



# 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.	<a href="https://scaqmd.zoom.us/j/97319116794">https://scaqmd.zoom.us/j/97319116794</a> 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.	<a href="https://scaqmd.zoom.us/j/91005796281">https://scaqmd.zoom.us/j/91005796281</a> 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.	<a href="https://scaqmd.zoom.us/j/99950751763">https://scaqmd.zoom.us/j/99950751763</a> 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.	<a href="https://scaqmd.zoom.us/j/97747622239">https://scaqmd.zoom.us/j/97747622239</a> 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.	<a href="https://scaqmd.zoom.us/j/94508364659">https://scaqmd.zoom.us/j/94508364659</a> 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 NOx 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

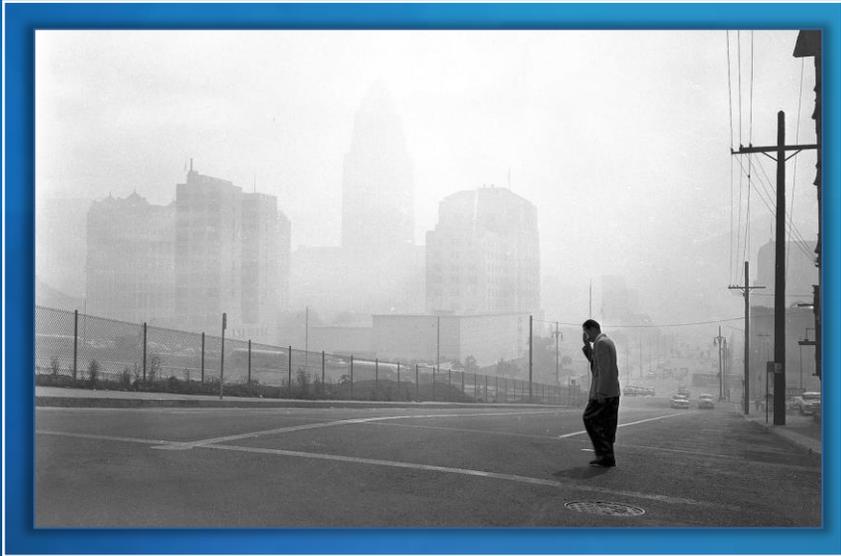


# 2022 Air Quality Management Plan (AQMP)

- 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

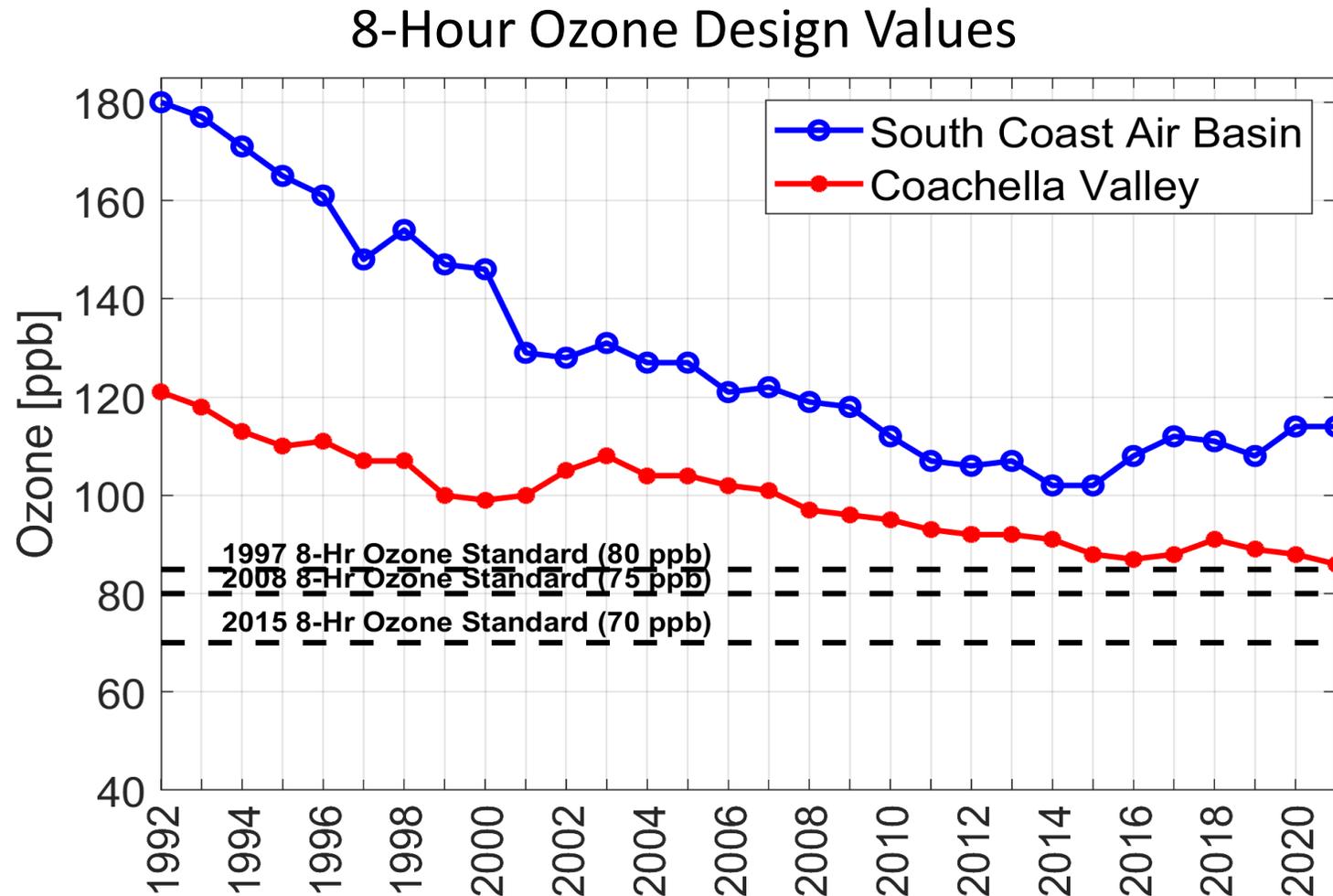


Los Angeles Recent Condition (2018)

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

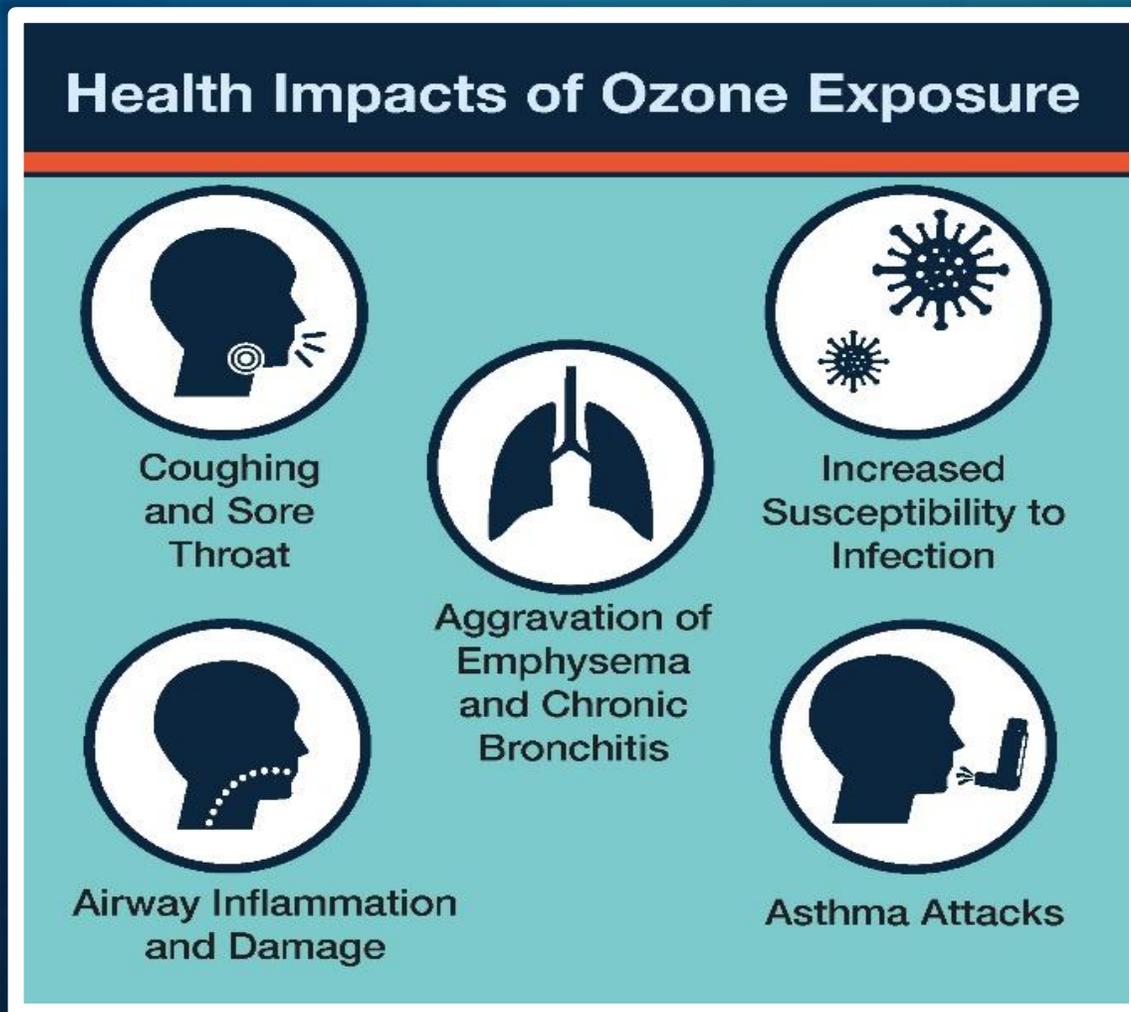
- Worst ozone (smog) in the nation
- Among the worst fine particulate matter (PM2.5)

# Ozone Trends



- Overall air quality has dramatically improved
- High ozone in recent years was due to adverse meteorology. Continued emission reductions will improve ozone

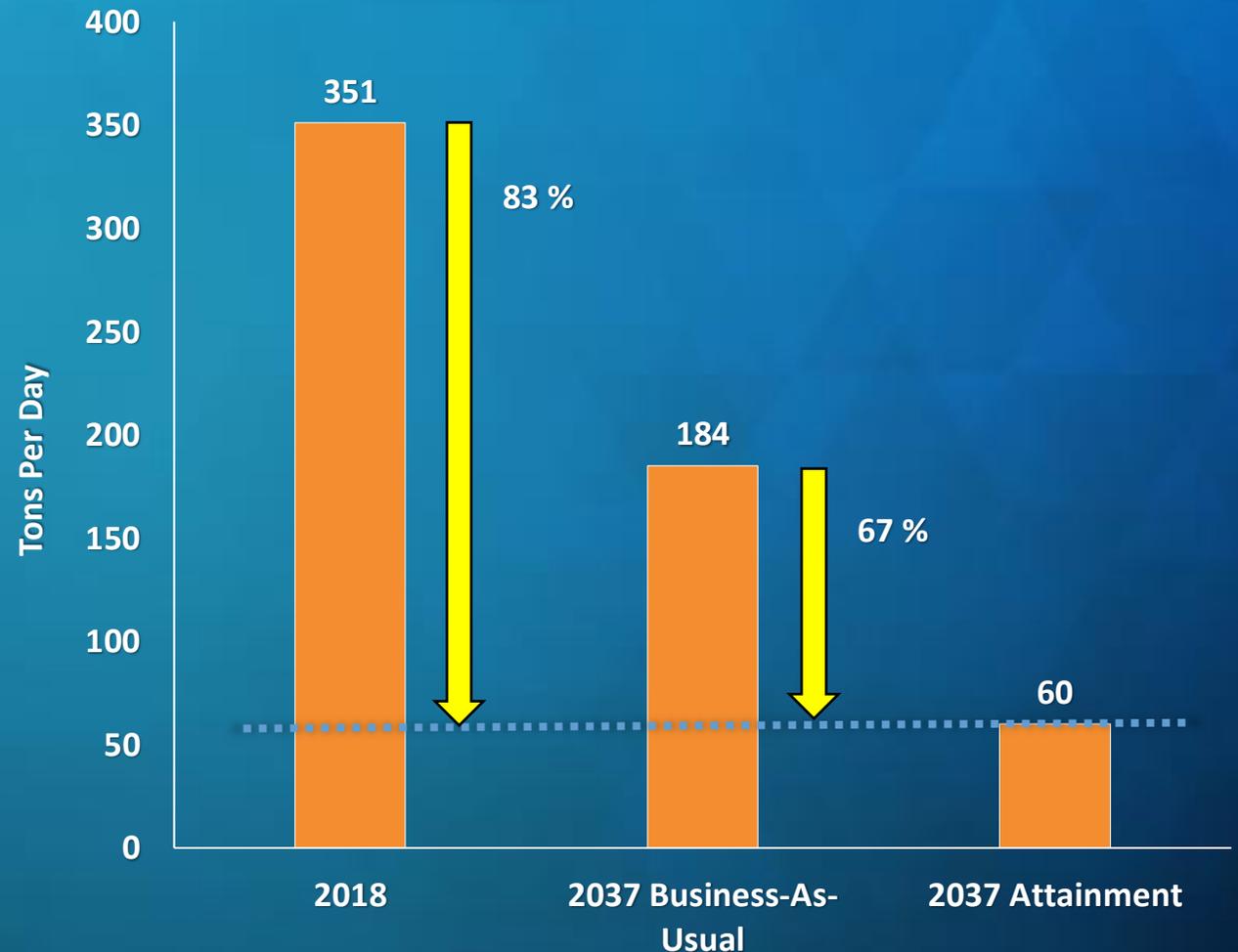
# Health Impacts of Ozone



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

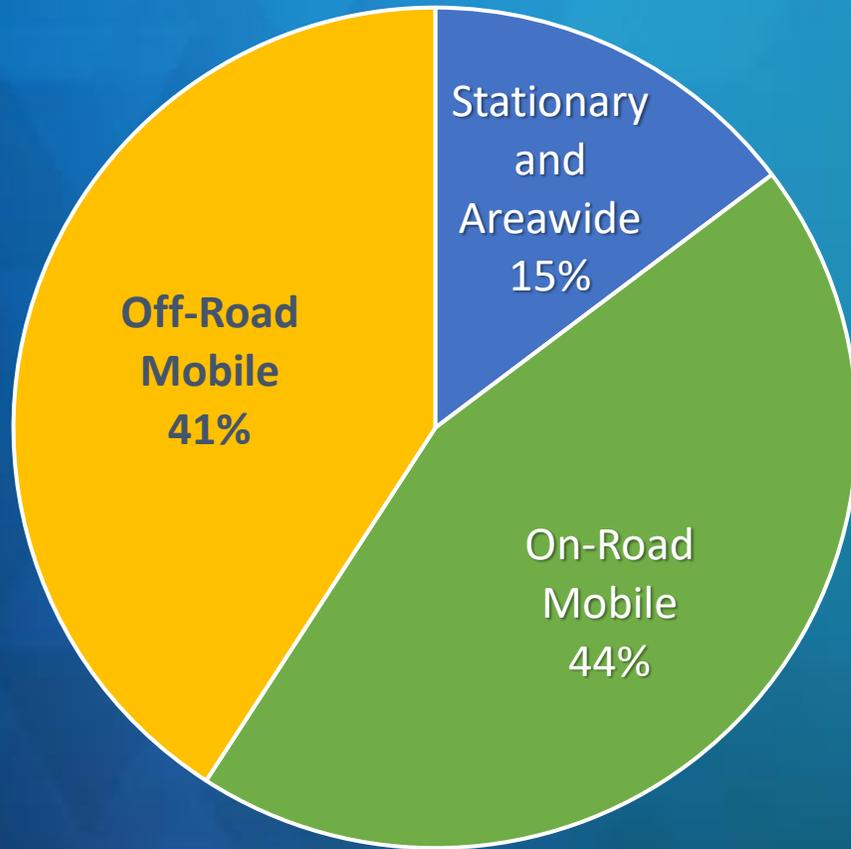
# Need to Reduce NOx Emissions

- 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

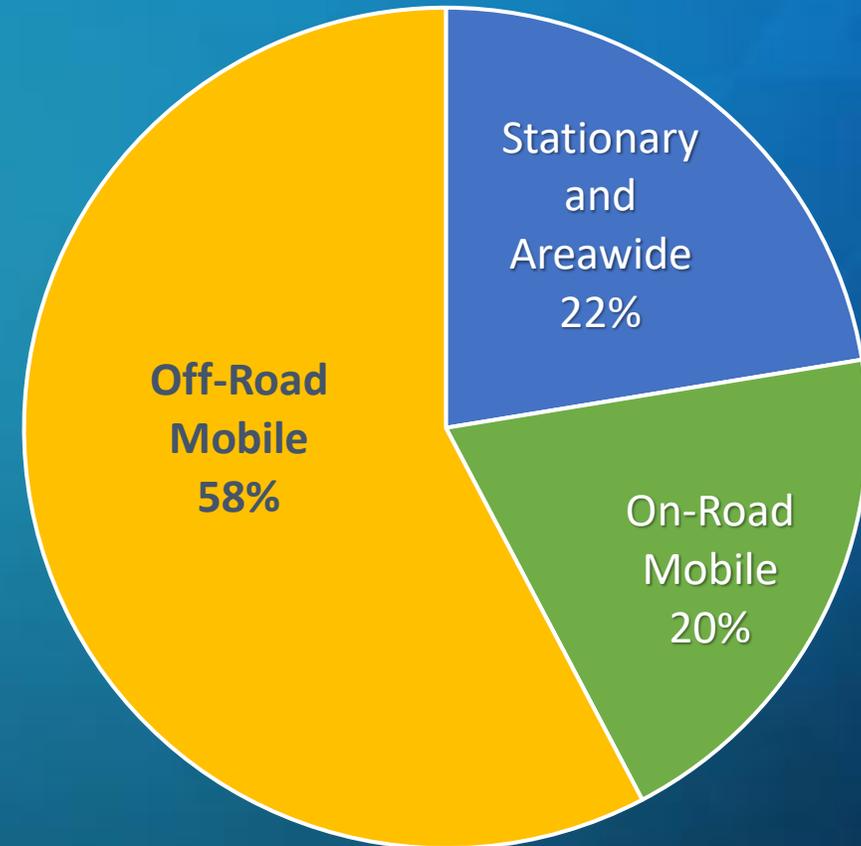


# NOx Emissions by Source Category

2018 NOx Emissions  
351 tons per day

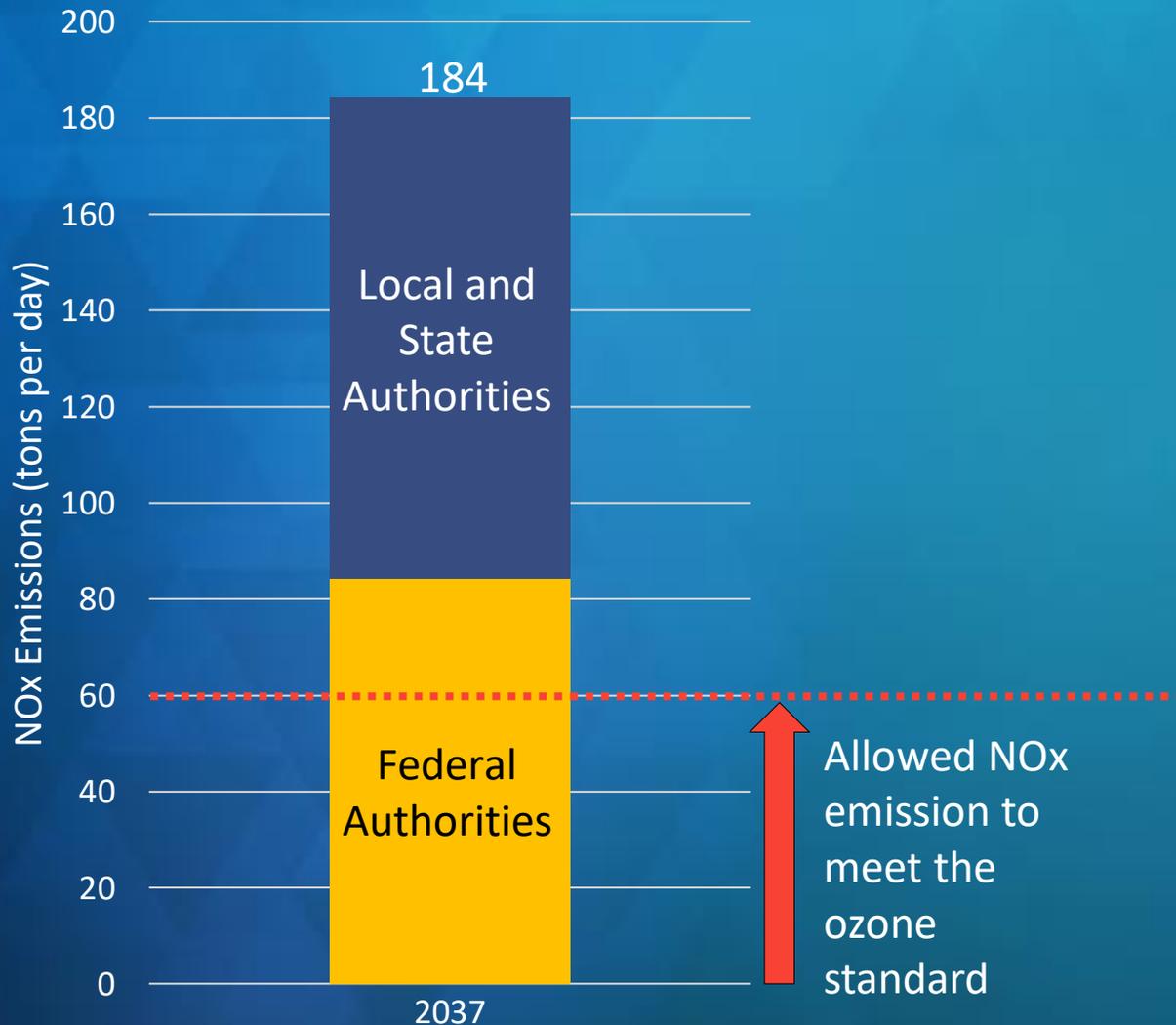


2037 NOx Emissions  
184 tons per day



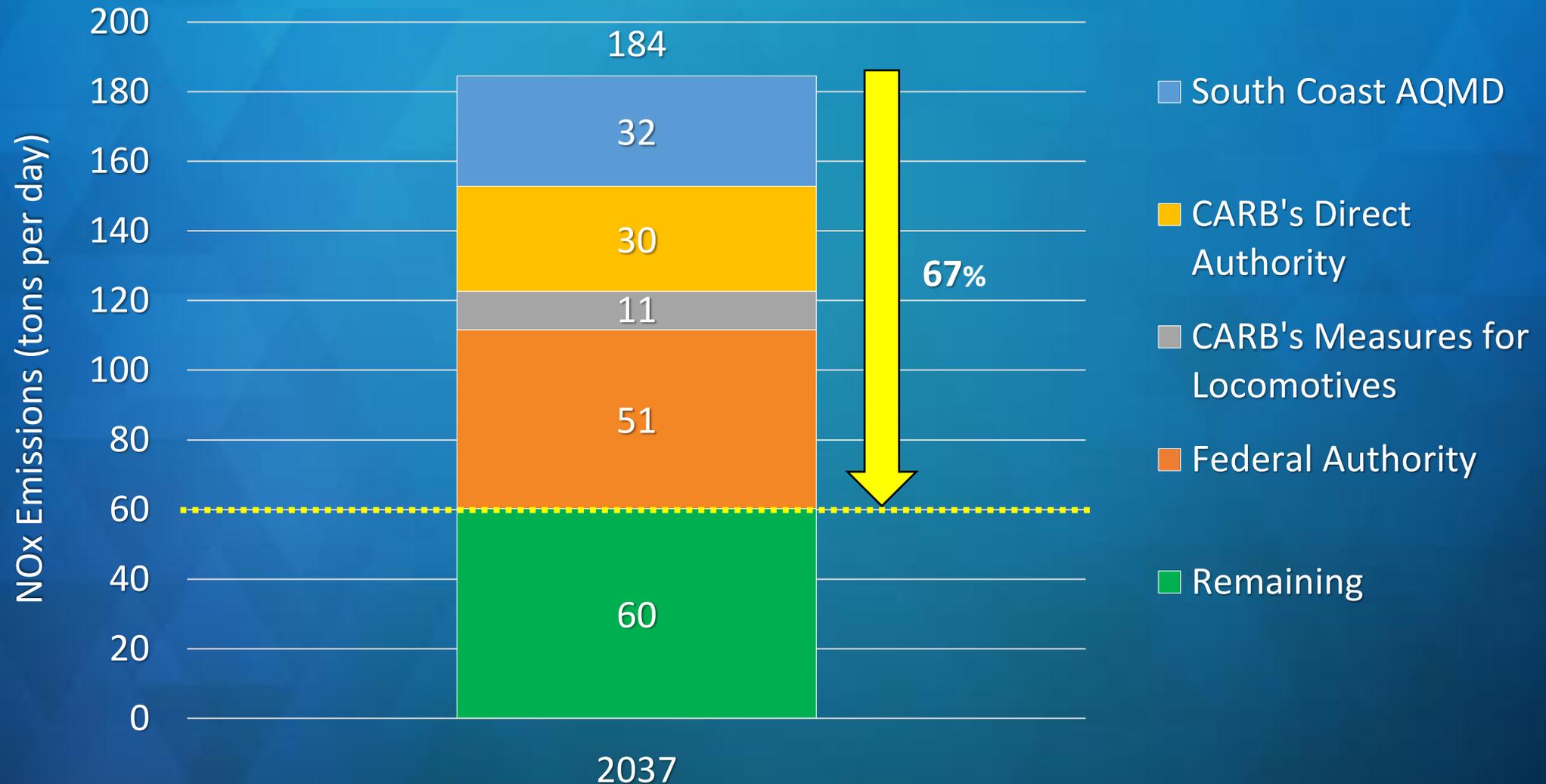
Over 80% of the NOx emissions in 2018 are from mobile sources

# Shared Responsibility for Emission Reductions



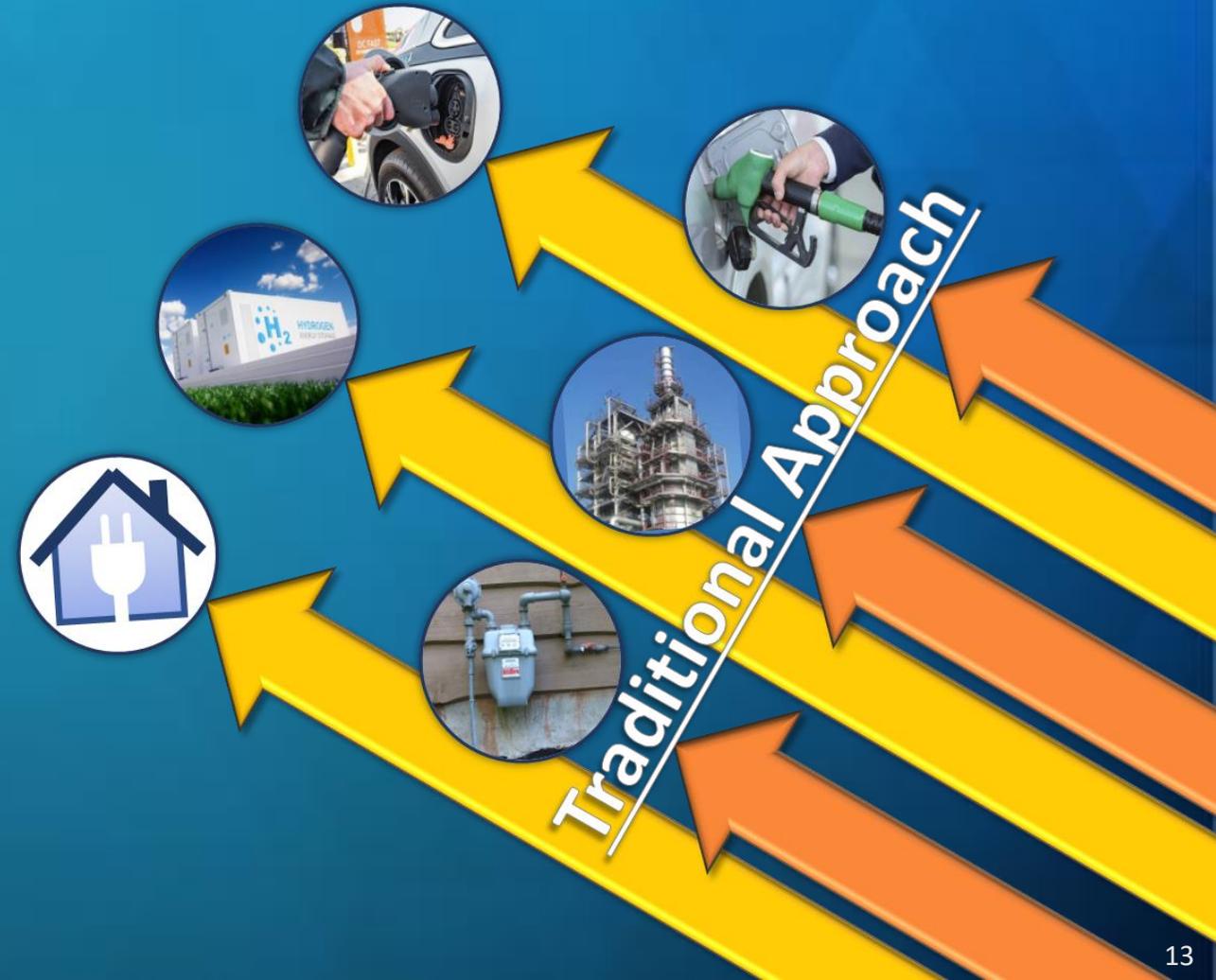
- More than 1/3 of the 2037 baseline emissions inventory is regulated primarily under federal and international jurisdiction, with limited authority for CARB/South Coast AQMD
  - Ships, aircraft, locomotives, etc.
- Cannot assign responsibility to federal government to reduce emissions, even from federal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

# NOx Reductions Needed for Attainment

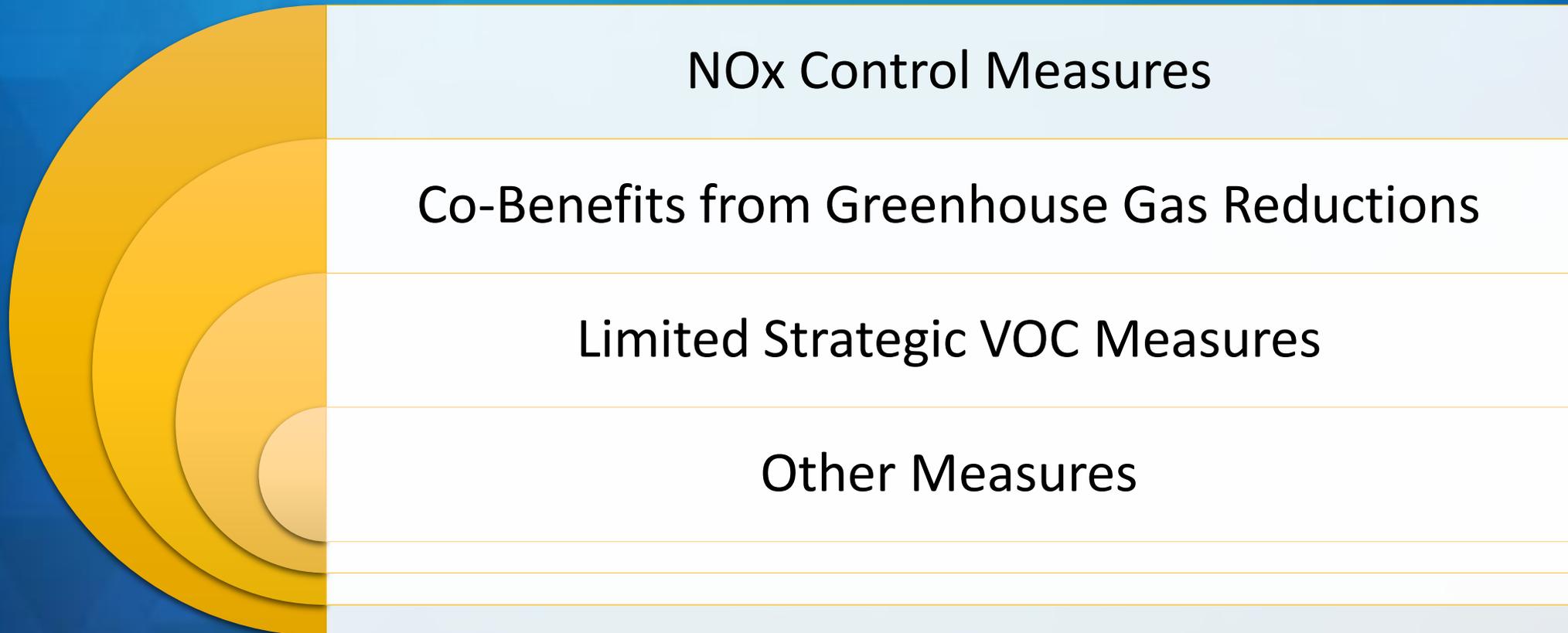


# Innovative Approaches Needed

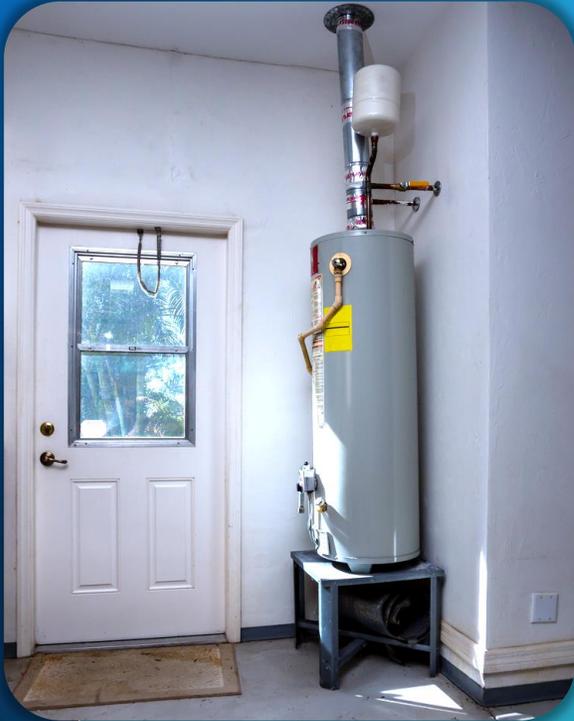
- Traditional approach relies on additional tailpipe/exhaust stack controls, new engines technology, or fuel improvements tailored to individual use cases
- These traditional approaches will not reduce emissions by the amount needed
- We must turn to zero emission and advanced technologies wherever possible



# 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

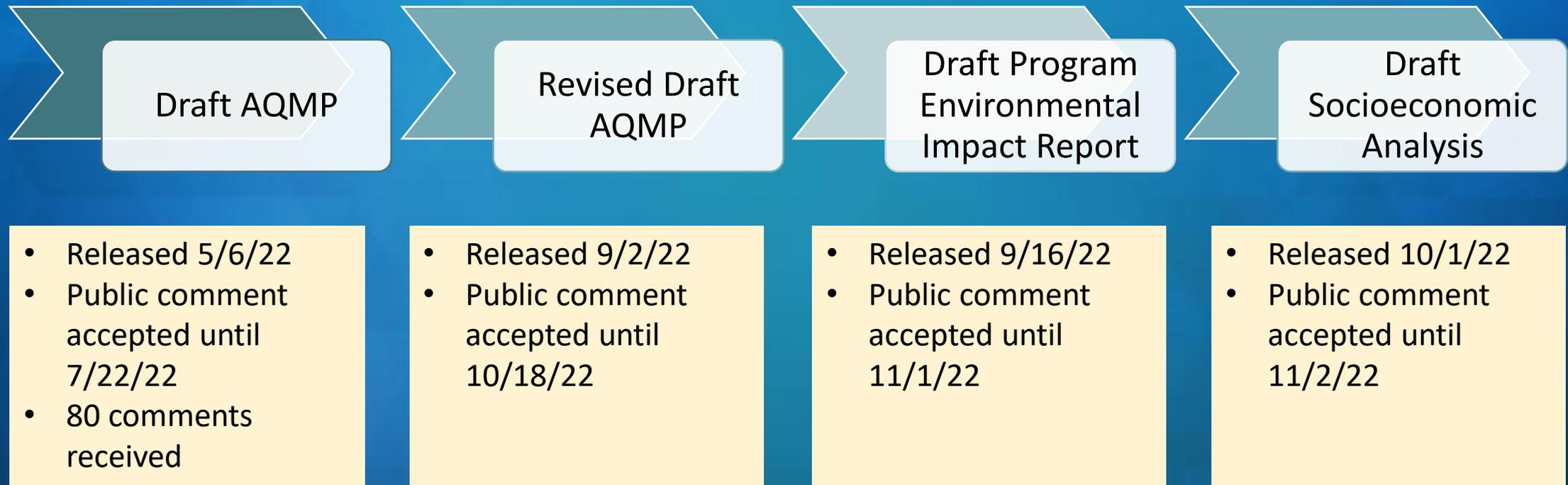


# Public Input and Outreach

## '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

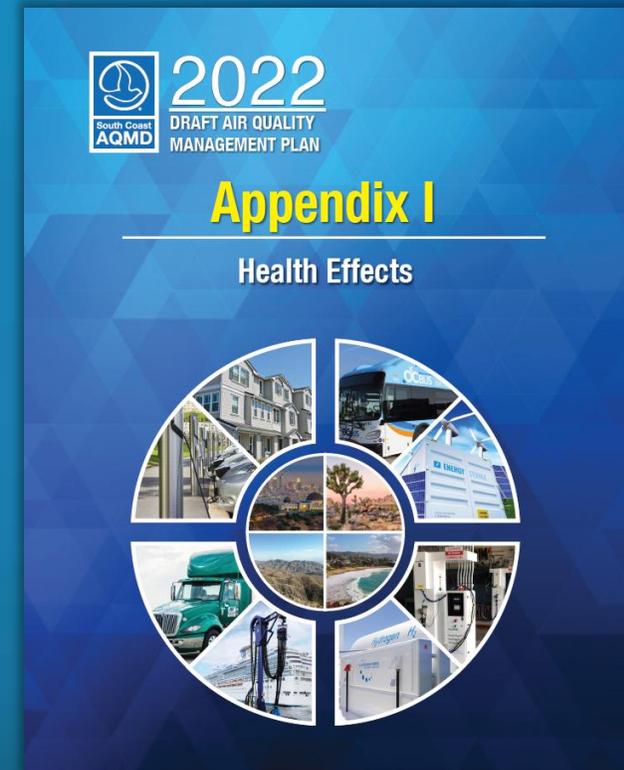
- Includes measures that rely on the deployment of developing advanced technologies, measures that seek reductions from federal sources, and incentive measures
- The 2022 AQMP without the black box would not be approvable by U.S. EPA

# 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. At the top, a red banner reads: "During this difficult time, South Coast AQMD is committed to protecting air quality and public health. Please visit our COVID-19 page for the operational updates and latest information. [Learn more.](#)" Below this is a navigation bar with the South Coast AQMD logo on the left and a search bar on the right. The main navigation menu includes: Language, F.I.N.D., About, Contact, Grants & Bids, Online Services, I'm Looking For, Sign Up, AIR QUALITY (highlighted), INCENTIVES & PROGRAMS, RULES & COMPLIANCE, PERMITS, NEWS, WEBCASTS, & CALENDAR, TECHNOLOGY ADVANCEMENT, RESOURCES, and MEETING AGENDAS & MINUTES. A breadcrumb trail shows: Home / Air Quality / Clean Air Plans / 2022 Air Quality Management Plan. The main heading is "Air Quality Management Plan (AQMP)" with a blue underline. Below it, a paragraph 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." Social media share icons for Facebook and Twitter are visible on the right side of the page.

# 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](mailto:AQMPteam@aqmd.gov)



Sang-Mi Lee, Ph.D.  
Planning & Rules Manager  
South Coast AQMD  
21865 Copley Drive  
Diamond Bar, CA 91765



Telephone: (909) 396-3169

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



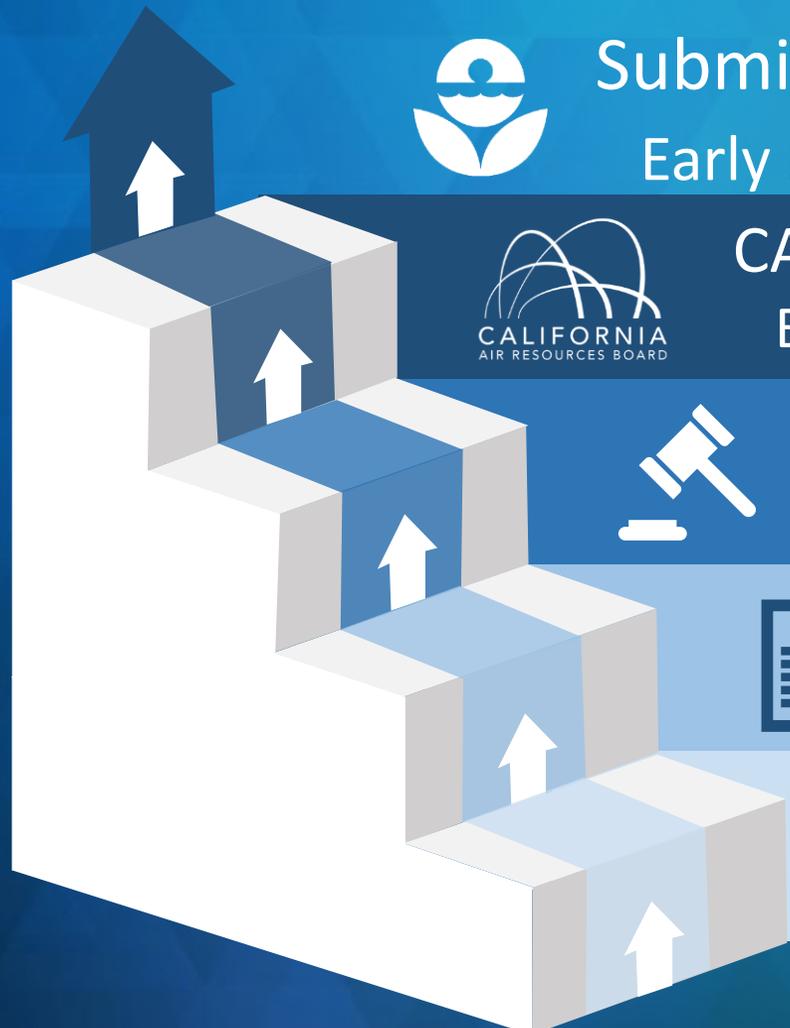
Release Draft Final AQMP

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](mailto: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 Requirements
- 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)
<b>On-Road Heavy-Duty</b>		
Advanced Clean Fleets Regulation	6.6	0.5
Zero-Emissions Trucks Measure	4.1	0.4
<b>Total On-Road Heavy-Duty Reductions</b>	<b>10.7</b>	<b>0.9</b>
<b>On-Road Light-Duty</b>		
On-Road Motorcycle New Emissions Standards	0.8	2.1
Clean Miles Standard	<0.1	<0.1
<b>Total On-Road Light-Duty Reductions</b>	<b>0.8</b>	<b>2.1</b>
<b>Off-Road Equipment</b>		
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
<b>Total Off-Road Equipment Reductions</b>	<b>12.2</b>	<b>2.0</b>
<b>Other</b>		
Consumer Products Standards	-	8
Zero-Emission Standard for Space and Water Heaters <sup>51</sup>	3.2	0.5
Enhanced Regional Emission Analysis in State Implementation Plans	NYQ	NYQ
Pesticides: 1,3-Dichloropropane Health Risk Mitigation	-	NYQ
<b>Total Other Reductions</b>	<b>3.2</b>	<b>8.5</b>
<b>Primarily-Federally and Internationally Regulated Sources – CARB Measures</b>		
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
<b>Total Primarily-Federally and Internationally Regulated Sources – CARB Measures Reductions</b>	<b>10.9</b>	<b>0.4</b>
<b>Primarily-Federally and Internationally Regulated Sources – Federal Action Needed<sup>52</sup></b>		
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
<b>Total Primarily-Federally and Internationally Regulated Federal Action Needed Reductions</b>	<b>51.5</b>	<b>&lt;0.1</b>
<b>Aggregate Emissions Reductions</b>	<b>89.3</b>	<b>13.9</b>

# 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

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## 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 1<sup>st</sup> 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 2<sup>nd</sup> 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"> <li>• Air Quality and Greenhouse Gases</li> <li>• Energy</li> <li>• Hazards and Hazardous Materials</li> <li>• Hydrology and Water Quality</li> <li>• Noise</li> <li>• Solid and Hazardous Waste</li> </ul>	<ul style="list-style-type: none"> <li>• Aesthetics</li> <li>• Agriculture and Forestry Resources</li> <li>• Biological Resources</li> <li>• Cultural and Tribal Cultural Resources</li> <li>• Geology and Soils</li> </ul>	<ul style="list-style-type: none"> <li>• Land Use and Planning</li> <li>• Mineral Resources</li> <li>• Population and Housing</li> <li>• Public Services</li> <li>• Recreation</li> <li>• Transportation</li> <li>• Wildfire</li> </ul>

# Draft Program EIR Conclusions

- Overall long-term Air Quality and Greenhouse Gas (GHG) benefit from NO<sub>x</sub> 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](mailto:kni@aqmd.gov)



Fax: (909) 396-3982



South Coast AQMD

21865 Copley Drive

Diamond Bar, CA 91765

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

# CEQA Team Contact Information

**Michael Krause**

**Assistant Deputy Executive Officer**



**mkrause@aqmd.gov**



**(909) 396-2706**

**Barbara Radlein**

**Program Supervisor**



**bradlein@aqmd.gov**



**(909) 396-2716**

**Kevin Ni**

**Air Quality Specialist**



**kni@aqmd.gov**



**(909) 396-2462**

# Draft Socioeconomic Report for the Revised Draft 2022 AQMP

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## Regional Public Hearings

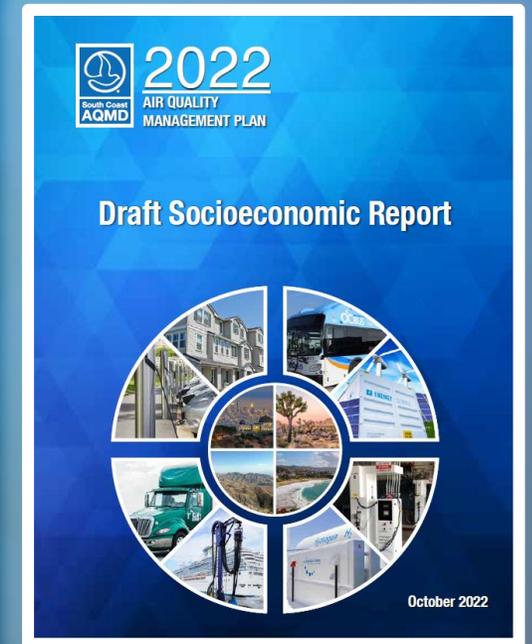


South Coast  
**AQMD**



# Background and Report Outline

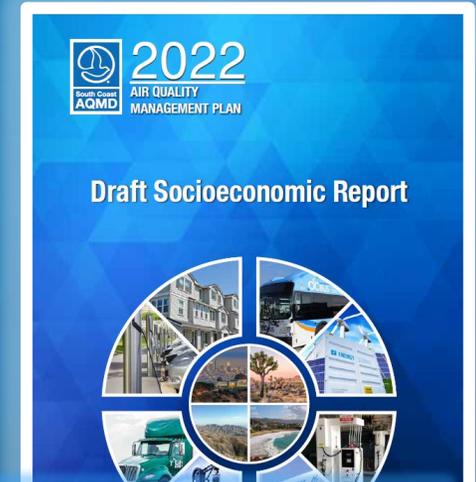
- Socioeconomic impact assessment for AQMP conducted since 1991
  - To better inform the public and policymakers
  - Not legally required (unlike for rules)
- Draft Socioeconomic Report:
  - Executive summary
  - Introduction
  - Costs of control measures
  - Clean air benefits
  - Job impacts
  - Sub-county 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](mailto: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%

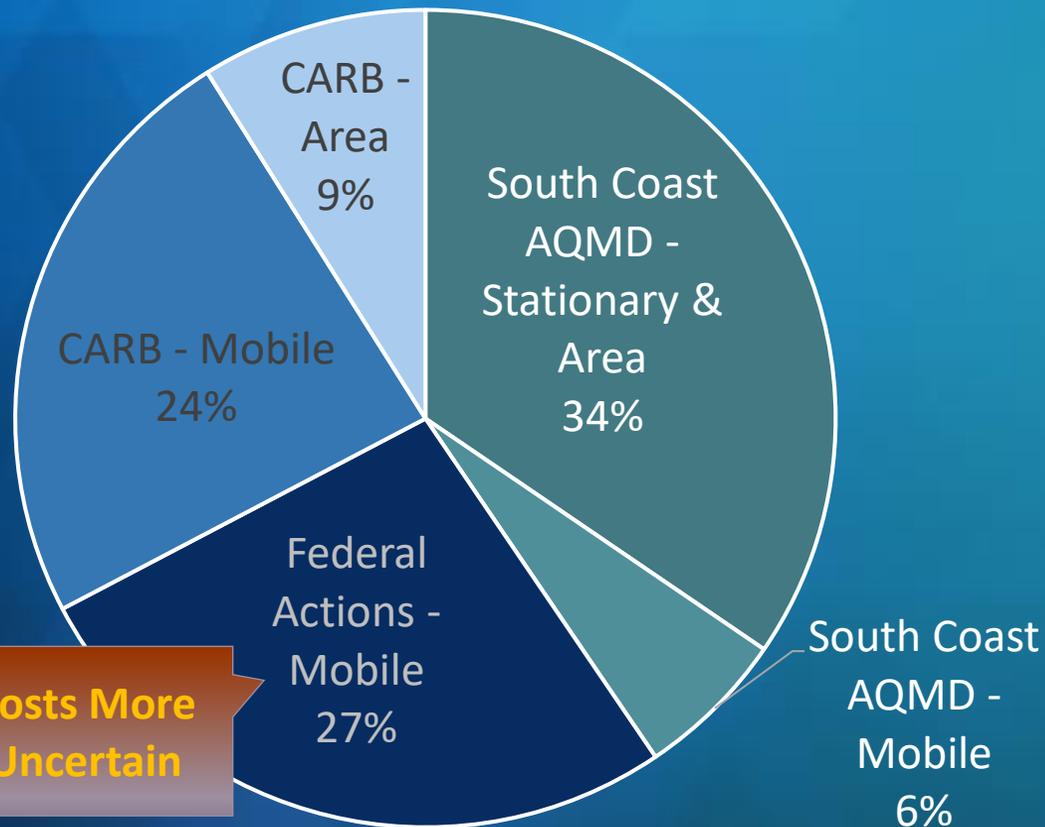
\* Costs are incremental to the business-as-usual scenario without the Revised Draft 2022 AQMP. Incremental costs were quantified for control measures with quantified emission reductions only.

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

# Costs and NOx Reductions Breakdown

**\$2.85 B in Annual Costs**

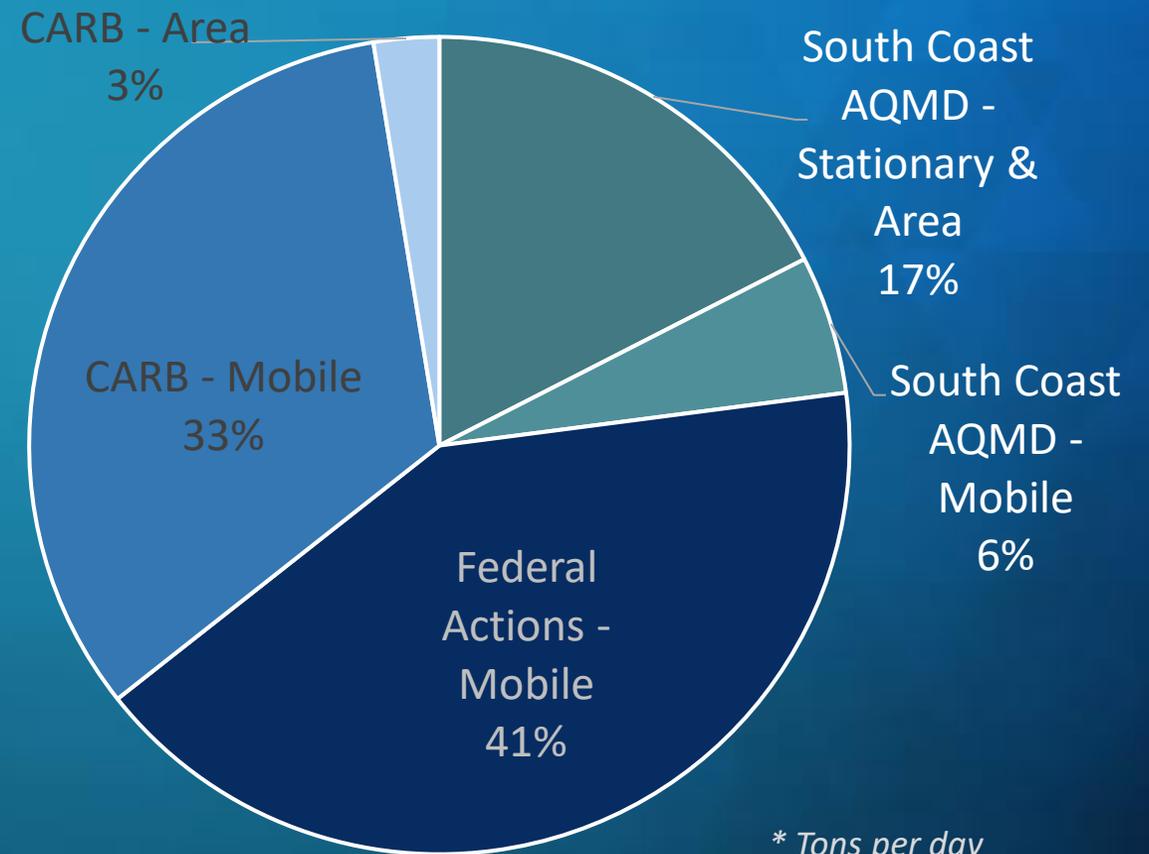
(annual amortized average 2023-37)



**Costs More Uncertain**

**124 TPD\* of NOx Reductions**

(2037)



\* Tons per day

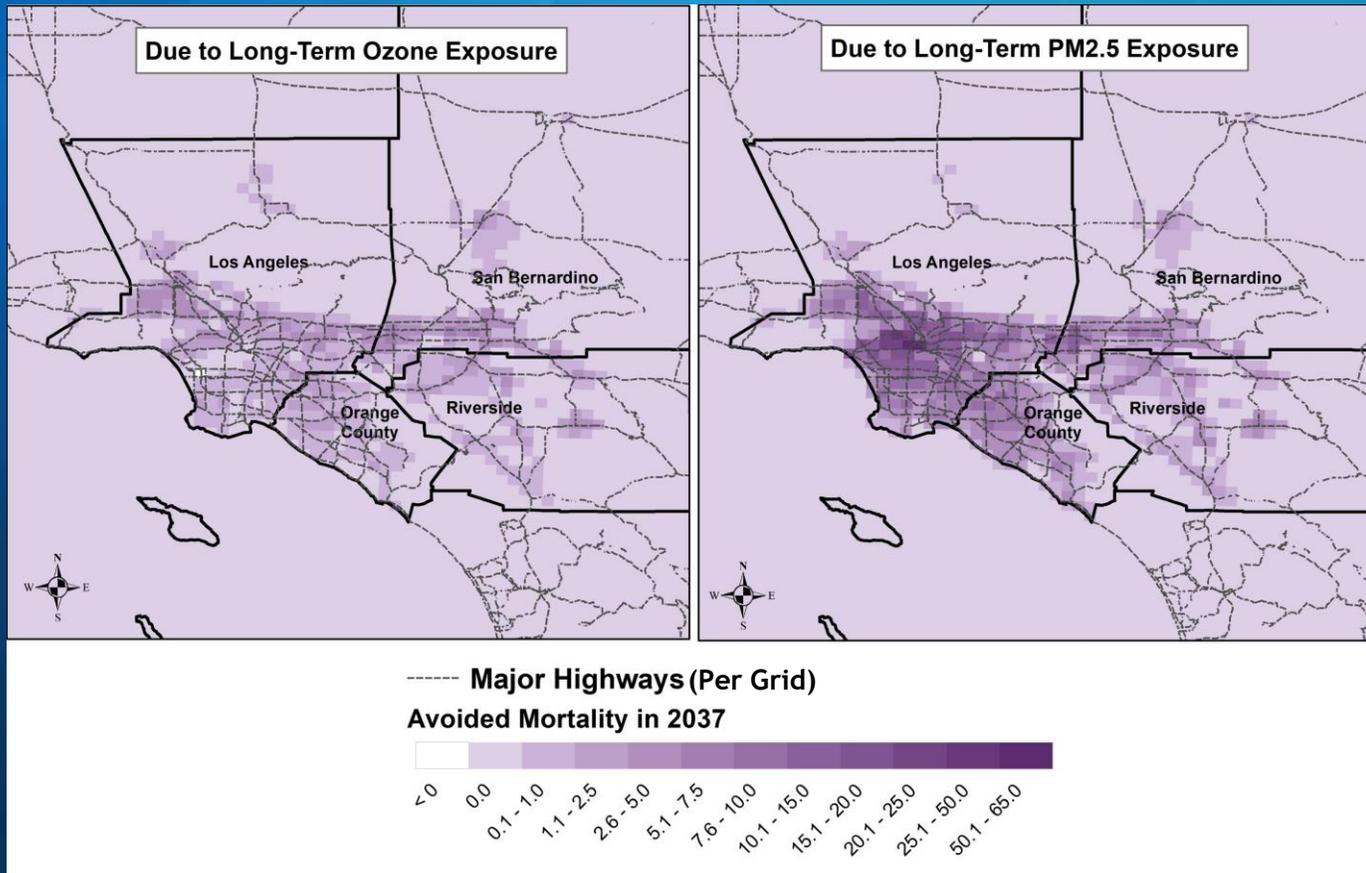
# Summary of Draft Health Benefits

	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
<b>Grand Total</b>	<b>\$20.0</b>	<b>\$40.5</b>	<b>\$19.4</b>	<b>\$134.3</b>

\* 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



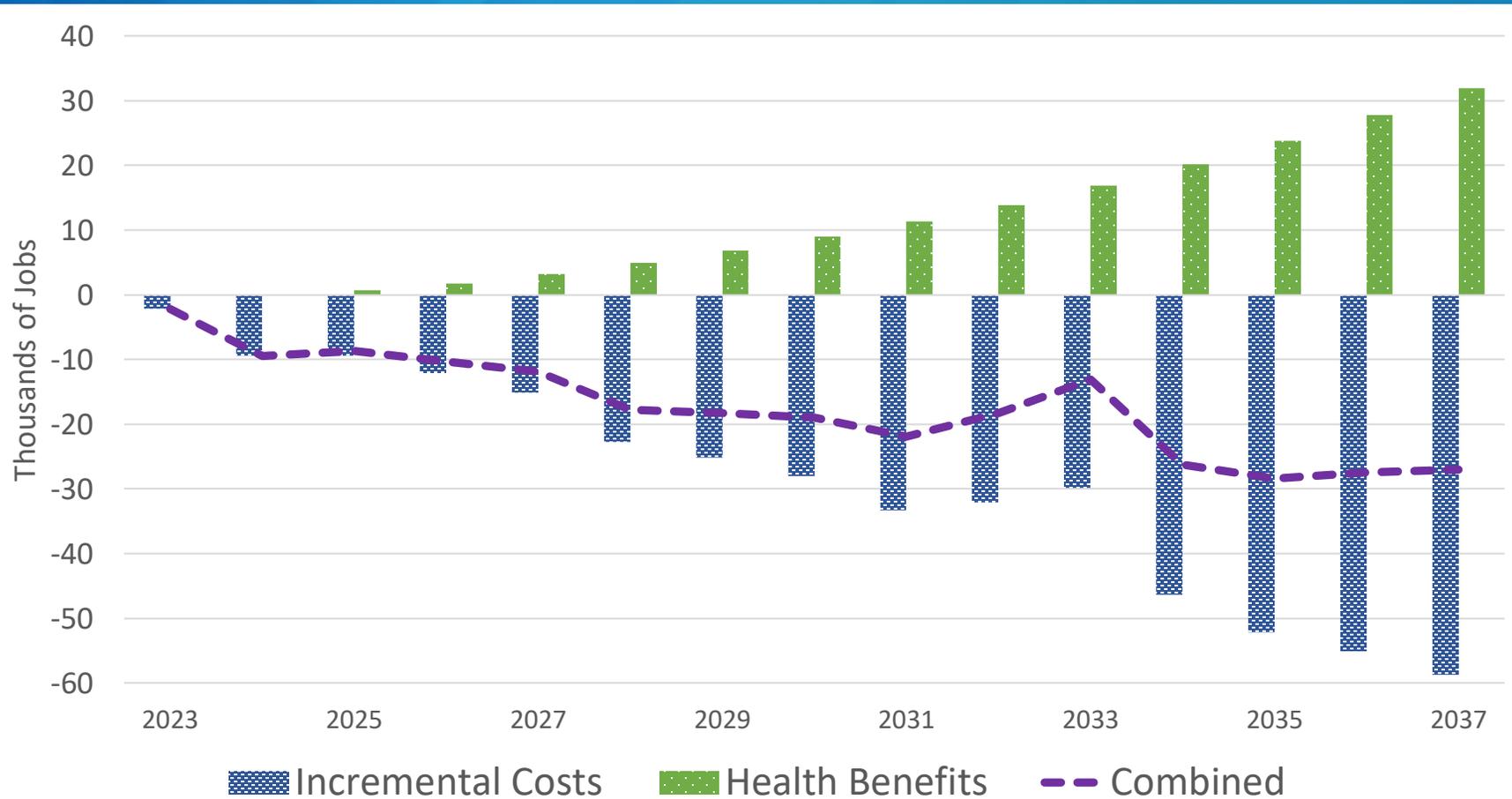
Avoided Premature Deaths		
	2032	2037
<b>Mortality, Respiratory / Mortality, All Cause</b>	<b>1,619</b>	<b>3,031</b>
<b>Ozone</b>	<b>339</b>	<b>744</b>
Los Angeles	124	309
Orange	48	85
Riverside	84	164
San Bernardino	83	186
<b>PM</b>	<b>1,280</b>	<b>2,287</b>
Los Angeles	821	1,471
Orange	184	300
Riverside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

# Avoided Premature Deaths: EJ vs. Non-EJ

EJ Designation	EJ Communities	Non-EJ Communities	Difference
<b>Definition 1:</b> Poverty and Air Quality Indicators	262 to 274	211 to 228	51 to 45
<b>Definition 2:</b> Multiple Socioeconomic and Air Quality Indicators	262 to 268	209 to 229	53 to 39
<b>Definition 3:</b> 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

Socioeconomic Analysis	AQMP Questions and Inquiries
<p>Brian Vlasich Air Quality Specialist <a href="mailto:bvlasich@aqmd.gov">bvlasich@aqmd.gov</a> 909.396.2176</p>	<p>Sang-Mi Lee, Ph.D. Planning &amp; Rules Manager <a href="mailto:slee@aqmd.gov">slee@aqmd.gov</a> 909.396.3169</p>
<p>Elaine Shen, Ph.D. Planning &amp; Rules Manager <a href="mailto:eshen@aqmd.gov">eshen@aqmd.gov</a> 909.396.2715</p>	<p>Ian MacMillan Assistant Deputy Executive Officer Planning, Rule Development &amp; Implementation <a href="mailto:imacmillan@aqmd.gov">imacmillan@aqmd.gov</a> 909.396.3244</p>
<p><b>Comments or questions on Draft Socioeconomic Report?</b> Visit us at: <a href="http://www.aqmd.gov/home/air-quality/clean-air-plans/air-quality-mgt-plan/socioeconomic-analysis">www.aqmd.gov/home/air-quality/clean-air-plans/air-quality-mgt-plan/socioeconomic-analysis</a> or email us at: <a href="mailto:SocioEcon@aqmd.gov">SocioEcon@aqmd.gov</a></p>	