



SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT

**Request to Reclassify Coachella Valley
for the 2008 8-Hour Ozone Standard
and the Updated Motor Vehicle
Emissions Budgets**

**Public Consultation Meeting
September 23, 2022**

Cleaning The Air That We Breathe...

Agenda

- 1 Introduction
- 2 Transportation Conformity and Motor Vehicle Emissions Budget
- 3 Ozone Air Quality Trends and Nonattainment Status
- 4 Request to Reclassify for 2008 8-Hour Ozone Standard
- 5 Extreme Area State Implementation Plan
- 6 Staff Recommendation

Agenda Item # 1

Introduction



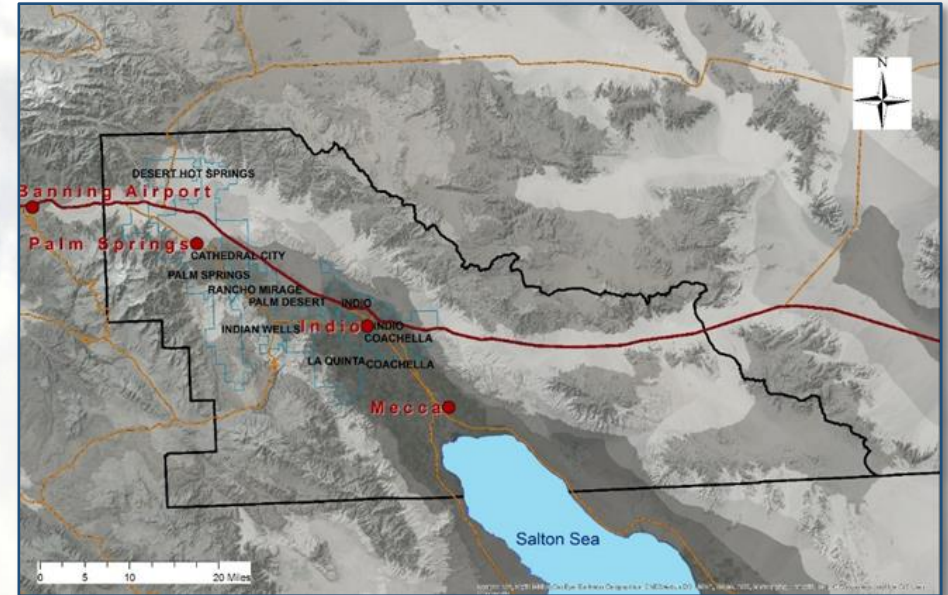
South Coast AQMD

- **Local air pollution control agency**
 - Oversees South Coast Air Basin and Coachella Valley
 - Largest of the 35 local air agencies in CA and in the U.S.
 - 10,743 square miles
 - 17 million residents
- **Responsibilities**
 - Regulate emissions primarily from stationary sources
 - Develop and implement plans to meet national air quality standards
 - Permit and inspect 28,400 affected businesses
 - Administer over \$100 million of incentive funding annually



Coachella Valley

- Is the desert portion of Riverside County in the Salton Sea Air Basin
- Located downwind of the South Coast Air Basin (Basin) and under the jurisdiction of South Coast AQMD
- 2018 data indicates
Population: 471,000 (SCAG's 2020RTP)
Vehicles: 307,000 (EMFAC2017)





Current Issue

- Due to a change in the model used to estimate vehicle emissions, the emissions estimated from motor vehicles now exceed the amount budgeted for in the air quality plan
- This prevents development of new transportation projects
- Reclassifying the area to "extreme" ozone nonattainment allows the motor vehicles emission budget to be reset
- This would then allow new transportation plans and projects to move forward

Agenda Item # 2

Transportation Conformity and Motor Vehicle Emissions Budget



Transportation Conformity Regulation

**Clean Air Act Transportation
Conformity regulation requires
that emissions from
transportation activities do not
interfere with attainment or
maintenance of air quality
standards**



2008 8-hour Ozone Standard and MVEB



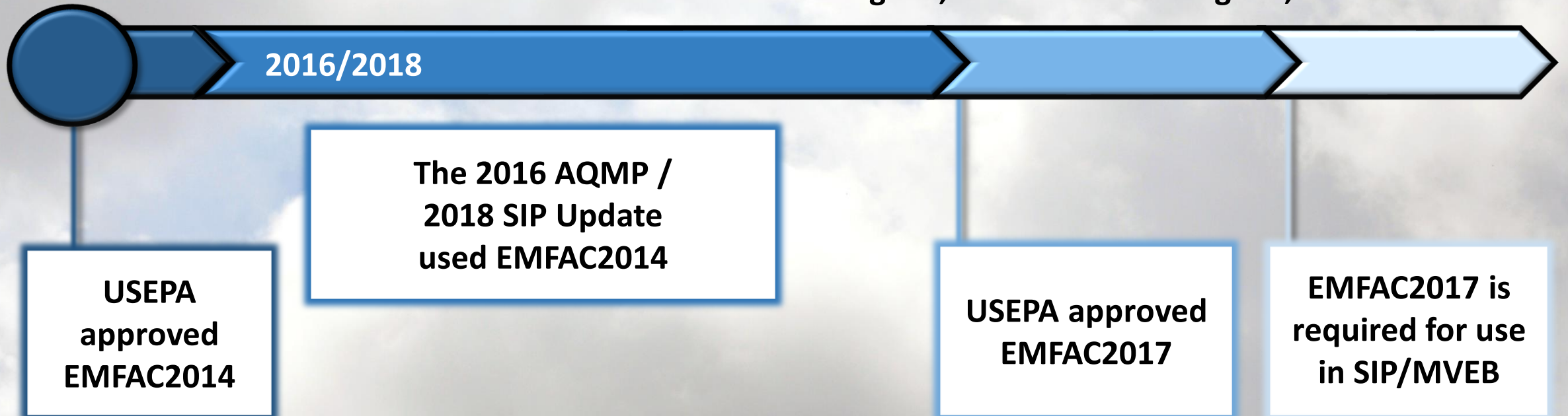
Updates in Motor Vehicle Emissions Model

EMFAC is the USEPA approved Motor Vehicle Emissions Model for California

Dec. 14, 2015

Aug. 15, 2019












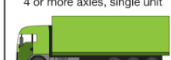

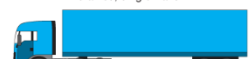





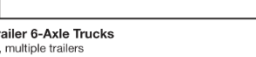



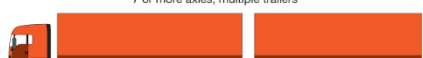
Aug. 17, 2021



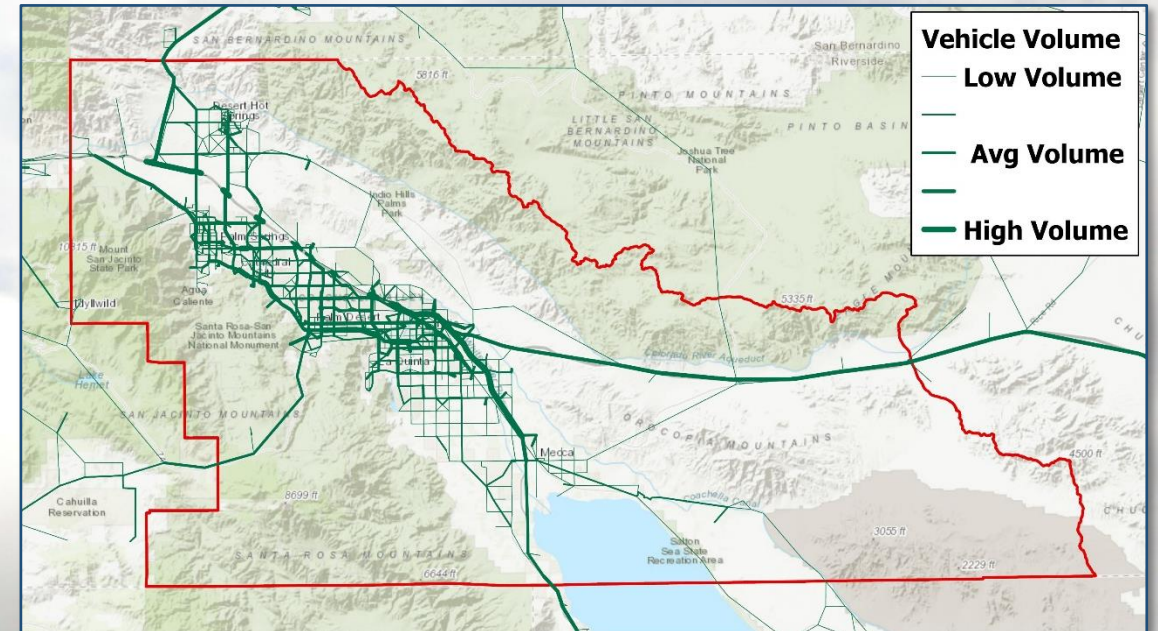
On-Road Vehicle Emissions Quantification

$$\text{Emission} = \text{Emission Factor} \times \text{VMT}$$

Emission Factor – EMFAC

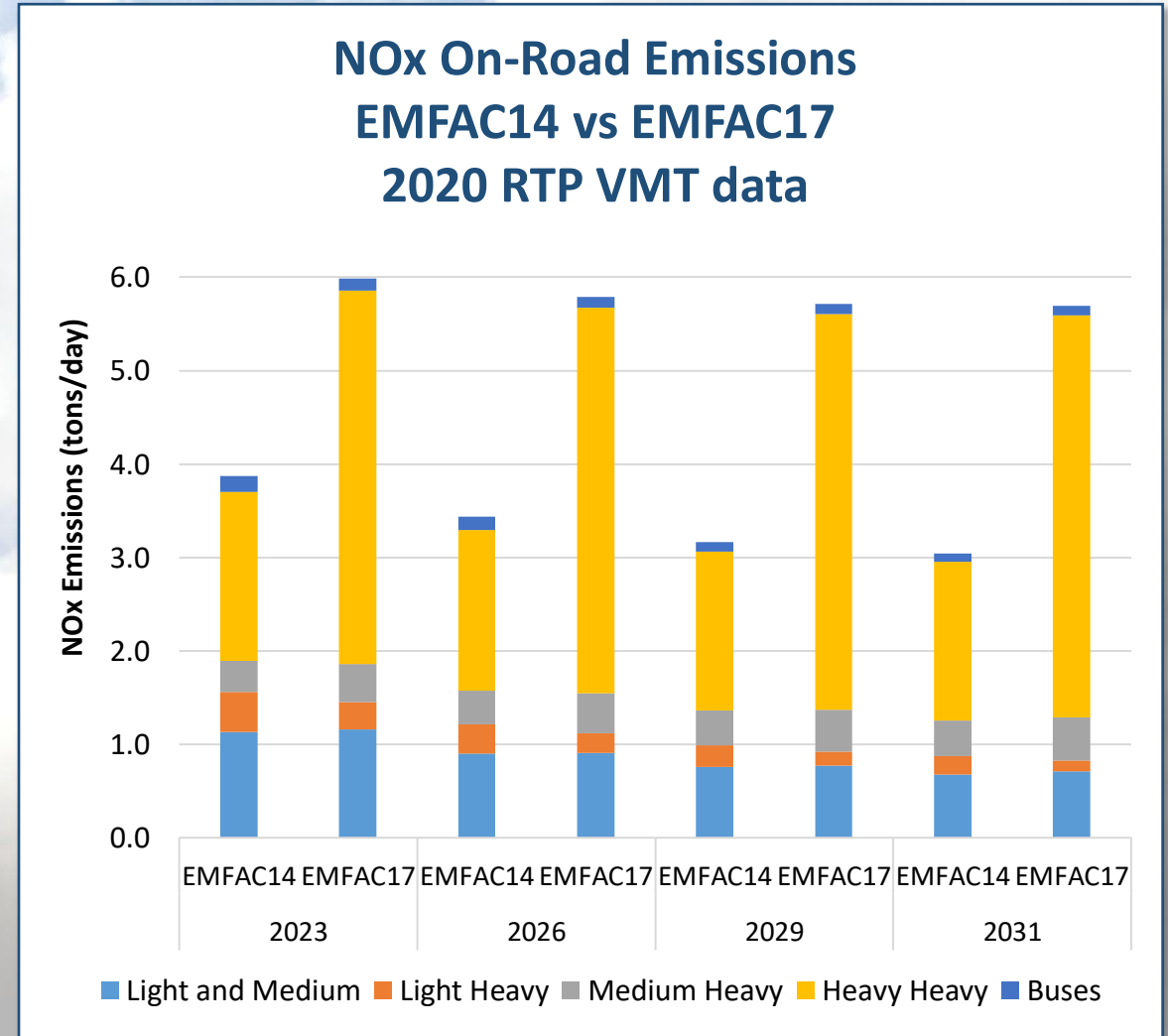
FHWA Vehicle Classifications			
1. Motorcycles 2 axes, 2 or 3 tires 	2. Passenger Cars 2 axes, can have 1- or 2-axle trailers  	3. Pickups, Panels, Vans 2 axes, 4-tire single units Can have 1 or 2 axle trailers  	4. Buses 2 or 3 axes, full length  
5. Single Unit 2-Axle Trucks 2 axes, 6 tires (dual rear tires), single-unit   	6. Single Unit 3-Axle Trucks 3 axes, single unit 	7. Single Unit 4 or More-Axle Trucks 4 or more axes, single unit 	8. Single Trailer 3- or 4-Axle Trucks 3 or 4 axes, single trailer 
9. Single Trailer 5-Axle Trucks 5 axes, single trailer  	10. Single Trailer 6 or More-Axle Trucks 6 or more axes, single trailer  		  
11. Multi-Trailer 5 or Less-Axle Trucks 5 or less axes, multiple trailers 		12. Multi-Trailer 6-Axle Trucks 6 axes, multiple trailers  	
13. Multi-Trailer 7 or More-Axle Trucks 7 or more axes, multiple trailers 			

VMT – RTP Travel Activity Data



EMFAC2014 vs. EMFAC2017 Emissions

- EMFAC2017 projects higher on-road NO_x emissions compared to the previous model version, EMFAC2014 for the same vehicle activities
- The largest increase in NO_x emissions is due to higher in-use emission factors for heavy-duty trucks



Transportation Conformity Lockdown

EMFAC2017 lead to
higher emissions
than MVEB in the
approved SIP

This leads to
“conformity
lockdown”

No new transportation
plans or projects can move
forward except the currently
conforming RTP/FTIP and
exempt projects

Updating
MVEB is
necessary to
resolve
lockdown

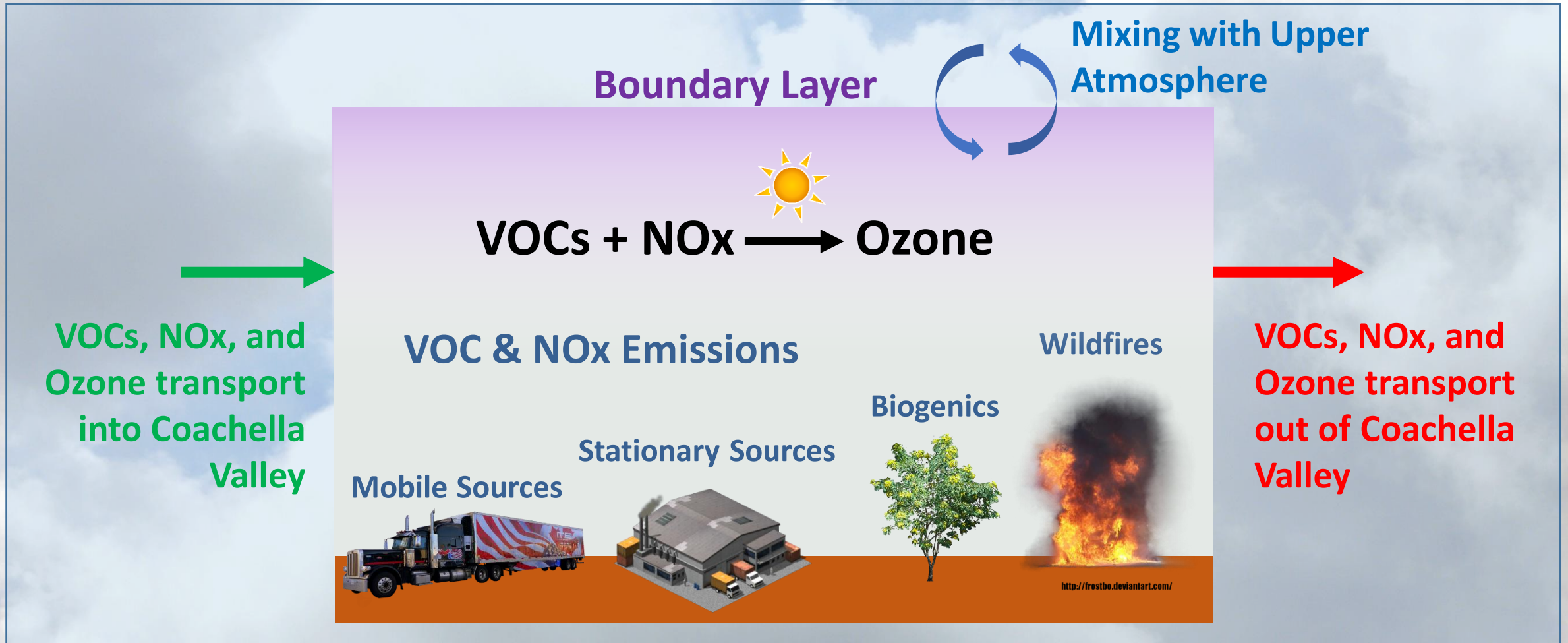
Approximately \$26 billion of
transportation projects are on
hold due to the lockdown

Agenda Item # 3

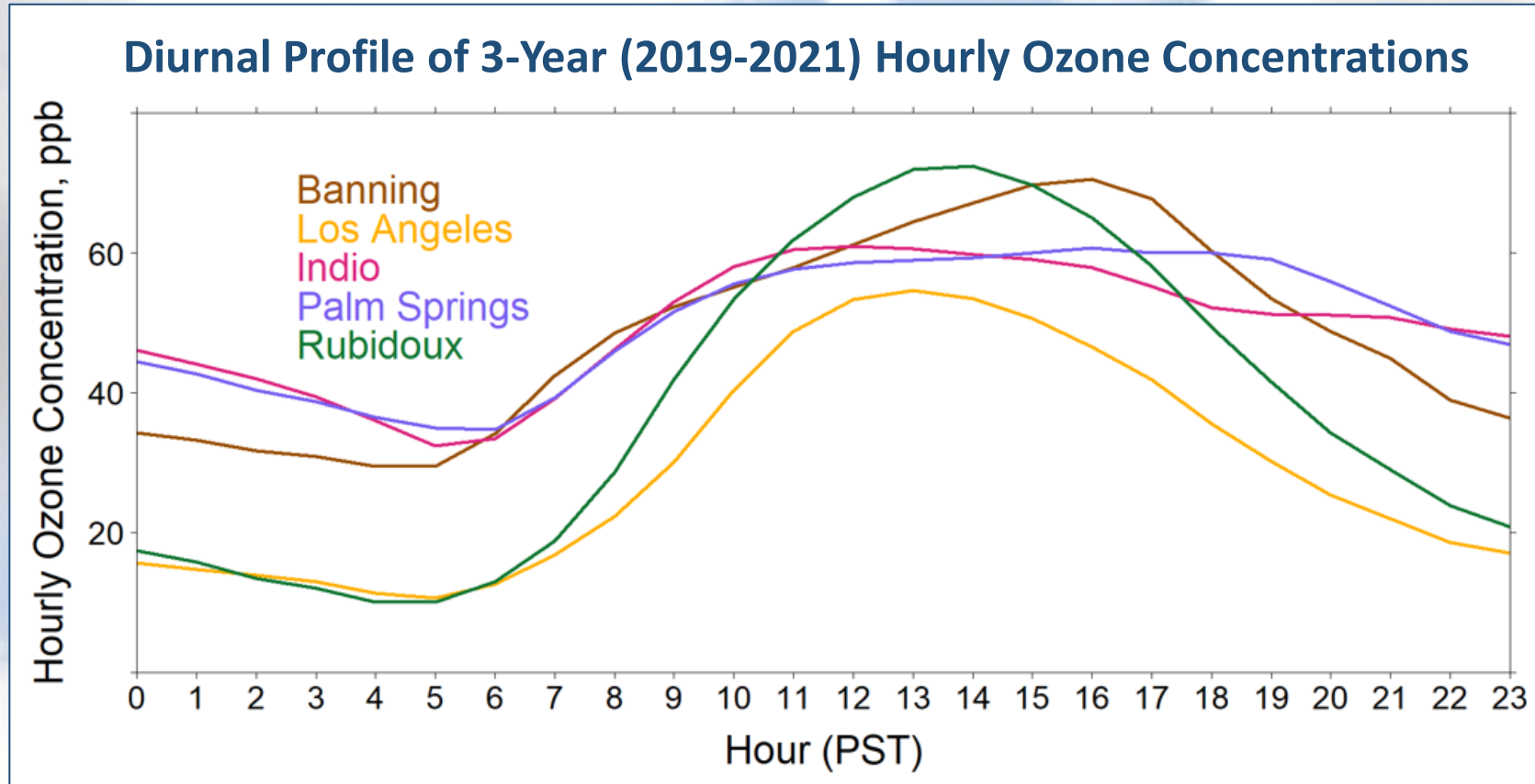
Ozone Air Quality Trends and Nonattainment Status



Ozone Formation

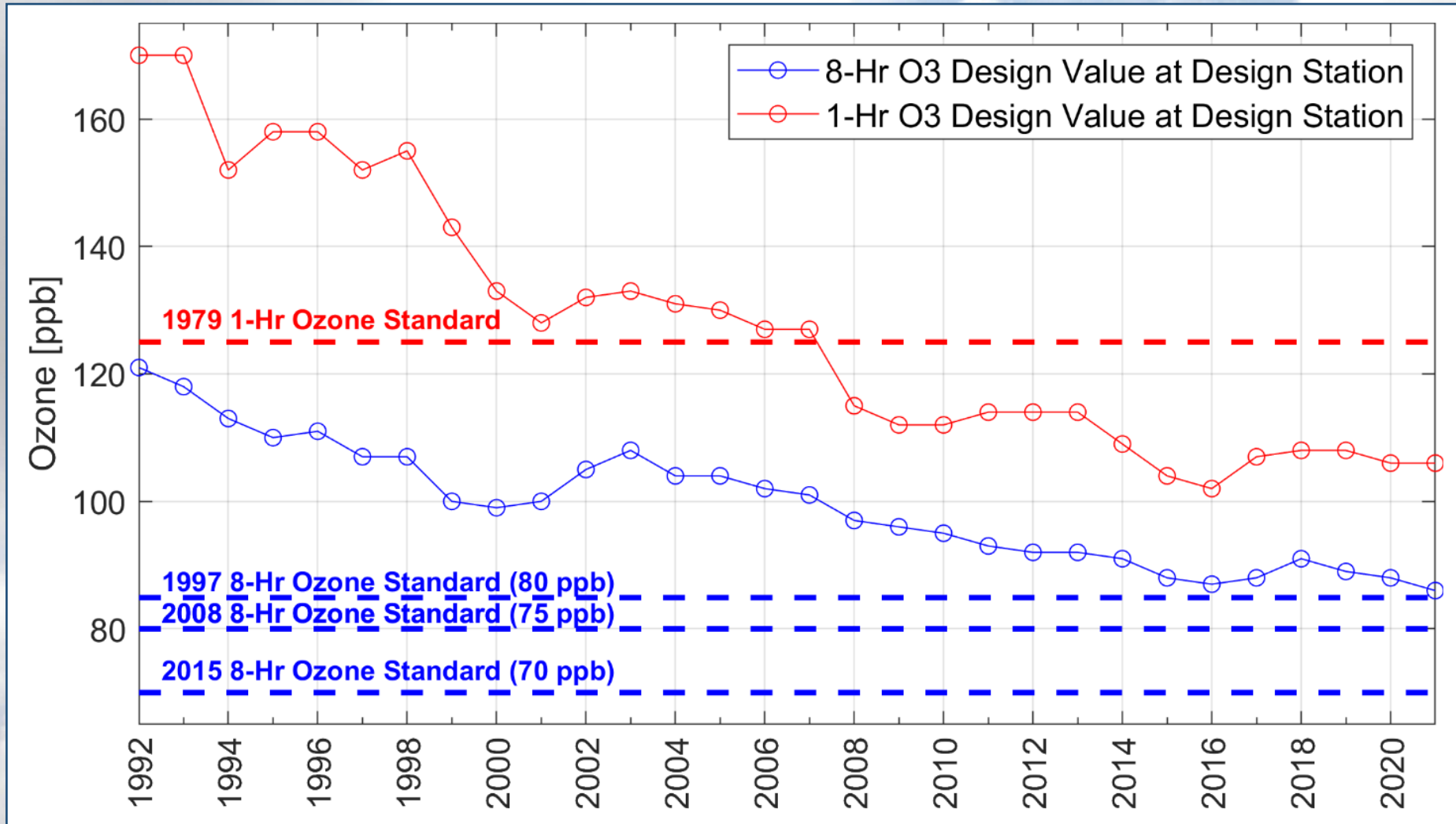


Ozone Transport into the Coachella Valley



Ozone levels are impacted by pollutants directly transported from the Basin and pollutants formed secondarily through photochemical reactions from precursors upwind

Current Status of Coachella Valley Ozone



Elevated ozone levels primarily due to emissions in South Coast Air Basin

Agenda Item # 4
Request to Reclassify Coachella Valley
for 2008 8-Hour Ozone Standard





National Ambient Air Quality Standards (NAAQS)

- **USEPA establishes NAAQS for various air pollutants to be protective of human health**
- **Areas not meeting the standards are designated as nonattainment areas based on exceedance level (Marginal, Moderate, Serious, Severe, Extreme)**
- **Attainment deadlines established based on classification with more time provided for areas with worse air quality**
- **When an area is unable to attain a standard, the Clean Air Act allows air authorities to ask for a reclassification to the next higher level of nonattainment**

Attainment Status of Federal Ozone Standards

Ozone Standard	Designation	Attainment Year
1979 1-Hour Ozone (120 ppb)	Attainment	USEPA determination: 2013
1997 8-Hour Ozone (80 ppb)	Nonattainment: Extreme	2023
2008 8-Hour Ozone (75 ppb)	Nonattainment: Severe	2026
2015 8-Hour Ozone (70 ppb)	Nonattainment: Severe ¹	2032

1 - 2022 AQMP is proposing to voluntarily bump up Coachella Valley to Extreme nonattainment with an attainment year of 2037



Reclassification for the 1997 8-Hour Ozone Standard

June 15, 2004

Original date of classification as serious with attainment due in June 2013



June 4, 2010

Reclassified to severe-15 with attainment due on June 15, 2019



July 10, 2019

Reclassified to extreme with attainment due on June 15, 2024



December 2020

Extreme area SIP submitted to USEPA and being reviewed by USEPA



Proposing to Reclassify for the 2015 8-Hour Ozone Standard

Effective August 3, 2018

Original classification as severe-15 with attainment due in August 3, 2033



Revised Draft 2022 AQMP

- Voluntary reclassification to extreme with a new attainment date of August 3, 2038, same as the South Coast Air Basin
- NO_x emission reductions to be placed in the South Coast Air Basin will lead to attainment in Coachella Valley by 2037

Impacts of Voluntary Reclassification for the 2008 8-Hour Ozone Standard

Anticipated Impact of Redesignation

New MVEB and removal of conformity lockdown

More time to attain (up to 5 years)

SIP revision to address extreme area requirements

No Adverse Impact is Expected

Additional planning requirements for extreme areas have already been met as the Coachella Valley is already classified as extreme for an earlier ozone standard

Reclassification is Consistent with:

Existing designation for 1997 8-hour ozone standard

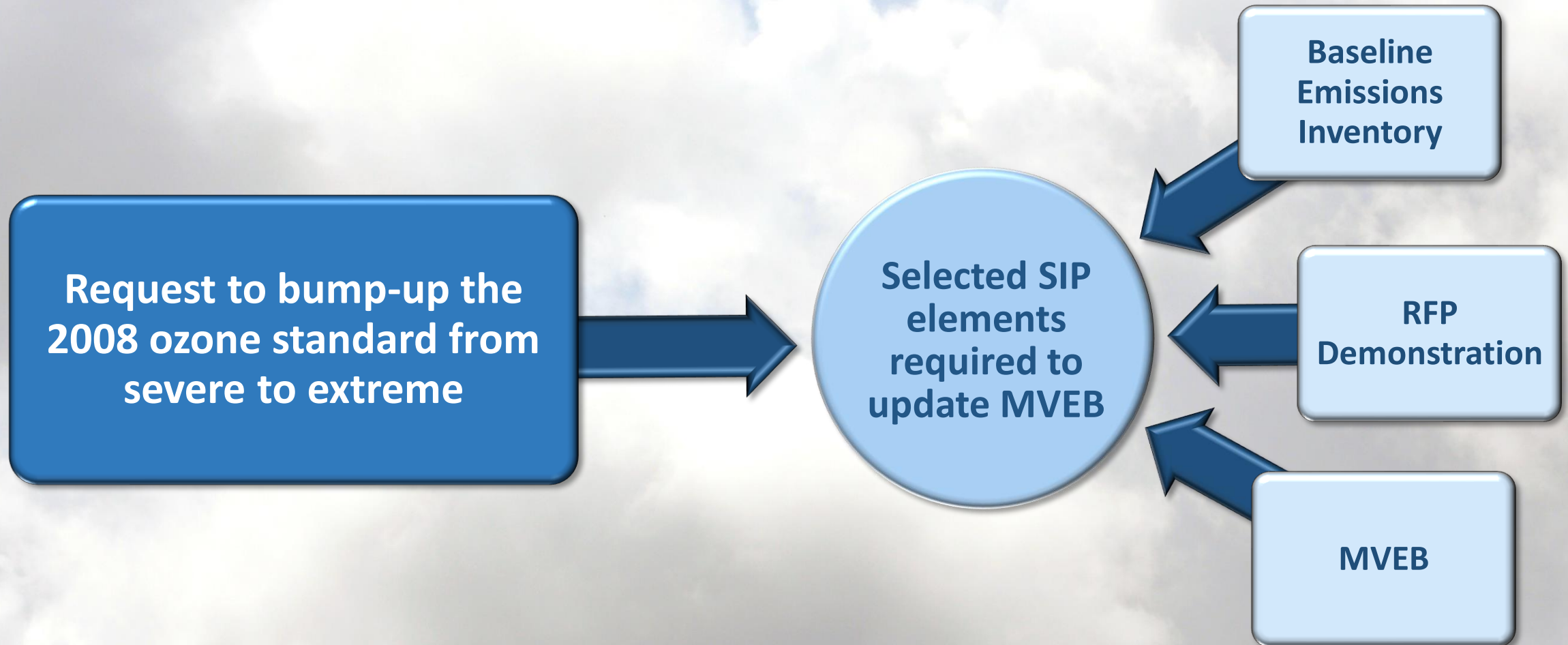
Proposal for 2015 8-hour ozone standard

Process to Submit a SIP Revision



*A SIP revision is prepared typically within 12 months from USEPA's approval, but adjustable
For the 1997 extreme area plan, 18 months were given for the Plan development*

Staff Proposal



Agenda Item # 5

Extreme Area State

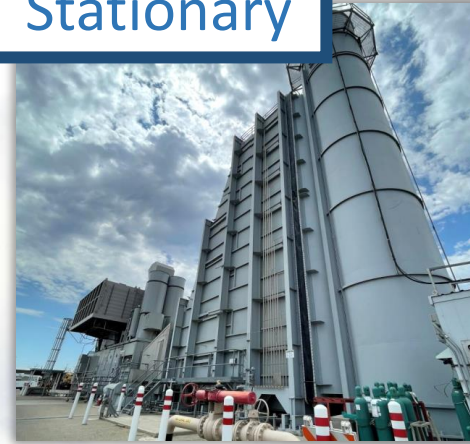
Implementation Plan



Baseline Emissions Inventory

- Developed based on the 2022 AQMP/SIP emissions inventory
- Updates in inventory:
 - 2018 emissions from South Coast AQMD's Annual Emissions Reporting program
 - Activities, consumption, throughput data for 2018, where available
 - Updated methodology where available
 - 2020 RTP/SCS travel activity data
 - EMFAC2017
 - Updated off-road mobile emissions
 - Socioeconomic growth projections from SCAG's 2020 RTP/SCS

Stationary



Area



On-Road Mobile

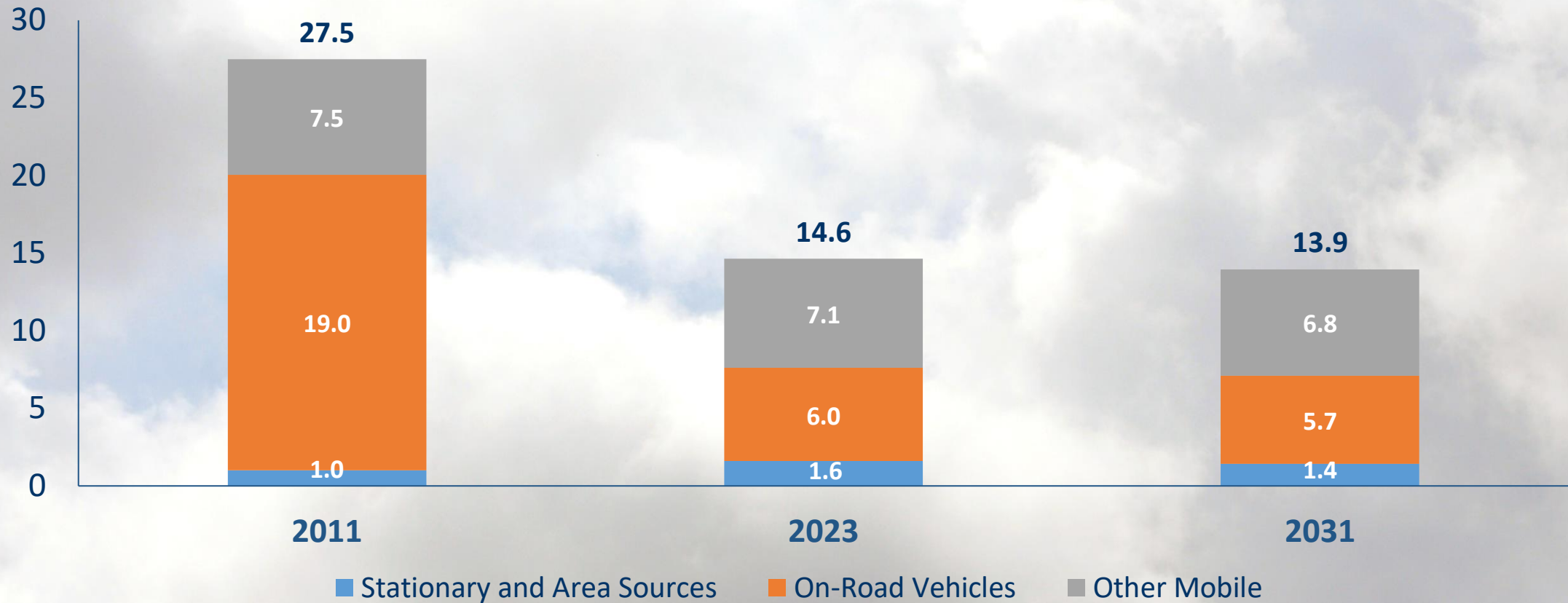


Off-Road Mobile



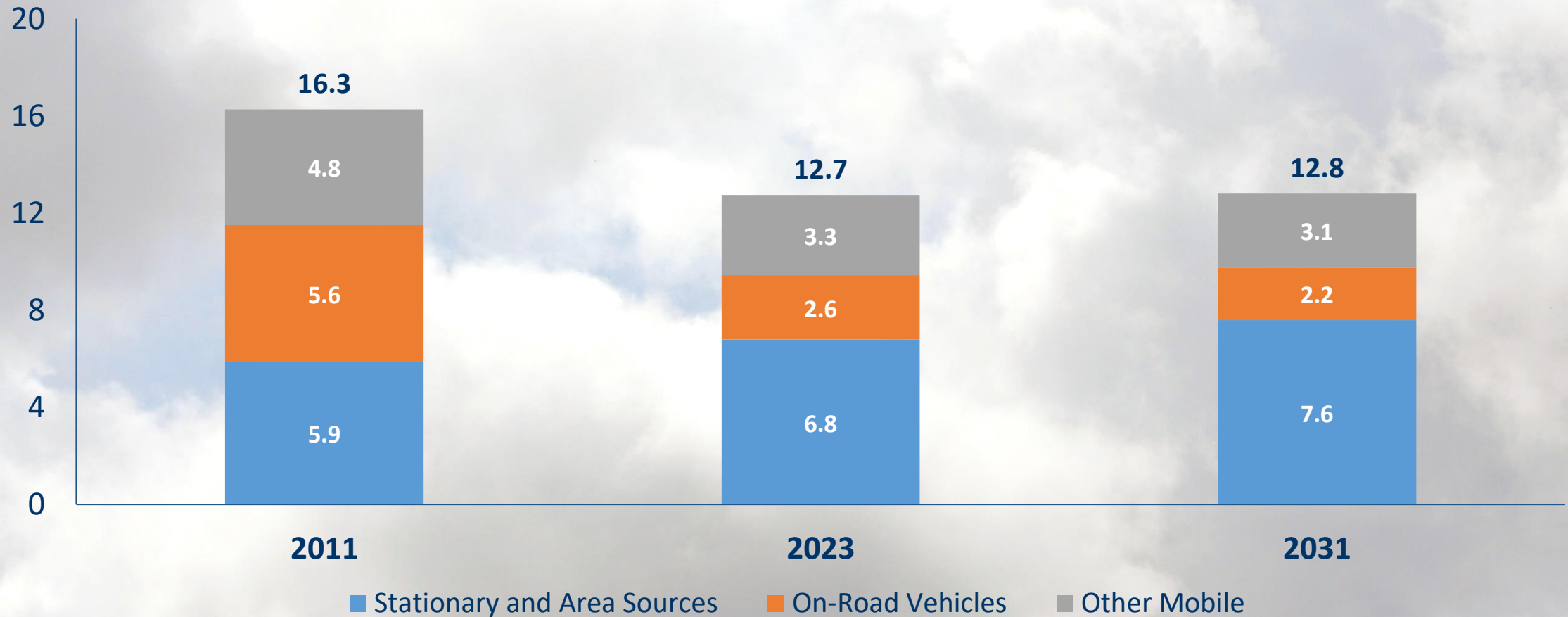
Coachella Valley NOx Emissions

NOx Summer Planning Emissions (tons per day)



Coachella Valley VOC Emissions

VOC Summer Planning Emissions (tons per day)



Reasonable Further Progress Demonstration

- RFP is intended to ensure that a region is making sufficient progress in reducing emissions needed to meet the standard
- Two separate RFP requirements for ozone nonattainment areas depending on classification:

For Moderate and Above

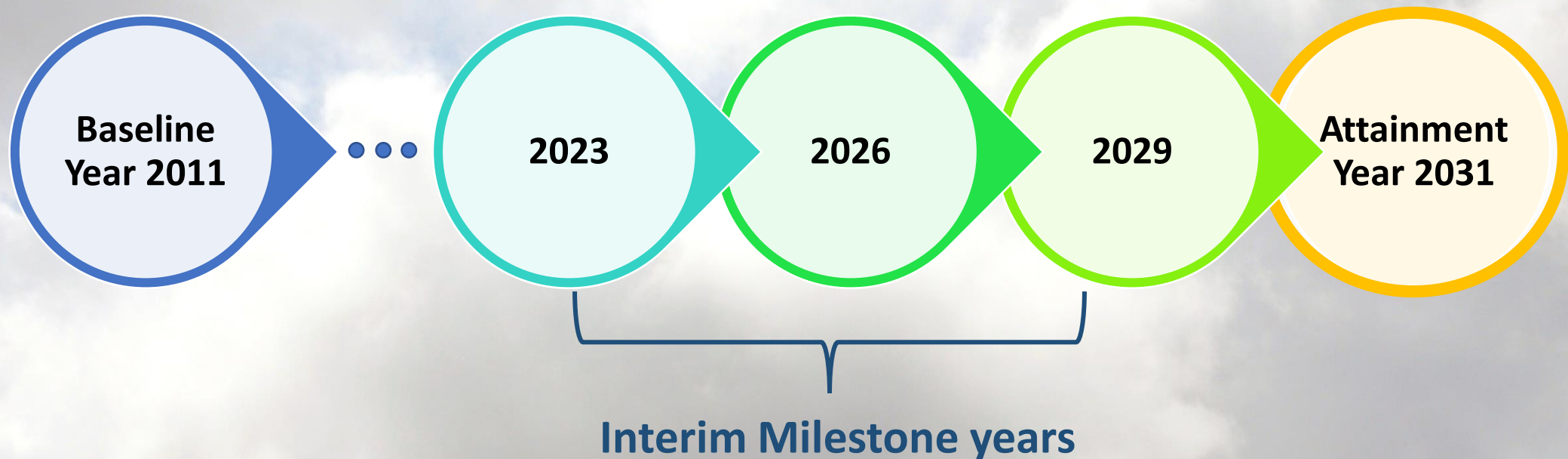
A 15% reduction in VOCs over the first 6 years of the planning period

For Serious and Above

- Moderate area requirement, and
- 3% per year cumulative reductions of VOCs and NOx averaged over each consecutive 3-year period until attainment

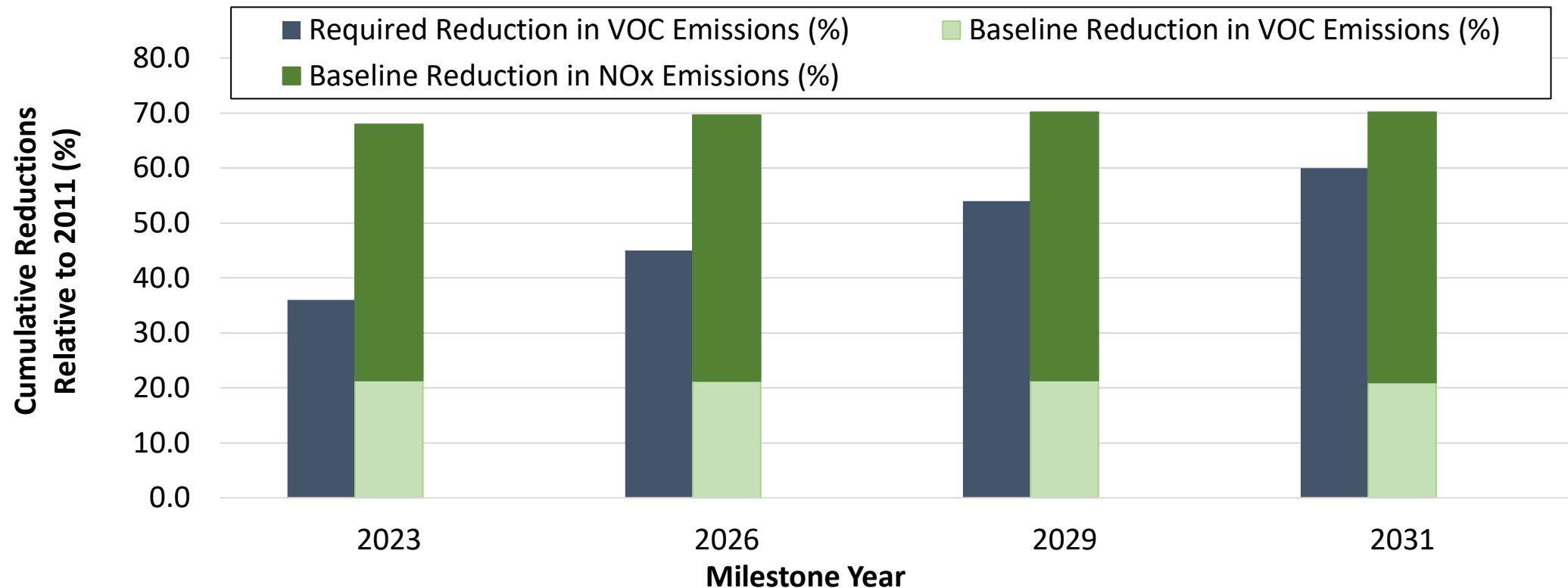
RFP Milestone Years

- Base year 2011
- Every 3 years, which are 2023, 2026 and 2029
- Attainment year 2031



Extreme Area Reasonable Further Progress Demonstration

RFP Demonstration Showing that Cumulative VOC and NOx Reductions Surpass the VOC Emission Reduction Targets



Updated Coachella Valley MVEB

Year	2023		2026		2029		2031	
Coachella Valley Pollutant (Tons/Day)	VOCs	NOx	VOCs	NOx	VOCs	NOx	VOCs	NOx
Vehicular Exhaust	2.65	5.98	2.41	5.79	2.26	5.71	2.15	5.69
Total ¹	2.65	5.98	2.41	5.79	2.26	5.71	2.15	5.69
Motor Vehicle Emissions Budget ²	2.7	6.0	2.5	5.8	2.3	5.8	2.2	5.7

1 - Values from EMFAC2017 v1.03 may not add up due to rounding

2 - MVEBs are rounded up to the nearest tenth of a tons per day

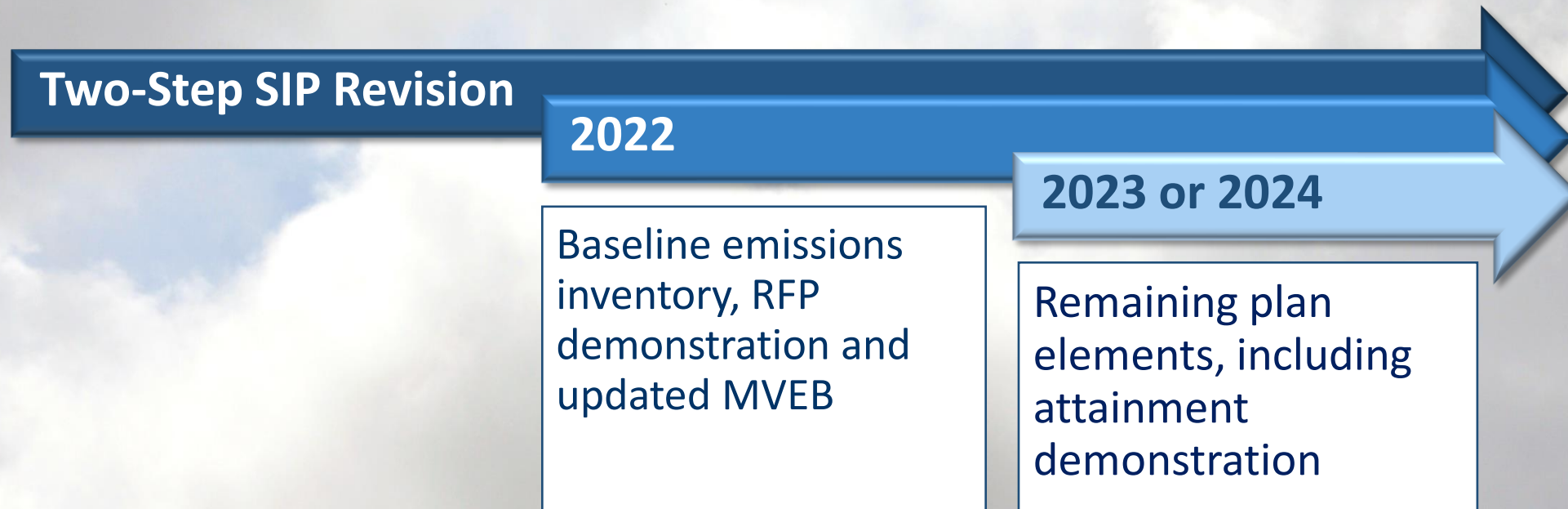
Agenda Item # 6

Staff Recommendation



Staff Recommendation

- A voluntary reclassification for the 2008 8-hour ozone standard nonattainment status from severe to extreme
- SIP Revision to update MVEB and address extreme area requirements



Public Process

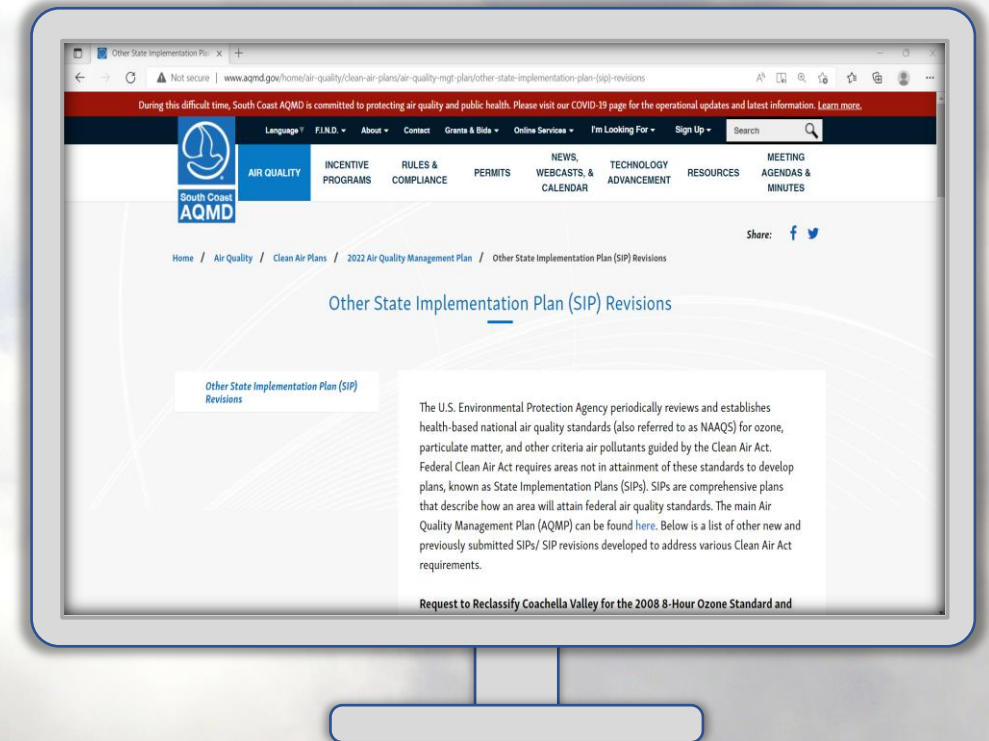


Supporting Documents

All supporting documents
are available on the
Other SIP Revisions website:

[http://www.aqmd.gov/home/
air-quality/clean-air-plans/
air-quality-mgt-plan/other-state-
implementation-plan-\(sip\)-revisions](http://www.aqmd.gov/home/air-quality/clean-air-plans/air-quality-mgt-plan/other-state-implementation-plan-(sip)-revisions)

Point your smartphone
camera here to be
directed to the website





Submission of Documents or Comments

Please address questions, comments, documents, or other relevant information to:



Email: AQMPteam@aqmd.gov



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Telephone: (909) 396-3169

Please submit all written comments no later than Tuesday, October 18, 2022



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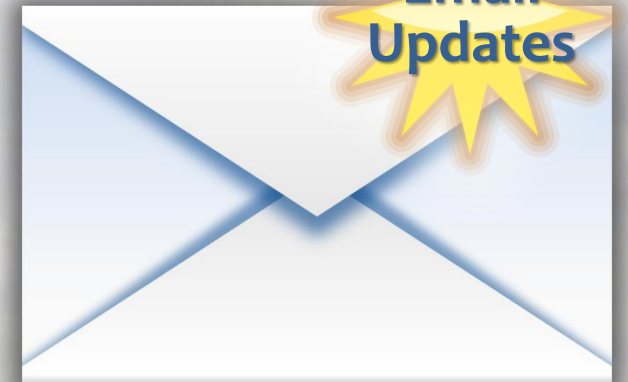
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**2022 AQMP
Interested Parties**

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South Coast AQMD Resources for Reporting Air Quality Concerns

South Coast AQMD Telephone Hotline

1-800-CUT-SMOG

(1-800-288-7664)

South Coast AQMD Website

<https://www.aqmd.gov/home/air-quality/complaints>

South Coast AQMD Smartphone Application

Available on Apple and Android app stores

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Questions and Answers