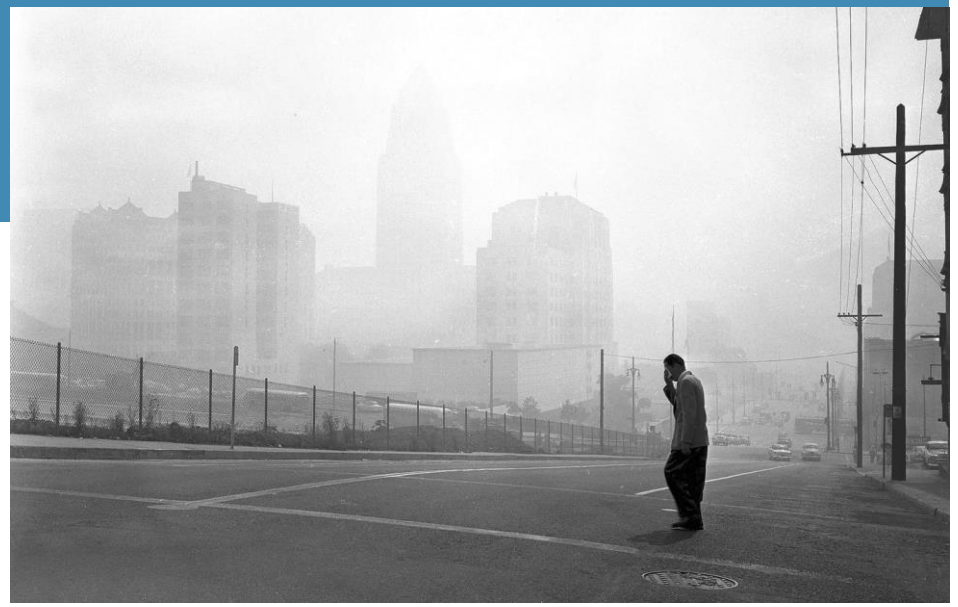
IMPACTS OF THE SAFE VEHICLES RULE IN SOUTHERN CALIFORNIA

SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT

APRIL 28, 2020

OUR CHALLENGE

The Los Angeles area has historically suffered from some of the worst air quality in the country



Los Angeles c. 1950

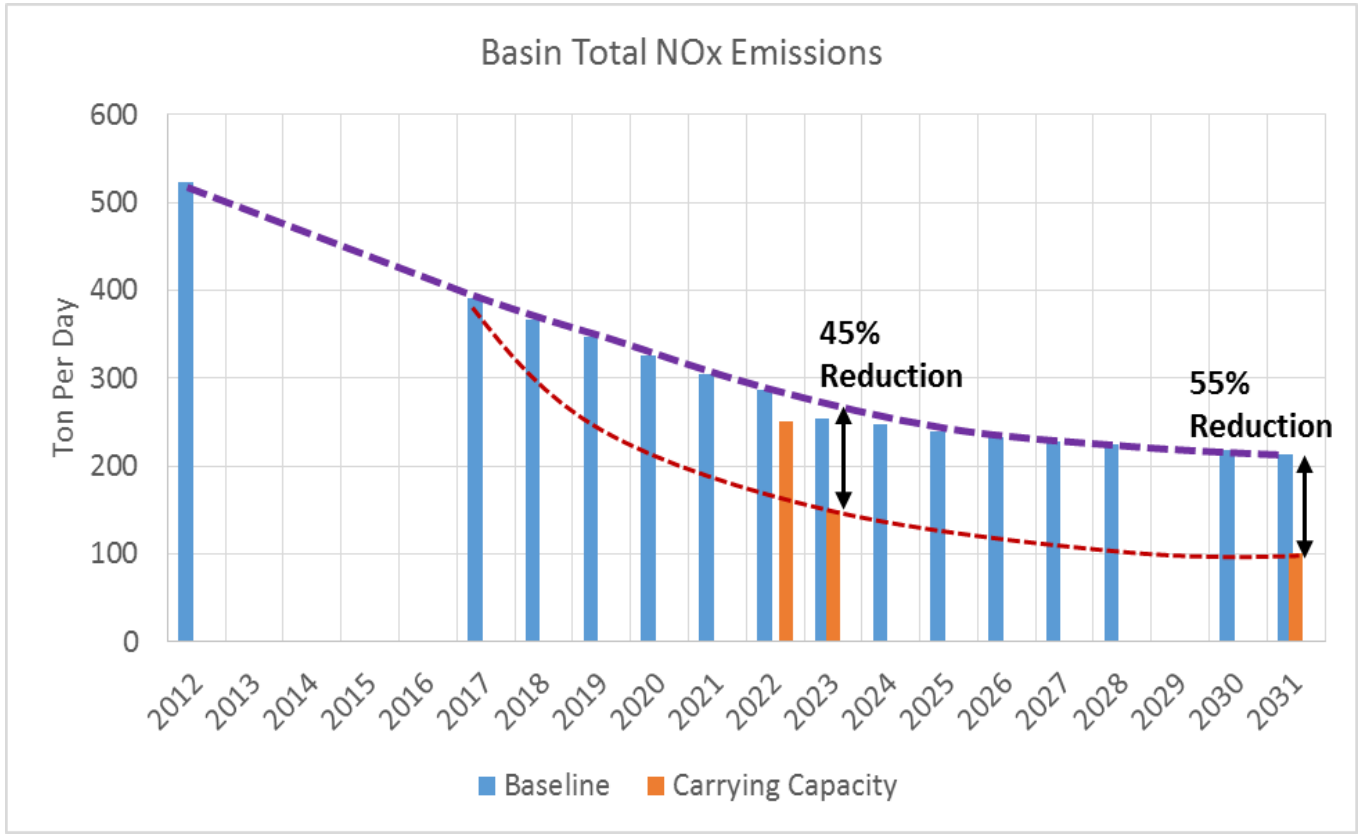
Los Angeles 2017

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

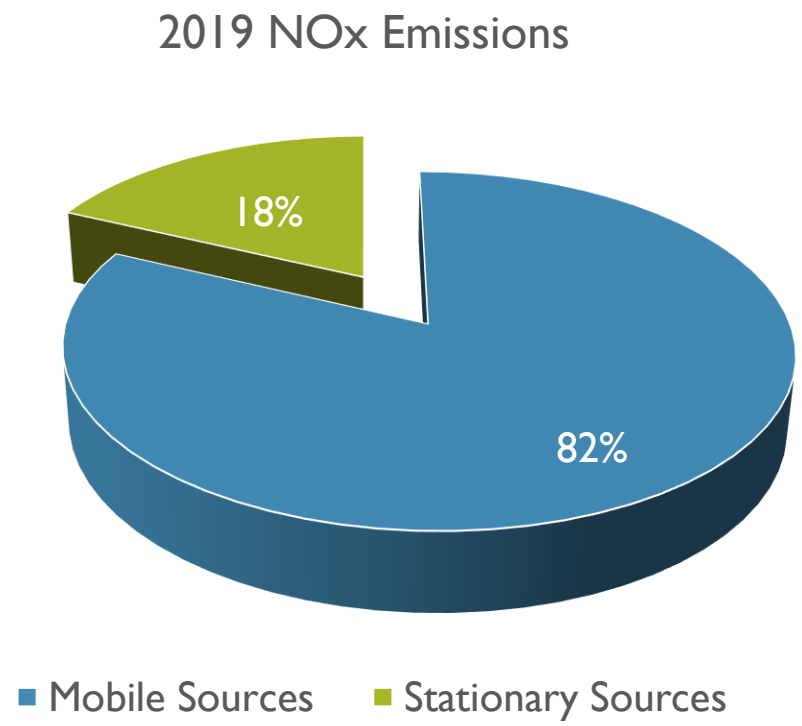
- Worst ozone in the country
- Second-worse fine particulate matter ($PM_{2.5}$)

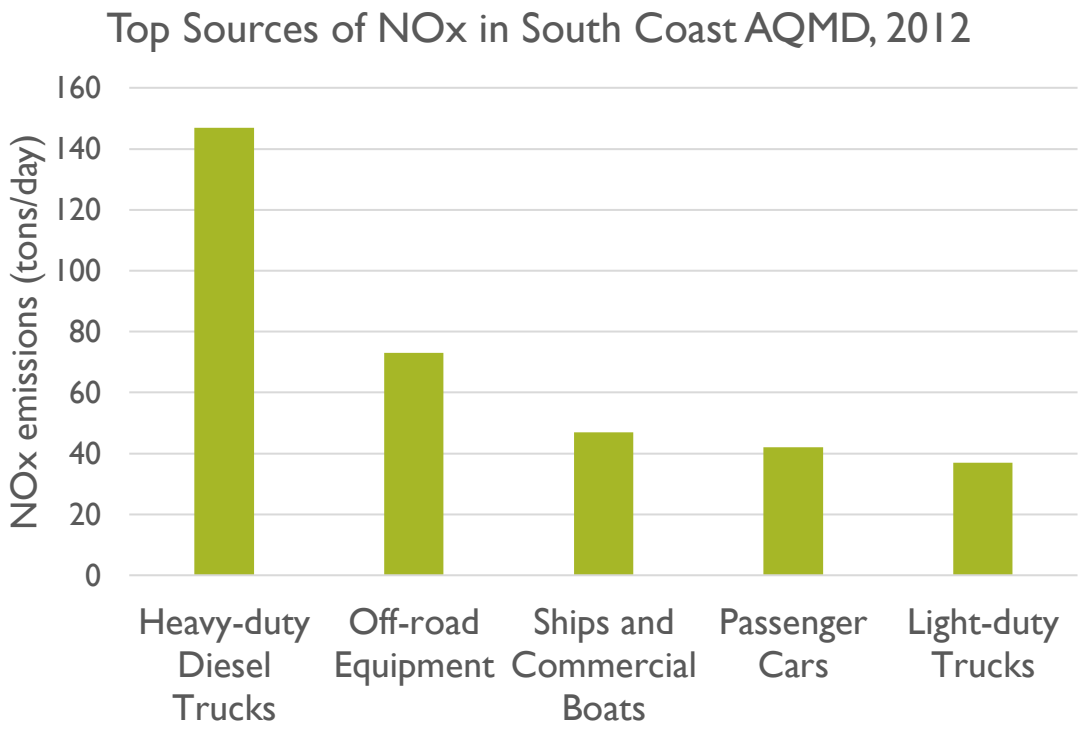
REDUCING NOx IS KEY TO MEETING BOTH OZONE & PM STANDARDS

- NOx causes both ozone and PM nonattainment
- We need a 45% reduction in NOx by 2023 and a 55% reduction by 2031 to meet federal standards
- These reductions are above and beyond existing regulations
- We cannot afford any increase in NOx emissions from existing regulations



REDUCING MOBILE SOURCE EMISSIONS ARE CRITICAL TO ACHIEVING AIR QUALITY GOALS





Transition to zero and near-zero emission technologies is essential to meeting air quality goals

EMISSIONS IMPACTS OF THE FINAL SAFE VEHICLES RULE

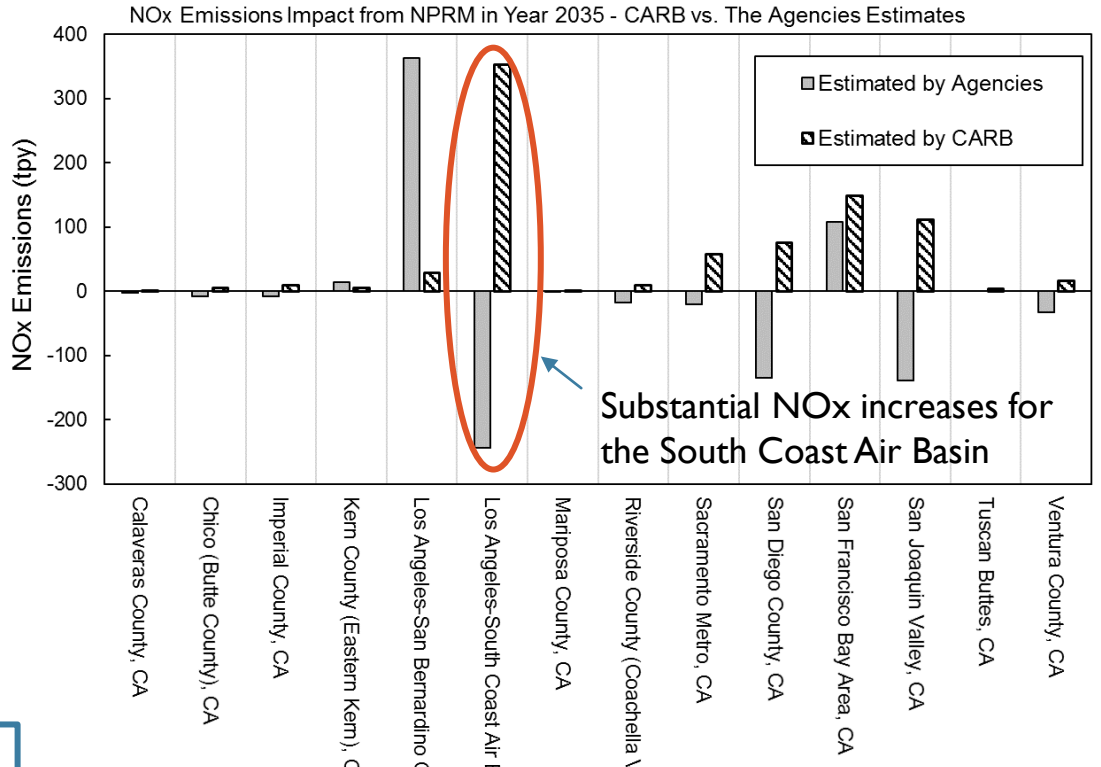
- Increase fuel economy 1.5%/year for passenger cars and light trucks for MY 2021-26
- No change to tailpipe standards for criteria pollutants/air toxics
- Projects that "impacts on criteria and air toxics pollutant emissions too small to observe"
  - Tailpipe emissions will decrease due to decline in VMT from rebound effect
  - Upstream emissions will increase due to increased production of gasoline
  - Appears to project emissions increase in the South Coast Air Basin

Projected Emission Increases (TPY) – FEIS Appendix A			
Year	PM	NOx	VOC
2025	20	-125	-135
2035	66	151	283
2050	90	552	845

THE PROPOSED SAFE VEHICLES RULE WILL INCREASE NOx EMISSIONS

- CARB's state strategy calls for a 6 ton per day NOx reduction from the light duty sector in our region by 2031
  - Almost all will be accomplished by vehicle turnover, not ZEVs
- The proposed rollback would have increased NOx emissions 1.24 tons per day
- The final rule acknowledges increased NOx emissions for South Coast
  - Tailpipe criteria pollutant emissions are unchanged
  - Upstream emissions increased from increased gasoline production

We will have to offset any increases in NOx emissions from mobile sources with additional reductions from stationary sources



Source: CARB Analysis in Support of the California Air Resources Board on the SAFE Vehicles Rule for Model Years 2021-2026 Passenger Cars and Light Trucks, Fig. VII-1

IMPACT ON SIP APPROVALS

- The current motor vehicle budgets for SIPs in California are based on the EMFAC emissions model
  - EMFAC assumes that the current vehicle emission standards continue to the future
- With the final SAFE Vehicles Rule, EMFAC no longer accurately predicts future vehicle emissions
  - EPA/NHTSA reiterate that EMFAC is still valid and it is premature to speculate whether SIPs relying on EMFAC will be disapproved
  - But – in a proposal to approve South Coast 1-hr and 8-hr ozone requirements, Region 9 acknowledged that the baseline emissions of the plan project implementation of the ZEV mandate and GHG emission standards and that the final SAFE Vehicles Rule could change
- EPA/NHSTA project emission increases in the South Coast Air Basin; when modeled with CA-specific data these will likely increase

TRANSPORTATION PLANNING AND WHY IT IS AFFECTED BY THE SAFE VEHICLES RULE

- Each region must develop a long-term multi-modal Transportation Improvement Plan (TIP) – a comprehensive plan listing all transportation projects and programs
  - Includes transit, highways, bridges, local streets, bicycle, pedestrian and freight movement projects
  - Includes all projects requiring federal funding or action (e.g., NEPA)
  - Approved by the Federal Highway Administration/Federal Transit Administration; updated every four years
- Before approving a transportation plan, regions need to demonstrate that the emissions from the projects included in that plan are consistent with the SIP
- If the emissions associated with the TIP fail to conform with SIP requirements causes a "conformity freeze" – withholding federal funding and/or approval for transportation projects

A conformity freeze would jeopardize approximately 2,000 projects totaling over $130 billion in California

THE SAFE VEHICLES RULE WILL FREEZE TRANSPORTATION PLANNING

- Due to projected emission changes resulting from the final SAFE Vehicles Rule, EMFAC will no longer be accurate
- Regions will therefore be unable to demonstrate conformity for revised TIPs or revised projects within currently approved TIPs
- Revising and updating EMFAC would take years; individual SIPs could also have to be revised and updated

Transportation projects would be delayed and/or risk losing funding for years while emission models and SIPs were revised, updated and approved