New York Sea Grant Shoreline Management Updates

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Coastal Zone Canada Conference

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Who We Are

- New York Sea Grant (NYSG)
  - Research, education, and extension services
    - Coastal economic vitality
    - Environmental sustainability
    - Citizen awareness and understanding
  - Extension Focus Areas
    - Healthy NY coastal ecosystems
    - Sustainable NY fisheries and safe and sustainable seafood business
    - Environmental literacy and workforce development in NY
    - Resilient NY communities and economies

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New York's Great Lakes Nature-Based Shorelines Workshop

- November 2015 workshop
  - What nature-based shoreline (NBS) methods are out there?
  - How may they may apply to NY's Great Lakes shorelines?
  - What are the opportunities and constraints?
  - What are the data, research, outreach, and resources needs?
  - Are there any demonstration project opportunities?
  - What are the next steps?

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NBS Workshop – Presentations

- Overview of Geology, Driving Forces, and Coastal Processes
  - Pete Zuzek, Baird & Associates
- Niagara River Habitat Improvement Projects
  - Tim DePriest, NYSDEC
- Designing NBS Protections for the GL Region
  - Brian Majka, GEI
- Sustainable Beaches
  - Charlie Shabica, Shabica & Associates
- Engineering with Nature for Coastal Resilience
  - Todd Bridges, USACE
- Systems Approach to Promoting Coastal Processes and NBS Management
  - Scudder Mackey, Ohio DNR

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NBS Workshop – Break-outs

- Groups formed based on shoreline type
  - Artificial/Hardened
  - Beach/Dune
  - Bluff
  - Bay mouth barrier
  - Low bank
  - Coastal wetland
- Asked to identify
  - Potential demonstration projects
  - Information, resources, and tools needed

Photo Credit: Barbara Branca, NYSG

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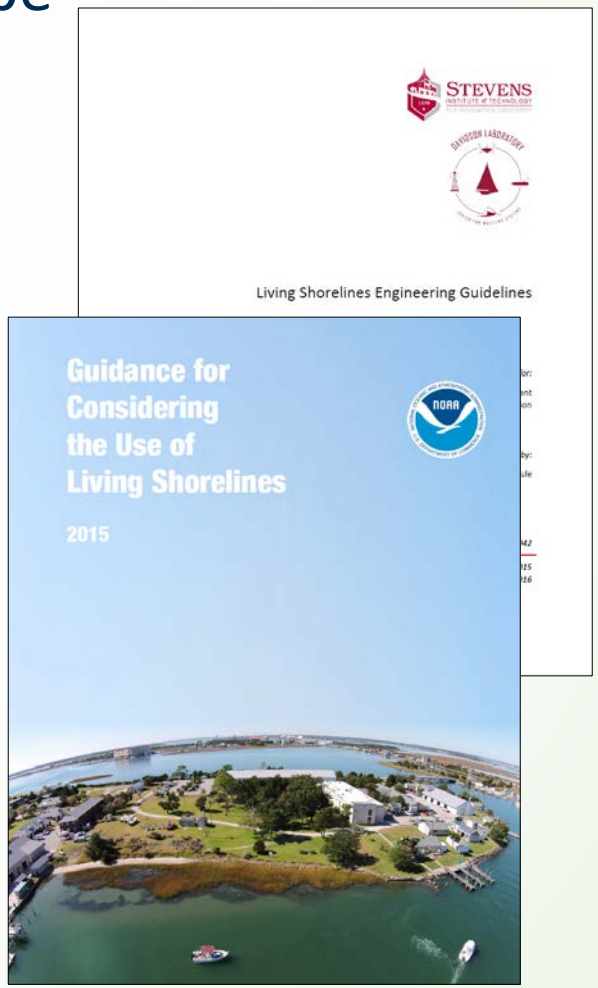
NBS Workshop – Break-outs Results

- Sites identified for each shoreline type
- Need:
  - Examples of how to incorporate nature-based options into existing/ future hard structures
  - More funding, incentives
  - Partnerships, outreach, education
  - Streamlined permitting process
  - Long-term monitoring
  - Guidance handbook
  - Demonstration projects



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NBS Workshop – Panel Session

- Technical and/or regulatory perspective
  - Challenges and opportunities to advancing NBS in NY
    - Culture change
    - Education
    - Demonstration
    - Proof of effectiveness
    - Expedited permitting
    - Coastal design manual
    - Improved communication and networking

Photo Credit: Barbara Branca, NYSG

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NBS Workshop – Survey Results

- Next steps needed
  - Training and education
  - Continued discussion
  - Disclosure of existing information
  - Demonstration projects – successes and failures
  - Distinctions for coastal management
    (allowing erosion to continue vs. protection)
  - Partnerships

Photo Credit: NYSDEC

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NBS Workshop – Follow-Up

- Identify potential NBS demonstration sites
  - Developing a list of criteria
    - Location
    - Shoreline type
    - Monitoring/Stewardship
    - Site bathymetry
    - Energy
    - Habitat
    - Protection needed
    - Cost
  - Visiting sites
- Shoreline management tours

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Shoreline Management Tour

- Purpose
  - Show a spectrum of techniques *in the field*
  - Explain how and why projects were implemented
  - Share challenges and opportunities
  - Make connections
- Local organizations, SWCDs, agency staff
- Projects range from green to grey

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Potential Next Steps

- PA Sea Grant Two-Day Workshop
  - *Day One:* Classroom session
    - Environmental factors, issues
    - Project process – what and why
    - Permitting, regulations
    - Special considerations (e.g. septic systems)
  - *Day Two:* Site visits
  - Split between professionals and private homeowners, every other year
    - Contractors, realtors, engineers, landscape architects, etc.
  - Continuing education credits

Photo Credit: PA Sea Grant

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Questions?

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