Restorative Landscaping in a Coastal Ecosystem: Living Shorelines

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What is a Living Shoreline?
The strategic use of living and decomposing biomass to manage coastal issues such as erosion, habitat loss, and sedimentation.

- Spectrum
- Above the high water mark
Strategic Use of Biomass
‘From the Land to the Water’ Approach

- Compaction and overland flow
- Sediment runoff
- Bank stabilization
- Biodiversity
- Structural density
Designing a Living Shoreline

- Optimizing functionality
- Increasing resiliency
- Maintaining ecological integrity
- Addressing one or many erosion factors
- Visually appealing
Planning Model

• Integrating the needs of people with those of the ecosystem they are living in

**People**
- Goals
- Recreation needs
- Safety and security

**Environment**
- Ecosystem type
- Stressors
- Vulnerability

**Economic**
- Cost
- Value of risk mitigation

Integrated Landscape Plan
Things to Consider

- Ecosystem type
- Soil structure
- Plant selection
  - Native species
  - Locally adapted
• Human goals
  • Recreation and socialization
  • Privacy
  • Access
  • Protecting investment
  • Beauty
Benefits

• Flood and erosion risk mitigation
• Habitat creation
• People are more connected to and invested in the health of the coast
• Increased biodiversity
Challenges

- Environmental
  - North Atlantic exposure
  - Safety
  - Accessibility
  - Short working season

- Regulatory
  - Limits on below high watermark work
  - Cumbersome permitting process

- Demographic
  - Lack of understanding
  - Comfort with established models
  - Expensive with no government funding
Conclusion

• In order for coastal protection to work we must include humans in the design process
• In Nova Scotia most of the coastline is privately owned
• People are the funders of these projects
• People will protect what they value