

OWNER'S GUIDE FOR MAINTENANCE OF STORMWATER FACILITIES

Are you a homeowner of a lot with a stormwater basin on it? Do you need help maintaining this structure or have questions on how to do this? This information outlines the basics for stormwater management on your property.

What is a Stormwater Detention Basin?

Stormwater detention basins are designed to help hold stormwater runoff while filtering out sediments and contaminants in the water before discharging it into a natural water body or stream. They also aid in the prevention of flooding and help protect adjacent water, streams, lakes, or rivers from contamination.

Due to more urbanization and an increasing population, more impervious surfaces are created, such as rooftops, parking lots, and sidewalks. These surfaces only allow stormwater to runoff, not infiltrate; creating a need for stormwater management.

Stormwater basins can be classified into retention and detention basins. These classifications describe the type of storage the basin provides.

A detention basin or dry pond is a permanent storm water management facility for the temporary storage of runoff and is designed to hold water for a short period of time, typically 2-6 days, but no less than 48 hours and then go dry.

A retention basin or wet pond is designed as a stormwater facility that provides for a permanent storage of runoff which is only released through percolation, evaporation, transpiration or through an emergency overflow. These ponds are set up this way to allow pollutants and sediments to settle out of the water before discharging it into another natural water body. Either type of stormwater basin may be utilized for stormwater control on a development site.

No matter which detention basin may be on your property, they both will require maintenance. Maintenance is the key for basin longevity and functionality.

Proper basin maintenance is critical and prevents many problems that arise from having a poorly maintained basin. Wildlife habitat destruction, flooding and erosion are issues that may occur due to a lack of maintenance. Damage can be costly to repair in these cases, especially if adjoining bodies of water or other properties are affected.

Some maintenance items such as sediment removal or checking on the stability of the outlet pipe emphasize the need for regular scheduled pond maintenance. Sediment builds up in a pond over time and needs to be removed to ensure the pond has enough storage capacity for stormwater and to inhibit the amount of resuspension of sediment. The outlet structure in a pond is installed to meet certain discharge criteria. Erosion around the outlet or breakdown of the pipe structure needs immediate addressing to allow the pond to release water at the designated rate.

Detention basins or stormwater ponds, whether they are located on a commercial or residential property are the responsibility of the business, property owner, individual homeowner, or homeowner's association. Ownership and maintenance responsibility is typically outlined in the Deed Restrictions for subdivisions or within a Declaration of Restrictive Covenants if not within a subdivision. Either document should identify the owners and how it will be funded.

As a landowner, your responsibility to help maintain these detention basins and stormwater ponds helps not only you, the landowner; but the whole community around you. A regular maintenance program can be implemented and used to ensure the pond(s) continue to function properly. If located within a subdivision, it would be advisable to schedule a meeting with neighbors and discuss the importance of maintenance of the stormwater pond.

When conducting maintenance, there are some activities that should not be done without obtaining permission from Swatara Township. For example, the shape or depth of the pond is specified within the appropriate plans and Deed Restrictions and cannot be altered without prior written consent of Swatara Township and an amended engineering plan. It is also recommended to not plant trees on the bank of the basin. As trees grow, their root systems can cause the bank to become unstable, weakening the structure and resulting in costly repairs.

A maintenance checklist is recommended to be used to document condition of and maintenance performed on the basin. This checklist should be accompanied by a dedicated schedule for detention basin or pond maintenance. Below are some basic suggestions to be considered in these stormwater facility maintenance checklists.

Stormwater Facility Monthly Maintenance	Yes/No or N/A	Comments
<i>Date of Inspection:</i> _____ <i>Inspected By:</i> _____		
<i>Location of Stormwater Facility:</i> _____		
Removal of floating debris		
Removal of woody vegetative growth from pond area including embankments		
Removal of trash and/or sediment accumulation		
Removal of obstructions in orifices and/or outlets		
Mowing of pond, banks, and dam		
Stormwater Facility Annual Maintenance	Yes/No or N/A	Comments
<i>Date of Inspection:</i> _____ <i>Inspected By:</i> _____		
<i>Location of Stormwater Facility:</i> _____		
Repair erosion to the outfall or spillway		
Repair and/or replace any damaged structures (i.e. catch basins, risers, pipes, headwalls)		
Repair animal burrows and/or other leaks in the dam		
Debris should be removed from overflow spillway and grates		

Print these forms, use them and keep them to document your maintenance. For more information regarding maintenance of stormwater facilities please contact Swatara Township at 717-564-2551.