

# Burger-Baylor School Bioretention Basin Inspection and Maintenance Checklist

Bioretention Location: \_\_\_\_\_

Date/Time: \_\_\_\_\_

Inspector: \_\_\_\_\_

**Note:** Prior to field inspection, it is recommended to review the planting plans and photographic list of bioretention plants.

**Inspection frequency key:**

BA = Bi-Annually (before growth season and fall recommended), A = Annual, M = Monthly, S = After major storm, W = Weekly

Maintenance Item	Inspection Frequency	Acceptable (Y/N)	Comments	Remediation Steps
<b>Inlet/Outlet</b>				
Structural integrity of inlets and outlets	A			If an inlet or outlet is damaged, replace or repair the structure. This includes concrete aprons and stone lined channels that direct water into the bioretention. A professional may need to be consulted depending on the structure and severity.
Inlets and outlets clear of debris and sediment	M			Remove debris and sediment from all inlets and outlets.
Overflow spillway or catch basin clear of debris and sediment	M			Remove debris and sediment. Sediment should be spread less than ¼” thick on turf grass at least 100 feet from the bioretention. Debris should be disposed of.
Erosion control at inlet is in place (e.g., rock, mat) with no evidence of erosion.	A			Sediment will build up in pretreatment areas over time. Remove excess sediment as necessary. Replace rock and erosion control methods as necessary. Address erosion sources with additional control methods. If erosion is occurring add additional measures to control the erosion (geotextile, additional stone, etc).
Inspect/clean catch basin sumps	A			If sediment and/or debris fills more than 1/3 of the catch basin sump the catch basin should be cleaned. This may require a vacuum truck to pump sediment out.
<b>Bioretention Basin Surface</b>				
Is there any evidence of sedimentation in the bioretention basin?	M, S			Excess sedimentation should be removed to prevent or remediate bioretention basin clogging.
Is there debris in the bioretention basin?	M, S			Any debris in the bioretention basin should be removed.

Does good vegetative cover exist in the bioretention basin and on adjacent surfaces?	M			Adjacent turf should be healthy with no bare spots. Bare areas of turf grass should be restored. Plant coverage in bioretention basin should be consistent with planting plan. Add plants to bare areas as necessary and provide adequate watering to promote plant growth.
Is there evidence of erosion present in the bioretention basin or on adjacent surfaces?	A, S			Erosion in the bioretention basin should be mitigated by identifying the cause of the problem and adding measures like stone or mulch to dissipate runoff energy. Areas with erosion should be restored.
Is mulch (if present) coverage uniform and of appropriate thickness?	A, S			Until bioretention plants are established, mulch is recommended to maintain root moisture and moderate soil temperatures. Without this protection plants will require more frequent watering to promote growth to establish good ground cover. Existing mulch should be evenly distributed to a depth of 1 to 3 inches and additional mulch should be added as needed. Excess mulch should be avoided and excessive mulch or degraded mulch should be removed.
Does bioretention basin have defined edges?	BA			Clear edges help define bioretention and can improve aesthetics. An edger or flat shovel can be used to manual add or restore a small v-notch in the soil along the boarder of the bioretention. This edge also reduces invasion by grasses and nearby weeds.
<b>Additional Considerations</b>				
Is there ponding for more than 48 hours?	A			If the surface of the bioretention basin is clogged with fine sediment, removal of top sediment layer or mulch might be required. If clogging is on the filter fabric or stone layers, remediation is more complex and may require full restoration of the practice. Consult a professional.
Are the plants thriving?	M			Lack of nutrients or high pH in the bioretention soil could inhibit plant growth. A soil test can determine if either of those are concerns. Low soil moisture can also be a problem, especially in bare or well drained soils. Consultation with a landscape architect or plant specialist may be needed.
Do the plants need pruning?	A			Prune as desired for appearance and plant health. Removed dead or severely diseased vegetation. Previous year growth should be cut back/removed in spring.

Are there invasive species or undesired plants in the bioretention basin?	M			The planting plan (Appendix B) and photographic list of bioretention plants (Appendix C) can be used to help identify which plants are desired. Remove invasive species and undesired plants. More frequent weeding results in an easier and limits the total time weeding. Some plants may spread by underground rhizomes. Physical removal of the undesired plants is recommended. Herbicides are not recommended but may be necessary for some invasive species. A qualified professional applicator should be used if herbicides are applied.
Is soil dry (less than 30% moisture) at 1" below the soil surface?	W – during growing season until established			Water plants at least 1" per week if soil is dry. Mulch helps prolong periods between watering.
Are there any complaints on the visual appeal of the bioretention basin?	A			Evaluate and address complaints as needed. bioretention basins in higher visibility areas often require more plant maintenance.