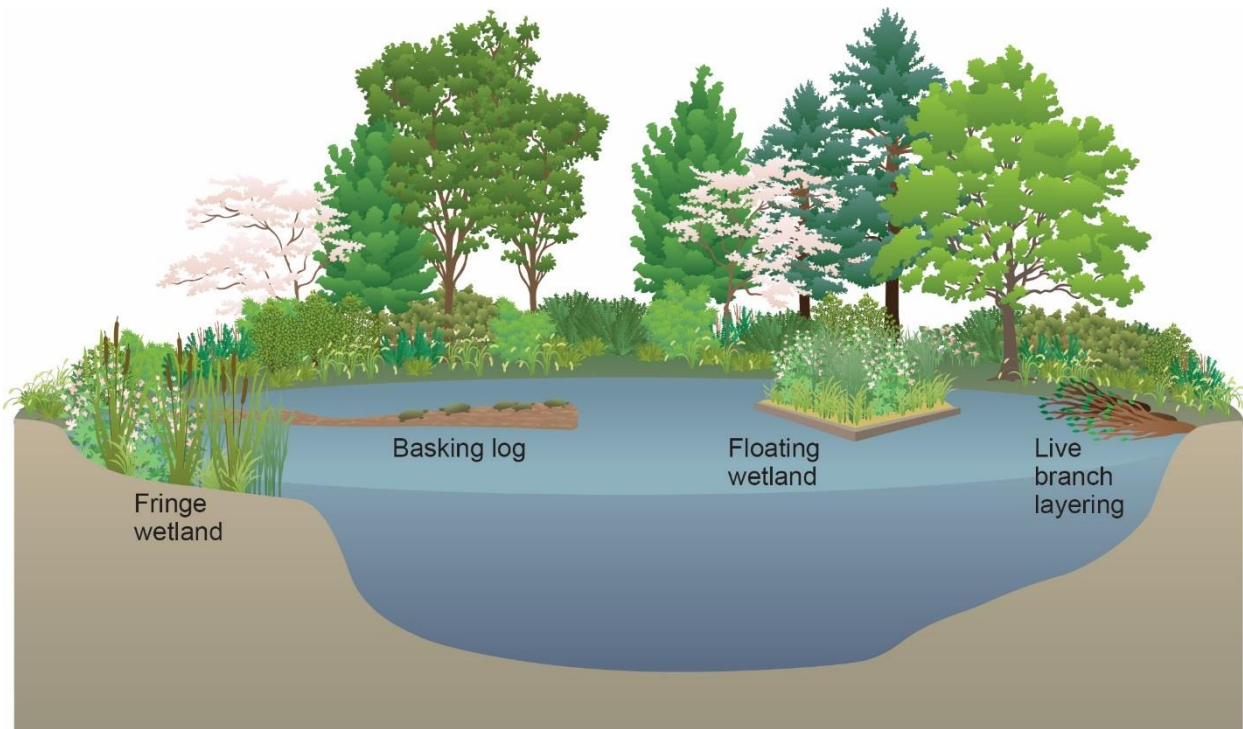


Wetland and Pond Enhancements

Implementing common pond enhancements



BASKING LOGS

Good basking logs can be made from felled logs of at least 12 inches in diameter, with or without rootwads. Alternatively, mill-end slabs with one side milled and one with the bark attached can be obtained for a low cost or sometimes even free from nearby saw mills. Bark-covered logs provide better traction for wildlife.

Basking logs can be installed during any season. They should be placed in sunny areas, and the north end of a waterbody is generally a good location for this. The logs should be installed perpendicular to the shoreline with one end attached to the shore, or near the shore, with a cable and duckbill anchor to prevent the log from floating away. The shore-end anchor should be slightly raised in elevation to account for variability in water level.

The position of the basking logs may shift over time depending on the water level in the pond and the substrate to which they are attached. The logs should be periodically monitored to ensure that their position remains ideal for reptile and amphibian basking. They should also be periodically checked for deterioration over time. This can be performed informally. Documenting the wildlife that use the basking logs including the number, type, and behavior of species observed provides insight into the pond ecology and whether additional logs may be beneficial.

FRINGE WETLANDS

To create fringe wetlands in a pond, a premium 12-inch natural (coir) fiber roll can be installed with the top elevation set at or up to 6 inches below the normal pond elevation.

Refer to Maryland Waterway Construction Guidelines 2.6 for installation methods -

<http://www.mde.state.md.us/assets/document/wetlandswaterways/mgwc.pdf>

The area between the shoreline and the coir fiber roll is backfilled with sand or the desired planting media and graded to a maximum slope of 10:1 between the top of the coir roll and the pond edge. Emergent plugs of suitable wetland plants are then planted deep into the media. Shallow planting can result in plugs that float away.

For information regarding native plants and suppliers consult the Howard County Master Gardeners

<https://extension.umd.edu/mg/locations/howard-county-master-gardeners>

While any size wetland is beneficial, larger fringe wetlands benefit more species. The size of the wetland depends on site conditions (a steeply sloping pond edge yields a narrow fringe wetland and a shallow slope can support a wider fringe wetland), project budget, and management objectives.

The fringe wetlands should be monitored monthly after the installation to document the plant establishment and ensure there is not excessive settlement or erosion of the planting media. Following establishment, monitoring once during the growing season is adequate. If goose predation is a problem during plant establishment, goose exclusion or management may be required. Refer to “Controlling Conflicts with Resident Canada Geese in Maryland”

http://dnr2.maryland.gov/wildlife/Pages/plants_wildlife/ResGeeseProblem.aspx

FLOATING WETLANDS

Floating wetlands are supplied and installed by several local vendors. They can also be constructed with expert guidance on designs as in <http://www.biohabitats.com/wp-content/uploads/streb.pdf>. Designing the correct buoyancy and establishing vegetation can be challenging, so landowners in tend on building floating wetlands themselves are encouraged to find a local workshop or extension program for expert advice.

Monitoring for the floating wetland is similar to what is needed for the fringe wetlands. The exceptions are that the anchoring systems can sometimes become dislodged or wetland buoyancy can decrease due to nesting ducks. Periodically resetting the anchor may be necessary, which can be done by the homeowner or the installer depending on the site conditions, size of the installment, and overall comfort level working in a pond. If nests compromise buoyancy, the wetland can be dragged to shore to create a fringe wetland after the ducklings have fledged.

LIVE BRANCH LAYERING

Live branch (brush) layering, brush mattresses, facines, and live stakes are cost-effective bioengineering techniques for stabilizing banks with vegetation, though adequate light and soil moisture are required for establishment.

Construction details for brush layering and other techniques are in the *Maryland Waterway Construction Guidelines* 2.4, 2.5, 2.7 and 2.8 <http://www.mde.state.md.us/assets/document/wetlandswaterways/mgwc.pdf>

These techniques must be installed when the plants are dormant (late-November to early-March). Only native plant species should be used for such soil stabilization. Willow (*Salix* spp.) and silky dogwood (*Cornus amomum*) are the most commonly available materials; however a list of potential species is provided in the *Maryland Waterway Construction Guidelines*. Appropriate plant material can be harvested from a local source or purchased from vendor. Installation can be labor intensive but can be done by a homeowner as well as by landscape professionals.