

ATTAINMENT OF FEDERAL OZONE STANDARDS - FEDERAL AND LOCAL MEASURES

NACAA Criteria Pollutants Committee

February 23, 2022

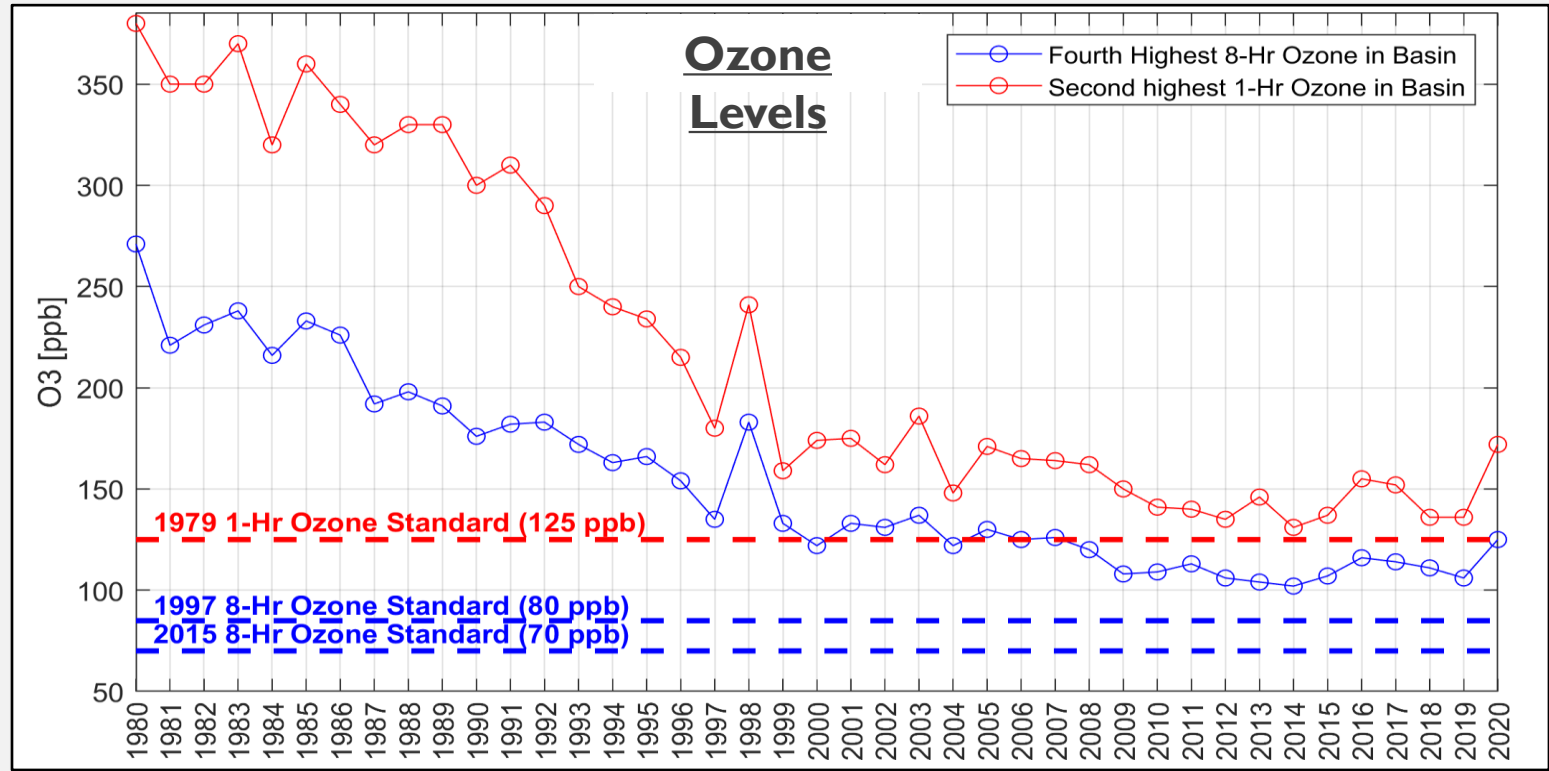
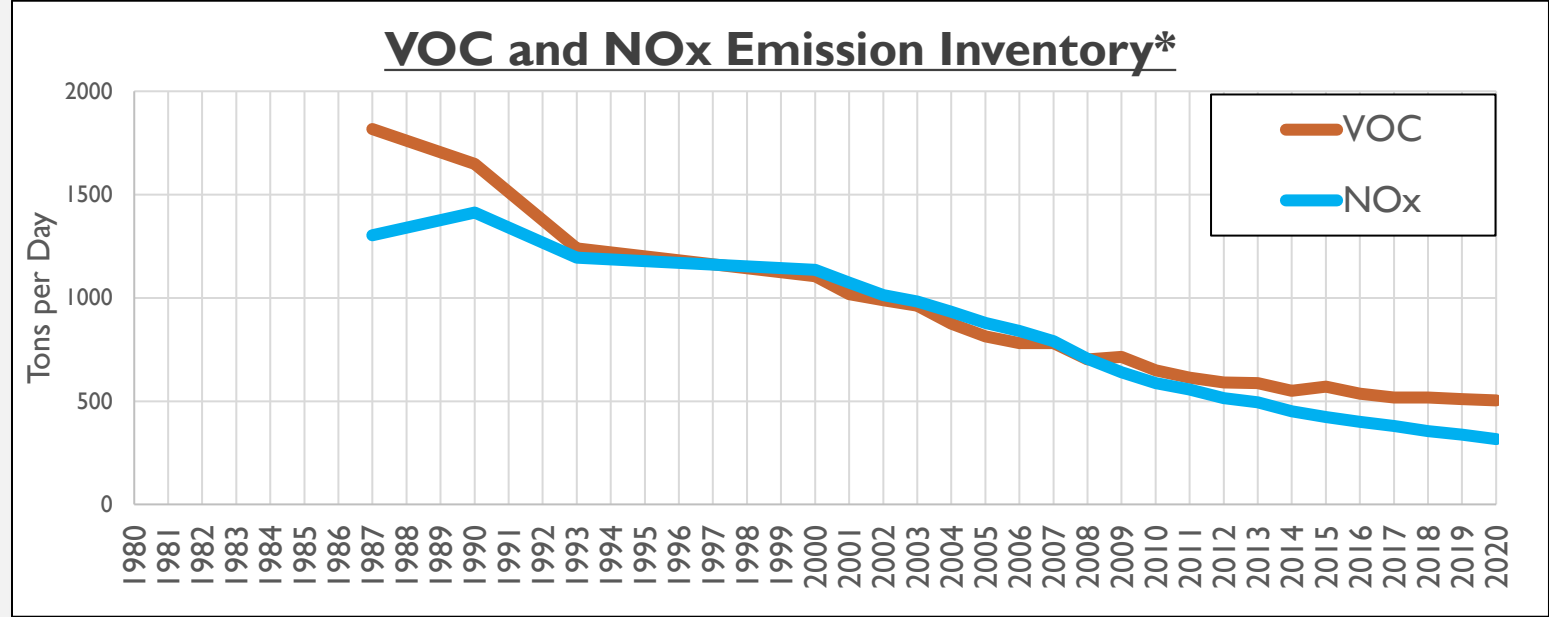
South Coast AQMD

SOUTH COAST AQMD



One-third of all U.S. containerized cargo

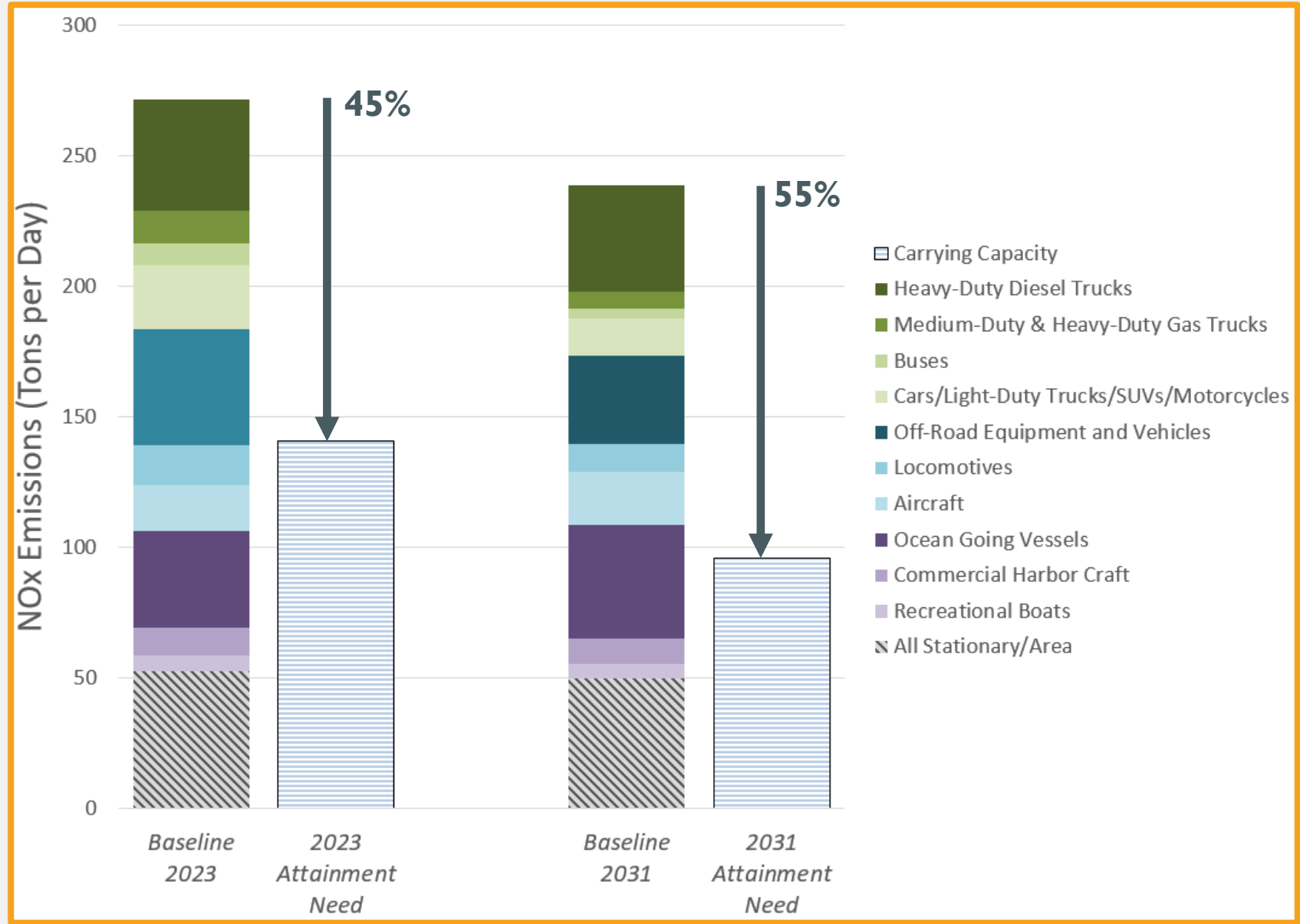
LONG TERM TRENDS – OZONE REDUCTIONS DUE TO EMISSION REDUCTIONS



*Pre-2000 Emissions from 1997 AQMP, post-2000 emissions from CARB's CEPAM

MOBILE SOURCES ARE THE MOST IMPORTANT ISSUE

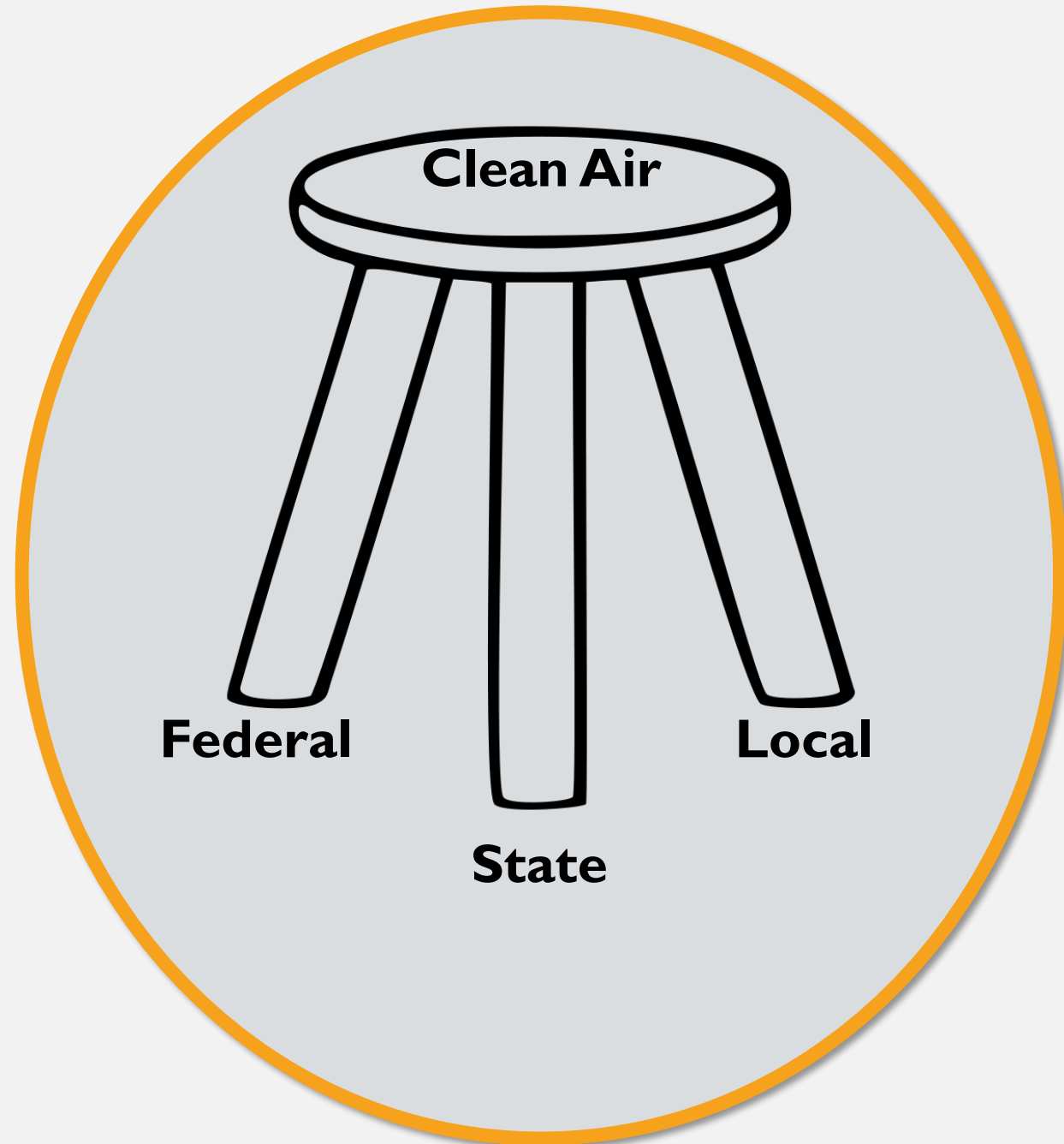
South Coast would need to eliminate all CA and District-regulated stationary, area, and on-road mobile sources and some off-road sources to attain the 1997 8-hr ozone standard without reductions from federal sources.



Mobile Sources are ~80% of the inventory, but our authority is limited

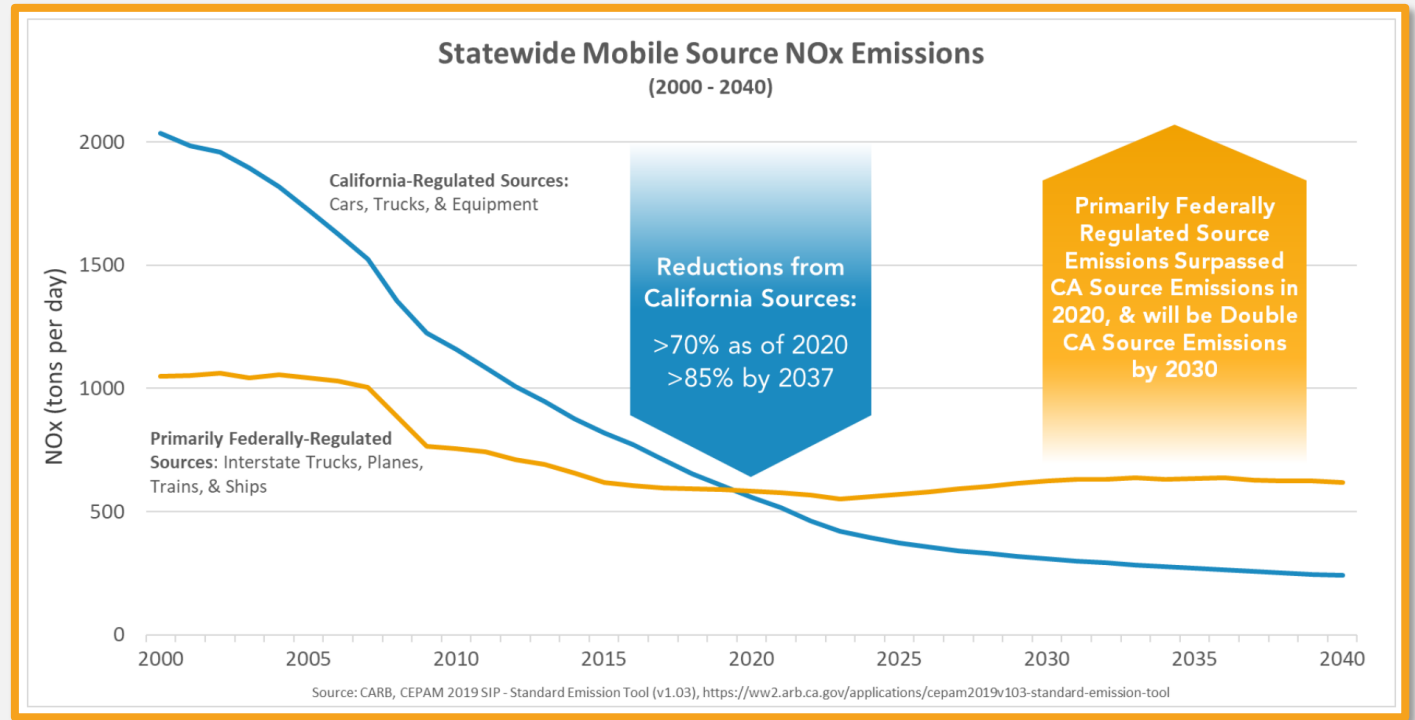
AGENCY ROLES

Clean Air Act establishes a framework for the federal government and state and local governments to work together to meet air quality standards

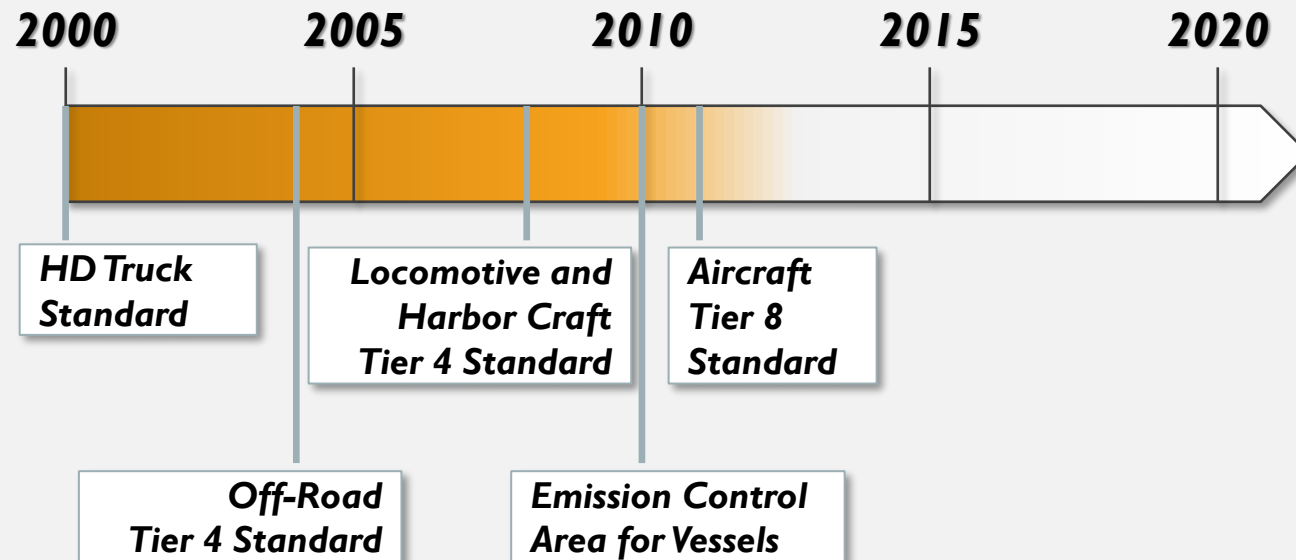


ATTAINMENT CHALLENGE

- Critical need for federal action

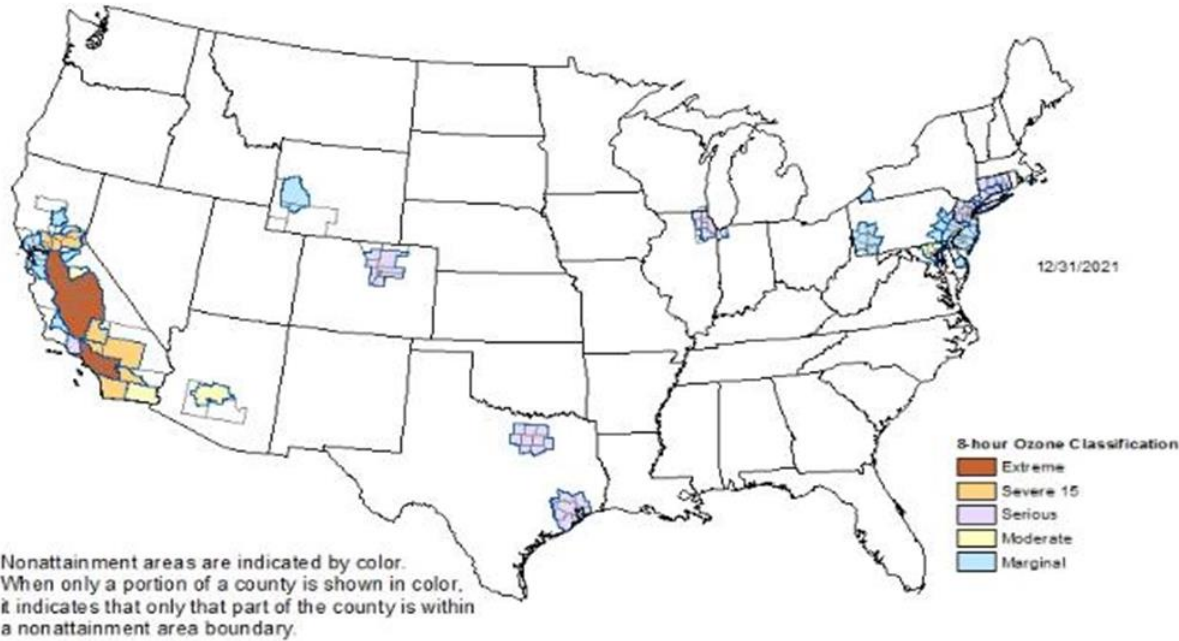


Significant EPA Actions Addressing Mobile Source Emissions



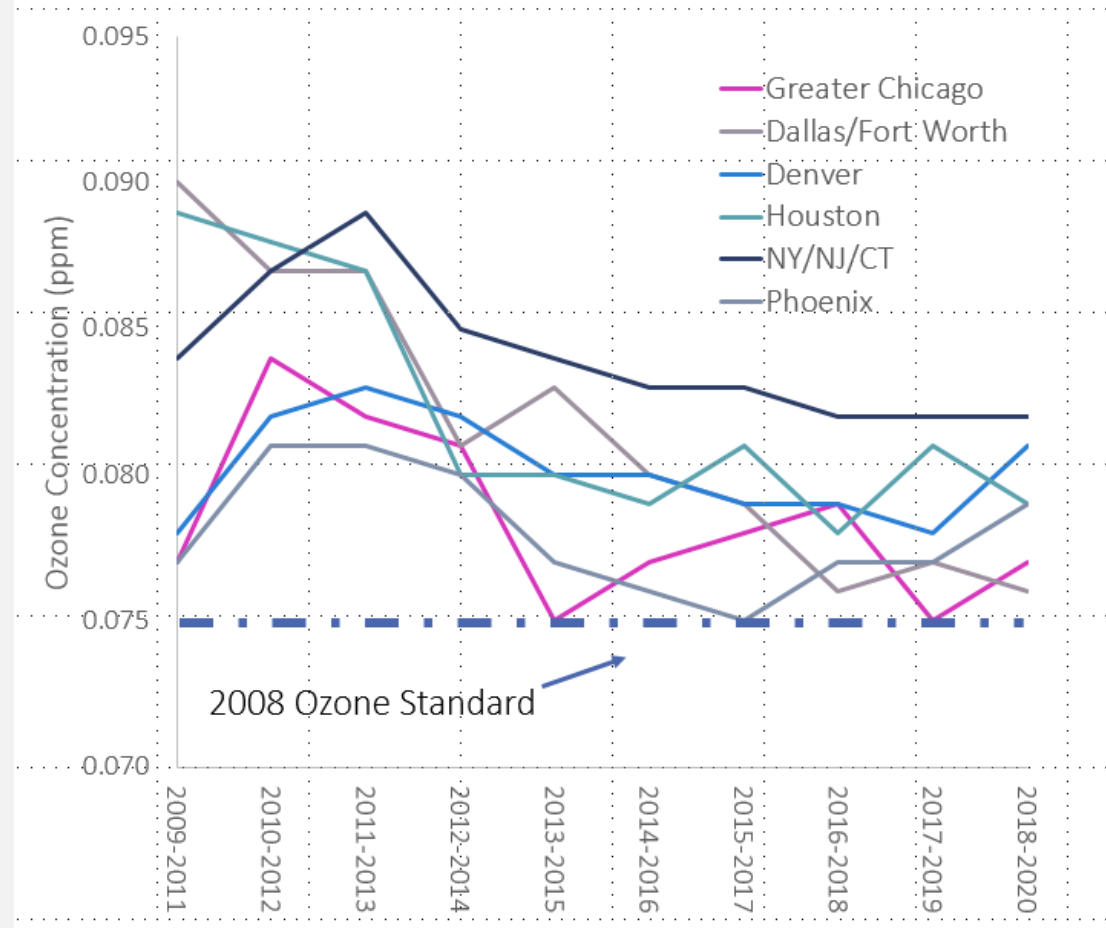
Nationwide Attainment Challenges: *South Coast & California are unique... but others following*

8-Hour Ozone Nonattainment Areas (2008 Standard)



- NY/NJ/CT, Chicago, Dallas, Houston, Denver and San Diego missed 2021 deadline for attainment for serious areas
- San Diego already reclassified to severe, others will follow

15% of US population will live in severe ozone nonattainment areas



These areas will become extreme nonattainment areas if they do not attain the standard by July 2027

ATTAINMENT CHALLENGE

- Consequences of non-attainment
 - #1 is public health
 - \$173 billion in monetized public health benefit through 2031 from meeting air quality standards in South Coast
 - Benefits are 20-25% higher for EJ populations
 - 2/3rd of CA EJ population lives in South Coast
 - Federal sanctions
 - Near-term potential: 2022-2024 timeframe
 - No additional ozone classifications available
 - Highway funding, offset ratios
 - **FIP**

*No remaining 'low-hanging fruit'.
Indirect Source Rules one of few remaining options*

OVERLAPPING MOBILE SOURCE AUTHORITY

International

- Sets emissions standards for new engines and fuels
 - Aircraft, ships

Federal (EPA)

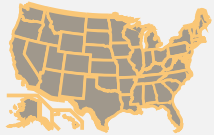
- Sets emissions standards for new engines and fuels
 - Motor vehicles, off-road equipment, locomotives, ships, aircraft

State (CARB)

- Sets emissions standards for new engines and fuels
 - Requires waiver from EPA
 - Construction and farm equipment <175HP and locomotives pre-empted
- Sets in-use performance standards

Local (SCAQMD)

- Limited in-use authority for fleets serving governments
- Indirect Source authority



INDIRECT SOURCES

Indirect Source (noun)

in-də-'rekt sɔrs

A facility, building, structure, installation, real property, road, or highway which attracts, or may attract, mobile sources of pollution. [CAA 110(a)(5)(C)]

- Clean Air Act allows states and their subdivisions to:
 - Include an indirect source review program as part of its SIP [CAA 110(a)(5)(A)]
 - “Adopt or enforce any standard or limitation respecting emissions of air pollutants” and also “any requirement respecting control or abatement of air pollution” [CAA 116]

California law further delegates indirect source authority to South Coast AQMD

Any indirect source rule must still stay within limits of federal preemptions

SOUTH COAST AQMD APPROACH TO FACILITY BASED MOBILE SOURCE MEASURES

Sector	Approach
Warehouses	Indirect Source Rule (Adopted)
Airports	Memorandums of Understanding (Adopted)
Rail Yards	Indirect Source Rules (In Development)
Marine Ports	Indirect Source Rule (In Development)
New Development	Further Study

Paired with pursuit of incentive funding and advocating for rulemaking from state and federal government

EXISTING LOW NOx TECHNOLOGIES HAVE NOT BEEN WIDELY IMPLEMENTED BY INDUSTRY/PORTS

Nonroad Cargo
Handling
Equipment



**Tier 4f or
cleaner**

Effective
2014-2015



Harbor
Craft



Tier 4

Phased in
2014-2017



Rail
Locomotives



Tier 4

Effective
2015



Ocean-going
Vessels



Tier III

Effective
2016



Heavy-Duty
Trucks



**Optional
Low NOx or
cleaner**

Available in
2018

~34%*

<1%

~5%

~2%

~3%**

Percent of vehicle/equipment use at ports of LA/LB as reported in their 2020 emission inventories

* Based on equipment counts; including diesel 4f (~22%) and zero-emission electric equipment (~12%).

** Based on gate move counts; including CNG (~3%) and zero-emission battery electric and hydrogen fuel cell trucks (~0.15%)

EXAMPLE INDIRECT SOURCE RULE: WAREHOUSE ISR – WAIRE PROGRAM

Requirements

Annually Earn WAIRE Points

Warehouse Actions and Investments to Reduce Emissions (WAIRE) Menu

Mitigation Fee

Custom WAIRE Plan

Limited transferring/banking with early or over-compliance

Funds projects in communities near warehouses that paid the mit. fee

Reporting

Warehouse Operations Notification

Initial Site Information Report

Annual WAIRE Report

Applicability

- Owners and operators of warehouses $\geq 100,000$ sf
- Owners are only subject to reporting, but they can voluntarily earn points

Phase-In

- Starting Jan. 1 2022, warehouses introduced into program over 3 years
 - Largest are first
- Once in, stringency increases over 3 years

KEY CONSIDERATIONS FOR INDIRECT SOURCE RULES

Business model of indirect sources

- Indirect source facility may not control emissions sources in the same way as a traditional stationary source

Federal role

- Varying levels of preemption depending on type of emission source
- EPA approval into the SIP

State of technology

- Example: zero emissions vs. ultra-low NO_x

State-specific statutes

- Clean Air Act authority compared to state authority

Community perspective

- Input of local community critical for South Coast ISR approach