

# Update on PM2.5 Contingency Measures for the San Joaquin Valley

National Association of Clean Air Agencies (NACAA)  
Criteria Pollutants Committee Meeting

January 31, 2024

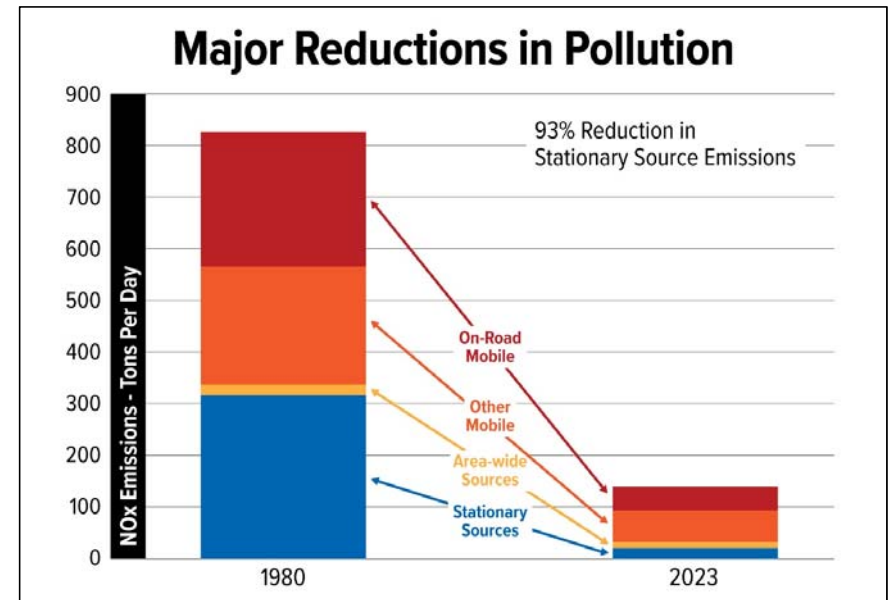
# Valley's Air Quality Challenges

- Valley's challenges in meeting federal air quality standards unmatched due to unique combination of topography and meteorology
- Valley designated as “Extreme” non-attainment of the 8-hour Ozone National Ambient Air Quality Standards; “Serious” non-attainment of federal standards for fine particulate matter (PM<sub>2.5</sub>)
  - Substantial emission reductions needed to achieve federal standards
- Need to go beyond already strict control limits
  - Stringent measures have already been implemented and Valley needs further emission reductions to attain federal standards



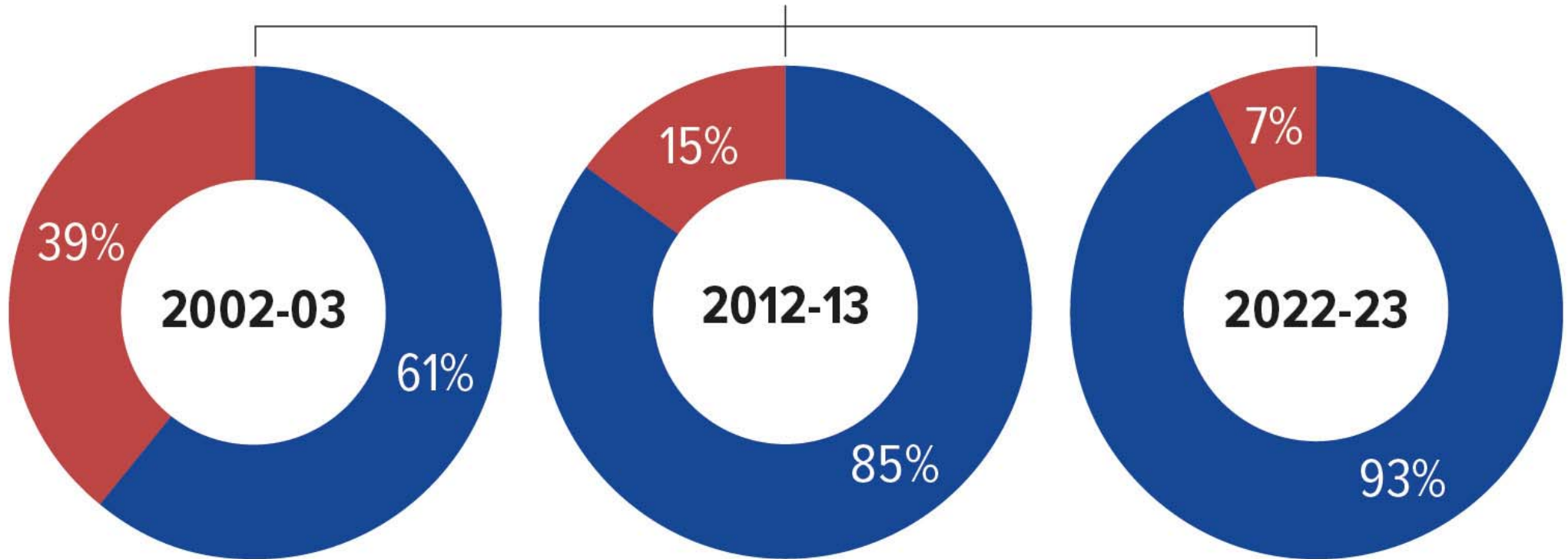
# Adopted Controls Are Improving Air Quality

- Governing Board has adopted numerous attainment plans and air quality control strategies to address federal standards
  - Stationary source ozone and PM-forming NO<sub>x</sub> emissions reduced by over 90% through hundreds of regulatory actions
- California Air Resources Board (CARB) has adopted numerous mobile source emissions controls
- District/CARB combined efforts represent nation's toughest emissions control program
- Strong incentive programs (\$6 billion in public/private investment)
- Through significant clean air investments, Valley continues to make major improvements with respect to air quality



# Progress in Improving Valley PM2.5

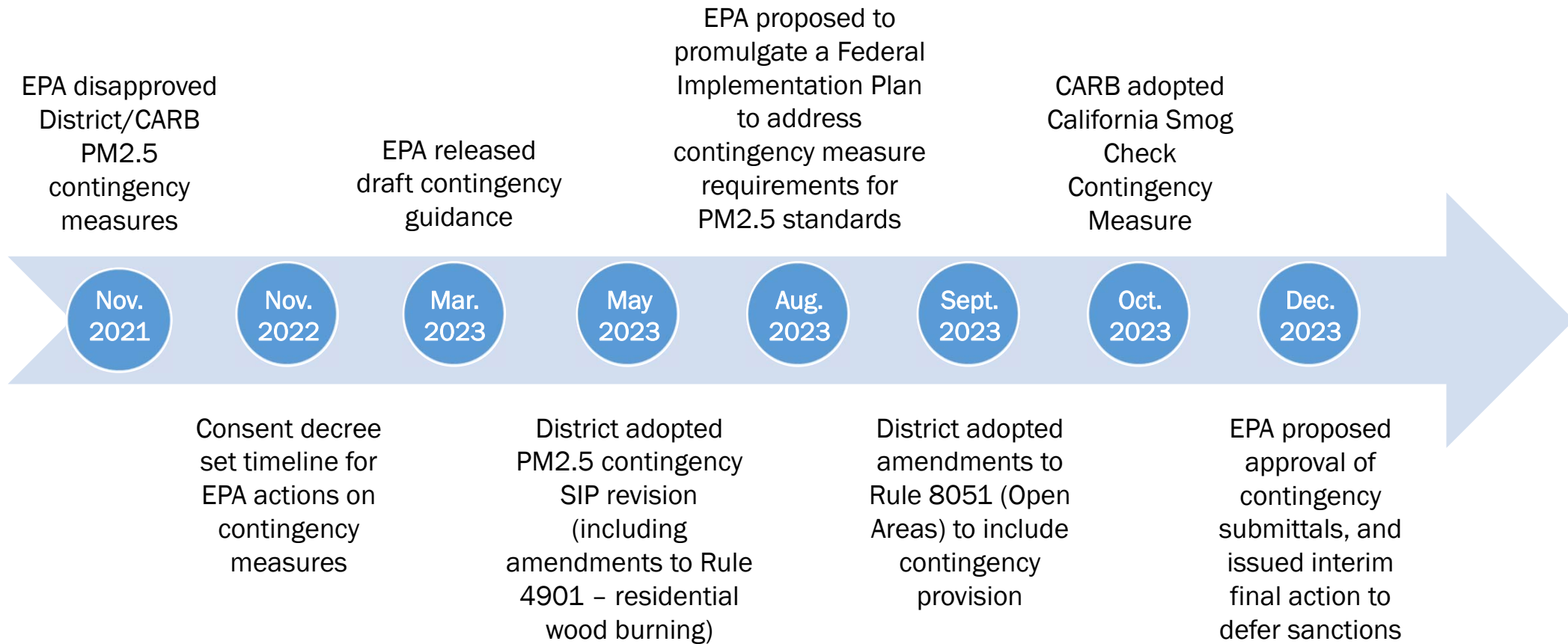
**DAYS MEETING** vs **DAYS EXCEEDING** the PM2.5 STANDARD DURING WINTER MONTHS



# Addressing Contingency Measure Requirements

- Contingency measures extremely difficult in light of court rulings challenging EPA's interpretations
  - Nonattainment challenges under multiple, overlapping NAAQS
  - Already implementing the most stringent control measures
  - Automatic implementation/“contingency trigger” infeasible for most technologies
  - Scarcity of measures meeting the highly-restrictive contingency definition
  - Prior policies required prohibitively high emission reduction quantities

# Timeline of Contingency Measure Actions



# Draft EPA Contingency Guidance

	Draft EPA Guidance
Amount of Emissions Reductions Needed	<p>One Year's Worth of Progress (OYW<sub>p</sub>):</p> <ul style="list-style-type: none"><li>• Calculation based on attainment year rather than the base year</li><li>• If contingency measure(s) achieve less than OYW<sub>p</sub>, areas may demonstrate that they have considered all existing and potential measures and have concluded they are technologically or economically infeasible (infeasibility justification)</li></ul>
Time Period for Reductions	<p>Measures must be triggered and implemented within 60 days, and reductions must be achieved within a year of the contingency trigger, or up to 2 years with additional justification</p>
Additional Considerations	<p>Contingency measure responsibilities solely on states and local regions (no commitments by federal EPA to conduct analysis or contribute measures with respect to federal mobile sources)</p>

# Evaluation of Contingency Opportunities

## STRINGENCY OF DISTRICT PROGRAMS

2022 Ozone Plan included comprehensive evaluation of NOx and VOC rules

2018 PM2.5 Plan control measure analysis focused on PM2.5 and NOx rules, approved as Most Stringent Measures by EPA in July 2020 - upheld by Ninth Circuit Court of Appeals in April 2022

Recent final EPA interstate transport FIP (March 2023) includes emission limits less stringent than current District rules

## LIMITED OPPORTUNITIES FOR TECHNOLOGICALLY FEASIBLE CONTINGENCY MEASURES FOR VALLEY

Extensive interagency discussions between CARB, District, and EPA on evaluation

District/CARB comprehensive contingency evaluation conducted on local/mobile sources:

- District implementing most stringent measures across stationary and area sources
- District: Identified measures for residential wood burning and fugitive dust from rural open areas
- CARB: identified enhanced smog check measure
- No additional feasible measures identified by District/CARB at this time



# Summary of Contingency Analysis

## Contingency analysis including all sources (stationary, area, mobile)

PM2.5 Standard	PM2.5 (tons/day)			NOx (tons/day)				
	OYW <sub>p</sub> Approach (A)	Identified Measures (B)	Balance (C: B-A)	OYW <sub>p</sub> Approach (D)	Identified Measures (E)	Initial Balance (F: D-E)	PM2.5 Surplus to NOx (6:1 Plan ratio) (G: C*6)	Remaining Balance (F-G)
1997 Annual	0.41	0.69	<b>0.28</b>	7.91	0.10	(7.81)	1.68	<b>(6.13)</b>
2006 24-hr	0.52	0.69	<b>0.17</b>	6.66	0.10	(6.56)	1.02	<b>(5.54)</b>
2012 Annual	0.43	0.69	<b>0.26</b>	8.65	0.10	(8.55)	1.56	<b>(6.99)</b>

## Contingency analysis for sources under District jurisdiction

PM2.5 Standard	PM2.5 (tons/day)			NOx (tons/day)				
	OYW <sub>p</sub> Approach (A)	Identified Measures (B)	Balance (C: B-A)	OYW <sub>p</sub> Approach (D)	Identified Measures (E)	Initial Balance (F: D-E)	PM2.5 Surplus to NOx (6:1 Plan ratio) (G: C*6)	Remaining Balance (F-G)
1997 Annual	0.35	0.69	<b>0.34</b>	1.87	0.10	(1.77)	2.02	<b>0.25</b>
2006 24-hr	0.46	0.69	<b>0.23</b>	1.94	0.10	(1.84)	1.41	<b>(0.43)</b>
2012 Annual	0.36	0.69	<b>0.33</b>	1.73	0.10	(1.63)	1.96	<b>0.33</b>

Contingency measures conform with draft EPA guidance:

- Significant reductions from District measures, fully satisfy fair-share reductions from sources under District jurisdiction
- Lack of additional feasible local/state measures that meet contingency requirements

# Next Steps on Contingency Measures

- On December 20, 2023, EPA took number of actions in Federal Register for PM2.5 contingency measure submittals:
  - Proposed approval of contingency package, including District measures for Rule 4901 and Rule 8051, and scarcity analysis
  - Proposed approval of CARB California Smog Check Contingency Measure
  - Issued Interim Final Determination to defer sanctions
- Final action on District/CARB PM2.5 contingency measure submittals anticipated in 2024
  - EPA reviewing comments received
- Support finalization of draft guidance by EPA, and address contingency measure requirements for the 2008 8-hr ozone standard