Living Shorelines

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• Desirable where feasible
  • better habitat value
  • less aesthetic impact
• Not feasible everywhere
  • wave energy/currents
  • stability of substrate, terrain
• Determine where and when they make sense
• Often look at “hybrid solutions” – introduce some structural elements to make sure vegetation will thrive
• Understand fluctuating water levels, including SLR
Selection Criteria

• Lower Energy Environments
  • riverine/estuary
  • lakes and ponds
  • oceanfront, including beaches
Selection Criteria (cont’d)

• Soil Substrate and Slope
  • silty/organic
  • sands
  • rocks and gravel
  • flat versus steep
Design and Regulatory Elements

- Obtain topographic/bathymetric survey
- Characterize protected natural resources
- Establish level of structural elements required
- Determine appropriate plant species (salinity, submergence, root structure, planting media)
- Develop drawings and specifications
- Seek regulatory approvals
Living Shorelines

Riverine/Estuarine Applications

• Falmouth, Freeport, Harpswell
  • bluffs subject to block failures
  • maintain stable toe
  • wave action/SLR
• Madawaska, Brewer, Veazie
  • reconstruct natural shoreline
Lake/Pond Applications

• Greenwood, Coburn Gore
  • directional wave action
  • dams / embankments
  • understand fluctuating water levels
Oceanfront/Beach Applications

- Old Orchard Beach, Wells Beach
  - re-establishing dune vegetation
  - in concert with other work, such as beach nourishment
- Kennebunkport, Bristol
  - more reliance on structural measures where wave energy is highest
Questions/Discussion