

Our Florida waterfronts are a valuable natural resource. If your property is on the ocean, river, lake, creek or pond, there are special considerations, challenges and responsibilities of homeowners. In many cases, changes or improvements to the natural shoreline are regulated by the state. Before beginning any activity that will change the way your property contacts the water, consult the Florida Department of Environmental Protection for recommendations and required permits.



**Mean High Water Line:** If your property is on waterfront that is affected by tides, the Mean High Water Line is slightly above the line where barnacles grow on pilings or seawalls. Anything you do water ward (on the water side) of the Mean High Water line requires state permission since this is considered submerged land.

**Shoreline Considerations:**

Protecting the shoreline is important to prevent erosion. The natural vegetation along the water's edge contributes to the aquatic food chain and attracts wildlife.

Whenever possible, the line between water's edge and your property should be maintained as a natural slope. To enhance this natural shoreline, remove invasive plants such as Brazilian pepper or Australian pine and replace them with marsh grasses to reduce erosion. Protect the shoreline by declaring a "maintenance free zone" of landscaping along the waterfront edge of the yard. This will help reduce pollution caused by mowing, fertilizing and using pesticides.

If additional erosion control seems necessary, contact the FL Department of Environmental Protection for recommendations. If structural protections (sea wall, jetty, planted timbered terrace) are recommended, they should be placed inland of the Mean High Water Line. This leaves a zone of undisturbed, natural vegetation at the water's edge for additional shore protection and natural habitat.

If you already have structural protection and it is not inland of the Mean High Water Line, a planter for aquatic plants or an artificial reef habitat for fish could be considered for the water-side of the structure. Decrease wave action and improve natural reef habitat by placing clean native limestone in

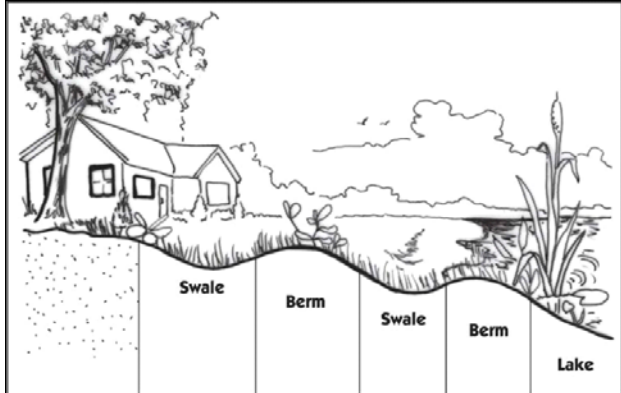
front of the seawall.

When the existing structure needs to be replaced, consider removing it and changing the grade of the property so that a sloping, planted shoreline can be developed. This is often less expensive than replacing the wall.

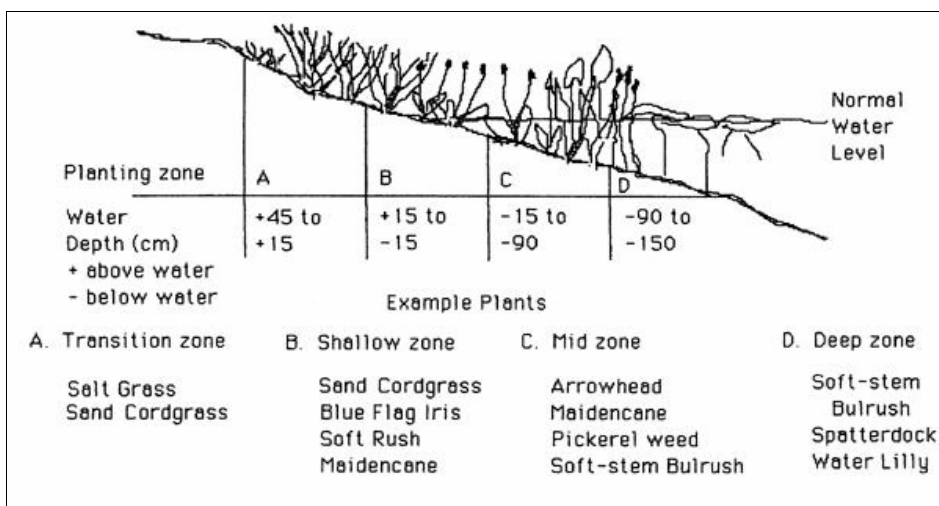
**Shoreline Maintenance:** Do not mow the vegetation water ward of the Mean High Water line. Protect the waterline from fertilizer and pesticide runoff. Except when next to a protective seawall, always leave a "no treat" (no fertilizer, no pesticide) zone along the shoreline. When applying liquid fertilizers, the no-treat zone should be 3' from the edge of the water. When applying granular fertilizers, a deflector shield should be used and the "no treat" zone is 3'. If there is no deflector zone, increase the "no treat" zone to 10'. Remove invasive aquatic plants by cutting, pulling or raking and replace them with natural native grasses and plants (mangroves, pickerel weed, duck potato).

If possible develop, a swale and berm configuration in your yard (natural looking valleys and hills) to catch fertilizer and pesticide runoff and allow your lawn to absorb nutrients.

Plant a border of low-maintenance or no-maintenance plants between your lawn and your shoreline.



**Septic Systems:** Septic tanks that are located near streams, bays, lakes and other bodies of water allow excess nitrogen to seep into ground and surface waters. This nitrogen causes algae to overgrow, smothering aquatic plants and may kill fish. Homeowners with septic tanks in their yards are responsible for properly maintaining the system to reduce health and pollution hazards.



The Florida Septic Tank Association recommends the following maintenance:

- The septic tank should be opened and inspected every 2-3 years by a certified contractor who will determine if it needs to be pumped out.
- Do not plant trees or shrubbery over the tank or drain field. Roots can block the drain field, tank's capacity, inlet and outlet areas.
- Replace a clogged drain field. Do not try to repair clogs by cleaning or the infusion of enzymes.
- Do not add yeast or bacteria to the septic tank.
- Do not overtax the system. Space laundry loads throughout the week rather than doing several loads on one or two days.
- Do not place grease or fruit peelings in the kitchen garbage disposal.

The Florida Septic Tank Association also asks homeowners to take note of these warning signs of septic system trouble:

- Plumbing backups or sluggish flushing of the toilet.
- Gurgling sounds in the plumbing.
- Grass in the yard growing faster or greener in one particular area.
- Ground mushy underfoot.
- Offensive odors indoors or outdoors.
- Low spots beginning to appear in the yard.

### **Special considerations for Ponds:**

Ponds in the landscape may be naturally formed in low spots. Most natural Florida ponds are wide and shallow. It takes 6-10 feet of depth to maintain open water.



Ponds less than 4 feet deep are often completely covered over with vegetation. Ponds deeper than 10 feet may require aeration pumps to help maintain proper oxygen concentration.

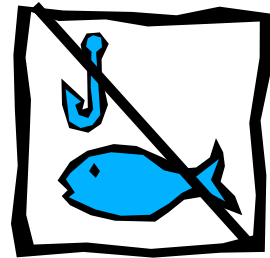
Some man-made ponds are designed for stormwater control and are often mandated by local water districts. These small ponds can serve as collection points for storm drains and swales. The settling action of the pond helps to filter pollutants before the stormwater enters the water ways and aquifers. Although most natural ponds do not need maintenance, stormwater ponds need care to continue functioning properly.

Many retention ponds in residential neighborhoods are controlled by covenants of restriction. If the pond is in an older development, individual owners may be responsible for maintenance of the pond. The first step is to research pond ownership to determine the responsible parties. Look at the recorded plat of the subdivision to determine ownership.

Stormwater ponds may belong to Homeowner, Property or, Condominium Owners Association, individual lot owners, or the city or county. If there is confusion about the responsible parties, contact the local Water Management District's permitting section or the local DEP if they issued the Stormwater Discharge permit.

Written guidelines must be followed concerning planting around these ponds. Some general guidelines are:

- Keep fertilizer away from the edges of the water to control growth of algae and aquatic plants.
- Keep pet wastes from washing into the water.
- Do not swim or eat fish caught in stormwater ponds.
- Do not allow invasive plants to clog the waterway.
- Keep grass clippings and other yard wastes out of the waterway.



### **Acknowledgments**

The Florida Yardstick Workbook; ed. Billie Lofland. University of Florida Cooperative Extension Service, Bulletin 325.

A Guide to Environmentally Friendly Landscaping, Florida Yards and Neighborhoods Handbook; Allen Garner, John Stevely, et.al. University of Florida Cooperative Extension Service, 1996.

An Introduction to Aquascaping, WEC-4; Frank Mazzotti. University of Florida Cooperative Extension Service, 1999.

Stormwater Ponds, A Citizen's Guide to Their Purpose and Management; USDA, FDEP, University of Florida, Southwest Florida Water Management District, Sarasota Bay Estuary Program, etc.

Web site for the University of Florida, Institute of Food and Agricultural Sciences: <http://edis.ifas.ufl.edu>