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

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Selection Criteria

- Lower Energy Environments

  - riverine/estuary

  - lakes and ponds

  - oceanfront, including beaches

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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

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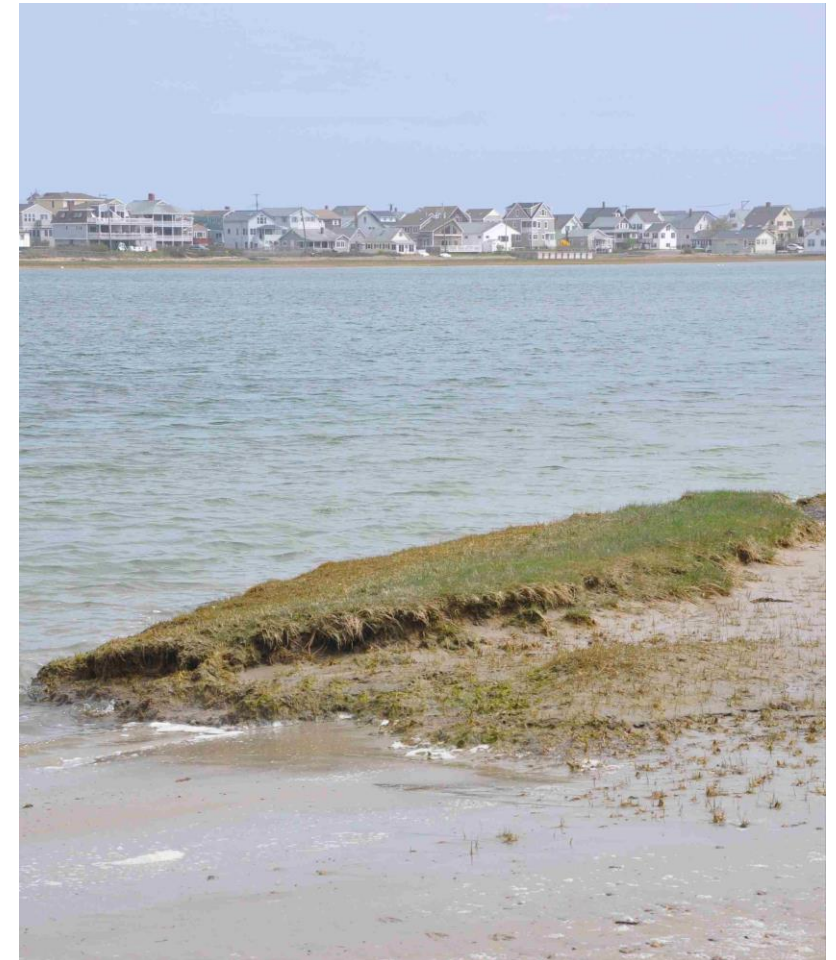
Riverine/Estuarine Applications

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

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Lake/Pond Applications

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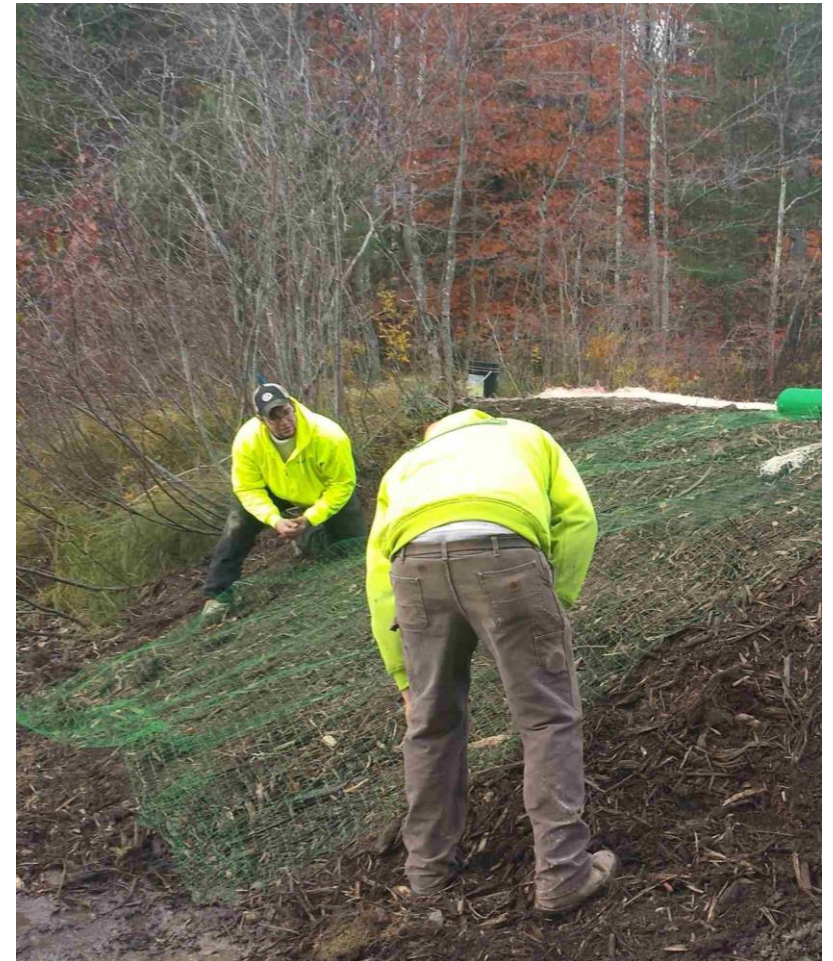
Oceanfront/Beach Applications

- 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

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