Meeting Air Quality Goals in California

The Tender Land
November 6, 2004

Nancy L. C. Steele, D.Env.

California Environmental Protection Agency

Air Resources Board

WHY WAIT TILL 1955
WE MIGHT NOT EVEN BE ALIVE

CERTIFICATE OF DEATH

DECEDENT PERSONAL DATA

NATHAN | LOUIS | GORDON | NOVEMBER 6, 1958 2:00 A.M.

MALE | CAUC. | RUSSIA | AUGUST 5, 1885 | 73

UNKNOWN GORDON - RUSSIA | UNKNOWN - RUSSIA | U.S.A. | 563-22-5562

SALES CLERK | 3 | WESTLAKE OUTLET STORE | RETAIL GENERAL MERCHANDISE

NO | MARRIED | RUBY M. GORDON | HOUSEWIFE

PLACE OF DEATH

(NONE) | 193 SOUTH ALVARADO APT. 8

LOS ANGELES | LOS ANGELES | 33 | 35

LAST USUAL RESIDENCE

193 SOUTH ALVARADO APT #8

LOS ANGELES | LOS ANGELES | CALIFORNIA

PHYSICIAN'S OR CORONER'S CERTIFICATION

DTD | Peter E. Vogt M.D.

3123 Beverly Blvd | 11/6/1958

FUNERAL DIRECTOR AND LOCAL REGISTRAR

BURIAL | NOV. 10, 1958 | INGLEWOOD PARK CEMETERY | Sam L. Crossinger 2427

LOS SOUTH VERMONT AVENUE
OFFICE OF BURIAL WILSHIRE

CAUSE OF DEATH

Myocardial Infarction
Arteriosclerotic Heart Disease

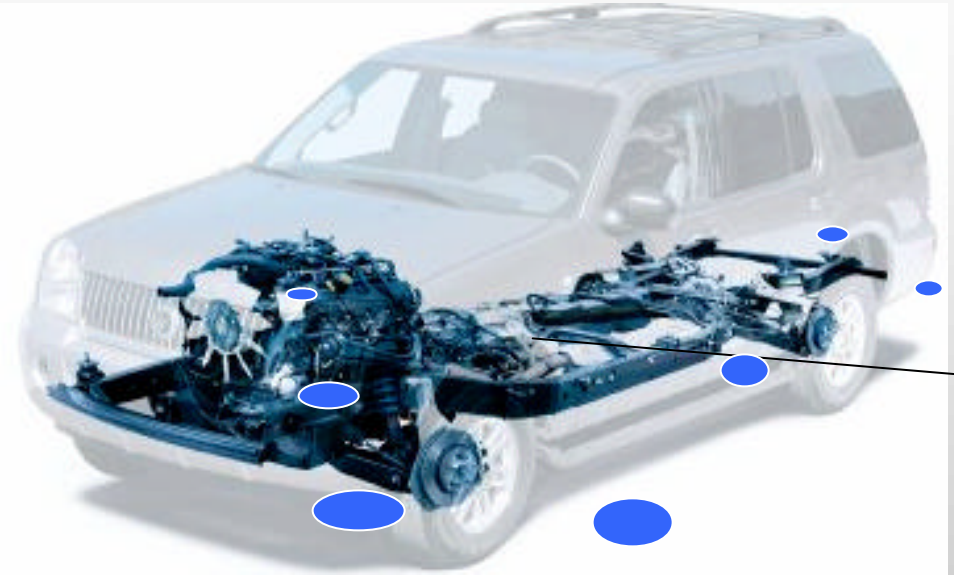
1 hour
5 yrs

Los Angeles Smog

OPERATION AND AUTOPSY

INJURY INFORMATION

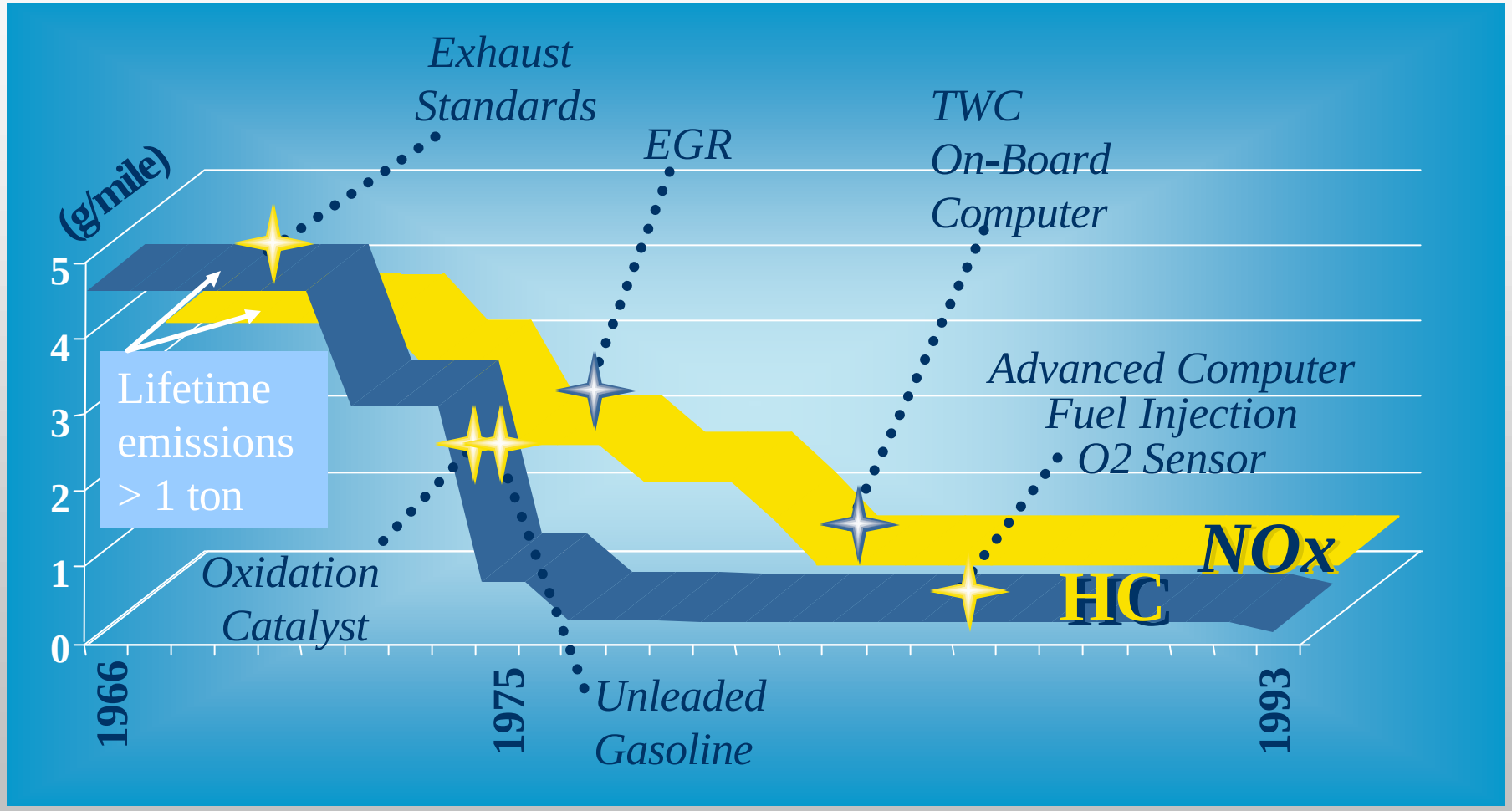
Vehicle Smog-forming Emission - Sources -



HC,
NOx,
PM

Evapora-
tive HC

Emission Control Strategies of the Early Years Mean Much Cleaner Cars Today



The Challenges

Southern California by 2010

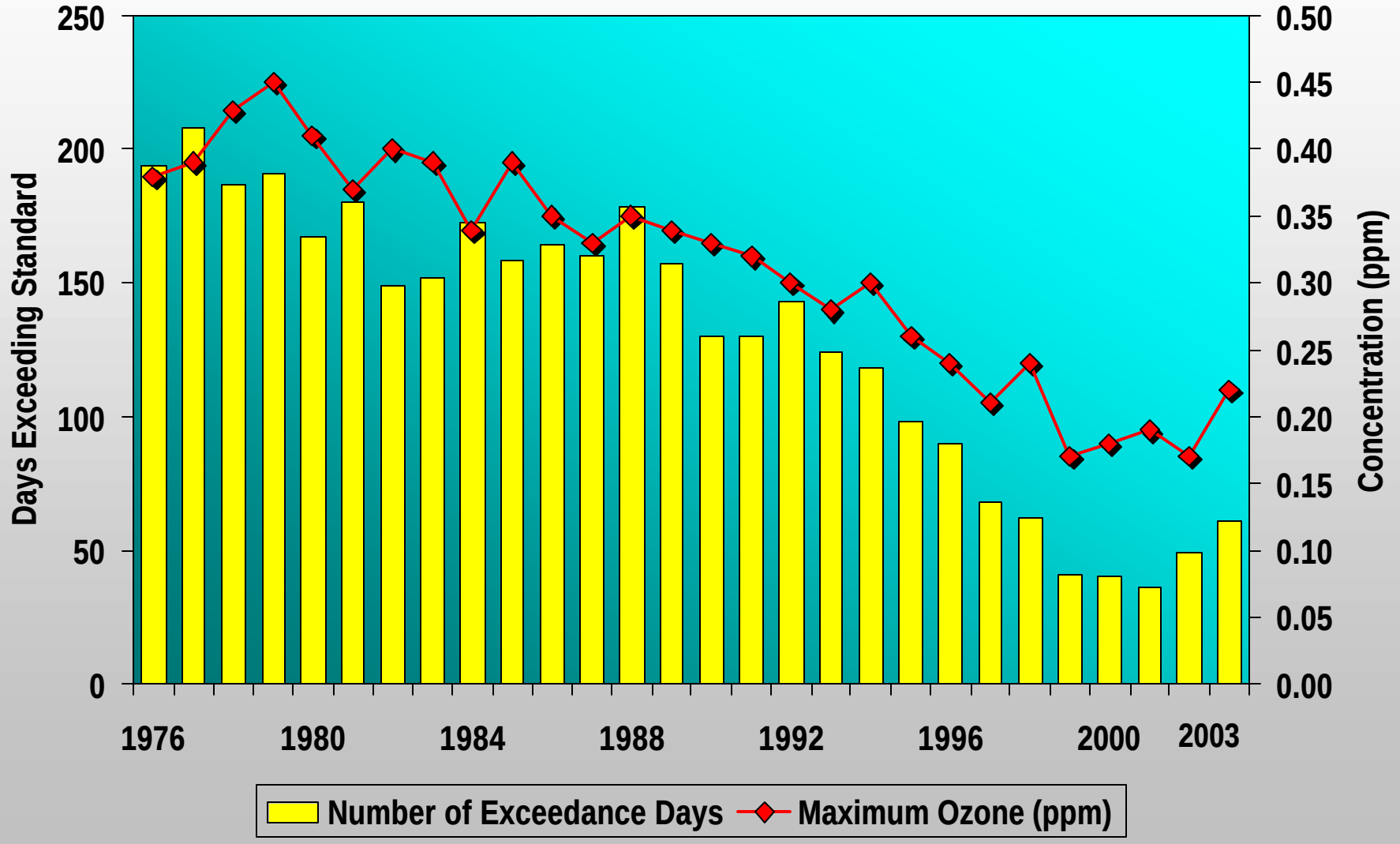
- Increasing Population = More Cars & Trucks
  - → Population 15% ↑
    - 17 mil.
  - → Number of Vehicles 34% ↑
    - 11 mil.
  - → Vehicle Miles Traveled 31% ↑
    - 387 mil. Miles

More Challenges

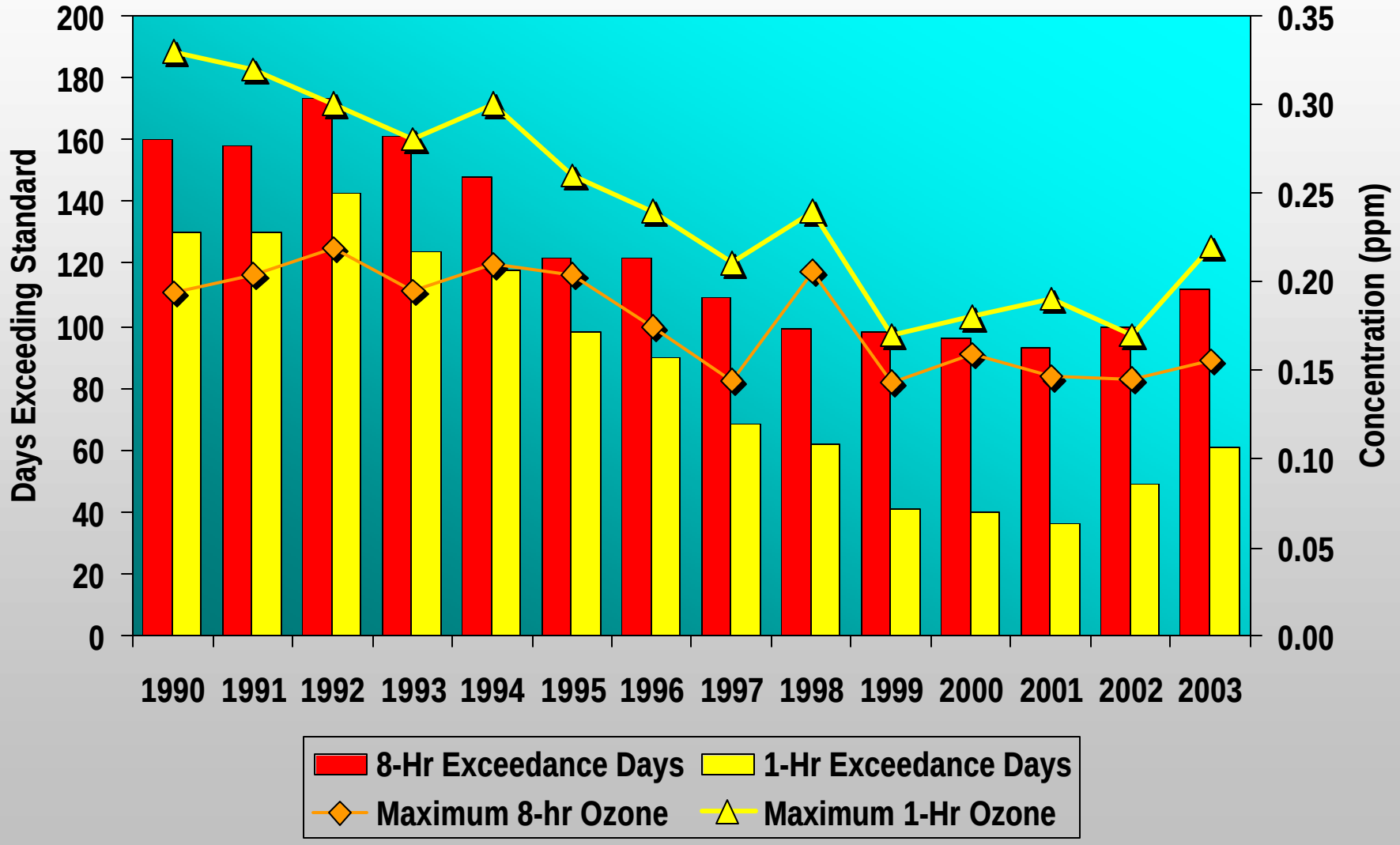
Southern California by 2010

- Expanding Economy = More Consumption
  - → Consumer Products
  - → Ports / Airports / Trains
  - → Industrial Sources

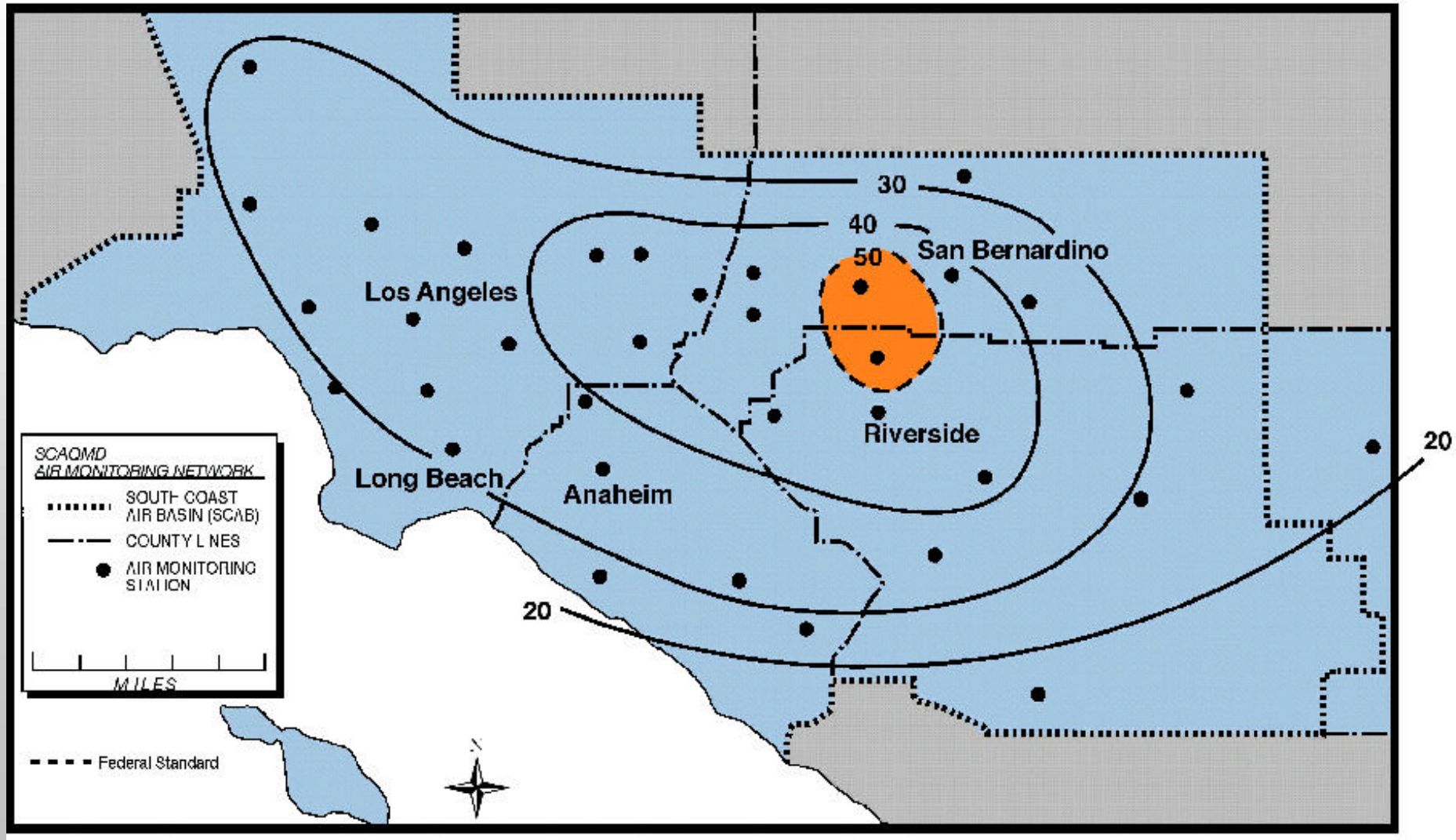
Ozone Air Quality Trends



Ozone Air Quality Trends

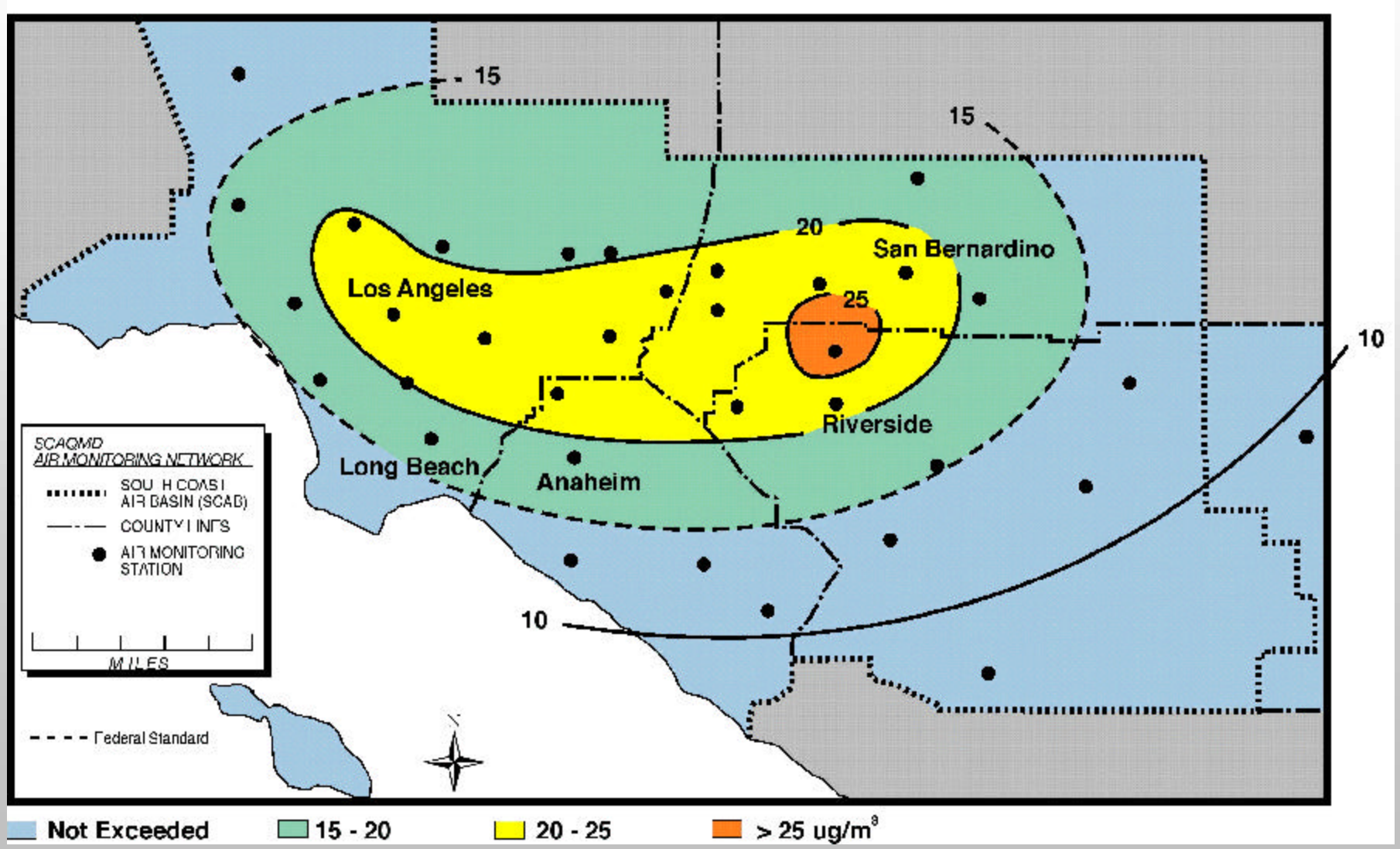


Annual PM10 Air Quality in 2003

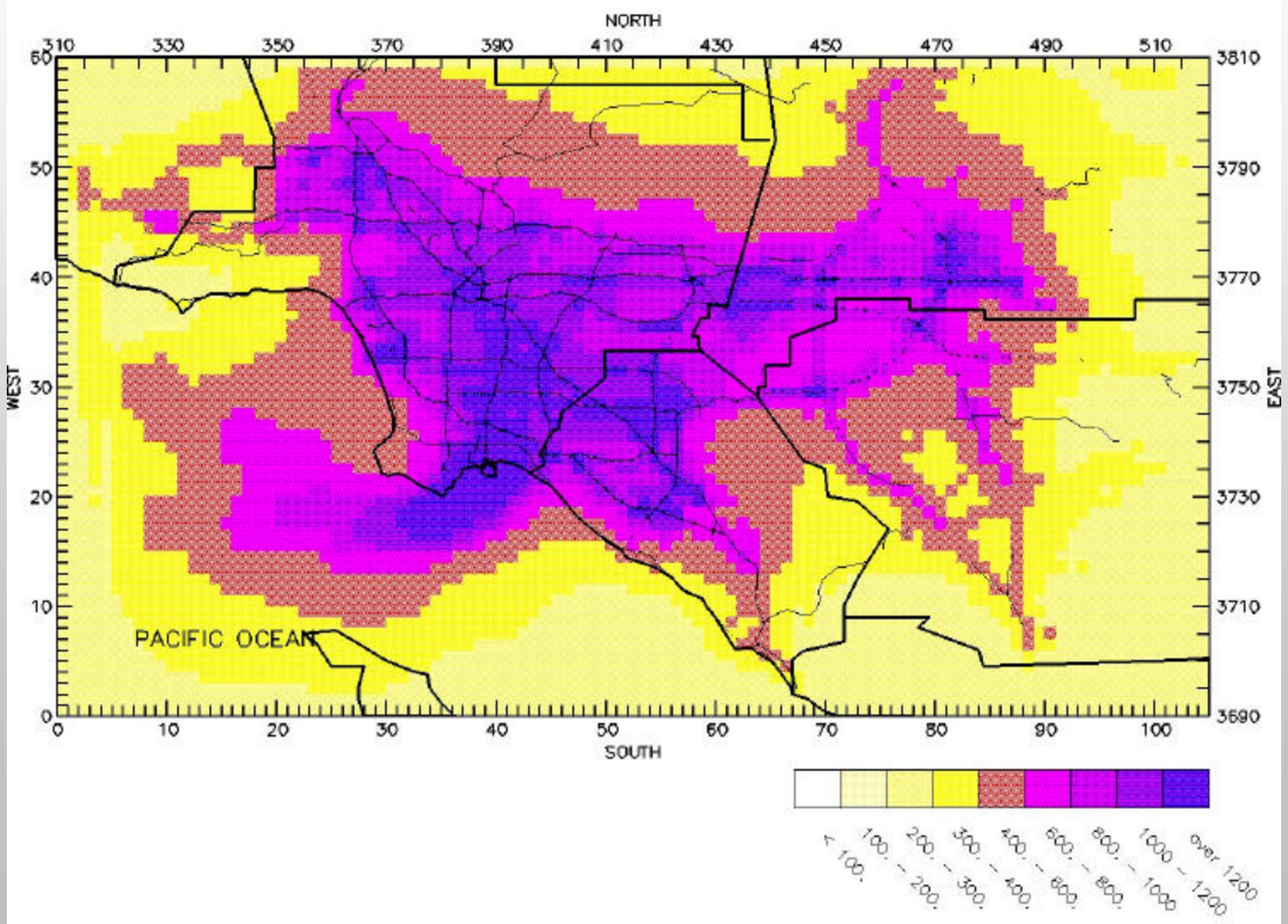


Not Exceeded > 50 ug/m^3

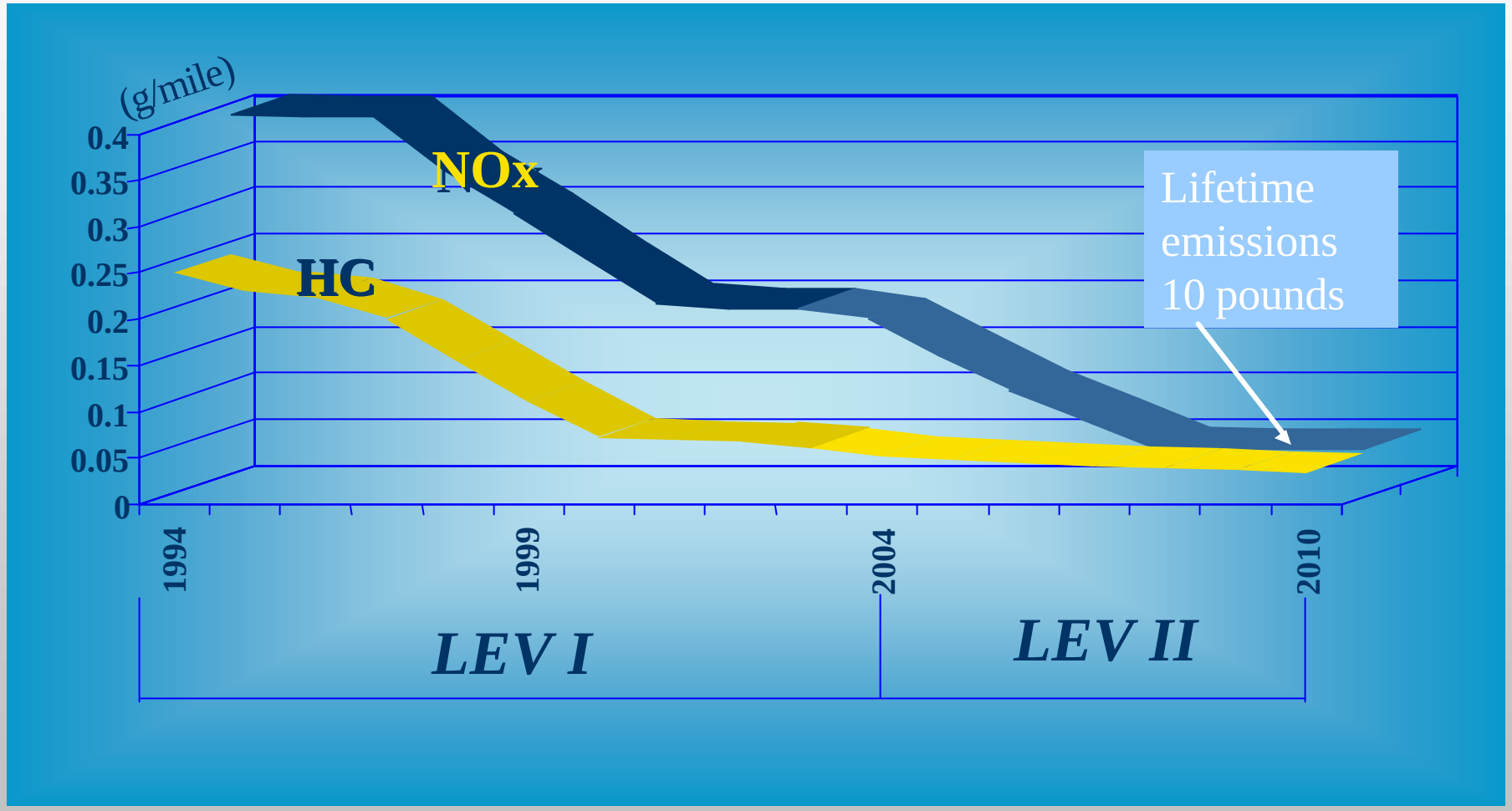
Annual PM2.5 Air Quality in 2003



Model Estimated Potential Risk from All Emission Sources



Our Goal is Zero Emissions



Current Certification Data for Heavy-Duty Diesel Engines

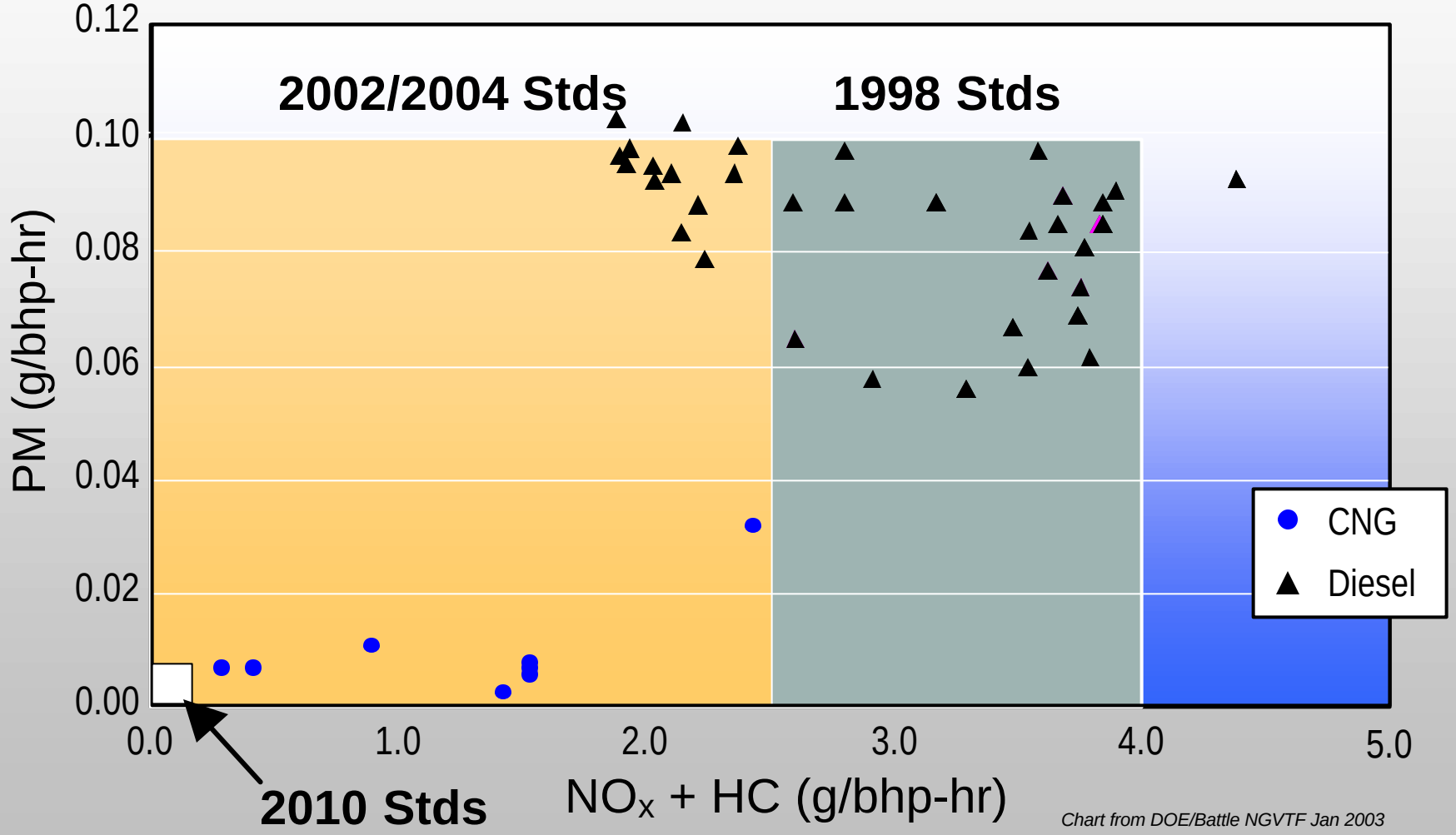
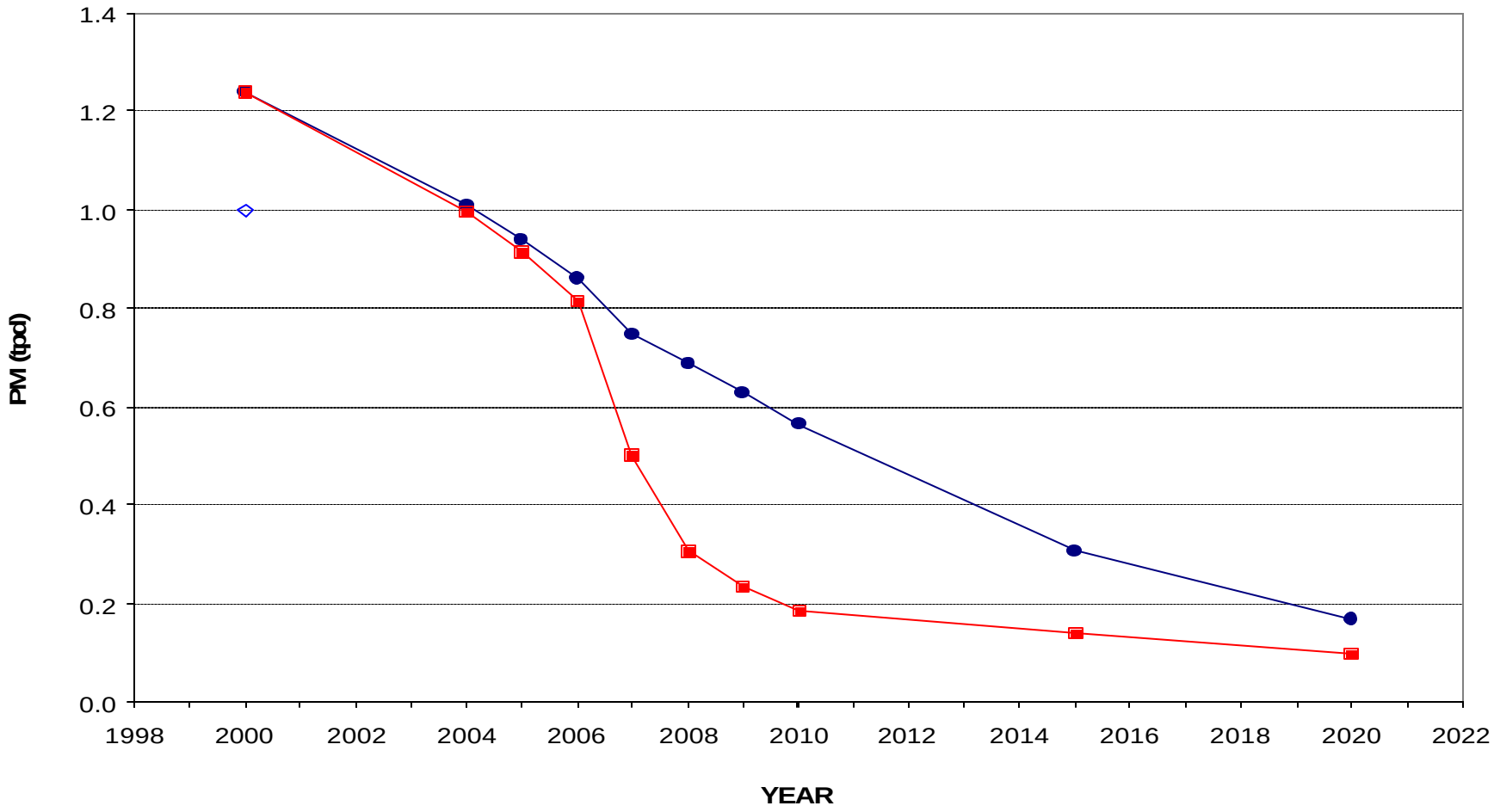


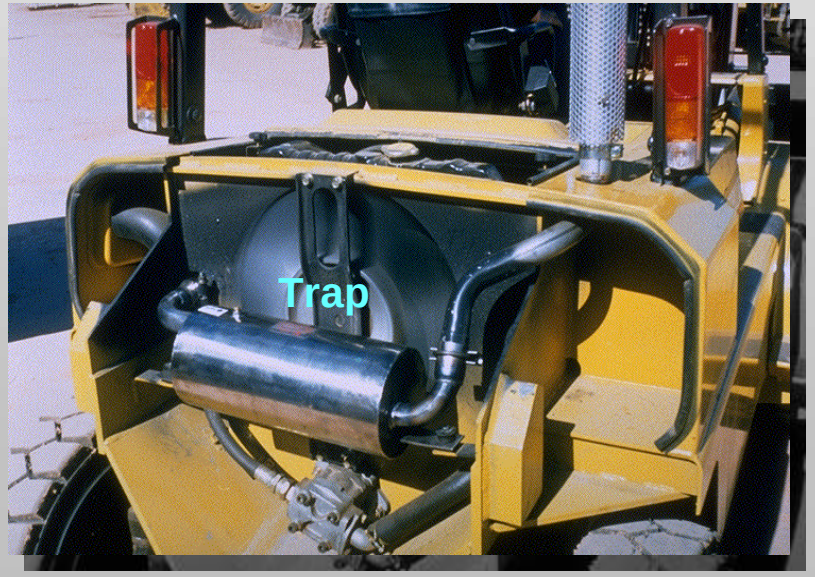
Chart from DOE/Battle NGVTF Jan 2003

Near Term PM Emission Reductions Achieve Health Benefits



Diesel Trucks

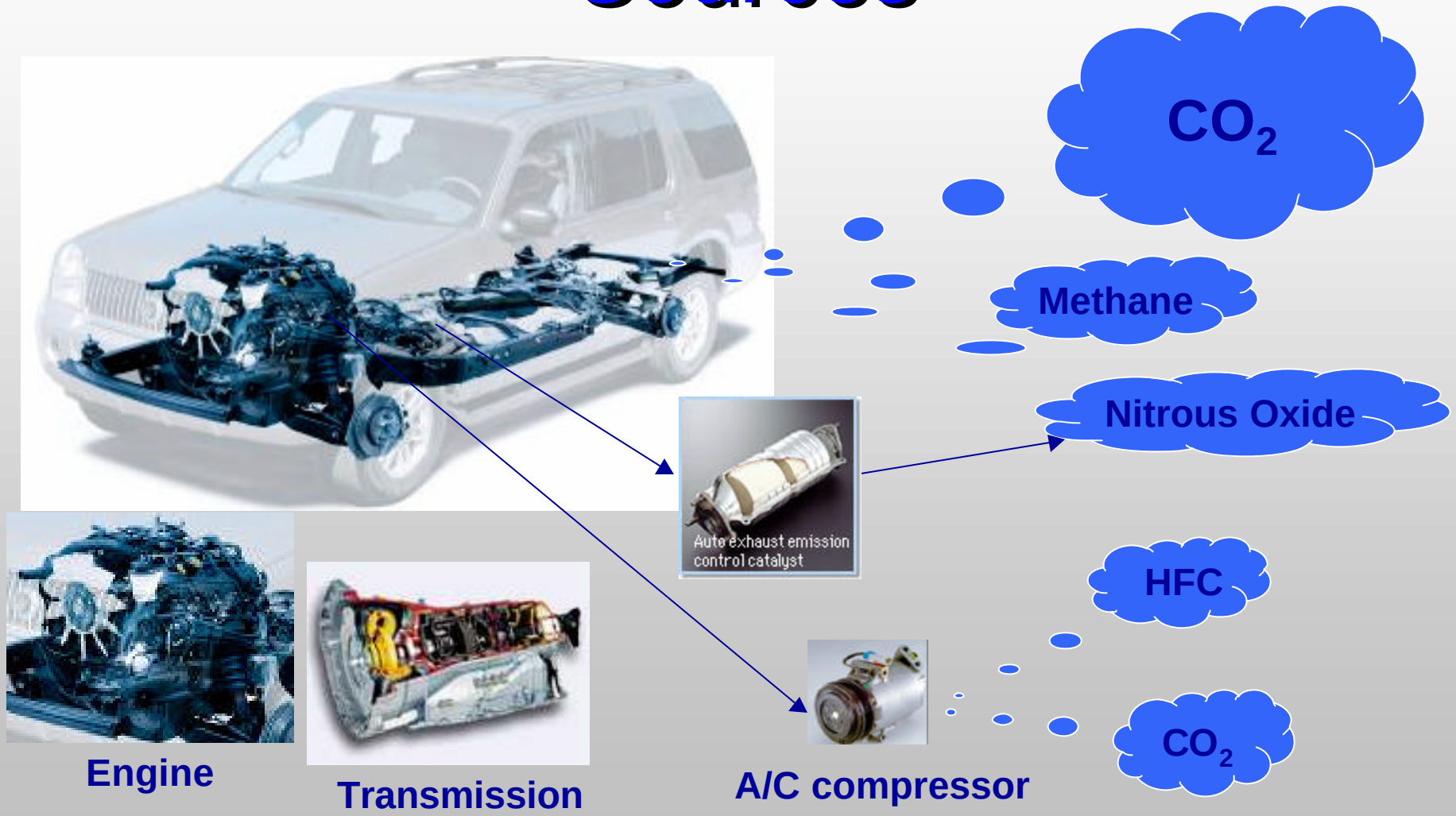
Retrofits for
Low Emissions



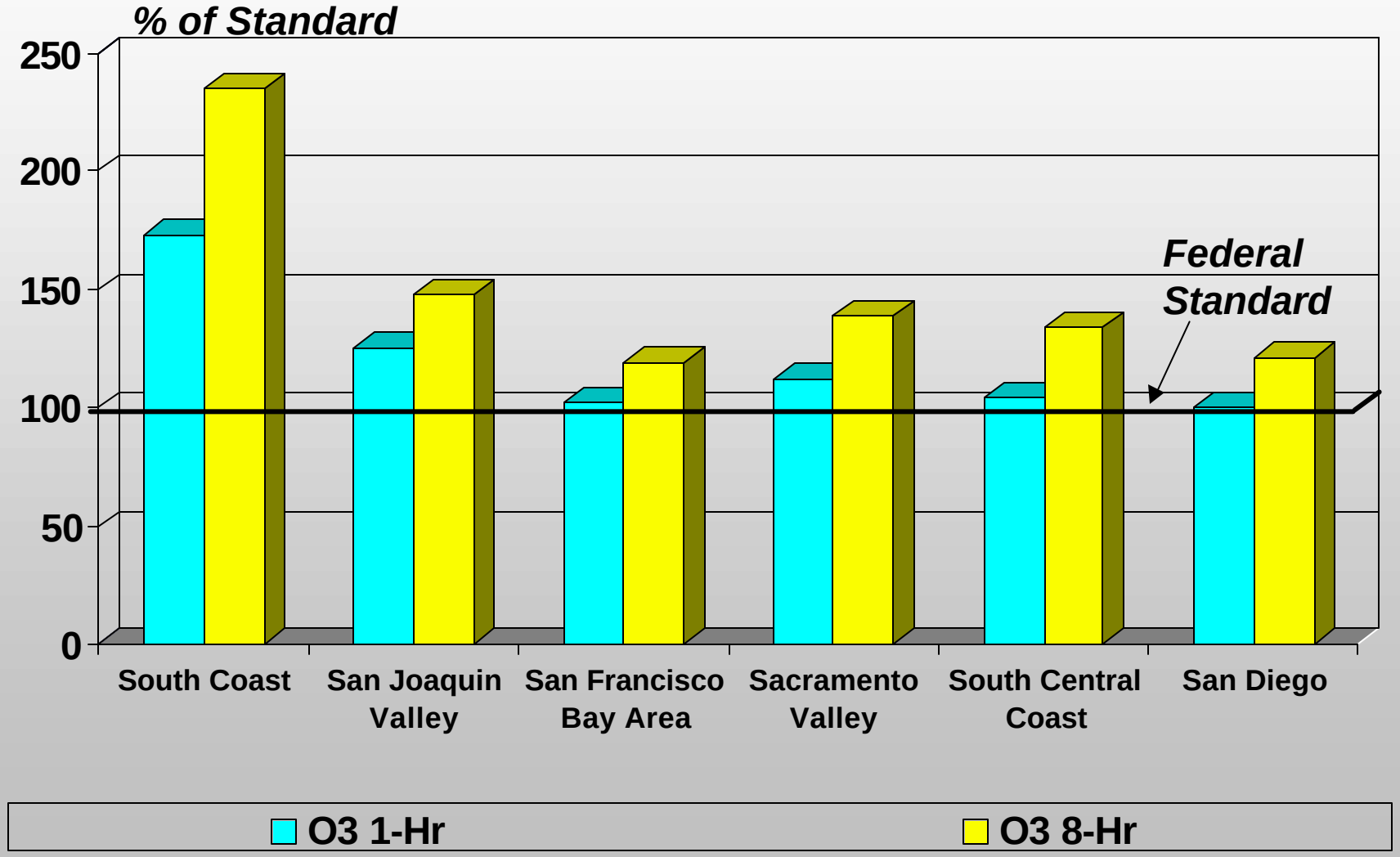
Our Goals: Clean Air

And Healthy Citizens

Vehicle Climate Change Emissions
- Sources -



Ozone Air Quality in California



Challenges to Attainment / Reducing Air Toxics Levels

- Slow Turnover of Existing Gasoline Vehicles
- Long Life of Existing Diesel Engines
- Funding to Implement New Technologies
- Development of Future Control Measures to Meet New Federal/State Clean Air Goals
- International/National versus Local needs

Mobile Source Emissions and Air Quality

- New Cleaner Engines – One Part of Solution
- Need to Clean Up Existing Engines - Second Part of Solution
- Public Policy – Deploy the Cleanest Commercially Available Technologies As Early As Possible

Road to Success

- Working Together (Public/Private Partnerships)
- Public Outreach/Education
- Sustained Funding Assistance for Cleaner Technologies
  - ➔Governor's Funding
  - ➔AB 923 - Firebaugh

Attainment Dates

- <u>Federal</u>:
  - PM10 - 2006
  - 1-Hr Ozone - 2010
  - PM2.5 - 2014 (*Requires Action Today*)
  - 8-Hr Ozone - 2021
- <u>California</u>:
  - As Early As Practicable
  - PM2.5 Standards – More Stringent