

Stormwater Management

Fact Sheet

Commercial Stormwater Ponds

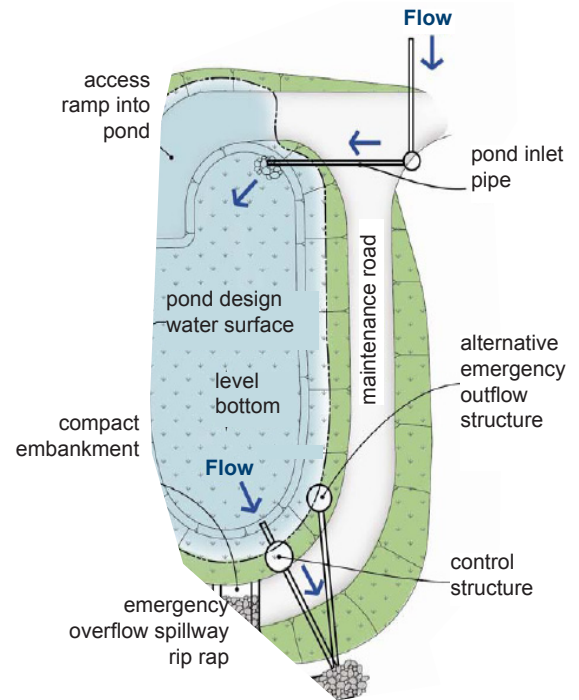
Stormwater management facilities are structures and facilities (stormwater ponds, swales, ditches, and other structures) that are designed to convey and store excess stormwater runoff from developed areas. Stormwater ponds are a common stormwater facility utilized by residential and commercial areas to regulate stormwater runoff quality and quantity. Primarily designed to regulate peak run-off from developed areas to pre-development levels, detention ponds can mitigate flooding when properly designed. If properly maintained, they can also mitigate pollution from urbanized areas and help preserve streams, creeks, ponds, lakes, and other aquatic habitats.

STORMWATER POND TYPES

Retention ponds (wet) retain stormwater and have a permanent pool of water. Runoff from rain events is stored and treated in the pool through settling and biological mechanisms.



Detention ponds (dry) are open basins that store stormwater runoff during rain events and slowly release it through an outlet control structure (OCS). These ponds are designed to completely drain within approximately 24-hours of the completion of a storm event and are usually grassy and dry between rain events. They are the most common stormwater pond in Cobb County.



Cobb County Code Section 50-112a states that "all commercial/industrial stormwater management facilities in the county shall be maintained by the owners thereof in such a manner as to maintain and enhance the public health, safety, and general welfare in order to be assured that such facilities are safe and will not result in injury or harm to persons or property, to reduce and minimize damage to public and private property, to reduce and minimize the impact of such facilities on land and stream channel erosion, to assist in the attainment and maintenance of water quality standards, to reduce local flooding, and to maintain, as nearly as possible, the pre-existing development runoff characteristics of the area. All such maintenance of such facilities shall be at the sole cost and expense of the owners thereof."

To learn more about stormwater issues in Cobb County, please call 770-419-6432 or visit www.stormwater.cobbcountyga.gov.

This is an official publication of the Cobb County Water System, an agency of the Cobb County Board of Commissioners.

POND MAINTENANCE

Routine maintenance includes:

Inspections: Complete periodic scheduled inspections with a specified checklist and inspections after major rainfall events to check for obstructions, damage, and to remove debris.

Vegetation management: Vegetation height must allow for visibility of inspection, stabilization of the dam embankment, and be at a height that discourages rodents from burrowing into the embankment and dam areas. Limit use of fertilizers and pesticides in and around the ponds to minimize entry into pond and subsequent downstream waters.



Trash, debris and litter removal: Remove trash, debris, and litter that can cause obstructions at the inlet, outlet, orifice or trash rack during periodic inspections. Trash can cause damage and reduce effectiveness of the detention pond by blocking inlet pipes to the pond, the OCS, and/or trash racks. Accumulated debris destroys needed vegetation, invites unwanted animals, and causes stormwater to pool in the pond. This results in the development of stagnant water creating a mosquito habitat.



Mechanical equipment check: Inspect any valves, pumps, locks, or mechanical components during periodic inspections. Appropriately replace and/or repair as required.

Structural repair/replacement: Eventually the OCS or other structural components (inlet pipes, fence, or trash rack) will need repair or replacement. Detention ponds in excess of six vertical feet must be fenced using a six foot vinyl coated chain-link with a 12-foot wide access gate. Detention ponds with four foot vertical walls should be fenced to deter access to the top of the wall.



RESOURCES AND INFORMATION

Cobb County Stormwater Division
www.stormwater.cobbcountyga.gov

Cobb and Douglas Public Health
www.cobbanddouglasspublichealth.org

Cobb County Watershed Stewardship
www.cobbstreams.org

Cobb County Development Standards
www.comdev.cobbcountyga.gov

Cobb County Erosion Control
www.comdev.cobbcountyga.gov/erosion.htm

Georgia Stormwater Management Manual
www.georgiastormwater.com

Non-routine maintenance includes:

Bank erosion/stabilization: To see the benefits of proper infiltration of runoff and effective filtering of pollutants, it is critical to keep effective ground cover on all vegetated areas. The roots of woody trees, and falling leaves and limbs, destabilize these man-made embankments and should be prevented from growing. All areas not vegetated should be planted and stabilized immediately.



Sediment removal: Annually remove accumulated sediment from the bottom of the OCS and check the pond depths at several points in order to maintain the pond's design capacity. Retention ponds should be dredged when sediment levels are within three feet from normal water surface or when sediment islands begin forming. Some ponds have sediment markers in the pond to help owners identify when they need to have the accumulation removed. Preventative maintenance can extend the time between costly sediment removals.



** Failure to maintain your pond and the discharge of yard waste, pesticides, herbicides, fertilizers, pet waste, sediment, garbage, and debris into the stormwater drainage system or any surface water is a violation of Cobb County Code Sections 50-112a, 50-191a, 102-92a, and/or 110-61f. Standing water, erosion, dumping, etc. can also be a violation of Cobb and Douglas Public Health and Cobb County Erosion Control regulations.*

COMMON PROBLEMS FOUND IN COBB COUNTY STORMWATER PONDS

- Trees and brush growing in ponds
- Grass and weed overgrowth
- Trash and debris
- Erosion of the slopes in ponds
- Blocked inlet/outlet pipes
- Sediment islands blocking flow
- Standing water
- Mosquito/vermin habitats
- Deteriorated pipes and/or OCS
- Blocked maintenance access
- Gates to pond unlocked
- No fence/incorrect fence