

# STORMWATER TREATMENT AREAS

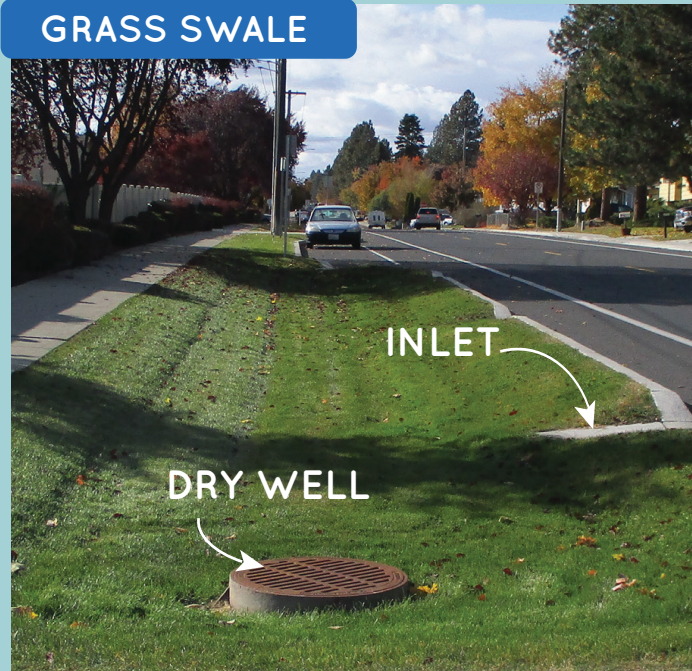


A swale is a low area, often in the yard or right-of-way, designed to slow and hold stormwater to ultimately infiltrate it into the ground. Swales use vegetation and soil to clean polluted stormwater and are a great way to minimize flooding.

## Common Features:

- Generally grass lined with sloping walls
- Holds stormwater up to 6" deep
- Should drain within 72 hours after a storm
- Releases excess water to a dry-well, road, or another swale
- Used for a single drainage area like a parking lot or combined together for a larger drainage area

## GRASS SWALE



## STORMWATER PONDS

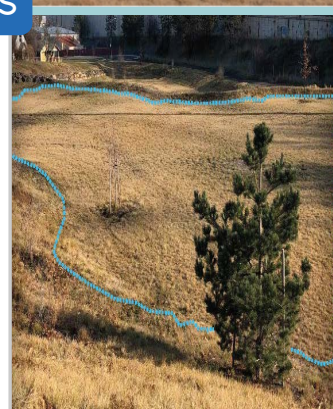
• Ponds are used when swales are not enough to manage stormwater.

• Can handle stormwater from single or multiple properties.

• Might be used for evaporation or infiltration.

- Evaporation ponds: retain water for long periods of time.

- Infiltration ponds: should be empty except right after a storm event.



## BIOINFILTRATION CELL

- Similar to swales, cells collect, hold and infiltrate water and use a variety of plantings to provide treatment
- Cells can have steep side walls and often take up less space than a swale



## MAINTENANCE

All stormwater treatment areas require basic care to function properly and the responsibility can be private or public, dependent on the location. Fortunately, maintenance is generally easy to perform.

**CLEARING BLOCKED INLETS**  
allows stormwater to enter swale

**TRIMMING, THINNING & MOWING**  
keeps vegetation healthy & provides space for stormwater



**REMOVING SEDIMENT & DEBRIS**  
promotes infiltration while keeping vegetation healthy



## SWALE MAINTENANCE BASIC REQUIREMENTS

- Clear blocked or overgrown inlets
- Control Vegetation
  - keep grass height to 2-3"
  - trim and thin all plants
- Remove sediment as it builds up before plugging occurs
- DO NOT fill in swales



*Managing stormwater is vital to protect the health of our river, reduce the risk of flooding, and maintain the quality of our drinking water.*

When it rains, stormwater flows over roofs, streets, yards and parking lots and becomes contaminated by loose sediment, oils, fertilizers, and chemicals. Left untreated, these pollutants are carried into our aquifer, local streams and the Spokane River where they can pose a risk to humans and wildlife.

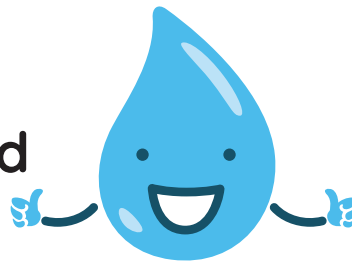
Stormwater facilities collect and clean runoff, filter out pollutants and slowly disperse water into the soil.

Sometimes recognizing a stormwater facility can be difficult because the appearance can vary. They can appear to be a simple grassy area, a garden with a depression, or a natural-looking constructed wetland.

Although their designs are slightly different, their functions and maintenance needs are very similar. If a stormwater facility receives runoff from your neighborhood streets, you and your neighbors could be responsible for its maintenance.

Help Spokane manage stormwater and protect our valuable water resources by maintaining stormwater swales, cells or ponds on your property.

**Swales  
work hard  
for you!**



They might not look like anything too exciting but swales can do amazing things for our environment and are a great benefit to your property!

### **Minimize Flooding**

Swales can prevent or minimize neighborhood flooding by:

- 💧 Delaying a volume of stormwater runoff and releasing it downstream slowly.
- 💧 Infiltrating stormwater runoff into the ground through the bottom of the swale or dry-well.

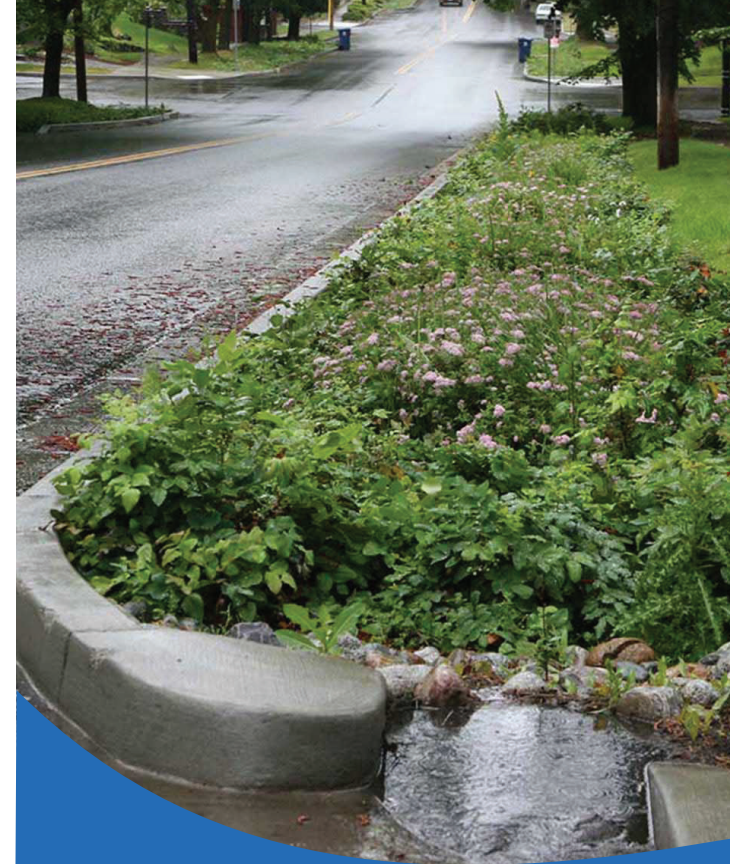
### **Clean Polluted Water**

Swales keep pollutants out of our aquifer and waterways by:

- 💧 Separating solids from stormwater runoff such as sediment and road sand.
- 💧 Removing pollutants such as leaked fuels and oils, lawn chemicals, fertilizers, heavy metals, deicers, etc.

**IF YOU OBSERVE  
STORMWATER FLOODING,  
PLEASE CALL  
625-7900**

**SpokaneStormwater.org**



# **MANAGING STORMWATER**



**A Residential Guide**