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# Delaware Living Shorelines State Regulatory Framework

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# Subaqueous Lands

## **7 Del. C., Chapter 72, The Subaqueous Lands Act The “Regulations Governing the Use of Subaqueous Lands”**

- ▶ **Public subaqueous lands begins at the mean low water.**
- ▶ 2.2.1.1 - The extent of jurisdictional authority over public or private subaqueous lands includes any activity in a navigable stream or waterbody, which have a hydrologic connection to natural waterbodies.
- ▶ **Jurisdiction begins channelward of the mean high water line in tidal waterbodies.**
- ▶ Jurisdiction begins channelward of the ordinary high water line in non-tidal features such as ponds, intermittent streams, and perennial streams.
- ▶ **Permit is required for any activity channelward of the MHW or OHW lines.**



# Statewide Activity Approval (SAA)

- ▶ **2.5 Statewide Activity Approvals** –The Department may adopt statewide activity approvals for certain specified activities with limiting dimensions and criteria which are considered to have minimal impacts on subaqueous lands, water quality, habitats, etc. ( Very similar to NWP)
- ▶ Designed to promote Living Shorelines, this SAA is *not* intended for shoreline rip-rap, bulkheads, groins, sills, jetties, artificial reefs, wave breaks, and beach nourishment projects.
- ▶ In 2013, a diverse SAA for Living Shorelines was created.
  - ▶ Effective Nov. 1, 2015 to Oct. 31, 2020
- ▶ ~5-6 projects per year use the SAA



# Statewide Activity Approval (SAA)

- ▶ **Advantages of an SAA for practitioners:**
  - ▶ Intended for an **expedited permitting process**.
  - ▶ Eliminates public notice process.
  - ▶ Eliminates public notice fees.
- ▶ **Authorized activity under SAA**
  - ▶ 3 types of Living Shorelines activity, **not to exceed 500 linear feet of shoreline or bank:**
    - ▶ **Conventional Living Shoreline**
    - ▶ **Armored Living Shoreline**
    - ▶ **Energy Dissipating Living Shoreline**



# SAA Living Shoreline Exclusions

- ▶ **Where a project-specific State Wetlands Permit is required.**
- ▶ Where a project-specific 401 Water Quality Certification or a Coastal Zone Consistency Determination is required.
- ▶ If the activity is located in any waterway which is identified by the Department as having **contaminated sediments**, and where the proposed work will likely mobilize those contaminants.
- ▶ If the project will adversely affect any state or federally listed threatened or endangered species as determined by the Department's Wildlife Species Conservation and Research Program on the U.S. Fish and Wildlife Service.
- ▶ If the project is located in a National Wild and Scenic River system.
- ▶ If minimal demonstrable shoreline erosion is evident, as determined by the Department.
- ▶ **If fill or structures are proposed to be installed channelward of the Mean Low Water Line. This triggers subaqueous land fees**





# State Regulated Wetlands

## **7 Del. C., Chapter 66, The Wetlands Act** **The “Wetlands Regulations”**

- ▶ “State-regulated wetlands” – means those lands above the mean low water elevation including any bank, marsh, swamp, meadow, flat or other low land subject to tidal action in the State of Delaware along the Delaware Bay and Delaware River, Indian River Bay, Rehoboth Bay, Little and Big Assawoman Bays, the coastal inland waterways, or along any inlet, estuary or tributary waterway or any portion thereof, including those areas which are now or in this century have been connected to tidal waters, whose surface is at or below an elevation of two feet above local mean high water, and upon which may grow or is capable of growing any but not necessarily all of the following plants:
- ▶ **What does this mean?**
  - The location of these State-regulated wetlands **were mapped and adopted in 1988.**
  - **Only mapped wetlands are considered State-regulated wetlands.**
  - If an error exists, a map change can be requested, but requires an evaluation by the Department and a 20 day public notice process.



# Living Shoreline SAA

## Conventional Living Shoreline


- ▶ A **Conventional Living Shoreline** consists of treatments and techniques consisting entirely of naturally based treatments.
- ▶ These naturally based treatments can include, but are not limited to:
  - ▶ living biomass (e.g., vegetation and shellfish)
  - ▶ dead biomass ( e.g., coir fiber materials, logs, natural organic debris and litter)
  - ▶ natural earthen material (clays, silts, sands, shell, and similar up to gravel-sized grain size) acquired from or are representative of that naturally occurring at or near the site.
- ▶ Conventional Living Shorelines typically are constructed in low energy systems.
- ▶ The most common conventional methods are the use of coir fiber logs and oyster shells bags.





# Living Shoreline SAA

## Armored Living Shoreline

- ▶ **Armored Living Shoreline** consists of conventional treatments and techniques with the addition of hard structure such as marsh-toe revetments and sills.
    - ▶ **Marsh-toe revetments:** a line of free standing rock constructed in front of an existing functioning marsh
    - ▶ **Sill:** a line of free standing rock placed just offshore of an eroding shoreline to create a protective marsh fringe between the rock and the eroding bank.
  - ▶ Typically constructed in moderate to high energy systems.
  - ▶ Functions predominantly to diffract and/or deflect energy through the creation of a near continuous structural deployment.
  - ▶ Requires tidal gaps 40 feet apart with an opening that reflects the needs and settings of the design (3 to 6 feet).
  - ▶ The rock and fill material shall not exceed an average of one cubic yard per running foot, nor shall a rock sill exceed 1 foot above the mean high water elevation.
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# Living Shoreline SAA

## Energy Dissipating Living Shoreline

- ▶ **Energy Dissipating Living Shorelines** consist of treatments and techniques that may be used for Conventional Living Shorelines, but will also have the additional of structural features to slow energy.
- ▶ Typically constructed in moderate to high energy systems, and at sites where passive accretion is desired.
- ▶ Functions predominantly to attenuate energy and ideally proved for measureable accretion or sediment accumulation.
- ▶ Has the documented ability to provide aquatic habitat improvement on, within, and/or nearby the structure.
- ▶ Allows for the passage of macro aquatic organisms in and throughout its deployment area.
- ▶ Least used of the 3 living shoreline activities



# Common SAA Special Conditions

- ▶ Must follow state regulations for erosion & sediment control
  - ▶ Only native plants can be used for stabilization
  - ▶ Time of year restrictions
  - ▶ Work should be planned for low waterway base flows
  - ▶ No disturbance of adjacent wetlands and subaqueous lands
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# Coordinating Agencies for SAA

- ▶ DNREC Wildlife Species Conservation and Research Program
  - ▶ Are any threatened or endangered animal or plant species adversely impacted?
- ▶ DNREC Fisheries Section
  - ▶ How to best avoid or minimize impacts to fish & fish habitat?
- ▶ Delaware Shellfish Program
  - ▶ If dead or alive shellfish are used
- ▶ USACE Permitting




# Cost-share for Vegetative Shoreline Stabilization

- ▶ Cost-share for vegetative stabilization is available through Sussex Conservation District, in cooperation with DNREC – Division of Water and DNREC - Division of Watershed Stewardship.
- ▶ The following types of projects will be considered for cost-share.
  - Shoreline stabilization projects that use natural shoreline plantings to control shoreline erosion without the use of rock or other hardening techniques.
  - Sills, in tidal waters, that use less than 1 cubic foot of rock per linear foot of shoreline and the vegetative component is twice the foot print of the rock.
  - Marsh toe revetment designs, in tidal waters, that use less than 0.5 cubic yards of rock per linear foot of shoreline and the vegetative component is twice the foot print of the rock.



# Cost-share Requirements for Vegetative Shoreline Stabilization

1. Cost-share is available on all jurisdictional waters.
  2. Cost-share will be paid at 50% of the actual cost of the project, not to exceed \$5,000.
  3. The Cost-share shall not apply to any portion of the stabilization project that is not approvable under this program.
  4. **Landowners must agree to maintain the practice for 3 years.**
  5. The landowner is responsible to ensure **vegetated coverage of at least 85% of the planted area with native species after three growing seasons.**
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# Lessons Learned from SAA so far

- ▶ Maintenance requirement or plan needed
- ▶ Very prescriptive in terms of installation methods
  - ▶ May be better to include specifications in “guidance”-type document
- ▶ Some projects see the SAA process as a design review – not the case!
- ▶ Need to be more explicit about exclusions and that there are still usually viable alternative permitting routes for those projects



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Visit our website (<https://dnrec.alpha.delaware.gov/water/wetlands-subaqueous/>)  
for more information and to obtain copies of all applications and appendices

Technique	Classifications	
	Conventional	Hybrid
Fiber logs	X	X
Fiber mats/geotextile	X	X
Wood logs/timber materials	X	X
Marsh sills		X
Shoreline revetments		X
Breakwaters		X
Groins		X
Vegetation	---	---
Marsh creation	X	X
Upland plants/vegetation	X	X
Subaquatic	X	X
Sand fill	X	X
Oyster shell bags/cages	X	X
Manufactured oyster substrate (e.g. Reef Balls, Oyster Castles)		X
Water quality techniques	X	X
Reuse of materials	---	---
Onsite (e.g. downed trees, loose grass clumps)	X	X
Offsite (e.g. reclaimed concrete for oyster substrate)	X	X
Reefs	---	---
Shallow water reef		X
Inter-tidal reef (e.g. oyster reef)		X
Deep water reefs may be outside living shoreline domain		X



# Process for Obtaining Cost-share Approval

1. Submit an approvable design and shoreline stabilization permit application to the DNREC, Division of Water Resources, Wetlands and Subaqueous Lands Section (WSLS), 89 Kings Highway, Dover, Delaware - Phone: (302) 739-9943.
2. Obtain an approval letter for the project and the applicable permit from the WSLS.
3. Register with the Sussex County Conservation District and present the approval letter (contact Bobbi Heck at (302) 856-3990 ext. 3) to obtain cost-share funding for the project.
4. Construct the project.
5. Submit an itemized receipt showing the costs of materials, labor, etc. to the Sussex County Conservation District to be reimbursed for the cost-share eligible portion of the project.



# Complete Application

1. Basic Application, with proper applicant
2. Appropriate Appendices (Appendix H-Fill, Appendix J-Vegetation, Appendix I – Rip Rap)
3. Copy of property Deed
4. Copy of property Survey
5. Plan view indicating MHW and MLW
6. Section view indicating MHW and MLW
7. Aerial Map and driving directions to site
8. Underwater land owner signature (as appropriate)
9. Check made payable to the State of Delaware for \$225.00
10. Three copies of the complete application mailed to DNREC, Division of Water Resources, Wetlands and Subaqueous Lands Section (WSLS), 89 Kings Highway, Dover, Delaware