Sustainable Shorelines Demonstration Projects

Considerations for Design

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September 27, 2016
Hudson River Sustainable Shorelines Project

Promoting shoreline management to preserve or enhance estuary health while meeting engineering needs in a changing climate.

Dockside Park, Cold Spring, NY
Engineer: Milone & MacBroom
Ecological Studies & Products

- Literature review
- Study of biodiversity (fish, plants) and organic matter accumulation as a function of shore zone structure & age
- Ecological brochure and handbook
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Ferry Road Eroding Shoreline
Cocksackie Boat Launch
Rhinecliff Bulkhead
Dockside, Cold Spring
Nyack Beach State Park
Three Elements of Sustainable Shorelines Demo Projects

- Shoreline Stabilization
- Sustainable Shorelines Site
- Human Use
- Habitat Protection
Demonstration Design Approach

• Avoid ‘one size fits all’
• Different uses = different design opportunities
• Stakeholder input essential
• Maintenance should be expected.
Nutten Hook/Ferry Landing Shoreline

- Shoreline Stabilization
  - Erodible fill
  - Close to navigation channel
  - Failing bulkhead
- Natural Resources
  - Shallows with SAV to north and south
  - Shoreline vegetation
- Human Use
  - Access road needs protection
  - Popular fishing/sightseeing location

**Nutten Hook and Dockside design sheets at back of room**
Monitoring

• Plans developed during design phase
• Unique to each project
• Standardized “stability” monitoring underway at several sites

Coxsackie, NY
Thank You

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