Sustainability at Ports

Presentation to AAPA Spring Conference

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Sustainability/Sustainable Development

- Starting to be recognized in the mainstream as a well-defined concept and potential objective
- Most widely used definition:
  
  "Sustainable development is development that meets the needs of the present without compromising the ability of future generations to meet their own needs"

  *Our Common Future (Brundtland Commission)*

- AAPA needs to create a framework that is meaningful for ports
Presentation Outline

• Overview of sustainability concepts
• Business case for sustainability
• Key sustainability drivers and trends
• Public and private sector examples
• Using EMS as a tool for moving forward
• Conclusions
Practical Interpretation of Sustainability

- Numerous conceptual frameworks
- Triple Bottom Line/Three-Legged Stool
  - Economics/profits
  - Environment/ecology
  - Social/community/people
- Key concept is to achieve balance between these three objectives
Sustainability Principles Being Applied by Port Authorities

MASSPORT VISION - SUSTAINABILITY

ENVIRONMENTAL MANAGEMENT POLICY

ENVIRONMENTAL MANAGEMENT SYSTEM

PORT OF PORTLAND
Possibility. In every direction.

Sky
Energy Conservation and Sustainable Electricity Purchases
Business Case for Improved Sustainability

- Varies significantly from organization-to-organization
- Increased revenue
- Improved relationship with key stakeholders
- Reduced risk – financial and environmental
- Enhanced access to capital
- Enhanced long-term viability of operations
- Reduced costs for operations
- Improved employee productivity
- Enhanced brand image
- Improved recruitment and retention of employees
Sustainability Encompasses a Wide Range of Issues

- Global Reporting Initiative
- LEED
- Recycling
- Climate Change
- Product Stewardship
- Stakeholder Engagement
- Renewable Energy
- Corporate Social Responsibility
- Smart Growth
- Sustainability Reporting
- Biofuels
- Ecosystem Restoration
Key Sustainability Drivers/Trends Applicable to Ports

- Stakeholder engagement
- Increased transparency
- Greenhouse gas/carbon management
- Resource efficiency
- Green buildings/facilities
- Environmentally preferable purchasing
Stakeholder Engagement

- Increased stakeholder engagement is common to virtually all sustainability programs
- Engagement increases in quality (type of information exchanged) as well as quantity (number of stakeholders engaged)
Stakeholder Engagement – Thames Water

• Example of more formal and extensive stakeholder engagement being done by public agencies overseas
• Engagement covers wide range of stakeholders
• Often one of the early steps in improving sustainability
McDonald’s Stakeholder Engagement

• Extensive partnering with NGO’s – EDF, Greenpeace
• Started with solid waste, now covers every aspect of business
• Ban on beef and soy products from rainforest
Increased Transparency

• Sustainability reports
  – Issued by an increasing fraction of Fortune 500 companies
  – Starting to be issued by public agencies

• Web-based reporting
  – Used to supplement or replace sustainability reports
  – Focus on key stakeholder issues
Trend in Sustainability Reports Issued

Source: CorporateRegister
Sustainability Reports by Sector

*Excluding 10 sectors with less than 40 companies

Source: CorporateRegister
Public Agency Sustainability Reporting

- Moving forward faster overseas
- Reporting emphasizes stakeholder engagement and strategy

Percentage of Agencies Producing Sustainability Reports
(Primarily Australia)

- Yes: 67%
- No: 33%

Source: The Centre for Public Agency Sustainability Reporting
Greenhouse Gas Emissions – Public Sector

- States are recognizing need to understand, manage and reduce greenhouse gas emissions associated with public sector
- Reporting is not as extensive as in private sector, but is expanding
Greenhouse Gas Emissions – Private Sector

Significant pressure from investors to disclose greenhouse gas emissions and risks associated with climate change
Resource Efficiency

• Covers a wide range of topics and means different things to different organizations

• Three areas of significant activity:
  – Energy/water conservation
  – Alternative fuels
  – Renewable sources of energy
Energy/Water Conservation – Private and Public Sector Examples

Baxter Sustainability Report

Port of Portland Annual Environmental Report

Conduct three building energy audits at Port facilities and implement viable energy conservation projects

COMPLETED

Identified energy conservation opportunities through retrofit evaluations and incentives, and implemented projects. Lighting controls installed under the Concourse Connector, Oregon Market and security upgrade projects will result in a 31 percent annual energy use reduction in these areas. Continuing to evaluate potential energy savings for hanger retrofits at Troutdale Airport and exploring energy conservation incentives for PDX tenants.

• Amenable to highly quantitative goals
• Frequently included in sustainability reports
• Increasingly tied to greenhouse gas emission reduction goals
Green Buildings/Facilities

- A subset of sustainability that is a world onto itself
- An area where public and private sectors are both advancing rapidly
- LEED certification most common demonstration of “greenness”, but there are other standards and approaches
Ford’s River Rouge Plant

- Largest green roof – 10.4 acres
- Photovoltaics
- Solar hot water
- Porous parking surfaces
Logan Airport Terminal A

- First LEED certified terminal
- Daylighting
- Recycled materials
- Water conservation
- Reflective roof
Environmentally Preferable Purchasing

• Started with recycled content
• Expanded to consider all environmental impacts of products purchased
• Many programs in-place for years
• Public sector adopted earlier than private sector
• Used in private sector to push change through supply chain
Federal EPP Program

- Virtually every federal agency participates to one degree or another
- Have attempted to integrate environmental criteria directly into purchasing process
### Environmental Purchasing Requirements – Automotive Industry

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<tr>
<th>Company</th>
<th>Name of Specification</th>
<th>Reference Number</th>
<th>Date of Latest Revision</th>
<th>Types of Requirements</th>
<th>Notes/Comments</th>
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<td>GM</td>
<td>Material Specification, General; Restricted and Reportable Substances for Parts</td>
<td>GMN3206</td>
<td>1-Aug-02</td>
<td>X X X X</td>
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<td>Daimler Chrysler</td>
<td>Environmental, Health and Occupational Safety Requirements for Regulated Substances or Processes and Product Recycling Reporting Requirements</td>
<td>CS-9003</td>
<td>6/14/1006; Change E</td>
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<td>Applies to suppliers and sub-suppliers for vehicles designed for Chrysler or its subsidiaries for North American production or export</td>
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<td>Daimler Chrysler</td>
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<td>SRL 9006</td>
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<td>Nissan</td>
<td>Nissan Engineering Standard - Substance Use Restrictions</td>
<td>NES 40001</td>
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<td>Prohibited and Declared Substances in Natural and Compounds</td>
<td>GS 20005-1</td>
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<td>References VDA 220-101 and VDA 231-100, which contain the lists of compounds and specific requirements.</td>
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<td>GS 20008-3</td>
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<td>Toyota</td>
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<td>TSZ00021G</td>
<td>1-Jan-03</td>
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- Shows range of issues considered
- Certain substances restricted
- Certain content preferred
Certain Sustainability Issues Apply Differently in Ports

- Level of control over operations
  - Many operational impacts are not directly controlled by port authorities
  - Leases and contracts become critical as tools for influencing operational impacts

- Globalization
  - Push for locally-sourced products can seem at odds with ports’ role in facilitating global marketplace
  - Ports can play role in reducing transportation-related impacts of product
How to Move Forward

• Given the broad range of sustainability issues, it can be hard to prioritize how to move forward
• Environmental Management Systems can play a role in prioritizing issues and translating them into concrete goals and programs
• The cross-functional team approach used in EMS applies well to sustainability
Massport Vision and Role of EMS

MASSPORT VISION - SUSTAINABILITY

ENVIRONMENTAL MANAGEMENT POLICY

ENVIRONMENTAL MANAGEMENT SYSTEM
Using EMS to Prioritize Sustainability Issues

ACTIVITIES, PRODUCTS AND SERVICES

Stakeholder Engagement

DETERMINATION OF SIGNIFICANCE

Issues of Significance
Issue 1
Issue 2
Issue 3

Objectives and Targets
Target 1
Target 2
Target 3

Programs
Program 1
Program 2
Program 3
Using EMS to Analyze Tenant/Customer Operational Impacts

- EMS Boundary analysis can help identify areas where port can influence operational impacts.
- Determine those areas of tenant and contractor operations that are outside control of port.
Conclusions

• Pressure to improve sustainability is increasing in both public and private sector
• Sustainability encompasses many topics, many of which you are already working on
• Many private-sector examples contain approaches applicable in port authorities
• Variability in ports means that even if a universal sustainability “framework” is adopted, programmatic results will vary from port-to-port
• EMS can serve as a tool to help prioritize and implement sustainability programs
Conclusions

• The benefits available to ports through increased sustainability include:
  – Easier access to capital
  – Reduced financial and environmental risk
  – Improved public image
  – Enhanced ability to maintain “license to operate” in face of opposition
  – More efficient approval of regulatory permits
Thoughts to Consider As AAPA Considers Sustainability

• What are you already doing that could fall within the umbrella concept of sustainability?
• How can sustainability be linked to existing strategic goals to increase its value and chances for success?
• What key stakeholders do you need to engage (internally and externally) to understand sustainability drivers that apply to your port?
• What will be your metrics for success?
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