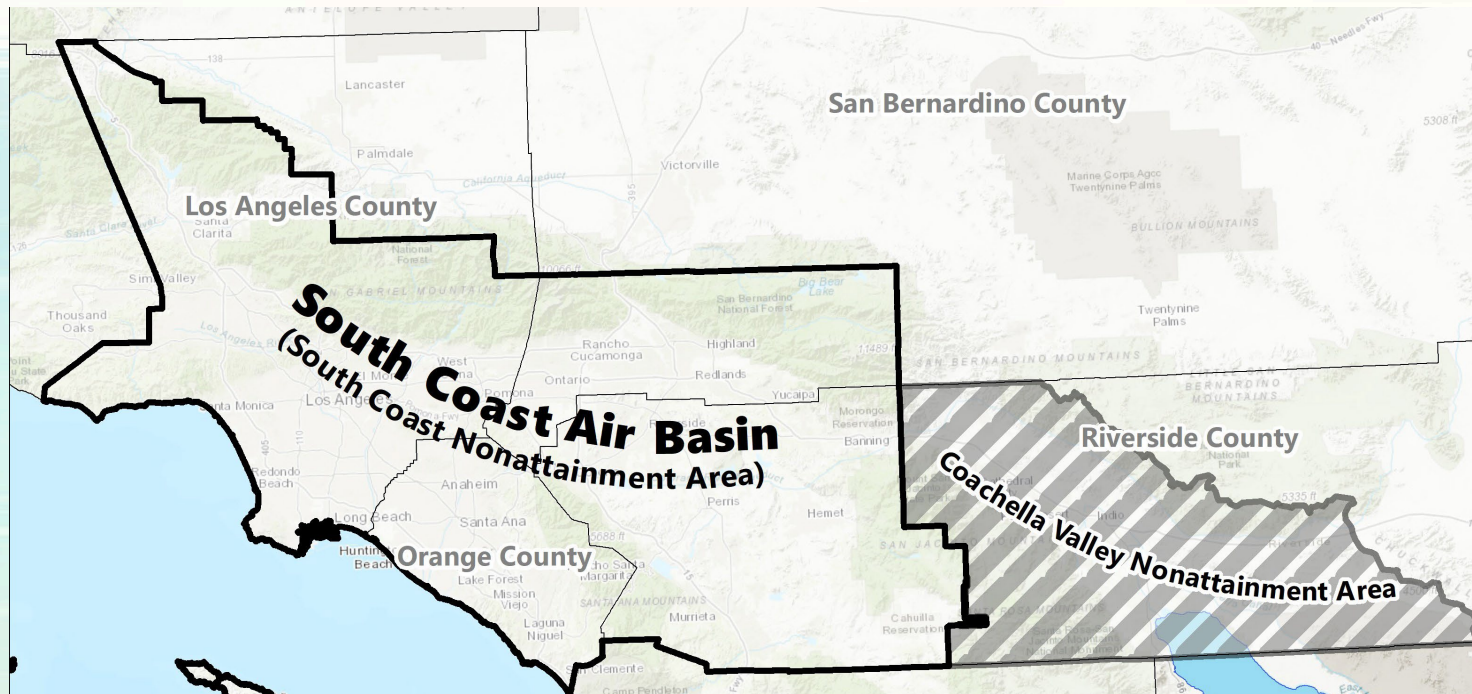




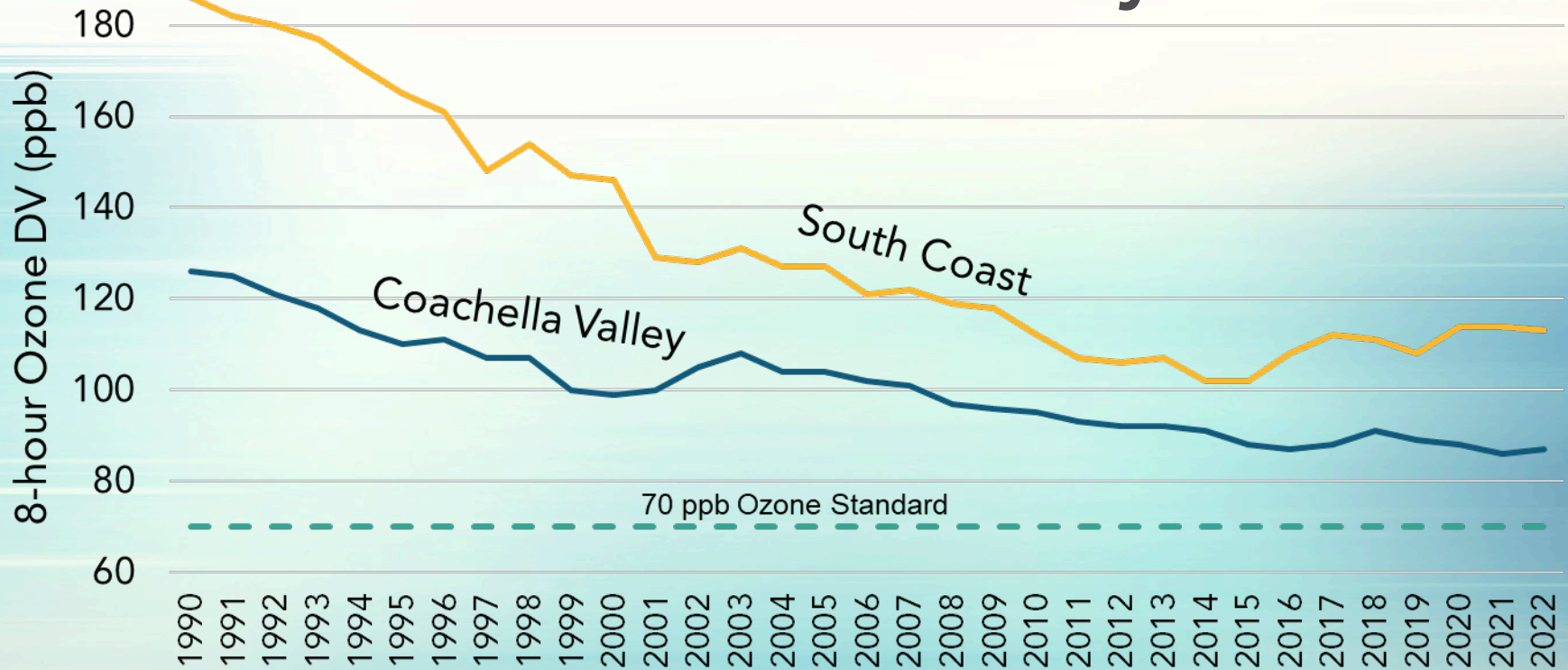
South Coast and Coachella Valley 2022 AQMP for the 70 ppb 8-hour Ozone Standard

January 26, 2023

South Coast and the Coachella Valley



Ozone Progress in the South Coast and the Coachella Valley



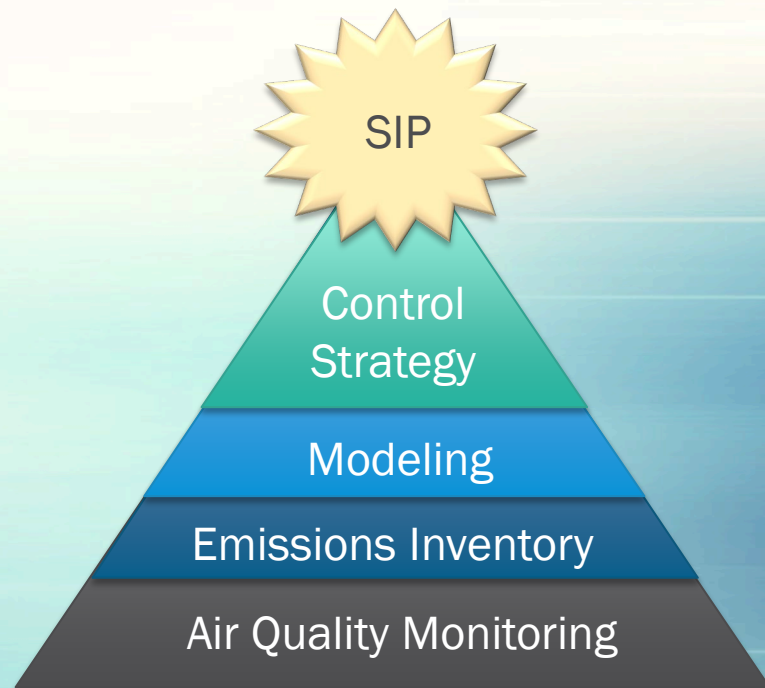
*2022 values are draft

70 ppb Ozone Standard

- EPA re-evaluates the ozone standard every 5 years based on the latest science of ozone health effects
- EPA strengthened 8-hour ozone standard to 70 ppb in 2015
- EPA classified South Coast as Extreme
- Coachella Valley was classified as Severe, but the District requested reclassification to Extreme

State Implementation Plan Elements

- **Monitoring**
 - Is there an air pollution problem?
- **Emissions inventory**
 - What sources are causing the pollution?
- **Modeling**
 - How much do emissions need to be reduced to meet standard?
- **Control strategy**
 - What emissions will be controlled to meet standard?



2022 Air Quality Management Plan

- Adopted by the South Coast District on December 2, 2022
- Pushes zero emission technologies in all sectors wherever feasible
- Developed over a 3-year Public Process
- Measures screened using a health benefit based cost-effectiveness threshold

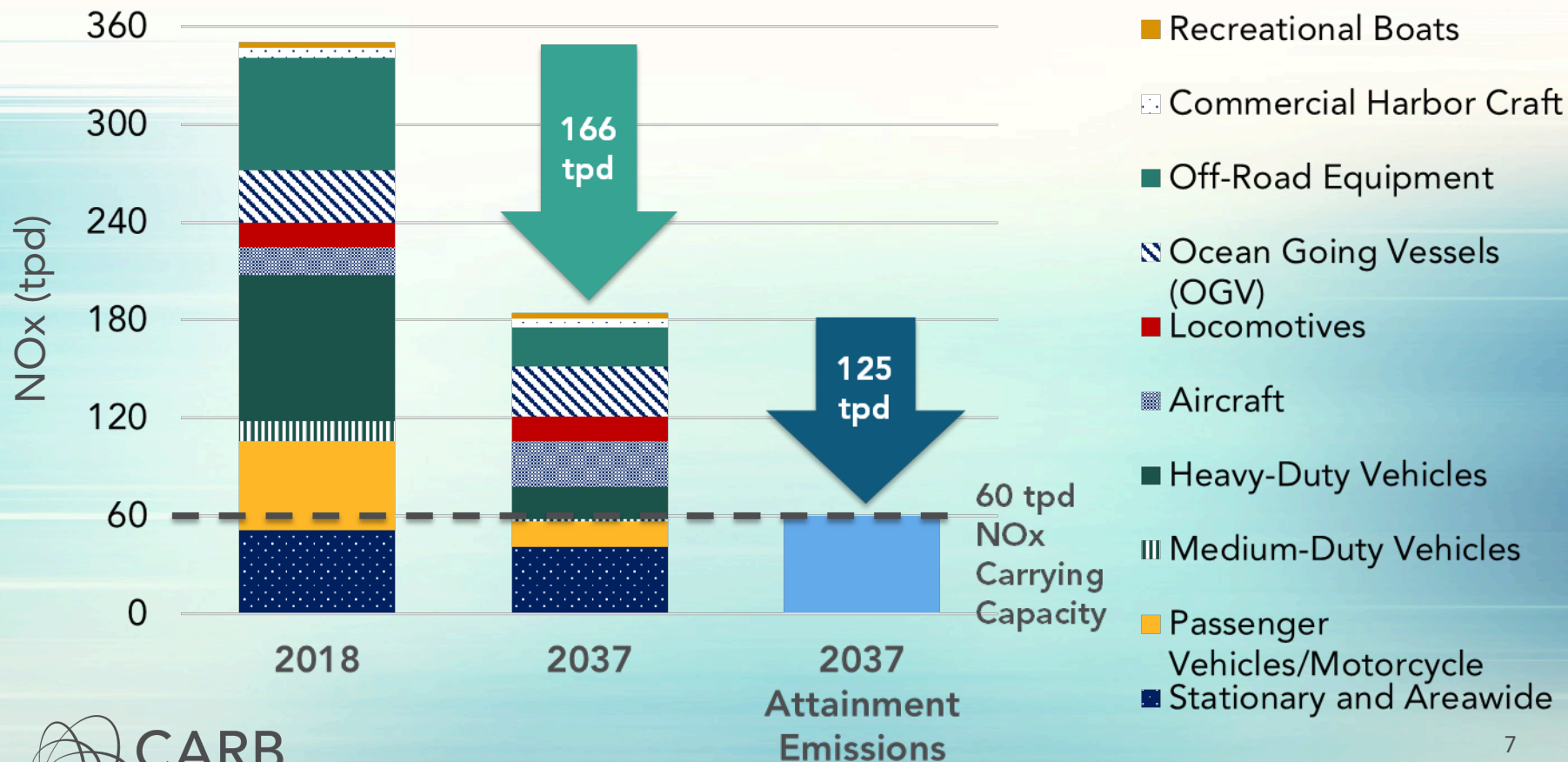


2022 AQMP Benefits Communities



- CARB and District measures will reduce freight pollution in communities
- CARB engaged with community-based organizations throughout development of Strategy
- District measure development public process and community engagement
 - Advisory Group Meetings (10)
 - Regional Public Hearings (5)
 - Working Group Meetings (22)
 - Control Measures Workshops

Baseline and Attainment NOx Emissions



2022 AQMP District Stationary Measures

Replacement with Zero Emission or Low NOx Appliances

- Residential Water Heating
- Residential Space Heating
- Residential Cooking Devices
- Other Residential Combustion
- Commercial Water Heating
- Commercial Space Heating
- Commercial Cooking Devices
- Commercial Internal Combustion
- Miscellaneous Combustion

Other

- All Feasible Measures
- Wildfire Prevention
- Improved Education and Public Outreach

Large Combustion Source Measures

- RECLAIM Facilities
- Boilers and Process Heaters
- Non-Emergency Internal Combustion Engines
- Emergency Standby Engines
- Large Turbines
- Electricity Generating Facilities
- Petroleum Refineries
- Landfills and Publicly Owned Treatment Works
- Incinerators
- Miscellaneous Permitted Equipment

VOC Measures

- Leak Detection and Repair
- Industrial Cooling Towers
- Coatings, Solvents, Lubricants
- VOC Incentives
- Urban Vegetation
- Emergency Standby Engines

Co-Benefits from Energy and Climate Change Programs Measures

- Greenhouse Gas Programs, Policies, and Incentives
- Residential and Commercial Building Energy Efficiency
- Additional Enhancements in Reducing Existing Residential Building Energy Use

2022 AQMP District Mobile Measures

On-Road and Off-Road Measures

- Accelerated Retirement of Older Light-Duty and Medium-Duty Vehicles
- Accelerated Retirement of Older On-Road Heavy-Duty Vehicles
- Emission Reduction Credit Generating Program
- Small Off-Road Engine Equipment Exchange Program
- Passenger Locomotives
- Off-Road Mobile Source Emission Reduction Credit Generation Program

Incentive-Based Measures

- Incentive Programs
- Pacific Rim Initiative for Maritime Emission Reductions

Facility-Based Measures

- Commercial Marine Ports
- New Rail Yards and Intermodal Facilities
- Existing Rail Yards and Intermodal Facilities
- Warehouse Distribution Centers
- Commercial Airports

Emission Growth Management

- New Development and Redevelopment
- General Conformity Requirements
- Clean Construction Policy

Other

- Fugitive VOC Emissions from Tanker Vessels
- On-Road Motor Vehicle Mitigation Options
- Zero-Emission Infrastructure for Mobile Sources

2022 State SIP Strategy

- Developed to identify control measures on State-regulated sources to meet the 70 ppb ozone standard
- Board approved measure schedule on September 22, 2022
- Strategy provides 95.7 tpd NO_x reductions needed for South Coast to meet the 70 ppb ozone standard

2022 State Strategy for the State Implementation Plan

Adopted
September 22, 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

Primarily Federally-Regulated

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

Other

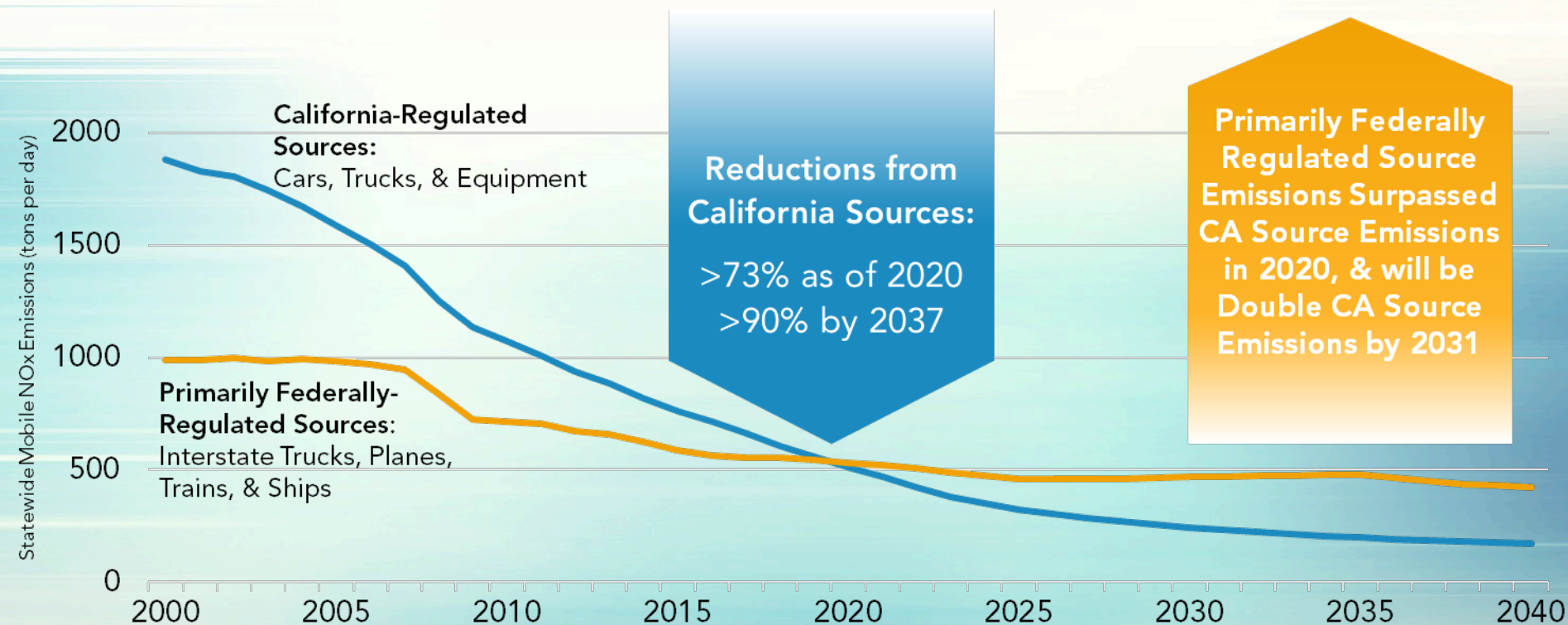
- Consumer Products Regulation Amendments
- Zero-Emission Standard for Space and Water Heaters
- Pesticides: 1,3-D

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



Federal Source Contribution Growing



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

Emission Reductions from Remaining 2016 State SIP Strategy Measures

Measure	Action	Implementation Begins	South Coast		Coachella Valley	
			NOx (tpd)	ROG (tpd)	NOx (tpd)	ROG (tpd)
Advanced Clean Cars II	2022	2026	5	3.8	0.2	0.2
Transport Refrigeration Unit Part I	2022	2023-2024	0.5	0.4	<0.1	<0.1
Zero-Emission Forklift	2023	2026	0.9	0.1	<0.1	<0.1
Total			6.4	4.4	0.2	0.2

CARB's Two-Part SIP Commitment

- ① Bring an item to the Board for defined new measures or take other specified actions within CARB's authority

Board adopted commitment to pursue measures in September 2022



- ② Achieve aggregate emissions reductions by specific dates

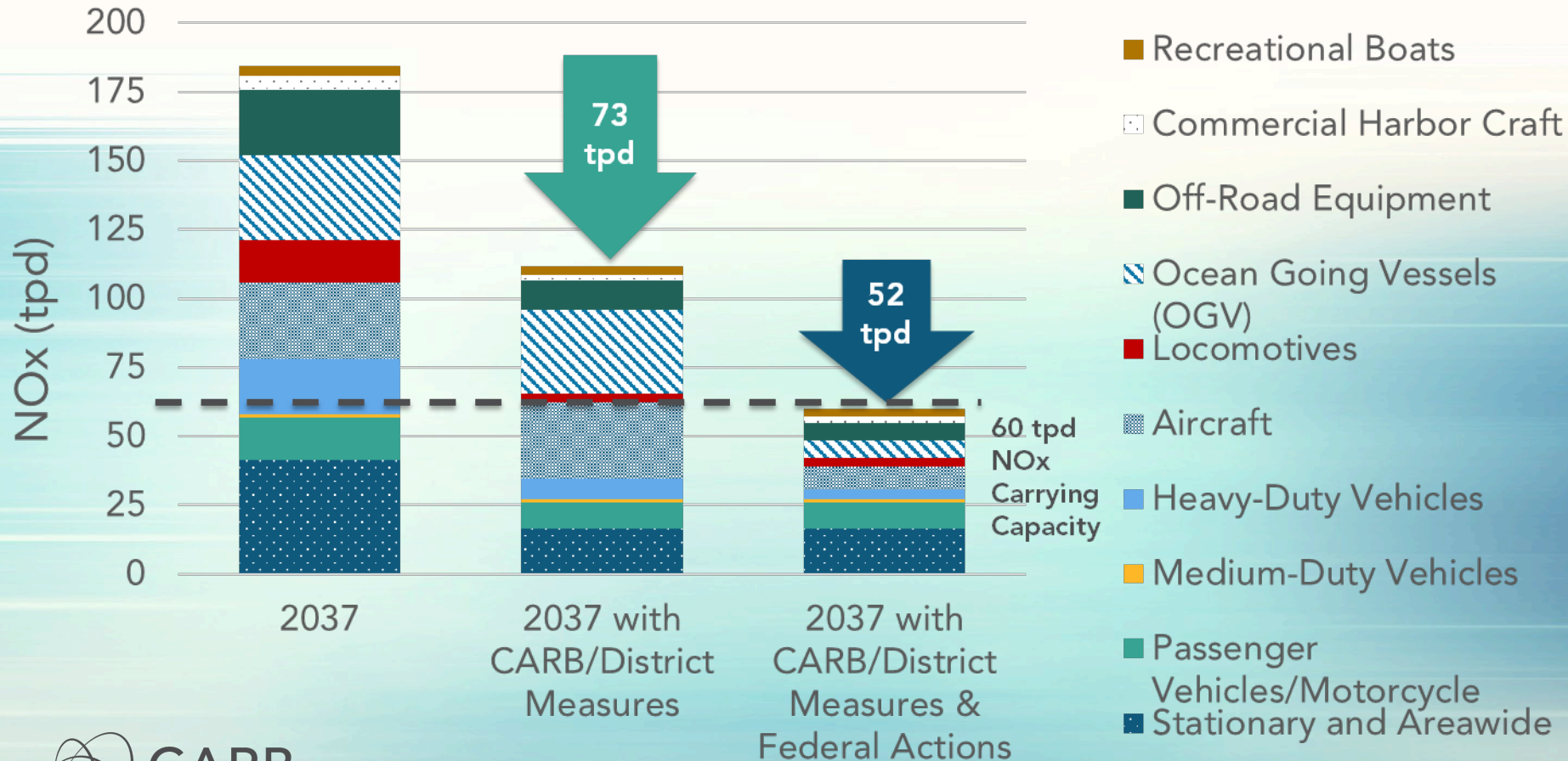
Proposed in CARB Staff Report being considered today

2022 AQMP Reduction Commitments

2037 Baseline NOx		185
Reductions	District	29
	State	44
	Federal*	52
2037 Remaining NOx Emissions		60

*submitted under Clean Air Act section 182(e)(5)

South Coast Attainment



Regional Attainment also Provides Benefits in Priority Communities

Community		2037 Baseline	2037 Controlled
1	East LA/Boyle Heights/West Commerce	74.6	64
2	South Los Angeles	69.6	62.6
3	Southeast Los Angeles	69.1	62
4	Wilmington/ West Long Beach/ Carson	62.4	57.7
5	San Bernardino/ Muscody	95.5	68.6
6	Eastern Coachella Valley	76.2	68.6

 South Coast Air Basin
 Coachella Valley
 SB 535 Disadvantaged Communities
1 East LA/Boyle Heights/West Commerce
2 South LA
3 Southeast LA
4 Wilmington/Carson/West Long Beach
5 San Bernardino/Muscody
6 Eastern Coachella Valley

2022 AQMP meets Clean Air Act Requirements

Requirement	2022 AQMP	CARB Report
Emission Inventory	√ (Modeling inventory)	√ (Planning inventory)
Attainment Demonstration	√	
Reasonably Available Control Measures	√	
Reasonable Further Progress		√
Motor Vehicle Emissions Budgets	√	
Vehicle Miles Traveled Offset	√	√ (Coachella Valley)
Contingency Measure Discussion	√	

Staff Recommendation

Staff recommends that the Board:

1. Adopt commitment to achieve aggregate emission reductions
 - 95.7 tpd NOx and 18.2 tpd ROG in the South Coast
 - 5.2 tpd NOx and 0.6 tpd ROG in the Coachella Valley
2. Adopt the 2022 AQMP and portions of the CARB Staff Report
3. Submit aggregate emissions, 2022 AQMP and the CARB Staff Report into the California SIP

Thank you