

Other Selection Factors

Other factors should be considered when selecting the most appropriate stormwater BMP for a project site. These include but are not limited to:

Maintenance

Although all stormwater BMPs require regular maintenance, some BMPs require more frequent inspection and cleaning, special equipment, and/or staff training. BMPs should be selected that are compatible with the equipment, labor resources, and available funding of the parties responsible for maintenance. Refer to [Chapter 7 - Overview of Structural Stormwater Best Management Practices](#) and [Chapter 13 - Structural Stormwater BMP Design Guidance](#) of this Manual for general and BMP-specific maintenance requirements.

Affordability

Construction costs of stormwater BMPs vary considerably depending on system type (surface versus subsurface), configuration (on-line versus off-line), materials, pretreatment requirements, and system sizing. BMPs should be selected for maximum cost-effectiveness to meet the stormwater management standards and performance criteria outlined in this Manual. Long-term operation and maintenance costs, including periodic replacement of the entire system or system components (e.g., clogged filter media), should also be considered.

Community Acceptance and Co-Benefits

Certain stormwater BMPs may have stronger community acceptance than others based on aesthetics and reported nuisance problems. Stormwater BMPs that provide other benefits in

addition to stormwater management (i.e., green infrastructure) such as streetscape improvements, reduction in heat island effect, greening of public spaces, and flood resilience may be preferred and have stronger acceptance by the community than traditional gray infrastructure systems.

Table 8-7. Receiving Water Selection Factors

BMP Category	BMP Type	Coldwater Streams (Thermal)	Freshwater Lakes & Ponds (Phosphorus & Sediment)	Coastal Waters & Estuaries (5) (Nitrogen & Bacteria)
Infiltration BMPs	Infiltration Trench	●	●	●
	Underground Infiltration System	●	●	●
	Infiltration Basin	●	●	●
	Dry Well	●	●	●
	Infiltrating Catch Basin	●	●	●
	Porous Asphalt	●	●	●
	Pervious Concrete	●	●	●
	Permeable Concrete Interlocking Pavers	●	●	●
Filtering BMPs	Bioretention	(1)	●	(4)
	Sand Filter	(1)	●	●
	Tree Filter	(1)	●	●
Stormwater Pond BMPs	Wet Pond	(6)	●	(2)
	Micropool Extended Detention Pond	(6)	(3)	(2)
	Wet Extended Detention Pond	(6)	(3)	(2)
	Multiple Pond System	(6)	(3)	(2)
Stormwater Wetland BMPs	Subsurface Gravel Wetland	●	(3)	(2)
	Shallow Wetland	(6)	(3)	(2)
	Extended Detention Shallow Wetland	(6)	(3)	(2)

BMP Category	BMP Type	Coldwater Streams (Thermal)	Freshwater Lakes & Ponds (Phosphorus & Sediment)	Coastal Waters & Estuaries (5) (Nitrogen & Bacteria)
	Pond/Wetland System	(6)	(3)	(2)
Water Quality Conveyance BMPs	Dry Water Quality Swale	(1)	☹	☹
	Wet Water Quality Swale		(3)	(2)
Stormwater Reuse BMPs	Rain Barrel	☹	☹	☹
	Cistern	☹	☹	☹
Proprietary BMPs	Manufactured Treatment System		☹	
Other BMPs and BMP Accessories	Green Roofs	☹		
	Dry Extended Detention Basin	(6)		
	Underground Detention (no infiltration)	☹		

Notes:

- (1) When designed for infiltration. When not designed for infiltration, surface discharge should be greater than 200 feet from coldwater stream.
- (2) Provide long detention times (greater than 48 hours extended detention) for more effective bacteria removal.
- (3) Provide larger permanent pool and/or longer flow path through system to increase residence time for more effective phosphorus removal.
- (4) Design with submerged filter bed (Internal Water Storage zone or Internal Storage Reservoir) for enhanced nitrogen removal.
- (5) Design to account for projected sea level rise and associated rise in groundwater to maintain required depth to seasonal high groundwater table.
- (6) Discharge not allowed within 200 feet of coldwater streams.

Legend	☹	Suitable
	(See notes)	Suitable under certain conditions or with design restrictions as noted
		Generally not suitable