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Living Shoreline Laws and Regulations in Maryland

Bhaskaran Subramanian

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Living Shorelines Laws & Regulations in Maryland

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Suffolk, VA
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MDE: Regulatory Agency
DNR: Resource Agency
The Shore Erosion Control Program was established in 1968 by act of the Maryland's General Assembly.

The Shore Erosion Control Program provides both technical and financial assistance to landowners in completing both structural and living shoreline projects.

Living Shoreline projects - preferred, but structural projects are used in areas with high rates of erosion.

Technical assistance is provided through site evaluations, problem assessments and recommended solutions.
Erosion Control Measures: Order of preference

- No action
- Nonstructural shoreline stabilization
- Structural measures to stabilize nonstructural stabilization
- Revetments
- Breakwaters
- Groins
- Bulkheads

- COMAR 26.24.04.01
Living Shorelines Protection Act of 2008

- Bill passed into Law October 2008; regulations implemented in February 2013.

- The law provides the regulatory agency with a strong foundation to promote alternate shoreline erosion control measures.

- The Law clearly states: “Improvements to protect a person’s property against erosion shall consist of non-structural shoreline stabilization measures (i.e. living shorelines) except where the person can demonstrate such measures are not feasible, or where mapping indicates areas that have been deemed appropriate for structural shoreline stabilization measures”.
• Regulations implemented February 4, 2013

• Order of preference
  – No action
  – Relocation of structures
  – Nonstructural shore erosion control project
  – Structural shore erosion control project with MDE approved

• Waiver
**LS Waiver Request Form**

**Number Category**

<table>
<thead>
<tr>
<th>QUESTION</th>
<th>ANSWER</th>
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<tbody>
<tr>
<td>1. Name of Property Owner</td>
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<tr>
<td>2. Address of Property Owner</td>
<td>[ ]</td>
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<tr>
<td>3. Address of Project Site</td>
<td>[ ]</td>
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<tr>
<td>4. Previous MDE Permit number (if known)</td>
<td>[ ]</td>
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<tr>
<td>5. Name of Property Owner</td>
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<td>6. Address of Property Owner</td>
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<tr>
<td>10. Address of Project Site</td>
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</tbody>
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**Living Shoreline Protections Act of 2000**

The project described herein is subject to the Living Shoreline Protections Act of 2000, which requires that improvements to a project's shoreline must be designed and constructed in a manner that minimizes the loss of habitat and reduces the potential for erosion and sedimentation. The project must also be designed in a manner that is consistent with the Living Shoreline Protections Act of 2000.

A. The applicant must demonstrate that the project is sufficiently designed and constructed to minimize the loss of habitat and reduce the potential for erosion and sedimentation.

B. The project must be designed in a manner that is consistent with the Living Shoreline Protections Act of 2000.

C. The project must be designed in a manner that is consistent with the Living Shoreline Protections Act of 2000.

D. The project must be designed in a manner that is consistent with the Living Shoreline Protections Act of 2000.

E. The project must be designed in a manner that is consistent with the Living Shoreline Protections Act of 2000.

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X. The project must be designed in a manner that is consistent with the Living Shoreline Protections Act of 2000.

Y. The project must be designed in a manner that is consistent with the Living Shoreline Protections Act of 2000.

Z. The project must be designed in a manner that is consistent with the Living Shoreline Protections Act of 2000.

**Department of Natural Resources**

**Maryland Department of the Environment**

**MDE**
**A**

- **Waterway Width**
  - Less than 100 feet
  - 100 – 140 feet
  - Greater than 140 feet

**B**

- **Shoreline Orientation**
  - Shoreline receives <6 hours of sunlight per day
    - Tree clearing or Bank Grading will **NOT** allow for 6 hrs of sunlight
  - Shoreline receives adequate sunlight
    - Tree clearing or Bank Grading will allow for 6 hrs of sunlight

**C**

- **Fetch**: Maximum distance wind may travel unimpeded over open water before approaching the worksite shoreline; relates to wave height
  - Maximum Fetch greater than 5 miles
    - Apply for exemption
  - Maximum Fetch greater than 3 miles
    - 1 pts
  - Maximum Fetch less than 3 miles
    - 2 pts
MDE LIVING SHORELINE WAIVER – Worksheet
(Page 2)

D

Depth of Waterway

- Water depth at 40-feet channelward of shoreline worksite MHWL
  - Water depth >4-feet
  - Water depth <4-feet

E

Bottom Material

- Firmness of bottom material in the near shore area
  - Coarse (Hard)
  - Sand/Silt mix (Med)
  - Organic / silt / Clay (Soft)

F

Critical Area Buffer

- Forested Riparian Buffer or fish, wildlife, or plant habitat
  - Would be preserved
  - Not present
  - Would be affected equally by structural or nonstructural measures

- 2 to 5: Apply for exemption
- 6 to 8: Contact MDE for evaluation
- 9 to 13: Living Shoreline is recommended

TOTAL
Opposite Shoreline

Width of waterway; measured between MHW line at the worksite shoreline and average distance to the approximate centerline of waterway channel

Navigation; Distance from MHW to edge of Navigation Channel

Shoreline orientation; compass direction perpendicular to average worksite shoreline

Fetch; Provide four (4) measurements of maximum fetch for each quadrant (e.g., NE, SE, SW, NW) centered on the worksite shoreline
**Approximate Channel Location (Grey Area):** represents deepest portion of WATERWAY.

**Centerline of Channel (Black Dash Line):** represents deepest portion of CHANNEL.

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**Mean LOW Water Line (MLWL):** location of the average “low tide” line of worksite shoreline.

**Mean HIGH Water Line (MHWL):** location of the average “high tide” line of worksite shoreline.

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**Bottom Material (Substrate):**
- determine “softness” or “hardness” of bottom;
- determine composition (i.e., sand, clay, sticks and leaves)

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**Mean High Water (MHW) Margin**

**Mean Low Water (MLW) Margin**

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**Depth of Water at toe or bottom of bank**

**Measure water depth during low tide at approximately 20-feet channelward of the MLWL and at approximately 40-feet channelward of the MLWL.**

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**Bank Grading Area**
#1: Appropriate techniques in appropriate locations.

- No one technique works for all sites.

- Each site has its own peculiarities and each design should be developed individually.
What Have We Learned Over the Last 35 Years?

#2: Balancing “habitat” with “shoreline protection”.
• Myths and misconceptions (*public & professionals- structural vs LS*): do they work or not?
• Numerous moving parts (*Corps concerns*)
• Cost (*structural vs LS*)
• Habitat conversion and tradeoff (*NMFS concerns*).
How did MD overcome barriers?

- Ongoing process: uphill task
- Dialogue/discussion
- Literature review
- Pre-app meetings
- Demonstration projects
- Mapping products and models
- Contracting community’s mistrust of the Regulators.
- Absence of clear guidance—evolving rules and changes in procedures.
- Consistency among Regulators.
- Search for “that model” project
- Standardization, cookie-cut method, etc.
• More buy-in needed from marine contractors, engineers, etc.

• Information such as littoral drift map, LS Suitability models, etc. could help

• $$$ to try some innovative and out-of-the-box design for projects

• Consistent permitting process and knowledgeable permit reviewers
Conclusion

• Living shorelines - very effective in “reducing” erosion and creating/restoring habitats.

• Successful projects should stop planning for the past extreme weather events and plan for future.

• LS Projects should proactively incorporate resiliency into the design and implementation phases.

• Collaboration with partners - crucial for a comprehensive program.
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