

Waterfront: A Mixed Blessing

Faced with graphic statistics documenting the erosion of shoreline in the Bay area, property owners are looking for methods to preserve the beauty that lured them to the waterfront in the first place. Change is inevitable and erosion in one area with shoreline gained in other areas is part of a natural process, but the rate of change has accelerated under pressures from recreational boating and development.

In heavy boat traffic areas or very exposed 'high energy' shorelines the solution is usually wooden bulkheads or stone revetments. But for a more natural appearance many homeowners look to a design project incorporating both conservation and beauty.

The incorporation of marsh vegetation reduces the loss of land to erosion as well as enhancing the habitat for birds, turtles and other wildlife. Shoreline vegetation traps sediment from entering the Bay, sediment which reduces the water clarity essential to healthy water. Underwater grasses, the basis for marine life, will not grow in the gloom produced by sediment.

Sediment trapped along the water's edge will encourage vegetation to the point where the water laps farther from the property, building it up over time.

In some areas a stone groin may be needed to stabilize the shoreline and protect the plantings from being washed away. The groins are constructed by laying large wedges of stone perpendicular to the shore so they impede wave or current forces. They are often needed to protect a high bank from being eroded at the base with resultant tumbling of the bank. Such groins are always not a win-win solution. If built too tall, the side of this perpendicular structure that is open to the forces of wind and current can suffer increased erosion. They need to be used taking all their potential results into the decision.

The marsh grasses usually planted are smooth cord grass (*Spartina alterniflora*) in the intertidal zone and saltmeadow hay (*Spartina patens*) above the mean high tide. They cope with varying salinities and form a dense mat of roots to hold the soil. Other grasses used are switchgrass (*Panicum virgatum*), soft stem bull rush (*Scirpus validus*), and 'three square' (*Scirpus pungens*). Spring is the optimum time for putting in these grasses.

Sedges, the *Carex* species, with descriptive names such as, fringed, shallow, tussock, and fox, are valuable materials for planting near the water's edge. Joe-pye weed (*Eupatorium purpureum*) and rose mallow (*Hibiscus mosch.*) will add seasonal color. Some Iris love wet feet: *I. pseudacorus*, the yellow flag and *I. versicolor*, the blue flag are perennial beauties as are fall asters.

Native shrubs and trees do well in shore line locations. Some of them are so endemic to our area they have melted into the background so we do not SEE them for the handsome and useful plants they are. For low growing species there are blueberries: *Vaccinium angustifolium*, the low bush blueberry in average to dry spots and for a larger space use *V. corymbosum*, the highbush blueberry for moist to average soil. Viburnums are not only pretty but edible for wildlife including people. *V. dentatum*, the arrowwood viburnum is a tall shrub for sun or shade, *V. lentago* is the nannyberry, tree-tall, and the possumhaw, *V. nudum*, 5' to 10'. Another is American cranberry bush, *V. trilobum*.

Other large trees include Bald Cypress, (*Taxodium distichum*) and the Eastern Hemlock (*Tsuga canadensis*). Lots of sumacs (*Rhus* varieties) grow small or large and provide glorious fall color in full sun as well as at the edges of woodland. You are most familiar with the Yaupon holly, sweet bay magnolia, bayberry, Serviceberry (*Amelanchier*), Chokeberry (*Aronia*), Pawpaw (*Asimina triloba*), bottlebrush buckeye (*Aesculus parriflora*) but don't forget the rest: river birch (*Betula niger*) American hornbeam (*Carpinus caroliniana*) white fringe tree (*Chionanthus virginicus*). All of the above are appropriate to a waterfront setting.

Open invitation to become a master gardener! You know how time melts away in April and May so apply today! Either contact your local Virginia Cooperative Extension office or download an application.

<http://www.yorkcounty.gov/vce/upcomingevents> or www.gloucester/va.info/ext/mastergardener/ This is a great opportunity to learn as well as to volunteer where your skills are needed and appreciated.