

Report on the Implementation of AB 197

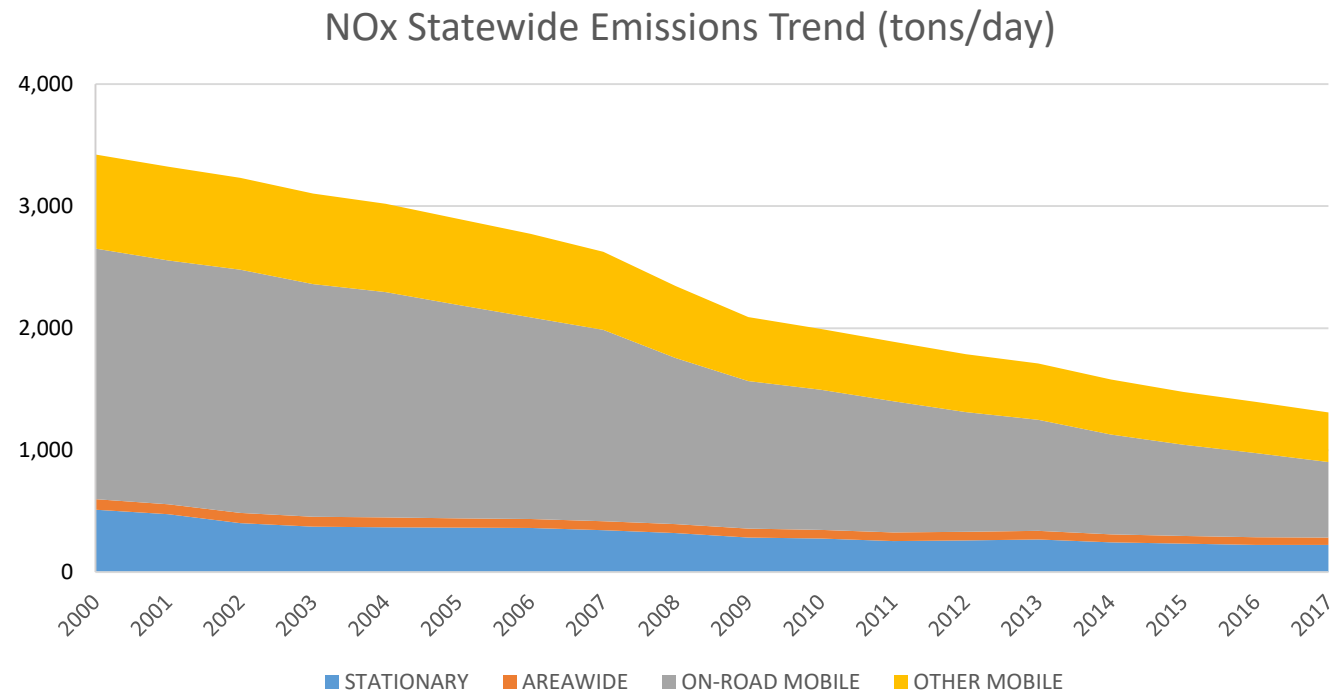
Mary D. Nichols, Chairman

FEBRUARY 3, 2020



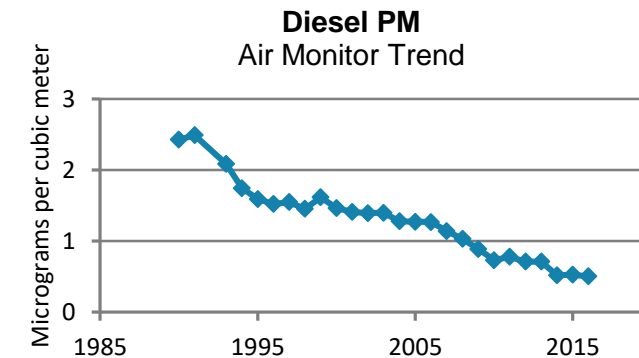
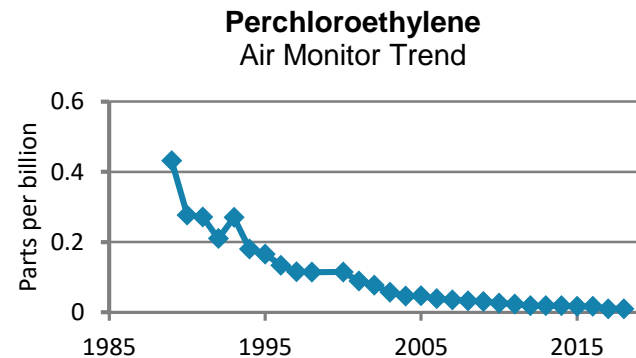
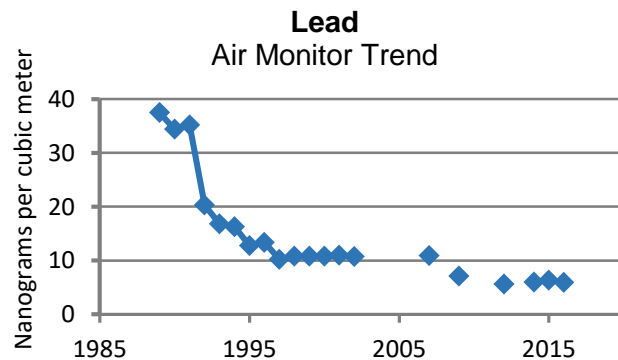
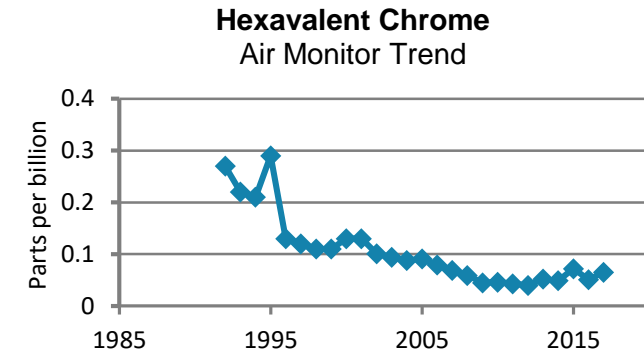
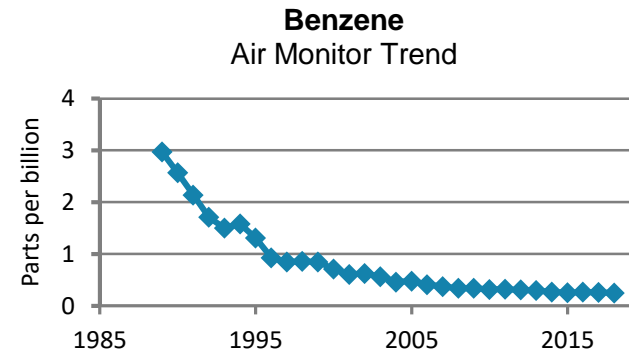
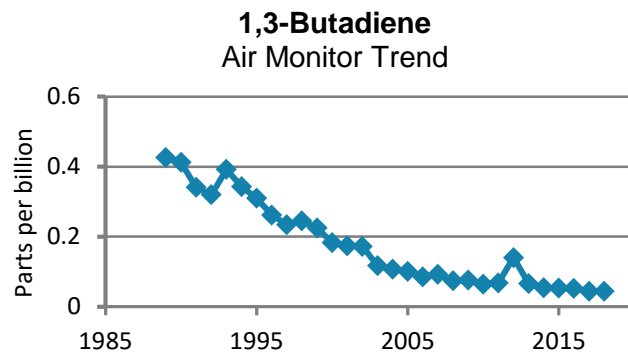
Air Quality Successes – Criteria Pollutants

- **NO_x emissions have steadily declined since 1970s**
- **Reductions are due to improvements in vehicle efficiency and advancements in stationary source engine and stack emission control technologies**

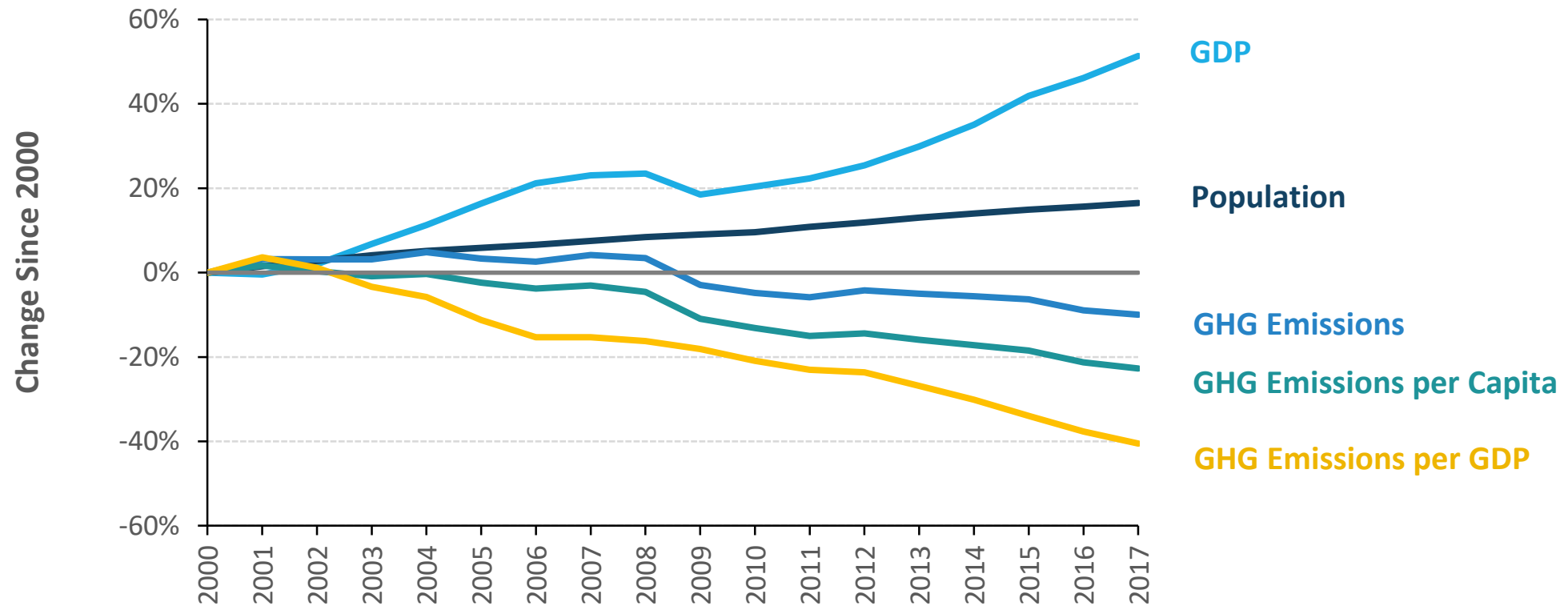


Air Quality Successes – Toxic Air Contaminants

Substantial statewide toxic air contaminant reductions have occurred since the early 1990s due to Federal (Clean Air Act), State (Air Toxics Control Measures) and local air district regulations (stationary source reductions).

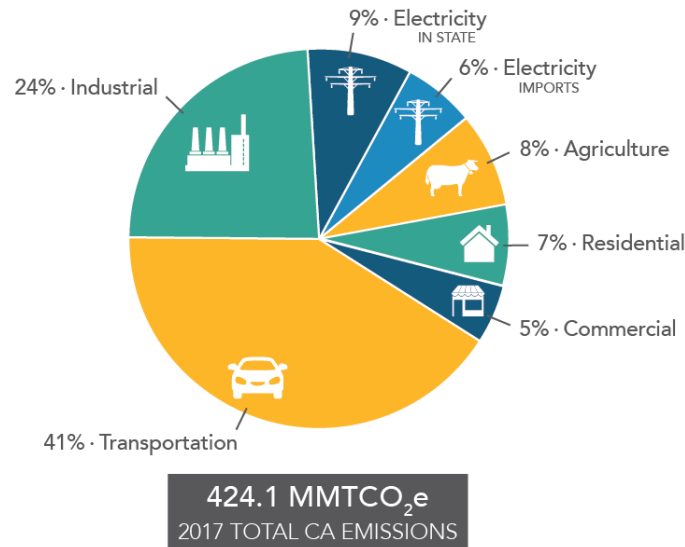


Growing and Cleaner Economy: California's Trends

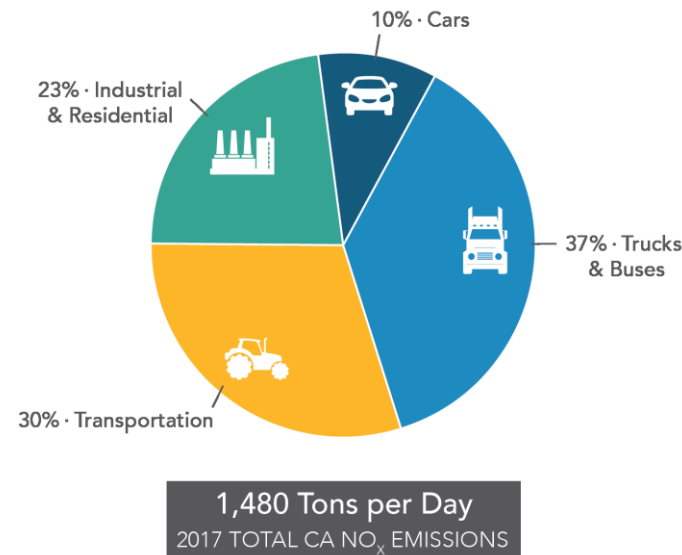


Source: 2019 Edition, California Greenhouse Gas Emission Inventory: 2000-2017

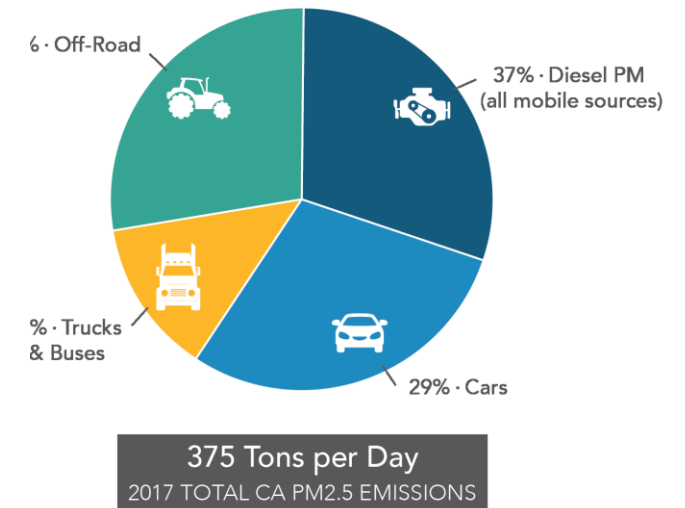
Transportation Sector: Largest source of GHG and NO_x Emissions



Source: 2019 Edition, California Greenhouse Gas Emission Inventory: 2000-2017



Source: CARB Emission Inventory



Source: CARB Emission Inventory

Transportation Sector: Critical New Paradigm Necessary

Aggressive strategies needed to meet National air quality standards, SB 32 GHG requirements, and ***carbon neutrality in 2045***

By 2045: Goal is zero-emission transportation sector through transformative action

ZEVs, coupled with
infrastructure that
increases climate
resiliency

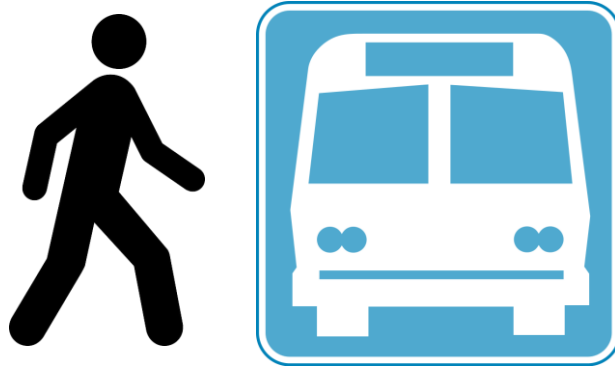
Sustainable
communities that
improve travel choices
and reduce VMT

* When accounting for in-state fuel production

Transportation Sector: Targets for Pathway to Zero-Carbon

Widespread Electrification

- **By 2035:** 100% new car sales are ZEVs; All school buses, marine port & airport equipment are ZEVs
- **By 2045:** All passenger vehicles on the road are ZEVs



Increased Transportation Options to Reduce VMT

- **By 2035:** Reduce vehicle miles traveled per capita by 25%
- **By 2045:** High-quality, efficient travel options for all Californians

Transportation Sector: State Actions to Achieve Targets



Requirements

- Vehicles
- Fleets
- SB 375 SCSs



Financial

- Incentives for veh's & chargers



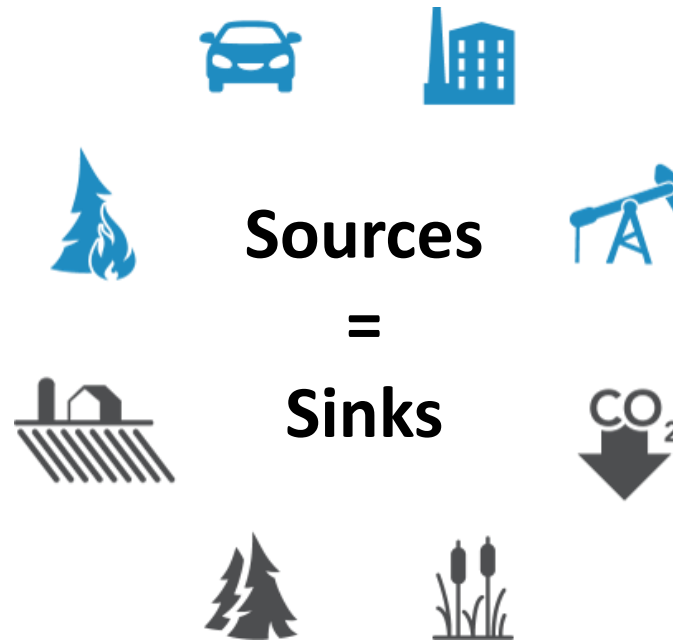
Supporting Programs

- State investments
- Outreach and education

Carbon Neutrality

Sources

Fossil Energy
Industrial Processes
Natural and working
lands



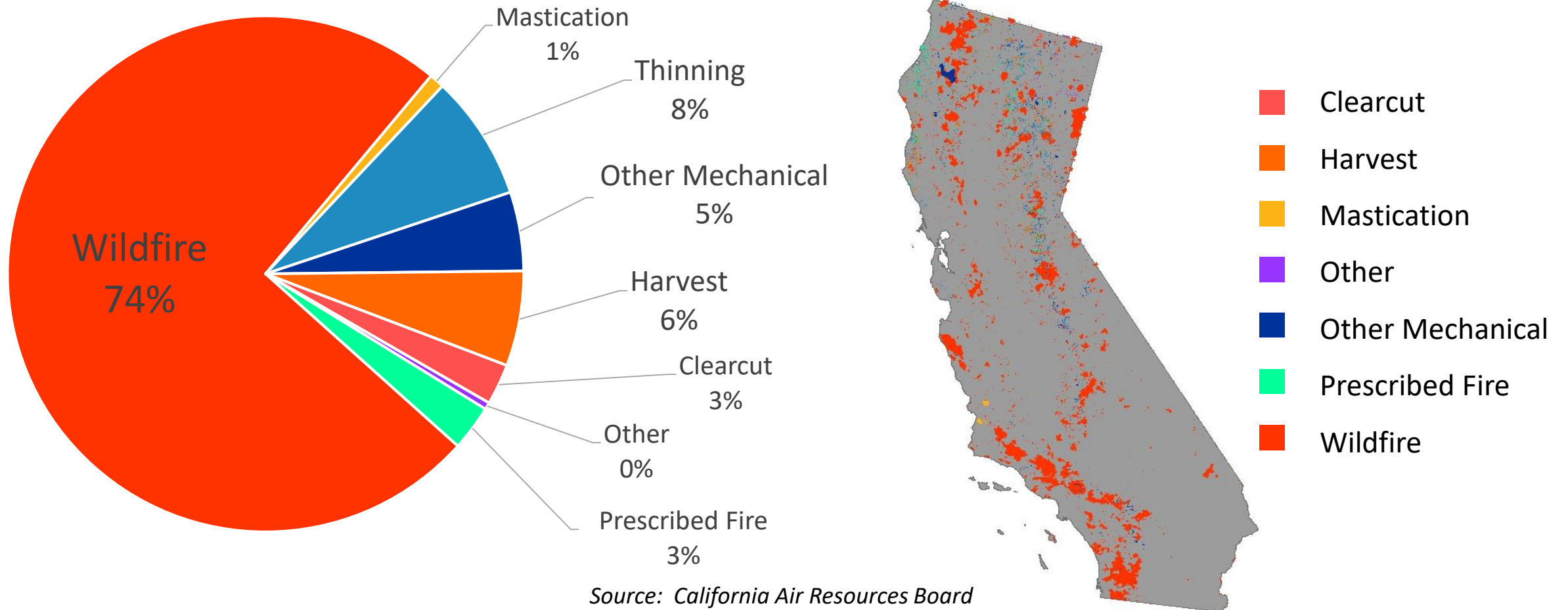
Sinks

Carbon capture and
sequestration
Direct air capture
Natural and working
lands

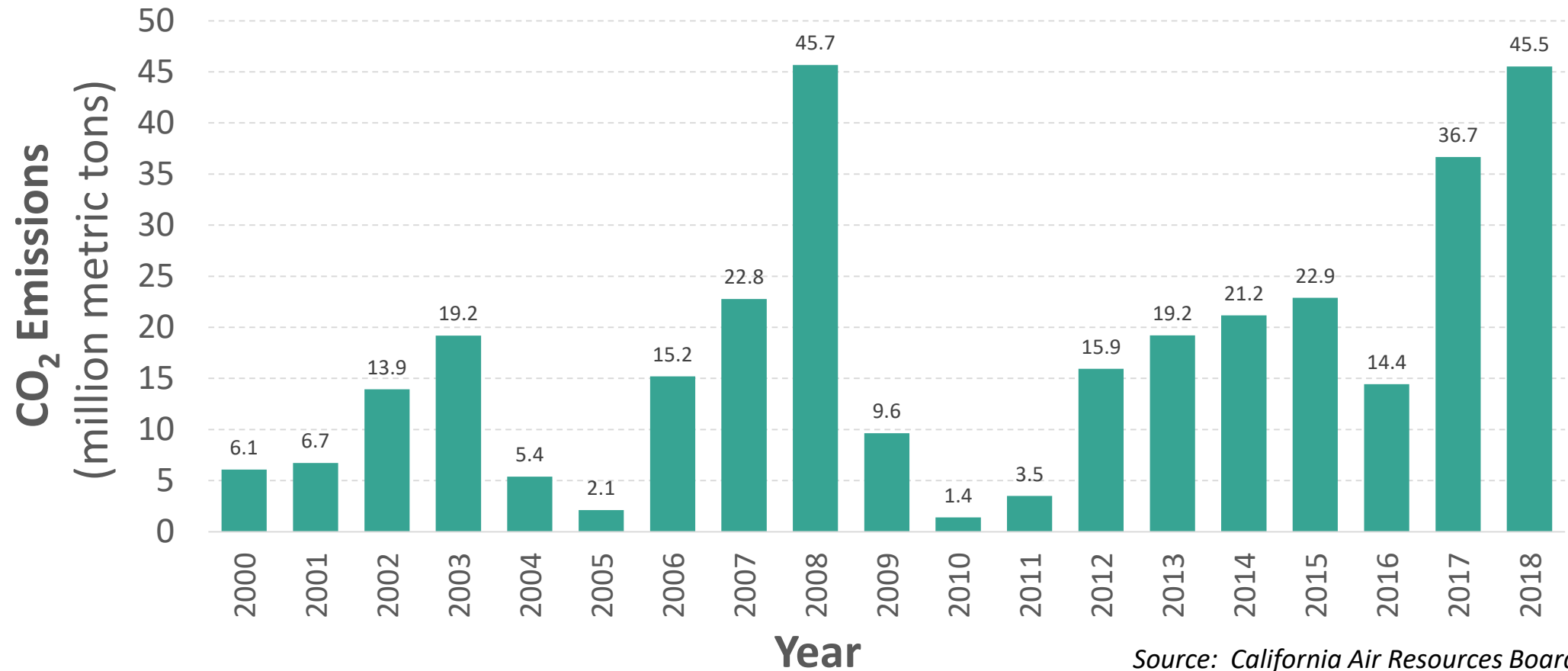
Options to Sequester Carbon (sinks)

- Carbon capture and sequestration (CCS)
 - Capture and store carbon from large emitters (cement, refineries)
- Direct Air Capture
 - Capture and store carbon from the atmosphere
- Natural and working lands
 - Emit greenhouse gases, must be managed to emit less and store more carbon over time

Wildfire Acreage, 2001 - 2014



Wildfire Emissions



GHG Accounting Practices

To date

- Per AB 32, GHG Inventory and GHG targets only include fossil emissions
- Natural and working lands inventory published separately

Looking forward for achieving Carbon Neutrality

- Per IPCC, impacts from both fossil and natural and working lands emissions matter

Thank you
