

Green Port Long Beach

A Framework for Environmentally Friendly Port Operations

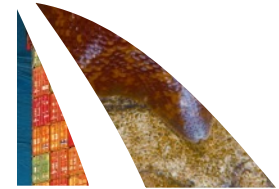
Presented by Rick Cameron
Director of Environmental Planning



The Port of
LONG BEACH

Adopted Policies

- Protect the Community From Harmful Effects of Port Operations
- Distinguish Port as Leader in Environmental Stewardship and Compliance
- Promote Sustainability
- Employ Best Available Technology to Minimize Environmental Impact
- Engage and Educate the Community



Goals, Metrics, and Reporting



- Goals established for each Green Port Component
- Metrics necessary to measure and report on progress toward Goals
- Some projects lend themselves to numeric criteria/tracking. Some projects judged on other criteria
- Additional Goals and Metrics will be established for future projects
- Annual reporting to Board and Public

Environmental Policies

- Protect the community from harmful side effects of Port operations
- Distinguish Port as leader in environmental stewardship and compliance
- Promote sustainability
- Employ best available technology to minimize environmental impacts
- Engage and educate the community



AIR



**Goal/Metric/
Programs**

WATER



**Goal/Metric/
Programs**

WILDLIFE



**Goal/Metric/
Programs**

SOIL / SEDIMENT



**Goal/Metric/
Programs**

SUSTAINABILITY



**Goal/Metric/
Programs**

COMMUNITY ENGAGEMENT



**Goal/Metric/
Programs**

Action Plan Development

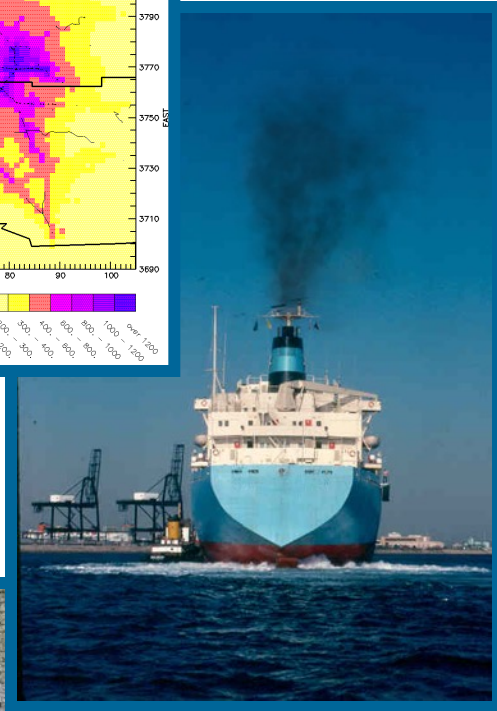
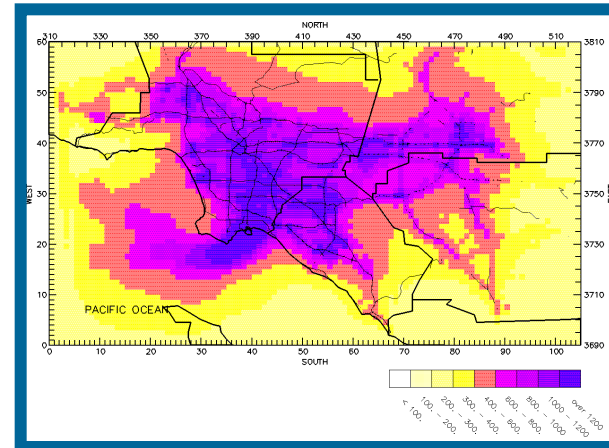


- Clean Port Summit – March 2006
 - Outcome: work together towards solutions
- SPBP Clean Air Action Plan Working Group formed
 - Both Ports
 - South Coast Air Quality Management District (AQMD)
 - California Air Resources Board (CARB)
 - Environmental Protection Agency (EPA)



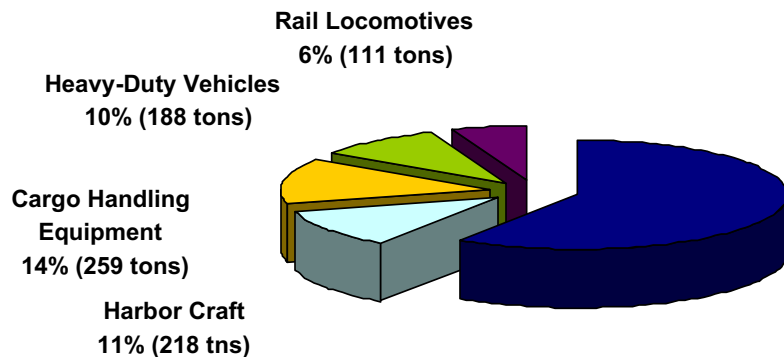
Action Plan Drivers

- Minimize health risk from port operations
- Accelerate existing emissions reduction efforts
- Set consistent project-specific & source-specific standards
- Enable port development

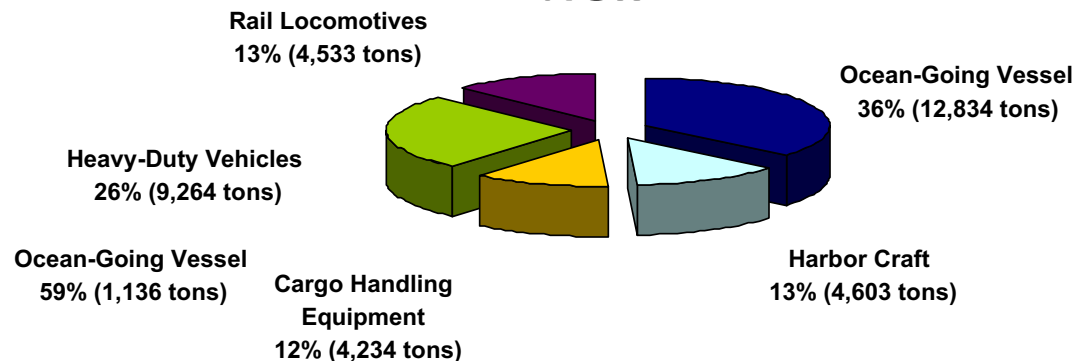


Pollutant Contribution by Source

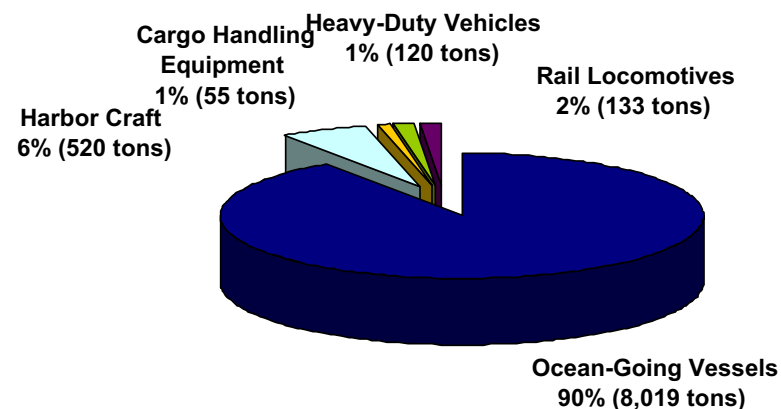
DPM



NOx



SOx





Goal: Reduce emissions from port activity
Metric: Emissions per ton of cargo
Programs: Clean Air Action Plan (CAAP)



- San Pedro Bay Standards
 - Reduce public health risk from port-related toxics
 - Prevent port-related violations of National Ambient Air Quality Standards (NAAQS)
 - Reduce port “Fair Share” pollutant emissions
- Project Specific Standards
 - Meet 10 in 1,000,000 excess cancer risk threshold
 - Implement maximum feasible controls for projects exceeding CEQA thresholds for criteria pollutants
- Source Specific Performance Standards



Ports' Five-Year Commitments



- Heavy-Duty Vehicles (Trucks)
 - Replacement/Retrofit of dirty diesel trucks and progressive ban from service
 - Alternative fuels including LNG
 - Two Ports & AQMD \$206,000,000
- Ocean-Going Vessels
 - Vessel Speed Reduction and Green Flag Program
 - Shore to ship electrification
 - Low sulfur diesel fuels for main & auxiliary engines
 - NOx and PM controls on new and existing vessels
 - Two Ports \$144,000,000





Ports' Five-Year Commitments



- Railroad Locomotives
 - Clean engine standards for switcher and line-haul locomotives
 - Standards for new or modified rail yards
 - Two Ports \$10,000,000
- Cargo Handling Equipment
 - Standards for equipment including alternative fuels
- Harbor Craft
 - Standards for harbor craft
- Infrastructure and Efficiency Improvements





Funding



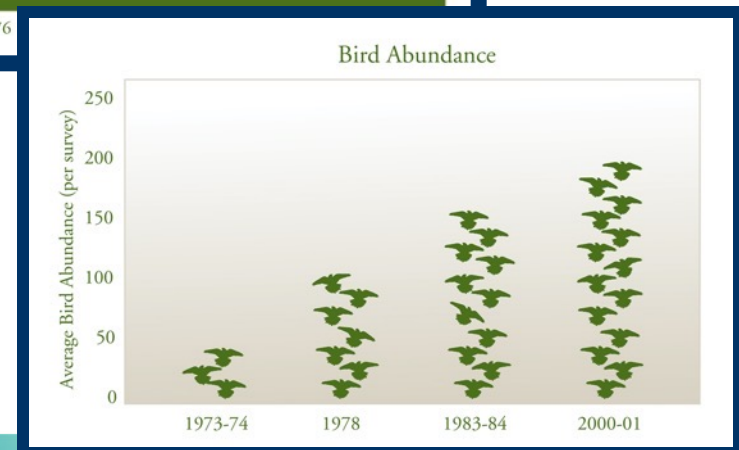
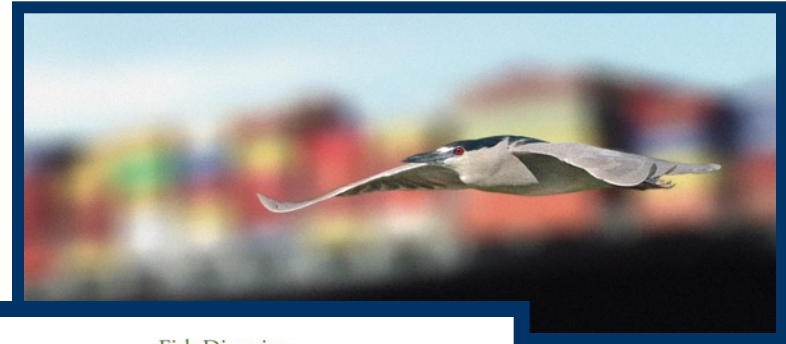
- Proposed Minimum Commitments Over Next Five Years:
 - Port of Los Angeles \$177,400,000
 - Port of Long Beach \$181,000,000
 - SCAQMD Initial Commitment \$36,000,000
 - Cargo owners/Shipping Industry \$35/TEU cargo fee (\$1.6B)
 - Bond & Other Funding?? \$ Public debt



Goal: Protect, maintain or restore aquatic ecosystems
and marine habitats
Metric: Abundance of indicator species of fish and birds



- Increase in the number of fish species from 1980 to present
- Increase in the number of bird species from 1973 to present
- Next year update biological survey and at 5 year intervals



Mitigation

- Compensate for marine habitat lost to harbor fill
- Create tidal wetlands in Southern California
- Past: Upper Newport Bay, Seal Beach National Wildlife Refuge, Bolsa Chica
- Future: Los Cerritos



Peregrine Falcon Nest Site



Black-Crowned Night Heron Relocation



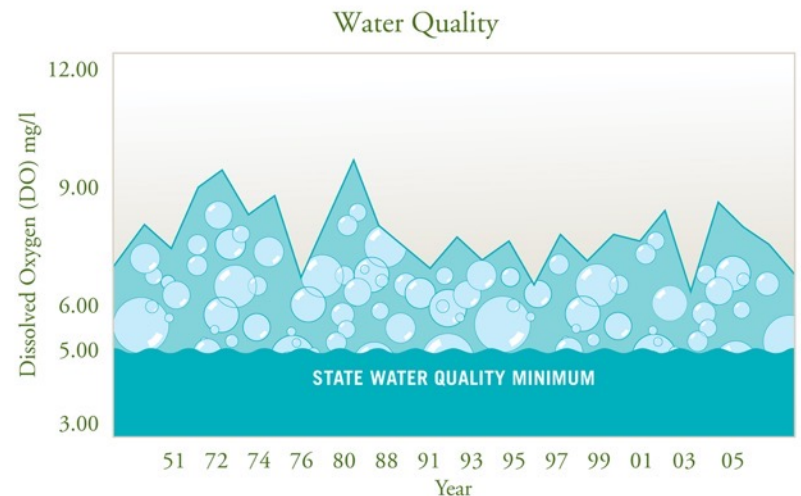
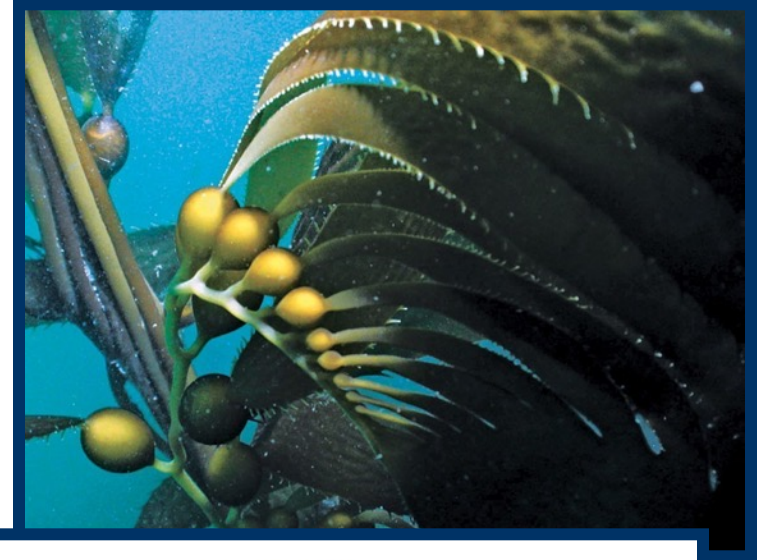


Goal: Improve the quality of Long Beach Harbor Water
Metric: Maintain oxygen and clarity above baseline



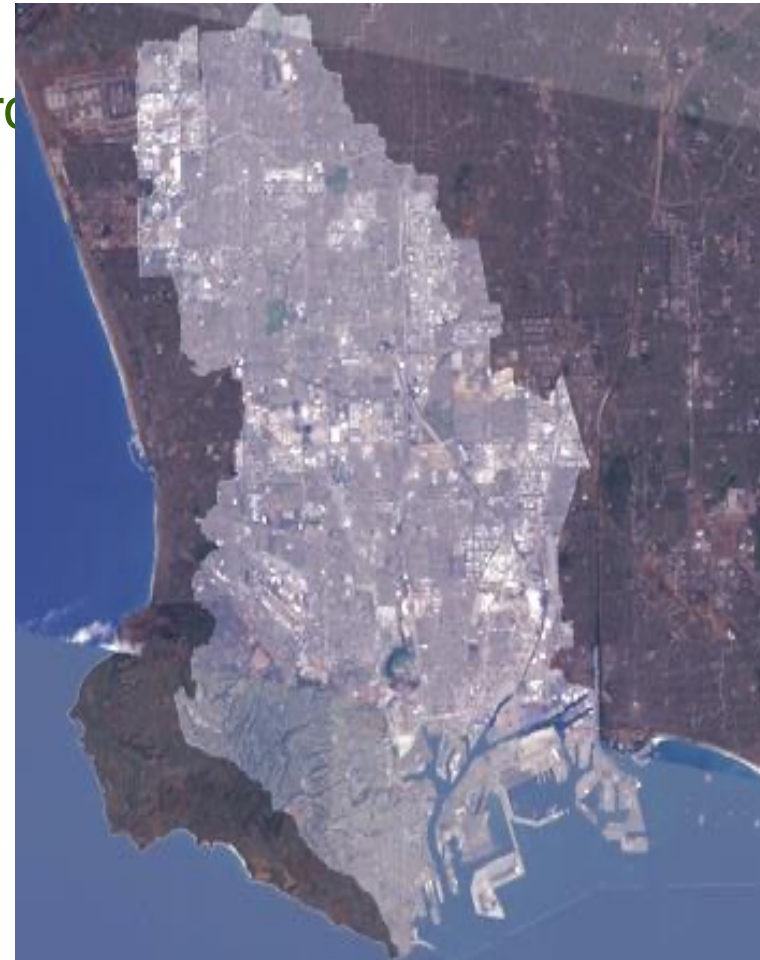
Programs:

- Port-wide dust and runoff controls
\$4.5M
- Port-wide and terminal Storm Water
Pollution Prevention Plans
- Dredge Monitoring and Reporting
- Permit and compliance
tracking/reporting



Geographic - Regulatory Setting

- Protected Deep Water Port in San Pedro Bay
- End of the Highly Urban/Industrial Dominguez Channel Water Shed
- Regulated by Federal State and Regional Agencies
- POLB Not a Regulator



Port of Long Beach Master Storm Water Program

- Oversee Industrial, Construction and Municipal Programs
- Inspections and Training
- Port-Wide Storm Water Monitoring
- Tenants/Contractors focus pollution Prevention (BMPs)



Other Water Quality Programs:

- Total Maximum Daily Loads (TMDLS)
- Sediments
- Ballast Water
- Regional/Watershed Programs and Special Studies
 - Bight 'O8
 - LA River Dominguez Channel Watersheds



Upcoming Challenges:

- Increased Focus on Ports (Fed/State and Regional)
- Shift from Best Management Practices & Qualitative Objectives to Numeric Limits & Criteria
- New Regulatory Scheme for Ports



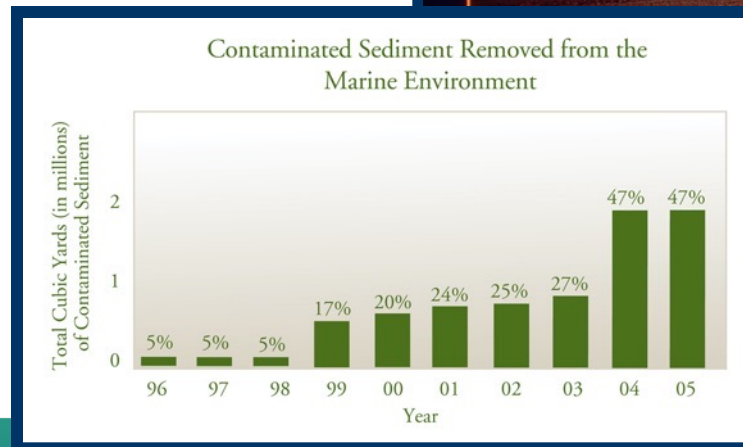


Goal: Remove, treat, render suitable for beneficial reuse
Metric: Tons of contaminated soil/sediment removed or treated



Programs

- Dredge sediment disposal or reuse (e.g. >6000 tons debris/sediment from Main Channel)
- Soil clean-up action plan for State Superfund site (e.g. Pier A historical oil field)
- Cleanup of former Naval Station sediments





Sustainability

Goal: Implement sustainable practices in design, construction, and Port Operations



- Established specific budget for sustainable practices
- Sustainability training program for staff
- Expanded Port Administration recycling program
- Expanded construction material recycling program
- Developed sustainable landscape palettes
- Established tire recycling program in Maintenance Division
- Development of sustainable purchasing/ procurement system
- Share with Port tenants





Community Engagement



Goal: Create Public Awareness and Understanding of Port Operations and Environmental Programs

- Port water-side tours
- Pulse of the Port Cable TV Show
- Green Port Open House
- Re:Port Newsletter
- Green Port Brochure



Implementation Strategies



- Lease requirements (e.g. Green Leases)
- Tariff changes (e.g. Dirty Truck Ban)
- CEQA mitigations
- Incentives (e.g. VSRP dockage rebate)
- Regulatory compliance by Port and tenants
- Voluntary measures by Port and tenants

Thank You!