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# Port Sustainability

## *Balancing Competing Priorities*

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## Dana Blume

- *PHA Environmental Program  
Coordinator – Air and Sediment*
- *10 yrs at Port of Houston Authority*
- *8 yrs as Environmental Geologist Consultant*
- *AAPA's HNE Air Working Group Chair*
- *Member AAPA's Sustainability Task Force*







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## Port of Houston Background

- 16<sup>th</sup> largest port in the world
- 1<sup>st</sup> in US in foreign waterborne tonnage
- 2<sup>nd</sup> in US in total tonnage
- Largest petrochemical complex in nation
- ~150,000 barges/ 8,000 vessels per year
- \$11 billion in economic impact
- 200 million tons cargo





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## Port of Houston Authority Background

- Political subdivision of the State
- Board of 7 commissioners
- 12 facilities
- Own over 9,000 acres
- Operating and Landlord port
- 150 tenant properties w/ 75 tenants
- General cargo to containers
- 500 employees

**Seen one port, you've seen one port!**







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## Presentation Goals

- Give a broad definition of what sustainability might mean to a port
- Explain PHA programs and involvement
- Describe our key programs
- Future Possibilities





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## Definitions

- Sustainable Development
  - meeting the needs of the present without compromising the needs of the future generations (Bruntland Commission 1987)
- Sustainable Corporation:
  - one that creates profit for its shareholders while protecting the environment and improving the lives of those with whom it interacts (Savitz, 2006)
- AAPA Sustainability Resolution (2007)

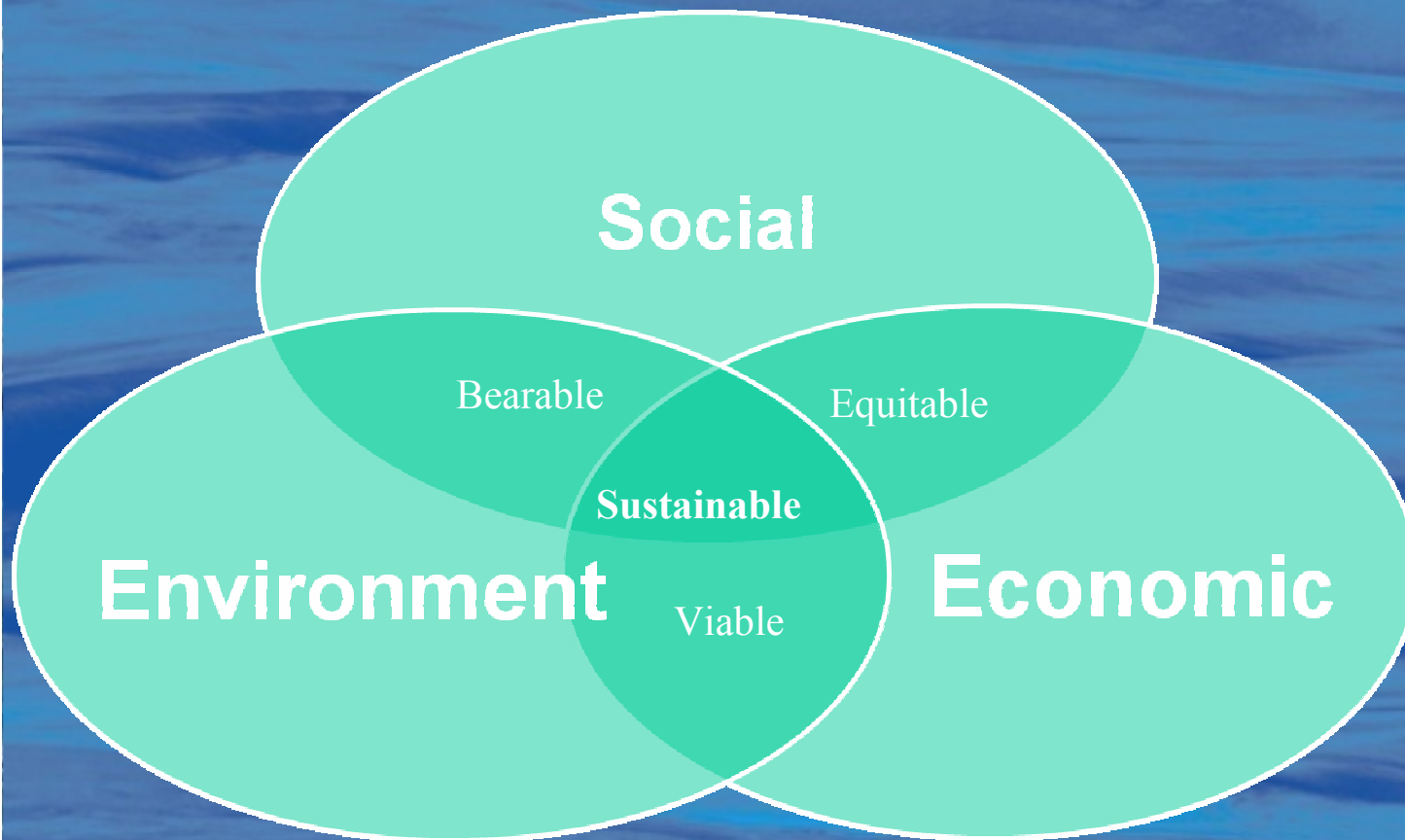






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## Triple Bottom Line (People, Planet, Profit)

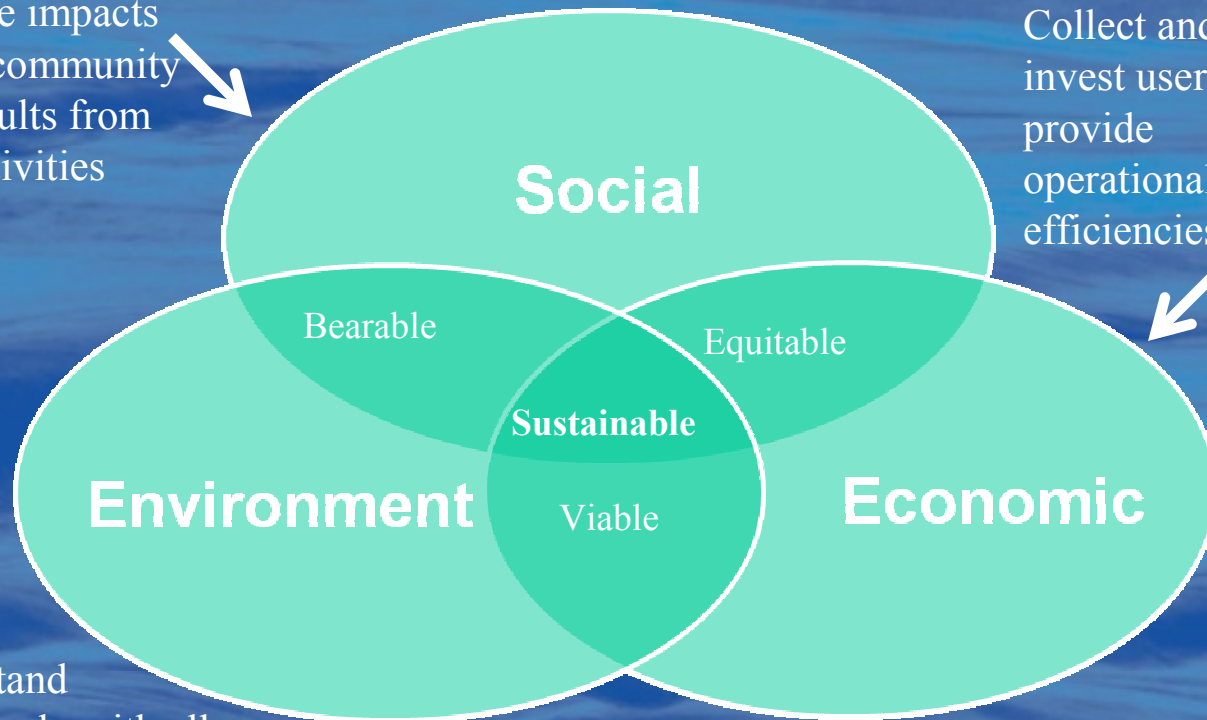




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## Triple Bottom Line for Ports

Minimize negative impacts on the community that results from port activities



Collect and re-invest user fees to provide operational efficiencies

Understand and comply with all applicable local, state, and federal regulations







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## *Port Capital*

*“A sustainable organization is one that lives off interest rather than depleting capital.”*

### *Examples of port capital:*

- *Natural resources (air, water, energy, building materials)*
- *Customers*
- *Community Support*
- *Ability to finance (bond rating, insurance)*
- *Employee satisfaction*





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## Suggested Reading

- *Natural Capitalism*
  - Hawken, Lovins, and Lovins (2000)
- *The Sustainability Advantage, Vol 1*
  - Bob Willard (2002)
- *Walking the Talk: The Business Case for Sustainable Development*
  - Holliday and Schmidheiny (2002)
- *The Business Guide to Sustainability: Management and Implementation for Businesses and Organizations*
  - Hitchcock and Willard (2006)
- *The Triple Bottom Line*
  - Savitz (2006)







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## Sustainability and Regulators

- USEPA's Strategy for Sustainable Ports  
<http://www.epa.gov/ispd/ports/>
- Texas Legislation has tasked TCEQ to develop State Sustainability Program
- Each state agency in California has a webpage or strategy dedicated to sustainability
- AAPA Resolution





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## **AAPA Resolution: Guiding Principles**

- 1. Communicate the goals of sustainability across the organization and allocate resource requirements for implementation;**
- 2. Integrate sustainability throughout port activities and in both near-term and long-term planning process;**
- 3. Build upon and share existing sustainability best practices, keys to success, lessons learned and approaches for implementation;**
- 4. Communicate and engage with internal and external stakeholders to encourage open dialogue, accountability and collaboration;**
- 5. To the extent possible, use appropriate data and metrics as part of the process for implementing sustainability;**
- 6. Evaluate the total life cycle costs of projects and decisions;**
- 7. Recognize that sustainability is a dynamic effort requiring flexibility and continuous improvement.**







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## **AAPA Resolution: Resolution**

**WHEREAS**, Sustainability involves the simultaneous pursuit of economic prosperity, environmental quality of social responsibility; and

**WHEREAS**, Ports hold a unique role in transportation, logistics and infrastructure development; and

**WHEREAS**, Port must be financially viable in order to achieve their missions and contribute to the economic prosperity of their regions and nations; and

**WHEREAS**, Ports recognize that their activities may impact the environment and natural resources; and

**WHEREAS**, Ports recognize that they have responsibilities as members of the communities in which they operate; and

**WHEREAS**, Ports recognize that a long-term balanced approach is required;

Now **THEREFORE**: AAPA embraces the concept of sustainability as a standard business practice for ports and the Association. For ports, sustainability means business strategies and activities that meet the current and future needs of the enterprise and its stakeholders, while protecting and sustaining human and natural resources; and further

Recognizing that each port operates within a unique business, political, environmental and social context, we further our sustainability resolve by putting forth guiding principles for consideration by member ports.





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## *Sustainability Programs*

more  
common

**Respond to a crisis**



**Ease in, Starting with low hanging  
fruit**



**Implement a well-thought-out  
program**

less  
common







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## PHA's Program

**1st US Port with ISO 14001  
Environmental Management System**





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## Corporate Balanced Scorecard 8 Strategic Goals

- Financial Strength
- Economic Development
- A Premier Container, Cargo, & Cruise Port
- Constantly Improving Facilities & Waterways
- A Safe and Secure Port
- Environmental Protector and Steward
- Strong Community, Industry and Government Relations
- A Strong Workforce







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## *Environmental Responsibility* *“Planet”*

- Air Quality Improvements
- Water Quality Improvements
- Pollution Prevention
- Energy Efficiency – fuel efficiency





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## *Social Responsibility* **“People”**

- Community Outreach & Involvement
- Stakeholder Participation
- Job Creation/Retention
- Human Health Risk Reductions







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## *Financial Responsibility* *“Profit”*

- Bonds
  - Grants
  - Equitable distribution of financial burden
  - Helps ports maintain “license to operate”
  - Ports are major economic drivers in their areas
- \* For many ports this is area of weakness





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## *Sustainability Tools*

- Environmental Management System
- Balanced Scorecards –Strategic Plans
- Sustainability Matrix tool







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## Ideas for the Future:

- Improve collaboration with tenants and users
- Develop Clean Air Strategy Plan
- Develop Water Improvement Strategy Plan
- Improve upon Recycling program
- Engage Stakeholders in all programs
- Expand programs into Community
- Secure Grant funding for programs





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**Thank you!**

**Join AAPA's HNE Committee!!!!**

