



## 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

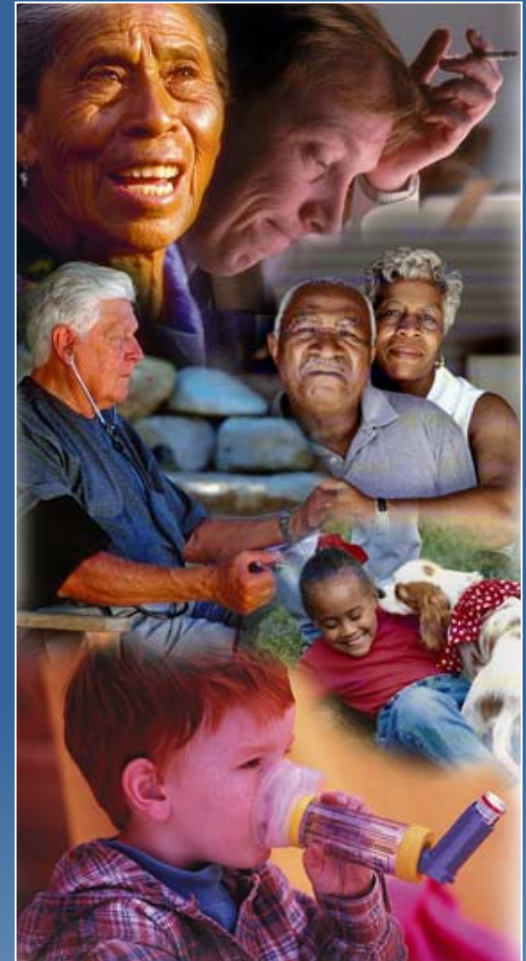


Paul Bubbosh EPA OTAQ, Deborah Jordan EPA R9, and Michael Antonovich Los Angeles County Supervisor and AQMD Board Member announce a Collaborative/Smartway project to reduce diesel emissions with children from Horace Mann elementary school in Los Angeles on Sept. 30, 2004



# Some Groups Are More at Risk

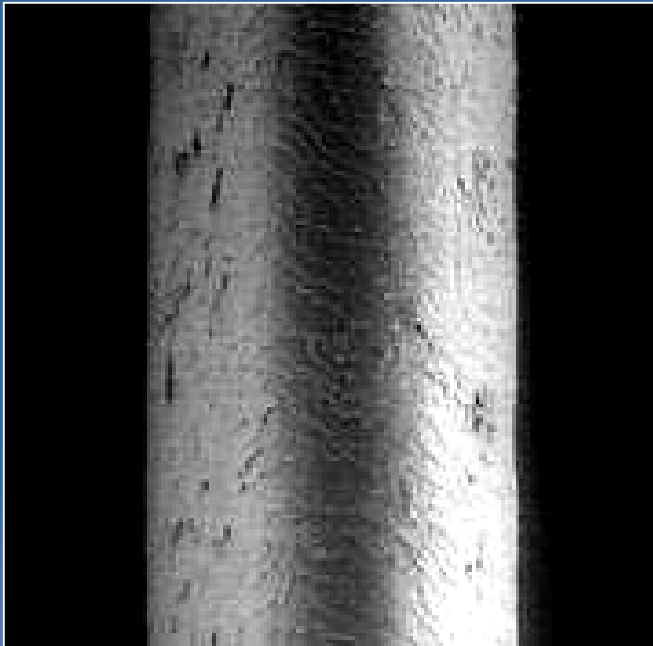
- » People with heart or lung disease
  - › Conditions make them vulnerable
- » Older adults
  - › Greater prevalence of heart and lung disease
- » Children
  - › More likely to be active
  - › Bodies still developing
  - › Breathe more per body pound



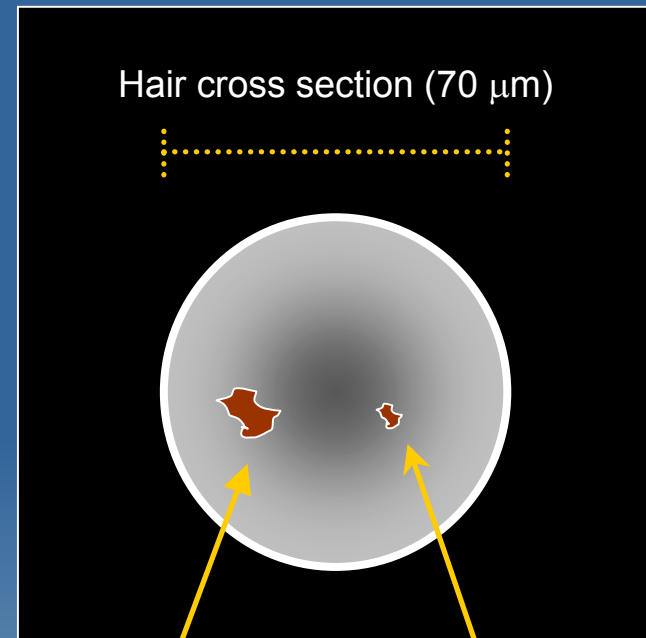


# Particulate matter (PM) in diesel exhaust is a significant source of air pollution

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



Human Hair (70  $\mu\text{m}$  diameter)

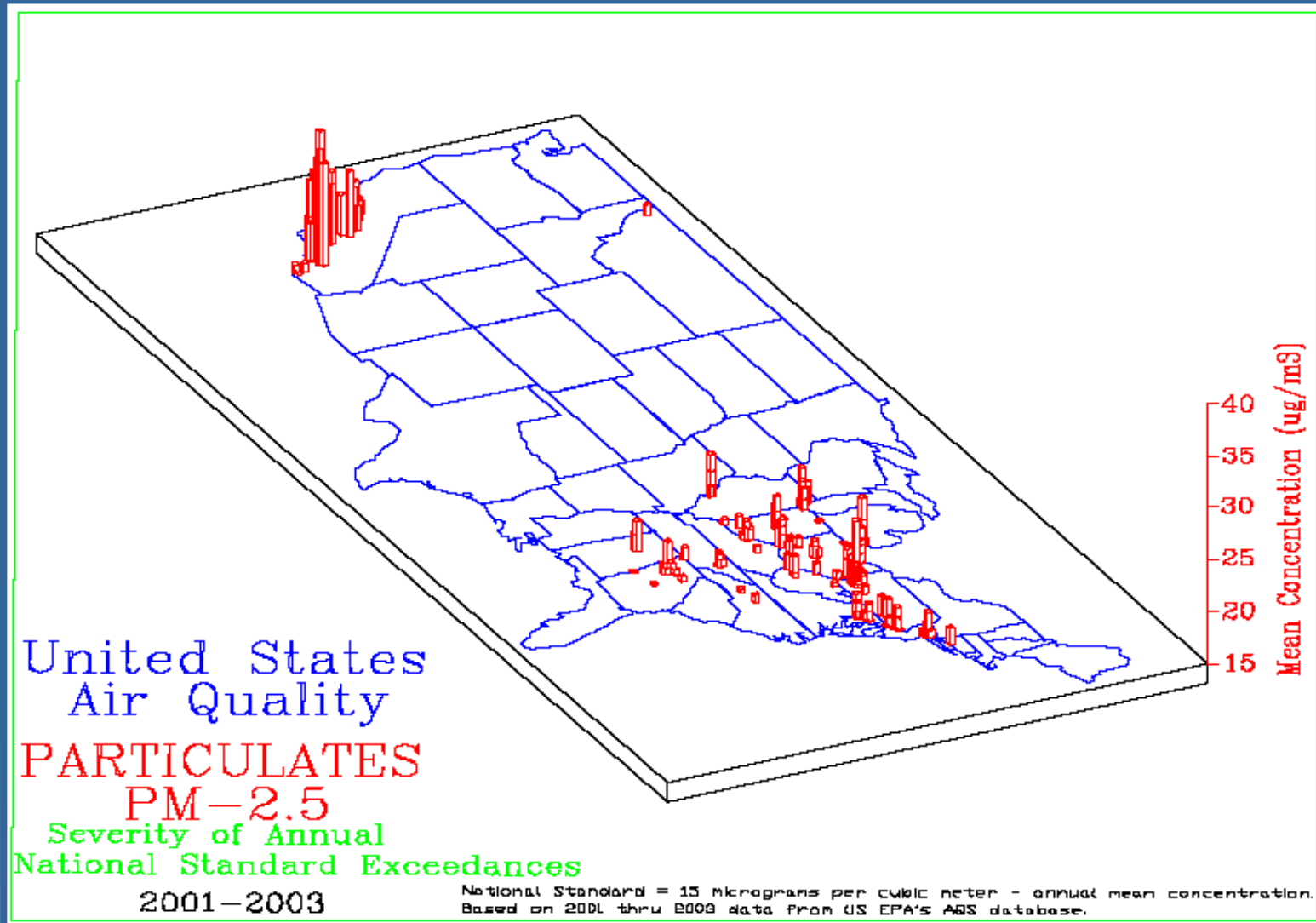


PM<sub>10</sub> (10 $\mu\text{m}$ )

PM<sub>2.5</sub> (2.5  $\mu\text{m}$ )

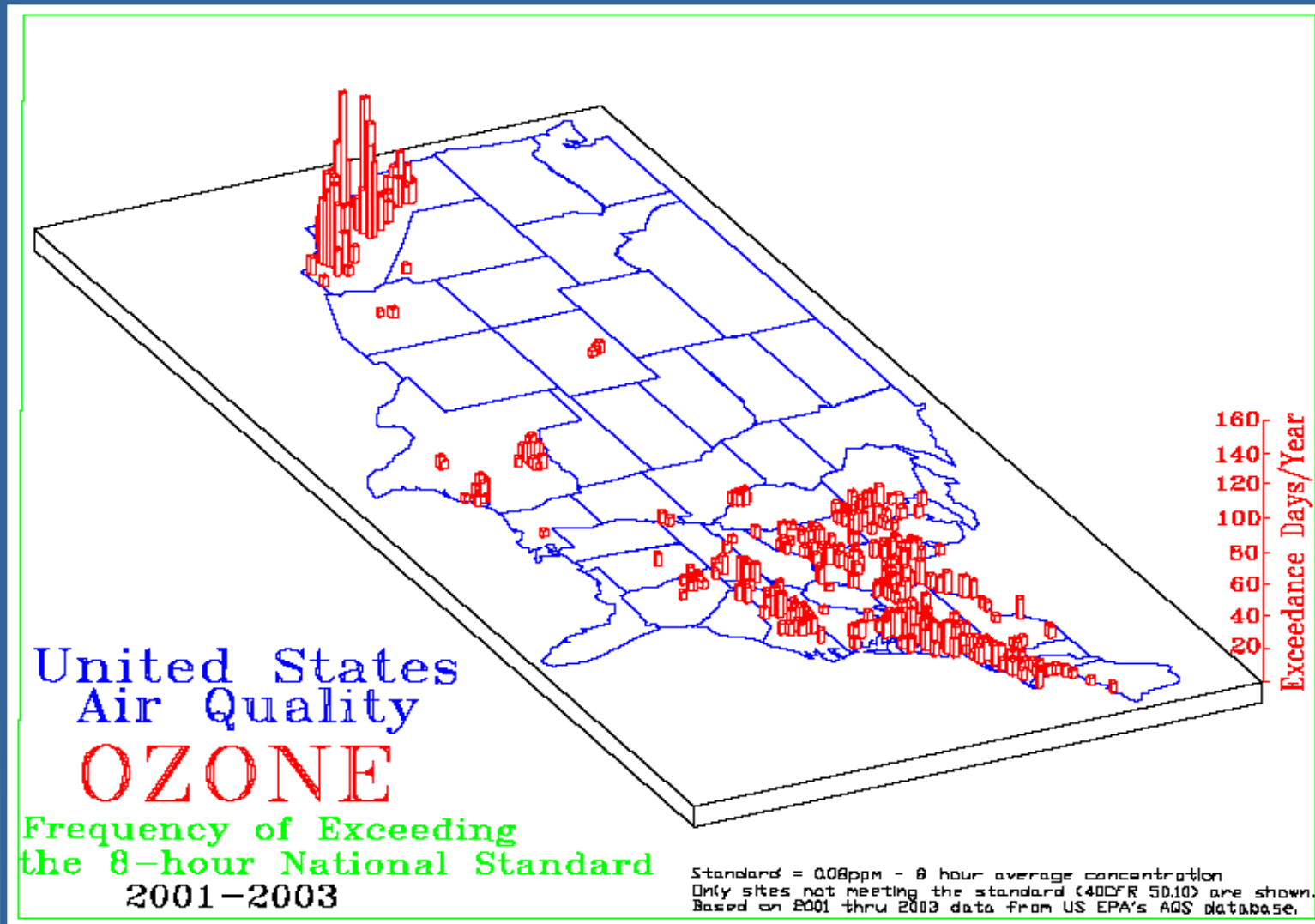


# The West Coast has the most severe PM exceedences in the country





# ... and $\text{NO}_x$ from diesel exhaust contributes to the ozone problem





# 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





## Some other programs also address diesel emissions reduction

- » 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
  - › \$1.6 billion apportioned in 2003
- » US DOE's Clean Cities Program
  - › Millions of dollars granted annually



# 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



# The West Coast Collaborative formed to reduce diesel emissions in five 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

- » 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



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



# 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 the San Diego Air Pollution Control District 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



## For more information...

### » Contact

#### › Michelle Roos

- [roos.michelle@epa.gov](mailto:roos.michelle@epa.gov), 415-947-4187

#### › Peter Murchie

- [murchie.peter@epa.gov](mailto:murchie.peter@epa.gov), 503-326-6554

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