

Green Port Policy

Clean Air Action Plan Update

Green Port Policy

- Adopted January 2005.
- Protect community from harmful impacts of port operations
- Use best technology
- Promote sustainability
- Environmental leadership
- Engage the community



Green Port Projects

- **Green Flag Ship Incentives**
- **Green Port Leases**
- **Clean Diesel Locomotives**
- **Yard Tractor Retrofit**
- **Testing Hybrid Yard Tractors**



Green Leases

- **International Transportation Service/"K" Line**
- **SSA/Matson**
- **Others**



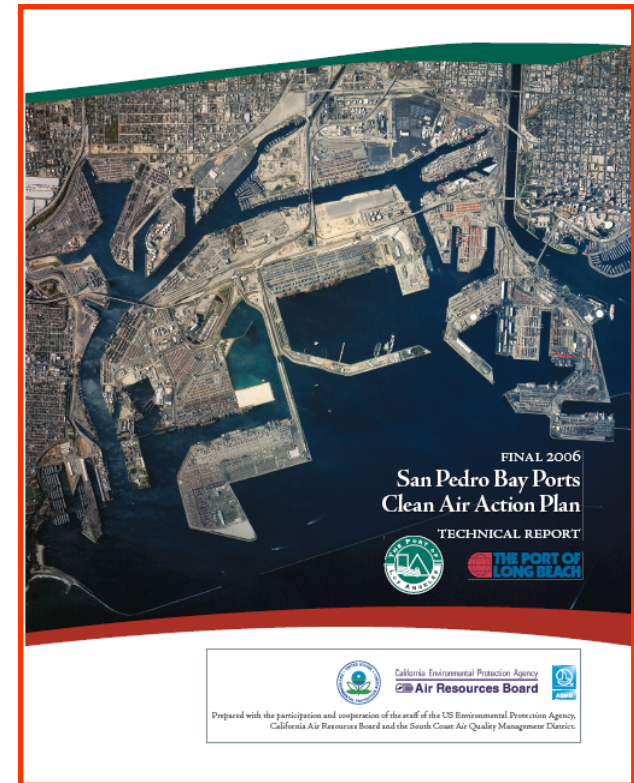
Green Port Policy: Air

- **Air Program Goal:**
 - Reduce air emissions from port activities
- **Metric:**
 - Reduce emissions per ton of cargo handled
- **Implementation Mechanism:**
 - Clean Air Action Plan



Clean Air Action Plan

- Defines measures and programs for reducing emissions and health risk from port operations over the next 5 years
- Adopted at a joint Board meeting in November 2006



CAAP Implementation

- Outreach efforts
 - www.cleanairactionplan.org
- Developed CAAP Stakeholder Group
- Developed Technology Advancement Program
- Developed CAAP Recognition Program

CAAP Implementation

- Activated truck retrofit program
- Selected awardees for LNG fueled trucks and fueling infrastructure
- Implementing fleet of clean switcher locomotives
- Developing shore power infrastructure
- Developing Clean Trucks Program

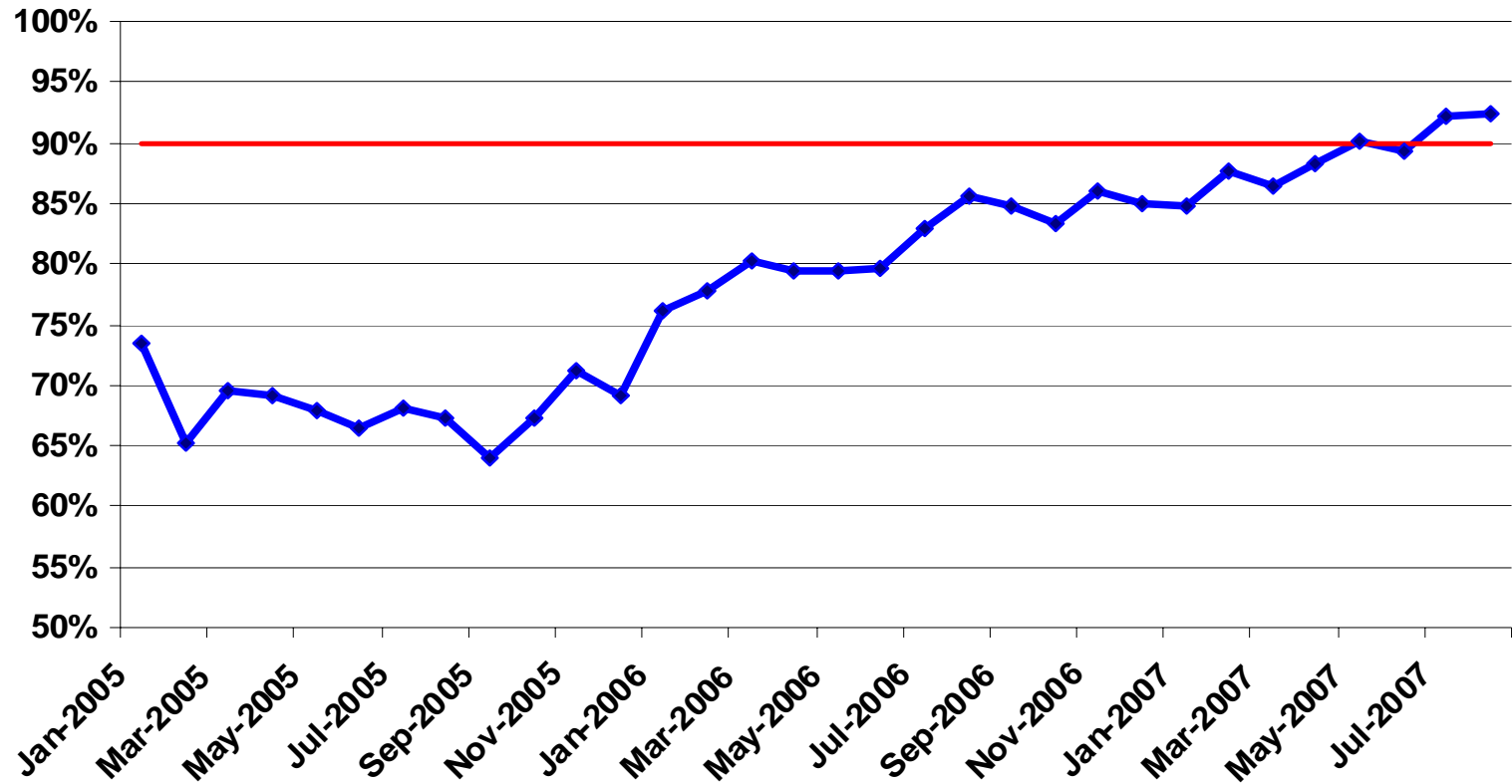
Zero Emissions Container Mover System (ZECMS)

- Ports commissioned a study to evaluate various systems
 - Evaluate for possible applications in the Ports of Los Angeles and Long Beach and region
 - Identify Technologies That Are Market Ready and Technically Appropriate for possible near-mid-long term implementation (short and/or long haul)
- System to be evaluated as part of I-710 EIR/EIS



Green Flag Program

Green Flag Incentive Program Performance
January 2005 - August 2007

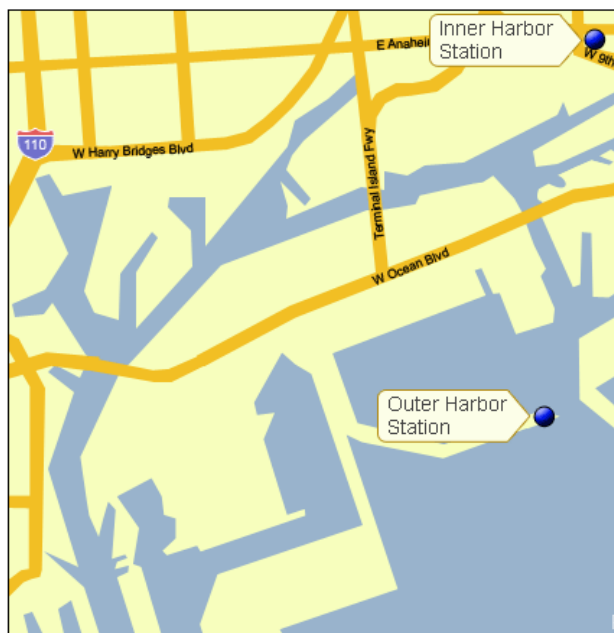


Air Monitoring Program

POLB Air Quality

* Indicates reading occurred during instrument calibration

MAP View Current Data Summary Of Yesterday's Data Daily Highs



Port of Long Beach Air Quality

POLB Air Quality

All data is preliminary
* Indicates reading occurred during instrument calibration

MAP View Current Data Summary Of Yesterday's Data Daily Highs Historical Data

Select Observation To Graph

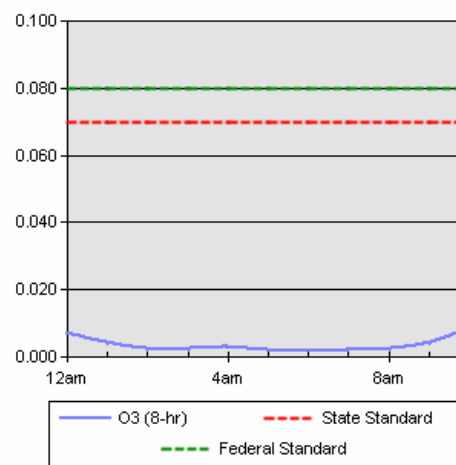
Select A Site

O3 (8-hr)

Inner Port

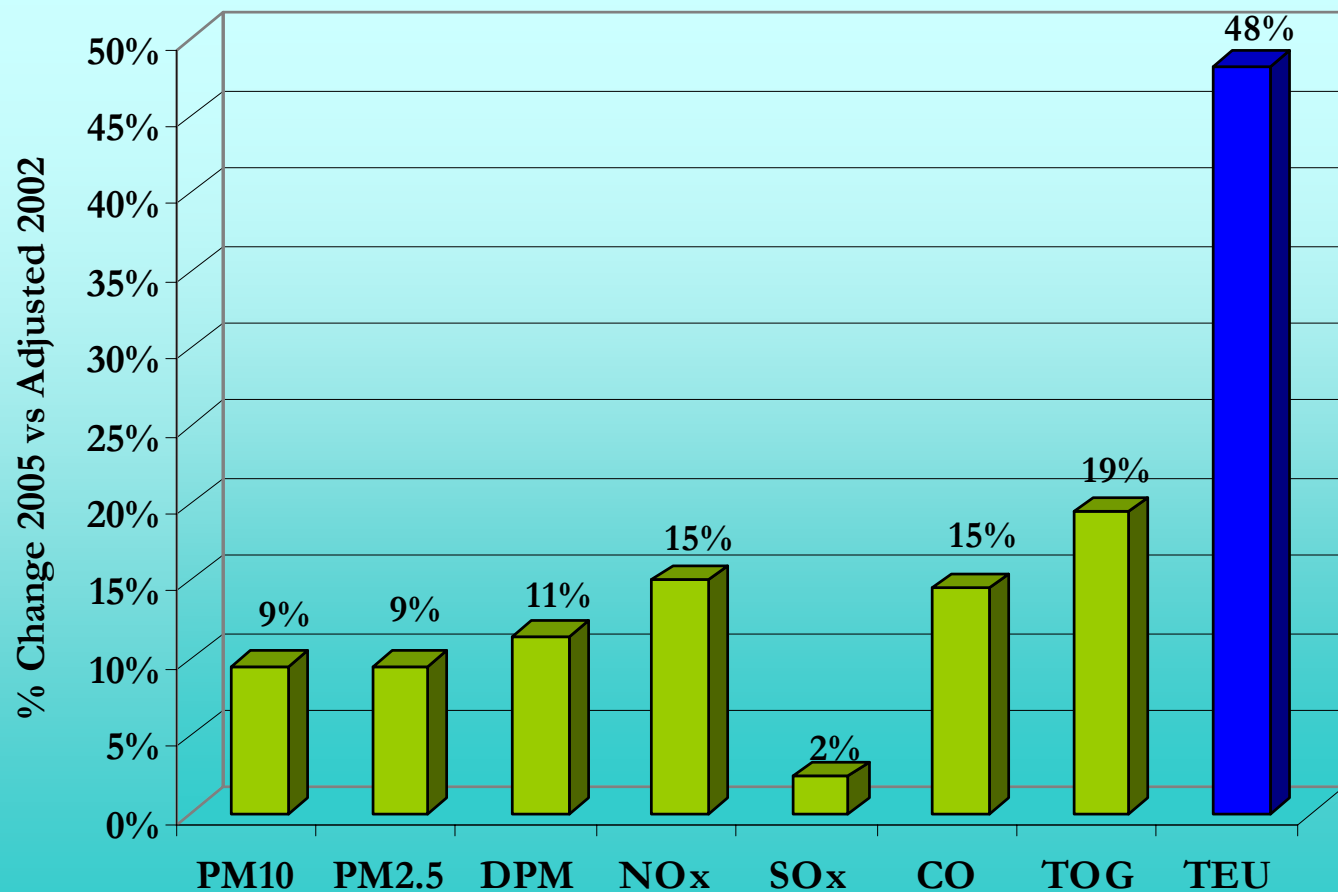
Submit

Ozone (8-hr) Daily Observations



Monitored Parameter	Averaging Period	Current Value	Units	State Standard	Federal Standard
O ₃	1-hr	0.030	ppm	0.09	-
O ₃	8-hr	0.008	ppm	0.07	0.08
PM ₁₀	24-hr	35.1	µg/m ³	50	150
PM _{2.5}	24-hr	47.6	µg/m ³	-	65
NO ₂	1-hr	0.010	ppm	0.25	-
CO	1-hr	1.260	ppm	20.0	35.0
CO	8-hr	1.616	ppm	9.0	9.0
SO ₂	1-hr	0.002	ppm	0.25	-
SO ₂	24-hr	0.006	ppm	0.04	0.14
Wind Speed	1-hr	5.7	mph	-	-
Wind Direction	1-hr	SE	direction	-	-
Temperature	1-hr	70.5	deg F	-	-
Relative Humidity	1-hr	37.5	%	-	-
Rain	1-hr	0.00	in/hr	-	-

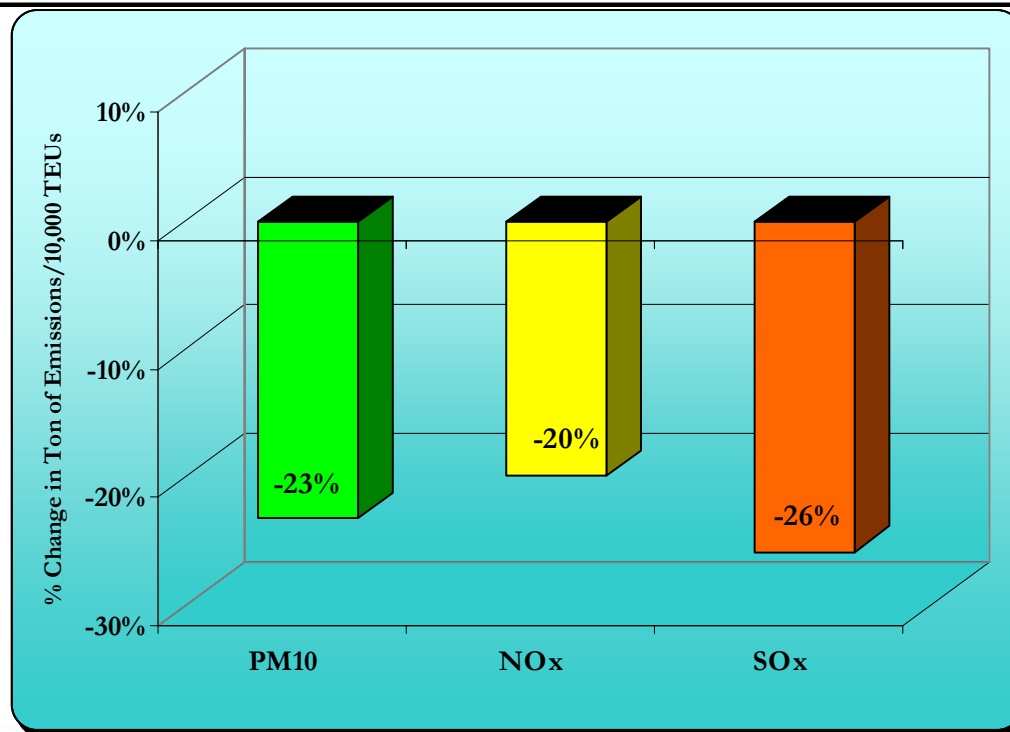
Emissions Inventory



Green Port Air Quality Metric

Tons of Emissions/10,000 TEUs

Pollutant	2002	2005	Percent Change	
PM ₁₀	1.3	1	23%	decrease
NO _x	20.7	16.6	20%	decrease
SO _x	6.6	4.9	26%	decrease



CAAP Implementation

- **Monitoring and Reporting**
 - Quarterly Reports
 - CAAP Website
- **CAAP Updates**

