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Overview of Port Sustainable Water and Biological Resources Activities

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Pacific Ports Clean Air Collaborative Conference

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WATER



Water/Biological Resources Programs

- Water Resources Action Plan
- Clean Marina Program
- Stormwater Management (NPDES)
 - Tenant Outreach Program
- TMDLs
 - Cabrillo Beach Water Quality Improvement Study
 - Port-wide Sediment Management
- Biological Resources Management

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Dominguez Watershed



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Harbor Water Quality Improvement



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Water Resources Action Plan (WRAP)

WATER

Port of Los Angeles and Port of Long Beach

Water Resources Action Plan

Final Report, August 2009



The Port of
LONG BEACH
The Green Port



Prepared with the participation and cooperation of
the staff of the U.S. Environmental Protection Agency and
the Los Angeles Regional Water Quality Control Board





Water Resources Action Plan



- Comprehensive plan that integrated existing water and sediment management programs, and identified additional programs needed to improve water and sediment quality
- Agency and stakeholder participation important
- Control measures currently being implemented
- Living document – to be updated as needed



WRAP Goal/Purpose

- WRAP Goal Statement:
 - Support the attainment of full beneficial uses of harbor waters and sediments by addressing the impacts of past, present, and future Port operations
 - Prevent Port operations from degrading existing water and sediment quality
- To take a proactive role in the development and implementation of Dominguez Watershed TMDLs (Total Maximum Daily Load) and upcoming NPDES (National Pollutant Discharge Elimination System) stormwater permits

Water Resources Action Plan

Pollutant Source Categories

Upstream Watershed

- Stormwater flows into harbor
- Aerial deposition

Port Water-side

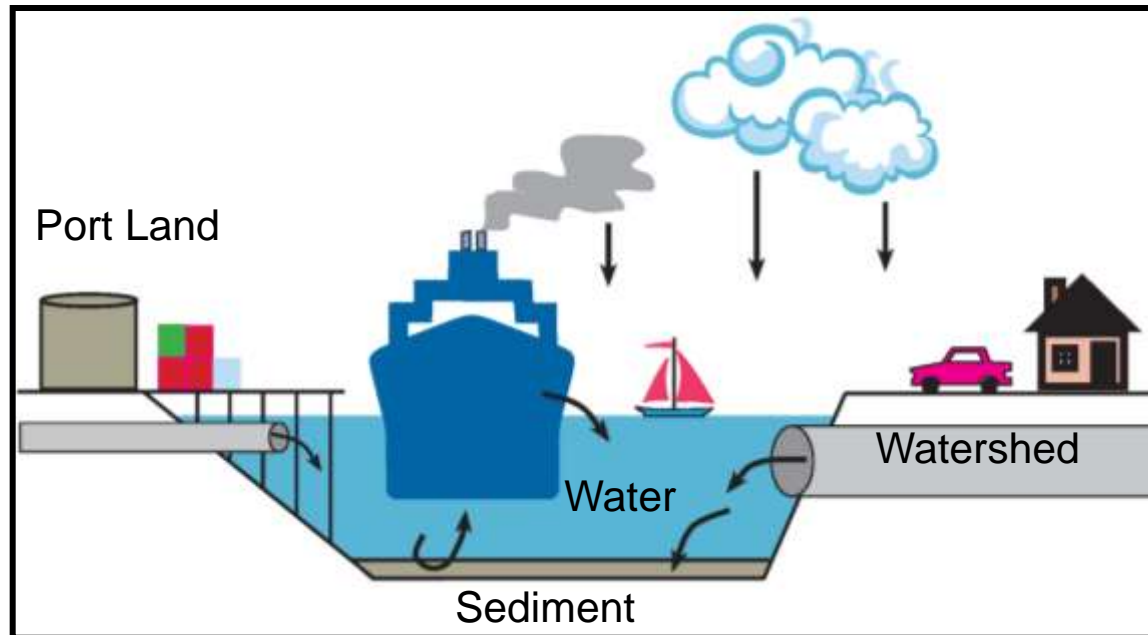
- Vessel discharges
- Vessel maintenance

Port Land-side

- Tenant Operations
(Container Terminals, Boat
Yards, etc.)

Sediment

- Contaminated hot spots
- Resuspension





WRAP Control Measures

Land Use

- LU-1: House Keeping BMPs
- LU-2: Design Guidance Manual
- LU-3: Install Structural BMPs
- LU-4: Stormwater/Dust Control for Orphan Sites
- LU-5: Litter Control Program
- LU-6: Public Area Sweeping Programs
- LU-7: Port-Wide Stormwater Construction Permit
- LU-8: Remote Sites Stormwater Compliance

On-Water

- OW-1: Vessel Guidance Manual
- OW-2: Piling Replacement Policy and Standards
- OW-3: BMPs and Standards for Cathodic Protection

Sediment

- S-1: Operations Sediment Management Plans
- S-2: Legacy/Hotspot Sediment Management Plans

Watershed

- WS-1: Support Pollutant Loading Reduction Efforts

Clean Marina Program

- Clean Marina Recognition Program
- Education and Outreach
- Sewage Management
- Outboard Gasoline Engine Exchange Program

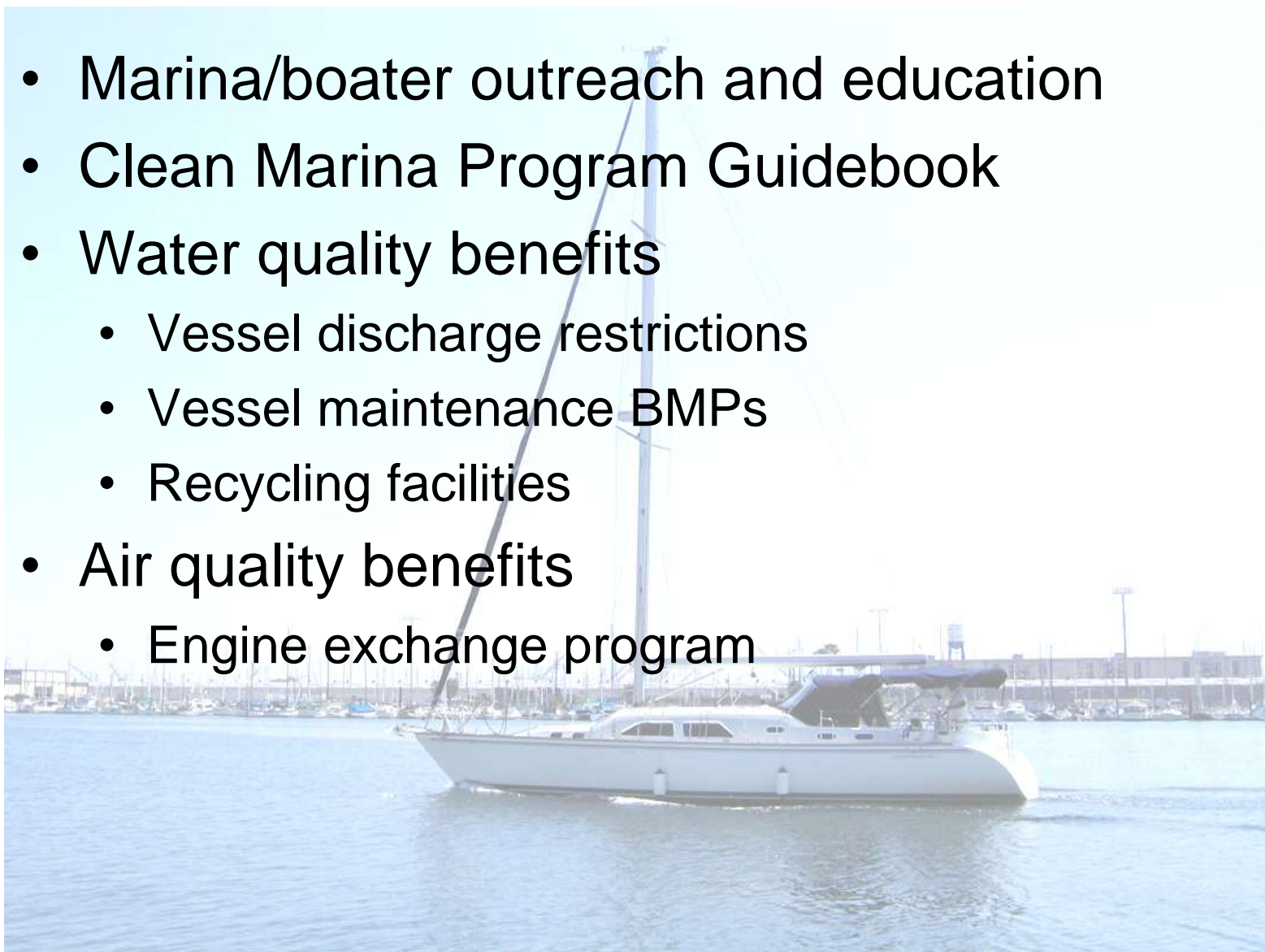


- Derelict Recreational Vessel Program
- Seaworthiness Assessment
- Used Oil Recycling
- In-Water Trash Management



Clean Marina Program

- Marina/boater outreach and education
- Clean Marina Program Guidebook
- Water quality benefits
 - Vessel discharge restrictions
 - Vessel maintenance BMPs
 - Recycling facilities
- Air quality benefits
 - Engine exchange program



Stormwater Management



- Major water quality issue for the Ports
- NPDES permit compliance activities
- Tenant Outreach Program
 - Site visits and follow-up recommendations regarding house-keeping and structural Best Management Practices
 - Educational material
 - Permitting assistance
 - Tenant database





TMDL - Total Maximum Daily Load

- Federal regulations to establish “load allocations” for contaminants of concern in identified impaired water bodies
- Bacteria TMDL for Cabrillo Beach and Main Channel in POLA
- TMDLs for metals and organic pollutants throughout POLA and POLB harbors
- Impairments are for sediment/fish tissue exceedances, not ambient water quality, which means dredging to meet compliance





TMDL - Inner Cabrillo Beach

- Protected swimming beach in outer harbor with high bacteria levels along the shoreline
- Subject of major Port effort to address public health concerns and TMDL compliance
- Multiple remedies have been implemented including sewer and storm drain repairs, beach sand replacement, bird exclusion structure, groin removal – but levels still high
- Additional circulation enhancement pilot studies underway



TMDL - Sediment Management

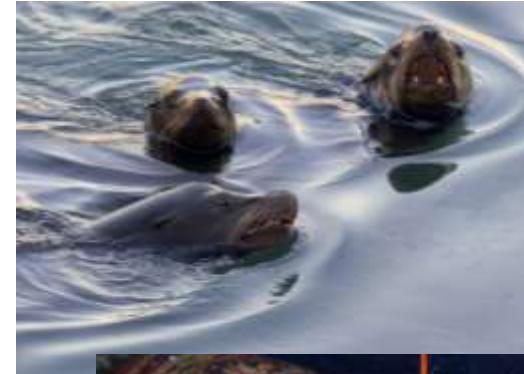
- TMDLs for sediment impairments (legacy contamination) in harbors
- Monitoring to identify sediment “hot spots”
- Identify responsible parties/stakeholders
- Identify remediation and disposal options
- Manage remediation activities in conjunction with Port dredging projects where possible
- Sediment Management Guidance document





Biological Resources Management

- CA Least tern site management at POLA
- Important aquatic habitats
 - Eelgrass
 - Kelp
 - Salt marsh
 - Shallow water habitat
- Habitat restoration/mitigation
 - In harbor
 - Off site
- Periodic comprehensive Biological Baseline Surveys

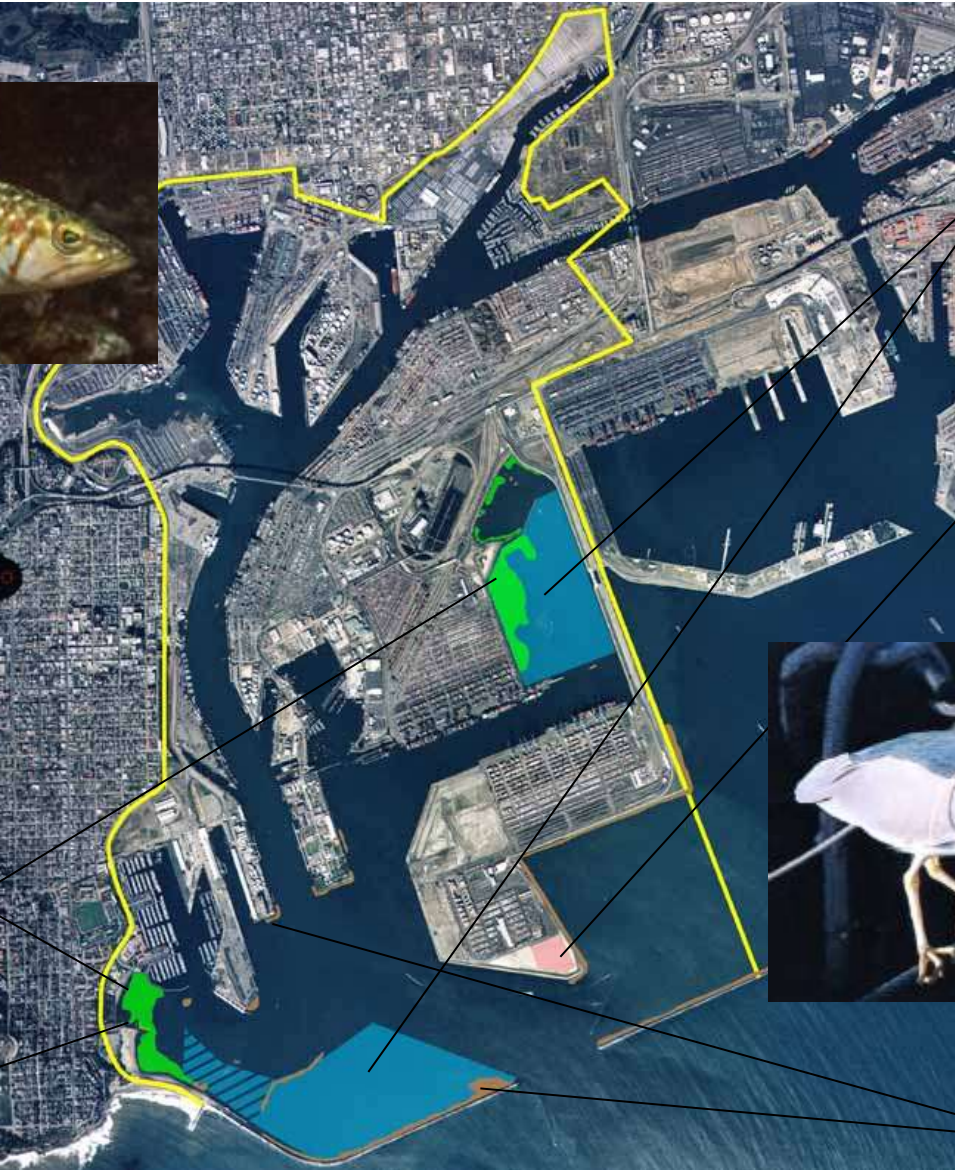


CA Least Tern Management

- POLA has an agreement with resource agencies that governs the provision and maintenance of a California Least Tern nesting site in the harbor
- Site preparation and monitoring during nesting season



Harbor Habitats



Shallow Water Habitat

Tern Nesting Site

Eelgrass

Salt Marsh

Kelp





Bolsa Chica Wetland Before and After Restoration



305 Biological Mitigation
Credits to each Port



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WATER

Batiquitos Lagoon

Before and After Restoration



381 Biological Mitigation Credits



Biological Baseline Surveys

- Joint surveys of San Pedro Bay conducted by the two Ports in 2000 and 2008
 - Results indicate high biological productivity in harbor
 - Will perform on a regular (5-year) basis in conjunction with a larger regional sampling effort to update information and monitor trends



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Questions?

