# LIVING SHORELINES FROM BARRIERS TO OPPORTUNITIES





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RESTORE AMERICA'S ESTUARIES

#### **Committee Members**

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## **Living Shoreline Definition**

A living shoreline is any erosion control management system that does not introduce a fixed interruption of a natural water/land continuum and that is designed to

protect or restore natural shoreline ecosystem services; it includes natural elements and may incorporate manmade elements.





## Background

- Importance of Shoreline Ecosystems and Estuaries
- Shoreline Type and Location
- Types of Shoreline Management Systems
- Impact of Shoreline Management System on Estuarine System





## Background

- Potential Impact of Sea Level Rise
- Economics of Shoreline Management Systems
- Regulatory Overview
- Trends in Shoreline Management





#### **Institutional Obstacles**

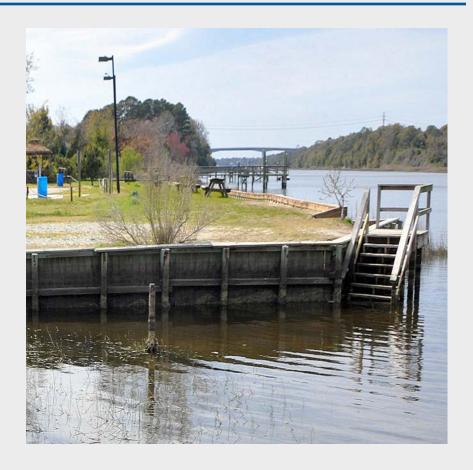
- Inertia
- Lack of broader planning context
- Shoreline variability
- Lack of an advocate



#### Inertia

- Familiarity with "traditional" methods
- Lack of knowledge
  - Efficacy
  - Impacts
- Federal regulatory system





## Lack of a broader planning context

- Site specific decisions
  - Understate negative cumulative impacts of hardening
  - Overlook system values of living shorelines
  - Impose entire cost on only one beneficiary-site owner





## **Shoreline variability**

- Individualized analysis is necessary for a successful living shoreline
- No routine solutions





#### Lack of an advocate

- Many beneficiaries of living shorelines
- Do not recognize their common interest
- Have not coalesced into an effective force





#### Strategies

- Education and Outreach
- Regulatory Reform
- Improving Institutional Capacity
- Government
   Agencies as Role
   Models





#### **Targets**

- Owners
- Designers
- Contractors and suppliers
- Regulatory
- Political bodies
- Public





#### Subjects

- Efficacy
- Impacts
- Costs
- Values
- Sea level rise
- Directory of professionals







#### Methods

- Web presence data
- Web-based interactive training
- Demonstration projects
- Targeted professional outreach
- Public information campaign and branding





#### Recommendations

- Establish centralized reliable database
- Develop manual of best practices and decision guides
- Establish Living
   Shoreline Academy





## **Regulatory Reform**

- Permitting of hardened structures does not adequately address current science
- Living shorelines are usually the least damaging alternative and are generally practicable in most estuarine settings
- Current state/federal system is confusing and inefficient



## **Regulatory Reform**

#### Recommendations

- Develop coordinated permitting system that
  - considers current science
  - considers system beyond the site
  - ranks hardened structures as last resort
  - considers other mandates
  - uses estuary based planning





## **Regulatory Reform**

#### Recommendations

- Reevaluate NWP 13
- States should consider limiting availability of NWP 13
- Provide incentives and disincentives





## **Improving Institutional Capacity**

#### Recommendations - Private sector

- Education: techniques; efficacy; impacts; economics
- Certifications "Living Shoreline Professionals"
- Volunteers -- cost and public education benefits



## **Improving Institutional Capacity**

#### Recommendations - Public sector

- Education: techniques; efficacy; impacts; economics
- Specialization within permitting staff
- Encourage private sector expertise and partnerships



## **Improving Institutional Capacity**

## Recommendation - funding

 Public and private funding of living shoreline initiatives should give high priority to increasing institutional capacity





# Government Agencies as Role Models

#### Recommendations

- Use public lands for living shoreline demonstrations
- Adopt policies and guidance that promote and support living shorelines
- Political units at all levels plus collaborations
  - GSAA, GOMA, SERPPAS, and others
- NGOs assist in developing policies, practices, and guidance



- RAE: Establish Living Shoreline Academy and database
- RAE and other NGOs:
  - Support and encourage innovative state regulatory programs
  - Provide leadership in moving other states away from business-as-usual
  - Provide leadership in focusing funding, education, and reform efforts on the Strategies
  - Provide leadership in identifying incentive systems and cost-shifting mechanisms



- All funding sources: Focus on living shoreline projects and initiatives that advance the Strategies
- Corps:
  - Re-exam permitting process and use of NWP 13
  - Work with constituencies to develop coordinated system



- State agencies:
  - Continue living shoreline initiatives
  - Act as role model with demonstration projects, education, and policies promoting living shorelines
  - Reassess impacts of business-as-usual
  - Cooperate with other jurisdictions in developing system-wide planning/permitting methods



- Other agencies (DoD; GSAA; GOMA; SERPPAS; etc.):
  - Continue living shoreline initiatives
  - Act as role model with demonstration projects,
     education, and policies promoting living shorelines
- Cooperate with other jurisdictions in developing system-wide planning/permitting methods



Draft Report available at <a href="www.estuaries.org">www.estuaries.org</a>
Additional information at Living Shorelines Initiative tab - <a href="www.estuaries.org/living-shorelines">www.estuaries.org/living-shorelines</a>

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Please submit written comments to:

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## Discussion

