

# Vegetated Swale

## Structural Stormwater Best Management Practice

*This factsheet is part of our structural stormwater BMP series. To access this series and many other educational resources, please visit: [spcwater.org](http://spcwater.org).*

**Vegetated Swales** are shallow channels, planted densely with vegetation, designed to reduce the rate of stormwater and encourage infiltration. Additional stormwater management benefits of vegetated swales include improved water quality and volume reduction. Vegetated swales can be incorporated into a variety of landscapes, including residential, commercial, industrial, and highways/roads. In areas with steep slopes, check dams can increase the effectiveness of vegetated swales by further slowing the rate of stormwater and therefore increasing opportunities for infiltration.



Vegetated swales can be incorporated into a variety of landscapes. Above is an example of a vegetated swale to perform on-site stormwater management and improve aesthetics.

### Key Considerations for Vegetated Swales

- Better alternative to conventional conveyance systems due to ability to remove some pollutants and reduce speed of stormwater
- Utilize minimum of 24" of permeable soil beneath plants
- 12" – 24" of base rock layer should be placed below soil layer
- Plant with native vegetation that is tolerant of wet and dry conditions
- Maintenance plan is essential for long term success
- Can be designed to aesthetically enhance surroundings
- Should discharge to additional stormwater BMP or traditional stormwater infrastructure

### BMP Profile

**Name:**  
Vegetated Swale

**Type:**  
Structural

**Grouping:**  
Volume and Peak Rate  
Reduction by Infiltration

**Stormwater  
Management Benefits:**

- Water Quality
- Peak Rate Control
- Volume Reduction
- Groundwater Recharge

**Potential Applications:**

- Residential
- Commercial
- Industrial
- Retrofit
- Highway/Road



**For more information  
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