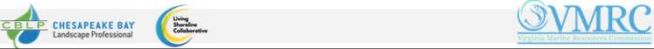


### Living Shoreline Design Essentials

# A Regulatory Perspective for General Permits Type 1 or 2

Rachael Peabody  
Virginia Marine Resources Commission  
Director of Coastal Policy



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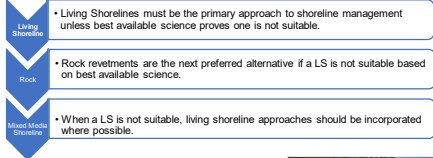
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### Living Shorelines: Default Approach



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### Expedited Living Shoreline Permits

#### LSGP 1

- 21 day expedited permit
- "soft" living shorelines
- Fiber logs or shell bags
- Sand
- Planting



#### LSGP 2

- 21 day expedited permit
- Living shorelines with toe revetments
- Additional site requirements for approval and APO notifications



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### Determining Living Shoreline Suitability

- Hydrodynamic settings
- Water Depth
- Sediment Type
- Fetch
- Bank Height
- Neighboring Properties
- Subaquatic Vegetation
- Riparian Vegetation
- Oyster Reefs
- Upland Structures
- Storm Waves
- Sunlight
- Boat Wake



Chapter:  
**Practical Living Shorelines**  
 Tailored to Fit in Chesapeake Bay  
 By *Walter I. Priest*

Book: *Living Shorelines*  
 Edition: 1st Edition  
 First Published: 2017  
 Imprint: CRC Press  
 Pages: 26  
 eBook ISBN: 9781315131405



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### Administration of the Living Shoreline Law

**Barriers to Implementation**

- Cost of Installation
  - Contractor Availability
  - Design and Permitting Expertise
  - Homeowner Comfort with the Design Concept.
- Preference for lawn that leads to hardened structure
- Competing Natural Resources (SAV, Riparian Buffers)

**Incentives to Implementation**

- Cost Share Programs
- Expedited Permitting
- Regaining Eroded Property
- Contractors can "upsell" additional services.



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### Incorporating Sea Level Rise into Design

Proposed projects must allow the landward migration of existing vegetation over the useful life of the project using the 2017 NOAA Intermediate-High Projection Curve.



**Online Resources for Identifying SLR Projections:**

[https://cwbi-appsec.usace.army.mil/ccslc/slcc\\_calc.html](https://cwbi-appsec.usace.army.mil/ccslc/slcc_calc.html)

<https://msc.fema.gov/portal/advanceSearch>



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**Additional Resources**

- VMRC Wetlands Guidelines:  
[https://mrc.virginia.gov/regulations/Final-Wetlands-Guidelines-Update\\_05-26-2021.pdf](https://mrc.virginia.gov/regulations/Final-Wetlands-Guidelines-Update_05-26-2021.pdf)
- Virginia Wetlands Handbook  
[http://ccrm.vims.edu/permits\\_web/guidance/handbook/index.html](http://ccrm.vims.edu/permits_web/guidance/handbook/index.html)
- Living Shoreline Design Guidelines:  
Hardaway et. Al.  
<https://scholarworks.wm.edu/reports/833/>
- Shoreline Management in Chesapeake Bay  
<https://www.dcr.virginia.gov/soil-and-water/document/shoreline-management-in-chesapeake-bay.pdf>

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