
APPENDIX F

POST CONSTRUCTION WATER QUALITY BMP SUGGESTED USES

Structural Stormwater Quality BMP Suggested Uses

BMP	Specification Number	Land Requirement	Applications				Benefits In Addition to Water Quality		Aesthetically Pleasing	Provide Habitat
			Single Family	Multi Family	Commercial	Industrial	Channel Protection	Flood Protection		
Dry Detention Basin	WQ-01	Moderate to High	X	X	X	X	X	X		
Wet Detention Basin	WQ-02A	Moderate to High	X	X	X	X	X	X	X	X
Wet Extended Detention Pond	WQ-02B	Moderate to High	X	X	X	X	X	X	X	X
Micropool Extended Pond	WQ-02C	Moderate to High	X	X	X		X	X	X	X
Stormwater Wetlands	WQ-03	High	X	X	X	X	X	X	X	X
Gravel Wetlands	WQ-04	High	X	X	X	X	X	X		X
Bioretention Cell	WQ-05	Moderate	X	X	X	X	X		X	X
Sand Filter	WQ-06	Low to Moderate			X	X			X (Hidden)	
Infiltration Trench	WQ-07	Moderate	X	X	X	X	X			
Enhanced Dry Swale	WQ-08	High	X	X	X	X	X		X	
Infiltration Basin	WQ-09	Moderate	X	X	X		X			
Manufactured Treatment Device (MTD)	WQ-10	Very Low (Does Not Require "Extra" Land)		X	X	X			X (Hidden)	
Permanent Water Quality Stream Buffer	WQ-11	Low (area must be preserved regardless)	X	X	X	X	X		X	X
Vegetated Filter Strip	WQ-12	Low	X	X	X	X			X	
Level Spreader	WQ-13	Low	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Rain Garden	WQ-14	Moderate to High	X	X					X	X
Regenerative SW Conveyance	WQ-15	Moderate	X	X	X	X	X	X	X	X
Pervious Pavement	WQ-16	Very Low (Does Not Require "Extra" Land)		X	X	X	X		X	
Full Dispersion	WQ-17	Very High	X				X		X	X
Rain Barrel & Dry Well	WQ-18A	Low	X							
Cistern	WQ-18B	Low to Very Low if Buried	X	X	X	X			X (if underground)	
Vegetated Swale	WQ-19	High	X	X	X	X				
Stormwater Alley	WQ-20	Low	X							X
Split Track and Shared Driveways	WQ-21	Low	X							
Disconnected Impervious Areas and Green Spaces	WQ-22	Moderate to High	X	X	X					

BMP	Specification Number	Land Requirement	Applications				Benefits In Addition to Water Quality		Aesthetically Pleasing	Provide Habitat
			Single Family	Multi Family	Commercial	Industrial	Channel Protection	Flood Protection		
Grass Stilling Basin for Mountainous & Steep Slopes	WQ-23A	Moderate to High	X							
Seepage Cistern for Mountainous & Steep Slopes	WQ-23B	Low to Moderate	X							
Green Roof	WQ-24	Very Low (Does Not Require "Extra" Land)	X	X	X	X			X	X
Planter Box	WQ-25	Moderate		X	X	X			X	X
Stormwater Courtyards	WQ-26	Moderate	X	X	X	X			X	X
Parking Lot Applications	WQ-27	N/A		X	X	X	N/A	N/A		
Flow Splitter	WQ-28	N/A	X	X	X	X	N/A	N/A		
Tree Planting within Swale	WQ-29	N/A	X	X	X	X	N/A	N/A	X	X

Structural Stormwater Quality BMP Characteristics and Site Criteria

BMP	BMP Number	Maintenance	Costs	Drainage Area (Acres)	Soils	Minimum Sizes	Slope	Water Table/Bedrock	Setback	Max Depth
Dry Detention Basin	WQ-01	Low	Low	No Requirement	HSG D may need underdrain or low-flow channel	N/A	Usually not a limitation, but a design consideration	2 foot clearance	25 feet from basin easement to any dwelling	Depths greater than 10 feet require a slope stability analysis
Wet Detention Basin	WQ-02A	Low	Low	10 Minimum; 25 Preferred	HSG A may require pond liner HSG B may require infiltration testing	N/A	Usually not a limitation, but a design consideration	2 foot clearance	25 feet from basin easement to any dwelling	12 feet
Wet Extended Pond	WQ-02B	Low	Low	10 Minimum; 25 Preferred		N/A	Usually not a limitation, but a design consideration	2 foot clearance	25 feet from basin easement to any dwelling	12 feet
Micropool Extended Pond	WQ-02C	Moderate	Low	10 Minimum		N/A	Usually not a limitation, but a design consideration	2 foot clearance	25 feet from basin easement to any dwelling	12 feet
Stormwater Wetlands	WQ-03	High	High	20 Minimum	No Requirements	N/A	Usually not a limitation, but a design consideration	No clearance requirements if not a hot spot	25 foot vegetated buffer provided around BMP	6 feet
Gravel Wetlands	WQ-04	High	High	No Requirement	No Requirements	10 foot minimum width and 40 foot minimum flow length	Usually not a limitation, but a design consideration	No clearance requirements if not a hot spot	25 feet from basin easement to any dwelling	
Bioretention Cell	WQ-05	Moderate	Moderate	2 Maximum	No Requirements	10 foot minimum width and 40 foot minimum flow length	Usually not a limitation, but a design consideration	4 foot clearance of bioretention bottom above water table/bedrock (media may be closer)	25 feet from basin easement to any dwelling	6 inch minimum and 12 inch maximum ponding depth
Sand Filter	WQ-06	High	High	2 Maximum	No Requirements	N/A	Usually not a limitation, but a design consideration	2 foot clearance to bottom of sand filter media		Pretreatment chamber has 6 foot maximum
Infiltration Trench	WQ-07	High	High	2 Maximum	Infiltration Rate > 0.5 In/Hr	N/A	20% maximum longitudinal slope on top; 5% maximum slope for trench bottom	4 foot clearance above water table/bedrock recommended	Minimum distance of 10 feet down gradient from buildings and foundations	8 foot maximum depth
Enhanced Dry Swale	WQ-08	Low	Moderate	5 Maximum	No Requirements	2 – 8 foot bottom width	2% maximum longitudinal <i>water surface</i> slope (bottom slope may be steeper)	2 foot clearance to bottom of engineered media		2 foot minimum filter media depth
Infiltration Basin	WQ-09	Moderate	Low	2 Maximum	Infiltration rate ≥ 0.5 in/hr	N/A	20% maximum slope	2 foot clearance to bottom of engineered media	5 feet from property line; at least 25 feet down-gradient or 100 feet up-gradient of structures, dry wells, and septic systems; at least 150 feet from drinking water wells	2 foot maximum ponding depth
MTD	WQ-10	High	High	3 Maximum	No Requirements	N/A	N/A	N/A	N/A	N/A
Permanent WQ Stream Buffer	WQ-11	Low	Low	No Requirement	No Requirements	N/A	6% maximum slope	N/A	N/A	N/A
Vegetated Filter Strip	WQ-12	Moderate	Low	Varies	No Requirements	N/A	8% maximum slope	2 foot clearance		N/A

BMP	BMP Number	Maintenance	Costs	Drainage Area (Acres)	Soils	Minimum Sizes	Slope	Water Table/Bedrock	Setback	Max Depth
Level Spreader	WQ-13	Medium	Medium		No Requirements		N/A	N/A		
Rain Garden	WQ-14	High	High	Up to 2,500 square feet	No Requirements	N/A	N/A	18 inch clearance from bottom of media	Minimum distance of 10 feet down gradient from buildings and foundations; at least 25 feet from septic drain fields	8 inches
Regenerative SW Conveyance	WQ-15	Moderate	High	No Requirements	No Requirements		10% maximum slope			
Pervious Pavement	WQ-16	High	High	No Requirements	Infiltration rate \geq 0.1 in/hr	N/A	5-10% maximum surface course slope depending on type of paving system used	3 foot clearance from bottom of base course	N/A	
Full Dispersion	WQ-17	None	None	N/A	No Requirements	65% of site undisturbed	N/A	N/A	N/A	N/A
Rain Barrel & Dry Well	WQ-18A	Moderate	Moderate – High	No Requirements	Infiltration rate \geq 0.25 in/hr for dry wells	N/A	N/A	2 foot clearance for dry wells	N/A	12 foot maximum for dry wells
Cistern	WQ-18B	Moderate	High	No Requirements	N/A	N/A	Usually not a limitation, but a design consideration	N/A	N/A	N/A
Vegetated Swale	WQ-19	Low	Low	5 Maximum	No Requirements	100 foot minimum length; 2-6 foot bottom width	0.5-5% longitudinal slope (1-2% optimal)	2 foot clearance above water table/bedrock recommended	Minimum distance of 10 feet down gradient from buildings and foundations recommended	N/A
Stormwater Alley	WQ-20	Moderate	Moderate	N/A	No Requirements	2 concrete pavement strips plus ROW to guarantee 60% perviousness	Usually not a limitation, but a design consideration	N/A		N/A
Split Track and Shared Driveways	WQ-21	Low	Low	N/A	No Requirements	N/A	N/A	N/A	N/A	N/A
Disconnected Impervious Area and Green Spaces	WQ-22	Low	Low	N/A	No Requirements	N/A	N/A	N/A	N/A	N/A
Grass Stilling Basin for Mountainous & Steep Slopes	WQ-23A	Low	Low	N/A	No Requirements	N/A	Applicable on sites with a slope of \geq 33%	N/A		N/A
Seepage Cistern for Mountainous & Steep Slopes	WQ-23B	Low	Moderate	N/A	No Requirements	N/A	Applicable on sites with a slope of \geq 33%	N/A		N/A
Green Roof	WQ-24	Moderate	High	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Planter Box	WQ-25	Moderate	High	Less than 15,000 square feet	No Requirements	Intended for use in tight urban corridors	Usually not a limitation, but a design consideration	2 foot clearance above water table/bedrock	N/A	1 foot maximum ponding depth
Stormwater Courtyard	WQ-26	Low	Moderate		Most suitable in well-drained soils	Intended for use in tight urban corridors	Most suitable in flat areas	2 foot clearance		1 foot maximum ponding depth
Parking Lot Applications	WQ-27	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Flow Splitter	WQ-28	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

BMP	BMP Number	Maintenance	Costs	Drainage Area (Acres)	Soils	Minimum Sizes	Slope	Water Table/Bedrock	Setback	Max Depth
Tree Planting within Swale	WQ-29	Low	Low	N/A	N/A	N/A	N/A	N/A	N/A	N/A