

Home-Sick Water: Retention Ponds

Don't you realize that the sea is the home of water? All water is off on a journey unless it's in the sea, and it's homesick, and bound to make its way home someday.

– Zora Neale Hurston



When considering the issue of the environment and its effect on water quality, most people think of the lakes, rivers, and creeks that dot and bisect our Florida landscape, as well as the numerous bays and estuaries, maybe the aquifer, and, here on the west coast, the Gulf of Mexico. I venture to say, not many give a thought to the neighborhood retention pond.

Retention ponds are designed to collect storm water runoff, providing some measure of localized flood control and downstream water flow management as well as natural filtration of pollutants. Like all water, the water that flows into and out of retention ponds eventually finds its way “home” to the sea. On its journey, the water may become “sick:” littered, infused with nutrients, and/or subjected to both natural and manmade chemicals and obstacles. In a best-case scenario, the water is cleansed of its toxic load before finally reaching its destination. This can occur naturally or through human intervention. Retention ponds are one such human intervention.

The cleansing action of retention ponds is one of its most vital functions, as contaminants – such as gasoline, oil, and other substances leaking from our vehicles, as well as fertilizers, herbicides, and pesticides used

on our lawns – and sediment from an entire neighborhood or subdivision is collected in these ponds: aquatic garbage dumps, if you will. Because of this, and because of seasonal changes in water levels and storm activity, the water quality of retention ponds is highly variable and widely assumed to be, for the most part, not good.

But it doesn't have to be this way.

According to Rob Wright of the Sarasota County Water Resources Group, tra-

ditional retention ponds planted with turf up to the water's edge and a littoral shelf with aquatic plants at the outlet end do provide a certain measure of filtration, but this benefit can be vastly improved with the addition of a “vegetative buffer” surrounding the pond and more aquatic plants, such as water lilies, in the pond. These plants, along the shoreline and in the water, provide not only additional filtration of pollutants but natural habitat for birds, fish, and other creatures as well as an increased esthetic appeal: the pond looks better, more natural. Plants also cut down on algae blooms and fish kills that sometimes follow a storm and are caused by excess nutrients flowing into the retention pond. Depending on the type of vegetation planted and the size and shape of the pond, plants could also provide a natural “fence” and a greater sense of privacy for neighbors.

Wright notes that there is a great deal of help available for neighborhoods and individuals who want to make improvements to their retention ponds, through the Neighborhood Environmental Stewardship Team program, or NEST, of which he is the coordinator. NEST can help groups secure grant funding (when available) for their project, provide advice and expertise for do-it-yourselfers, and offer referrals for those

groups who prefer hiring a professional to complete the job. For more information, contact NEST at 941-861-5000.

Another relatively new idea that could prove highly beneficial for improving water quality in Florida retention ponds: manmade floating wetlands/islands. Made of recycled plastic, manmade islands are designed to mimic the peat islands often found in natural lakes and ponds. They can be planted with aquatic vegetation and placed in a retention pond where they are said to provide even greater filtering capacity than aquatic plants rooted to the pond floor. The technology has proven highly successful in lakes, rivers, and ponds in Montana, Illinois, and other temperate regions. Research indicates they could prove equally successful in Florida's warm, sub-tropical waters. For more information about floating islands, call 941-351-2591.

Florida is blessed with countless wetlands and waterways, both natural and manmade. But no matter its source, all water eventually makes its way home to the sea. Improving the quality of water at all points along the course of its journey allows it to arrive home more clear, clean, and healthy.

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