Living Shorelines and the Homeowner

The Project Development Process
Scott Macomber, Angler Environmental
Overview

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

- Is your shoreline eroding? (Y/N)
- 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
Systems are Dynamic

From Burke Environmental Associates
Lost Forest and Marsh Buffer

W. Veazy

Maryland DNR
Initiating the Process - Step 1

1. 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

1. If self financing – Move to Step 3

1. If trying to cost share
   - DNR [http://shorelines.dnr.state.md.us/](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

1. Initial design completed based on data and desired outcome
2. Initial design reviewed & approved by client or PM
Process - Step 6*

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

*Good time to consider initiating conversations with construction contractors
Process – Step 6a

- 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

1. If competitively bidding the project -
   - Develop bidder package for contractors to utilize
     - Finalized plans
     - Specifications for materials
     - Schedule for bidding and completing work
   - Select best bid and sign contract

2. If not competitively bidding the project –
   - Have contractor formally submit bid based on finalized plans and schedule – sign contract
Process – Step 9

1. 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

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

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

- How long does all this take?
  - Design and permitting (4-7 months)
    - Maybe more if there are extra comments
  - 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

Scott Macomber
Angler Environmental
410-216-9094
smacomber@anglerenvironmental.com