

Sustainable Marine Facility Development Initiatives

Richard Vincent

Environmental Program Manager



PORT OF PORTLAND

Possibility. In every direction.

Presentation Overview

Port of Portland is in a leadership role in industry wide environmental and sustainability initiatives concerning maritime terminal development

Initiative descriptions

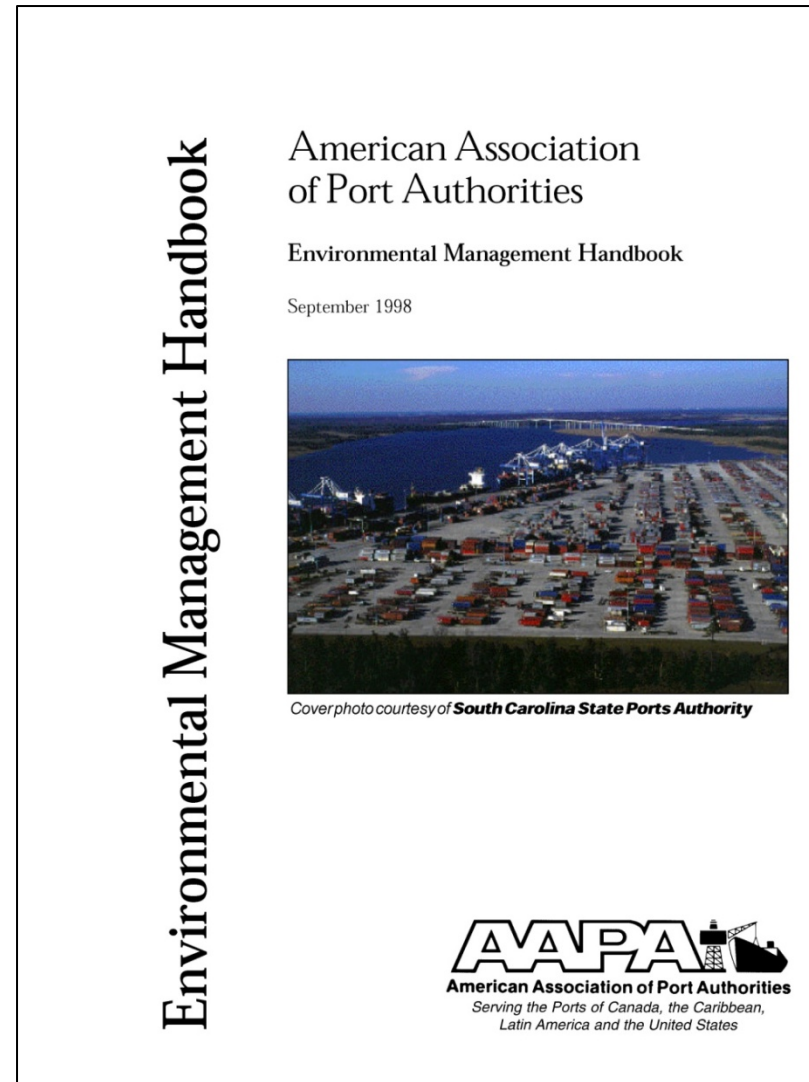
Next Steps





development environmental initiatives

APA Environmental
Management Handbook
Environmental Initiatives at
Sea Ports Worldwide
White Paper
North West Coast Port
Technical Committee



White Paper

Research Objective

provide stakeholders (internal and external) with a greater awareness and understanding of how seaports are managing natural resources, adopting new operating methods and planning for sustainability

provide readers with a better understanding of the geographic, community, financial and regulatory context that leads to the implementation decisions



I2S2

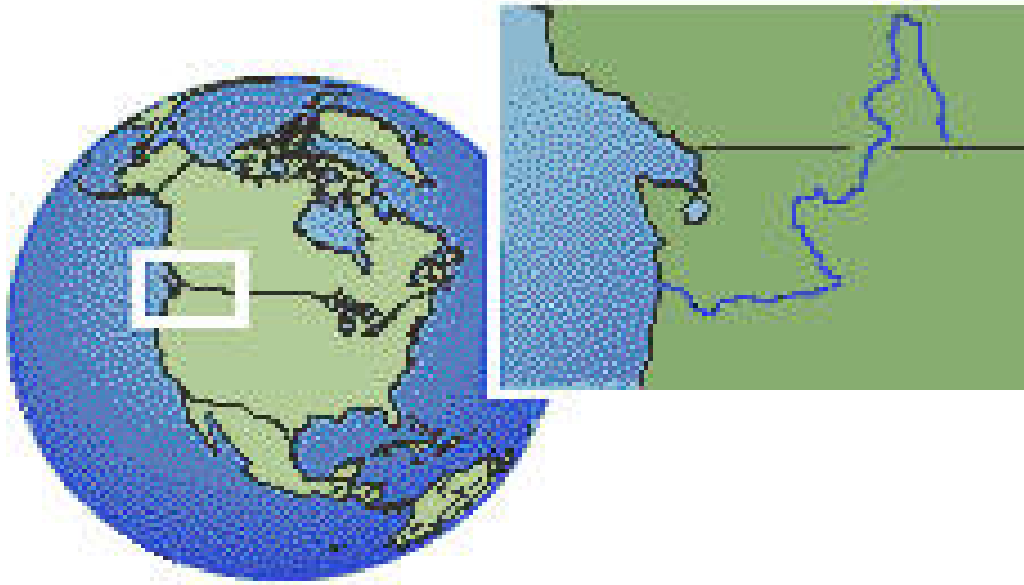
International Institute
Sustainable Seaports

White Paper

Original paper research was completed in Summer/Fall 2000

provided a snapshot of BMPs utilized at the time

research included Interviews with North American and International port representatives based on a prepared questionnaire and an extensive literature search



White Paper

Research Highlights

Air Quality

Water Resources

Recycling

Energy Conservation and

Renewable Energy

Natural Resources Management

Sustainability

Dredging

Climate Change



White Paper

Quality

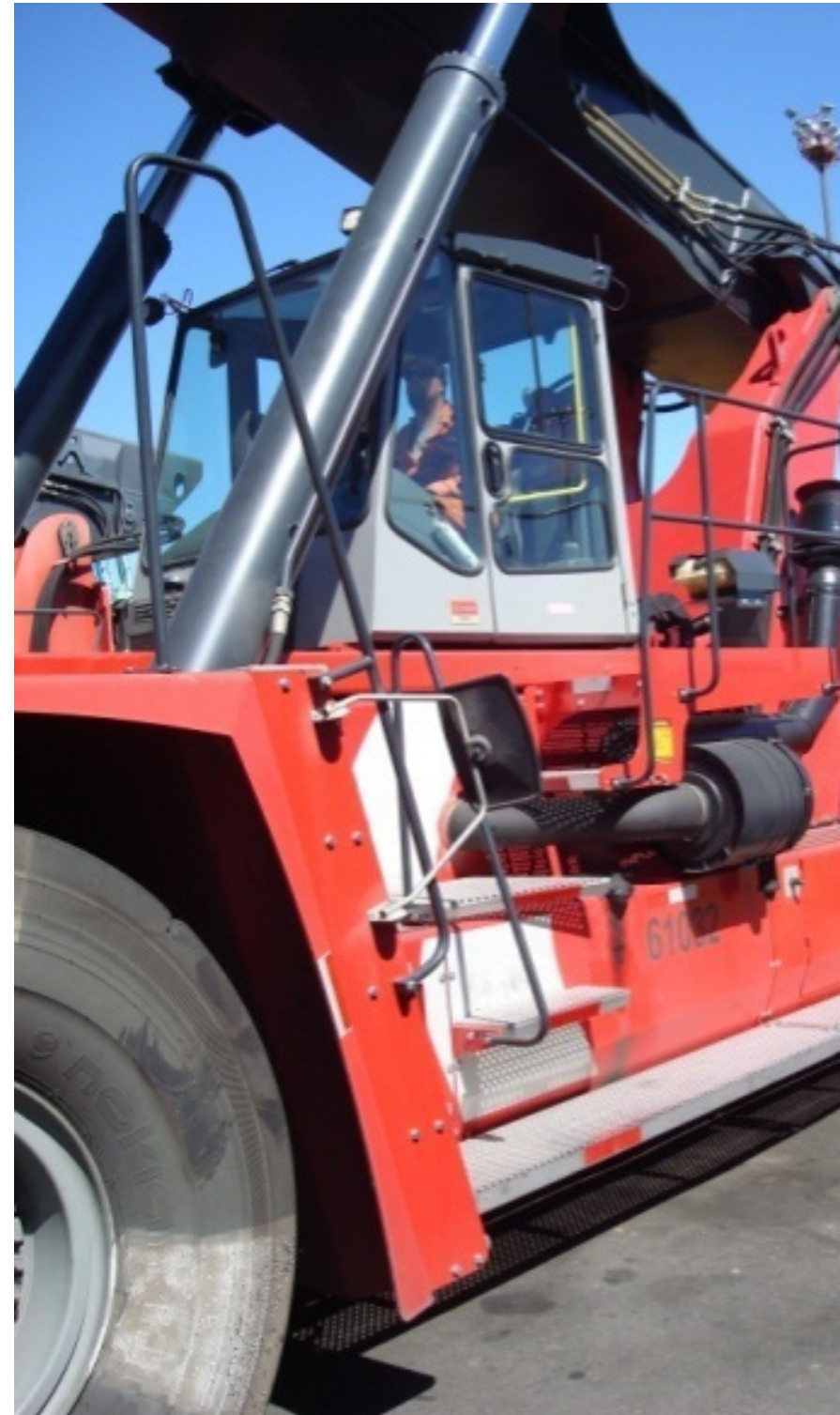
Replace equipment with
more efficient models

Upgrade equipment

Upgrade current equipment with
emission control devices

Upgrade equipment with cleaner
burning fuels

Reduce emissions through
operational changes



White Paper

Quality

Power

where it works

cruise industry

harbor craft

same vessel repeat port calls

challenges

standard for connections

varying power demands for

different types of ships

expensive infrastructure



White Paper

Power for for Vessels

Partnership between
City of Portland and
Maritime Transportation
Company

CITY OF PORTLAND
Maritime. In every direction.



White Paper

Quality

- water management:
 - bioswales, infiltration basins
 - low impact development
 - pervious pavement
 - pervation
 - landscape irrigation
 - water use restrictions

- building fixture replacement with more efficient devices

Best Management Practices

- Port of Brisbane (efficient fittings, education, usage of non-potable water)



Bus pavement – Terminal 6



White Paper

Key Findings

Each port is different and has individual priority issues
Different types of business lines demand different approaches
Identifying and exploiting opportunities during new development or
renovation projects provides efficiencies that produce
both environmental and economic benefits



North West Coast Port Technical Committee



Port of Vancouver USA

PORT OF PORTLAND

Possibility. In every direction.



Port of
LONG BEACH
The Green Port



Focus on Sustainable Design & Construction Guidelines for marine facility development

- Address increased growth and expansion at ports
- Consider impacts on surrounding communities
- Need to achieve maximum social, environmental and economic benefits of projects while minimizing impacts the environment and communities
- There is currently no other comprehensive guidance available for sustainable marine terminal development

Objectives:

Define sustainable marine industrial development at the project level;

Build upon the sharing of best practices, keys to success, and lessons learned for implementation;

Provide a consistent approach to sustainable maritime industrial development across the enterprise;

Establish a common language that is understood by internal and external port stakeholders

Progress to date and path forward

Review/enhance best practices/sustainable criteria for each focus area

Review/enhance project specific best practices/sustainable criteria

Develop “operational controls” for Guideline implementation

Pilot use of Guidelines for several member port projects

Refine, update and publish

Projected Release Date - January 2013

Continued participation in West
Coast Technical Committee

Participate in pilot tests of
Sustainable Design &
Construction Guidelines

Complete update to
Environmental Initiatives white
paper;

Proactive management of
development and operational
Impacts through integration with
Port's Environmental
Management System (EMS)

