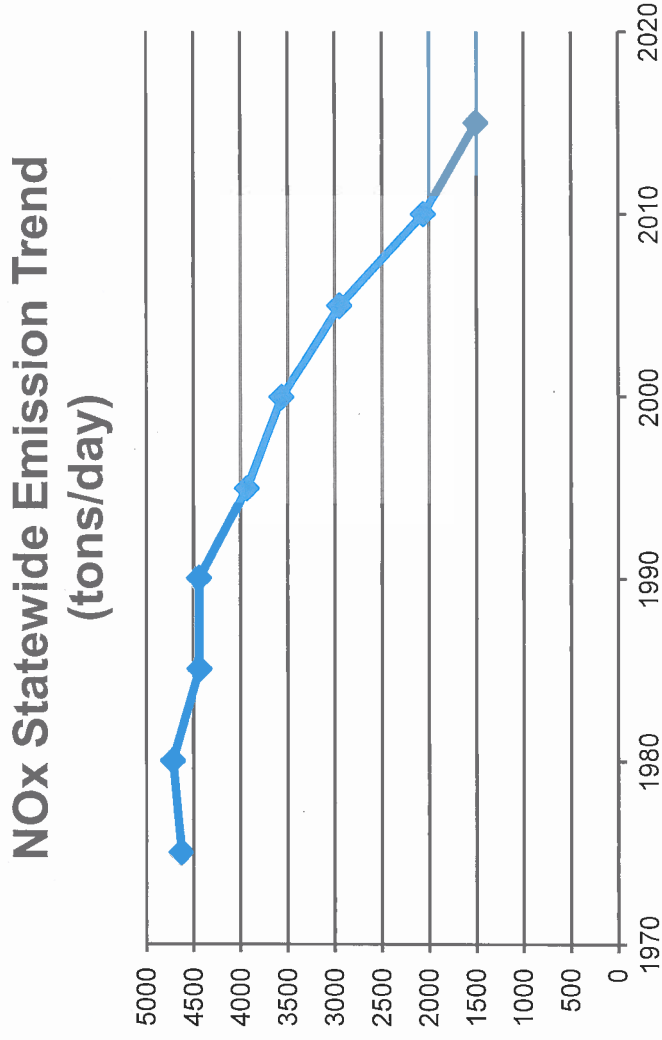


AB 197 January 4, 2017
Mary Nichols Testimony

Air Quality Successes – Criteria Pollutants

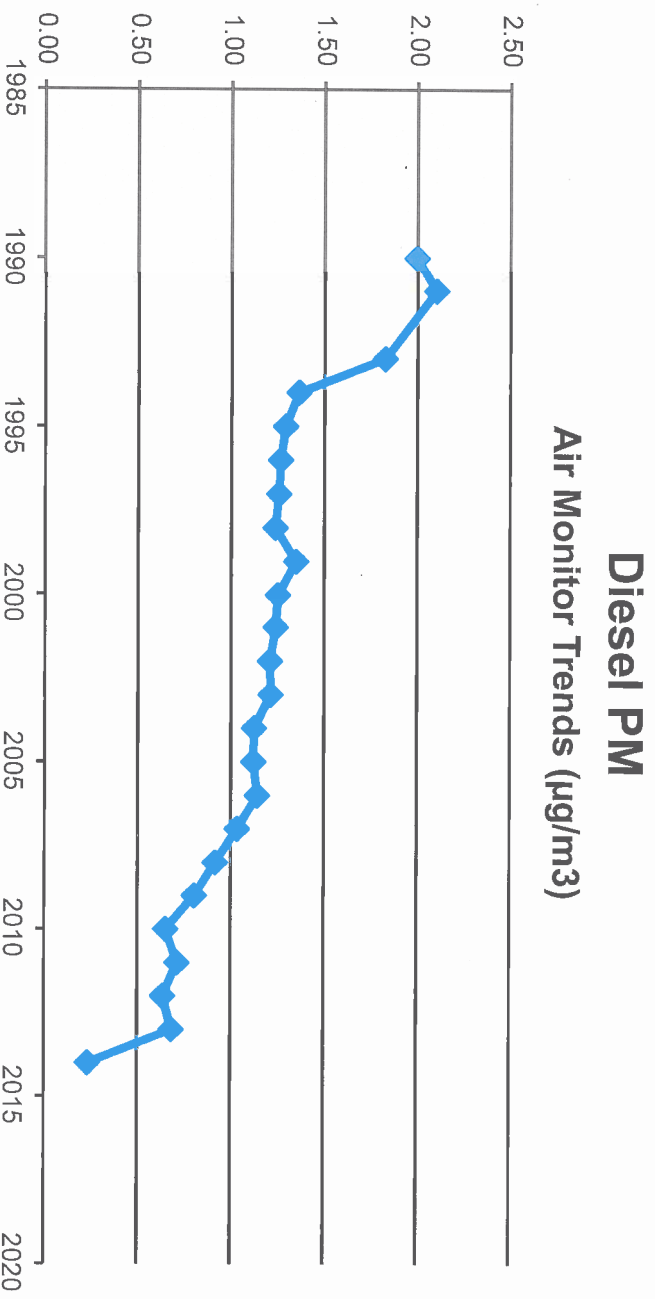
- NOx air monitor trends show nearly 70% reductions since the 1970s
- Reductions are due to improvements in vehicle efficiency and advancements in stationary source engine and stack technologies



**Total NOx combines NO₂, NO, and additional species (so it is higher than NO₂ alone)*

Air Quality Successes – Diesel PM

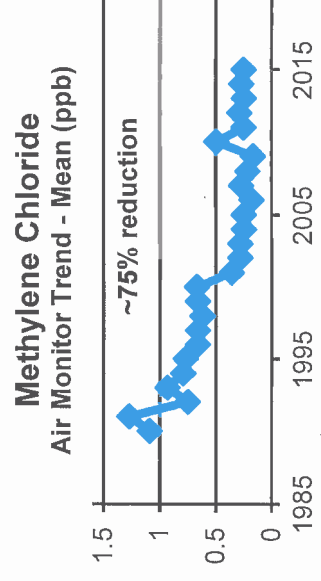
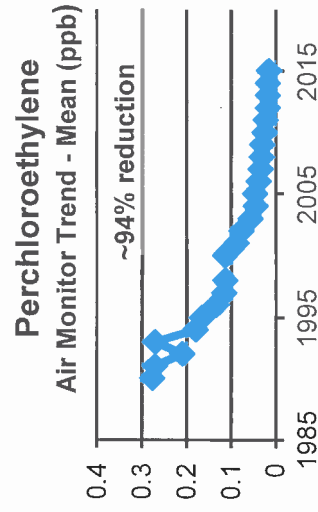
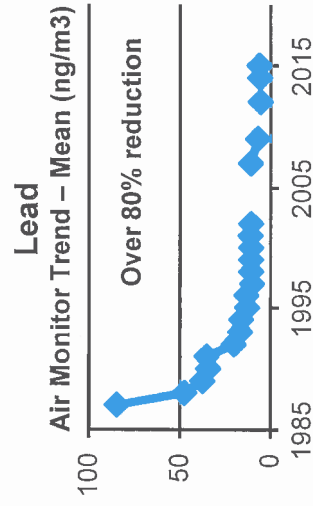
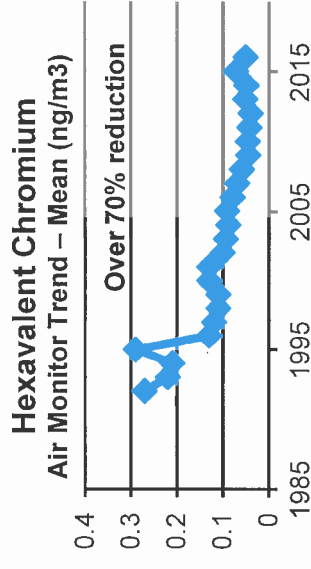
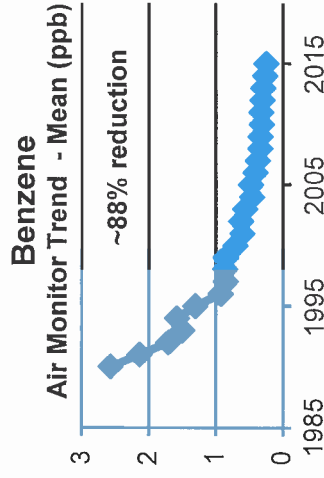
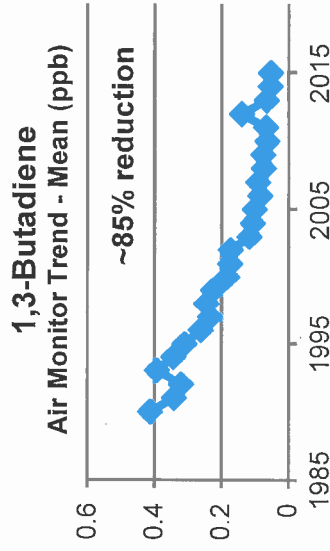
- Diesel PM shows over 85% reduction since 1990



** Ambient levels of Diesel PM are modeled based on an EPA/ARB methodology.*

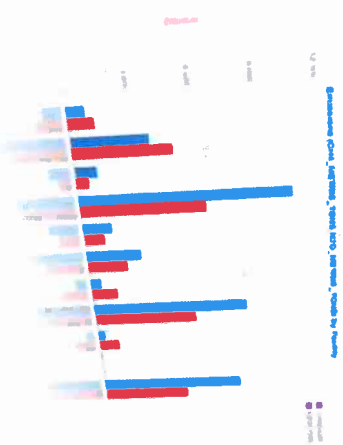
Air Quality Successes – Toxic Air Contaminants

- 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).



Integrated Emissions Inventories: CARB Pollution Mapping Tool

- ▣ Enables the public to query, view, and analyze emissions of GHG, criteria air pollutants and toxic air contaminants from large facilities
- ▣ Users can find facilities and associated emissions at the state, regional, local and community levels
- ▣ Presents emissions data in maps, charts and tabular formats



CARB Pollution Mapping Tool: User Interface

Facility Search Criteria

Emission Year:

Geographic Region:

 Basin:

 District:

 County:

 City:

 Zipcode:

Legislative District:

 Assembly:

 Senator:

Primary Sector:

Cap-and-Trade:

 Covered in 2013?:

Air Pollutant:

 Pollutant:

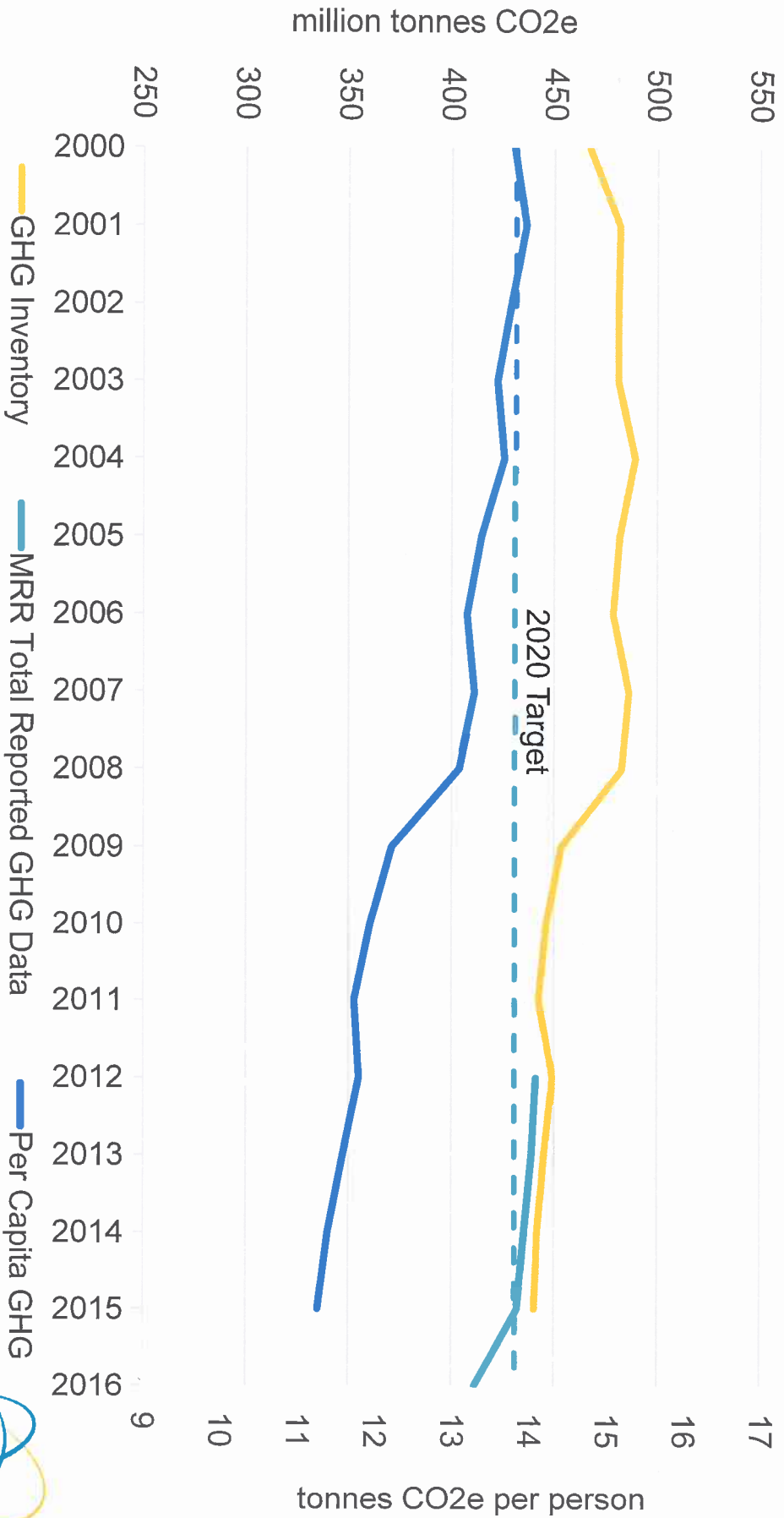
 CO2E_TOTAL

Emission Level (MT)

 CO2E_TOTAL:

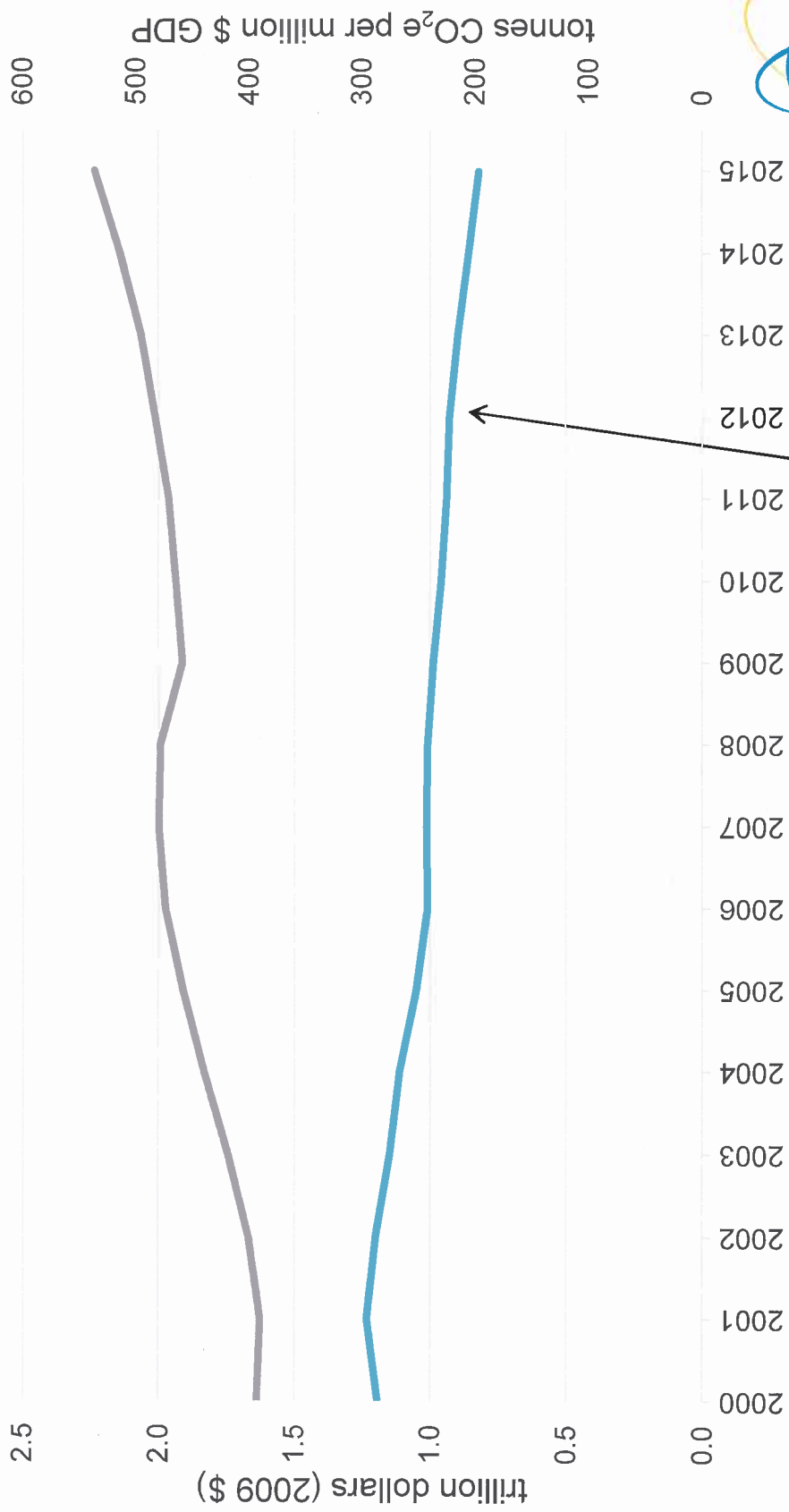
Facility	CO2E_TOTAL (MT)
1 3M Corona	14,809
2 ABI Fountrdy	15,857
3 ACE Cogeneration	0
4 AES Alamitos, LLC	664,606
5 AES Huntington Beach, LLC	432,210
6 AES Redondo Beach, LLC	316,370
7 Amnate Advanced Fuels Keyes, Inc.	68,826
8 Aera Energy Bellidge Gas Plant 32	33,441
9 Aera Energy Coastal Basins	231,065
10 Aera Energy San Joaquin Basin	3,342,461
11 Aera Energy Ventura Basin (opt-in 2014)	12,976
12 Aera Energy Ventura Gas Plant	4,923
13 Aerojet Rocketdyne	9,511
14 Air Liquide EI Saguando Hydrogen Plant	552,487
15 Air Liquide Long Beach Hydrogen Plant	819,886
16 Air Products & Chemicals, Inc., Martinez	195,728
17 Air Products Cerson Hydrogen Plant	673,014
18 Air Products Manufacturing Corporation, Sacramento	44,205
19 Air Products Wilmington Hydrogen Plant	633,296
20 Algonquin Power Sngar, LLC	56,207
21 All American Asphalt - Corona	12,793
22 All American Asphalt Inlet	10,406
23 All American Oil and Gas Company	172,959
24 Allegran	9,080
25 Alon Bakersfield Refinery - Area 3	31,340
26 Alon Bakersfield Refinery - Areas 1&2	53,742
27 Alon Bakersfield Refinery - Areas 1&2 Cogeneration Facility	53,742
28 AltaGas Ripon Energy, Inc.	24,547
29 Amresco Chiquita Energy, LLC	33,279
30 Amresco Forward LLC	16,644
31 Amresco Half Moon Bay	45,483
32 Amresco Keller Canyon	14,313
33 Amresco San Joaquin LLC	13,622
34 Amresco Santa Cruz	11,382
35 Amresco Vasco Road	16,954
36 Angan, Inc.	20,013
37 Ampersand Chowchilla Biomass, LLC.	108,290
38 Ampine, A Division of Timber Products	16,480
39 Amuser-Burch LLC - Fairfield (opt-in 2013)	16,792
40 Amuser-Burch LLC - Los Angeles	43,924
41 Applied Energy LLC - NAS North Island	167,504

GHG Emissions Trends



California's Economy is Growing

Gross Domestic Product and Carbon Intensity of California's Economy



Increasingly efficient production



Scoping Plan Strategy: A suite of complementary measures

- ▣ SB 350 - increase renewable energy and energy efficiency
- ▣ SB 1383 - Short-Lived Climate Pollutant Plan
- ▣ Mobile Source Strategy - help State achieve its federal and state air quality standards
- ▣ Enhanced Low Carbon Fuel Standard
- ▣ Sustainable Freight Action Plan
- ▣ SB 375 – support sustainable community development
- ▣ Post-2020 Cap-and-Trade Program

Based on an evaluation of alternatives and an uncertainty analysis, this suite of policies has the highest certainty of achieving the 2030 target

Alternatives Considered

- ▣ No Cap-and-Trade (Prescriptive Regulations)
 - ▣ Need new statutory authority
 - ▣ Fewer options to minimize leakage and higher cost than Scoping Plan
- ▣ Carbon Tax
 - ▣ No firm emissions limit and difficulty in setting right price to incent reductions
 - ▣ Difficult to make up unrealized reductions
- ▣ All Cap-and-Trade
 - ▣ No enhancement to LCFS may impede transportation fuel diversification
- ▣ Cap and Tax
 - ▣ Highest direct costs resulting in loss of industry, jobs, and GDP

Key Points Summary

- ▣ This plan provides an achievable path for reaching the State's 2030 GHG target
- ▣ 2030 target is a milestone on the way to achieve greater reductions needed to stave off the catastrophic impacts of climate change
- ▣ We need to continue to evaluate and incorporate additional opportunities to reduce GHGs, criteria, and air toxics emissions as they become cost-effective and technologically feasible
- ▣ Implementation of the SP measures must not disproportionately impact low-income communities
- ▣ Continue to monitor, adjust, and enforce existing air quality programs, in addition to implementing AB 617

Reporting and Oversight

Ongoing monitoring and reporting provides opportunities for public input, Board feedback, and adjustments if needed

- ▣ CARB annual Greenhouse Gas Inventory (data) and annual Mandatory GHG Reporting Data
- ▣ Annual status report to the Board on Scoping Plan implementation
- ▣ Update to AB 32 Scoping Plan at least once every 5 years (written report)
- ▣ SB1018 (written reports)
 - ▣ Semi-annual update on key climate programs
 - ▣ Semi-annual report on actions proposed by WCI, Inc.
 - ▣ Annual fiscal report on prior fiscal year
 - ▣ Annual report on resources by major program area

Reporting and Oversight, cont.

- ▣ AB 197
 - ▣ Annual informational report by CARB Chair on emissions covered by Scoping Plan
- ▣ AB 398
 - ▣ Annual report by the Independent Market Advisory Committee on environmental and economic performance of relevant climate policies
 - ▣ Annual report by the Legislative Analyst Office on the economic impacts and benefits of specified greenhouse gas emissions targets

Federal Inaction Impacts Achieving Climate and Air Quality Goals

- Emission standards for cars, trucks, trains and off-road equipment
 - needed to reduce greenhouse gases and other pollutants that impact air quality and health
 - necessary for increasing number of zero-emission vehicles
 - Federal action in many sectors is key as many vehicles not originally purchased in California.
- Performance standards to ensure in-use vehicles operate at their cleanest levels

Federal Inaction Impacts Achieving Climate and Air Quality Goals

- The combination of the revocation of California's Federal Clean Air Act waiver and atrophied federal action on mobile sources could increase California's NOx emissions by almost 75 tpd by 2035

Statewide Remaining NOx, tpd

