

Living Shorelines and the Homeowner

The Project Development Process Scott Macomber, Angler Environmental



Overview

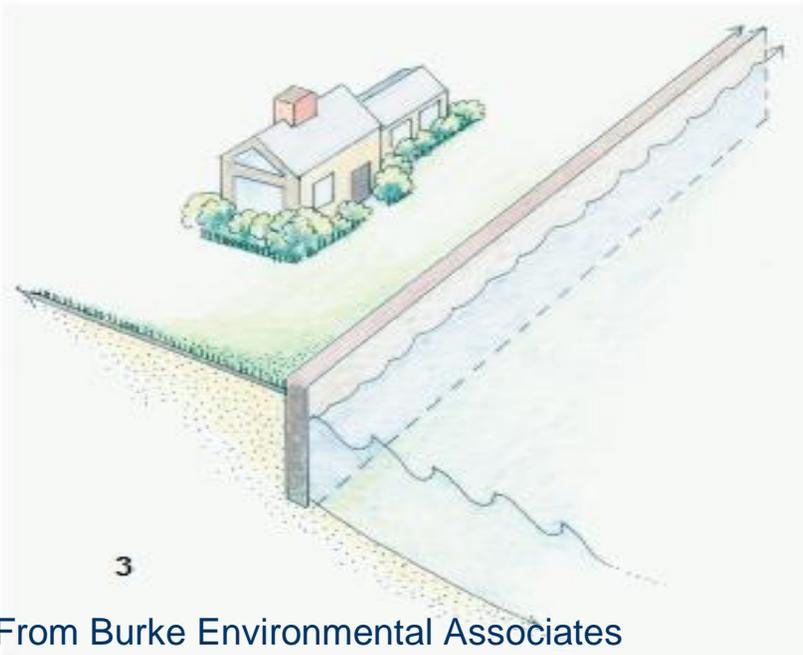
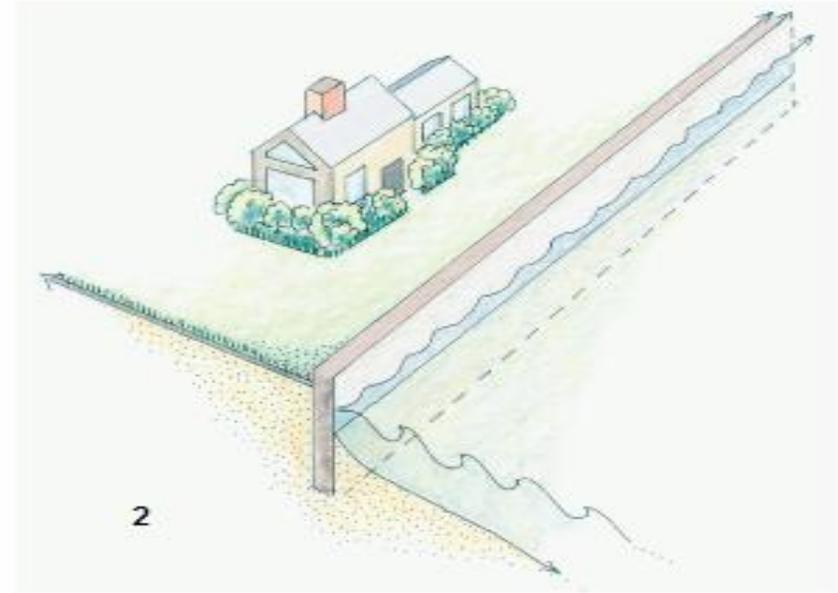
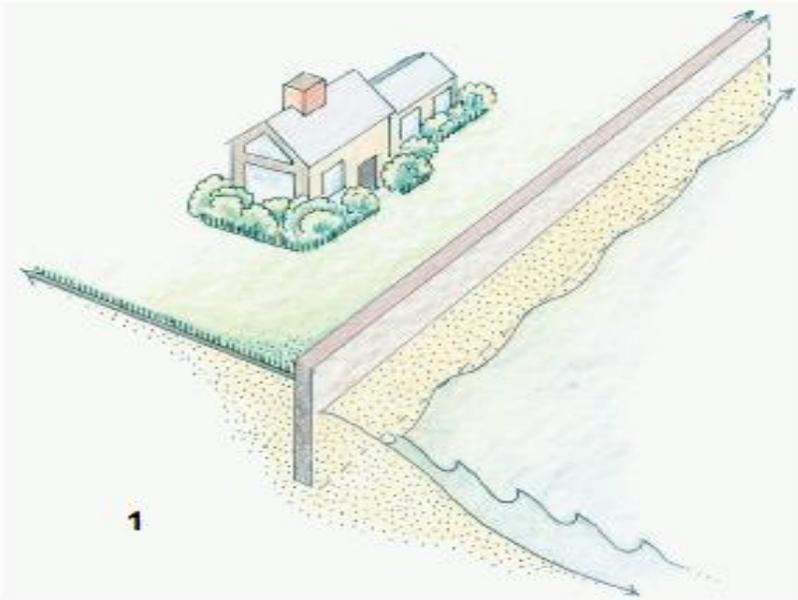
- I Recognizing the Problem
- I Initiating the Process
- I Project Steps
 - Design
 - Permitting
 - Construction
- I Finalization and Maintenance

Recognizing the Problem

- I Is your shoreline eroding? (Y/N)
- I Do you currently have shoreline protection? (Y/N)
 - Is it failing? (Y/N)
 - Do you have a hardened shoreline that provides almost no habitat?
 - Does your shoreline consist of Phragmites?



Bulkhead Failure Sequence



From Burke Environmental Associates

Eroded Vinyl Bulkhead

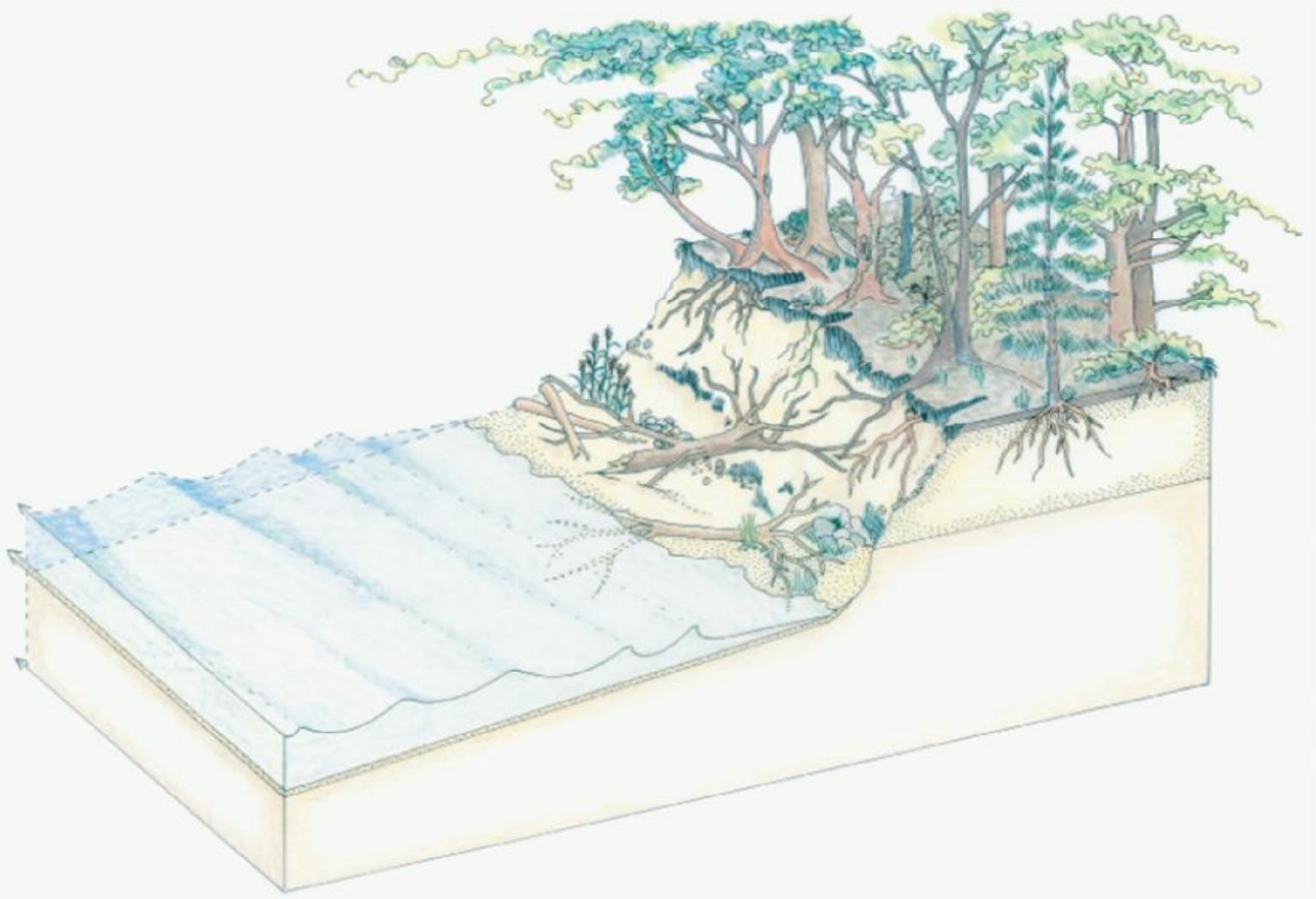


W. Veazy

Eroding Banks or Washed Out Yard



W. Veazy



From Burke Environmental Associates



Lost Forest and Marsh Buffer



W. Veazy



Maryland DNR

Initiating the Process - Step 1

- I Determine if you are going to serve as the project manager (Y/N)
 - Yes – Move to Step 2
 - No – Contact Eastern Shore RC&D (410) 822-9300 to determine if they will act as project manager

Process - Step 2

- | If self financing – Move to Step 3
- | If trying to cost share
 - DNR <http://shorelines.dnr.state.md.us/>
 - | Use website as starting point for various funding sources (DNR, MDE, CBT)
 - Determine appropriate funding options and submit application(s) for funding

Process - Step 3

- | Contact firms to solicit proposals for design and permitting efforts
 - | Ideas for getting firm names
 - | DNR Shoreline Erosion Control (410) 260-8523
 - | Eastern Shore RC&D (410) 822-9300
- | Consider getting a list of construction firms for future use and consultation during design process

Process - Step 4

- | Engineering and Design
 - Field Visit(s)
 - Surveying
 - Mapping
 - Environmental constraints analysis
 - | Wind direction and distance (fetch)
 - | Underlying soils
 - | Presence or absence of submerged aquatic vegetation (SAV)

Process - Step 5

- | Initial design completed based on data and desired outcome
- | Initial design reviewed & approved by client or PM

Process - Step 6*

- I Engineering firm completes state (MDE) permit application form(s) & submits draft design
- I Engineering firm submits design for local approvals – county authority & soil conservation district

*Good time to consider initiating conversations with construction contractors

Process – Step 6a

- I Topics for initial conversation regarding construction
 - Potential Access and Storage Problems
 - Constructability Issues
 - Locations of Septic System or other utilities
 - Reality Check on Design

Process - Step 7

- | Receipt and addressing of comments
 - State/Federal – MDE, DNR, USACE
 - Local – County authority, SCD
- | Firm addresses comments and finalizes plans
- | Possible public comment period by MDE
- | Once approved and permitted you are ready for construction

Process – Step 8

- I If competitively bidding the project -
 - Develop bidder package for contractors to utilize
 - I Finalized plans
 - I Specifications for materials
 - I Schedule for bidding and completing work
 - Select best bid and sign contract
- I If not competitively bidding the project –
 - Have contractor formally submit bid based on finalized plans and schedule – sign contract



Process – Step 9

I Construction

- Expect a mess – it gets worse before better
- Ensure contractor is focused on your project
- Realize that weather and safety will drive a lot of decisions
- Good contractors will work with you regarding specific requests or concerns



Process – Step 10

- | The end is not necessarily the end
- | Maintenance
 - Trash pick up
 - Goose fence
 - Possible replanting
 - Monitor for invasive species
 - Structure failure

The Final Product – Oxford Harbor



Final Product – Wye River



Contractor Key Points

- I Knowledge of living shorelines – Does the contractor know what he is designing or installing?
- I References – Can past clients provide references for similar work?
- I Experience – How long has contractor been in field?



Contractor Key Points

- I Insurance and business licenses – are they legit?
- I Do contractors have appropriate equipment to complete job?
- I Cost – Need to balance cost vs. “you get what you pay for” concept. Cheap does not necessarily mean good.



Timeline

- I How long does all this take?
- I Design and permitting (4-7 months)
 - Maybe more if there are extra comments
- I Construction – depends on size of project
 - Most likely 2 – 6 weeks
 - Permit conditions may restrict when work can be done
 - Weather is always an issue

Questions and Comments

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