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Stormwater Ponds

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Water is everywhere in Florida. Not only does it surround three sides of the state, but we also have it in canals and water retaining structures. In addition to reducing flooding potential, the water retaining structures play an important role in protecting our environment.

Stormwater ponds are one type of water retaining structure. These ponds remove pollutants from stormwater runoff before it enters another water body or into the groundwater. Fertilizer, loose soil, and pesticides present in runoff are filtered from the water by stormwater ponds because the pond allows the pollutants to settle out or be taken up by aquatic organisms and plants. In addition, the ponds can provide other benefits such as an aesthetically attractive area, water storage for dry periods, and enhanced wildlife habitat. These benefits will not be gained if stormwater ponds are not properly managed.

One way to manage a stormwater pond is to plant desirable aquatic and wetland plants on the pond banks and shallow areas. The plants can help to stabilize the banks, prevent erosion, and filter soil out of stormwater runoff. These aquatic plants may also take up excess nutrients present in the runoff. When these nutrients are removed, the algae's food source is reduced and may decrease the pond's algae population. Although the aquatic plants should be managed to prevent them from becoming uncontrollable, they can help reduce the number of times the pond must be dredged and the number of algacide treatments. For more information on which aquatic plants are recommended and those that should be avoided, contact your local County Cooperative Extension Service.

Swales are another way we retain water on our property. A swale is a gently sloping grassy waterway that collects water that runs off lawns and paved surfaces. Swales convey and filter stormwater runoff before passing it through storm drains or canals and into our water bodies. Similar to stormwater ponds, the vegetation in the swales filters sediment and other pollutants that are picked up by stormwater runoff. Swales also help replenish some of the groundwater by extending the "soaking" time of stormwater.

In order to keep swales working properly, do not pile trash, leaves, or limbs in swale areas. Also, do not drive over swales because the tire ruts reduce their ability to efficiently filter sediments and pollutants. If swale maintenance is necessary, apply sod instead of seed because the seed would be eroded away by the water flow. Also, maintain grass at a minimum of three inches to effectively filter pollutants. Finally, clear debris from storm drains because this impedes the flow of water. Although swales collect water for temporary storage, they also help move it along.

We would not be able to comfortably live in this part of Florida if it were not for the water collection and storage structures. By understanding the structures and how to properly maintain them, they can continue to do their job while benefiting our environment.

For additional information on stormwater retention, please contact your local University of Florida County Cooperative Extension Service.