

Rain Garden Feasibility Checklist

Stormwater BMP Category

- Receiving Low Impact Development Practice

SWM Credits

- SWM Criteria #1:** Runoff Reduction: subtract 100% of storage volume from RR_V
- SWM Criteria #2:** Water Quality Protection: subtract 100% 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

- $\leq 2,500 \text{ ft}^2$ ($> 2,500 \text{ ft}^2$ – use Bioretention)
- $\leq 150'$ length of flow path in pervious contributing drainage area
- $\leq 75'$ length of flow path in impervious contributing drainage area

Surface Area of Rain Garden

- 10% to 20% of the size of the Contributing Drainage Area (CDA) (actual surface area requirements will vary based on infiltration rate of the soils)

Site Topography

- $\leq 6\%$ (average) slopes in the CDA
- $> 6\%$ (average) with provisions to address runoff velocity & soil erosion and sedimentation

Depth of BMP

- $\geq 2.5'$ total depth: surface ponding (6"), & planting bed (24")
- $\geq 2'$ total depth: surface ponding (6"), planting bed (18" w/ shallow WT)

Water Table

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

Soils

- $\geq 0.50''/\text{hr}$ infiltration rate
- $< 0.5''/\text{hr}$ infiltration rate: use Bioretention with underdrain

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 on commercial/business developments; consider urban planters
- Construction Costs: Low Medium High
- Maintenance: Low Medium High