

TECHNOLOGY FACT SHEET

What is a swale?

A swale is a broad, shallow channel with a dense stand of vegetation covering the side slopes and bottom. Swales can be natural or manmade, and are designed to promote infiltration and reduce the flow velocity of storm water runoff. However, for the swale to treat runoff most effectively, the depth of the storm water should not exceed the height of the grass. A typical drainage system can replace curbs, gutters, and storm sewer systems. Swales are best suited for residential, industrial, and commercial areas with low flow and smaller populations.

Swale location?

Swales are typically located along property boundaries along a natural grade. The subsurface of the swale should be carefully constructed to avoid compaction of the soil. Compacted soil reduces infiltration and inhibits growth of the grass. Damaged areas should be restored immediately to ensure that the desired level of treatment is maintained and to prevent further damage from erosion of exposed soil.

Vegetation?

A fine, close-growing, water-resistant grass should be selected for use in swales, because increasing the surface area of the vegetation exposed to the runoff improves the effectiveness of the swale system. Examples of appropriate grass for swales would include reed canary grass, grass-legume mixtures, and red fescue.

Operation and Maintenance?

The useful life of a swale system is directly proportional to its maintenance frequency. If properly designed and regularly maintained, swales can last indefinitely.

Maintenance activities should include periodic mowing, weed control, watering during drought conditions, reseeding of bare areas, and clearing of debris and blockages. Cuttings should be removed and disposed in a local composting facility. Application of fertilizers and pesticides should be minimal.

Costs?

Swales typically cost less to construct than curbs and gutters or underground storm sewers. Construction costs depend on specific site considerations and local costs for labor and materials.

FOR PROPERTY OWNER



**WELCOME TO
THE VILLAGE
OF PLOVER
DRAINAGEWAY/
SWALE/
DEPRESSION
REGULATIONS**

**ALL STORM WATER
DRAINAGE FROM
DRIVEWAYS, PARKING
LOTS, ROOFS, YARDS, ETC.,
MUST REMAIN ON-SITE.
USE OF VILLAGE RIGHT-OF-
WAY FOR DRAINAGE IS
PROHIBITED!**

To maintain water-free roadways, drainageways/swales have been established in the ditches on the side of Village streets in Village right-of-way. The Village Municipal Code prohibits filling or otherwise impeding the flow of water in any of these drainage-way/swale/depression areas. In areas where a swale or depression has not yet been constructed, the property owners and developers will be responsible for establishing a swale or depression per Public Works Departments standards.

No person shall fill or otherwise impede the flow of water in any drainage-way/swale/depression area established by the Village which is located in the street

right-of-way, or located on private property and of record dedicated to the public or the Village. In areas where a swale or depression has not yet been constructed the permittee shall be responsible for establishing a 12-inch to 18-inch swale or depression with a maximum 5 to 1 slope allowed within the right-of-way unless otherwise approved by the Public Works Department. Swale requirements defined in the approved Plat of Subdivision must be adhered to if more restrictive than the 12-inch to 18-inch requirement.

Materials allowed within the right-of-way shall be a pervious type material that allows for drainage, with a 3" maximum thickness in the bottom of the swale. If the swale in the right-of-way is altered by work of any kind, the topsoil must be removed, alterations made, and topsoil replaced to a maximum depth of 3 inches.

Violations to Sub 1. above shall subject the property owner to a penalty as provided in §467-4(B). **Penalty.** Any person who shall violate Subsection A above shall be subject to a penalty as provided in §1-4 of this code. In addition, any person convicted of violating Subsection A above shall be subject to paying the cost of restoring such drainage-way/swale/depression as a charge for current services pursuant §66.0627, Wis. Stats.



For more information on these regulations, please contact the Public Works Department at 715-345-5257 Monday thru Friday 7:00am-3:30pm