



Port of
LONG BEACH
The Green Port

Green Port Long Beach

Green Port Policy Update
May 2010

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Green Port Policy

- Protect the community from negative Port impacts
- Distinguish Port as environmental leader
- Promote sustainability
- Employ best available technology
- Engage and educate the community

Green Port Policy Elements



- **Wildlife** – Protect, maintain or restore aquatic ecosystems and marine habitats.
- **Air** – Reduce harmful air emissions from Port activities.
- **Water** – Improve the quality of Long Beach Harbor waters.
- **Soils/Sediments** – Remove, treat, or render suitable for beneficial reuse contaminated soils and sediments in the Harbor District.
- **Community Engagement** – Interact with and educate the community regarding Port operations and environmental programs.
- **Sustainability** – Implement sustainable practices in design and construction, operations, and administrative practices throughout the Port.

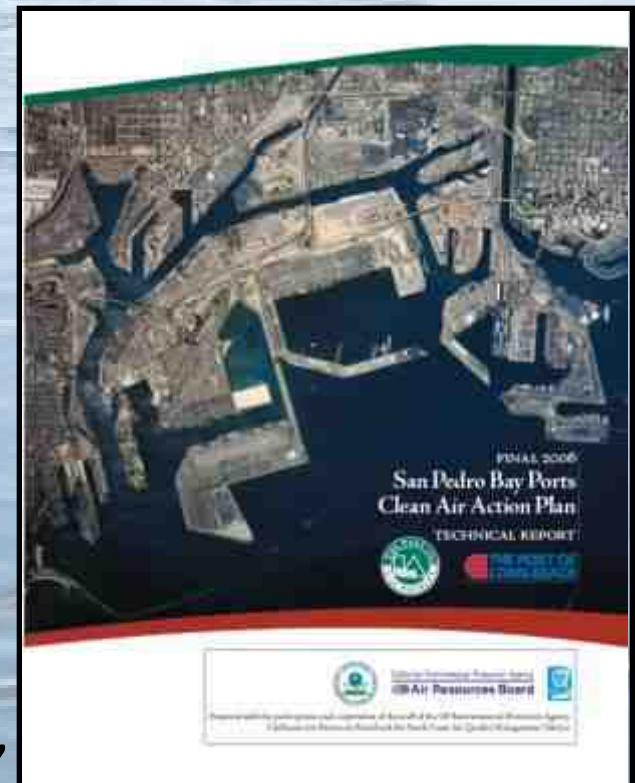
Clean Air Action Plan (CAAP)



- Minimize health risk from port operations
- Build upon ports & tenants existing programs
- Set consistent project-specific & source-specific standards
- Enable port development

Clean Air Action Plan (CAAP)

- 5-year joint port (POLB/POLA) plan
 - minimize health risk, and
 - reduce emissions from port operations
- Prepared in cooperation with EPA, CARB and AQMD
- Sets standards for San Pedro Bay, individual projects, and individual sources (i.e trucks, vessels, rail, harbor craft, cargo handling equipment)
- Expected to reduce 47% DPM, 45% NO_x, and 52% SO_x by 2011, when compared to no plan



2009 CAAP Success

- Green Flag Program – 95% compliance!
 - Expanded program out to 40nm
- Vessel Main Engine Fuel Incentive Program
- Shoreside power infrastructure – BP Berth 121 and ITS Pier G
- Clean Trucks Program
 - 80% 2007 or better Trucks
- PHL Tier 2 fleet replacement
- Technology Advancement Program (TAP)
 - AMECS Pilot Test - Pier Bulk Terminal
 - Foss hybrid tug



CTP Progressive Ban

Ban schedule:

- Ban pre-1989 trucks from Port service by 10/1/2008
- Ban 1989-1993 trucks from Port service by 1/1/2010
- Ban un-retrofitted 1994-2003 trucks from Port service by 1/1/2010
- Ban pre-2007 trucks from Port service by 1/1/2012



Clean Truck Program Tariff



Tariff requirements:

- A progressive truck ban
- Registration Agreement for drayage trucks accessing Port terminals
- RFID tags on all drayage trucks
- Installation of RFID readers at all Ports' terminals

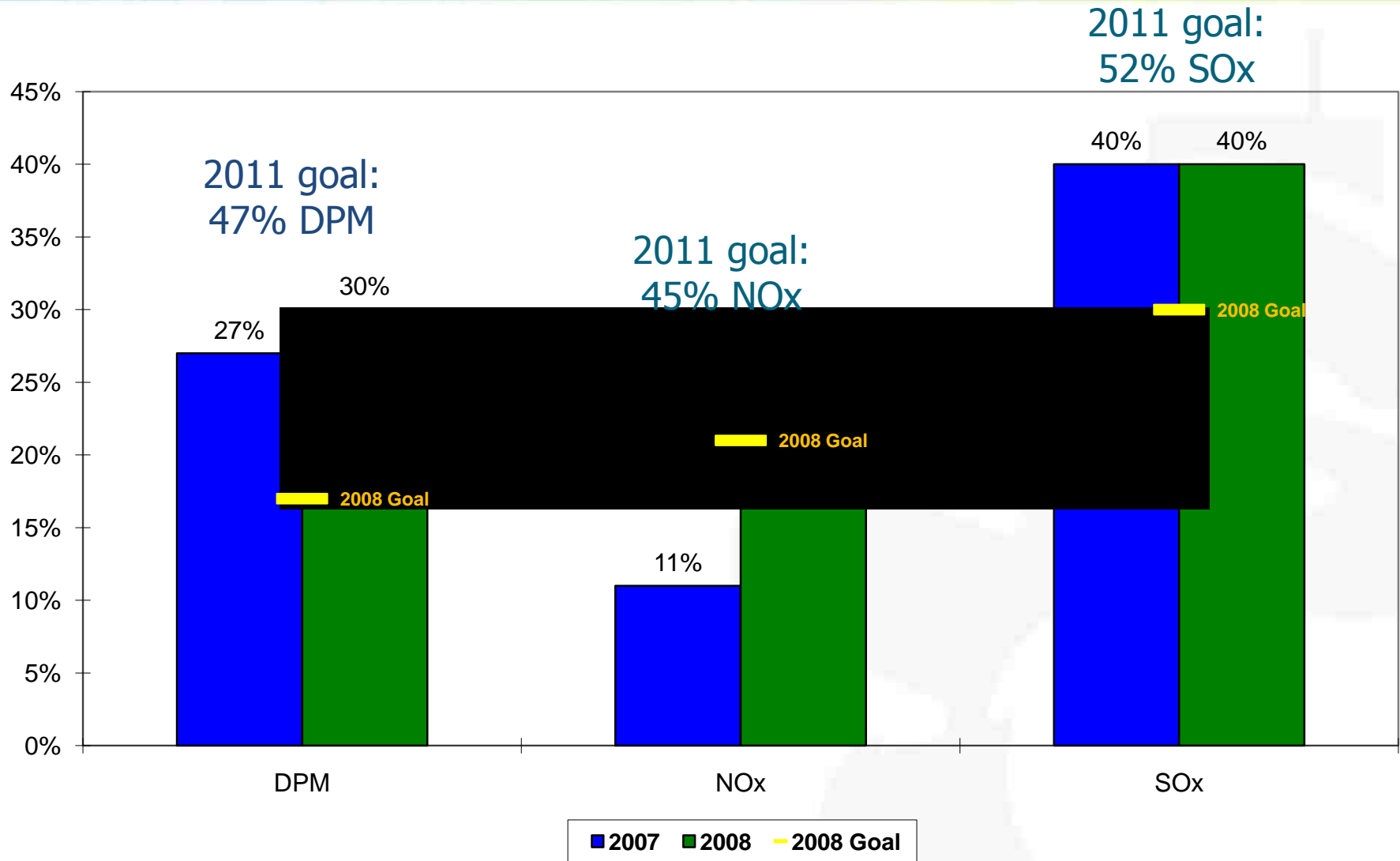


Current Status

- 8,000 old, polluting trucks were banned on Jan. 1, 2010
- Currently, more than 7,000 clean trucks in service
- Another ~1,000 clean trucks on order
- Truck pollution cut nearly 80% -- two years ahead of schedule



Progress Toward Achieving Original CAAP Goals



Updates to the CAAP

- CAAP is a “living” document:
 - Review existing measures
 - Evaluate new measures and technologies
 - Incorporate new regulations
 - Incorporate new information
- Development of San Pedro Bay Standards
 - Emissions Reduction Standards
 - Health Risk Reduction Standard
- Update measure implementation

Proposed San Pedro Bay Standards



- Emissions Reduction Standards
 - By 2014, reduce emissions by:
 - 72% DPM
 - 22% NOx
 - 93% SOx
 - By 2023, reduce emissions by:
 - 77% DPM
 - 59% NOx
 - 92% SOx

- Health Risk Reduction Standard
 - By 2020, reduce the population-weighted residential cancer risk of port-related DPM emissions by 85%, in highly-impacted communities located proximate to port sources and throughout the residential areas in the port region



Health Risk Assessment Results



Tracking, Monitoring, and Reporting



- Expand Port-Area Real Time Air Monitoring Network
- Emissions Inventory-Regular Updates
- Monitor Progress on Clean Air Action Plan
- Report Progress on Clean Air Action Plan

Renewable Energy/GHG Program



- Multi-divisional working group—evaluates and implements renewable energy projects
- Completed “Solar Energy Technology and Siting Study”
- Developed framework for renewable projects
 - Capital projects
 - Development projects
 - Tenant incentive projects
- Tracks other types of renewable energy, such as wind, for eventual cost-effectiveness
- Development of a comprehensive GHG Emissions Reduction Program

Water Resources Action Plan

- Joint efforts with both the Port of Long Beach and Port of Los Angeles with U.S. EPA Regional Water Quality Control Board and other stakeholders



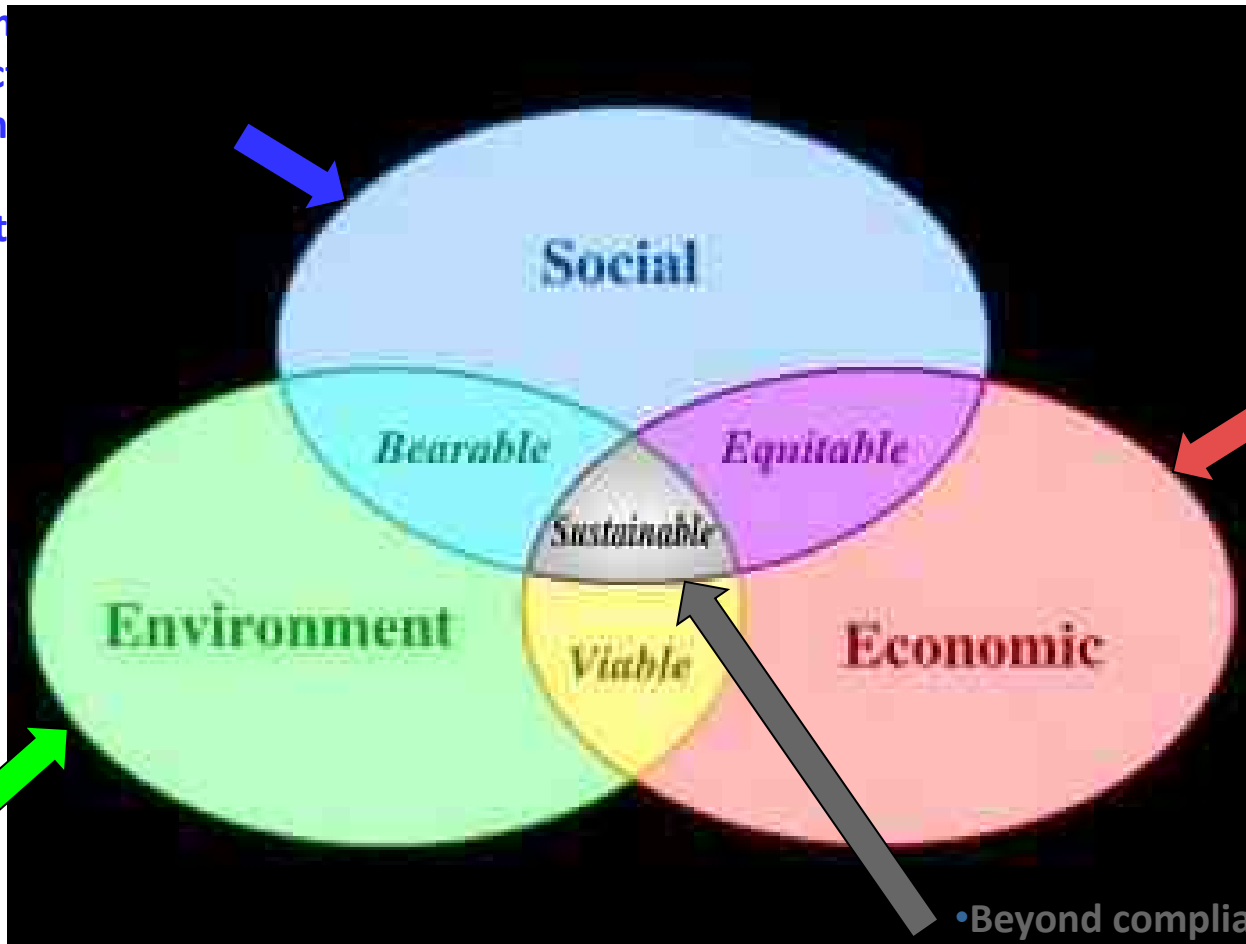
Water Resources Action Plan

- WRAP will improve water quality by:
 - Building upon existing port programs
 - Identifying innovative and proactive methods to meet current and upcoming regulatory requirements
 - Identifying pollution control measures to improve water quality
- Total Maximum Daily Loads (TMDLs)
- New Vessel Discharge Permit
- Sediment Management Plan



Sustainability at POLB

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Collect and
re-invest
user fees
to provide
maximum
operational
efficiencies

Comply with
local, state and
federal
regulations

- Beyond compliance
- Healthy, thriving community
- Financially solvent

Integration of Sustainable Practices

STRATEGIC PLAN
Performance Measures

reporting

Green Port Annual Report

Green Port Policy

WILDLIFE

AIR

WATER
QUALITY

SOIL/
SEDIMENT

COMMUNITY
ENGAGEMENT

SUSTAINABILITY

Design

“Green” Building
Criteria (LEED)

Construction
Management

Recycle
Construction Materials

Maintenance

Tire Recycling
Facilities Retrofit for
Energy Conservation

Administration

“Green” Office
Supplies
Procurement
Ride Share Program

CAAP Triple Bottom Line Features (TBL)



Social Responsibility

- Human health risk reductions
- Includes stakeholders in decision making
- Creates jobs
- Process is transparent
- Protects integrity of workers

Economic Responsibility

- Equitable distribution of financial burden
- Helps ports maintain "license to operate"

Environmental Responsibility

- Air quality improvements
- Energy/fuel efficiency improvements
- Advances new technologies
- Creates model for regulators and politicians
- Ecological health side benefits

Next Steps for Sustainability

- New programs and projects
- Assign goals, targets, and metrics for all sustainability programs
- Collaborate with City on sustainability initiatives and reporting
- Share what we've learned with our tenants and provide incentives for sustainable operations

Middle Harbor Redevelopment

- Modernize Piers D,E & F
- Cut pollution by 50%
- Create 14,000 jobs
- 1000 trucks off the road
- LEED Certified Bldgs.
- “Green” terminal



Middle Harbor Mitigation Funds



- \$15 million to start
 - \$5 million for Schools and Related Sites
 - \$5 million for Health Care and Senior Facilities
 - \$5 million for Greenhouse Gas Emission Reductions

What are the goals?



Offset impacts of port-related pollution to the community

Fund projects that provide the greatest benefits to the largest number of sensitive receptors

Impact Zones





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***Thank
You!***

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