

Dry Swale Feasibility Checklist

Stormwater BMP Category

- Receiving Low Impact Development Practice
- Stormwater Management Practice

SWM Credits

- SWM Criteria #1:** Runoff Reduction
 - Non-underdrained (infiltration): subtract 100% of storage volume from RR_v
 - Underdrained: subtract 50% of storage volume from RR_v
- SWM Criteria #2:** Water Quality Protection
 - Non-underdrained (infiltration): subtract 100% of storage volume from RR_v
 - Underdrained: subtract 50% of storage volume from RR_v
- SWM Criteria #3:** Aquatic Resource Protection: Proportionally adjust CN to calculate ARP_v
- SWM Criteria #4:** Overbank Flood Protection: Proportionally adjust CN to calculate Q_{P25}
- SWM Criteria #5:** Extreme Flood Protection: Proportionally adjust CN to calculate Q_{P100}

Site Feasibility

Contributing Drainage Area

- ≤ 5 acre Contributing Drainage Area (CDA) to the BMP

Surface Area of the Dry Swale

- 5% to 10% of CDA available for the BMP surface area

Site Topography

- $\geq 1\%$ and $\leq 2\%$ swale longitudinal slope (may be reduced to $\geq 0.5\%$ on flat sites)

Depth of BMP

- $\geq 4.0'$ total depth: surface ponding/flow depth (6"), planting bed (30"), & gravel (12" w/ underdrain)
- $\geq 3.0'$ total depth: surface ponding/flow depth (6"), planting bed (30"), & no underdrain (infiltration)
- $\geq 2.5'$ total depth: surface ponding/flow depth (6"), planting bed (18"), w/ shallow WT

Water Table

- $\geq 2'$ separation (bottom of practice to SHWT)

Soils

- $\geq 0.25''$ /hr infiltration rate (infiltration; 100% Runoff Reduction & Water Quality Protection)
- $< 0.25''$ /hr infiltration rate (underdrain; 50% Runoff Reduction & Water Quality Protection)

Site Applicability

- Rural Use: Suitable for use on rural (large lot) subdivisions
- Suburban Use: Suitable for use on most subdivisions, or designated open space areas
- Urban Use: May be suitable for use in urban areas where adequate green space is available for surface conveyance systems
- Construction Costs: Low Medium High
- Maintenance: Low Medium High