What are Stormwater Ponds?

Stormwater ponds are important for overall management of rain runoff. They reduce the impact associated with increased paving and construction, which causes rain to become runoff rather than seeping directly into the soil.

Stormwater ponds are intended to reduce the pollutants that are transported in runoff, including oils and grease, heavy metals from cars and industrial processes, sediment and floating debris such as leaves and trash. Ponds are designed to meet specific standards established by the Florida Department of Environmental Protection, the Water Management District and local municipalities, such as Orange County. The pond storage volume and control structure characteristics are unique to each site served. Maintaining those specific characteristics is critical to compliance with the permit for each facility. Proper maintenance helps ensure the pond's continued functionality.

Stormwater ponds are important for overall management of rain runoff.

To maintain a pond to the specific stormwater criteria under which it was constructed, review the approved plans prepared for the construction of the facility. If you do not have plans, you may be able to obtain copies from the appropriate water management district. If plans are not available, consult with a professional engineer to establish the conditions to which the pond should be returned and maintained. For most ponds, a simple inspection can often indicate areas where basic maintenance is required.

Orange County Codes

Orange County inspects stormwater facilities to monitor maintenance compliance, in accordance with Orange County codes. Orange County Code, Chapter 15, Article IV, Water Quality, Section 15-115. Prohibitions:

(a) It shall be unlawful for any person to cause, permit, suffer or allow any illicit discharge or illicit connection into the county's MS4 or into waters of the county.

(c) Stormwater facilities, including without limitation ponds, structures, and BMPs, are authorized pursuant to division 2 of the Orange County Site Development Ordinance (Article VIII of Chapter 30 of the Code) and by Article VII of the Orange County Subdivision Regulations (Chapter 34 of the Code) to reduce pollutants in stormwater discharges to the MS4 and waters of the county. It shall be unlawful for any person who has operation or maintenance responsibility for such stormwater facilities to fail to maintain them in accordance with the permitted design or performance criteria.

For more information
about stormwater pond criteria, contact:

Florida Dept. of Environmental Protection
3319 Maguire Blvd., Suite 232
Orlando, Florida 32803-3767
407-897-4100 | www.dep.state.fl.us

St. Johns River Water Management District
601 South Lake Destiny Road, Suite 200
Maitland, Florida 32751
407-659-4800 | www.sjrwmd.org

South Florida Water Management District
1707 Orlando Central Parkway, Suite 200
Orlando, Florida 32809
407-858-6100 | www.sfwmd.gov

ENVIRONMENTAL PROTECTION DIVISION
407-836-1400 www.ocfl.net/epd

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Stormwater Pond Maintenance

A POCKET GUIDE to Best Management Practices

ORANGE COUNTY GOVERNMENT FLORIDA

Environmental Protection Division

Basic Maintenance Activities

Ponds are not dumping grounds for trash and other undesirable material. They are living treatments systems that behave much like natural land and lake ecosystems. Poorly maintained stormwater facilities can result in increased pollution loads entering surface waters in the County, causing reduced water quality. Poor maintenance can also contribute to flooding.

The following activities can be used to keep your pond in good operating condition and in compliance with the applicable rules and criteria:

- The pond berms should be free of erosion, stabilized with grass and regularly mowed.
- The pond should be free of debris such as trash and leaves.
- Erosion of soil should not occur at the pipes entering the pond or the outfall structure.
- Prohibit excessive accumulation of petroleum hydrocarbons (evident by oily sheen on surface or gas/solvent odors). Remove and properly dispose of the material if present and investigate the site to find and eliminate the source.
- Prohibit woody vegetation (shrubs and trees) in the pond unless they were planted as part of the original landscape design. Remove the material including the stumps and roots and repair the ground surface.

- Designed littoral shelves (planted aquatic vegetation) should be maintained and free of exotic vegetation.
- Invasive plants (vegetation other than designed planted areas) should be removed to maintain open water on wet ponds and mowed grass areas in dry ponds.
- Control structures and related orifices, weirs, pipes and grates should be free of debris and in good repair.
- Excessive build up of sediments, sand bars and muck deposits reduce the required treatment volume of the pond and should be cleaned to original specifications.
- Underdrains and exfiltration systems should be routinely checked to ensure they are clear of buildup and maintained.
- Offensive odors and fish kills are indications of excessive build up of organic material and nutrients which should be removed and properly disposed of.

It is important to maintain a pond to the specific stormwater criteria under which it was constructed by referring to the original approved plans. If you do not have plans, you may be able to obtain copies from the appropriate water management district or consult with a professional engineer to establish the conditions to restore and maintain the pond. For most ponds, a simple inspection can often indicate areas where basic restoration and/or maintenance are required.

Poorly maintained stormwater facilities can result in increased pollution loads entering surface waters in the County, causing reduced water quality.

Orange County EPD appreciates your cooperation in protecting local water resources by maintaining your stormwater pond to the standards and criteria it was designed to meet. Certain maintenance activities, such as removal of excess sediment or aquatic vegetation, may require best management practices be used to prevent turbidity and other pollutants from discharging off site. For other components of pond maintenance it is recommended that you consult with a design professional before proceeding with maintenance and to develop a routine maintenance plan.

Dry pond **before** maintenance

Dry pond **after** maintenance

Storm pond **before** maintenance

Storm pond **after** maintenance