



NEW NAAQS AND OZONE STATE IMPLEMENTATION PLAN UPDATES

**PCAPCD Board Meeting
April 13th, 2023**



NAAQS UPDATE

OZONE SIP UPDATE



NATIONAL AMBIENT AIR QUALITY STANDARDS (NAAQS)

What are the National Ambient Air Quality Standards?

- They are the limits on atmospheric concentration of 6 criteria pollutants.
 - ✓ ozone, particulate matter, carbon monoxide, sulfur oxides, nitrogen dioxide, and lead
- The Clean Air Act requires U.S. EPA to establish the NAAQS.
 - ✓ 40 CFR part 50
- The NAAQS identifies two types of standards for each criteria pollutant.
 - ✓ primary and secondary



CURRENT NAAQS TABLE

Pollutant		Primary/ Secondary	Averaging Time	Level	Form
Carbon Monoxide (CO)		Primary	8 hours	9 ppm	Not to be exceeded more than once per year
			1 hour	35 ppm	
Lead (Pb)		Primary & Secondary	Rolling 3 month average	0.15 µg/m ³	Not to be exceeded
Nitrogen Dioxide (NO ₂)		Primary	1 hour	100 ppb	98th percent of 1 hour daily maximum concentrations, averaged over 3 years
		Primary & Secondary	1 year	53 ppb	Annual mean
Ozone (O ₃)		Primary & Secondary	8 hours	0.070 ppm	Annual 4th highest daily maximum 8-hour concentration, averaged over 3 years
Particulate Matter (PM)	PM _{2.5}	Primary	1 year	12.0 µg/m ³	Annual mean, averaged over 3 years
		Secondary	1 year	15.0 µg/m ³	Annual mean, averaged over 3 years
		Primary & Secondary	24 hours	35 µg/m ³	98th percent, averaged over 3 years
	PM ₁₀	Primary & Secondary	24 hours	150 µg/m ³	Not to be exceeded more than once per year on averaged over 3 years
Sulfur Dioxide (SO ₂)		Primary	1 hour	75 ppb	99th percent of 1 hour daily maximum concentrations, averaged over 3 years
		Secondary	3 hours	0.5 ppm	Not to be exceeded more than once per year

SIZE OF PARTICULATE MATTER (PM)

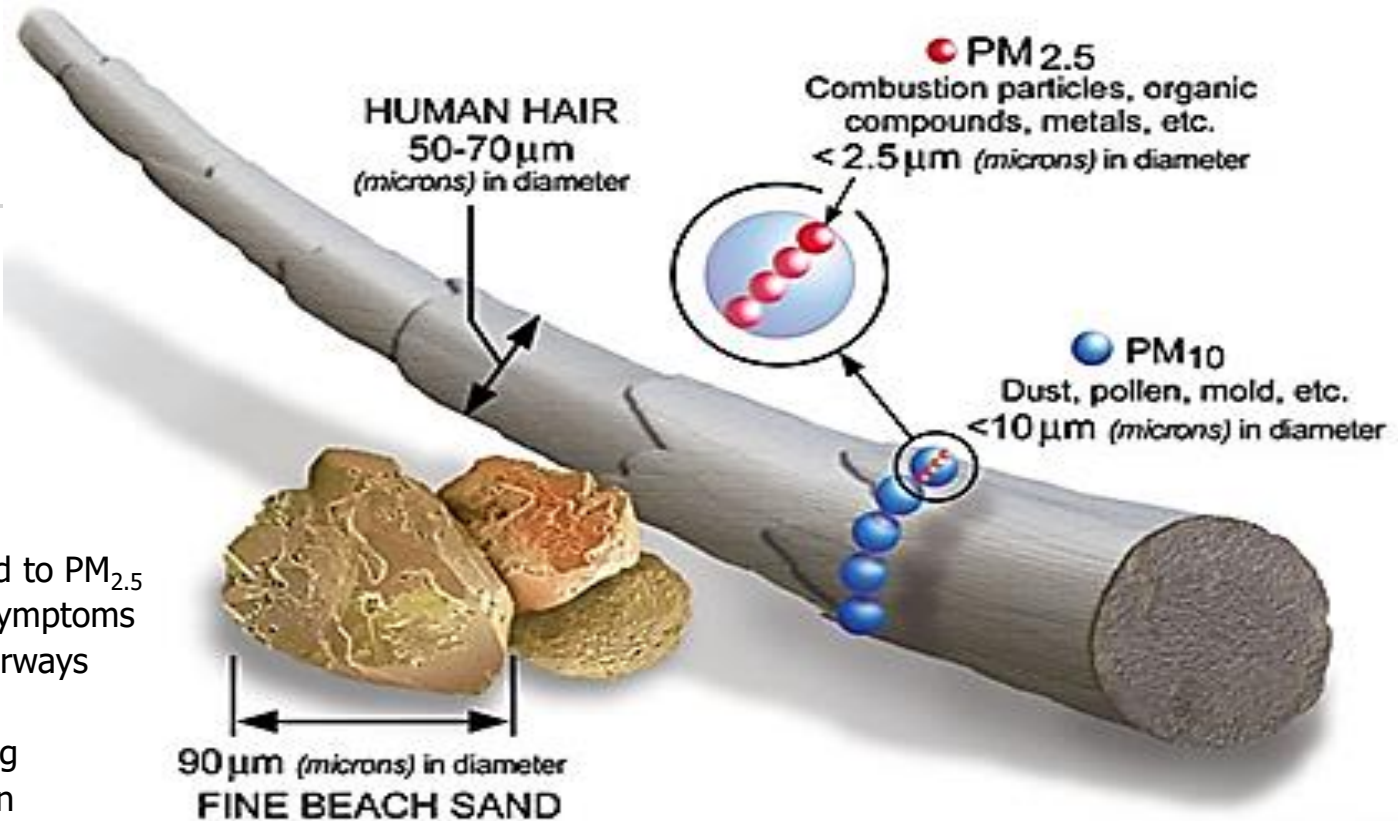


Image courtesy of the U.S. EPA

Adverse health effects linked to PM_{2.5}

- Increased respiratory symptoms
 - Irritation of the airways
 - Coughing
 - Difficulty breathing
- Decreased lung function
- Aggravated asthma
- Chronic bronchitis
- Irregular heartbeat
- Nonfatal heart attacks
- Premature death in people with heart or lung disease



TIMELINE OF PM NAAQS

PM10

1987

- 24-hour average: $150 \mu\text{g}/\text{m}^3$
- annual average: $50 \mu\text{g}/\text{m}^3$

PM2.5

1997

- 24-hour average: $65 \mu\text{g}/\text{m}^3$
- Annual average: $15 \mu\text{g}/\text{m}^3$

2006

- 24-hour average: $35 \mu\text{g}/\text{m}^3$

2012

- annual average: $12 \mu\text{g}/\text{m}^3$



REVISIONS ON PM NAAQS

On January 6, 2023, U.S. EPA released the proposed decision to revise PM_{2.5} standards. It proposes to:

- Strengthen the primary annual PM_{2.5} standard
 - ✓ within the range between 9.0 µg/m³ and 10.0 µg/m³
 - ✓ could lower to 8.0 µg/m³
- Retain secondary annual PM_{2.5} standard
 - ✓ 15.0 µg/m³
- Retain primary and secondary 24-hour PM_{2.5} standards
 - ✓ 35 µg/m³
 - ✓ could lower to 25 µg/m³
- Retain primary and secondary 24-hour PM₁₀ standards
 - ✓ 150 µg/m³



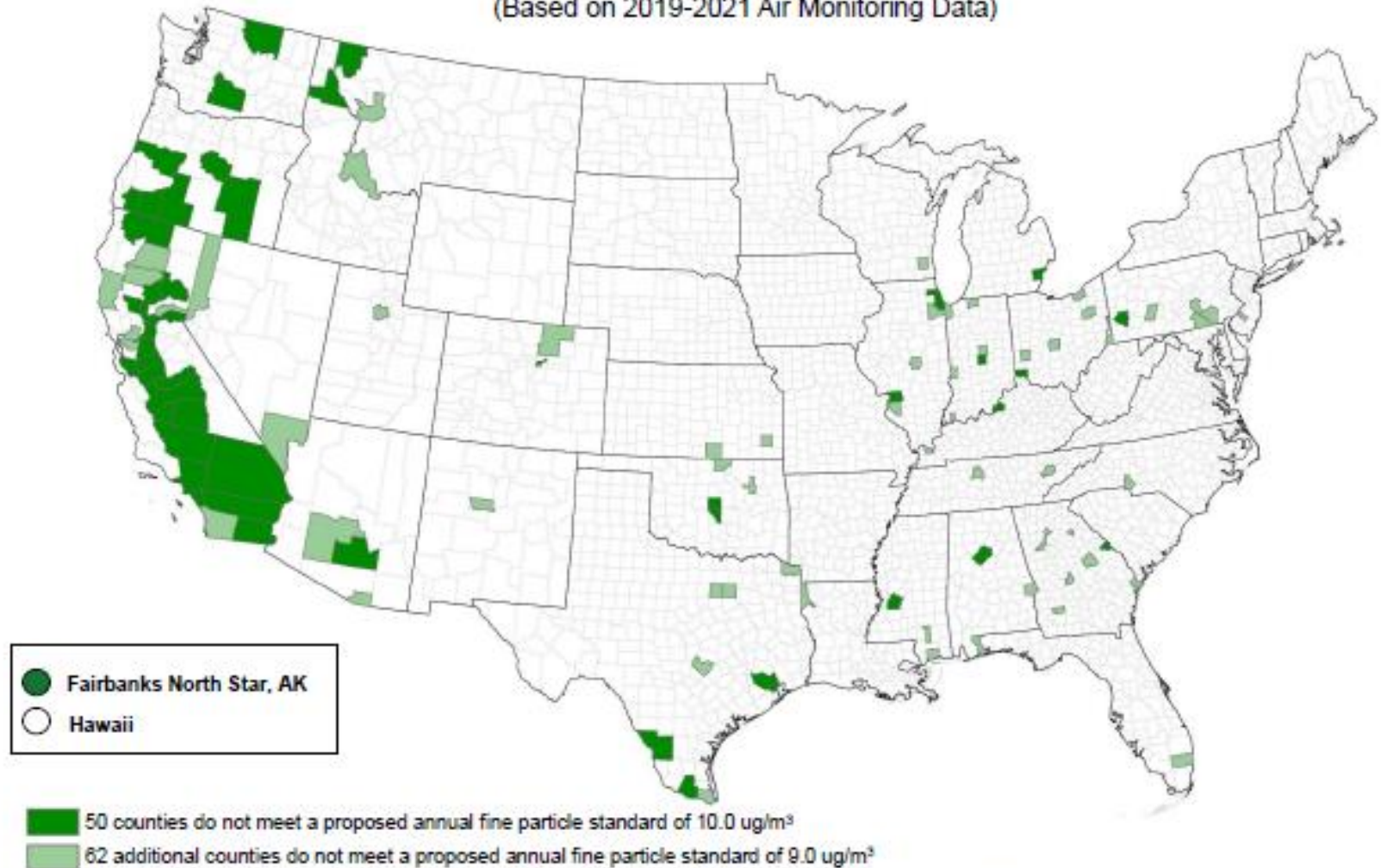
COUNTIES NOT MEETING THE 2012 ANNUAL PM_{2.5} STANDARDS





COUNTIES POTENTIALLY NOT MEETING THE PROPOSED ANNUAL PM_{2.5} STANDARDS

(Based on 2019-2021 Air Monitoring Data)





NONATTAINMENT DESIGNATION COMPARISON- NATIONWIDE

PM2.5 annual standard	# of counties exceeding standard	# of counties as new nonattainment area
Current standard (2012) 12.0 $\mu\text{g}/\text{m}^3$	15	N/A
Proposed standard 10.0 $\mu\text{g}/\text{m}^3$	50	30
proposed standard 9.0 $\mu\text{g}/\text{m}^3$	112	59

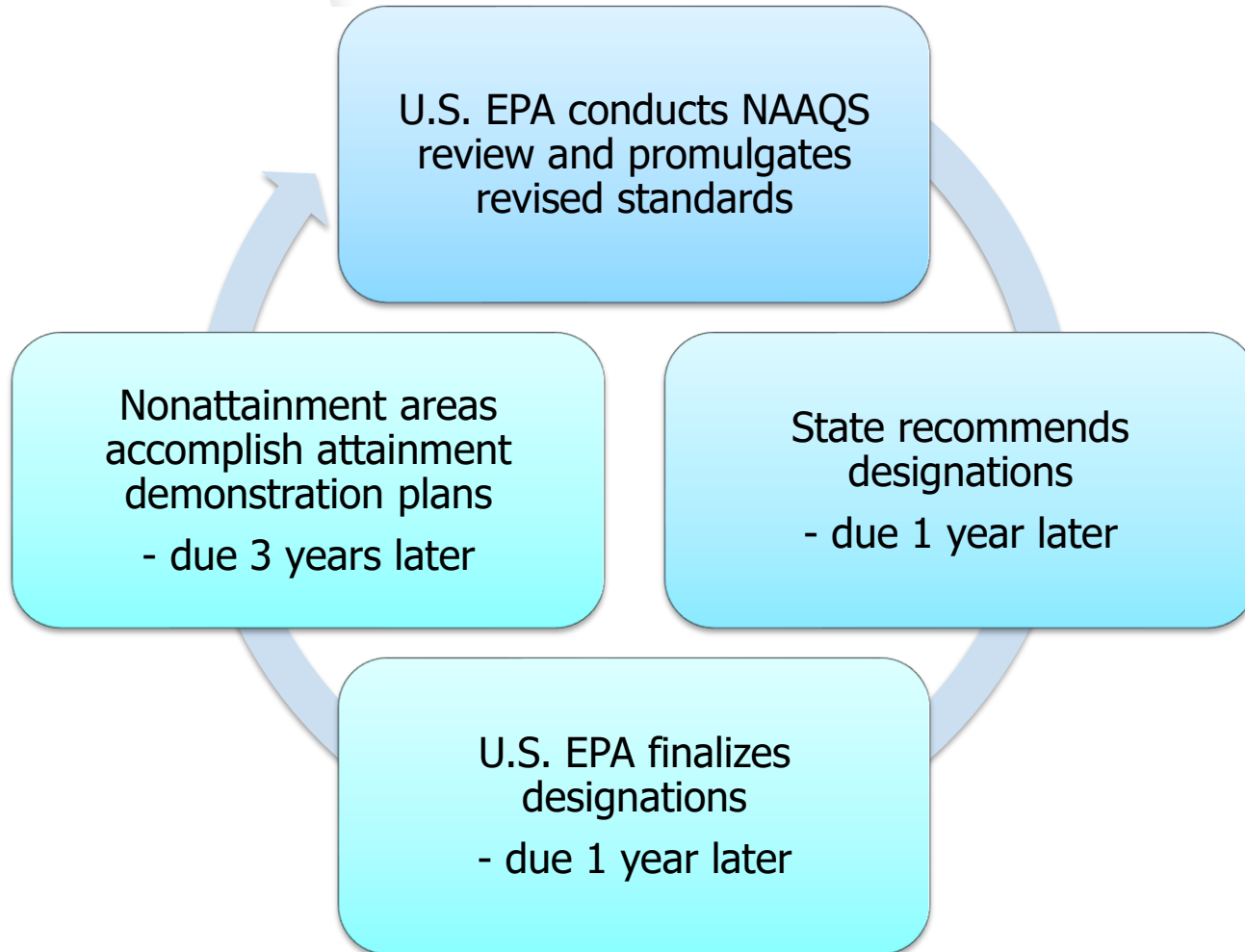


NONATTAINMENT DESIGNATION COMPARISON- CALIFORNIA

PM2.5 annual standard	# of counties exceeding standard	# of counties as new nonattainment area
Current standard (2012) 12.0 $\mu\text{g}/\text{m}^3$	14	N/A
Proposed standard 10.0 $\mu\text{g}/\text{m}^3$	21	4
proposed standard 9.0 $\mu\text{g}/\text{m}^3$	28	9



CLEAN AIR ACT NAAQS & PLANNING REQUIREMENTS





NEXT STEPS...

- Work closely with CARB and CAPCOA to develop necessary data analysis
 - ✓ collect information regarding wildfire incidents which occurred in summers of 2021 and 2022
 - ✓ identify PM2.5 data that might be influenced by wildfire smoke
 - ✓ cooperate with CARB for possible exceptional-event demonstration report
- Work with CARB to determine proper area designation for Placer County
- Identify additional resources for future possible air quality planning efforts



QUESTIONS?



NAAQS UPDATE
OZONE SIP UPDATE



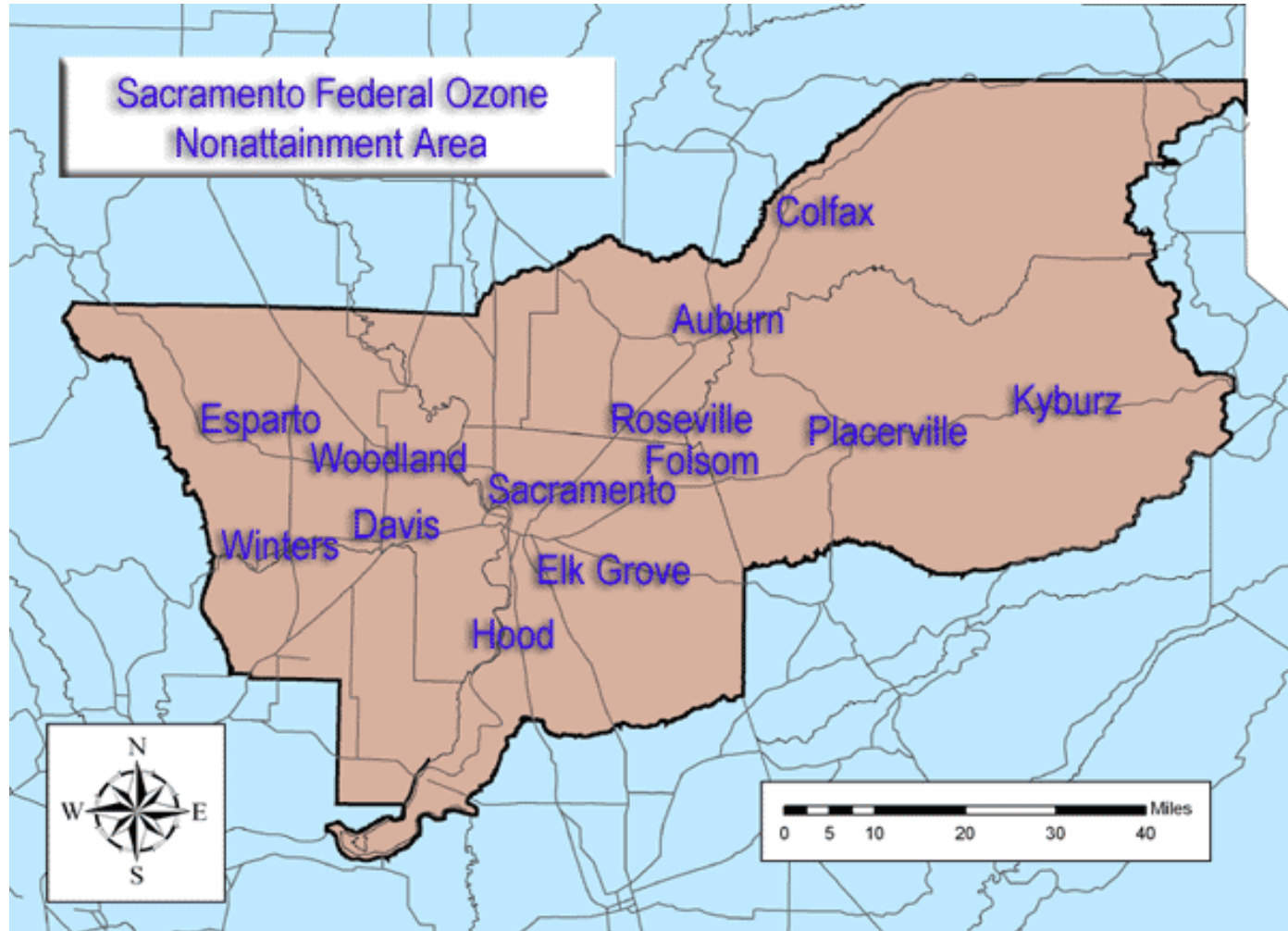
WHAT IS A "SIP"?

State Implementation Plan

- Federally required air quality plan for NAAQS
- Developed by state or local air quality agencies
- A plan to demonstrate attainment of NAAQS



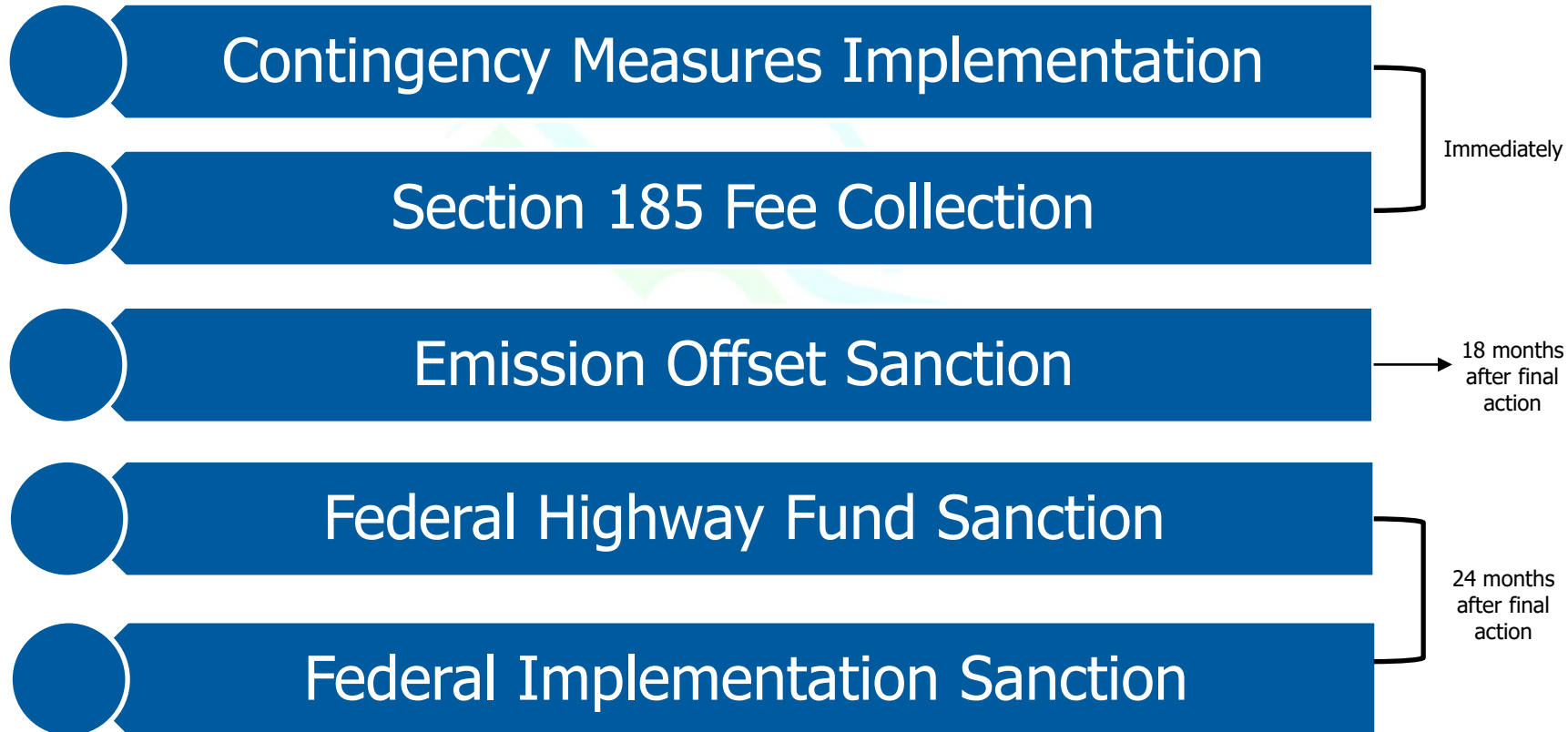
SFNA FOR OZONE STANDARDS





IF STANDARD NOT MET...

A "Finding of Failure" could be issued by U.S. EPA to a nonattainment area...





CURRENT OUTSTANDING ISSUES ON OZONE SIP

Failure to not Adopt a 185 Fee rule (2008 standard)

- Effective on 2/16/23
- Sanctions would be imposed after 18 months

Draft SIP Disapproval Action (2008 standard)

- Due to lack of contingency measures
- Issued by U.S. EPA on 3/28/23
- Sanction clock will start when the Final Action is published

Late Ozone SIP Submittal (2015 standard)

- Reclassification request submittal on 8/5/23
- Schedule for Board's approval in October 2023



185 FEE RULE

CCA Section 185 Requirements

- Require major stationary sources to reduce its emissions by 20% from its baseline
- Applicable for classification as severe or extreme

Time

- “Finding of Failure to Attain an Ozone Standard” issued by U.S. EPA

Implementation

- Collect the fee from major stationary sources annually from the attainment year until the area attains the standard

Impacted facilities in Placer County

- Rio Bravo, Roseville Energy Park, Sierra Pacific Industries, Western Placer Sanitary Landfill



CONTINGENCY MEASURES

CAA Section 172 (c)(9) & 182 (c)(9) Requirements

- An element in the nonattainment SIP submittal
- Special measure(s) regardless of nonattainment classification

Special Measure(s)

- Conditional and prospective and not already implemented
- Not needed control measures for the attainment demonstration
- Emission reduction equal to or greater than one year's worth, as defined by U.S. EPA

Implementation

- Fail to meet the further progress milestone or relevant standard at the attainment year
- Measures must be in effect within 60 days



IMPORTANT TIMELINE FOR OZONE SIP ISSUES

2008 standard (0.075ppm)
Attainment Date: 7/20/2025

Sever-15
Statutory Attainment Deadline: 7/20/2027



185 Fee Rule (2008 ozone Standard)

- 18-month (2/16/23 ~ 8/16/24) → Before imposing Emission Offset Sanction
- 24-month (2/16/23 ~ 2/16/25) → Before imposing Freeway Funds Sanction
- 24-month (2/16/23 ~ 2/16/25) → Before imposing Federal Implementation Sanction

Contingency Measure (2008 ozone Standard)

- 18-month (July 23 ~ February 25) → Before imposing Emission Offset Sanction
- 24-month (Jul 23 ~ July 25) → Before imposing Freeway Funds Sanction
- 24-month (Jul 23 ~ July 25) → Before imposing Federal Implementation Sanction

SIP Accomplishment (2015 Ozone Standard)

SIP Approval, October 23 → Submit it before U.S.EPA takes an action

Adopting a 185 Fee Rule, deadline 8/3/2028



NEXT STEPS FOR SECTION 185 FEE RULE

- Meet with facilities who are subject to the fee regulation
 - ✓ Rio Bravo, Roseville Energy Park, Sierra Pacific Industries, and Western Placer Sanitary Landfill
- Coordinate rulemaking process
 - ✓ draft rule development
 - ✓ draft rule reviewed by CARB and U.S. EPA
 - ✓ public workshops
- Board approval
 - ✓ early next year
- Submit the SIP Revision to U.S. EPA to stop sanction clock



NEXT STEPS FOR CONTINGENCY MEASURES

- Work with the other SFNA districts to determine necessarily regional one year worth (OYW) reduction
- Evaluate and identify feasible control measures
 - ✓ feasible measures from each air district
 - ✓ brief your Board about Placer's measures list
 - ✓ inform U.S. EPA about the regional determination
- Schedule for the rulemaking process
 - ✓ meetings with stakeholders
 - ✓ public workshops
 - ✓ Board approval
- Submit the SIP Revision to U.S. EPA to stop the sanction clock



QUESTIONS?