

PERFORMANCE SUMMARY OF GREEN INFRASTRUCTURE PRACTICES

This table provides a quick summary of the expected performance for each of the green infrastructure best management practices (BMPs). The following fact sheets provide additional details.

		POTENTIAL APPLICATIONS							STORMWATER QUANTITY FUNCTIONS			STORMWATER QUALITY FUNCTIONS				COST	MAINTENANCE	COLD WEATHER
		Residential	Commercial	Ultra Urban	Industrial	Retrofit	Road	Rec	Volume	Ground-water Recharge	Peak Rate	TSS	TP	TN ¹	Temp			
SITE ASSESSMENT & SITE DESIGN BMPs	Cluster-Type Development	YES	YES ²	LIMITED	LIMITED	NO	NO	LIMITED	HIGH	HIGH	HIGH	HIGH	HIGH	HIGH	HIGH	LOW	LOW/MED	HIGH
	Minimize Soil Compaction	YES	YES	LIMITED	YES	LIMITED	LIMITED	YES	MED/HIGH	MED/HIGH	LOW/MED	MED/HIGH	MED/HIGH	LOW	MED/HIGH	LOW/MED	LOW	LOW/MED
	Minimize Total Disturbed Area	YES	YES	LIMITED	YES	LIMITED	LIMITED	YES	HIGH	HIGH	HIGH	HIGH	HIGH	HIGH	HIGH	LOW	LOW	HIGH
	Protect Natural Flow Waterways	YES	YES	NO	YES	YES	YES	YES	LOW/MED	LOW	MED/HIGH	LOW/MED	LOW/MED	LOW	LO	LOW	LOW/MED	LOW/MED
	Protect Riparian Buffer Areas	YES	YES	LIMITED	YES	YES	LIMITED	YES	LOW/MED	LOW/MED	LOW/MED	HIGH	HIGH	MED	HIGH	LOW/MED	LOW	HIGH
	Protect Sensitive Areas	YES	YES	LIMITED	YES	NO	LIMITED	YES	HIGH	HIGH	HIGH	HIGH	HIGH	LOW	HIGH	LOW/MED	LOW/MED	HIGH
	Reduce Impervious Surfaces	YES	YES	LIMITED	YES	LIMITED	YES	YES	HIGH	HIGH	HIGH	MED	LOW	LOW	MED	LOW	LOW	HIGH
	Stormwater Disconnection	YES	YES	LIMITED	LIMITED	LIMITED	LIMITED	YES	HIGH	HIGH	HIGH	HIGH	HIGH	LOW/MED	HIGH	LOW	LOW	LOW
SOURCE-CONTROL & WATER QUALITY TREATMENT BMPs	Bioretention (Rain Garden)	YES	YES	LIMITED	LIMITED	YES	YES	YES	MED/HIGH	MED/HIGH	MEDIUM	HIGH	MEDIUM	MEDIUM	HIGH	MEDIUM	MEDIUM	MEDIUM
	Detention Basin-Constructed Wetland	YES	YES	YES	YES	YES	YES	YES	LOW	LOW	HIGH	HIGH	MEDIUM	MEDIUM	LOW/MED	HIGH	LOW/MED	MED/HIGH
	Detention Basin -Dry Pond	YES	YES	YES	YES	YES	YES	YES	LOW	LOW	HIGH	MEDIUM	MEDIUM	LOW	LOW	HIGH	Sediment-LOW, Vegetation-High	MED/HIGH
	Detention Basin -Wet Pond	YES	YES	YES	YES	YES	YES	YES	LOW	LOW	HIGH	HIGH	MEDIUM	MEDIUM	LOW/MED	HIGH	LOW/MED	MED/HIGH
	Infiltration Practice- Basin	YES	YES	LIMITED ²	YES	LIMITED	LIMITED	NO	HIGH	HIGH	HIGH	HIGH ⁴	MED/HIGH	MED (NO ₃)	HIGH	LOW/MED	LOW/MED	MED/HIGH
	Infiltration Practice-Subsurface Bed	YES	YES	YES	YES	YES	LIMITED	NO	HIGH	HIGH	HIGH	HIGH ⁴	MED/HIGH	LOW	HIGH	HIGH	MEDIUM	HIGH
	Infiltration Practice-Trench	YES	YES	YES	YES	YES	YES	NO	MEDIUM	HIGH	LOW/MED	HIGH ⁴	MED/HIGH	LOW/MED	HIGH	MEDIUM	LOW/MED	HIGH
	Infiltration Practice-Dry Well	YES	YES	YES	LIMITED	YES	NO	NO	MEDIUM	HIGH	MEDIUM	HIGH ⁴	MED/HIGH	LOW/MED	HIGH	MEDIUM	LOW/MED	HIGH
	Pervious Pavement (Pavers, Blocks, Concrete, Asphalt)	YES ³	YES	YES	YES ³	YES ³	LIMITED ³	YES	HIGH	HIGH	MED/HIGH	HIGH ⁴	MED/HIGH	LOW	HIGH	MEDIUM	HIGH	MEDIUM
	Planter Box/Tree Box	YES	YES	YES	LIMITED	YES	NO	LIMITED	LOW/MED	MEDIUM ⁵	MEDIUM	MEDIUM	LOW/MED	LOW/MED	HIGH	MEDIUM	MEDIUM	MEDIUM
	Rainwater Harvesting	YES	YES	YES	YES	YES	NO	YES	HIGH	LOW	LOW ³	MED ⁴	MEDIUM	MED (NO ₃)	MEDIUM	Rain Barrel-LOW-Cistern-MED	MEDIUM	MEDIUM
	Vegetated Filter Strip	YES	YES	LIMITED ²	LIMITED	YES	YES	YES	LOW	LOW	LOW	MED/HIGH	MED/HIGH	MED/HIGH (NO ₃)	MED/HIGH	LOW	LOW/MED	HIGH
	Vegetated Roof (Green Roof)	LIMITED	YES	YES	YES	YES	N/A	YES	MED/HIGH	LOW ⁶	MEDIUM	MEDIUM	MEDIUM	MEDIUM	HIGH	HIGH	MEDIUM	MEDIUM
	Vegetated Swale (Bioswale)	YES	YES	LIMITED ²	YES	LIMITED	YES	YES	LOW/MED	LOW/MED	LOW/MED	MED/HIGH	LOW/HIGH	MEDIUM	MEDIUM	LOW/MED	LOW/MED	MEDIUM
SITE RESTORATION	Native Revegetation	YES	YES	LIMITED	YES	YES	LIMITED	YES	LOW/MED/HIGH	LOW/MED/HIGH	LOW/MED	HIGH	HIGH	MED/HIGH	MEDIUM	LOW/MED	LOW	MEDIUM
	Riparian Buffer Restoration	YES	YES	YES	YES	YES	LIMITED	YES	LOW/MED	LOW/MED	LOW/MED	MED/HIGH	MED/HIGH	MED/HIGH (NO ₃)	MED/HIGH	LOW/MED	LOW	HIGH
	Soil Restoration	YES	YES	YES	YES	LIMITED	YES	YES	MED	LOW	MEDIUM	HIGH	HIGH	MED/(NO ₃)	MEDIUM	MEDIUM	LOW	HIGH

(Source: compiled by Christopher B. Burke Engineering, LLC from multiple sources)

NOTES:

- 1 – Reported as TN except as noted as (NO₃)
- 2 – Difficult to apply due to space limitations typically associated with these land uses.
- 3 – Applicable with special design considerations
- 4 – This assumes TSS loads and their debris have been managed properly before entering the BMP to prevent clogging
- 5 – Requires infiltration planter box.
- 6 – Although vegetated roofs can be used very successfully in combination with infiltration systems.