

**MARYLAND DEPARTMENT OF NATURAL RESOURCES  
SHORELINE CONSERVATION AND MANAGEMENT SERVICE**

**STEP-BY-STEP PROCEDURE  
FOR THE ESTABLISHMENT OF  
NON-STRUCTURAL, LIVING SHORELINE PROJECTS  
ON PRIVATE PROPERTY**

**January 9, 2009**

**STATE OF MARYLAND  
DEPARTMENT OF NATURAL RESOURCES  
SHORELINE CONSERVATION AND MANAGEMENT SERVICE (SCMS)  
STEP-BY-STEP PROCEDURES FOR ESTABLISHING  
NON-STRUCTURAL, LIVING SHORELINE, SHORE EROSION CONTROL PROJECTS**

**I. PRELIMINARY PHASE**

- A. An initial inquiry is received from a Property Owner interested in technical assistance and financial assistance.
- B. A field inspector by appointment visits site with the Property Owner present.
  - 1. The erosion problem is examined.
  - 2. An assessment of structural or non-structural project applicability is made.
  - 3. An explanation of the SCMS program is provided if it is determined a non-structural project is feasible.
  - 4. Technical assistance is offered.
  - 5. An Application for State Financial Assistance is issued, if warranted.

**II. APPLICATION REVIEW PHASE**

- A. An Application and supporting documents (deeds, plats, certificate of ownership, permits if available, etc.) are received from the Property Owner.
- B. The documents are reviewed by SCMS for inclusion of the Application in a list of potential projects.
- C. A periodic review of potential projects for funding assignment, based on the availability of funds.

**III. PROJECT SET-UP PHASE**

- A. The Property Owner is notified by SCMS of the availability of funding for the project.
- B. A Pre-Project Meeting is held to discuss the proposed work, the estimates for project design and construction, administrative fees, the extent of loan, the requirements of the Project Agreement, the time schedules for project implementation and the responsibilities of the Property Owner.
- C. A Project Agreement and a Notice of Lien are issued to the Property Owner. The Lien applies only for loans funding projects on private lands.
- D. The Property Owner signs and returns the Project Agreement and the Notice of Lien. The Property Owner provides a check in the amount of \$40.00, payable to the Clerk of the Circuit Court, to cover the recording fees for the Notice of Lien.
- E. The Property Owner receives a copy of executed Project Agreement together with a Notice to Proceed with project implementation.
- F. The Property Owner receives copy of the recorded Notice of Lien.

## VI. PROJECT COST PAYMENTS

- A. The Property Owner pays to the A/E or the Contractor that portion of the project cost not provided by the SCMS loan and provides proof of payment to SCMS.
- B. SCMS makes progress payments to the Property Owner based on completed work and copies of the A/E's or the Contractor's invoices.
- C. The Property Owner makes prompt progress payments to the A/E or the Contractor from the payments received from SCMS.
- D. The Property Owner provides SCMS with proof of the payments made to the A/E or the Contractor.
- E. Payment of invoices from the Property Owner are made by SCMS for A/E services at the 50%, 75%, and the 100% progress milestones and, periodically as agreed to, for progress in construction.

## VII. LOAN REPAYMENT PHASE

- A. The completion of the project is certified to the Maryland Board of Public Works.
- B. A Benefit Charge is levied by the Maryland Board of Public Works on the property benefited by the project.
- C. The annual billing of Benefit Charge and administrative fee is sent to Property Owner by SCMS. The first installment is due on July 1st following the completion of the project and the levy by the Maryland Board of Public Works.

# **STEPS FOR ESTABLISHING LIVING SHORELINE PROJECTS**

## **1. PROJECT INITIATION**

- Property Inspection**
- Application**
- Certificate of Ownership**
- Deeds and Plats**

## **2. PRE-PROJECT MEETING**

- Project type, length, alignment**
- Cost Estimate**
- Extent of funding**
- Other fund sources**

## **3. LOAN AGREEMENT (Based on Estimates)**

- Review of conditions**
- Execution, Notice to Proceed**
- Lien Agreement Executed/Recorded**

## **4. DESIGN PHASE**

- Project design packets**
- A/E invitation, site show**
- Competitive proposals, A/E selection**
- Contract execution, Notice to Proceed**
- Plans, Specifications, Bid Form, Permits, Estimate**

## **5. CONSTRUCTION PHASE**

- Bid packages**
- Competitive bids, evaluation**
- Loan modification for actual costs**
- Construction**

## **6. LOAN REPAYMENT**

- July 1 after project is done**
- Penalties @ 2% per month or part thereof after Sept. 30**
- Final Payment, Release of lien**

# Project Selection Criteria

DNR-SCMS

<b>Creek, Cove</b>	>	<b>Minor River</b>	>	<b>Major Tributary</b>	>	<b>Bay</b>
Water Depth	-1.0 ft	-1.0 to -2.0	-2.0 to -4.0	-4.0 to -15.0		
Fetch	0.5 mile	1.0 to 1.5 mile	2.0 or more	2.0 or more		
Erosion	2 ft/yr or less	2 to 4 ft/yr	4 to 8 ft/yr	8 to 20 ft/yr		

**Low wave energy** > **Medium wave energy** > **High wave energy**

**Non-Structural** > **Hybrid** > **Structural**

## Type I

- Beach replenishment
- Fringe marsh creation
- Marshy islands
- Coir logs edging and groins

## Type II

- Marsh fringe w/stone groins
- Marsh fringe with stone sills
- Marsh edging with stone
- Stabilization of streambanks with vegetation and stone

## Type IV

- Bulkheads
- Revetments
- Stone reinforcing
- Pre-cast concrete units

## Type III

Stone breakwaters with beach replenishment and appropriate vegetation

**Least expensive** > **Medium priced** > **High priced** > **Expensive**

\$100 - \$200/L.F.      \$250 - \$400/L.F.      \$450 - \$600/L.F.      \$500 - \$1,500/L.F.

## FINANCIAL ASSISTANCE FOR SHORE EROSION CONTROL PROJECTS\*

TYPE OF PROJECT	TYPE I	TYPE II	TYPE III
TYPE OF FUNDS USED	STATE	STATE	STATE
TYPE OF ASSISTANCE**	LOAN	LOAN	LOAN
LOAN INTEREST	0%	0%	0%
LOAN TERM	5 YEARS	15 YEARS	20 YEARS

Type I Projects: Marsh creation/protection using natural/living materials

Type II Projects: Marsh creation/protection with stone edging, stone sills and/or stone groins, with sand fill and marsh plantings

Type III Projects: Marsh creation/protection with stone breakwaters, with sand fill & marsh plantings

### APPLICANT

PRIVATE PROPERTY OWNERS/BUSINESSES	75% NTE \$20,000	LOAN FORMULA ***	LOAN FORMULA ***
COMMUNITY ASSOCIATIONS/NON-PROFIT ORGANIZATIONS/SERVICE ORGANIZATIONS	75% NTE \$20,000	100%	100%
MUNICIPALITY - PUBLIC LANDS	75% NTE \$20,000	100%	100%
MUNICIPALITY - SPONSORING PRIVATE OWNERS/BUSINESSES	75% NTE \$20,000	LOAN FORMULA ***	LOAN FORMULA ***
COUNTY - PUBLIC LANDS	75% NTE \$20,000	100%	100%
COUNTY - SPONSORING PRIVATE OWNERS/BUSINESSES	75% NTE \$20,000	LOAN FORMULA ***	LOAN FORMULA ***
COUNTY - SPONSORING COMMUNITIES/NON-PROFIT ORGANIZATIONS/SERVICE ORGANIZATIONS	75% NTE \$20,000	LOAN FORMULA ***	LOAN FORMULA ***

### EXTENT OF ASSISTANCE\*\*\*\*

75% NTE \$20,000	LOAN FORMULA ***	LOAN FORMULA ***
75% NTE \$20,000	100%	100%
75% NTE \$20,000	100%	100%
75% NTE \$20,000	LOAN FORMULA ***	LOAN FORMULA ***
75% NTE \$20,000	100%	100%
75% NTE \$20,000	LOAN FORMULA ***	LOAN FORMULA ***
75% NTE \$20,000	100%	100%

\* Financial Assistance provided based on project priority and availability of funds

\*\* Matching grants are not available

\*\*\* Loan Formula as established in Natural Resources Article, Section 8-1005 of the Annotated Code of Maryland

### Loan Formula:

Project cost	\$0 to \$60,000	100% loan	\$60,000 loan	\$0 Property owner's cash
Next	\$20,000	50/50%	\$10,000	\$10,000
Next	\$20,000	25/75%	\$ 5,000	\$15,000
Above	\$100,000	10/90%		

No financial assistance provided for structural/barrier type projects