Introduction to Living Shorelines
Jefferson Patterson Park
June 10, 2009
• MD’s shoreline- approx. 7,532 miles (Maryland Geological Survey).

• Shorelines naturally eroded by the movement of water, waves, and wind.

• Human activities like high speed boating and hardened shorelines on adjacent properties can increase rates of erosion.

• Erosion becomes a problem when something is at risk for loss (property, critical habitat, etc.)
Protecting Shorelines the “Hard” Way

Rip-rap or Revetment

Wooden Bulkhead
HB 973 - Water Management Administration

- Requires living shorelines, except where the person can demonstrate to MDE that such measure are not feasible
- MDE required to map areas appropriate for structural stabilization
- Establishes a waiver process
What is a Living Shoreline?

A suite of stabilization and erosion control measures that preserve the natural shoreline and are designed to minimize shoreline erosion, maintain coastal processes, and provide aquatic habitat. Measures must include marsh plantings and may include the use of sills, sand containment structures, breakwaters or other natural components (e.g. bio-logs, oyster reefs, etc.).
Marsh planting

Marsh with Biolog
“Biological” Advantages of Living Shorelines

- Provide shallow water habitat that results in higher abundance and diversity of aquatic species both nearshore and offshore.

- Helps to maintain a link between aquatic and upland habitats, providing shoreline access for wildlife and recreation.

- Look natural rather than artificial
“Physical” Advantages of Living Shorelines

- Improve water quality by settling sediments and filtering pollution
- Absorb wave energy, storm surge and flood waters
- Maintain natural shoreline dynamics and sand movement.
- Often lower construction costs.
Limitations

• Not effective in all situations.

• Limited number of marine contractors with knowledge/expertise in living shorelines.

• Limited detailed science/literature.
• Good design
• Knowledgeable contractor
• Awareness
  – LS are not “zero maintenance”
• Property owners’ involvement
Healthy marsh grasses = Strong erosion protection

Before

After

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