

Stormwater ponds are a permanent fixture on much of Florida’s landscape. Without them, Florida would not be able to support its growing population safely or efficiently. They are found in most developments and can be esthetically pleasing and add value and curb appeal to homes and properties. Wetland plants reduce the amount of contamination that reaches the groundwater and produce oxygen and absorb carbon dioxide (greenhouse gas). They also improve water quality by removing components of fertilizers such as nitrogen and phosphorus, which helps to control algae blooms. The green plants serve as primary food producers for plant-eating (herbivorous) animals, who in turn become food for flesh-eating (carnivorous) animals. In addition, wetland plants increase much-needed wildlife habitat in the urban landscape by providing a seed source and foraging areas for waterfowl and wading birds and a safe haven for small fish and other aquatic life.

Since native plants are adapted to local environments, such as seasonal change in water level, and provide the best overall food source for wildlife and thus support many wildlife species, they work best. Native plants are also typically easier to maintain than non-native species and require little or no extra water or fertilizer once established. In addition, local ordinances often require the use of native plants. Wetland plants are usually divided into three main categories:

**Submersed wetland plants** grow entirely under water and cannot survive out of water;

**Floating wetland plants** either float free on the water or are rooted in the ground with leaves floating on the surface (water lilies);

**Emergent wetland plants** are rooted in the ground and are the largest category of wetland plants.

They are often divided into three subcategories:






**Emerging aquatic plants** need to be rooted in the water but leaves and flowers project above the water;

**Short-stemmed marginal plants** are low-growing bog-type plants that grow well on wet mud or sand;

**Marginal plants** such as ferns, grasses, shrubs and trees, grow on the interface of wetland and upland habitats and prefer changing water levels.

In most planting projects in and around ponds, plants from the emergent wetland plant category are used with the possible exception of water lilies. In order to make the wetland planting project successful, it is important to first identify and contact the regulatory agency responsible for pond permitting in your area. Depending on when the pond was constructed, this



Marginal	Marginal	Emergent aquatic	Emergent aquatic	Floating
Above +1.5'	+1.5' to +0.5'	+0.5' to -0.5'	-0.5' to -3.0'	-3.0' to -5.0'
				
Red Maple ( <i>Acer rubrum</i> )	St. John's Wort ( <i>Hypericum</i> spp.)	Blue Flag Iris ( <i>Iris virginica</i> )	Pickerelweed ( <i>Pontederia cordata</i> )	Fragrant Water Lily ( <i>Nymphaea odorata</i> )

can either be the Southwest Florida Water Management District (before 1984) or Sarasota County Resource Protection (861-6113). Before you start planting, it is also important to identify the average water level or shoreline on a yearly basis, measure the maximum water depth in the planting areas, identify the planting zone in and around the pond and develop a plan with the types and number of plants needed in each zone.

The best method for planting is to start from the deepest zone and work towards the shore and to

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*The Florida-Friendly Landscaping program is based on Environmental Landscape Management (ELM) practices, and was developed in 1992 by the University of Florida, Sarasota Bay and Tampa Bay National Estuary programs, the Environmental Protection Agency, the Florida Department of Environmental Protection, the Southwest Florida Water Management District, and local governments. The main objective of the program is to educate the public on how to develop and maintain sustainable landscapes that reduce stormwater runoff and impact the environment as little as possible.*

*Valuable natural resources are put at risk everyday by the decisions made in the landscape. It has been documented that certain landscaping practices contribute to many different forms of air, noise and water pollution. The Florida-Friendly Landscaping program is working to change behavior by teaching alternative forms of design and maintenance practices to create and sustain a landscape that is more ecologically in step with the surrounding environment.*

*For more information about Florida-Friendly Landscaping and other programs available at UF/IFAS Sarasota County Extension, visit our website at <http://sarasota.extension.ufl.edu>*

plant early in the morning or late afternoon to avoid the hot midday sun. Planting in clumps creates attractive concentrations of color and will facilitate management of weeds and colonization of unwanted plants. Don't over-plant to prevent overcrowding. The UF/IFAS publication *Creating Wildlife Habitat with Florida Freshwater Wetland Plants* provides good information on the spacing of different plant species and can also help with selection of plants. An electronic version of this publication can be found at <http://edis.ifas.ufl.edu/pdf/FA/FA00700.pdf>. Since some species perform better than others, and to facilitate maintenance, it is also best to keep the plant palette simple. Some level of periodic maintenance may be needed, especially during the first year of after planting, such as replacing plants that die and removing undesirable aquatic plants. Herbicides should be avoided because new plantings may be sensitive to herbicides. After the first year, when wetland plants are better established, herbicides may be periodically needed if undesirable plants become established. Only herbicides registered specifically for use in wetlands can legally be used. These herbicides usually require application by a licensed professional.

#### **Resources:**

- Main, M. B., Allen, G. M. & Langeland, K. A.. (2006). *Creating Wildlife Habitat with Native Florida Freshwater Wetland Plants*. UF/IFAS Extension Service, CIR 912
- Southwest Florida Water Management District (n.d.). *Stormwater Ponds; A Citizens Guide to Their Purpose and Maintenance*.
- Southwest Florida Water Management District (n.d.). *Stormwater Systems In Your Neighborhood*.



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