



Sussex
conservation
district

PREPARE. PROTECT. PRESERVE.

STORMWATER PROGRAM

SWALE FACT SHEET

It is important to understand how stormwater is conveyed through your community and property to the stormwater management facility. Proper maintenance of swales can prevent costly repairs or property damage.

ABOUT SWALES

Swales are linear open channels that convey stormwater runoff and provide water quality treatment and flow attenuation (ability to trap and store floodwaters and release through natural drainage pathways).

Sussex County has very little topographic relief and swales are typically constructed with minimum slope.

The gradual slope can promote filtering and attenuation; however, it has the potential to be wet after frequent or significant rainfalls.

Regular maintenance ensures the continued optimum function of the swale.

Vegetated swales are preferred over curb and gutter systems because they provide many environmental benefits.

SWALE BENEFITS

- Filters pollutants and sediment
- Improves water quality
- Promotes infiltration
- Recharges groundwater
- Slows runoff
- Reduces erosion
- Minimizes flooding
- Cost effective
- Low maintenance



A bioswale is a stormwater best management practice.



Bioswales can be enhanced with native plants.

Ponding, or water that lasts more than 48-72 hours in a swale, indicates a drainage problem.

MAINTENANCE

Inspect facilities after storm events with two or more inches of rain. Swales should drain in 48-72 hours. The ground inside the swale is likely to remain soggy for more than 72 hours after a significant rain event.

Minimize the use of fertilizer, pesticides and herbicides.

Keep driveway culverts clear.

AS NEEDED: Remove trash and debris on a regular basis.

SEMIANNUALLY: Check swales in the spring and fall for erosion and bare spots. Repair as needed.

MOWING: Keep grass no shorter than six inches. SCD recommends mowing in mid-March and weekly from April to November if turf cover is used.

NOTE: If severe erosion or ponding is observed, contact a professional. This could be an indication of a pipe failure or blockage.

SWALE TYPES & JURISDICTION

In Sussex County there are several types of swales and jurisdiction is based on the community construction status.

Roadside swale - located parallel to a roadway, it is not owned by an individual property owner.

JURISDICTION: based on construction status.

Bioswales - located in community open space.

JURISDICTION: based on construction status.

Rear and side yard swales - located between homes on private property.

JURISDICTION: HOA/Homeowner.

NOTE: SCD can provide technical assistance.

CONSTRUCTION STATUS:

ACTIVE

If a community is under active construction, the developer is responsible for repairing swales. If water is observed in roadside swales for more than 48 hours and/or dead grass is present, contact Sussex County Utility Engineering at 302-855-7370.

COMPLETE

When construction is completed, the homeowner and HOA are responsible for maintaining and repairing swales. SCD can provide technical assistance with rear, side yard and bioswales.

SWALE DON'TS

Follow these tips to keep your swales in optimum condition.

DO NOT: Mow swales following a rain event and avoid mowing in the same pattern. Tire ruts can block the flow of water.

DO NOT: Park or drive across a swale.

DO NOT: Fill swales or dispose of leaf litter, lawn clippings or landscape debris in the swale.

DO NOT: Place sprinklers in a swale or run irrigation while raining. Overirrigation can result in poor drainage.



Fences can impede drainage when placed in a swale.

DO NOT: Install fences or sheds in, or around, a swale.

DO NOT: Plant trees or shrubs in a swale.

DO NOT: Allow trees or shrubs to grow in a swale.



Discolored vegetation indicates roots are over saturated by irrigation or poor drainage.



Overirrigation can cause vegetation to die, leading to erosion. Check out the turfgrass fact sheet for irrigation and other tips to keep your lawn healthy and green.



Top: Mowing in the same pattern can create ruts and block the flow of water.

Left: Roadside swale landscaping impedes drainage; discolored grass is an indicator of poor drainage.

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