



REVISED DRAFT 2022 AIR QUALITY MANAGEMENT PLAN

Regional Public Hearings



South Coast Air Quality
Management District

Regional Public Hearings

2022 AQMP Regional Public Hearings	Date	Time	Location
Regional Public Hearing for Los Angeles County	Wednesday October 12, 2022	2:00 p.m.	https://scaqmd.zoom.us/j/97319116794 Zoom Webinar ID: 973 1911 6794 Teleconference Dial In: +1 669 900 6833
Regional Public Hearing for San Bernardino County	Wednesday October 12, 2022	6:00 p.m.	https://scaqmd.zoom.us/j/91005796281 Zoom Webinar ID: 910 0579 6281 Teleconference Dial In: +1 669 900 6833
Regional Public Hearing for Coachella Valley	Tuesday October 18, 2022	6:00 p.m.	https://scaqmd.zoom.us/j/99950751763 Zoom Webinar ID: 999 5075 1763 Teleconference Dial In: +1 669 900 6833
Regional Public Hearing for Orange County	Wednesday October 19, 2022	1:00 p.m.	https://scaqmd.zoom.us/j/97747622239 Zoom Webinar ID: 977 4762 2239 Teleconference Dial In: +1 669 900 6833
Regional Public Hearing for Riverside County	Thursday October 20, 2022	1:00 p.m.	https://scaqmd.zoom.us/j/94508364659 Zoom Webinar ID: 945 0836 4659 Teleconference Dial In: +1 669 900 6833

Outline

- 1 Background and Ozone Air Quality
- 2 Base and Future Year NO_x Emissions
- 3 South Coast AQMD Control Strategy
- 4 CARB Control Strategy
- 5 Public Process and Key Comments on Draft 2022 AQMP
- 6 Next Steps

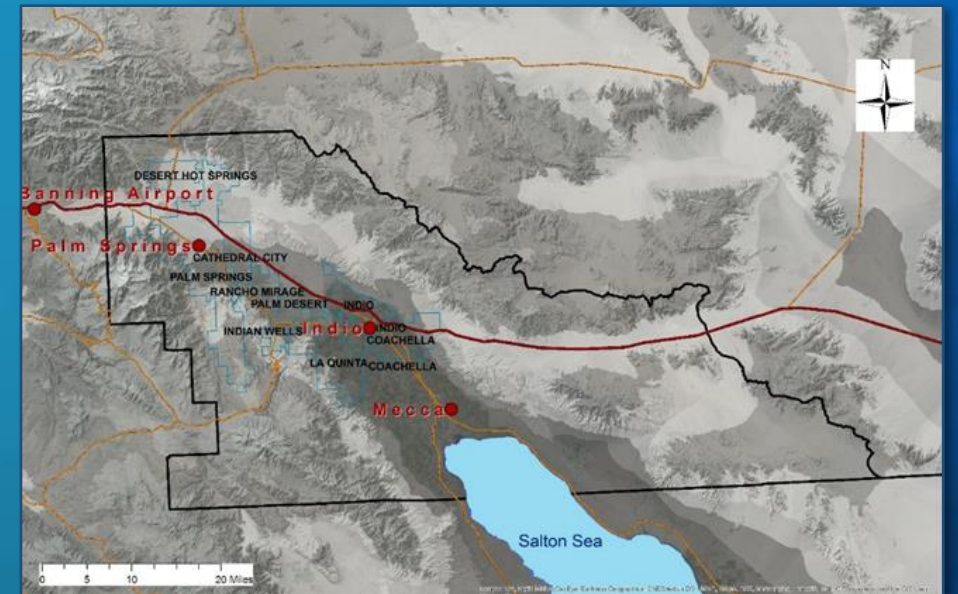
South Coast AQMD

- 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 and under the jurisdiction of South Coast AQMD
- 2018 data indicates
Population: 471,000 (SCAG's 2020 RTP)
Vehicles: 307,000 (EMFAC2017)



2022 Air Quality Management Plan (AQMP)

- AQMP is a blueprint to improve air quality and achieve federal air quality standards in the South Coast Air Basin and Coachella Valley
- In 2015, the U.S. EPA tightened the ozone air quality standard to 70 parts per billion (ppb), triggering the need to develop an AQMP
- The 2022 AQMP addresses control strategy to meet the 2015 ozone standard by 2037
- The Revised Draft 2022 AQMP and all supporting documents are available online at: <http://www.aqmd.gov/2022aqmp>



Our Challenge



Los Angeles c. 1950

Our region has historically suffered from some of the worst air quality in the United States

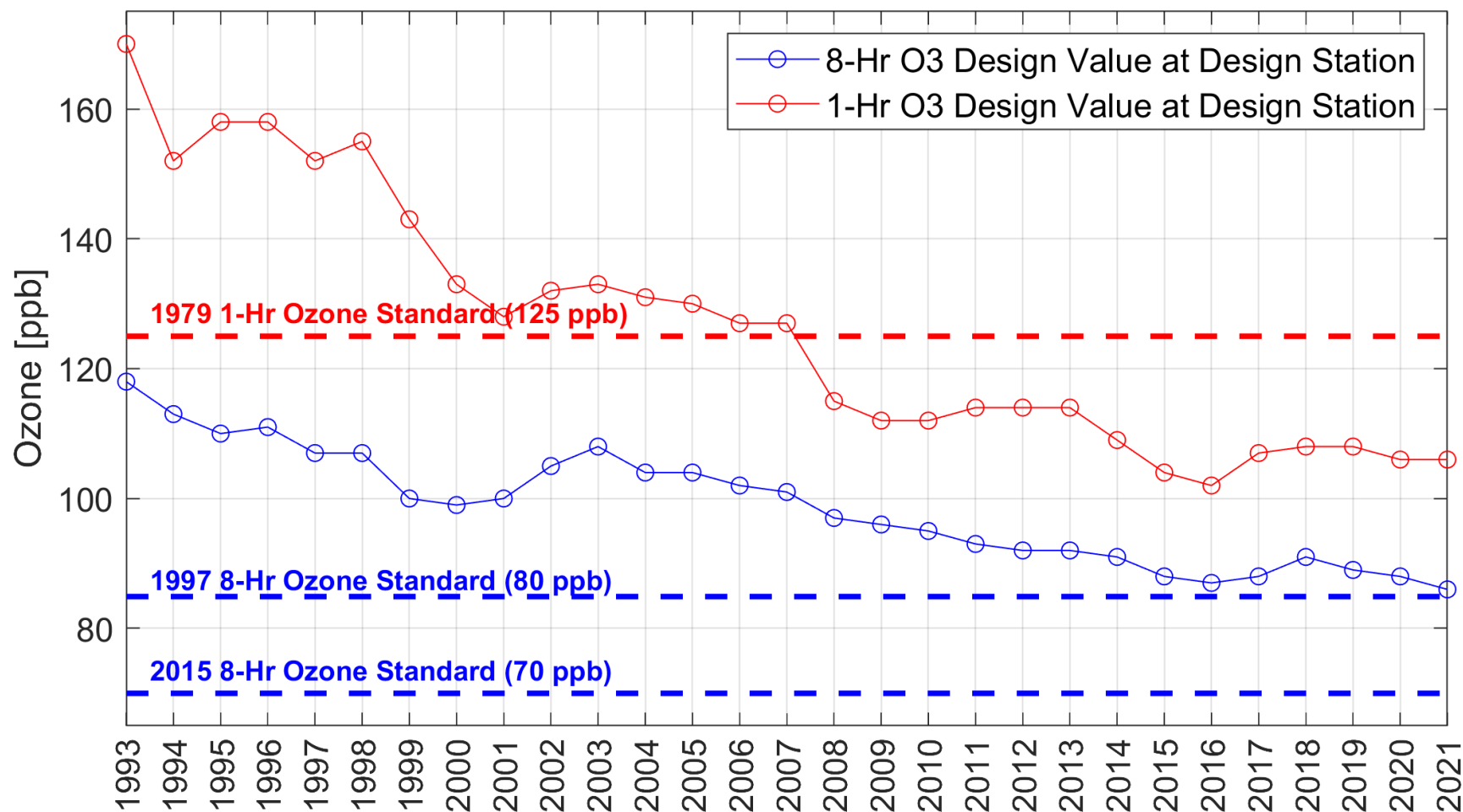


Los Angeles Recent Condition (2018)

We have made significant progress, but still suffer from poor air quality

- Worst ozone (smog) in the nation
- Among the worst fine particulate matter (PM2.5)

Ozone Trends in the Coachella Valley



- Ozone levels in the Coachella Valley are well below the 1979 1-hour standard
- Ozone levels are approaching the 1997 8-hour standard

Summary of Coachella Valley Ozone Attainment Status

Criteria Pollutant	Averaging Time	Designation	Attainment Date
Ozone (O ₃)	(1979) 1-Hour (0.12 ppm)	Attainment	11/15/2007 (attained 12/31/2013)
	(1997) 8-Hour (0.08 ppm)	“Extreme” Nonattainment	6/15/2024
	(2008) 8-Hour (0.075 ppm)	“Severe” Nonattainment Proposing to reclassify as “extreme”	7/20/2027
	(2015) 8-Hour (0.070 ppm)	“Severe” Nonattainment Proposing to reclassify as “extreme”	8/3/2033

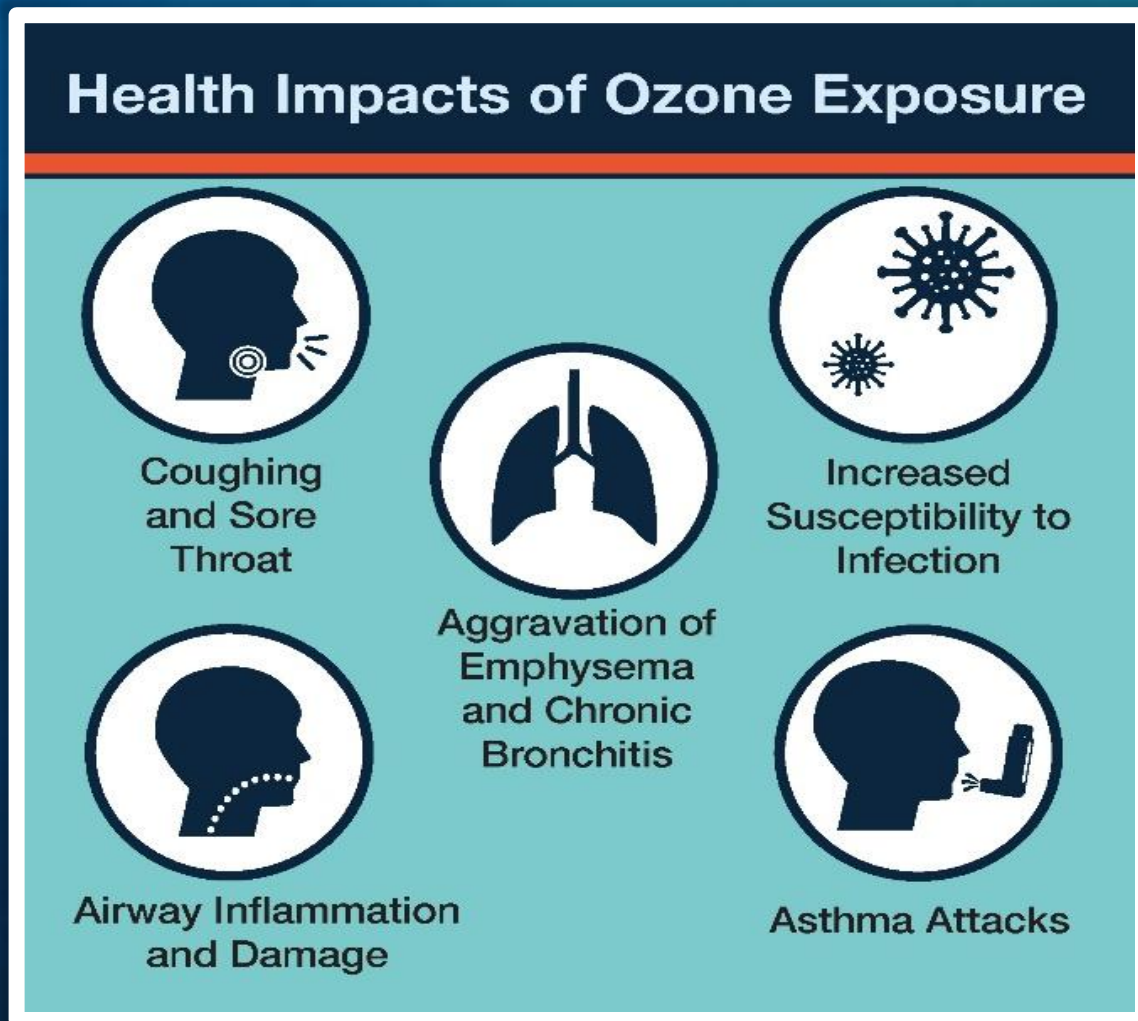
Ozone in Coachella Valley

- Coachella Valley was originally designated as “severe-15” nonattainment for the 2015 8-hour ozone standard with the deadline to meet the standard by 2032
- Our analysis shows that we will not be able to meet the standard by that time
- Coachella Valley’s ozone pollution is mostly due to pollution coming from the greater Los Angeles area

Ozone Attainment in Coachella Valley

- Coachella Valley will meet the standard in 2037 with the controls proposed in the 2022 AQMP
 - South Coast AQMD is asking that U.S. EPA "bump-up" the classification for Coachella Valley to the "extreme" level
 - This gives a new attainment year of 2037
 - Same classification as the Greater Los Angeles area (South Coast Air Basin)
 - Coachella Valley is already in "extreme" nonattainment for the 1997 8-hour ozone standard, therefore, no additional impacts are expected

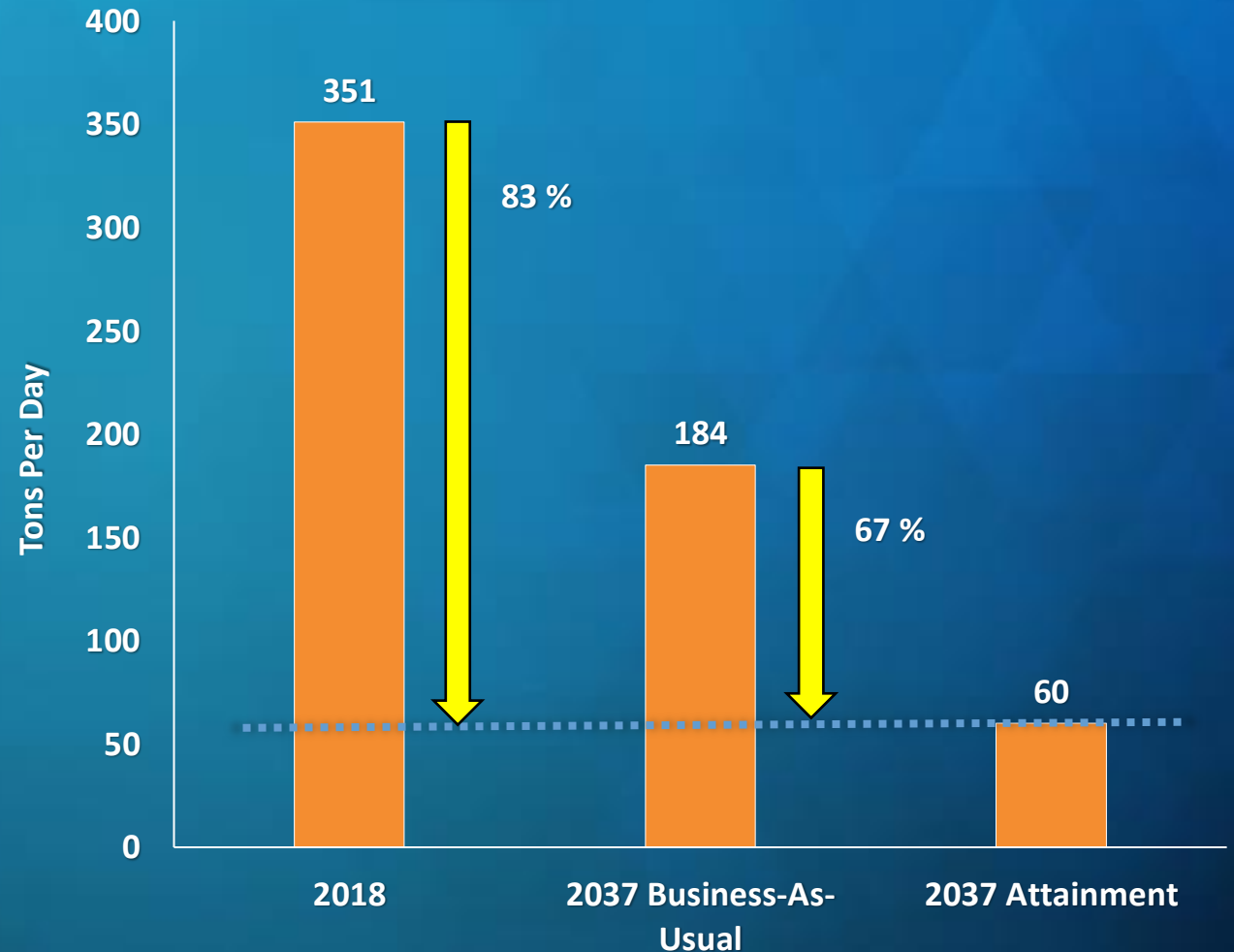
Health Impacts of Ozone



- Ozone precursor pollutants also increase fine particulate (PM2.5) pollution
- PM2.5 can cause **premature death** in addition to other serious health effects

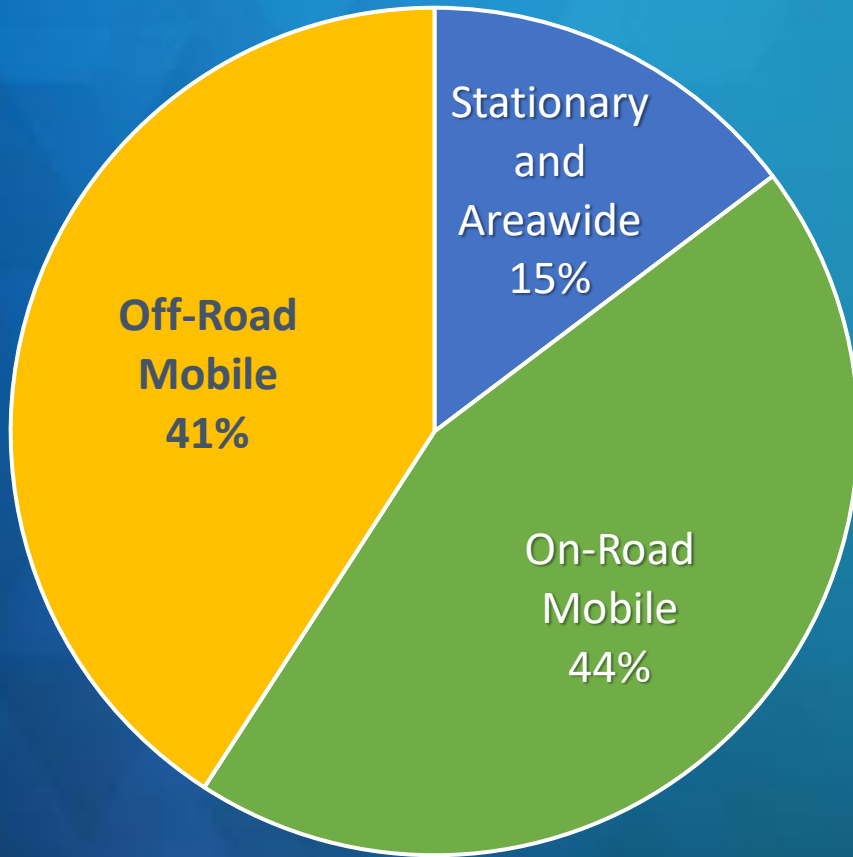
Need to Reduce NOx Emissions

- The primary pollutant that must be controlled to reduce ozone in our region is nitrogen oxides (NOx)
- NOx is formed during processes that burn fuels
- NOx must be reduced to 60 tons per day to meet the ozone standard
 - 83% below current conditions
 - 67% below baseline (Business-As-Usual) conditions in 2037

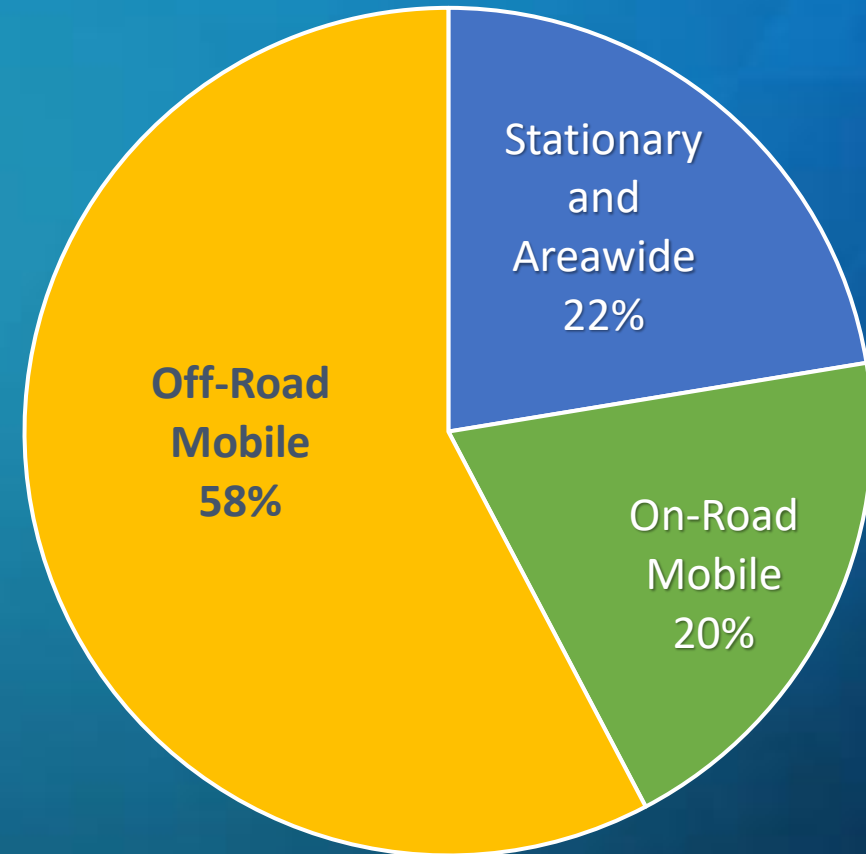


NOx Emissions by Source Category

2018 NOx Emissions
351 tons per day

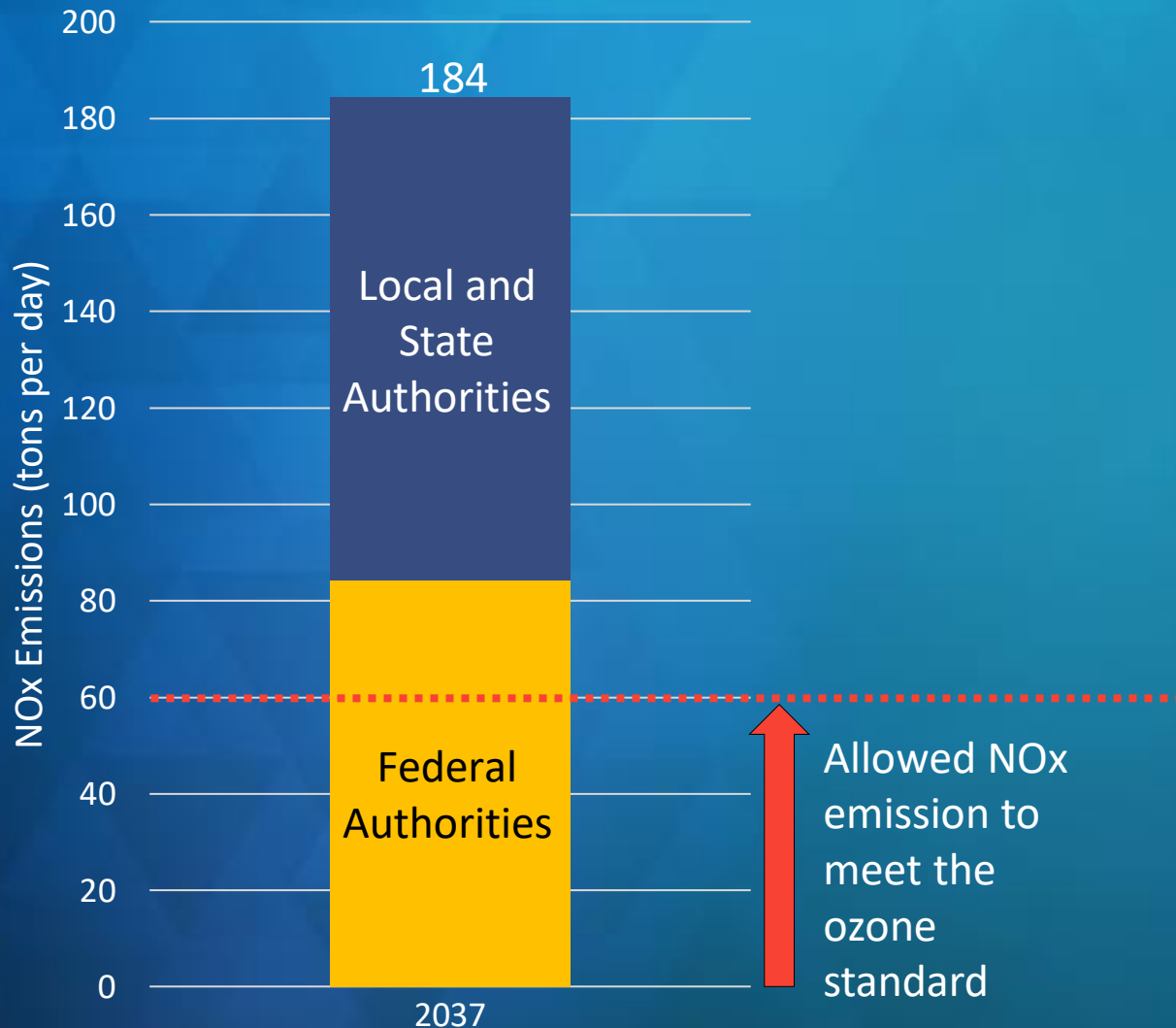


2037 NOx Emissions
184 tons per day



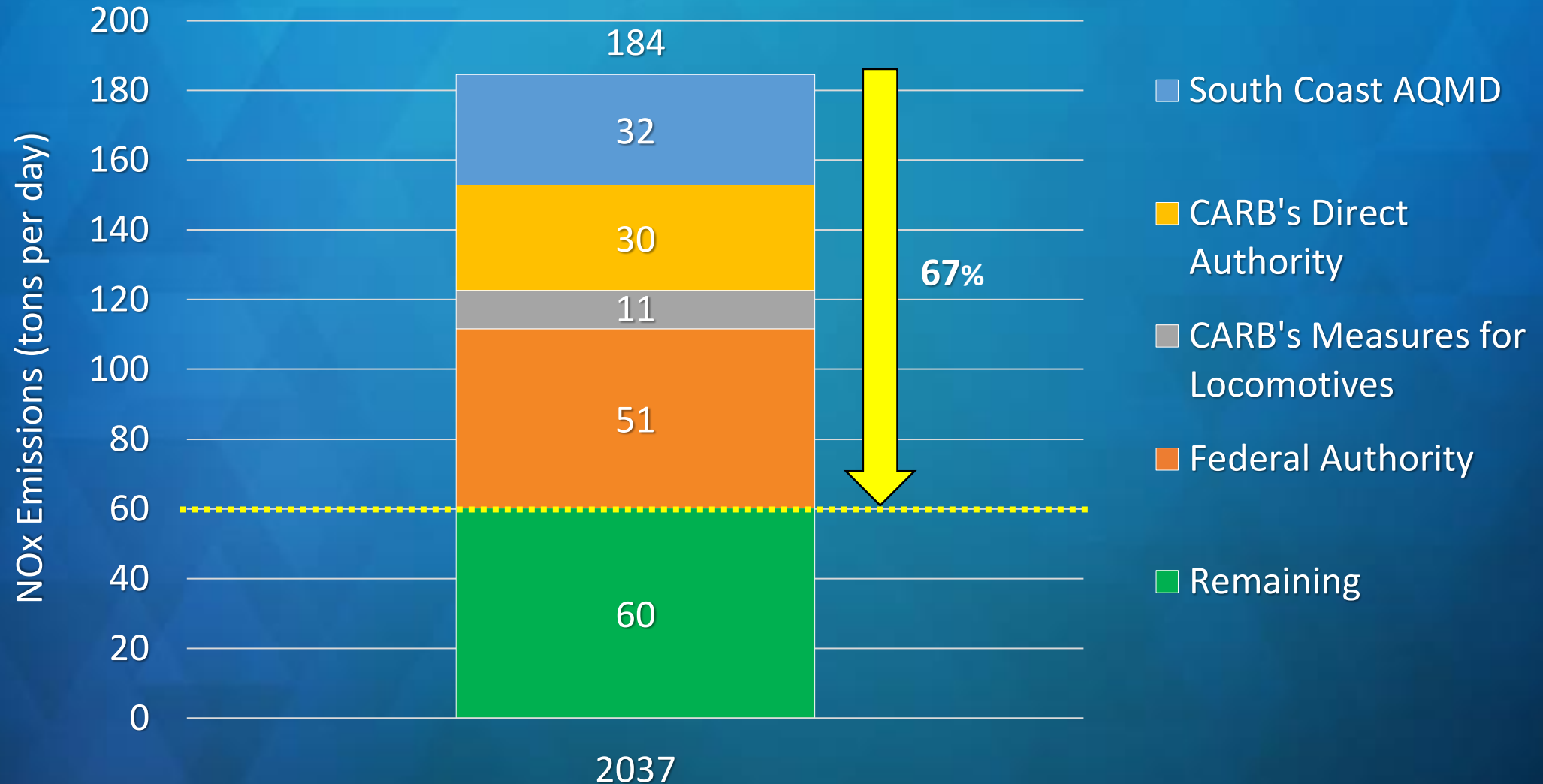
Over 80% of the NOx emissions in 2018 are from mobile sources

Shared Responsibility for Emission Reductions



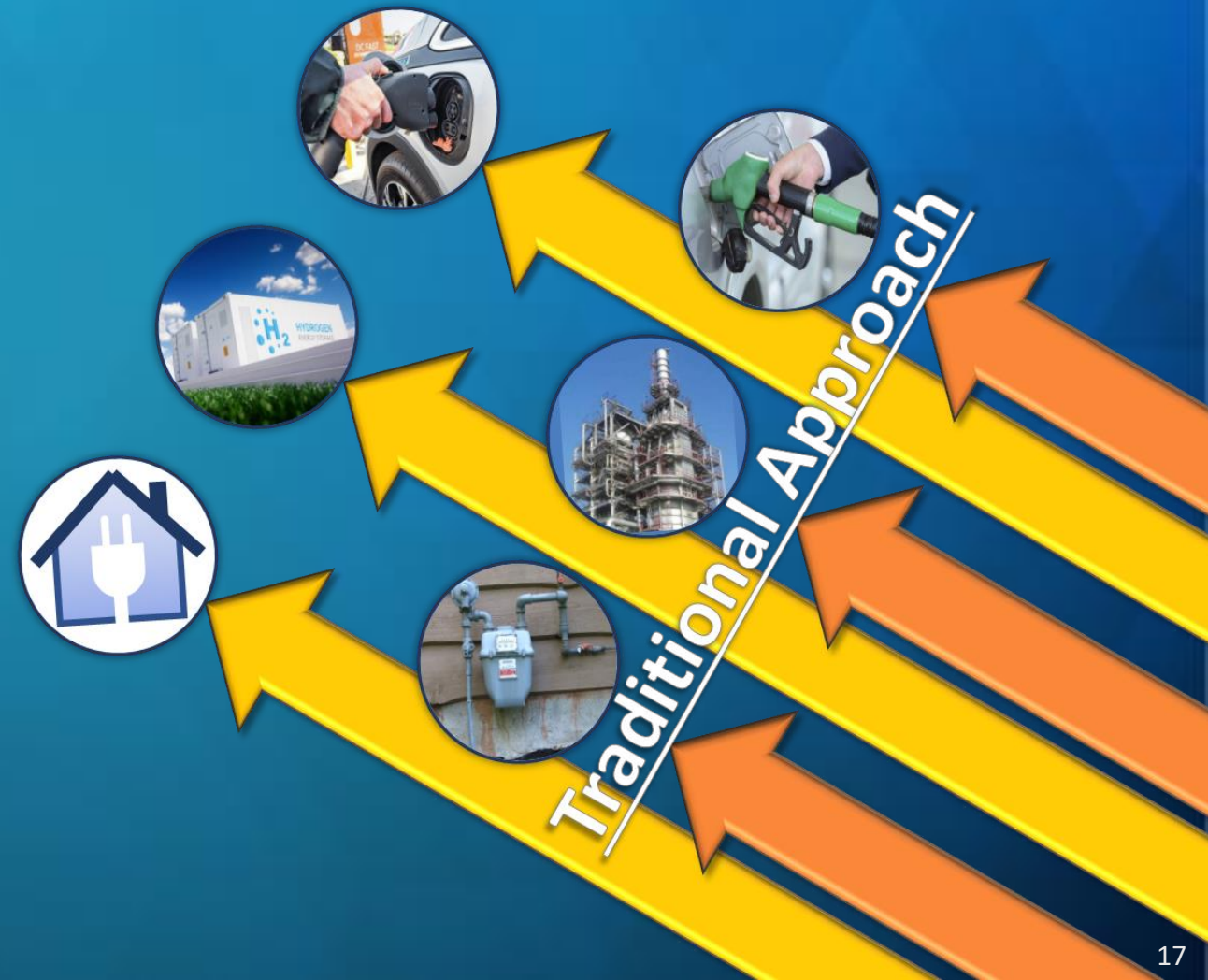
- More than 1/3 of the 2037 baseline emissions inventory is regulated primarily under federal and international jurisdiction, with limited authority for CARB/South Coast AQMD
 - Ships, aircraft, locomotives, etc.
- Cannot assign responsibility to federal government to reduce emissions, even from federal sources
- Attainment is not possible without significant reductions from these sources

NOx Reductions Needed for Attainment

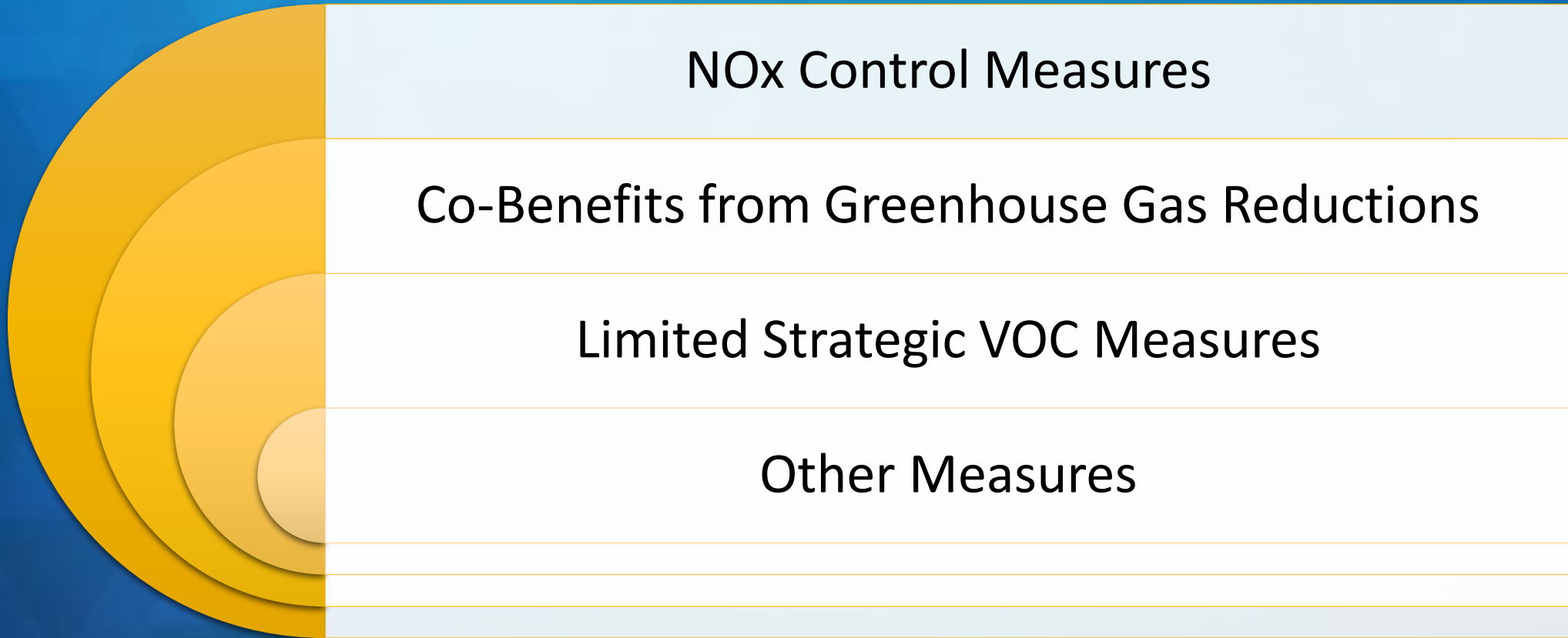


Innovative Approaches Needed

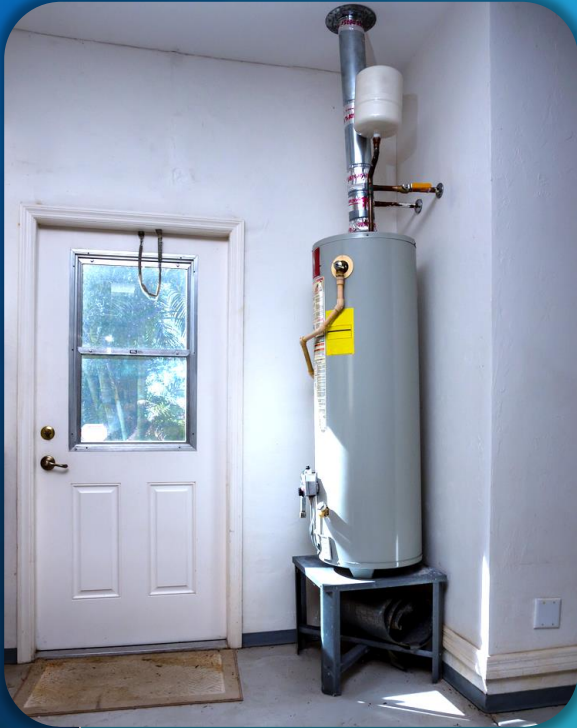
- Traditional approach relies on additional tailpipe/exhaust stack controls, new engines technology, or fuel improvements tailored to individual use cases
- These traditional approaches will not reduce emissions by the amount needed
- We must turn to zero emission and advanced technologies wherever possible



Overview of South Coast AQMD Stationary and Area Source Control Strategy



Stationary and Area Sources NOx Control Measures



Residential Combustion
Water/Space Heating/
Cooking/Others

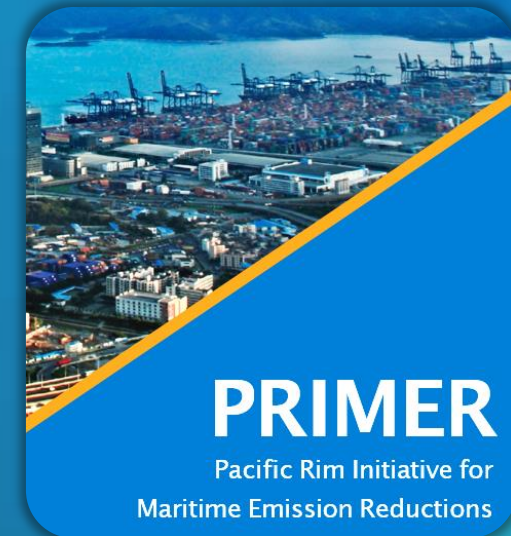


Commercial Combustion
Water/Space Heating/
Cooking/Others



Industrial Combustion
Boilers/Process Heaters/
Refineries/EGUs/Etc.

Overview of South Coast AQMD Mobile Source Control Strategy



Facility-Based

- Airports
- Marine Ports
- Railyards
- Warehouses

Emissions Growth

- Clean Construction
- New and Re-development

Incentive and Partnership

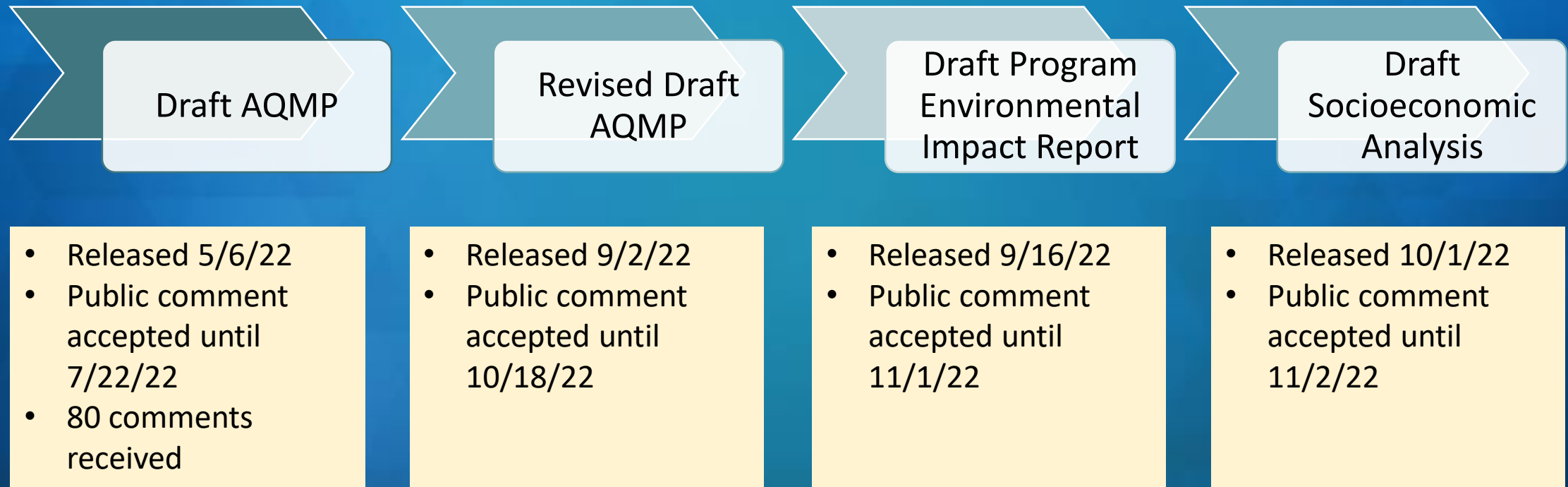
- Incentive Funding
- PRIMER

Public Input and Outreach

'Standard' Comprehensive



Public Comments and Responses



Response to Public Comments

○ General Approach for the 2022 AQMP

- Federal law requires that South Coast AQMD develop plans to attain air quality standards
- U.S. EPA is prohibited from considering costs when setting standards
 - Although 2022 AQMP will be expensive, substantial public health benefits will result

○ Need for Federal Actions

- Even if all sources subject to CARB and South Coast AQMD control were shut down, federal sources would prevent attainment
- Far more aggressive action from the federal government is needed to ultimately meet the standard

○ Black Box Measures

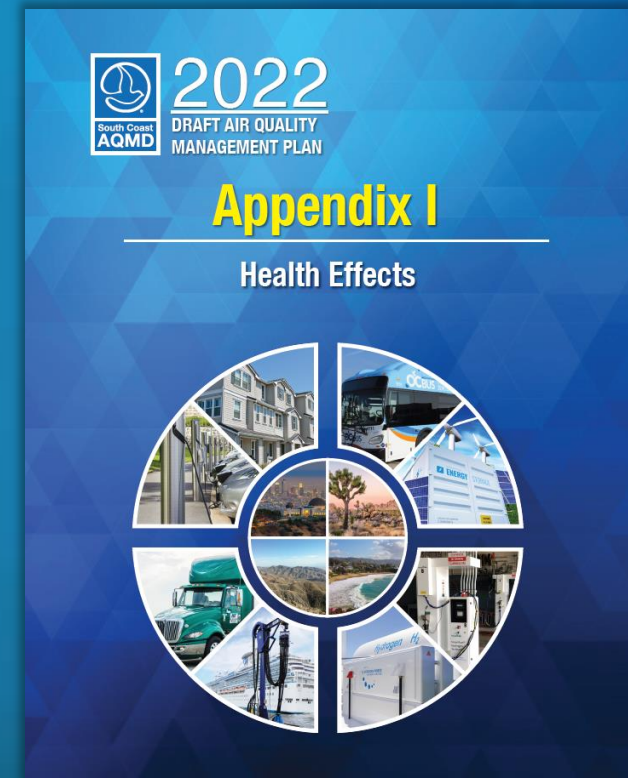
- Includes measures that rely on the deployment of developing advanced technologies, measures that seek reductions from federal sources, and incentive measures
- The 2022 AQMP without the black box would not be approvable by U.S. EPA

Response to Public Comments (cont'd)

- **Need for Zero Emission Technology in Residential and Commercial Building Appliances**
 - Residential sector alone will be second highest emitter among stationary sources in 2037
 - Cleaner technologies are available for this sector and we are required to pursue all feasible emission reductions
- **Cost of Zero Emission Technology in Residential and Commercial Building Appliances**
 - These measures will be expensive, but other policies that promote zero emission buildings will help lower costs
 - Operational cost savings due to higher efficiencies can help offset installation costs
- **Zero Emissions Infrastructure**
 - Control measure MOB-15 promotes coordination with state agencies and utilities to ensure infrastructure capacity and reliability
 - Support for inclusion of fuel cells, where feasible, to assist with infrastructure challenges
- **Impact of Zero Emission Technology on Inequity**
 - Incentive funding and programs will be evaluated during rulemaking and will be prioritized in disadvantaged communities

Health Effects Analysis

- Appendix I of Draft 2022 AQMP
- Advisory Council was formed to review health effects associated with PM and ozone
- Two Council meetings were held to discuss health effects
- The Health Effects analysis is under revision per the Council's comments



Policy Briefing Papers

- Five policy briefs summarizing key issues of the 2022 AQMP

- Residential and Commercial Building Appliances
- Climate Change and Decarbonization
- Federal Approach
- Infrastructure-Energy Outlook
- Black Box Measures



- Available online at <http://www.aqmd.gov/2022aqmp>

Supporting Documents

The 2022 AQMP and all supporting documents are available on the 2022 AQMP website:

<http://www.aqmd.gov/2022AQMP>



The screenshot displays the South Coast AQMD website. The browser address bar shows the URL www.aqmd.gov/home/air-quality/clean-air-plans/air-quality-mgt-plan. A red banner at the top contains a message about COVID-19 updates. The navigation menu includes links for Language, F.I.N.D., About, Contact, Grants & Bids, Online Services, I'm Looking For, and Sign Up. The main navigation bar features the South Coast AQMD logo and several menu items: AIR QUALITY, INCENTIVES & PROGRAMS, RULES & COMPLIANCE, PERMITS, NEWS, WEBCASTS, & CALENDAR, TECHNOLOGY ADVANCEMENT, RESOURCES, and MEETING AGENDAS & MINUTES. A breadcrumb trail at the bottom of the page reads: Home / Air Quality / Clean Air Plans / 2022 Air Quality Management Plan. The main heading is "Air Quality Management Plan (AQMP)", and the introductory text states: "The Air Quality Management Plan (AQMP or Plan) is a regional blueprint for achieving air quality standards and healthful air. The 2022 AQMP will represent a comprehensive analysis of emissions, meteorology, regional air quality modeling, regional growth projections, and the impact of existing and proposed control measures."

Submission of Documents or Comments

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



Internet Submission: <https://forms.office.com/g/VB5eMFbAHb>



Email: AQMPteam@aqmd.gov



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Comments on the Revised Draft 2022 AQMP received by **October 18, 2022**

Next Steps



Submission to U.S. EPA

Early 2023 (EPA must act within 18 months after submission)



CARB Public Hearing

Early 2023



South Coast AQMD Public Hearing

December 2, 2022



Release Draft Final AQMP

Late November 2022



Written Comment Deadline

October 18, 2022



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**2022 AQMP
Interested Parties**



For comments or questions,
please email:

AQMPteam@aqmd.gov



CARB 2022 State Strategy for the State Implementation Plan

Sylvia Vanderspek, Air Quality Planning and Science Division

70 ppb Challenge Across the State

- EPA revised the 8-hour ozone standard to 70 ppb in 2015
- 19 nonattainment areas in California
 - Attainment years 2020-2037
- 10 areas classified Moderate+ and must submit SIPs
- San Joaquin Valley and South Coast most challenging
- 7 areas need new emission reduction commitments



2022 State SIP Strategy

- CARB approved on September 22, 2022
- Includes unprecedented variety of 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
- Identifies federal actions needed in the South Coast

Proposed
2022 State Strategy for the State Implementation
Plan

August 12, 2022



2022 State SIP Strategy Measures

On-Road

- Advanced Clean Fleets Regulation
- Zero-Emission Trucks
- On-Road Motorcycle New Emissions Standards
- Clean Miles Standard*
- Enhanced Regional Emission Analysis in State Implementation Plans

Off-Road

- Tier 5 Off-Road Engine Standard
- Amendments to In-Use Diesel-Fueled Fleets Regulation
- Zero-Emission TRU Part II
- Commercial Harbor Craft*
- Cargo Handling Equipment
- Off-Road Zero-Emission Targeted Manufacturer Rule
- Clean Off-Road Fleet Recognition Program
- Spark-Ignition Marine Engine Standards

Primarily Federally-Regulated

- In-Use Loco Regulation
- Future Measures for Aviation Emissions Reductions
- Future Measures for OGV Emissions Reductions

Other

- Consumer Products Regulation Amendments
- Zero-Emission Standard for Space and Water Heaters
- Pesticides: 1,3-D



Approved Measure Schedule

Measures	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037
Enhanced Regional Emission Analysis in SIPs																	
Clean Miles Standard	★																
Commercial Harbor Craft Amendments		★															
Amendments to the In-Use Off-Road Diesel Fueled Fleets		★															
Pesticides: 1,3-Dichloropropene Health Risk Mitigation		★															
On-Road Motorcycle New Emissions Standards		★															
Advanced Clean Fleets			★														
In-Use Locomotive Regulation			★														
Cargo Handling Equipment Amendments					★												
Clean Off-Road Fleet Recognition Program					★												
Tier 5 Off-Road Vehicles and Equipment					★												
Zero-Emission Standard for Space and Water Heaters					★												
Transport Refrigeration Unit Regulation Part 2						★											
Consumer Products Standards							★										
Future Measures for Aviation Emission Reductions							★										
Off-Road Zero-Emission Targeted Manufacturer Rule							★										
Future Measures for OGV Emission Reductions							★										
Zero-Emissions Trucks Measure								★									
Spark-Ignition Marine Engine Standards									★								



Federal Actions Needed



On-Road Heavy-Duty Vehicles

- Low-NOx Engine Standards
- Zero-Emission Engine Standards



Off-Road Equipment

- Tier V Standards
- Zero-Emission Standards Where Feasible



Locomotives

- More Stringent National Emission Standards
- Zero-Emissions Standards for Locomotives
- Address Unlimited Locomotive Remanufacturing



Ocean-Going Vessels

- More Stringent NOx and PM Standards
- Cleaner Fuel and Visit Requirements



Aviation

- More Stringent Engine Standards
- Cleaner Fuel and Visit Requirements
- Zero-Emission Airport On Ground Support Requirements
- Airport Aviation Emissions Cap

State SIP Strategy Supporting South Coast Attainment

Proposed Measure	2037 NOx (tpd)	2037 ROG (tpd)
On-Road Heavy-Duty		
Advanced Clean Fleets Regulation	6.6	0.5
Zero-Emissions Trucks Measure	4.1	0.4
Total On-Road Heavy-Duty Reductions	10.7	0.9
On-Road Light-Duty		
On-Road Motorcycle New Emissions Standards	0.8	2.1
Clean Miles Standard	<0.1	<0.1
Total On-Road Light-Duty Reductions	0.8	2.1
Off-Road Equipment		
Tier 5 Off-Road Vehicles and Equipment	2.7	NYQ
Amendments to the In-Use Off-Road Diesel-Fueled Fleets Regulation	1.0	0.1
Transport Refrigeration Unit Regulation Part 2	5.0	0.7
Commercial Harbor Craft Amendments	2.6	0.2
Cargo Handling Equipment Amendments	0.6	0.4
Off-Road Zero-Emission Targeted Manufacturer Rule	NYQ	NYQ
Clean Off-Road Fleet Recognition Program	NYQ	NYQ
Spark-Ignition Marine Engine Standards	0.3	0.7
Total Off-Road Equipment Reductions	12.2	2.0
Other		
Consumer Products Standards	-	8
Zero-Emission Standard for Space and Water Heaters ⁵¹	3.2	0.5
Enhanced Regional Emission Analysis in State Implementation Plans	NYQ	NYQ
Pesticides: 1,3-Dichloropropane Health Risk Mitigation	-	NYQ
Total Other Reductions	3.2	8.5
Primarily-Federally and Internationally Regulated Sources – CARB Measures		
In-Use Locomotive Regulation	10.9	0.4
Future Measures for Aviation Emission Reductions	NYQ	NYQ
Future Measures for Ocean-Going Vessel Emissions Reductions	NYQ	NYQ
Total Primarily-Federally and Internationally Regulated Sources – CARB Measures Reductions	10.9	0.4
Primarily-Federally and Internationally Regulated Sources – Federal Action Needed⁵²		
On-Road Heavy-Duty Vehicle Low-NOx Engine Standards	3.8	<0.1
On-Road Heavy-Duty Vehicle Zero-Emission Requirements	NYQ	NYQ
Off-Road Equipment Tier 5 Standard for Preempted Engines	1.6	NYQ
Off-Road Equipment Zero-Emission Standards Where Feasible	2.2	NYQ
More Stringent Aviation Engine Standards	NYQ	NYQ
Cleaner Fuel and Visit Requirements for Aviation	10.2	NYQ
Zero-Emission On-Ground Operation Requirements at Airports	NYQ	NYQ
Airport Aviation Emissions Cap	9.2	NYQ
More Stringent National Locomotive Emission Standards	NYQ	NYQ
Zero-Emission Standards for Locomotives	NYQ	NYQ
Address Unlimited Locomotives Remanufacturing	NYQ	NYQ
More Stringent NOx and PM Standards for Ocean-Going Vessels	0.8	NYQ
Cleaner Fuel and Vessel Requirements for Ocean-Going Vessels	23.7	NYQ
Total Primarily-Federally and Internationally Regulated Federal Action Needed Reductions	51.5	<0.1
Aggregate Emissions Reductions	89.3	13.9

2022 State SIP Strategy

CARB Next Steps



September 22, 2022:
CARB Board Approval of Proposed 2022 State SIP Strategy

January 2023:
CARB Board Consideration of 2022 AQMP and State Emission Reduction Commitment

Early 2023:
Submit 2022 State SIP Strategy and 2022 AQMP to U.S. EPA

2022 - 2037:
2022 State SIP Strategy Ongoing Regulatory Development and Implementation

Program Environmental Impact Report for the 2022 AQMP

Regional Public Hearings



South Coast
AQMD



California Environmental Quality Act (CEQA)

- California State Law adopted 1970
- Purpose
 - Inform governmental decision-makers and public about potential significant environmental effects of projects
 - Identify ways to avoid or reduce adverse impacts
 - Require feasible alternatives and mitigation measures to prevent significant environmental damage
 - Disclose to the public why a project was approved, even if significant impacts cannot be fully mitigated
- CEQA applies to:
 - Projects undertaken by a Public Agency
 - Funded by a Public Agency
 - Issuance of a permit by a Public Agency

CEQA and the 2022 AQMP

- 2022 AQMP is a project subject to CEQA, which requires an evaluation of the potential environmental impacts
- Decision to prepare a Program Environmental Impact Report (Program EIR) because 2022 AQMP contains a series of actions that can be characterized as one large project in connection with the issuance of rules, regulations, plans, or other general criteria required to govern the conduct of a continuing program

Overview of CEQA Process

NOP/IS

- Notifies the public that a Draft Program EIR is being prepared which evaluates 18 environmental topic areas and identifies potentially significant environmental topics to be further evaluated
- Released for 32-day comment period from May 13, 2022 to June 14, 2022
- CEQA Scoping Meetings held during Regional Public Workshops on May 25-26, 2022
- Provided 1st opportunity to submit comments
- 6 comment letters received

Draft Program EIR

- Responds to comments on NOP/IS
- Analyzes potentially significant environmental topic areas
- Recaps conclusion of environmental topic areas with no impact or less than significant impacts
- Identifies mitigation measures for significant impacts
- Analyzes project alternatives
- Released for 46-day comment period from September 16, 2022 to November 1, 2022
- Provides 2nd opportunity to submit comments

Final Program EIR

- Includes updates to proposed project, as applicable
- Includes all comments received on Draft Program EIR and NOP/IS and provides responses to those comments

Final Program EIR Certification

- **Governing Board considers the Final Program EIR for certification**
- Adopt Mitigation Monitoring and Reporting Plan
- Adopt Findings and Statement of Overriding Considerations for significant impacts
- File and post Notice of Determination

Draft Program EIR Structure

- Chapter 1 – Executive Summary
- Chapter 2 – Project Description
- Chapter 3 – Existing Setting
- Chapter 4 – Environmental Impacts and Mitigation Measures
- Chapter 5 – Alternatives
- Chapter 6 – References
- Chapter 7 – Acronyms
- Appendix A – NOP/IS
- Appendix B – Responses to Comments Received on the NOP/IS

Draft Program EIR Analysis

- Updates evaluation of all control measures and incentive programs identified in the 2022 AQMP for potential environmental impacts
- All 18 environmental topic areas previously evaluated in the NOP/IS:
 - Recaps conclusion of topic areas with no impact or less than significant impacts
 - Potentially significant topic areas were further analyzed in Draft Program EIR
- Four Alternatives analyzed, including No Project Alternative

Topic Areas with Potentially Significant Impacts	Topic Areas with No Impacts or Less than Significant Impacts	
<ul style="list-style-type: none"> • Air Quality and Greenhouse Gases • Energy • Hazards and Hazardous Materials • Hydrology and Water Quality • Noise • Solid and Hazardous Waste 	<ul style="list-style-type: none"> • Aesthetics • Agriculture and Forestry Resources • Biological Resources • Cultural and Tribal Cultural Resources • Geology and Soils 	<ul style="list-style-type: none"> • Land Use and Planning • Mineral Resources • Population and Housing • Public Services • Recreation • Transportation • Wildfire

Draft Program EIR Conclusions

- Overall long-term Air Quality and Greenhouse Gas (GHG) benefit from NO_x and GHG emission reductions
- Potential significant and unavoidable impact areas from implementing proposed control measures for the following environmental topic areas:
 - Air Quality Impacts during construction and short-term GHGs;
 - Energy Impacts due to electricity, natural gas, and hydrogen demand;
 - Hazards and Hazardous Materials Impacts from ammonia use and fire hazards;
 - Hydrology Impacts relating to water demand and supply;
 - Water Quality Impacts relating to wastewater discharge;
 - Noise Impacts from construction noise and vibration; and
 - Solid and Hazardous Waste Impacts relating to Landfill Capacity
- Mitigation Measures identified, but significant impacts remain

Availability of Draft Program EIR

- Draft Program EIR was released for a 46-day public review and comment period on September 16, 2022
- **Comment period closes at 5:00 p.m. on November 1, 2022**
- Draft Program EIR is available online at:
<http://www.aqmd.gov/docs/default-source/ceqa/documents/aqmd-projects/2022/noc-and-draft-peir-for-2022-aqmp.pdf>
- Hardcopies are available at South Coast AQMD Headquarters, or by calling (909) 396-2039

Opportunity to Comment on Draft Program EIR

Please direct questions and comments on the CEQA analysis in the Draft Program EIR to:

Kevin Ni

Planning, Rule Development, and Implementation / CEQA Section



Email: kni@aqmd.gov



Fax: (909) 396-3982



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Comments received relative to the CEQA analysis in the Draft Program EIR and their responses will be included in the Final Program EIR.

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Draft Socioeconomic Report for the Revised Draft 2022 AQMP

Regional Public Hearings

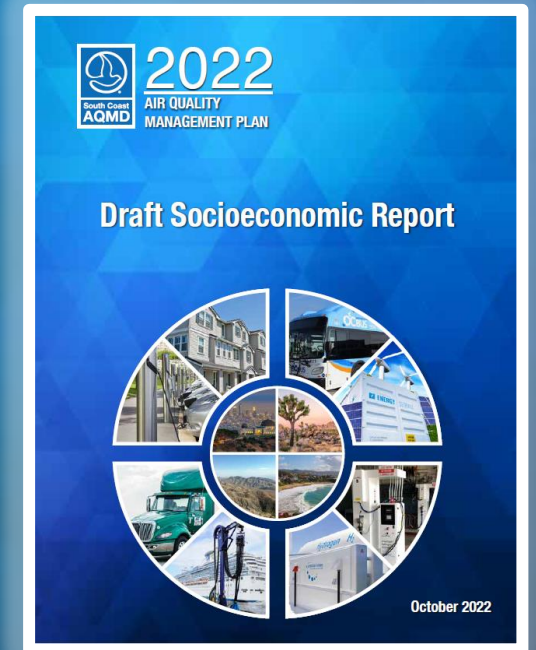


South Coast
AQMD



Background and Report Outline

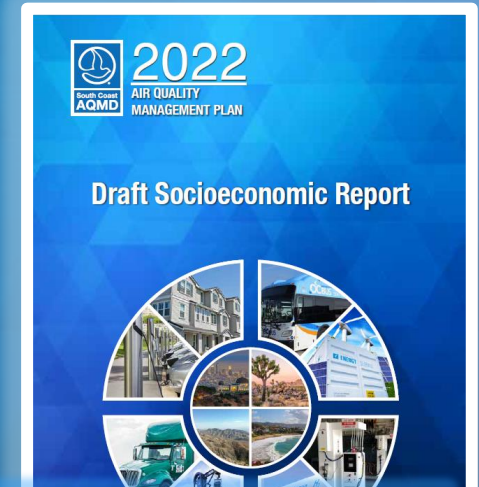
- Socioeconomic impact assessment for AQMP conducted since 1991
 - To better inform the public and policymakers
 - Not legally required (unlike for rules)
- Draft Socioeconomic Report:
 - Executive summary
 - Introduction
 - Costs of control measures
 - Clean air benefits
 - Job impacts
 - Sub-county distribution of costs, benefits, and job impacts
 - Environmental justice (EJ) analysis
 - Technical appendices



Current Status

Draft Socioeconomic Report released October 1

- Analyzes benefits, costs, economic, and environmental justice impacts of the Revised Draft 2022 AQMP
- Public comment period through November 2
- Available at: <http://www.aqmd.gov/home/air-quality/clean-air-plans/air-quality-mgt-plan/socioeconomic-analysis>



On October 1, 2022, South Coast AQMD staff released the Draft Socioeconomic Report for the Revised Draft 2022 AQMP.

- Draft Socioeconomic Report for the Revised Draft 2022 AQMP - October 1, 2022 (PDF, 6.2Mb) **NEW**
- Draft Socioeconomic Report Appendices - October 1, 2022 (PDF, 4.6Mb) **NEW**

Public comments on the Draft Socioeconomic Report should be submitted by Wednesday, November 2, 2022, through the Draft Socioeconomic Comment Submission Form or via an email to SocioEcon@aqmd.gov.

Public Process

Continuous stakeholder involvement via public process:

- Scientific, Technical & Modeling Peer Review (STMPR) Advisory Group
 - 4 meetings covered socioeconomic topics between November 2021 and October 2022
- Regional public workshops
 - 3 scoping sessions in May
- Regional public hearings
 - 5 meetings in October
- Presentation to the South Coast AQMD Governing Board
 - October 7

Summary of Draft Incremental Costs*

Measures	Annual Amortized Average 2023-2037** (Billions of 2021 dollars)					Percent of Total Annualized Cost
	Remaining Incremental Cost		Incentives		Total Incremental Cost	
Stationary and Area Sources	\$1.12	+	\$0.12	=	\$1.24	43.5%
Mobile Sources	\$1.44	+	\$0.17	=	\$1.61	56.5%
All Sources	\$2.56	+	\$0.29	=	\$2.85	100%

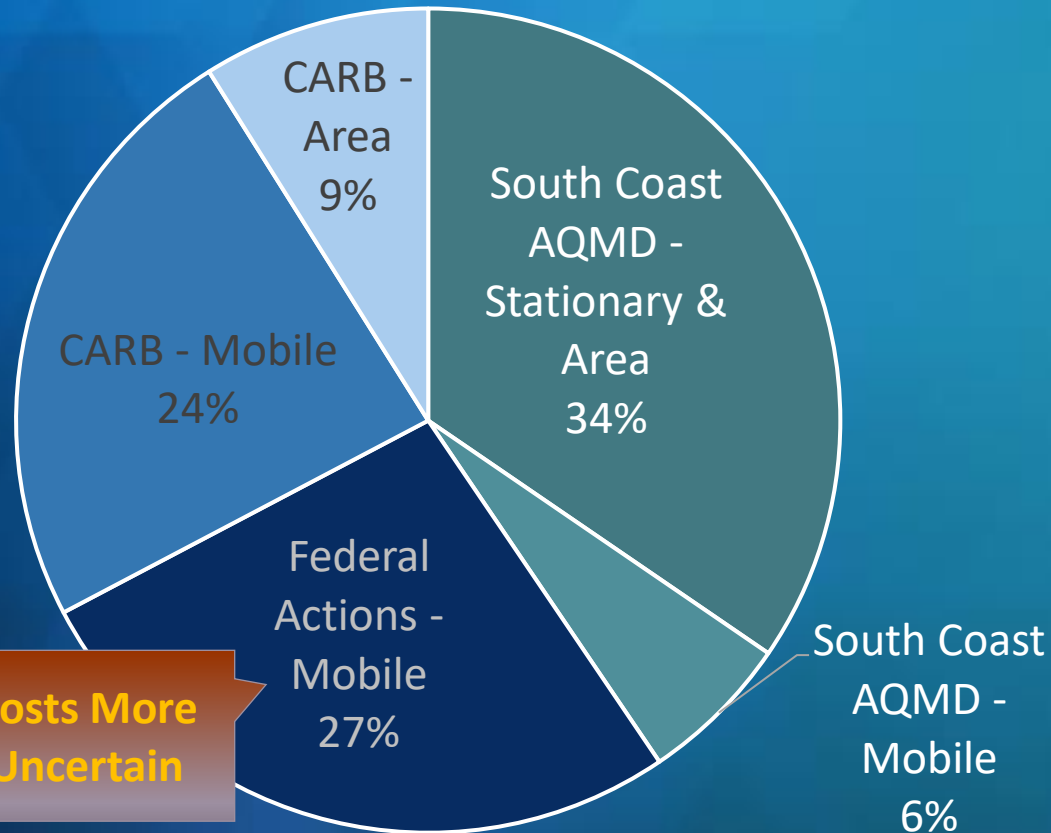
* Costs are incremental to the business-as-usual scenario without the Revised Draft 2022 AQMP. Incremental costs were quantified for control measures with quantified emission reductions only.

** Costs associated with deployed controls may continue to be incurred beyond 2037.

Costs and NOx Reductions Breakdown

\$2.85 B in Annual Costs

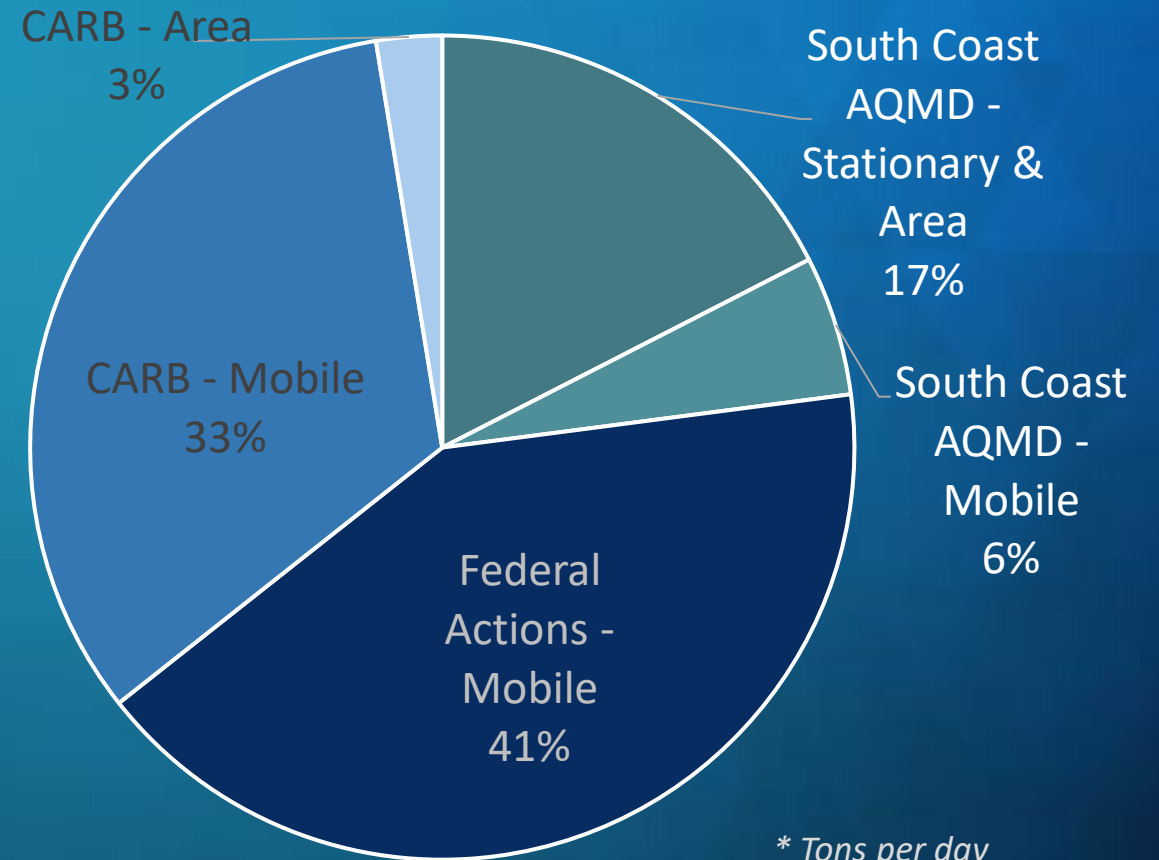
(annual amortized average 2023-37)



Costs More Uncertain

124 TPD* of NOx Reductions

(2037)



* Tons per day

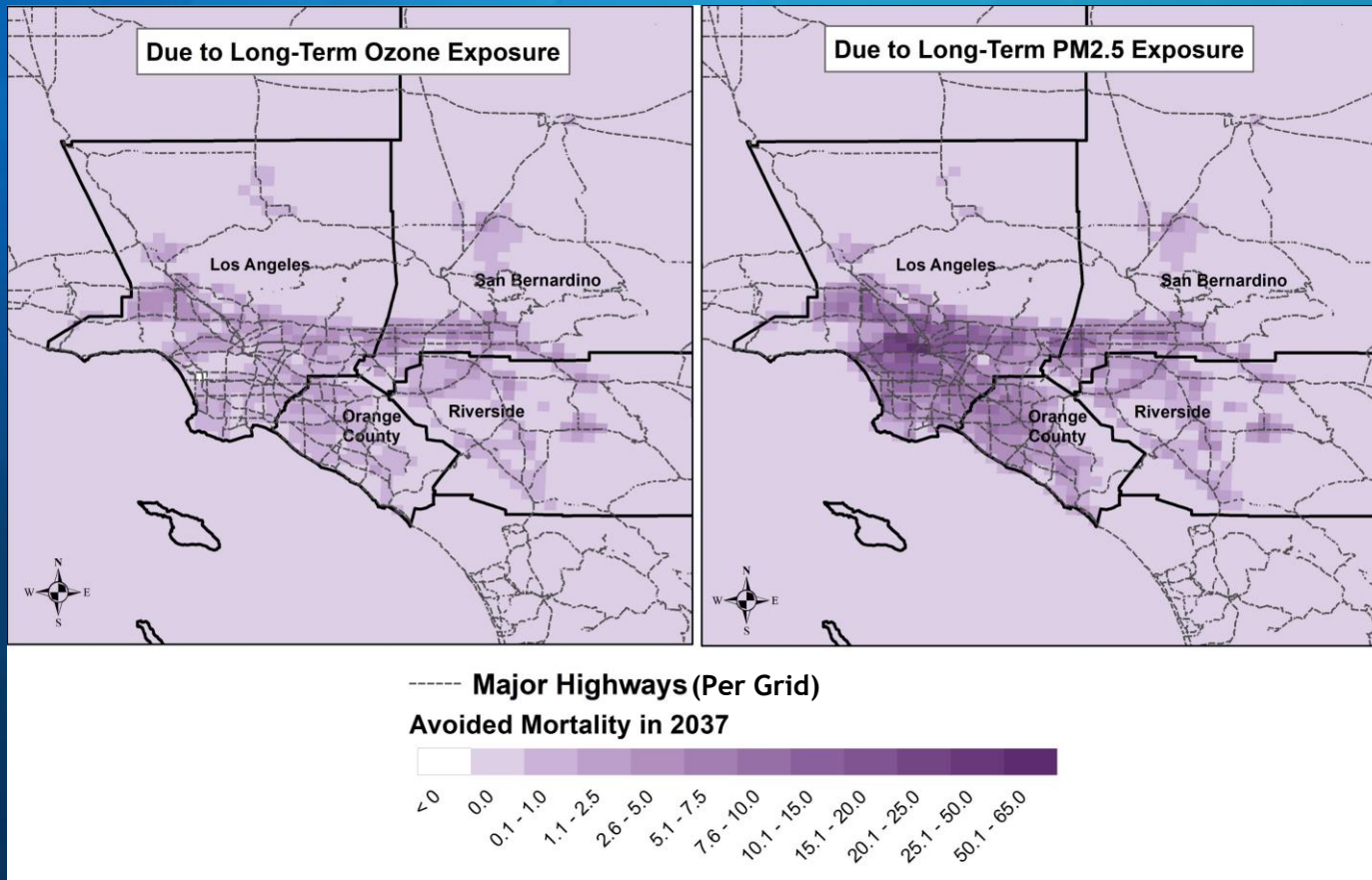
Summary of Draft Health Benefits

	Monetized Public Health Benefits (Billions of \$2021)			
	2032	2037	Annual Average (2025-2037)*	Present Value (2025-2037)**
Mortality-related benefits	\$19.3	\$39.1	\$18.7	\$129.6
Long-Term Ozone Exposure	\$4.0	\$9.6	\$4.2	\$29.4
Long-Term PM2.5 Exposure	\$15.3	\$29.5	\$14.4	\$100.2
Morbidity-related benefits	\$0.7	\$1.4	\$0.7	\$4.7
Grand Total	\$20.0	\$40.5	\$19.4	\$134.3

* Several proposed clean air strategies in the Revised Draft 2022 AQMP will be implemented beginning in 2023. However, to be conservative and in consideration of the transition from VOC-limited to NOx-limited ozone formation regime for several areas in the South Coast Air Basin, it is assumed that there would be minimum clean air benefits during the first two years of 2022 AQMP implementation, and health benefits of implementing the Revised Draft 2022 AQMP would begin accruing only in 2025

** Discounted to year 2022 using a 4% discount rate.

Avoided Premature Deaths



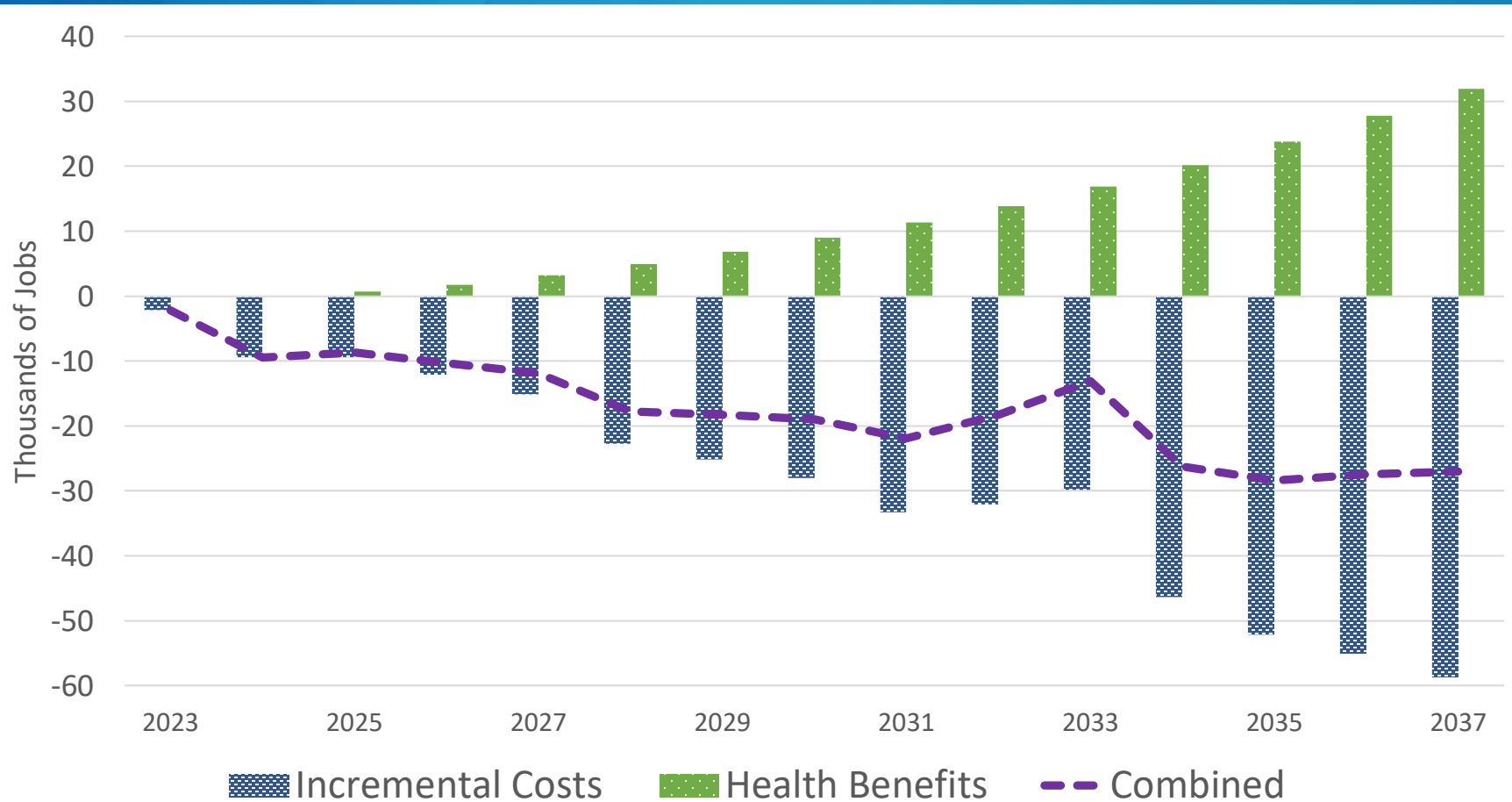
Avoided Premature Deaths		
	2032	2037
Mortality, Respiratory / Mortality, All Cause	1,619	3,031
Ozone	339	744
Los Angeles	124	309
Orange	48	85
Riverside	84	164
San Bernardino	83	186
PM	1,280	2,287
Los Angeles	821	1,471
Orange	184	300
Riverside	128	236
San Bernardino	146	279

Avoided Premature Deaths: EJ vs. Non-EJ

EJ Designation	EJ Communities	Non-EJ Communities	Difference
Definition 1: Poverty and Air Quality Indicators	262 to 274	211 to 228	51 to 45
Definition 2: Multiple Socioeconomic and Air Quality Indicators	262 to 268	209 to 229	53 to 39
Definition 3: SB 535 Disadvantaged Communities (DAC)	260	232	29

Decrease per million residents Age 30+

Summary of Projected Job Impacts



Job impacts of benefits and costs combined

- **0.27%** annualized job growth v.s. baseline growth of 0.44% between 2023-37
- An annual average of **17,000 jobs** foregone in an economy with over 10 million jobs

Next Steps for AQMP Socioeconomic Report



South Coast AQMD Public Hearing
December 2, 2022



Release Draft Final Socioeconomic Report
Mid-November, 2022



Public Comment Period for Draft Socioeconomic Report
October 2 - November 2, 2022



South Coast AQMD Regional Public Hearings
October 2022



Released Draft Socioeconomic Report
October 1, 2022

Staff Contacts

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<p>Elaine Shen, Ph.D. Planning & Rules Manager eshen@aqmd.gov 909.396.2715</p>	<p>Ian MacMillan Assistant Deputy Executive Officer Planning, Rule Development & Implementation imacmillan@aqmd.gov 909.396.3244</p>
<p>Comments or questions on Draft Socioeconomic Report? Visit us at: www.aqmd.gov/home/air-quality/clean-air-plans/air-quality-mgt-plan/socioeconomic-analysis or email us at: SocioEcon@aqmd.gov</p>	