

STORMWATER AND EROSION CONTROL

125 Attachment 3

Town of Bolton

SCHEDULE C  
COMPARATIVE POLLUTANT REMOVAL OF URBAN BMP DESIGNS

BMP/design	SUSPENDED SEDIMENT	TOTAL PHOSPHORUS	TOTAL NITROGEN	OXYGEN DEMAND	TRACE METALS	BACTERIA	OVERALL REMOVAL CAPABILITY
<b>EXTENDED DETENTION POND</b>							
DESIGN 1	●	○	○	○	○	⊗	MODERATE
DESIGN 2	●	○	○	○	○	⊗	MODERATE
DESIGN 3	●	●	○	○	○	⊗	HIGH
<b>WET POND</b>							
DESIGN 4	○	○	○	○	○	⊗	MODERATE
DESIGN 5	○	○	○	○	○	⊗	MODERATE
DESIGN 6	●	○	○	○	○	⊗	HIGH
<b>INFILTRATION TRENCH</b>							
DESIGN 7	○	○	○	○	○	○	MODERATE
DESIGN 8	●	○	○	○	○	○	HIGH
DESIGN 9	●	○	○	○	○	○	HIGH
<b>INFILTRATION BASIN</b>							
DESIGN 7	○	○	○	○	○	○	MODERATE
DESIGN 8	●	○	○	○	○	○	HIGH
DESIGN 9	●	○	○	○	○	○	HIGH
<b>POROUS PAVEMENT</b>							
DESIGN 7	○	○	○	○	○	○	MODERATE
DESIGN 8	●	○	○	○	○	○	HIGH
DESIGN 9	●	○	○	○	○	○	HIGH
<b>WATER QUALITY INLET</b>							
DESIGN 10	○	⊗	⊗	⊗	⊗	⊗	LOW
<b>FILTER STRIP</b>							
DESIGN 11	○	○	○	○	○	⊗	LOW
DESIGN 12	●	○	○	○	○	⊗	MODERATE
<b>GRASSED SWALE</b>							
DESIGN 13	○	○	○	○	○	⊗	LOW
DESIGN 14	○	○	○	○	○	⊗	LOW

KEY:  
 ○ 0 TO 20% REMOVAL  
 ◐ 20 TO 40% REMOVAL  
 ◑ 40 TO 60% REMOVAL  
 ◒ 60 TO 80% REMOVAL  
 ● 80 TO 100% REMOVAL  
 ⊗ INSUFFICIENT KNOWLEDGE

- Design 1: First-flush runoff volume detained for 6-12 hours.
- Design 2: Runoff volume produced by 1.0 inch, detained 24 hours.
- Design 3: As in Design 2, but with shallow marsh in bottom stage.
- Design 4: Permanent pool equal to 0.5 inch storage per impervious acre.
- Design 5: Permanent pool equal to 2.5 (Vr); where Vr=mean storm runoff.
- Design 6: Permanent pool equal to 4.0 (Vr); approx. 2 weeks retention.
- Design 7: Facility exfiltrates first-flush; 0.5 inch runoff/imper. acre.
- Design 8: Facility exfiltrates one inch runoff volume per imper. acre.
- Design 9: Facility exfiltrates all runoff, up to the 2 year design storm.
- Design 10: 400 cubic feet wet storage per impervious acre.
- Design 11: 20 foot wide turf strip.
- Design 12: 100 foot wide forested strip, with level spreader.
- Design 13: High slop swales, with no check dams.
- Design 14: Low gradient swales with check dams.

(Source MWCG, 1987)