BIORETENTION
Applies to Bioinfiltration, Bioswales (Dry Enhanced Swales) and Rain Gardens.

GENERAL INSPECTION QUESTIONS
Note: ‘Yes’ indicates a maintenance need and action

General:
1. Is access to the site inadequately maintained for inspection and maintenance? YES / NO
2. Are grass clippings present in the drainage area or within the system (inlet structure, pretreatment [filter strip and grass channel], main treatment, or outlet/overflow structure)? (Note: grass clippings should be removed) YES / NO

Drainage Area: (pertains to the surrounding landscape that will contribute runoff to the practice)
3. Is there any exposed or unstable soil that could cause sediment accumulation within the practice? YES / NO
4. Do the drainage ways (overland flow or pipes) to the practice have trash, debris, grass clippings, large branches, etc. present? YES / NO

Inlet Structure / Pretreatment: (Choose One)
A. Forebay    B. Weir    C. Filter Strip / Grass Channels    D. Rock-Lined Plunge Pools
5. Does this area have trash, debris, or sediment present? YES / NO
6. Condition of A–D listed above:
   A/C: Is there any undesirable vegetation or unhealthy grass (bare or dying)? YES / NO
   B: Is the sediment more than 25% of the total depth of the weir? YES / NO
   D: Is the rock thickness in the pool inadequate? YES / NO
7. Is there evidence of runoff short-circuiting (going around) the inlet structure? YES / NO
8. Is there evidence of gullies, rills, or erosion around the inlet or pre-treatment structure? YES / NO

COMMENTS: ____________________________

GOOD EXAMPLES
9. Does the area around the inlet structure (including filter strip and grass channels) need to be mowed? YES / NO
10. If a diversion structure (high flow bypass structure or underdrain) is present, is there presence of trash, debris, on sediment? YES / NO

Main Treatment:
11. Is there evidence of long-term ponding or standing water in the practice (more than 48 hours after a rain event)? (e.g., stains, odors, mosquito larvae, etc.) YES / NO
12. Is there any evidence of fertilizer use on plants? (e.g., fertilizer crusting on surface of soil, tips of leaves turning brown or yellow, blackened roots, etc.) YES / NO
13. For practices with internal check dams to allow for surface ponding on a slope, is there erosion present around the side of the check dams? YES / NO
14. Is the mulch depth inadequate or too deep? Note: target depth is 2 to 4 inches YES / NO

Underdrain: (if installed)
15. If cleanouts are included, are caps missing? YES / NO
16. Are cleanout caps in poor condition? (e.g., inadequately sealed or set below maximum ponding depth) YES / NO
17. Are there any signs of the underdrain being clogged or a blockage? YES / NO

Emergency Overflow / Outlet Structure:
18. Do these structures have trash, debris, sediment or structural damage present? YES / NO
19. Is there evidence of erosion, scour, or flooding around the structure? YES / NO
QUALITATIVE INSPECTION QUESTIONS (GOOD/MARGINAL/POOR)

Note: 'Poor' indicates a maintenance need and action

20. Rate the presence of sediment accumulation in the bioretention surface area.
   GOOD (<25% of area)  MARGINAL (25-50%)  POOR (>50%)

21. Rate the presence of debris (e.g., leaves, trash, grass clippings) in the bioretention surface area.
   GOOD (<25% of area)  MARGINAL (25-50%)  POOR (>50%)

22. Rate the presence of undesirable vegetation.
   GOOD (<25% of area)  MARGINAL (25-50%)  POOR (>50%)

23. Rate the condition of plant health per landscaping plan and site objectives.*
   GOOD (<25% dying/stressed)  MARGINAL (25%-50% dying/stressed)  POOR (>50% dying/stressed)

24. Rate the condition of plant density per landscaping plan and site objectives.*
   GOOD (>50% vegetation coverage)  MARGINAL (25%-50% vegetation)  POOR (overgrown or <25% vegetation)

* General percentages provided if landscaping plan and site objectives are not available

EXAMPLES OF POTENTIAL ISSUES:

5 INLET SEDIMENT
5 INLET STRUCTURE DEBRIS & SEDIMENT
8 INLET EROSION (GRASS CHANNEL)
8 INLET EROSION (ROCK PLUNGE POOL)
8 PRETREATMENT EROSION (FILTER STRIPS), 16 MULCH (NONE), & 22 PLANT DENSITY (POOR)
8 PRETREATMENT EROSION (SLIDE SLOPES) & 22 UNDESIRABLE VEGETATION (POOR)
11 EXCESSIVE PONDING (CATTAILS & STAINING)
14 MULCH (NONE), 18 OUTLET DEBRIS, & 22 UNDESIRABLE VEGETATION (MARGINAL)
14 MULCH (NONE) & 22 UNDESIRABLE VEGETATION (POOR)
14 MULCH (<2"), 22 UNDESIRABLE VEGETATION (MARGINAL) & 24 PLANT DENSITY (MARGINAL)
18 OUTLET DEBRIS
19 OUTLET STRUCTURE EROSION
23 PLANT HEALTH (POOR - EXPOSED ROOTS AND UNSTABLE)
23 PLANT HEALTH (GOOD) & 24 PLANT DENSITY (POOR - OVERGROWN)