

Grass Channel Feasibility Checklist

Stormwater BMP Category

- Receiving Low Impact Development Practice

SWM Credits

- SWM Criteria #1:** Runoff Reduction
 - 25% reduction of RR_V conveyed through grass channel on HSG A/B soils
 - 12.5% reduction of RR_V conveyed through grass channel on HSG C/D soils
- SWM Criteria #2:** Water Quality Protection
 - 25% reduction of RR_V conveyed through grass channel on HSG A/B soils
 - 12.5% reduction of RR_V conveyed through grass channel on HSG C/D soils
- 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 acres contributing drainage area

Surface Area of Grass Channel

- $\geq 2'$ and $\leq 8'$ bottom width
- 3:1 (H:V) or flatter side slopes
- $\geq 1\%$ and $\leq 2\%$ grass channel longitudinal slope

Water Table

- $\geq 2'$ separation (bottom of practice to SHWT)
- $< 2'$ separation – consider the use of a wet swale (linear wetland system)

Soils

- No restrictions (although grass channels on HSG A/B provide greater benefits; consider soil restoration in HSG C/D soils)

Site Applicability

- Rural Use: Suitable for use on most rural (large lot) developments
- Suburban Use: Suitable for use on most suburban residential and commercial developments
- Urban Use: Generally not suitable due to lack of space for surface drainage systems in urban/commercial areas
- Hot Spots: Not suitable for urban stormwater hotspots when built on HSG A/B soils.
- Construction Costs: Low Medium High
- Maintenance: Low Medium High