

ENVIRONMENTAL DEFENSE

# Goods Movement moves into the FUTURE

High performance ideas for cleaner air

Mel Peffers

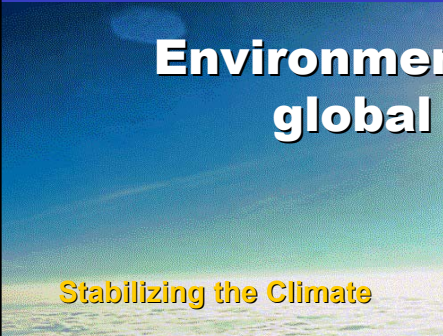
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*finding the ways that work*

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## Environmental Defense's global priorities



Stabilizing the Climate



Preserving Species and Habitat



Safeguarding the Oceans



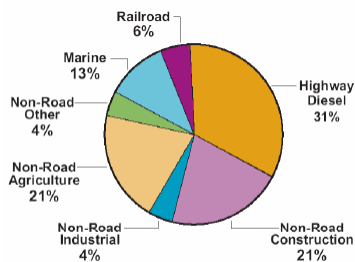
Protecting Human Health

75% of Americans live in urbanized areas



LIVING CITIES

## Goods Movement and Diesel



Breakdown of the approximate 13 million diesel engines in the U.S. (Data: EPA 2002.)

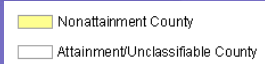
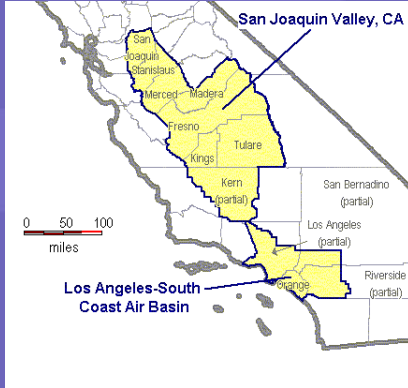


Over 50% of diesel engines are directly used in goods movement

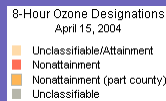
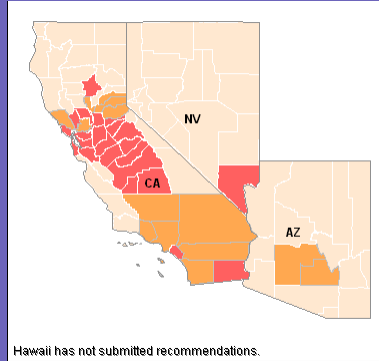
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# Regional Air Quality

## PM 2.5 Designations



## Ozone Designations



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# Balancing growth without sacrificing health and environment



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## The Problem: Diesel's Toxic Stew

- Smog: produced when diesel engines emit nitrogen oxides (NOx) and volatile organic compounds (VOCs)
- Soot: Particulate Matter, especially *fine* particulate matter (PM2.5)
- Hazardous pollutants: over 40 toxic compounds
- Greenhouse Gases: for example, CO<sub>2</sub>



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86% of the air cancer risk in Los Angeles County comes from...

... mobile sources



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## Epidemiology of Diesel Exhaust (it's not good for your health)

- Occupational health studies
  - Miners
  - Teamsters (Steenland et al.)
  - Railroad workers (Garshick et al.)
- Roadside studies
  - Respiratory health, leukemia
- Particulate studies
  - Mortality, lung cancer, asthma, cardiac arrest



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## Local zones of pollution

- Doorstep health dangers may actually be three times greater than original estimates
- Childhood asthma risk increase by 89% within 400m from freeway



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## The path to smarter goods movement

- Emission reductions
- Managing traffic
- Managing exposure



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## Solutions

- **Clean diesel & contracts**

retrofits, repowering, refueling, plug-in power, funding (i.e. Moyer, TERP, DERA)

- **Advance clean technology**

FedEx hybrid trucks, advanced fuels

- **High performance corridors**

Congestion pricing; modal diversification; tolls; fees; improving ports efficiency; rapid bus transit; truck lanes



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## Cleaner Diesel Handbook



- Technology information
- Industry and government contacts
- Funding options
- Examples of success

[www.cleanerdieselhandbook.org](http://www.cleanerdieselhandbook.org)

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## Driving Better Technology

*Changing the way business thinks about the environment*



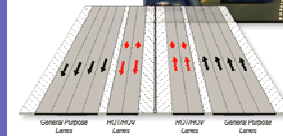
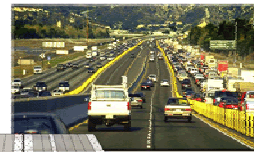
FEDEX Express example: developing a replacement for the current pick-up and delivery truck that has:

- 90% lower emissions
- 50% better fuel efficiency
- CO<sub>2</sub> reductions
- Equivalent lifetime cost

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# High Performance Corridors

- Congestion pricing
- Consolidated shipping
- Fee and toll pricing
- Dedicated lanes
- Advanced fuel access
- Rapid public transit



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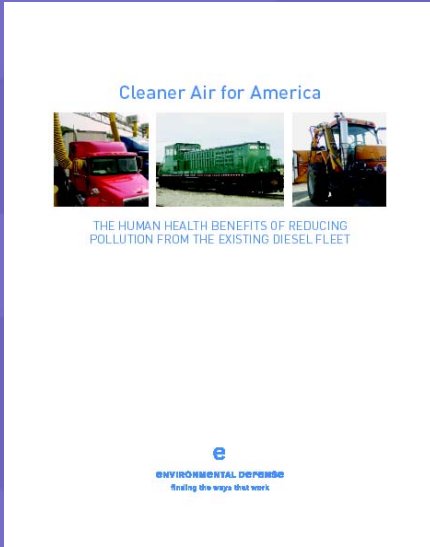
# Working together LAX Community Benefits Agreement Example Steps to Success



- Allies Identified
- Common Goals Identified
- Negotiated Agreement



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## Where do we go from here?

- **Clean up now**
  - Three Rs, plug-in
  - DERA appropriations
- **Advance new technologies**
- **Get innovative**
  - High performance corridors
  - Efficient ports and transit
- **Work together**

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## Contact Information

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