

Maintenance Inspection Checklists

This appendix contains four checklists available as guides for maintenance inspections of specific BMPs. The maintenance items have been adapted from multiple stormwater programs, including the Rouge River Detention Basin Maintenance Manual, Georgia Stormwater Management Manual, the Vermont Stormwater Management Manual, and the Stormwater Manager's Resource Center.

The checklists are designed to help identify key components of BMPs that require ongoing maintenance as well as a basic schedule of when the maintenance should occur. The checklists have been divided into those items essential for the general operation and functionality of the BMP and those items that optional and may enhance the BMP.

It is suggested that the inspection be undertaken by a licensed PE and/or a person knowledgeable about the design and function of the BMP.

These BMP checklists include:

- Detention (ponds, basins, wetlands)
- Infiltration (basins, trenches)
- Bioretention
- Bioswales, vegetated filter strips

Detention BMP Inspection Checklist*

Project Location: _____

Date/Time: _____

Inspector: _____

Maintenance Item	Satisfactory/ Unsatisfactory	Recommended Inspection Frequency	Comments
Inlet/Outlet Pipes			
Structural integrity of inlet/outlet (Are any inlet pipes broken, crumbling, separated?) List Inlet Pipes Approximate Diameter and Type of Material Inlet Pipe 1 _____ Inlet Pipe 2 _____ Inlet Pipe 3 _____ Outlet Pipe Size/Type _____		A	
Riprap at inlet pipe (Is the riprap still present? Is it visible and not covered with sediment?)		A	
Stone around outlet pipe (Is the stone clogged with debris and/or sediment?)		A	
Trash or debris blocking inlet/outlet (Inspect to ensure no major obstructions hindering general functionality)		M	
Inspect/clean catch basin upstream of the BMP if accessible.		A	
Inspect inlets and outlet for erosion (Are there eroded areas around the pipes?)		A	
Inspect overflow spillway for signs of erosion.			
Pretreatment (if applicable) (Might include sediment forebay, upstream catch basin, bioswale, rain garden, swirl concentrator)			
Device functioning to trap/collect sediment		A	
Remove accumulated sediment as appropriate for the pretreatment device. forebay		A	
Detention Pond		A	

Inspection frequency key — A = Annual, M = Monthly, S = After major storm

*It is recommended to review and inspect the basin with the engineering as-built plans.

Maintenance Item	Satisfactory/ Unsatisfactory	Recommended Inspection Frequency	Comments
Inspect side slopes, berms and emergency overflow for erosion		A	
Reestablish permanent native vegetation on eroded slopes		As needed	
Inspect for excess sediment accumulation in pond if not pretreatment device is present		A	
Overall functionality			
Ensure pond is functioning properly (Professional Civil Engineer is recommended)		A	
Ensure the outlet is functioning properly (Professional Civil Engineer is recommended)		A	
Optional/Enhancements			
Maintain 15-20 feet “no mow and chemical free” zone		A	
Mow (or burn) the “no mow” zone		A	
Inspect basin and “no mow” zone for invasive species.		A	
Qualified professional applicator selectively herbicide invasive species		A	
Increase plant diversity by planting additional vegetation in and around pond.		A	
Complaints from residents (note on back)		S	
Encroachment on pond/no- mow zone.		A	
Unauthorized plantings		A	
Aesthetics (e.g., graffiti, unkept maintenance)		A	

Inspection frequency key — A = Annual, M = Monthly, S = After major storm

*It is recommended to review and inspect the basin with the engineering as-built plans.

Summary

Inspector’s remarks: _____

Overall condition of facility (acceptable or unacceptable): _____

Dates any maintenance must be completed by: _____

Inspection frequency key — A = Annual, M = Monthly, S = After major storm

*It is recommended to review and inspect the basin with the engineering as-built plans.

Infiltration BMPs Inspection Checklist*

Project Location: _____

Date/Time: _____

Inspector: _____

Maintenance Item	Satisfactory/ Unsatisfactory	Recommended Inspection Frequency	Comments
Inlet/Outlet			
Structural integrity of inlet/outlet		A	
Inlet/outlet clear of debris		M	
Overflow spillway clear of debris		M	
Erosion control at inlet in place (e.g., rock, mat)/ evidence of erosion		A	
Erosion control at outlet in place/evidence of erosion		A	
Inspect/clean catch basin upstream of BMP		A	
Pretreatment for sediment			
Device functioning to trap sediment		A	
Remove accumulated sediment		A	
Overall functionality			
Ensure infiltration device is functioning properly (professional civil engineer is recommended)		A	
BMP infiltration surface			
Any evidence of sedimentation in BMP		A	
Does sediment accumulation currently require removal		A	
Debris in BMP		S	
Evidence of erosion present		A	
Aggregate (if applicable)			
Surface of aggregate clean		A	
Any replacement of aggregate needed? If clogged with sediment replacement is necessary for contin- ued proper function.		A	

Inspection frequency key — A = Annual, M = Monthly, S = After major storm

*Prior to field inspection, it is recommended to review the as-built plans.

Maintenance Item	Satisfactory/ Unsatisfactory	Recommended Inspection Frequency	Comments
Vegetated surface (if applicable)			
Vegetative cover exists		A	
Optional considerations			
Inspect BMP for invasive species.		A	
Qualified professional applicator selectively herbicide invasive species		A	
Increase plant diversity by planting additional vegetation or creating a native plant infiltration basin area.		A	
Complaints from residents (note on back)		A	
Mowing done when necessary		A	
No fertilizer unless testing requires it		A	

Inspection frequency key — A = Annual, M = Monthly, S = After major storm

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Summary

Inspector's remarks: _____

Overall condition of facility (acceptable or unacceptable): _____

Dates any maintenance must be completed by: _____

Bioretention Inspection Checklist*

Project Location: _____

Date/Time: _____

Inspector: _____

Maintenance Item	Satisfactory/ Unsatisfactory	Recommended Inspection Frequency	Comments
Inlet/Outlet			
Structural integrity of inlet/outlet		A	
Inlet/outlet clear of debris		M	
Overflow spillway or catch basin clear of debris		M	
Erosion control at inlet in place (e.g., rock, mat)/ evidence of erosion		A	
Erosion control at outlet in place/evidence of erosion		A	
Inspect/clean catch basin upstream of BMP		Every 5 years	
Pretreatment for sediment (Generally consists of catch basin or velocity dissipator at inlet such as area of riprap/ collection for sediment)			
Device functioning to trap sediment		A	
Remove accumulated sediment		A	
Overall functionality			
Ensure bioretention area is functioning properly (professional civil engineer is recommended)		A	
Bioretention area surface			
Any evidence of sedimentation in BMP		A	
Does sediment accumulation currently require removal		A	
Debris in BMP		M	
Evidence of erosion present		A	
Does good vegetative cover exist		A	
Mulch covers entire area (no voids) and to speci- fied thickness		A	
Optional considerations			
Inspect BMP for invasive species.		A	

Inspection frequency key — A = Annual, M = Monthly, S = After major storm

*Prior to field inspection, it is recommended to review the as-built plans.

Maintenance Item	Satisfactory/ Unsatisfactory	Recommended Inspection Frequency	Comments
Qualified professional applicator selectively herbicide invasive species		A	
Increase plant diversity by planting additional vegetation		A	
Complaints from residents (note on back)		A	

Inspection frequency key — A = Annual, M = Monthly, S = After major storm

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Summary

Inspector's remarks: _____

Overall condition of facility (acceptable or unacceptable): _____

Dates any maintenance must be completed by: _____

Bioswale, Filter Strip Inspection Checklist

Project Location: _____

Date/Time: _____

Inspector: _____

Maintenance Item	Satisfactory/ Unsatisfactory	Recommended Inspection Frequency	Comments
Inlet/Outlet			
Structural integrity of inlet/outlet		A	
Inlet/outlet clear of debris		M	
Pretreatment/ Energy Dissipators			
No evidence of flow going around structures		A	
No evidence of erosion		A	
Device functioning to trap sediment		A	
Remove accumulated sediment		A	
BMP surface			
Area free of debris?		M	
No evidence of erosion		A	
Does sediment accumulation currently require removal?		A	
Overall functionality			

Inspection frequency key — A = Annual, M = Monthly, S = After major storm

*Prior to field inspection, it is recommended to review the as-built plans.

Maintenance Item	Satisfactory/ Unsatisfactory	Recommended Inspection Frequency	Comments
Ensure swale is functioning properly (professional civil engineer is recommended)		A	
Optional Considerations			
Inspect BMP for invasive species.		A	
Qualified professional applicator selectively herbicide invasive species		A	
Increase plant diversity by planting additional vegetation		A	
Complaints from residents (note on back)		A	

Inspection frequency key — A = Annual, M = Monthly, S = After major storm

*Prior to field inspection, it is recommended to review the as-built plans.

Summary

Inspector's remarks: _____

Overall condition of facility (acceptable or unacceptable): _____

Dates any maintenance must be completed by: _____