



**Draft 2022 State Strategy for the State Implementation Plan
California's Roadmap for Clean Air**

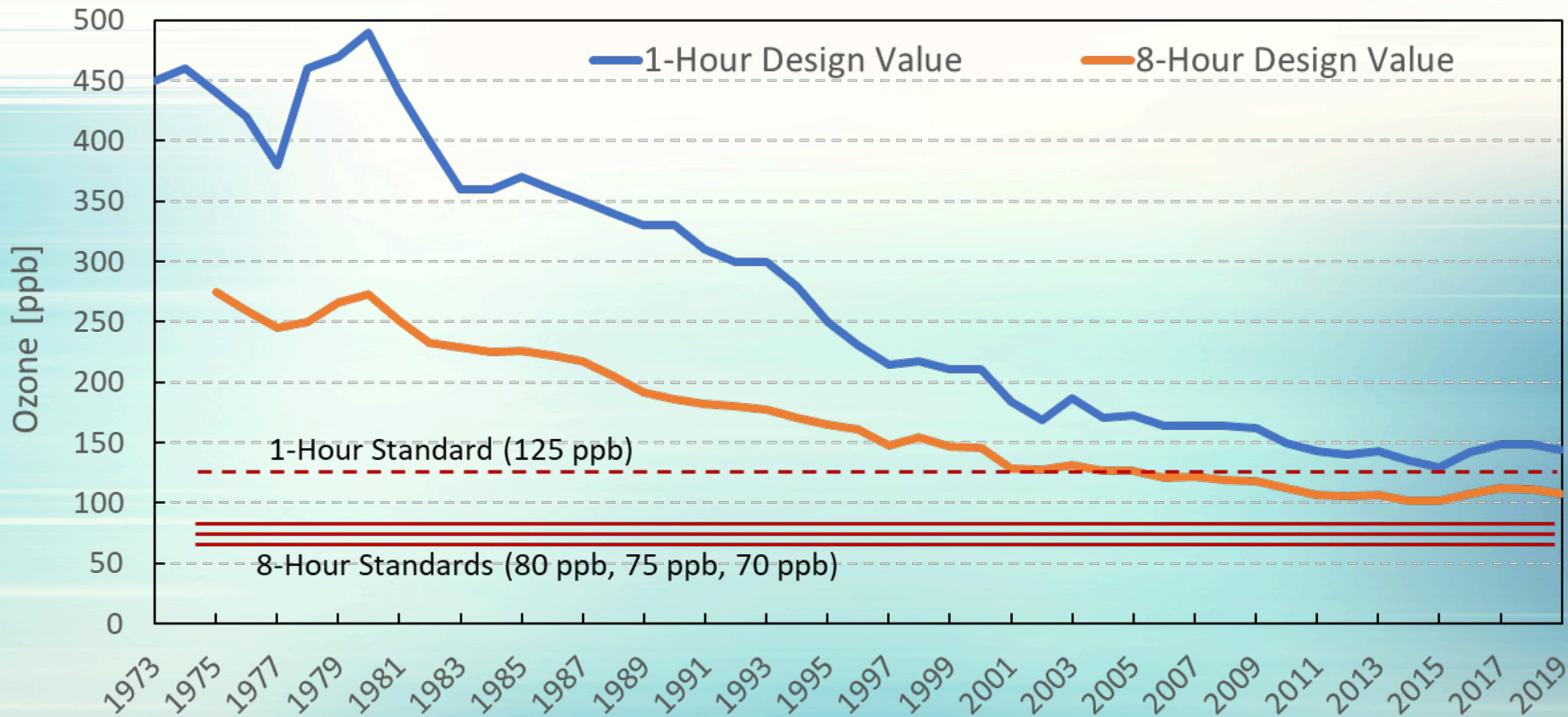
Informational Update
February 24, 2022

70 ppb Challenge Across the State

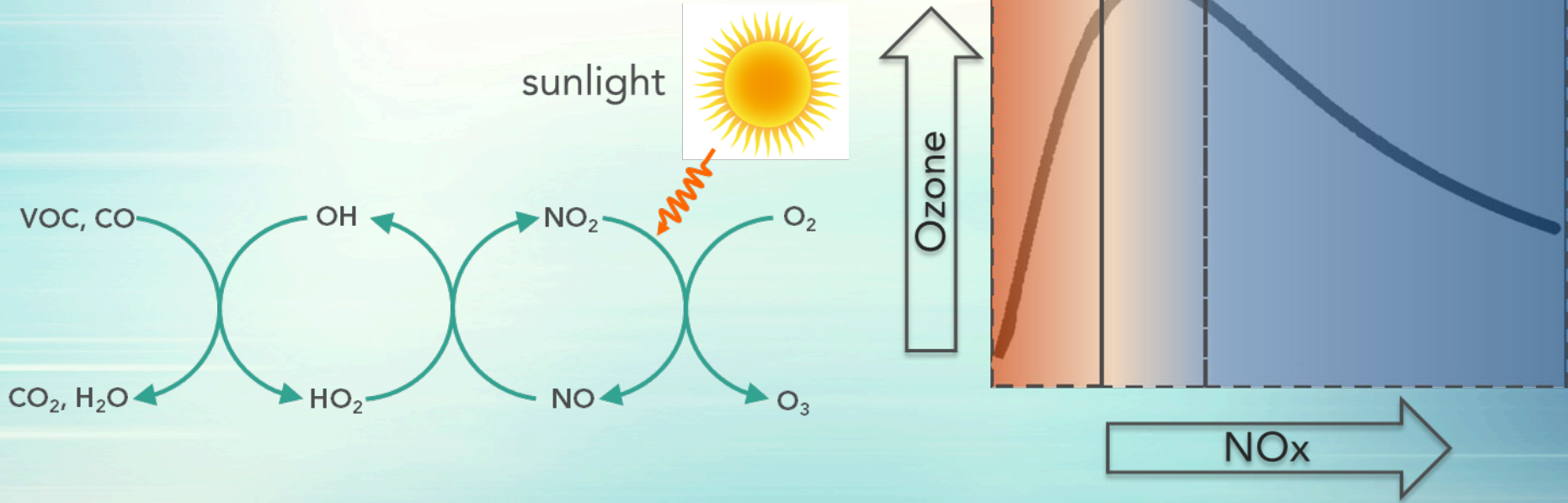
- U.S. EPA revised the 8-hour ozone standard to 70 ppb in 2015
- 19 nonattainment areas in California
 - Attainment years 2020-2037
- 10 areas must submit SIPs
- San Joaquin Valley and South Coast most challenging but other areas will also need commitments
- SIPs due August 2022
- Continue to identify and implement measures for 75 and 80 ppb



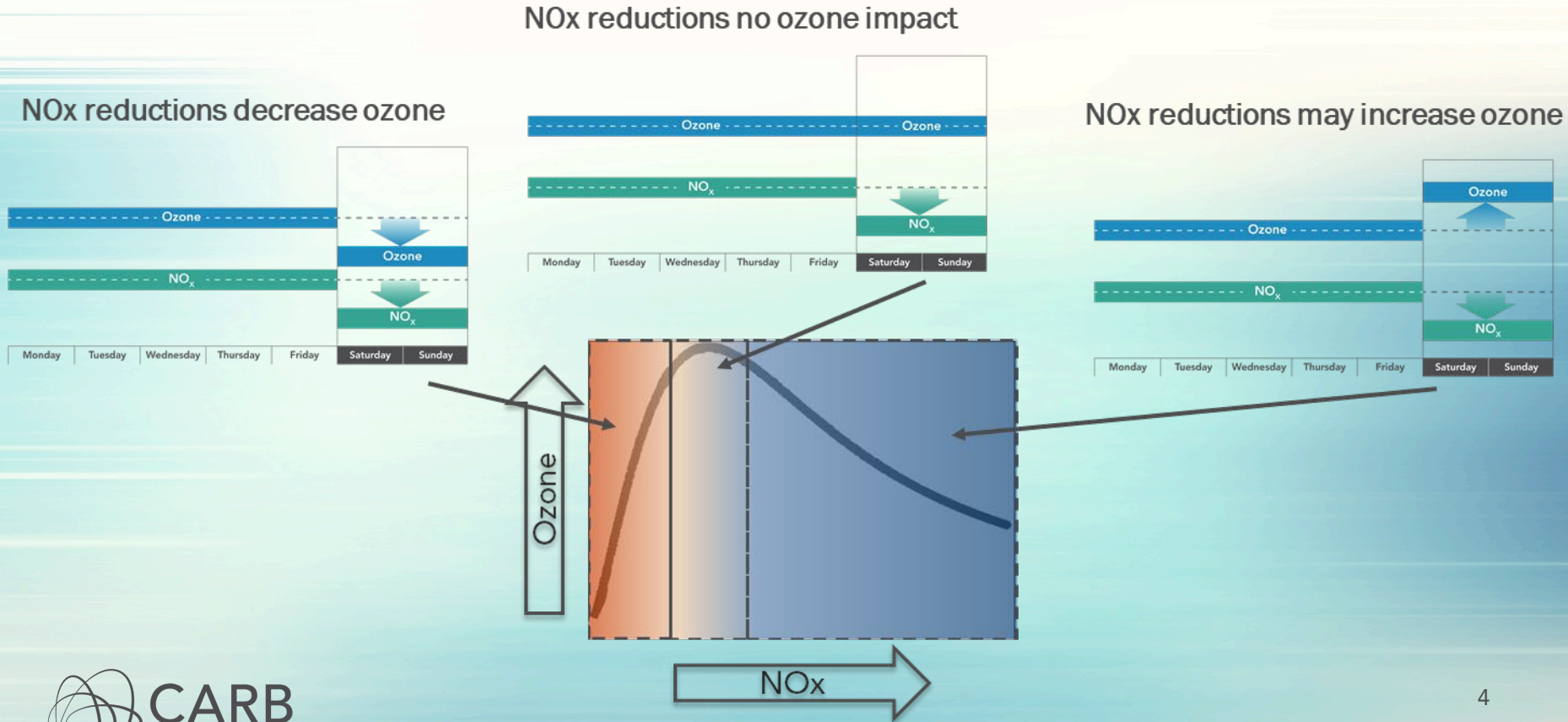
Ozone Levels in South Coast



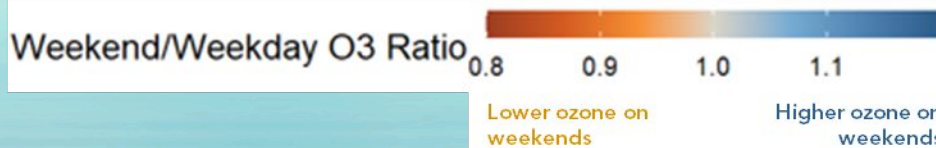
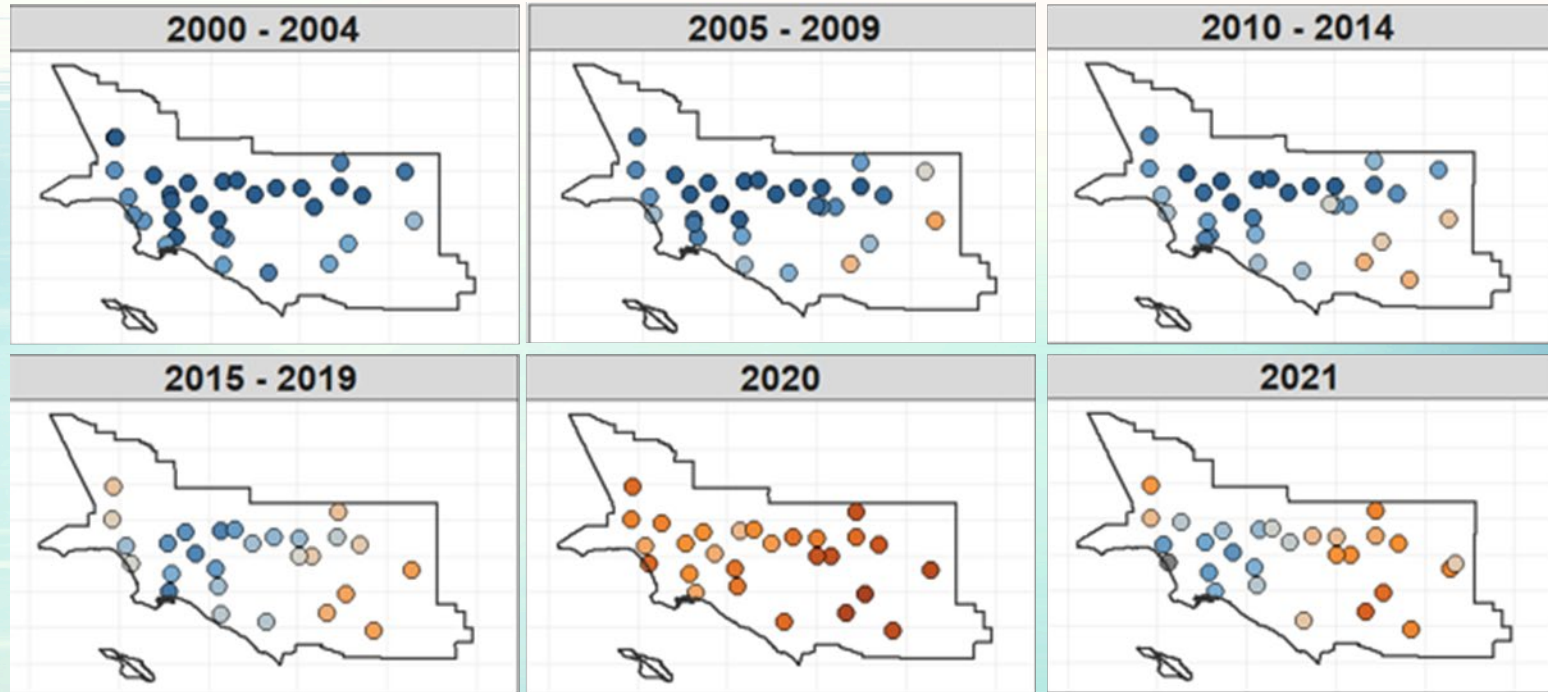
How is Ozone Formed?



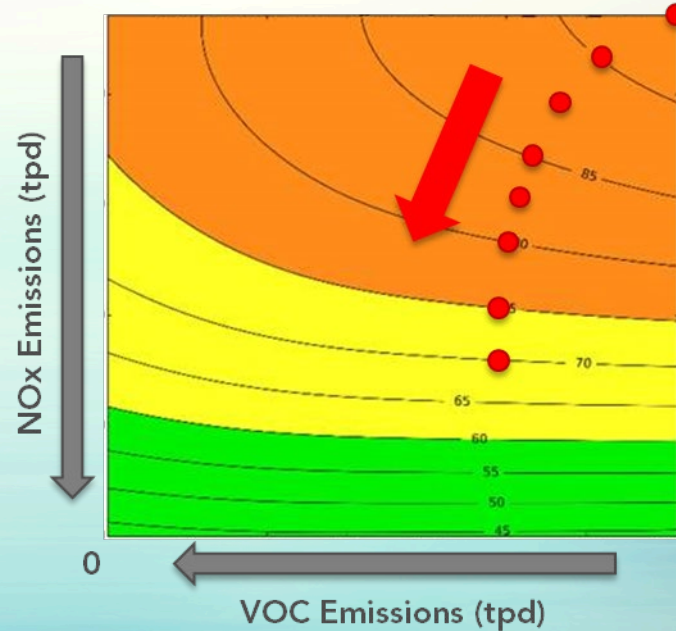
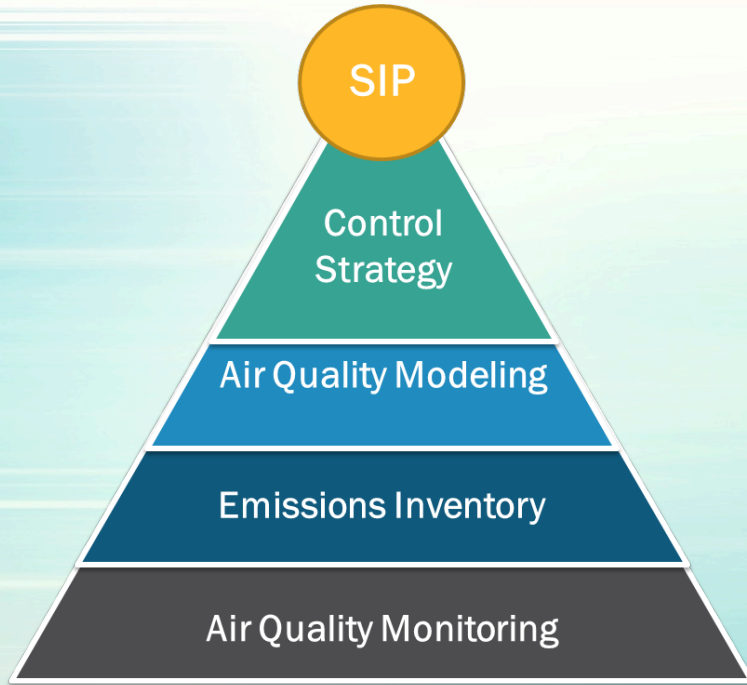
What is the Ozone Weekend Effect?



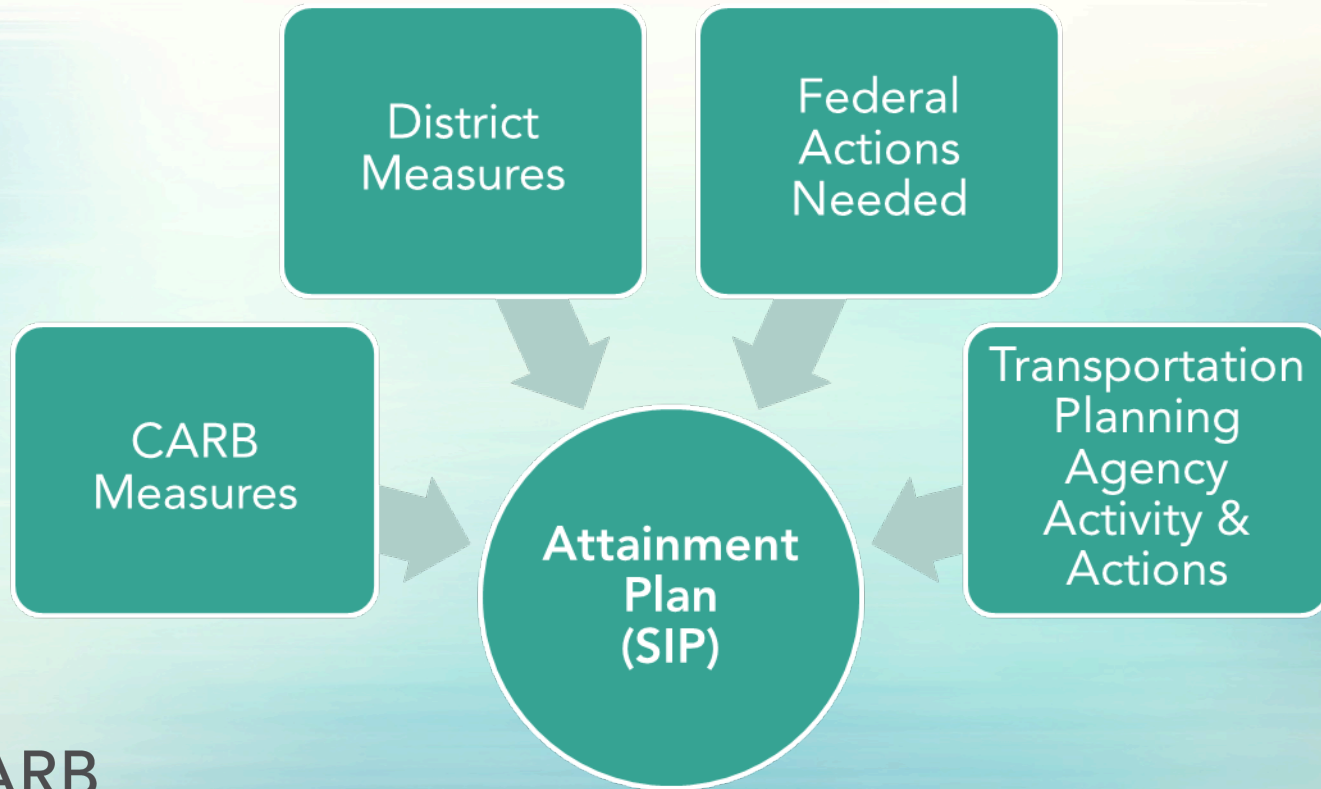
Changes in the Weekend Effect Show NOx Reductions Are Critical



Science Drives SIP Development: NOx Reductions Required



Attainment Plans and 2022 State SIP Strategy



2022 State SIP Strategy

- Draft Released on January 31, 2022
- Unprecedented variety of new measures to reduce emissions using all mechanisms available
- Level of action is necessary to meet all air quality standards and protect public health
- Drives pace and scale of CARB rulemakings
- Prioritizes near-term reductions for earlier SIP deadlines

Draft
2022 State Strategy for the State
Implementation Plan
January 31, 2022



Public Process to Date



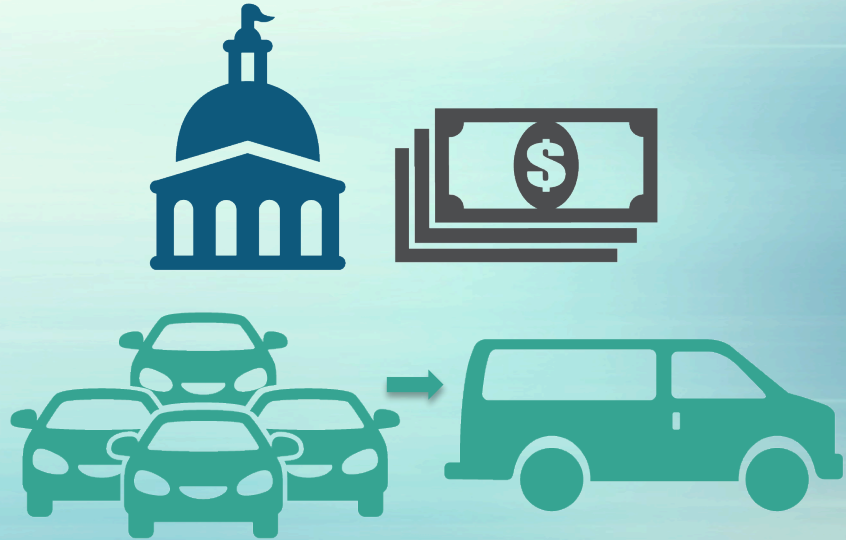
Focused Outreach to Low-Income and Disadvantaged Communities



- DACs and people of color are disproportionately affected by both mobile and stationary source pollution
- Measures will benefit DACs
- Staff engaged with community-based organizations
- Continue to develop relationships, solicit ideas and obtain feedback

Strategy Overview

- Transition away from combustion and reduce emissions to levels modeling predicts will support attainment of the 70 ppb standard, as well as earlier SIP deadlines
- Drive to Zero through:
 - regulations,
 - incentives, and
 - voluntary programs



Proposed 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
- Zero-Emission Standard for Space and Water Heaters



Aggressive Measure Schedule

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

On-Road Mobile Sources

- Advanced Clean Fleets Regulation
- Zero-Emission Trucks
- Advanced Clean Cars II (2016 SSS Measure)
- On-Road Motorcycles New Emissions Standards
- Clean Miles Standard Regulation (Adopted)
- Enhanced Regional Emissions Analysis in SIPs



Off-Road Vehicles and Equipment

- Tier 5 Off-Road Engine Standards
- In-Use Off-Road Diesel Fuel Fleets Regulation Amendments
- Transport Refrigeration Unit Regulation – Part II
- Commercial Harbor Craft Amendments (2nd Hearing)
- Cargo Handling Equipment Amendments
- Off-Road Zero-Emission Targeted Manufacturer Rule
- Clean Off-Road Fleet Recognition Program
- Spark-Ignition Marine Engine Standards



Non-Mobile Control Measures

- Consumer Products Regulation Amendments
- Zero-Emission Standards for Space and Water Heaters

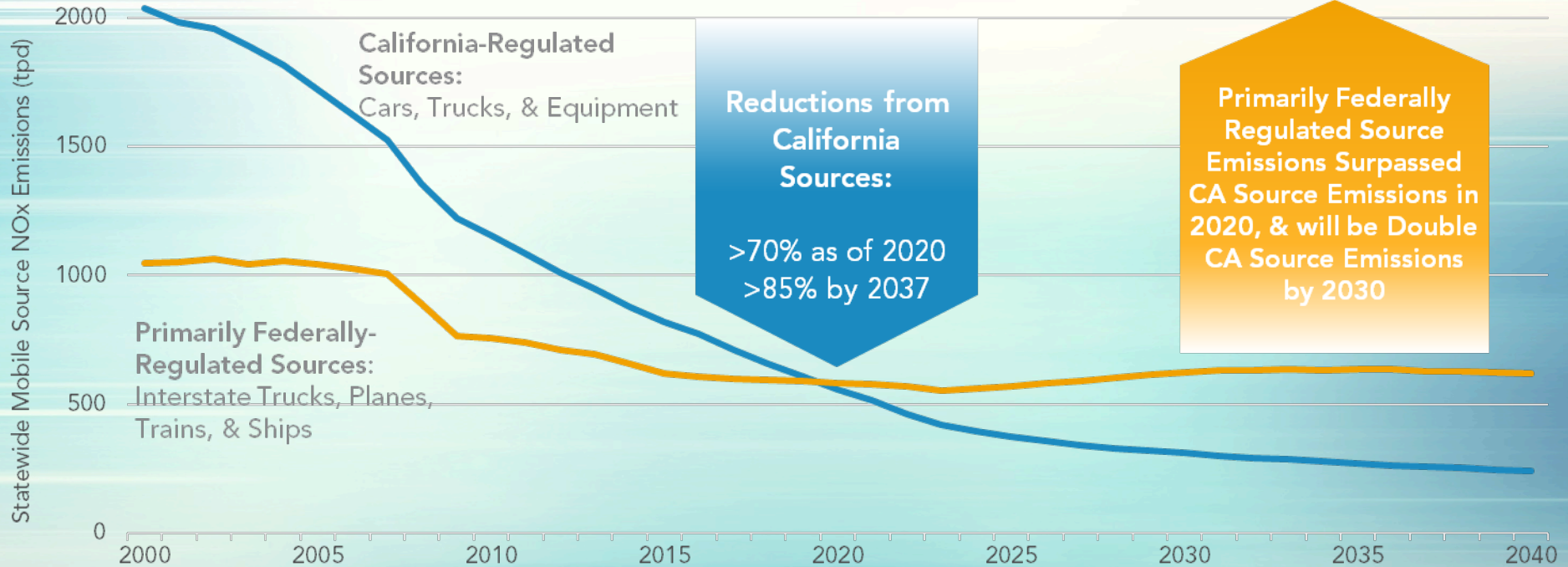


Sources Primarily Regulated at the Federal and International Level – CARB Measures

- In-Use Locomotive Regulation
- Future Measures for Aviation Emissions Reductions
- Future Measures for Ocean-Going Vessel Emissions Reductions



Federal Action is Critical



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 Switcher
- Address Remanufacturing Loophole



Ocean-Going Vessels

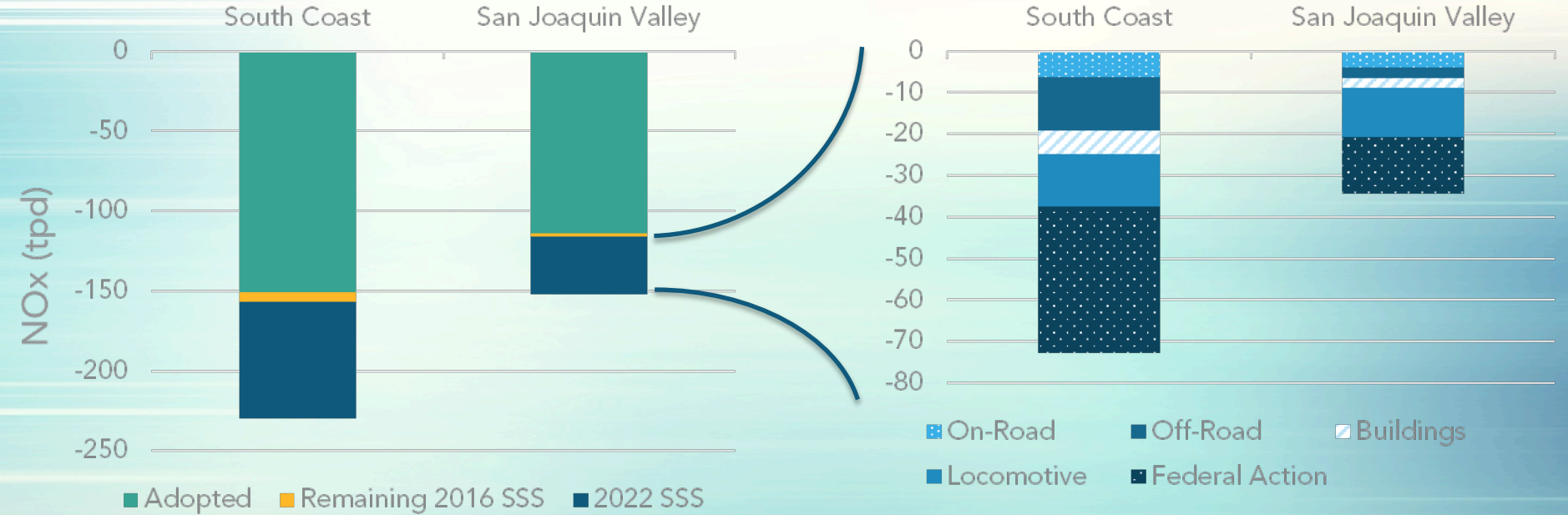
- More Stringent NOx and PM Standards
- Cleaner Fuel and Visit Requirements



Aviation

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

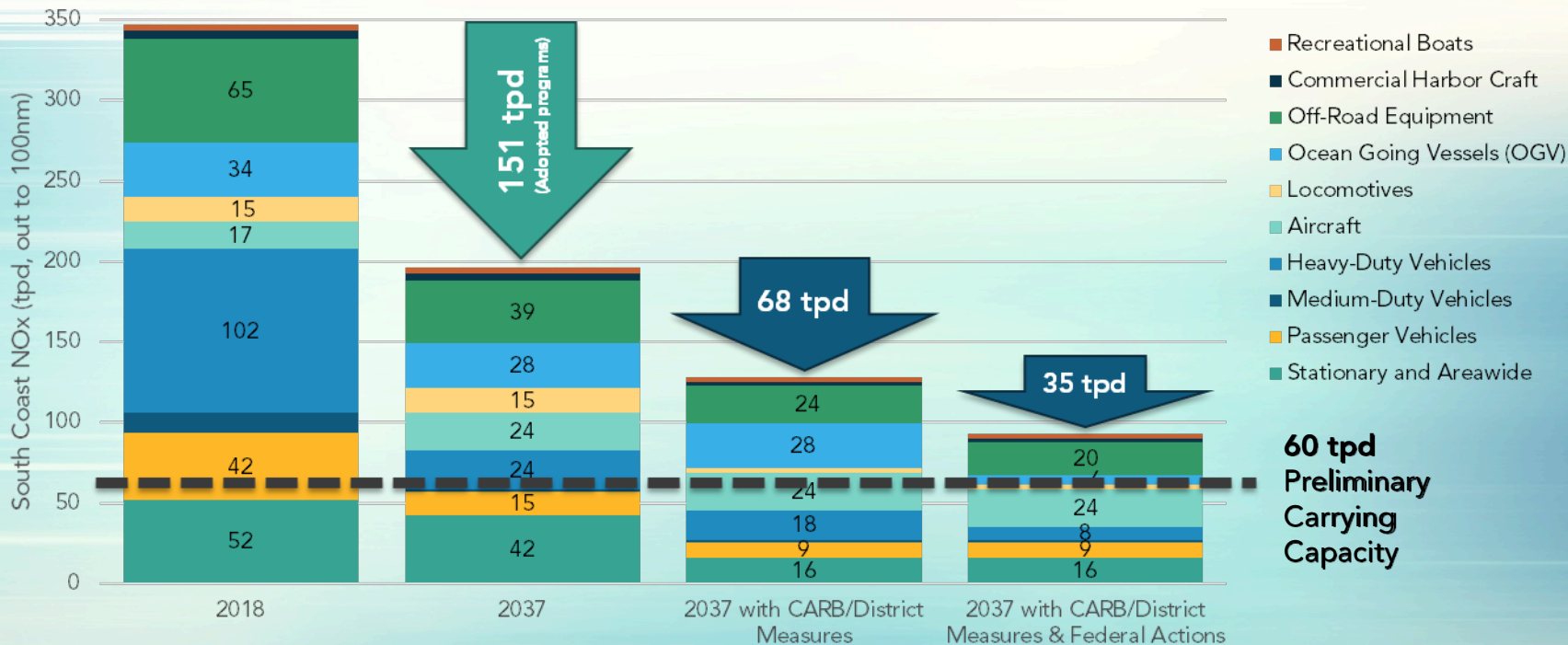
CARB NOx Strategy Benefits



Total NOx Reductions in 2037

2022 SSS Reductions in 2037

Additional Reductions Needed in South Coast

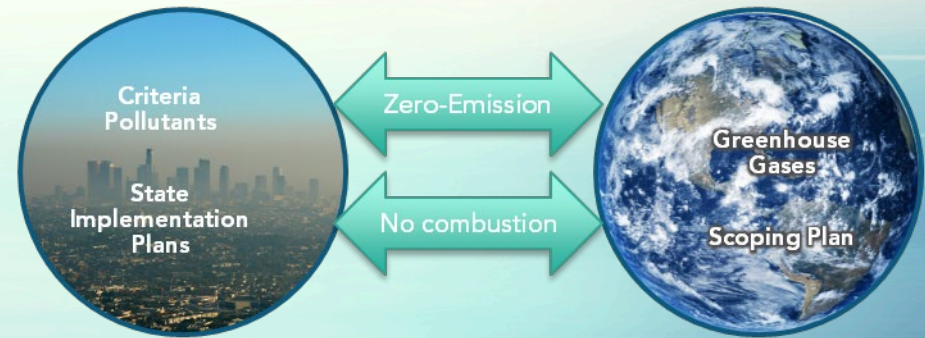


Work Continues

- South Coast demonstrated attainment with a 60 tpd carrying capacity, including new reductions from aviation and stationary and areawide sources
- Draft 2022 SSS aggressively utilizes mechanisms within CARB authority
- CARB staff continue to explore additional opportunities:
 - Largest Categories – Off-road Equipment, Passenger Vehicles
 - Public Measure Suggestions – Indirect Source Rule, Additional Building/Appliance Standards, BACT/BARCT Determinations

SIP and Scoping Plan Complement One Another

- 2020 Mobile Source Strategy blueprint addresses climate change, air quality, and community risk
- SIP and Scoping Plan both drive technology towards zero
- CARB regulatory efforts support climate change, air quality, and community risk reduction goals



February 2022 SSS Workshop

- Announced in conjunction with release of Draft 2022 SSS
- Provided update on development
- Listened to input from stakeholders
- Solicited ideas
- Answered questions

February Workshop Comments

Thank you!

- Zero-Emissions Trucks Measure
- Enhanced Regional Emission Analysis in SIPs
- In-Use Locomotive

More Opportunities

- Pesticides
- ISR – SCM or Regulation
- BACT/BARCT Determinations

Next Steps

Today: Solicit Board Feedback and Ideas

Ongoing: Identify commitments for other nonattainment areas,
Identify more measures to provide for South Coast attainment in 2037

March 2022:
Release CEQA 2022 State SIP Strategy Draft Environmental Analysis

Summer 2022:
Release Proposed 2022 State SIP Strategy

Summer 2022:
Board Consideration of 2022 State SIP Strategy & District SIPs

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

Thank you