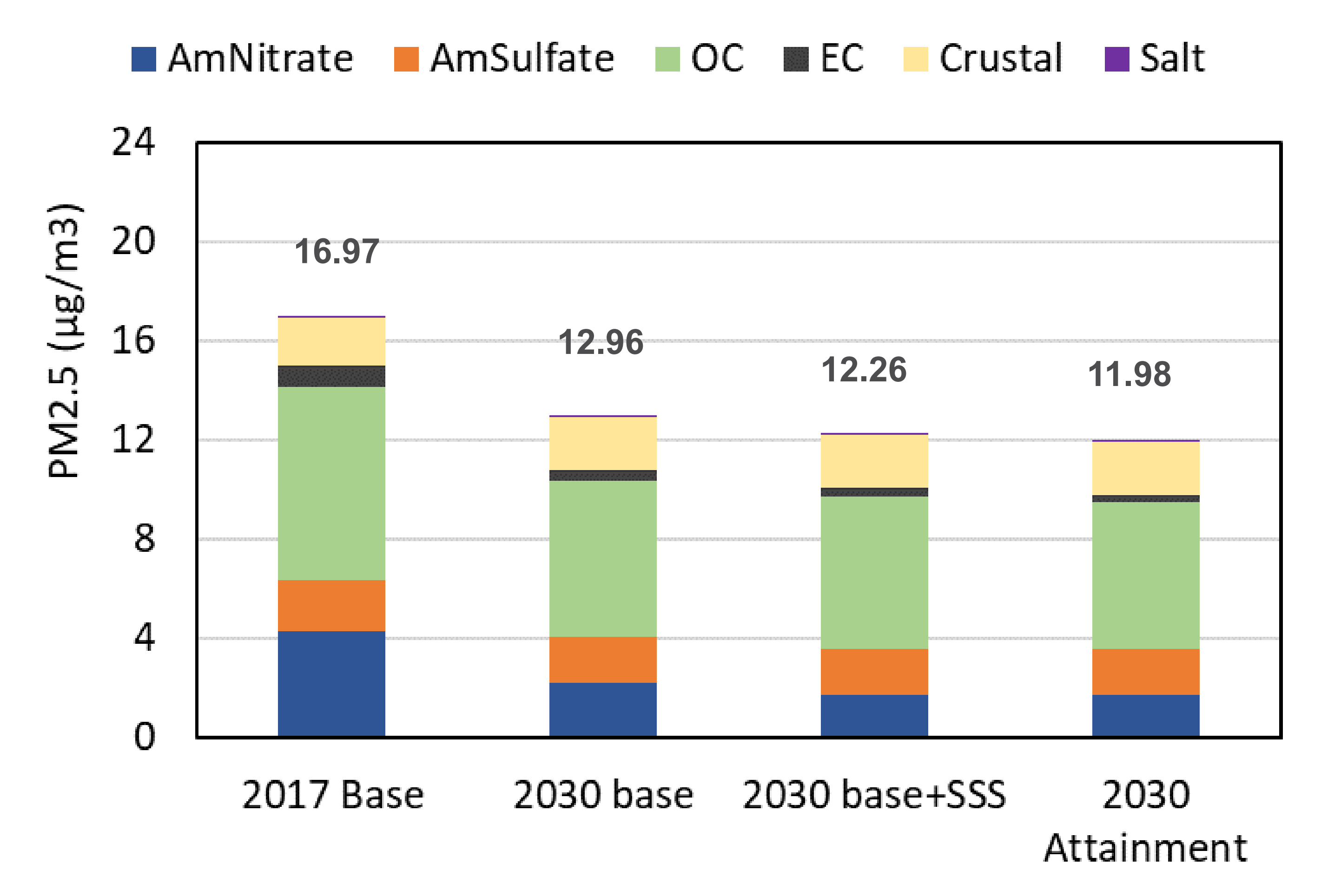
2030 Baseline Modeling

- Start with 2030 base emissions
- Existing measures will achieve ~55% reduction in NOx emissions and ~18% reduction in primary $PM_{2.5}$ emissions from 2017 to 2030
- 2030 base design value (DV) at Bakersfield-Planz is 12.96 µg/m^3, indicating additional emission reductions are needed



2030 Attainment Modeling

- Starting from 2030 base
- Additional measures:
  - State SIP strategy (SSS) commitments
  - Extending residential wood burning curtailment program through March
  - Agricultural incentives (FARMER program)
- Additional measures further reduce ~20 tpd NOx emissions and ~1 tpd $PM_{2.5}$ emissions
- Annual DV at Bakersfield-Planz is 11.98 μg/m^3

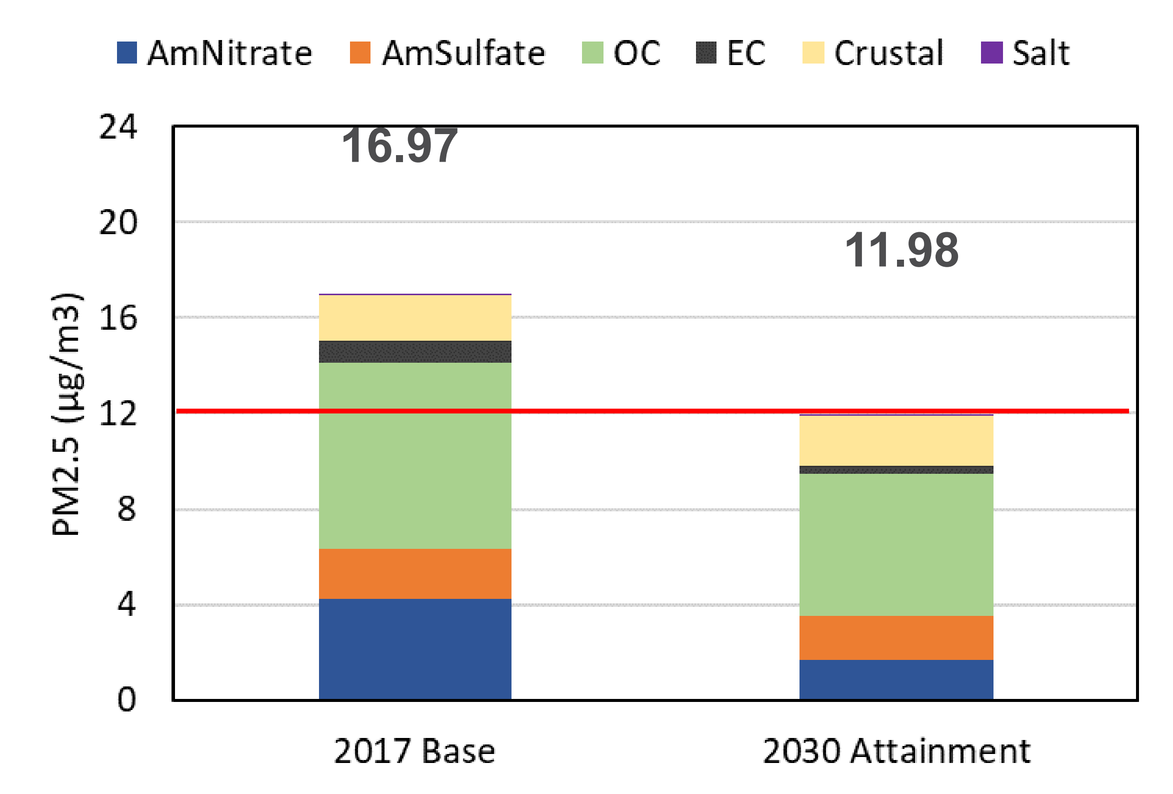


CARB

2030 Annual Design Values (Attainment ≤ 12.04 μg/m³)

Sites	Base DV (μg/m³)	2030 annual DV (μg/m³)
Bakersfield-Planz	16.97	11.98
Hanford	15.73	11.04
Bakersfield-Golden	15.52	10.82
Visalia	15.43	10.5
Bakersfield-Cal Ave	15.12	10.52
Corcoran	14.95	10.9
Fresno-Hamilton	13.99	9.81
Fresno-Garland	13.69	9.49
Turlock	12.7	9.69
Clovis	12.69	8.99
Merced-S Coffee	12.28	9.31
Stockton	12.21	10.16
Madera	12.11	8.75
Merced-M Street	11.73	8.73
Modesto	11.16	8.54
Manteca	10.37	8.38
Tranquility	8.19	6.37

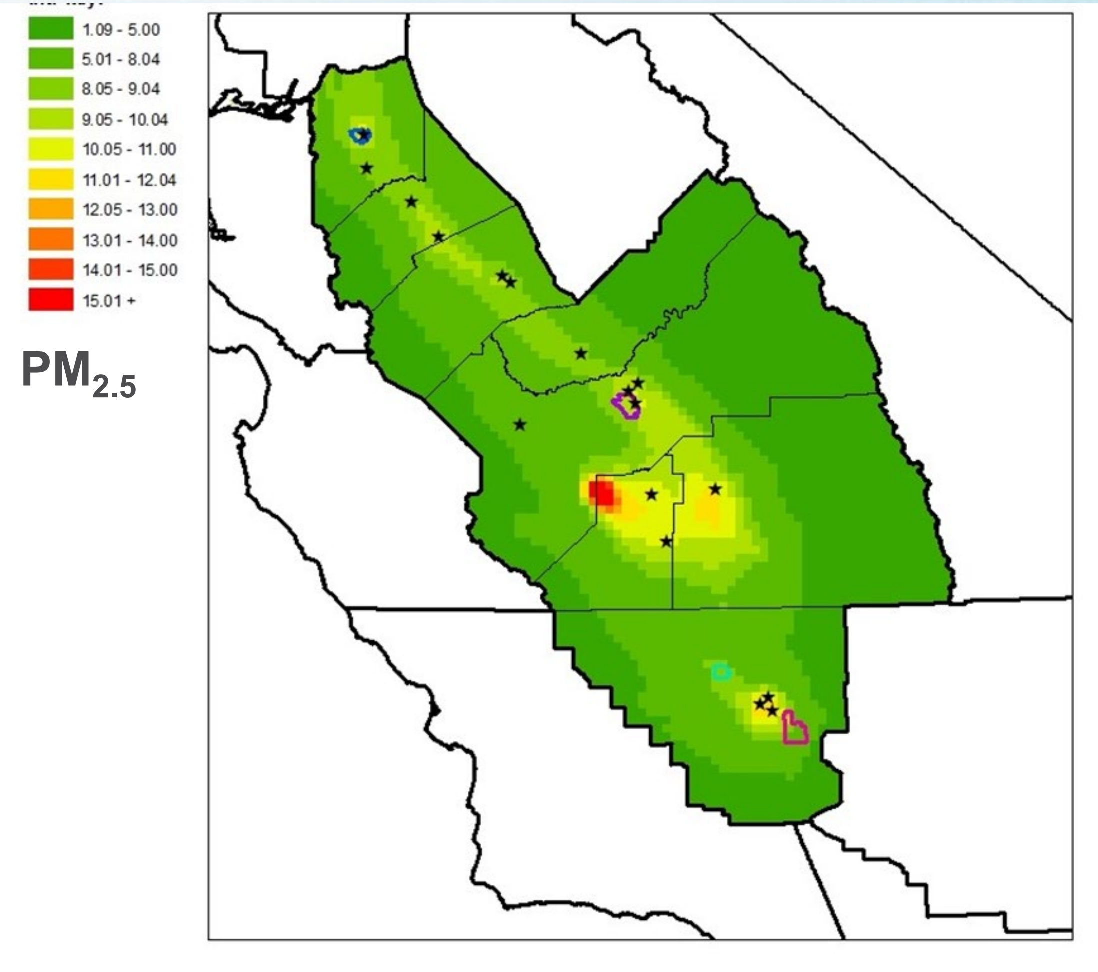
Baseline modeling + State SIP Strategy
+ Extending residential wood burning curtailment
+ Agricultural incentives demonstrates attainment



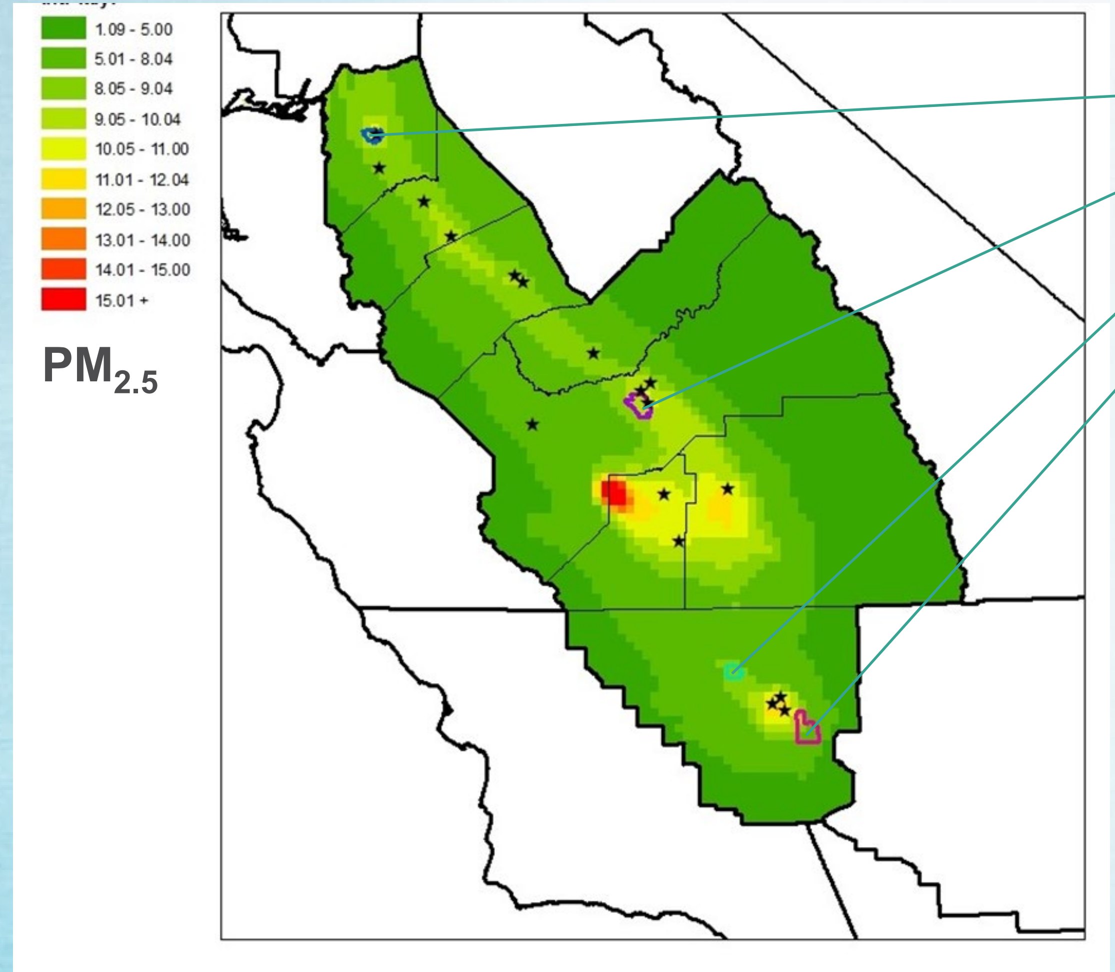
CARB

2030 Unmonitored Area Analysis

- Unmonitored area analysis is used to ensure all regions outside of the monitoring network also attain the standard
- In 2030, every region in SJV meets the annual 12 µg/m^3 standard, except for an area surrounding the Lemoore military facility



AB617 vs. non-AB617 Communities



- AB617 communities show greater reduction in $PM_{2.5}$ than non-AB617 regions

	Percent Reduction in $PM_{2.5}$
AB617	30%
SJV (non-AB617)	25%

Summary

- With emission reduction commitments (State SIP Strategy, extending residential wood burning curtailment program to the end of March, and agricultural incentives through the FARMER program), modeling demonstrates SJV can attain the annual 12 $\mu g/m^3$ standard in 2030

- On average, AB617 communities experience a greater reduction in PM2.5 than the rest of the Valley

CARB

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CARB Strategy for the Valley PM2.5 SIP

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
- Includes measures applicable for annual PM2.5 standard attainment

2022 State Strategy for the State Implementation Plan

Adopted
September 22, 2022

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CARB

2022 State SIP Strategy

Measures for PM2.5 SIP

On-Road
Advanced Clean Fleets Regulation*
Zero-Emissions Trucks Measure
Clean Miles Standard*

Off-Road
Tier 5 Off-Road Engine Standard
Amendments to In-Use Off-Road Diesel-Fueled Fleets Regulation*
Zero-Emission Transport Refrigeration Units (Part II)
Commercial Harbor Craft Amendments*
Cargo Handling Equipment Amendments

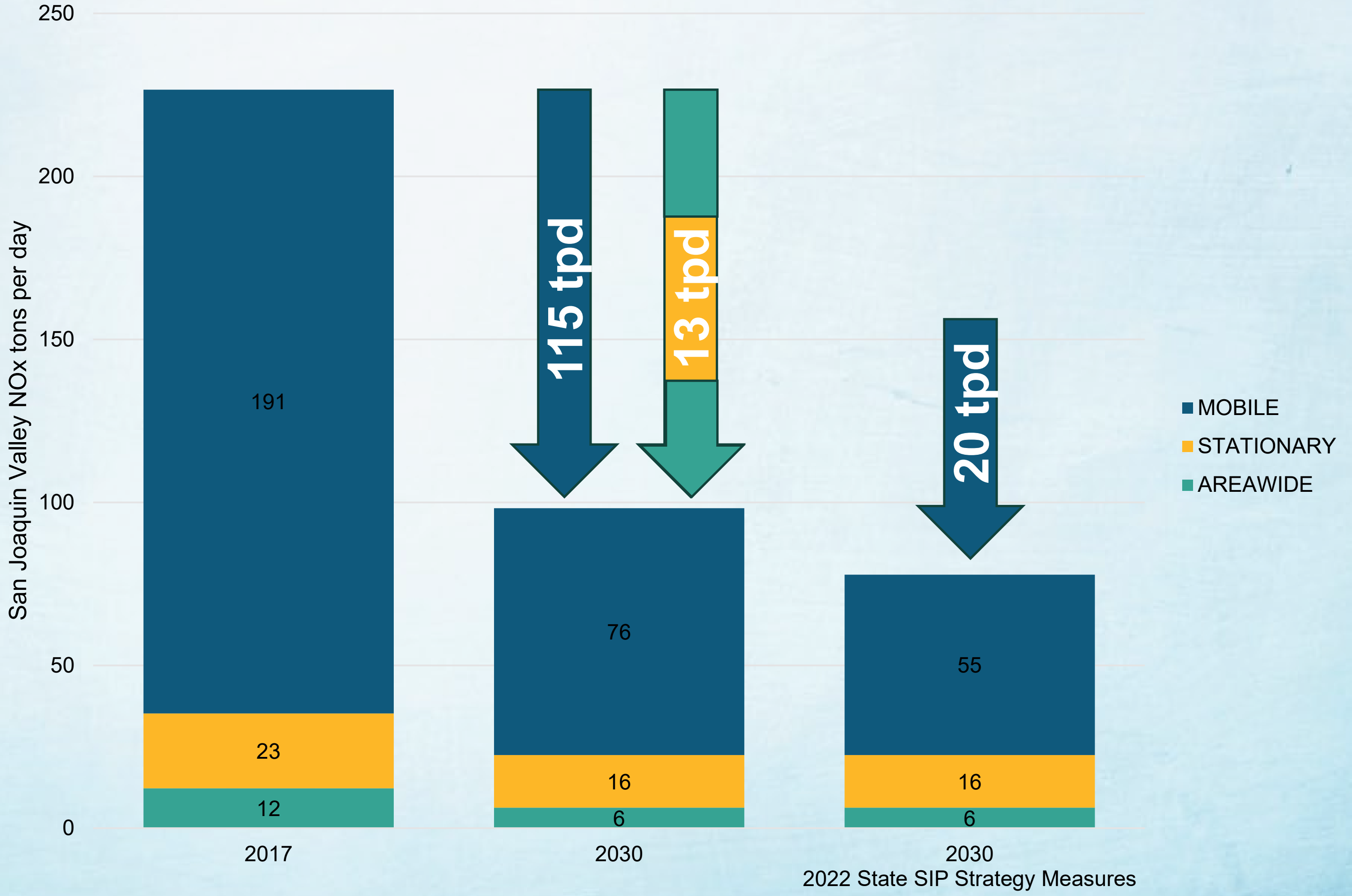
Primarily Federally-Regulated
In-Use Locomotive Regulation*

Other
Zero-Emission Standard for Space and Water Heaters

CARB

* Regulations already adopted

CARB Mobile NOx Reductions in San Joaquin Valley



CARB

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								☆		■

★	Adoption Year
☆	Planned Adoption Year
■	Implementation Year

CARB

Recently Adopted CARB Measures

2030 Emissions Reductions Estimates

Adopted 2016 and 2022 State SIP Strategy Measures	2030 NOx (tpd)	2030 PM2.5 (tpd)
On-Road Heavy-Duty		
Advanced Clean Fleets Regulation	1.6	<0.1
Total On-Road Heavy-Duty Reductions	1.6	<0.1
On-Road Light-Duty		
Advanced Clean Cars II	0.3	0.1
Clean Miles Standard	<0.1	<0.1
Total On-Road Light-Duty Reductions	0.3	0.1
Off-Road Equipment		
Amendments to the In-Use Off-Road Diesel-Fueled Fleets Regulation	1.4	0.1
Commercial Harbor Craft Amendments	<0.1	<0.1
Transport Refrigeration Unit Part I	0.2	<0.1
Total Off-Road Equipment Reductions	1.6	0.1
Primarily-Federally and Internationally Regulated Sources – CARB Measures		
In-Use Locomotive Regulation	9.2	0.2
Total Primarily-Federally and Internationally Regulated Sources – CARB Measures Reductions	9.2	0.2
Emissions Reductions	**12.9**	**0.5**

May not add up due to rounding.

Valley 2018 PM2.5 SIP Agricultural Incentive Commitment

- 2018 Valley PM2.5 SIP included a commitment to reduce Agricultural Equipment emissions via incentives by 11 and 10 tons per day of NOx reductions in 2024 and 2025, respectively
- The 11 tons per day NOx emission reduction commitment in 2024 has been met
    - Agricultural industry turned over and destroyed over 12,800 pieces of older agricultural equipment of which over 7,300 were uncontrolled
- Some projects meet EPA's SIP-credible emissions reductions in 2030
- New SIP-creditable incentive measure will document 2030 emissions reductions from already completed projects
- Proposed CARB Board action: 2030

Remaining CARB Commitments

2030 Emissions Reductions Estimates

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
Total	3.0	<0.1

Remaining 2022 State SIP Strategy Measures	2030 NOx (tpd)	2030 PM2.5 (tpd)
On-Road Heavy-Duty		
Zero-Emissions Trucks Measure	1.1	<0.1
Total On-Road Heavy-Duty Reductions	1.1	<0.1
Off-Road Equipment		
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
Total Off-Road Equipment Reductions	2.0	<0.1
Other		
Zero-Emission Standard for Space and Water Heaters	1.1	0.1
Total Other Reductions	1.1	0.1
Emissions Reductions	4.3	0.2
Potential CARB Aggregate Emissions Reductions Commitment	7.3	1.6

CARB May not add up due to rounding.

CARB Most Stringent Measures Analysis

CARB control program meets MSM requirements for the San Joaquin Valley

Category	Type of Controls	Conclusion
On-road Light-Duty	New Vehicle/Engine Standard	MSM
	In-use Emissions Control (fleet/testing/idling)	MSM
	Fuels	MSM
On-road Medium & Heavy-Duty	New Vehicle/Engine Standard	MSM
	In-use Emissions Control fleet/testing/idling)	MSM
	Fuels	MSM
Off-Road	New Vehicle/Engine Standard	MSM
	In-use Emissions Control (fleet/testing/idling)	MSM
	Fuels	MSM
Space/Water Heaters	Emissions Standard	MSM

District Attainment Strategy

Adopted District Rules Achieving New Emissions Reductions After 2017

District Rule	*Date Adopted or Amended*	*Implementation Begins*
Rule 2201 (New Source Review Rule)	8/15/2019	Ongoing
Rule 4103 (Open Burning)	6/17/2021	2021-2025
Rule 4308 (Boilers, Steam Generators, Process Heaters 0.075 to <2.0 MMBtu/hr)	11/14/2013	2015-2034
Rule 4311 (Flares)	12/17/2020	2024
Rules 4306/4320 (Boilers, Steam Generators, Process Heaters >5.0 MMBtu/hr)	12/17/2020	2024
Rule 4352 (Solid Fuel Fired Boilers, Steam Generators, and Process Heaters)	12/16/2021	2024
Rule 4354 (Glass Melting Furnaces)	12/16/2021	2024, 2030
Rule 4550 (Conservation Management Practices)	8/18/2004	Ongoing
Rule 4702 (Internal Combustion Engines)	8/19/2021	2024, 2030
Rule 4901 (Wood Burning Fireplaces and Wood Burning Heaters)	5/18/2023	2019
Rule 4902 (Residential Water Heaters)	3/19/2009	2010-2017
Rule 4905 (Natural Gas-Fired, Fan-Type Central Furnaces)	3/21/2024	2015-2045
Rule 9510 (Indirect Source Review)	12/21/2017	Ongoing
Rule 9610 (State Implementation Plan Credit for Emission Reductions Generated Through Incentive Programs)	6/20/2013	Ongoing
Reg. VIII (Fugitive PM10 Prohibitions)	9/16/2004	Ongoing

District Attainment Strategy (cont'd)

Proposed Regulatory/Incentive Measures to Achieve Additional Emissions Reductions

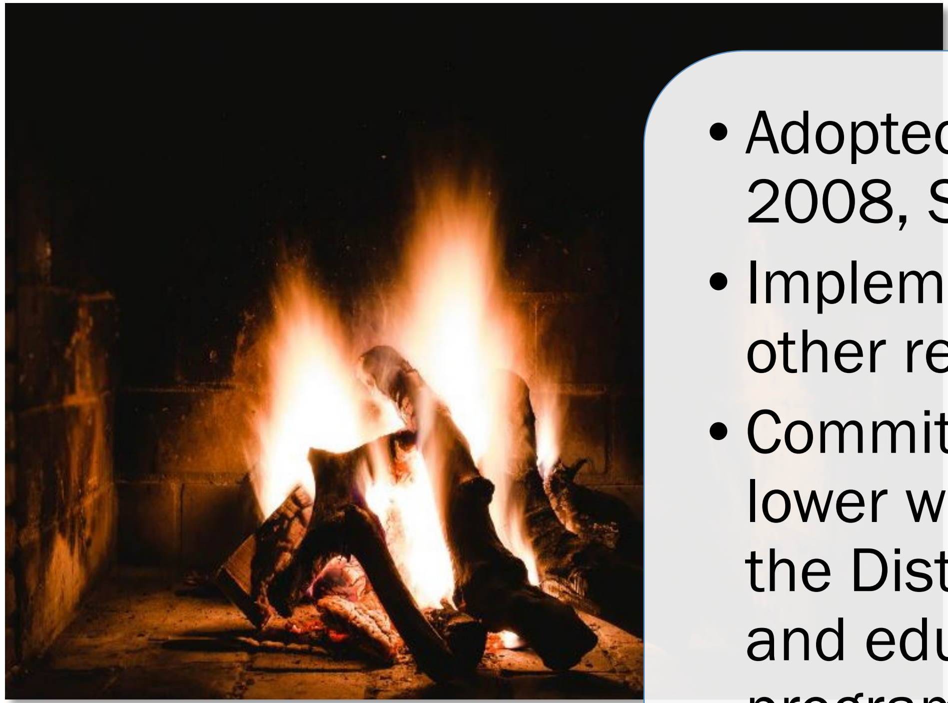
Measure	*Public Process Begins*	*Action Date*	*Implementation Begins*
Rule 4550 (Conservation Management Practices)	2025	2026	2028
Rule 4901 (Wood Burning Fireplaces and Wood Burning Heaters)	2025	2025	2026
Fireplace and Woodstove Change-Out Program		Ongoing	
Low-Dust Nut Harvester Replacement Program		Ongoing	

Conservation Management Practices

Rule 4550

- Adopted August 19, 2004
- Limits fugitive dust emissions (PM10)
- Applies to on-field farming and ag operation sites
- Rule has reduced PM10 emissions by 35.3 tons per day
  - Reduction of passes of ag equipment and implementation of other conservation practices
- District will continue robust rule development process to evaluate opportunities to reduce emissions from fallowed land, collaborating with industry stakeholders, USDA-NRCS, and other agencies

Wood Burning Fireplaces and Wood Burning Heaters



Rule 4901

- Adopted July 15, 1993; Amended July 17, 2003, October 16, 2008, September 18, 2014, June 20, 2019, May 18, 2023
- Implements wood burning curtailments, reducing PM and other related emissions
- Commitments in *2018 PM2.5 Plan* included rulemaking to lower wood burning curtailment levels, and enhancements to the District's incentive grant funding levels, public outreach and education, enforcement, and air quality forecasting programs
- District is proposing a commitment to further reduce wood burning in the Valley by extending the wood burning season through March 31

District Incentive Measures

Fireplace and Woodstove Change-Out Program

- Program has replaced over 29,800 wood burning devices with cleaner devices
- District is committing to quantify and request SIP credit for emissions reductions achieved from projects completed through 2026

Low-Dust Nut Harvester Replacement Program

- Successful program has resulted in reduction of more than 11,000 tons of PM10 and 1,400 tons of PM2.5
- District is committing to continue efforts towards accelerating deployment of cleaner technologies for nut harvesting with secured funding ($25 million)

District Innovative Measures for Further Study

Measure	Description
Residential and Commercial Heating	• Continue to evaluate zero-emission requirements, including collaborating with CARB, SCAQMD, and other agencies engaged in similar efforts
Commercial Charbroiling	• Ongoing evaluation of controls for underfired charbroilers through the recently formed multi-agency Charbroiler Collaborative Workgroup
Stationary Source NOx and PM Measures	• Continue to evaluate the feasibility and potential of emerging technologies and measures as they become available through 2030

District Innovative Measures for Further Study

Energy and Climate Change Programs	• Identify opportunities to gain co-benefits from existing and future programs related to greenhouse gas reductions, energy efficiency, and energy usage
Clean Landscaping Equipment and Strategies	• Work with landscaping services, local jurisdictions to pursue options for accelerating deployment of zero-emissions equipment and promoting best practices
Other Innovative Measures	• Continue to evaluate innovative, out of the box measures to pursue additional emission reduction opportunities as technologies, practices, and policies evolve

Need for Federal Mobile Source Reductions

- Attainment of federal standards will require significant reductions in emissions from mobile sources primarily under state and federal jurisdiction
- Imperative that emissions are reduced from mobile sources that fall exclusively under federal jurisdiction (interstate heavy-duty trucks, locomotives, other mobile sources)
- District continues to advocate for state and federal action, as well as pursue additional funding opportunities in order to achieve emission reductions from mobile sources

Initial Draft Plan Sections for Public Review

District published initial draft sections of 2024 PM2.5 Plan for public review:

- ***Chapter 1*** *Introduction*
- ***Chapter 2*** *Air Quality Challenges and Progress*
- ***Chapter 3*** *Health Impacts and Health Risk Reduction Strategy*
- ***Chapter 4*** *Attainment Strategy*
- ***Chapter 5*** *Demonstration of Federal Requirements for the 2012 Annual PM2.5 Standard*
- ***Appendix B*** *Emissions Inventory*
- ***Appendix C*** *District Control Measure Evaluations*
- ***Appendix D*** *State Control Measure Evaluations*
- ***Appendix F*** *Precursor Demonstration*
- ***Appendix H*** *New Source Review and Emissions Reduction Credits*
- ***Attachment A*** *Local Transportation Control Measure Review and Most Stringent Measure Analysis*

Draft Plan sections available at https://ww2.valleyair.org/rules-and-planning/air-quality-plans/particulate-matter-plans/plan-for-the-2012-pm25-standard/

Next Steps

TODAY

Today's workshop is to present, discuss, and **receive feedback on the attainment demonstration, control strategy, and other draft Plan elements**

CONTINUED PUBLIC PROCESS

District and CARB will incorporate additional public comments received today and throughout the remainder of Plan development, as appropriate

PUBLICATION OF PROPOSED PLAN

District will publish Proposed *2024 PM2.5 Plan* by May 21, 2024, for public review and comment before presenting to District Governing Board

PUBLIC HEARING

Proposed *2024 PM2.5 Plan* to be taken to Governing Board for consideration June 20, 2024

Contact and Resources

Molly Boyett
Air Quality Specialist II

(559) 230-6000 (tel)

molly.boyett@valleyair.org
airqualityplanning@valleyair.org

San Joaquin Valley APCD
1990 E. Gettysburg Ave
Fresno, CA 93726

www.valleyair.org

Visit ww2.valleyair.org/about/sign-up/
to sign up for the District’s PM Plans Listserv

Comments/Questions

webcast@valleyair.org