

Green Port Long Beach

Global Trade, Greener Seaports:
Dramatically reducing the environmental footprint of
trade related activities



The Port of
LONG BEACH

Presented by
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Managing Director of Environmental Affairs
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Port of Long Beach



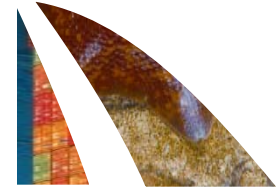
- POLB 2nd largest seaport in north America
- Combined with POLA 5th largest in world
- \$150B value of cargo
- >40% of U.S. Trade through POLB/POLA
- >315,000 regional jobs (five Counties)
- ~1.4M jobs nationally
- Goods Movement via: ships, HD equipment, trucks, trains



Board Adopted Environmental 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

Integration of Green Port Practices



STRATEGIC PLAN
Performance Measures

reporting

Green Port Annual Report
Regulatory Compliance Reports

Green Port Policy

WILDLIFE

AIR

WATER
QUALITY

SOIL/
SEDIMENT

COMMUNITY
ENGAGEMENT

SUSTAINABILITY

CLEAN WATER ACT
Stormwater Compliance

Environmental
Planning

Tenant Stormwater
Pollution Prevention

Construction
Management

Pollution Prevention
Plans for Construction

Maintenance

Port Facilities
Stormwater Pollution
Prevention

Trade Relations

Tenant Facility
Inspection Support



Goal: Reduce emissions from port activity

Metric: Emissions per ton of cargo

Programs: Clean Air Action Plan (CAAP)



- CAAP Objectives-strategies for all goods movement mobile sources (vessels, cargo equipment, locomotives, trucks)
 - Reduce public health risk from port-related air pollution
 - Prevent port-related violations of National Ambient Air Quality Standards (NAAQS)
 - Reduce port “Fair Share” pollutant emissions
- Establish project specific standards for CEQA review
- Define source specific performance standards equipment purchase guidance



Vessel and Truck Strategies



- 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
- Heavy-Duty Vehicles (Trucks)
 - Replacement/Retrofit of dirty diesel trucks and progressive ban from service
 - Introduce alternative fuels (e.g. LNG)

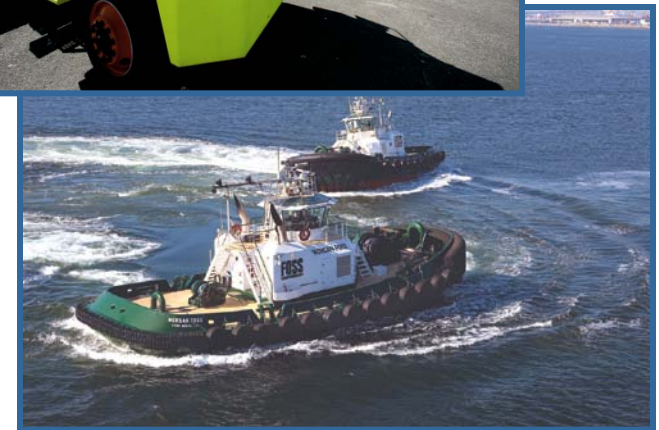




Rail, Cargo Equipment, Harbor Craft



- Railroad Locomotives
 - Purchase clean switcher and line-haul locomotives
 - Standards for new or modified rail yards
- Cargo Handling Equipment
 - Clean equipment including alternative fuels
 - Retrofit or replace
- Harbor Craft
 - Re-power or replace vessels



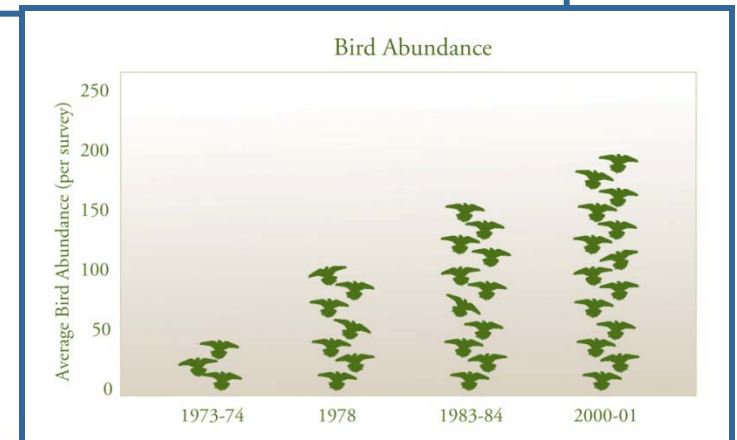
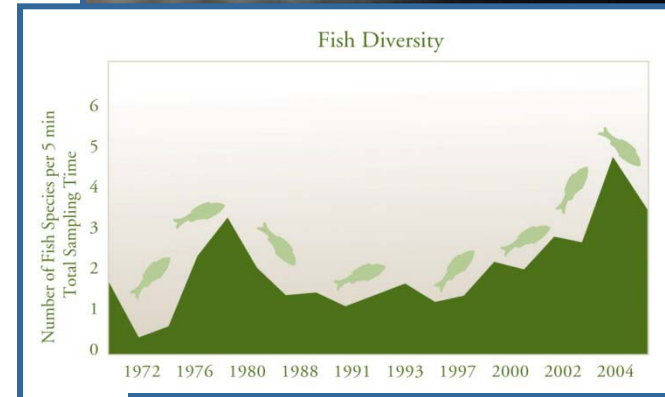
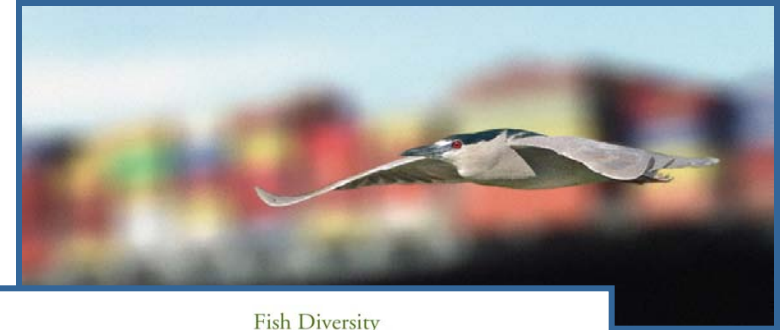


Goal: Protect, maintain or restore aquatic ecosystems and marine habitats



Metric: Abundance of indicator species of fish and birds

- Monitoring the number of fish species (from 1980 to present)
- Monitoring the number of bird species (from 1973 to present)
- Recurring comprehensive biological survey



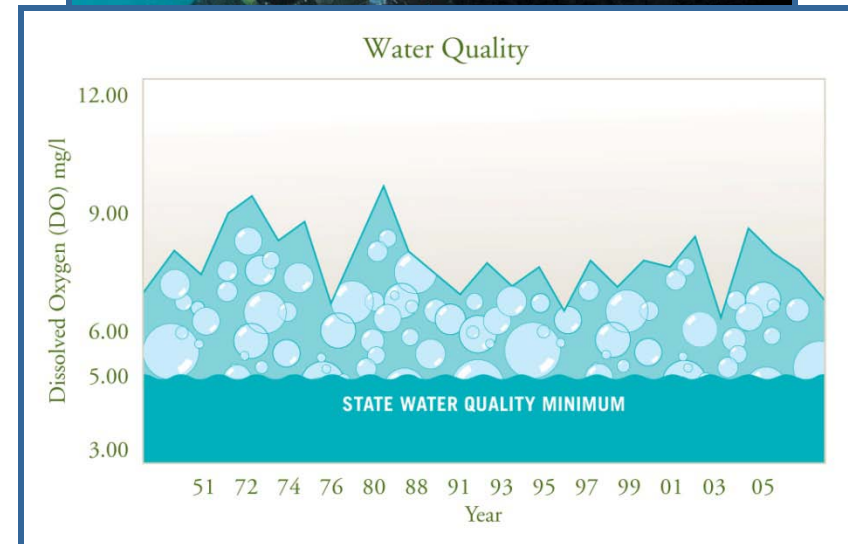


Goal: Improve the quality of Long Beach Harbor Water
Metric: Maintain oxygen and clarity above baseline



Programs:

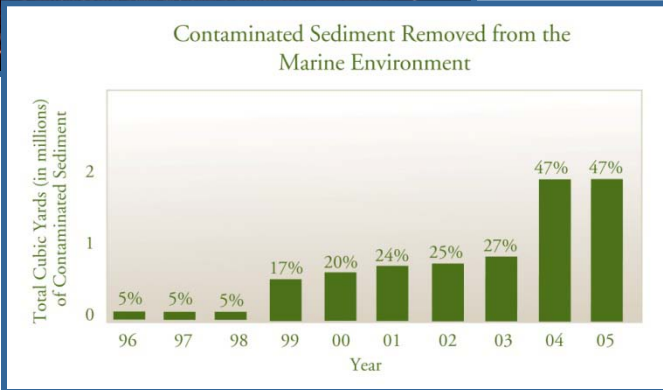
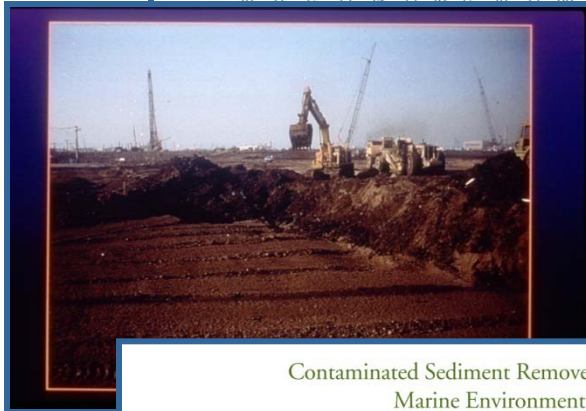
- Port-wide dust and runoff controls
- Port-wide and terminal Storm Water Pollution Prevention Plans
- Dredge Monitoring and Reporting
- Permit and compliance tracking/reporting





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

- Capital Project and Maintenance related efforts
- Dredge sediment disposal or reuse
- Soil clean-up/remediation
- Cleanup of former Naval Station sediments





Sustainability

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



- ***Guiding philosophies:***
 - *“Meeting the needs of the present without compromising the needs of future generations “*
 - *“A sustainable organization is one that lives off interest rather than depleting capital “*
- Established Standard Operating Procedures (SOPs) to guide Port design, construction, and operations
- Development of sustainable purchasing/procurement system
- Share with Port employees and tenants through education and outreach



Integration of Sustainable Practices



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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



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 Fest--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

“With the Green Port Program we have embarked upon a new course, driven by the ethics of sustainability and community responsibility, to bring our environmental protection and enhancement efforts to a new level. I am proud of what we have already accomplished and I know I will be proud of what we will accomplish in the future through the Green Port Program.”

- Robert Kanter, Ph.D.
Port of Long Beach
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