

Why is Stormwater Management Important?

In a natural setting, when rain falls, it either seeps into the soil or is taken up by plants. In developed areas, vegetation is replaced with roads, buildings, parking lots and driveways. Because rainwater is unable to seep into the ground, it runs off of these surfaces and brings with it pollutants such as fertilizers, pesticides, bacteria, and oil, causing erosion and polluting our rivers lakes and streams.

Stormwater management areas, such as ponds, swales, infiltration beds and bioretention areas, help to slow the travel of stormwater and remove pollutants before they reach waterways.

Proper maintenance of stormwater management facilities is important to ensure that these areas function and that water quality is protected.



For More Information on Stormwater Management

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Maintaining Stormwater Management Areas Best Management Practices to Protect Our Waterways



City of Dover
Delaware

Proper Maintenance of Stormwater Management Areas

COMMON MAINTENANCE

Dry Ponds typically remain dry except after rain events, when water is directed to them. Routine maintenance for these structures includes mowing, unclogging the outlet structure, removing woody vegetation from the embankment, cleaning out flow channels, and maintaining forebays.

Wet Ponds continuously hold water and are the most commonly identified stormwater management pond. Routine maintenance for wet ponds may include algae removal, forebay maintenance, trash and debris removal, and invasive species removal.

Infiltration Basins collect stormwater and instead of releasing the water through an outfall, they allow the water to infiltrate into the ground, replenishing the groundwater supply. Routine maintenance for infiltration basins includes trash and debris removal and periodic sediment removal to alleviate standing water.

Green Technologies are the emerging practices that mimic nature and require less maintenance. These are the preferred stormwater management techniques. Routine maintenance includes vegetation maintenance, proper grass height maintenance for bioswales, mulch replacement, and trash and debris removal.

FIVE SIMPLE STEPS TO ENHANCING STORMWATER MANAGEMENT AREAS

1. **Organize an Open Space Management Group.** In a residential development, maintenance



of stormwater management areas and common open space is the responsibility of the Homeowners Association. To be effective, these organizations must meet regularly, collect dues and communicate with the membership.

2. **Secure Funding.** A rule of thumb is that the annual maintenance cost of a stormwater management area will run from \$100 per acre to \$500 per acre.



Non-routine maintenance, such as sediment removal, can be more costly but is important in making sure the pond functions. Dues collected (or other mechanisms of funding) for maintenance of stormwater management facilities should take into account the routine and non-routine maintenance.

3. **Perform Routine Maintenance and Self Inspections.** State regulations require routine inspections of stormwater management facilities. In Kent County, these inspections are performed by the Kent Conservation District. In addition to being required, inspections also allow you to detect problems early and detect long-term complications.



4. **Hire a Professional.** If there is doubt, err on the side of caution and hire a professional to solve big problems. Any herbicide and pesticide application must be done by a certified professional. In addition, there are management companies that can be hired to perform basic maintenance and management of common areas, including stormwater management areas.



5. **Correct Any Problems.** Non-routine maintenance can be very costly, so be prepared. Ensure that you have funds set aside for these functions.

Source: *Five Simple Steps to Maintaining Community Open Space and Stormwater Management Areas*, Delaware Department of Natural Resources and Environmental Control, Sediment and Stormwater Program, September 2004. A full copy of this publication is available at <http://www.swc.dnrec.delaware.gov/SiteCollectionDocuments/Soil/Sediment%20Stormwater/6.07EntireFiveSimpleSteps.pdf>.