

Maintenance Triggers for Bioretention Practices

#	INDICATOR	PASS	MINOR	MODERATE	SEVERE
1	Inlet Obstruction	Free of sediment/debris	Less than 1" of sediment potentially blocking inlet	1-3" of sediment blocking the inlet	3 or more inches of blockage preventing most storms from getting into the bioretention area
2	Erosion at Inlet	No evidence of erosion at inlet.	3"– 6" of gully erosion	6"– 12" of gully erosion	More than 1' of gully erosion
3	Pretreatment	Free and clear of sediment or debris	Pretreatment capacity is within 10% of design	As much as 50% pretreatment capacity has been lost or no pretreatment provided	Loss of pretreatment capacity (or absence of pretreatment) is compromising facility
4	Structural Integrity, Safety Features	Surrounding curbs and pavement in good condition	A few cracks or isolated deterioration but does not impair facility or infrastructure function	Moderate flaws in structural integrity that are resulting in the facility not functioning properly	Curbs or pavement are damaged and impairing function.
5	Surface Area	Surface area matches design	Surface area 5-10% different from design	Surface area 10-25% different from design	Surface area >25% different from design
6	Side slope Erosion	No evidence of side slope erosion.	Isolated rill erosion, less than 1"	Gully erosion of 3" or less at several points on the slope	Gully erosion greater than 3" at any point
7	Ponding Volume	Runoff fully utilizes entire ponding depth across the facility	Effective ponding volume within 10% of original design assumption	Effective ponding volume is 25% less than design assumption	Effective ponding volume is >50% less than design assumption
8	Bed Sinking	Bed is even with no depressions	3-6" of localized bed sinking and/ or sediments observed in underdrain	6"-12" of localized bed sinking and/ or sediments observed in underdrain	>12" of localized bed sinking and/ or sediments observed in underdrain
9	Sediment Caking	No evidence of sediment or caking on the bioretention bed	<1" of sedimentation or caking occurring within the facility	1-2" of sediment deposition occurring within the facility	More than two inches of deposition in the facility
10	Standing Water	No evidence of standing water	Saturated soils or evidence of obligate wetland plant species	1-3" of standing water after 48 hrs	>3" of standing water after 48 hrs

11	Ponding Depth	Ponding depth matches design	Less than 10% departure from design ponding depth of X inches (i.e., 12")	Plus or minus 4" departure from design ponding depth	More than 25% departure from design
12	Mulch Depth/Condition	2-3" of mulch and more than 75% vegetative cover	1" or less of mulch or 65% ground cover	4-5" of mulch or no mulch and less than 50% vegetative cover	More than 6" of mulch or no mulch and < 35% vegetative cover
13	Trash	Free of trash	Little trash	Significant amount of trash	Requires more than three major cleanouts a year
14	Bed Erosion	Bed is flat and even	3-6" of rill erosion	6"-12" of gully erosion	>12" of gully erosion
15	Vegetative Cover	Good vegetative cover, > 75%	Isolated bare spots (< 65% vegetative cover)	< 50% vegetative cover	< 35% vegetative cover
16	Vegetative Condition	Plants alive and in good condition	Considerable weeding needed	Some plants are dead or diseased or some invasive plants.	Significant plant mortality and/or takeover by invasive species. The objectives of the original planting plan are no longer being met.
17	Vegetative Maintenance	Vegetation is being maintained per its landscaping objective	Bioretention is getting a bit bushy, needs some weeding or thinning.	Too bushy, needs harvest of trees, shrubs, or herbaceous material to meet its landscaping objectives.	Needs major tree/shrub removal
18	Outlets, Underdrains, Overflows	Outflow device is free of sediment and debris	Nominal loss of pipe capacity	Significant loss of pipe capacity	Outflow device is completely clogged with sediment or debris