



How to maintain your GRASS DRAINAGE SWALE

Montgomery County, Maryland

Department of Environmental Protection

Stormwater Facility Maintenance Program

What is a grass drainage swale?

A grass drainage swale is an open channel that collects water from hard surfaces and allows it to percolate into the ground, reducing the amount of runoff leaving the road or property. The grass covering the side slopes and swale bottom provides a filtration surface for the water and helps to reduce the flow velocity. In steeper areas, some swales have stone or concrete 'check dams' across the width to help slow the flow rate, promote infiltration, and prevent erosion. During large storms, swales can direct extra runoff to other stormwater facilities or the storm drain system. Swales are commonly found along roads, parking lots, or between properties of some residential lots.



Grass drainage swale

Actions you can take

Do...

Monthly

- ✓ Inspect your swale after storms to make sure that rainwater has drained and there is no erosion.
- ✓ Remove sediment and debris from in and around the swale.

Seasonally

- ✓ Mow fescues and bluegrass no shorter than 2 ½ to 3 inches. Remove or compost tall grass clippings.
- ✓ Manually remove any weeds or invasive plants.
- ✓ Remove or compost leaves in the Fall. Leaves may smother the grass and block the flow of water.
- ✓ Adjust the mower height to avoid scalping the edges of the side slopes.

As needed

- ✓ Reseed any bare areas and water during the initial establishment period.
- ✓ Contact DEP if you continue to have ongoing erosion problems.

Grass drainage swales need regular maintenance, similar to other landscaped areas, including:

- ✓ Removing trash and debris
- ✓ Mowing

Don't...

- ✗ Don't use fertilizer or pesticides in your swale.
- ✗ Don't over-mow or mow shorter than 2 ½ to 3 inches
- ✗ Don't mow immediately after a rain event.

Who is responsible for this maintenance?

As the property owner,
YOU are responsible for the maintenance
of your grass drainage swale.

Why is it important to maintain your swale?

An unmaintained swale may:

- Cause rainwater to pool on the surface and become a breeding place for insects
- Stop filtering the rainwater and allow the pollutants to enter our local streams
- Block the flow of water and cause local flooding

By maintaining your swale, you are doing your part to help the environment and protect your local streams and the Chesapeake Bay.

You can prolong the life of your swale and save on maintenance costs by keeping your site clean and regularly inspecting and maintaining the facility to ensure it is functioning properly.



Swale with stone check dams



Before (top) and after leaf removal

Recommended timeframes for typical maintenance

	Jan	Feb	Mar	Apr	May	June	July	Aug	Sep	Oct	Nov	Dec
Leaves and Debris Removal*	✿	✿	✿	✿	✿	✿	✿	✿	✿	✿	✿	✿
Mowing**					✿			✿				
Repair Eroded Areas	— — — A S N E E D E D — — —											

*Debris includes acorns, seeds, branches, grass clippings, sand/sediment, cigarette butts, trash, etc.

** Mow minimum of twice per year

Troubleshooting

Symptom	Possible Cause	Solution
Standing water in the swale	If standing water occurs for over 48 hours, the swale could be clogged or the underdrain pipe may be blocked.	The surface of the swale may need to be tilled and replanted, or the pipe needs to be cleaned.
Erosion	The runoff is moving too fast and/or the vegetation has died.	Stabilize the soil by planting new vegetation. Use rocks if needed to slow the flow.



Residential grass drainage swale

Can I remove the swale?

No, you cannot remove any facilities that were part of your building installation. These are permitted structures and DEP maintains a database of these facility locations. DEP may perform a maintenance inspection of your practice if it is a permitted structure. Contact DEP to find out if you have a permitted structure or if you would like to discuss options for modifying your facility.

What if I need help or have additional questions?

DEP can answer your questions and provide additional guidance about maintaining your swale. Please e-mail us at Askdep@montgomerycountymd.gov, call the Montgomery County Customer Service Center at 3-1-1, or visit <http://www.montgomerycountymd.gov/stormwater>.