



## ***Rule of thumb***

The best maintenance is usually preventative, and most problems with storm water control structures can be avoided with one simple step: Clear trash, leaves and other debris away from storm water structures. Debris leads to clogging, which makes control structures less effective at limiting flooding and erosion.

## **SWALE MAINTENANCE**

- Perform regular inspections and clear brush, grass clippings and other debris that can block drainage.
- Remove built up sediment during dry weather with a rake or shovel. Reseed and mulch as necessary.
- Mow grass and maintain other nearby vegetation as needed. Newly installed plants will require watering.
- Use pesticides and fertilizers sparingly on vegetation in or near a swale. Rain may wash excess chemicals into the storm water system and pollute rivers and streams.
- Do not park cars in a swale. The weight will compact the soil and hinder water absorption.
- Plant vegetation with deep, strong roots in the sides of a swale. Plant the bottom with grassy plants.
- Slow the flow and lessen the erosion power of water with large rock known as riprap.
- Call a professional to clean out underground or enclosed structures.

## ***Important notice***

While swales are effective tools for managing storm water, they can be dangerous during a heavy rainstorm. Never allow children to play in a swale, as there is a risk of injury or drowning.

## ***Learn more***

Visit [SD1.org](http://SD1.org) for more information about what SD1 is doing to manage storm water, improve water quality and protect your community from storm water damage.

## ***Get help***

If significant erosion, sediment accumulation or other damage is evident in the swale, contact SD1 at 859-578-7450 or [info@sd1.org](mailto:info@sd1.org) to have it inspected. SD1 staff may be able to help determine the cause of the problem and the individual or entity responsible for the maintenance.

For more information about properly maintaining storm water control structures on private property, call a local engineer or landscape architect.



# ***Maintaining Swales***

## ***Storm water, SD1 & you***

As our communities grow, our neighborhoods include an increasing number of buildings, roads and parking lots. This growth is important for our local economy, but the additional hard, impervious surfaces prohibit rain and snow melt from soaking into the ground. This creates storm water runoff, which can lead to erosion and flooding that may damage homes and landscaping, make travel difficult and affect recreation and wildlife habitats.

To control storm water runoff, Sanitation District No. 1 (SD1) maintains an expansive system of storm sewer pipes and other structures, but it is only one piece of the storm water puzzle – cities, counties and individual property owners also play an important role.



## ***Your role***

When new homes, businesses and neighborhoods are built, developers often install control structures at individual project sites to manage runoff. These storm water control structures sometimes interconnect with neighboring property or with infrastructure under SD1's control, but responsibility for structures on private property often lies with property owners, homeowner associations or property management companies.

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***It is essential that private property owners properly maintain storm water control structures on their property to ensure the entire system runs smoothly.***

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Private property owners also should be careful when adding new structures, like a shed, or making major landscaping changes to their property. If a change reroutes storm water and has a negative impact on properties downstream, the matter could become a legal issue among neighbors.

## ***Good neighbors***

While individual property owners are required to maintain some storm water control structures, they also can take voluntary steps to help the whole community. Even if a structure is publicly owned, citizens can protect their community from flooding and other problems by simply clearing away nearby debris as they see it. It's one small, preventative step that can do a lot of good.

## ***Infrastructure 101***

The most common storm water structures private property owners may interact with are drainage inlets and outlets, catch basins, detention and retention basins and swales. In addition to limiting flooding and erosion by slowing down water movement, many of these structures also help filter the water before it reaches streams and lakes.

## ***Swales***

Swales are ditches specially designed and lined with grass and other vegetation to slow the movement of storm water and filter out pollutants. Swales also help by holding back and storing storm water so the soil can absorb it over the next 24 hours or less. Some swales are designed by nature and exist on a property prior to development. In this case, a developer may choose to strategically build around them in lieu of installing underground pipes.

