



Building a New Freight Plan for California: An Opportunity to Address Ongoing Community Health and Environmental Impacts of our Freight System

*California Freight Advisory committee
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Diane Bailey, Natural Resources Defense Council

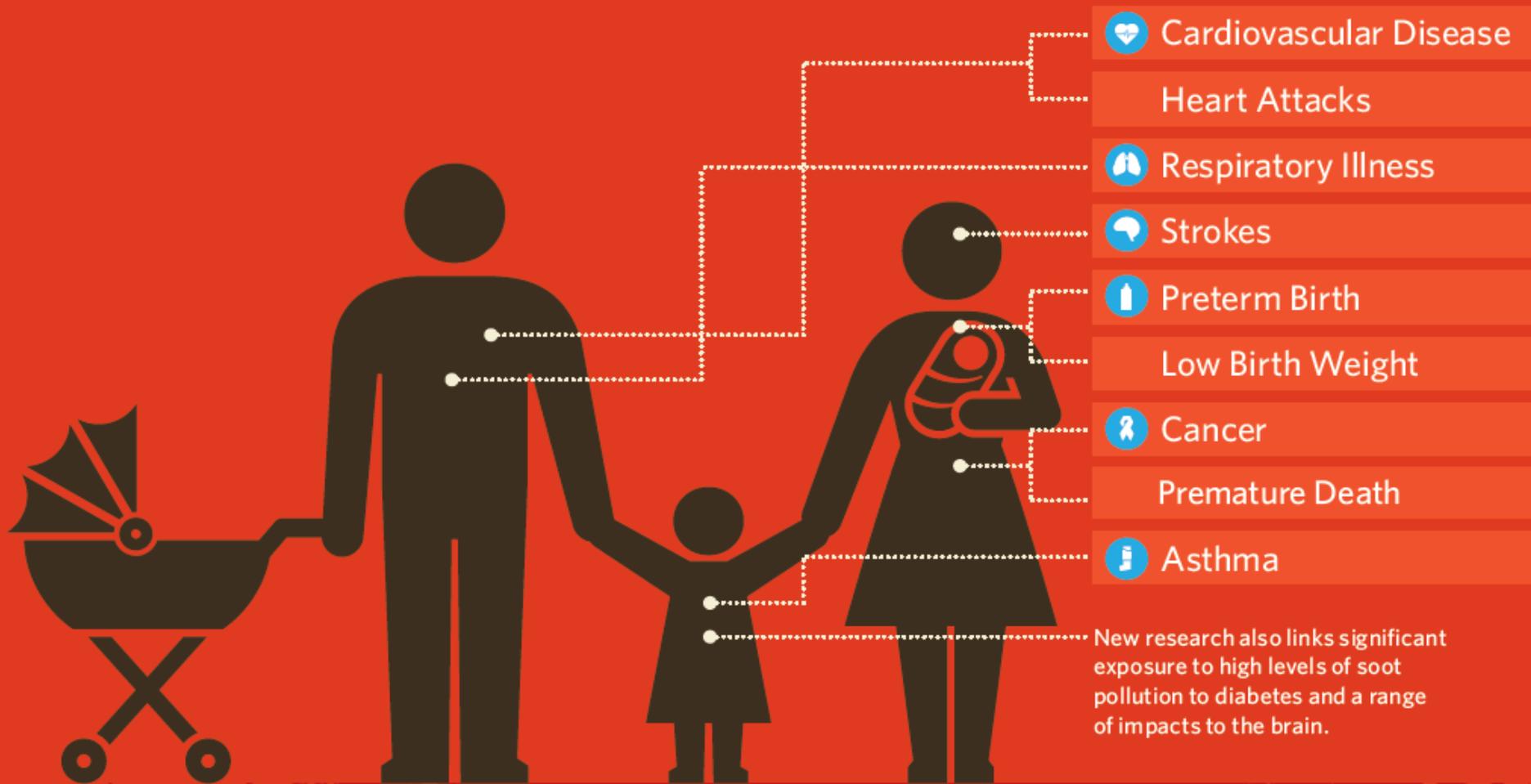


Focus on Health: Too Many People Living Too Close to Freight Hubs



Mixed land use has led to homes and schools right next to freeways, rail yards, ports and Trucking hubs.

Health and Community Impacts of Diesel Freight



California Has Come a Long Way



Statewide Diesel Freight Clean Up Regs:

- Drayage Trucks
- Cargo Equipment
- Refrigeration Units
- Harbor Craft
- Shore Power
- Marine Fuels



- The San Pedro Bay Ports (LA & LB) CAAP
- Electric drayage trucks at the Port of LA
- Hybrid-electric tugs at the Port of LB
- Several Tier 4 Locomotives in CA

WE CAN REDUCE AIR POLLUTION & CARBON EMISSIONS

from trucks, trains, ships, and equipment with:

CLEANER NEW ENGINES

are more efficient than older models.

ALTERNATIVES

include using cleaner fuels and more efficient engines to reduce pollution. Trains can move roughly three times more goods than trucks, for every gallon of fuel.

ELECTRIC POWER

for trucks, trains, equipment and ships while at dock.



CLEAN CARGO

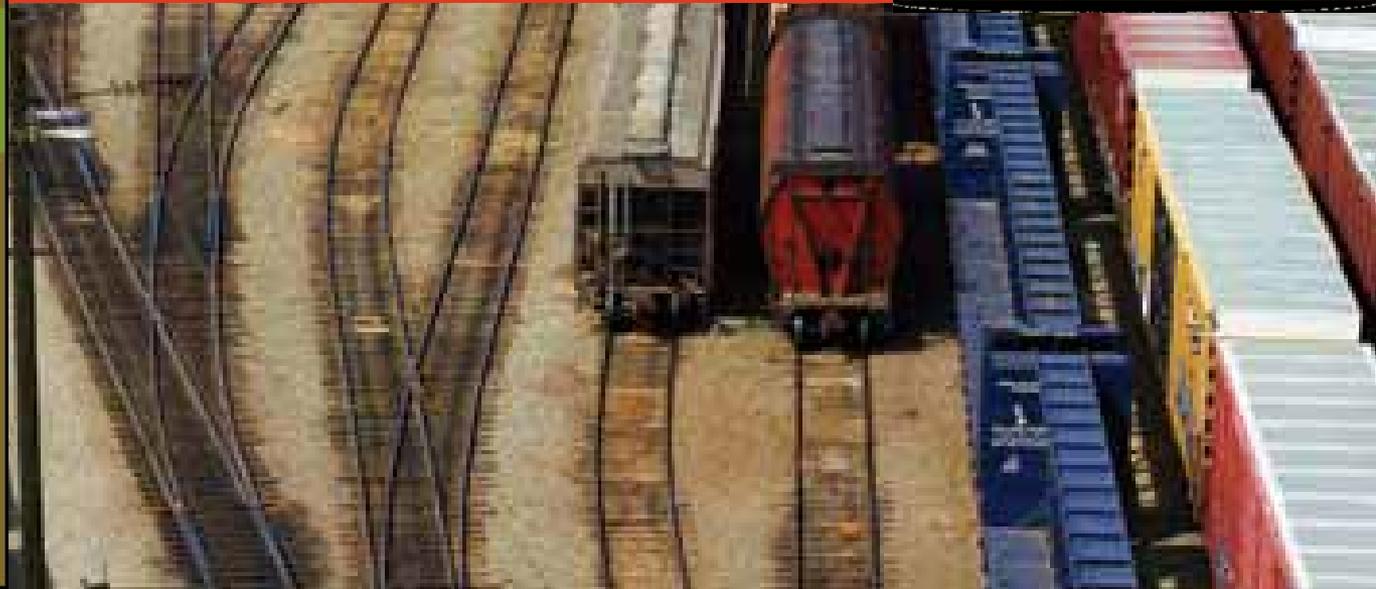


CLEAN CARGO

A GUIDE TO REDUCING DIESEL AIR POLLUTION FROM
THE FREIGHT INDUSTRY IN YOUR COMMUNITY

AUTHORS:
Diane Bailey
Melissa Lin Perrotta
Cooper Haning

CONTRIBUTORS:
Morgan Wyenn
Adrian Martinez
David Pettit
Kathleen Yip





We Need a System-wide Overhaul:

- Problems: Analyze all current shortcomings
- Solutions: Research successful measures and systems
- Revenue: How will CA raise the funds needs for a system overhaul?
- Scenarios: What can work in CA? Evaluate & Compare different approaches



No Silver Bullet

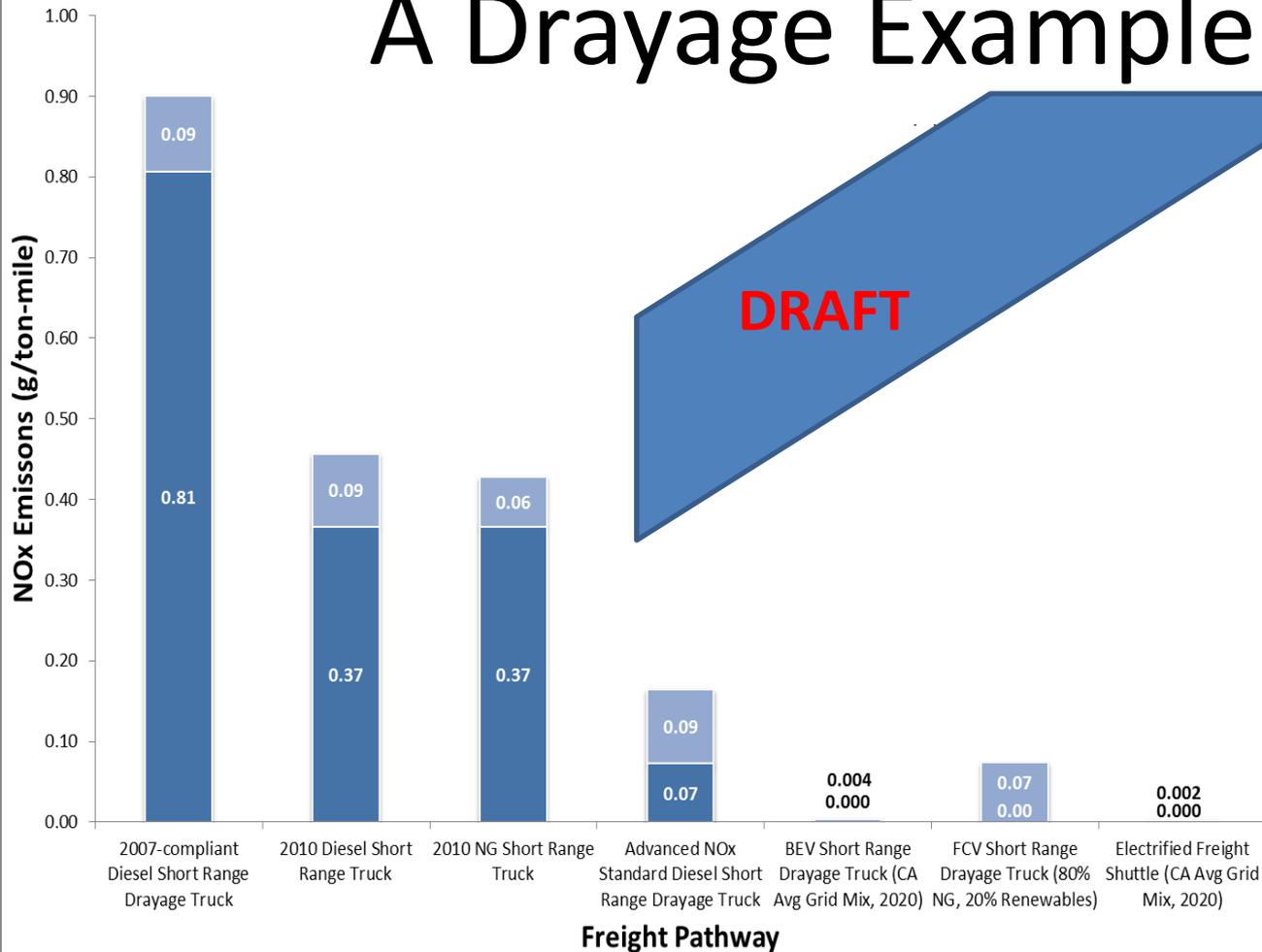
- **Conventional measures won't get us there**
- We can't pave our way to a better freight system with more freeway lanes



A Post-Diesel Freight System?

- Many cleaner freight alternatives that go far beyond today's cleanest diesel & NG engines to reduce PM, NOx and GHGs.
- Electric vehicles and rail can eliminate tailpipe emissions in impacted communities / urban core.
- Shifting freight from trucks to more efficient modes (rail, barge) can dramatically reduce pollution, taking care not to shift impacts.
- Need system-wide changes to incorporate new technology & new modes.

A Drayage Example



- Cleanest Fossil Fuel (diesel & NG) options are dramatically dirtier than alternatives
- Fossil Fuel upstream emissions are also higher
- Electric (battery, fixed guideway, catenary) & Fuel Cell options have zero tailpipe NOx
- Hydrogen fuel cells can have high upstream emissions



Input from the communities that live side by side with the freight industry is critical to the process.