


# WEST COAST COLLABORATIVE

Public-private partnership to reduce diesel emissions



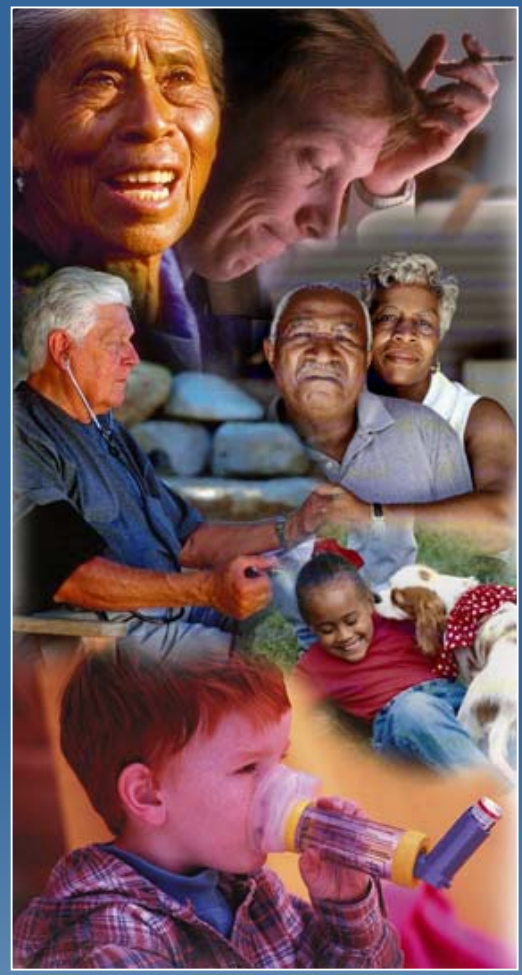
# Diesel emissions pose an important environmental health problem

- Diesel exhaust
  - Serious health impacts
    - exacerbates asthma, respiratory and cardiac illness
  - Possible human carcinogen
    - up to 90% of the cancer risk from all air toxics
  - Degrades air quality
    - Particulate Matter
    - Ozone
  - Contributes to climate change


Paul Bubbosh EPA OTAQ, Deborah Jordan EPA R9, and Michael Antonovich Los Angeles County Supervisor and AQMD Board Member announce a Collaborative/Smartway project to reduce diesel emissions with children from Horace Mann elementary school in Los Angeles on Sept. 30, 2004

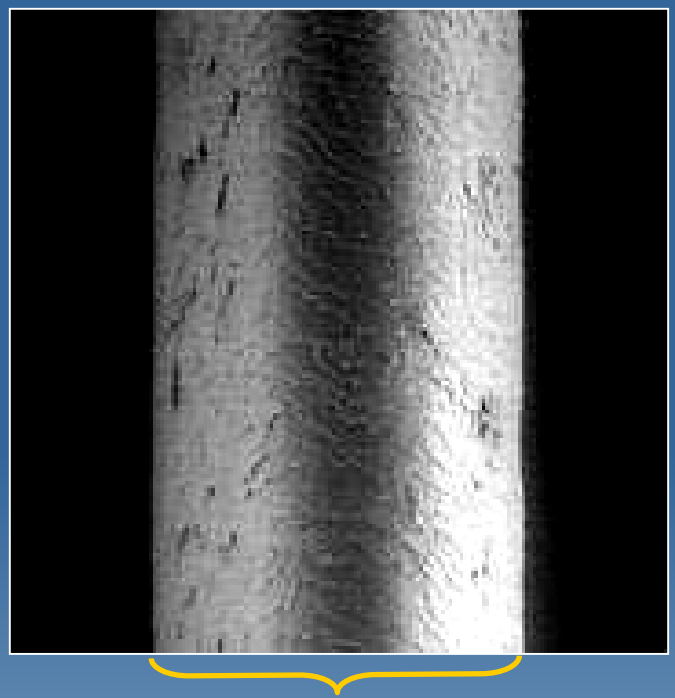
# Some Groups Are More at Risk

- People with heart or lung disease
  - Conditions make them vulnerable
- Older adults
  - Greater prevalence of heart and lung disease
- Children
  - More likely to be active
  - Bodies still developing
  - Breathe more per body pound

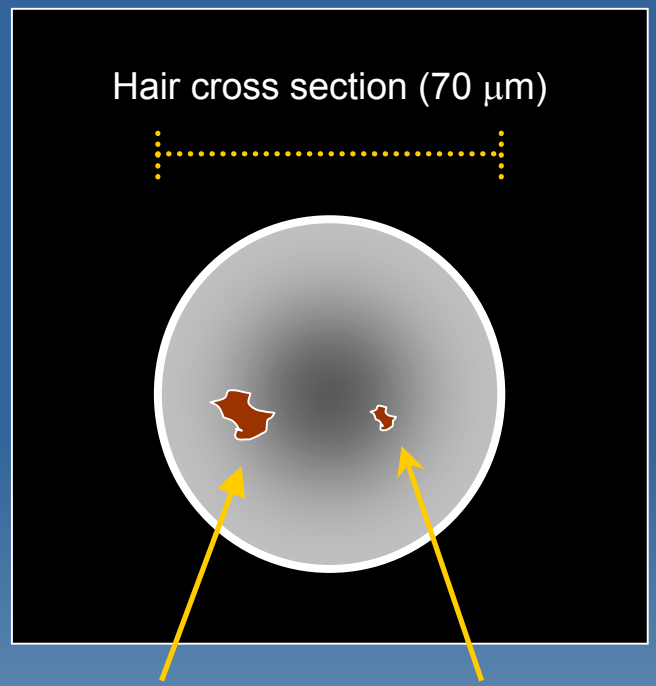


# Particulate matter (PM) in diesel exhaust is a significant source of air pollution

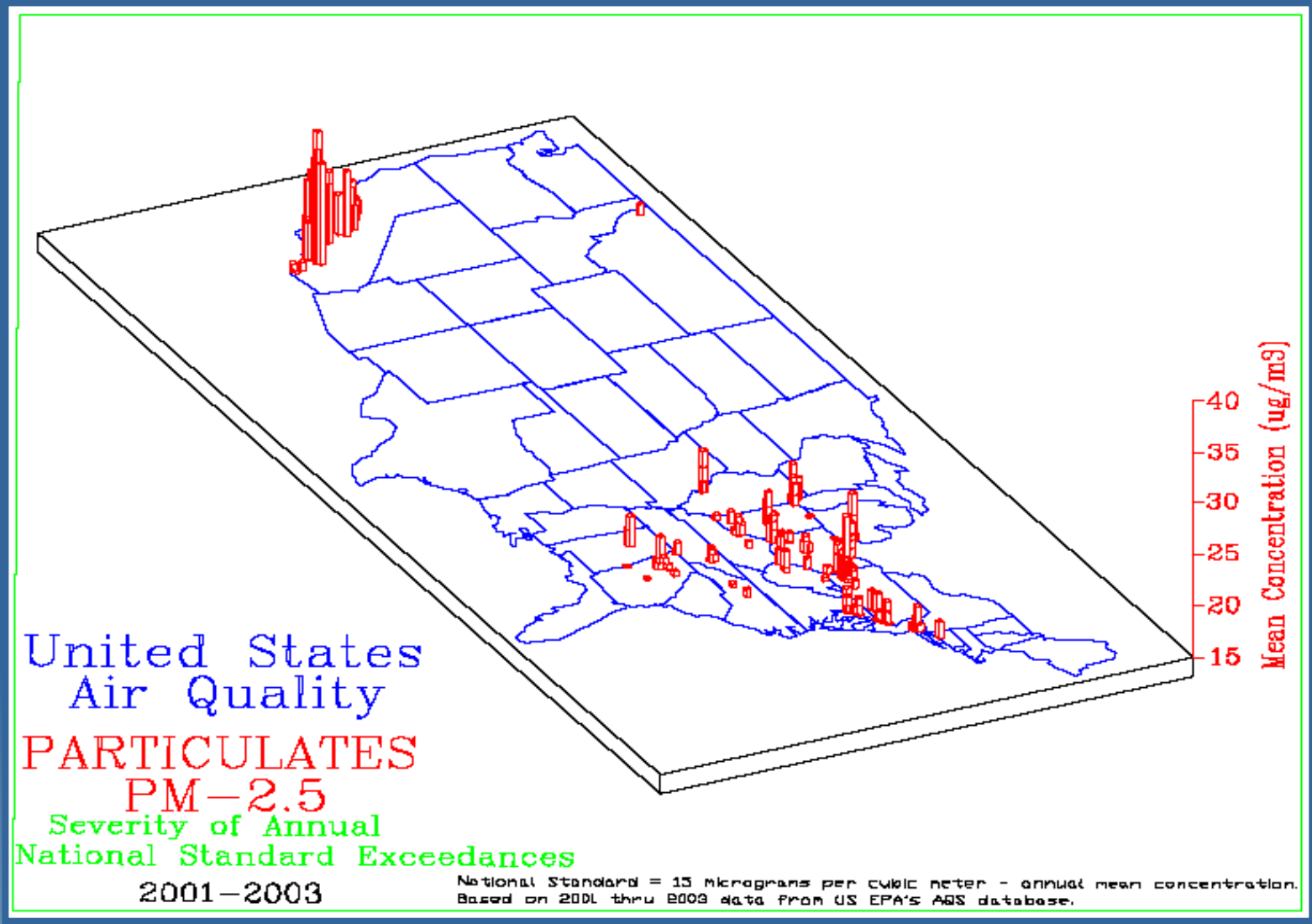
- Mix of particles and liquid droplets
- Considerably smaller in size than human hair
- Penetrates deeply into the lungs



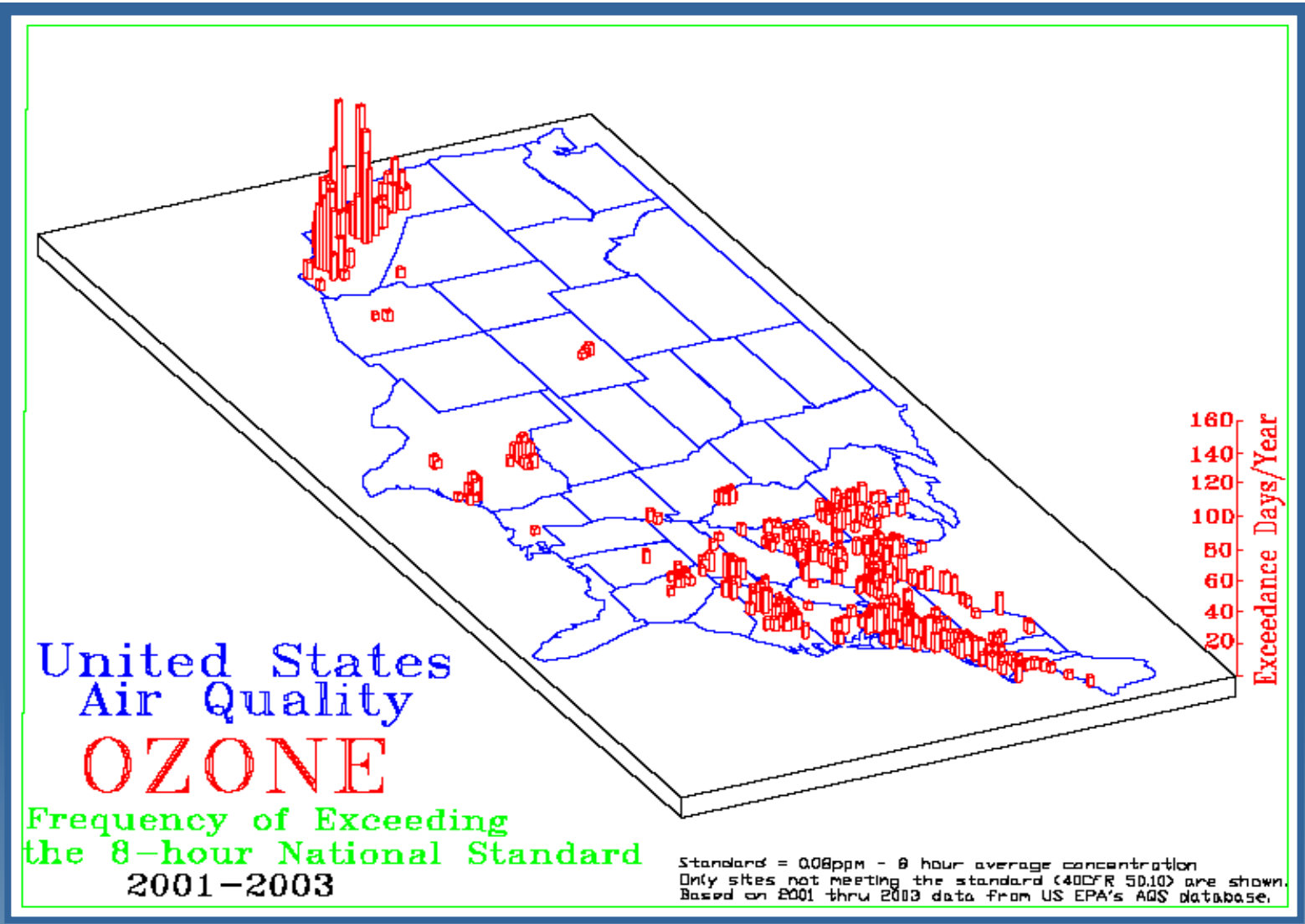
Human Hair (70 µm diameter)



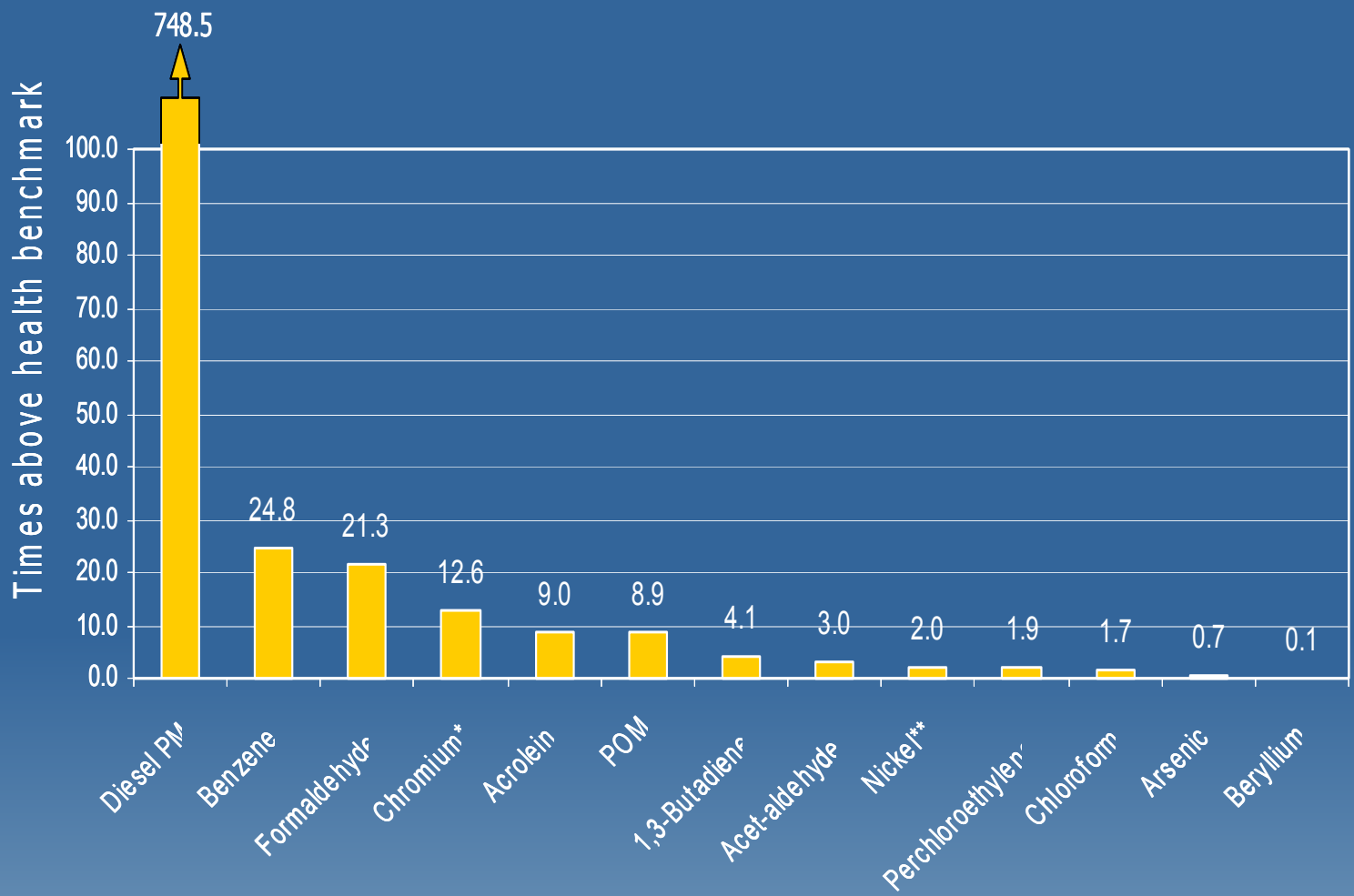
# The West Coast has the most severe PM exceedances in the country



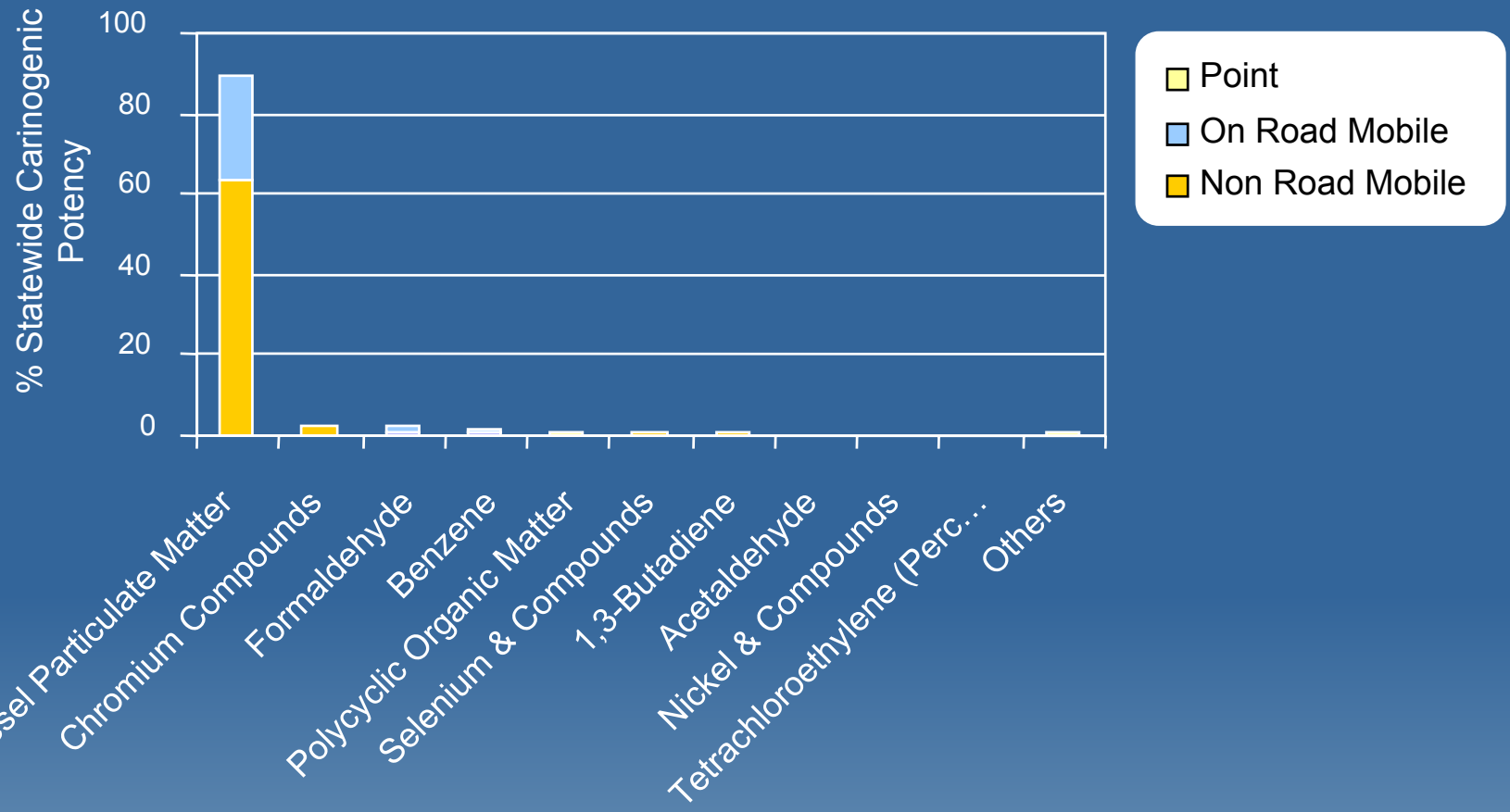
# … and $NO_x$ from diesel exhaust contributes to the ozone problem



# Oregon Ranks Diesel PM as the #1 Hazard for All Air Pollutants Statewide



# ...As Does Washington for Cancer Effects



# EPA Regulations

- EPA regulates fuels and new engines
- Clean Diesel Truck and Bus Rule, Dec 2000
- Clean Air Nonroad Diesel Rule, May 2004
  - **When fully implemented in 2030, will annually prevent up to:**
    - **12,000 premature deaths,**
    - **one million lost work days,**
    - **15,000 heart attacks and**
    - **6,000 children's asthma-related emergency room visits.**
- Combined will achieve $100 billion in health benefits
- But what can be done with the 11 million engines in use today?

# National EPA programs have started to address diesel emissions reduction

- Clean School Bus USA Program
  - $10 million granted since 2003
  - $7.5 million appropriated in 2005
- Smartway Transport Partnership
  - $1.7 million granted in 2004
  - $5 million appropriated in 2005
- Voluntary Retrofit & Replacement Program
  - $5 million granted since 2000


SmartWay Transport Partnership
U.S. Environmental Protection Agency

# Some other programs also address diesel emissions reduction

- Washington's Diesel Solutions program
  - $5 million per year for five years to fund cleaner school buses
- Oregon's Clean Diesel Initiative
  - Innovative use of state business tax credit and loan programs
- California's Carl Moyer Program
  - Over $150 million granted (since 1998)
  - Over $140 million available every year from 2005-2015
- CMAQ (Congestion Mitigation Air Quality) funds
  - Millions of dollars spent on diesel, but billions apportioned each year that could be spent on diesel
- US DOE's Clean Cities Program
  - Millions of dollars granted annually


Ron Kreizenbeck EPA R10 Administrator announces the Collaborative with WA Governor Locke, Dennis McLarren Executive Director Puget Sound Clean Air Agency and officials from the City of Seattle, Port of Seattle and Princess Cruise Lines in Seattle, WA on Sept. 30, 2004

# The West Coast Collaborative includes public, private, and non-profit partners

- EPA, USDOE, USDOT, USDA
- State and local leadership in CA, WA, OR and AK
- Environment Canada and Mexico SEMARNAT
- Private and non-profit sector partners
- Over 500 participants


USEPA Administrator Mike Leavitt announcing the West Coast Collaborative and supporting the Lane Regional Air Pollution Authorities "Everybody Wins" idle reduction project in Coburn Oregon on Sept. 30, 2004

# The Collaborative has a targeted strategy to accomplish its goals

- To reduce diesel emissions in strategic areas, the Collaborative will:
  - Support and bring attention to the many highly successful local and regional efforts
  - Create a forum for information sharing
  - Leverage significant new resources


Oregon Governor Ted Kulongoski trying out truck idle reduction technologies in Portland OR

# ...and has formed 5 sector workgroups to address different industry sectors


Oregon Governor Ted Kulongoski and Dean Ron Adams of the OSU Engineering School receive a check from Suzanne Rudzinski EPA OTAQ and Julie Hagensen EPA R10 supporting the Oregon I-5 Corridor Idle Reduction Project. Also participating, Stephanie Hallock Director ODEQ, Mike Burnett Executive Director of Climate Trust and Mark Reeve Chair Oregon EQC

- Develops and implements projects that reduce emissions from the most polluting diesel engines in the most impacted communities
- Public-Private partnerships in:
  1. Marine Vessels and Ports
  2. Trucking
  3. Locomotives and Rail
  4. Construction
  5. Agriculture

# Early accomplishments demonstrated the effectiveness of the Collaborative


Teri Shore Bluewater Network, Matt Haber EPA R9, Jack Broadbent APCO Bay Area Air Quality Management District, Ron Dunfee Lubrizol, Ron Duckhorn Blue and Gold Fleet and Charlene Haught Johnson Water Transit Authority announce the Collaborative and its support for the Bay Area Water Transit Authority ferry diesel emissions reduction project on Sept. 30, 2004 in San Francisco

- On September 30, 2004, the Collaborative showcased 8 events spanning the entire West Coast attendees included:
  - Oregon Governor Kulongoski
  - Washington Governor Locke
  - Cal/EPA Secretary Terry Tamminen
  - US EPA Administrator Leavitt
  - USDOE Regional Administrator Paul Johnson
- Tremendous press coverage received in every major media market from Seattle to San Diego

# Some September 30th Collaborative Events

- **Portland OR – I-5 Corridor Truck Idle Reduction**
  - Partnership with Oregon and the Climate Trust to electrify over 500 parking spaces ($6 million)
- **Seattle WA – Cruise Ship On Shore Power**
  - On-shore power project with Princess Cruises Port of Seattle, and City of Seattle ($1.9 million)
- **Eugene OR – "Everybody Wins" I-5 Corridor Truck Idle Reduction**
  - Project to provide over 100 auxiliary power units to reduce idling emissions on trucks ($860,000)
- **Sacramento CA – I-5 Corridor Truck Idle Reduction**
  - Public/private partnership to install innovative technologies to reduce truck idling ($532,000)
- **Los Angeles CA – I-5 Corridor Truck Idle Reduction**
  - Partnership with South Coast to fund truck stop electrification in LA ($200,000)
- **Bakersfield CA – Rail Idle Reduction**
  - Partnership with BNSF and UP to reduce idling emissions from switcher yard locomotives ($165,000)

# Collaborative partners are currently developing additional reduction projects

- Right now, Collaborative partners are developing specific proposals for large-scale, regional diesel emissions reduction efforts including:
  - Truck idle reduction projects along I-5 and I-80,
  - Locomotive idle reduction projects at major switcher yards in the West,
  - Passenger rail projects that use cleaner burning engines to power HVAC,
  - Port equipment retrofits and a comprehensive strategy to implement cold-ironing at major ports along the Coast,
  - Cleaner fueling infrastructure along major transportation corridors, and
  - Agriculture pump retrofits and electrification in the San Joaquin Valley.


Laura Yoshii EPA R9 announces the Collaborative and presents a check to Richard Smith, APCO, San Diego APCD, Supervisor Greg Cox Board Member San Diego APCD, Enrique Villegas, Director of the Baja California State Department of Ecology, and Hugo Zepeda, Baja California SEMARNAT Federal Delegate for the border diesel emission reductions project on Sept. 30, 2004 in San Diego

# What More Can Be Done?

- Diesel engines remain one of the most cost-effective means to improve air quality
- On average, for every dollar spent on reducing diesel emissions, thirteen dollars can be saved in health costs
- Every dollar invested leverages an estimated one to ten dollars in matching resources
- Investments in new technologies also lead to economic development opportunities

Barbara Patrick Chair of the San Joaquin Valley Unified Air Pollution Control District Governing Board and member of the California Air Resources Board, Kerry Drake EPA R9, and Jennifer Anderson and Mike Iden from BNSF and UP railroads announce the Collaborative and its support for the San Joaquin Valley Locomotive Idle Reduction Project on Sept. 30, 2004 in Bakersfield, CA

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# For more information on the West Coast Collaborative…

- Contact
  - Michelle Roos
    - roos.michelle@epa.gov, 415-947-4187

  or

  - Peter Murchie
    - murchie.peter@epa.gov, 503-326-6554

- Visit our website

  www.epa.gov/air/westcoastdiesel