Port of Los Angeles
IAPH Green Port Survey

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Green Port Survey

- methodology
- issues in data collection
- findings
- next steps
GREEN PORT SURVEY

Methodology

• phase I - letter of inquiry sent from IAPH to 247 ports
  - 221 IAPH member ports
  - 26 non-members

• phase II - website follow-up on 149 of 247 ports surveyed by letter
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Issues in Data Collection

• letter response rate
  - only 15/247 ports surveyed by letter responded (6%)

• website limitations
  - only able to collect web-based environmental information for 57/149 ports (38%)
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Issues in Data Collection

• of a total of 247 surveyed, environmental information was only found for 57 ports (23%)
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Findings

For 57 ports included in review:

• 3 ports do not have environmental initiatives of any kind
• remaining 54 show extreme variation in scope, format, and level of detail
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Findings

• 2 types of green port initiatives observed
  - policy-based
  - program-based

• few ports have both
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Findings

• policy-based

  - “Green Policy” defined as:
    explicit organization-wide
    declaration listing strategic
    goals & objectives to improve
    environmental performance
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Findings

• program-based
  - “Green Programs” defined as:
    mostly departmentalized environmental measures with no larger policy framework
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How We Organized the Data

- **INITIAL SURVEY**
  - 15 RESPONSES
  - 247 TOTAL
- **WEBSITE FOLLOW-UP**
  - 149 TOTAL
  - 28 POLICY-BASED
    - 12 DETAILS AVAILABLE
    - 16 DETAILS NOT AVAILABLE
  - 26 PROGRAM-BASED
    - 10 DETAILS AVAILABLE
    - 16 DETAILS NOT AVAILABLE
  - 3 NO GREEN POLICY OR PROGRAMS
  - 92 INFORMATION NOT AVAILABLE
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Findings

• 28 policy-based ports
  - 12 provide program details:

  Port of Los Angeles
  Vancouver Port Authority
  Port of Hedland Authority
  Associated British Ports
  Port of Long Beach
  Port of Portland

  Port of Houston Authority
  Ports of Auckland Limited
  Port of Rotterdam
  Port of Brisbane
  Freemantle Ports
  Sydney Ports
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Findings

• 25 program-based ports
  - 10 provide program details:

Hong Kong Marine Department  Port Authority of NY/NJ
Unified Port of San Diego        Port of Barcelona
Port Everglades                 Port of Galveston
Port of Seattle                 Port of Tacoma
Port Canaveral                  Port of Oakland
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Findings

• most green policies/programs and indicators organized by category:
  - air
  - water
  - wildlife/habitat/soil/sediment
  - “sustainability”
  - community
# Green Port Survey

## Example Policy/Program Matrix

<table>
<thead>
<tr>
<th>Port</th>
<th>GP</th>
<th>Environmental Policy Provisions/Programs</th>
<th>Environmental Policy Provisions/Programs</th>
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</thead>
<tbody>
<tr>
<td>Port of Long Beach</td>
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<tr>
<td><strong>Air</strong></td>
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<tr>
<td>Diesel Oxidation Catalyst retrofit</td>
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<td>Virtual Container Yard (Perf w/ POLA)</td>
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<td><strong>Water</strong></td>
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<td>Fuel Improvement Program - requirement of new vents to enable use of low sulfur diesel</td>
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<tr>
<td><strong>Wildlife/Habitat</strong></td>
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<td>Switcher Locomotive Modernization and UCCD Programs (Joint w/ POLA)</td>
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<td><strong>Soil/Sediment</strong></td>
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<td><strong>Sustainability</strong></td>
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<td><strong>Community</strong></td>
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<td><strong>Indicators</strong></td>
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<td><strong>Overall</strong></td>
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<td>Access</td>
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<td><strong>Environmentally Friendly Legislation</strong></td>
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<tr>
<td><strong>A Cleaner Port. A Brighter Future.</strong></td>
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</tbody>
</table>

**Note:** Current Green Port Policy adopted by Harbor Commission in 2006 replacing 2003 Healthy Harbor Initiative. Policy focuses on 6 areas of impact: Air, Water, Wildlife, Soil/Sediment, Sustainability, & Community Engagement. Most programs listed are being implemented, but some are in the planning phase and have not yet taken effect.
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Findings

Innovative Programs

• fuel cell back-up power (cruise terminal)
  - Port of Galveston, Texas
GREEN PORT SURVEY

Findings

Innovative Programs

• on-site wind and/or solar power generation
  - Port of Galveston, Texas
  - Sydney Ports

• off-site wind farm
  - Freemantle Ports, Australia
Findings

Innovative Programs

- renewable energy purchasing
  - Sydney Ports
  - Port of Portland, Oregon
  - Port of Rotterdam
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Findings

Innovative Programs

• greenhouse gas reduction measures
  - Port of Helsinki
  - Hong Kong Marine Department
  - Associated British Ports Authority
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Findings

Innovative Programs

- LNG yard tractors
  - Port of Los Angeles

- PHL locomotive engine replacement program
  - joint Port of Long Beach/Port of Los Angeles
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Findings

Innovative Programs

• independent Sustainable Development Advisory Committee to oversee environmental policy development

  - Port of Marseille Authority
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Findings

Innovative Programs

• green building standards for all new construction
  - Port of Long Beach

• environmental compliance loan program for tenants
  - Unified Port of San Diego
TOWARD GREENER PORTS

Where Next?

• incorporate additional information from Asia collect and disseminate information on green ports
• develop guidance on indicators
• develop green port “certification” process
Final Thoughts

Gary Larson makes a case for sustainability!

"You know what I'm sayin'? Me, for example. I couldn't work in some stuffy little office. ... The outdoors just calls to me."
GREEN PORT SURVEY

Findings

Most Common Indicators

- **air:**
  - annual NO$_X$, CO/CO$_2$, SO$_2$, and particulate matter vs. baseline year
  - ratio of truck to non-truck (rail, barge) cargo moves
GREEN PORT SURVEY

Findings

Most Common Indicators

- **water:**
  - dissolved oxygen levels
  - temperature
  - presence of contaminants in runoff and groundwater
  - clarity
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Findings

Most Common Indicators

- wildlife/habitat/soil/sediment:
  - exotic pest population levels
  - area of habitat created and/or restored
  - area of contaminated land returned to productive use
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Findings

Most Common Indicators

• “sustainability”:
  - staff training sessions
  - % energy provided by renewable sources
  - volume of waste recycled
GREEN PORT SURVEY

Findings

Most Common Indicators

• community:
  - # of outreach programs
  - noise levels