Port Stakeholders Summit

Charting the Course:

Sustainable Emission Reduction Strategies at the Port of Long Beach

Rick Cameron, Managing Director of Environmental Affairs and Planning
Port of Long Beach

EPA United States Environmental Protection Agency

Port of Long Beach

Premier gateway for U.S-Asia trade, major Southern California economic engine

Port of LONG BEACH

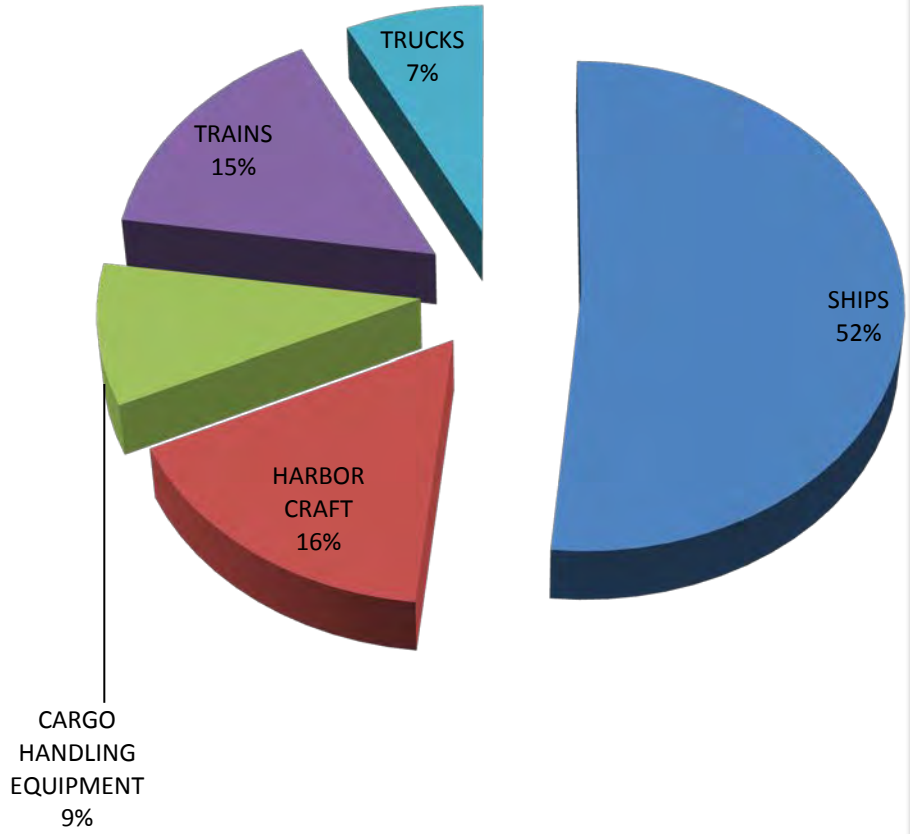
The Green Port

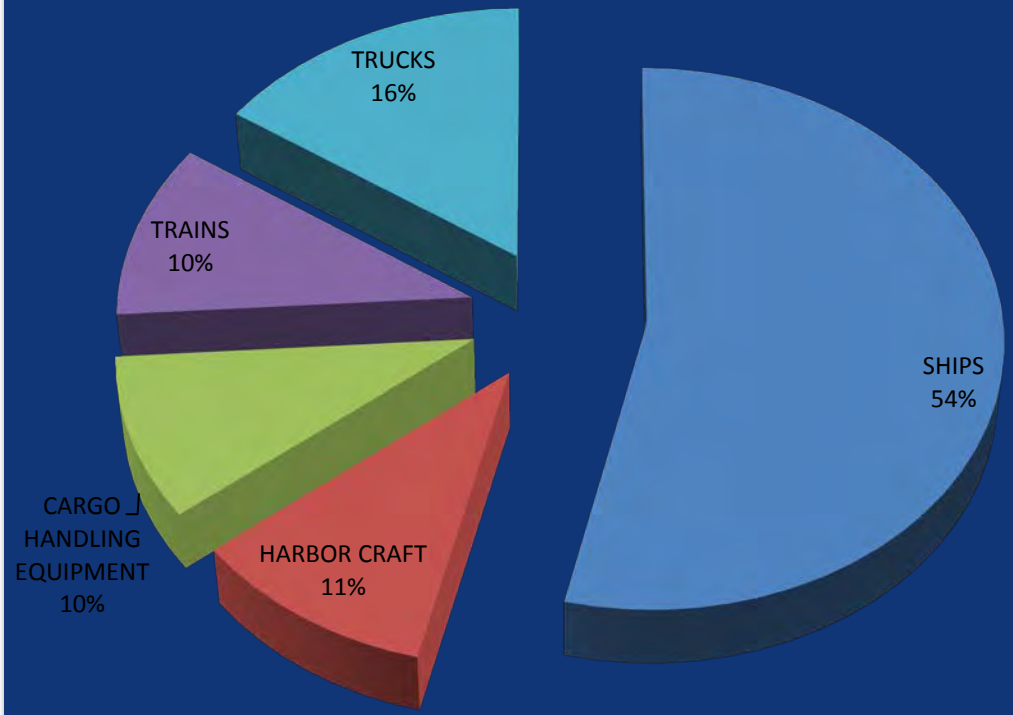
Long Beach leads the way in reducing impacts of Port operations with Green Port Policy and Clean Air Action Plan

Clean Air Action Plan

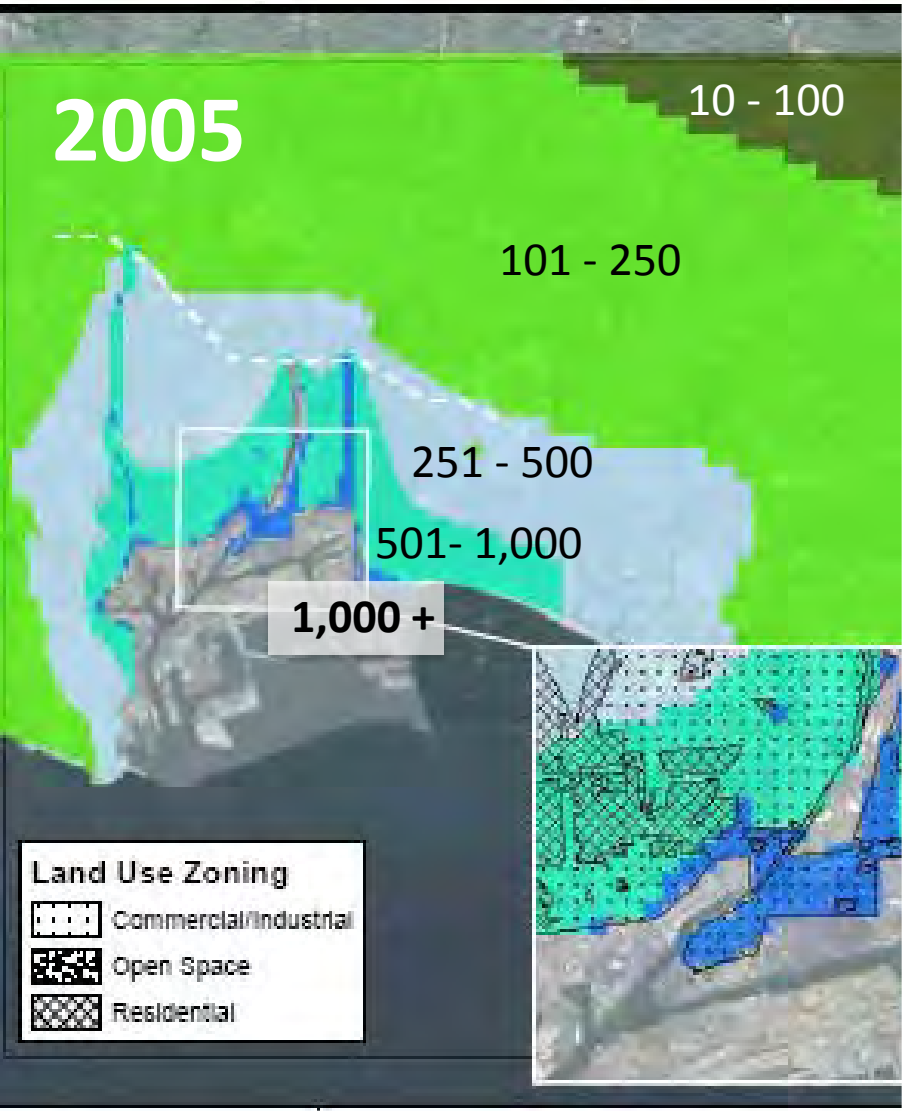
The Port of LONG BEACH
Clean Trucks Program

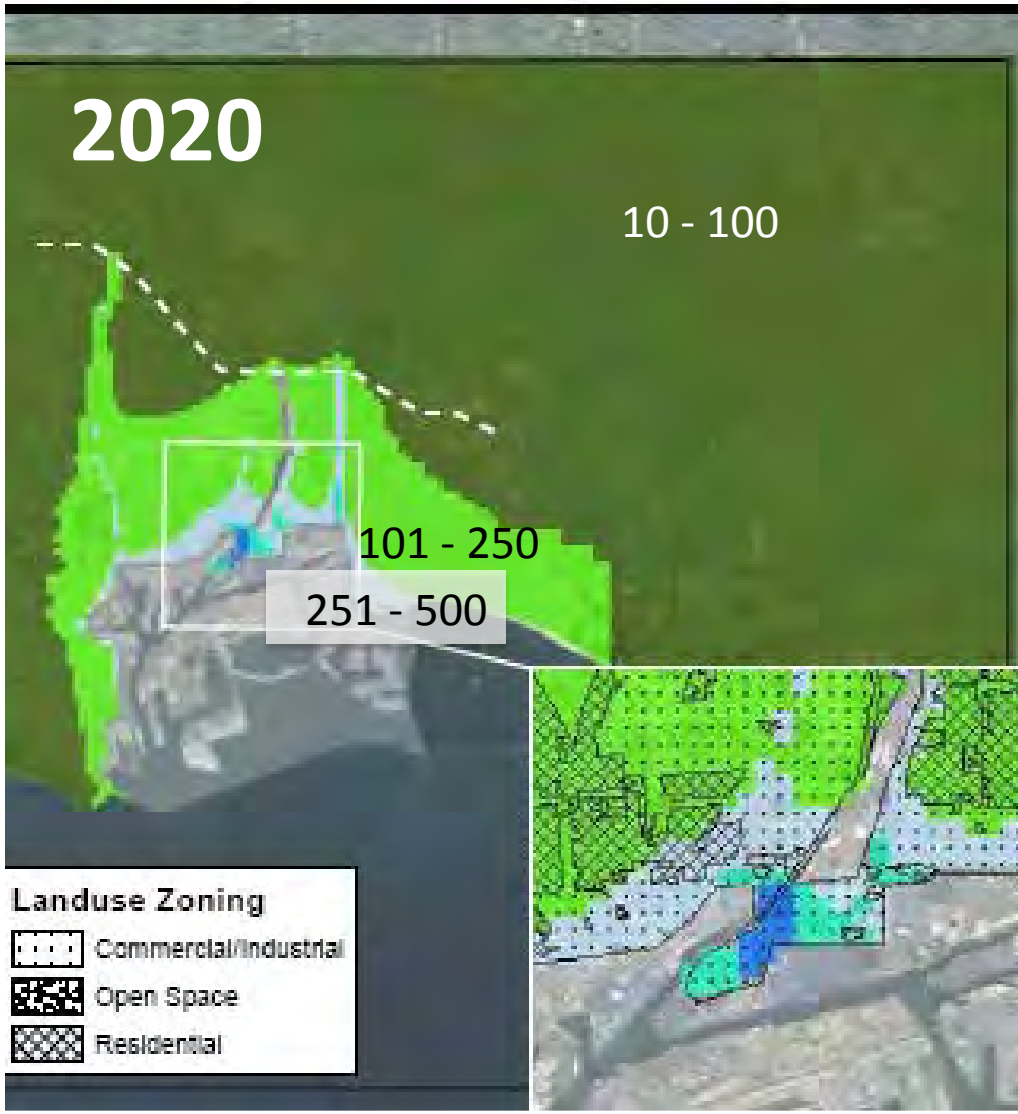
2012 POLB/POLA NOx and DPM Emissions

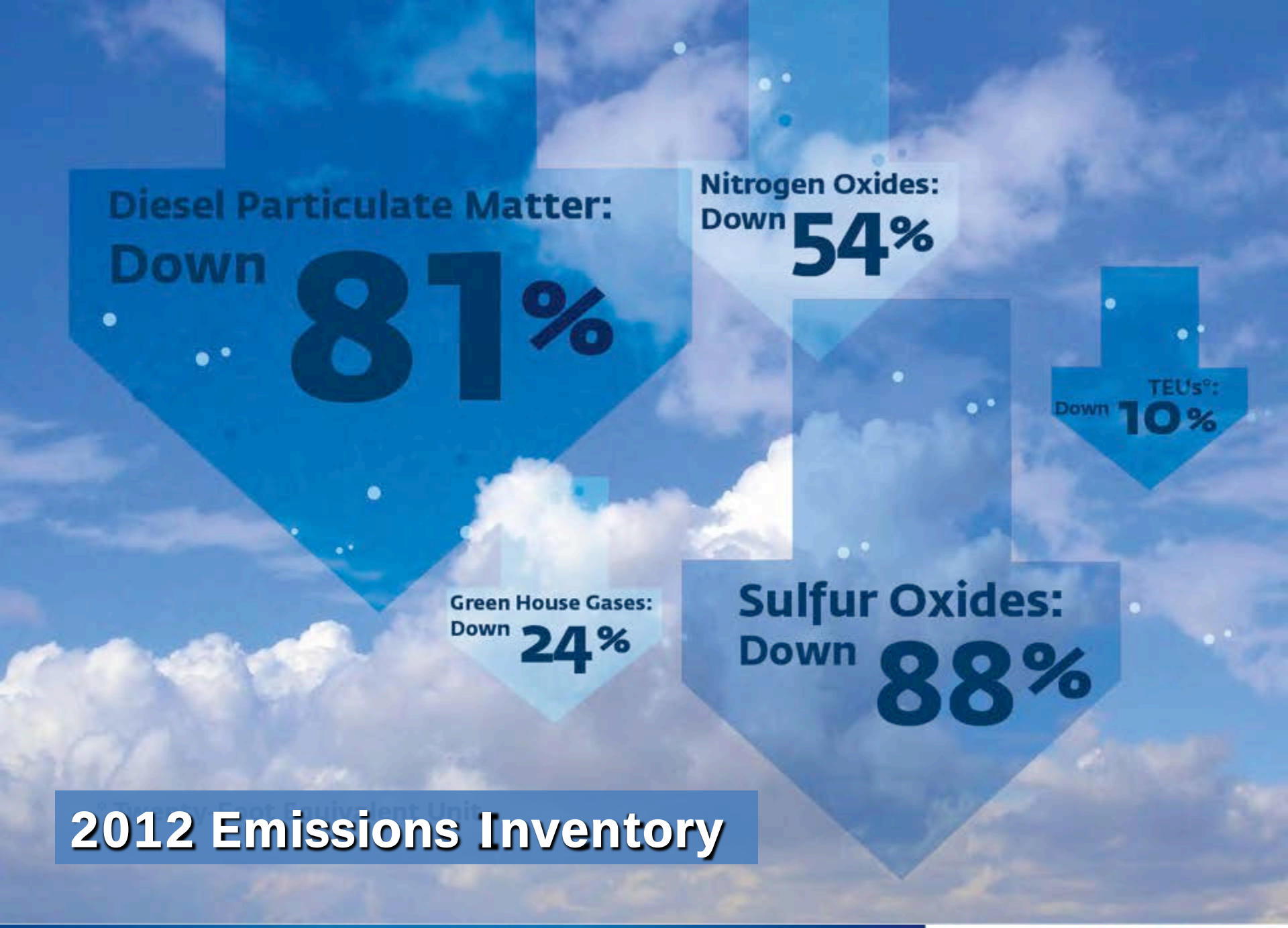




Cutting the health risk







2012 Emissions Inventory

Sustainable Strategies

- Collaboration
- Tailored approaches
- Requirements and incentives

Strategies:
Coordination Between Users

Economies of scale.

Improved resiliency.

Stakeholder outreach.

Federal and state financial support.

Technical expertise.

Legislative advocacy.

Clean Trucks

Port program replaced 11,000 vehicles, reducing truck emissions by 90%.


Slower Ships
The Vessel Speed Reduction Program prevents more than 1,000 tons a year of air pollution.

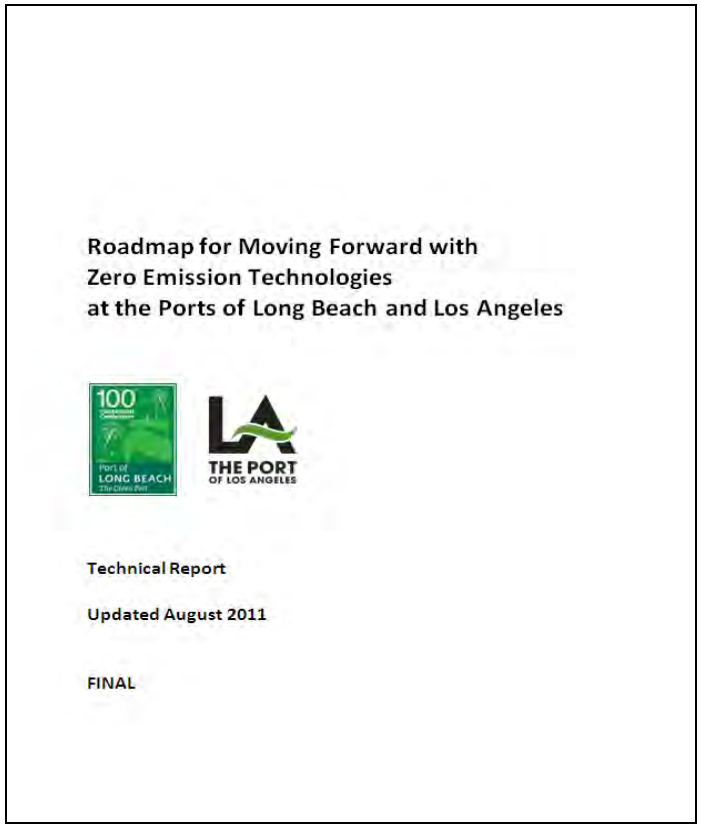
Green Ships

The Port gives financial incentives for ships with the cleanest engines.

Plugging In

Beginning in 2014, half of the container ships will plug in for shore power while at berth.

Zero Emissions Roadmap


Roadmap for Moving Forward with
Zero Emission Technologies
at the Ports of Long Beach and Los Angeles

Technical Report

Updated August 2011

FINAL

- Presented at July 2010 Joint Board Meeting
- Focus on near-term technology development
- Local (Port) and regional focus
- Flexibility for the future
- Scalability to the region
- Success requires collaboration

Technology Advancement Program (TAP)

$1.5 million in port funding available each year

23 projects, including exhaust scrubbers for ships and fuel valve studies

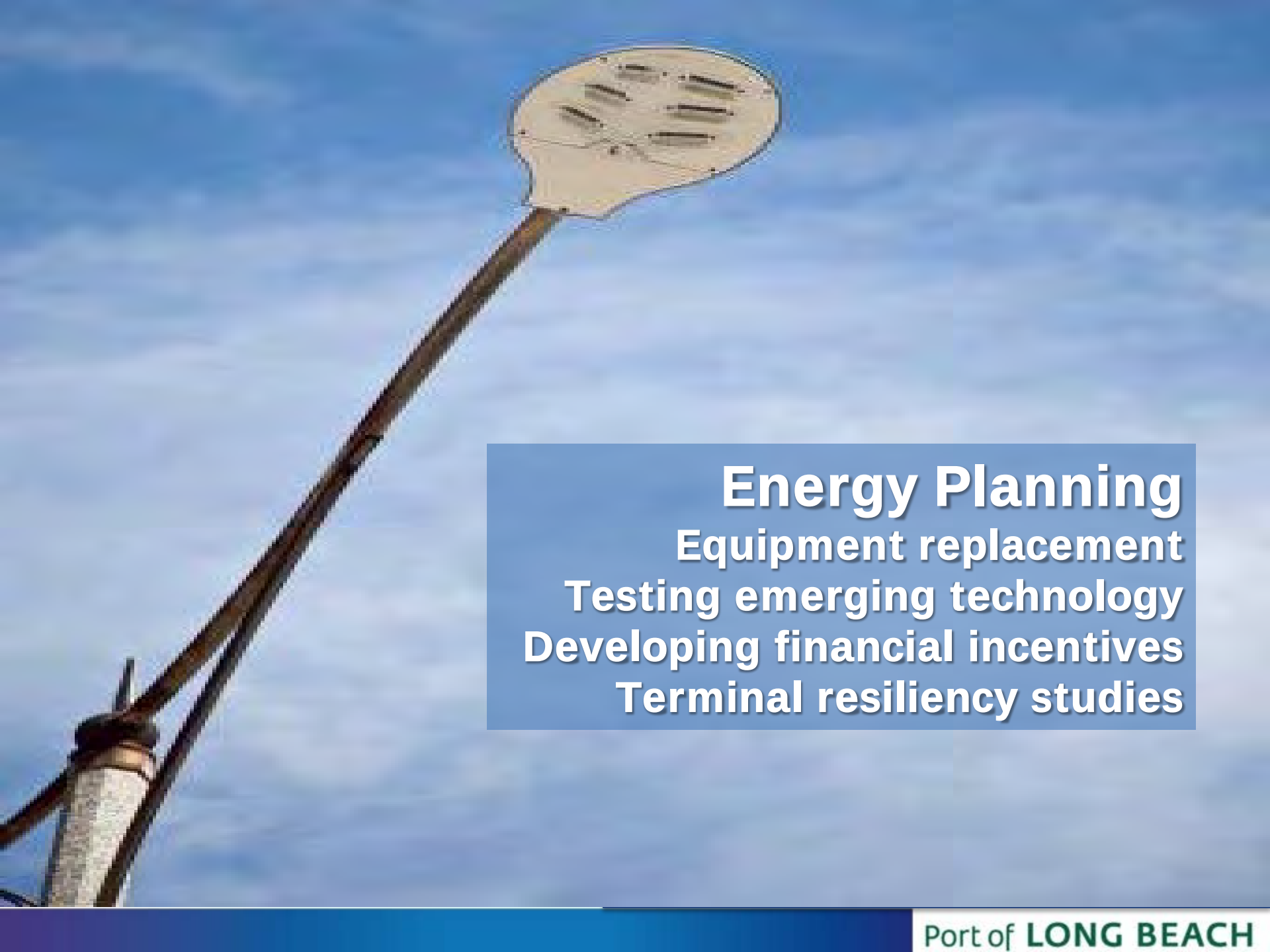
$3.5 million committed by POLB to date

Focus on the community

reduce indoor air pollution by at least **90** percent

capture **30** to **80** percent of ultrafine diesel particles and **reduce** noise

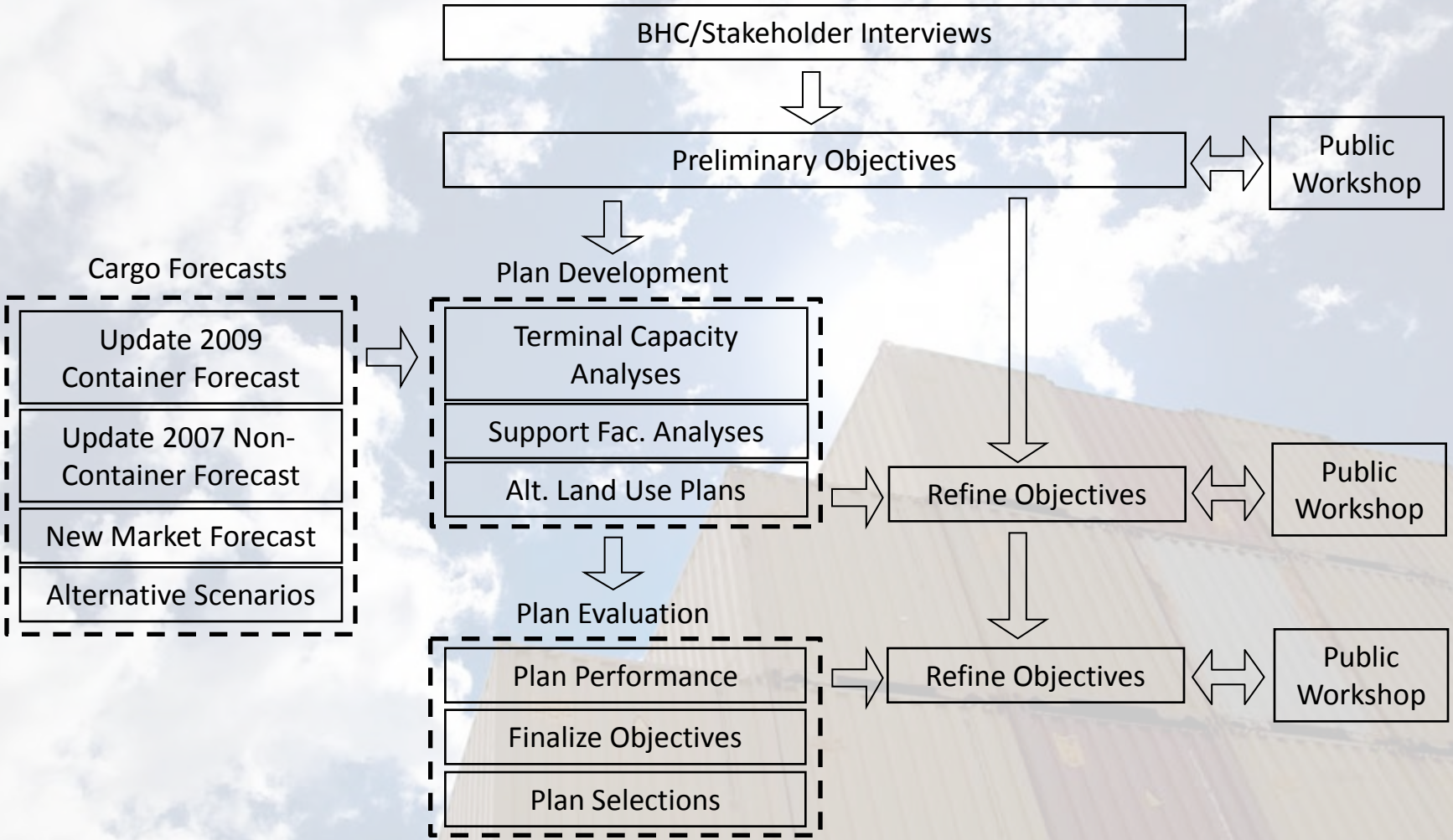
decrease hospital visits, **reduce** absences, **improve** quality of life with asthma


Energy Planning
Equipment replacement
Testing emerging technology
Developing financial incentives
Terminal resiliency studies

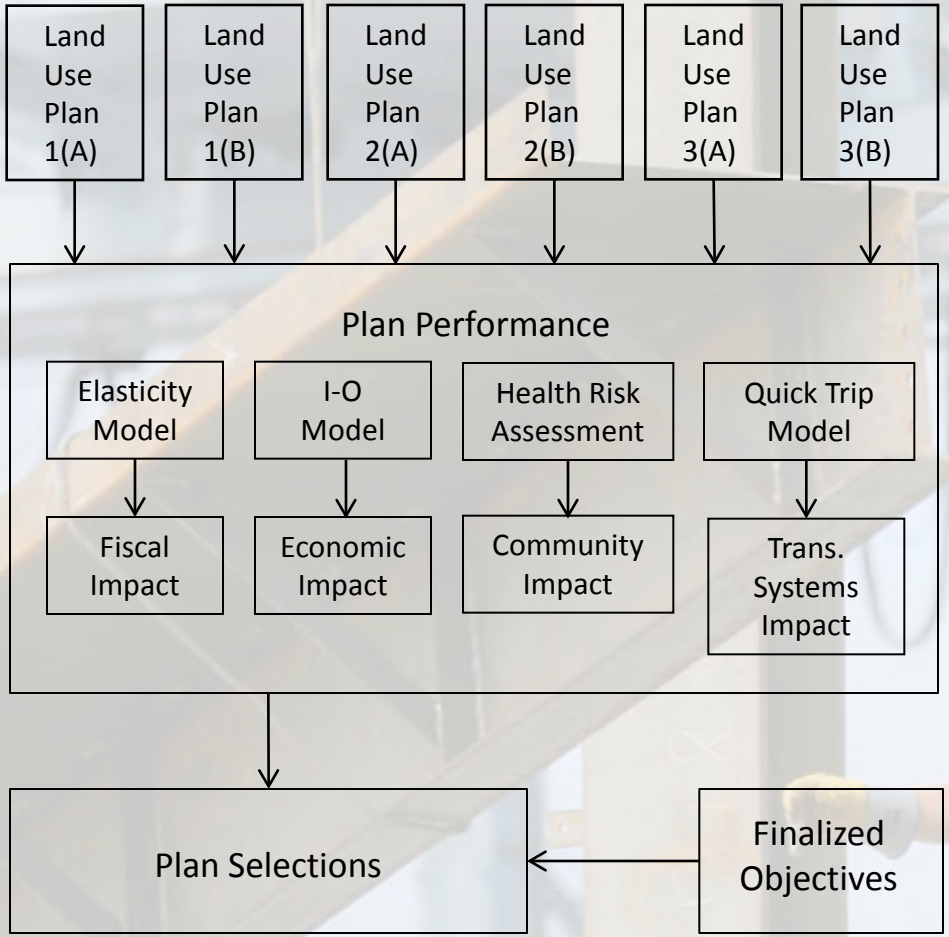
Sustainable Development Initiatives

- POLB Sustainable Design and Construction Guidelines
- West Coast Ports Collaborative for Sustainable Project Guidelines
- Procurement

Proposed Land Use Plan Process Overview



Sustainable Plan Evaluation Component



- Possible plan performance measures:
  - Port revenues and costs
  - Local and regional job creation, business sales, value added and state/local revenues
  - Community health/quality of life impacts
  - Impacts on the road and rail infrastructure serving the Port.
- Possible analytical tools (not exhaustive):
  - Leachman's cost elasticity model for containers
  - Port's Input-Output model (Rutgers)
  - HRA model (in progress)
  - Port's quick-trip model

Continue Progress

- Multiple pathways of action – no “one” solution!
- Strong collaborations and regional partnerships
- Flexibility – near term vs. long term
- Technically Feasible/Economically Viable
- Maintain Port Sustainability – need for balance

Thank You

Port of
LONG BEACH
The Green Port