

# Appendix B – Structural Stormwater BMP Maintenance Inspection Checklist

Included in this Appendix:

- Standard checklist that can be used during maintenance inspections of most types of structural stormwater Best Management Practices (BMPs). Not all system components will be applicable to every BMP. For proprietary stormwater BMPs, use inspection checklists provided by the system manufacturer.
- An additional blank page is provided for non-standard system components not shown on the standard inspection checklist.
- Complete a separate inspection checklist for each stormwater BMP at a given site and provide a site plan or sketch showing the locations of each stormwater BMP.
- Additional inspection and maintenance resources.

# INSPECTION CHECKLIST

DATE/ TIME: \_\_\_\_\_

INSPECTOR: \_\_\_\_\_

TYPE OF BMP: \_\_\_\_\_

WEATHER DURING INSPECTION: \_\_\_\_\_

LOCATION: \_\_\_\_\_

TYPE OF INSPECTION (check if applicable):

Storm Event  Complaint Response  Routine

AS IS BUILT PLANS AVAILABLE: Yes  No

PRECIPITATION AMOUNT IN 24 HR PRIOR TO INSPECTION: \_\_\_\_\_

<b>INLET</b>	APPLICABLE: Yes <input type="checkbox"/> No <input type="checkbox"/>	
<u>Circle or note applicable element(s):</u> level spreader, inlet curb cut opening, inlet structure, piped flow entrance, flow diversion structure _____	<u>Guidance on what to look for:</u> -Accumulated debris/ sediment at the inlet and within the structure (if applicable) -Structural damage or erosion	
<b>CONDITION:</b>	Satisfactory <input type="checkbox"/>	Unsatisfactory <input type="checkbox"/>

**RECOMMENDED MAINTANENCE**

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**NOTES**

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**DATE FOR FOLLOW UP**

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<b>PRETREATMENT</b> <span style="float: right;">APPLICABLE: Yes <input type="checkbox"/> No <input type="checkbox"/></span>	
<u>Circle or note applicable element(s):</u> sediment forebay, pretreatment vegetated filter strip, deep sump pump catch basin, oil grit separator, proprietary treatment device _____	<u>Guidance on what to look for:</u> -Accumulated debris/ sediment -Structural damage or erosion
<b>CONDITION:</b> Satisfactory <input type="checkbox"/>	Unsatisfactory <input type="checkbox"/>

<b>RECOMMENDED MAINTANENCE</b>
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<b>DATE FOR FOLLOW UP</b>
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<b>BASIN CELL</b> <span style="float: right;">APPLICABLE: Yes <input type="checkbox"/> No <input type="checkbox"/></span>	
<u>Circle or note applicable element(s):</u> infiltration trench, infiltration basin, bioretention, sand filter, subsurface gravel wetland _____	<u>Guidance on what to look for:</u> -Accumulated debris -Damage (e.g. erosion/ animal burrowing) -Overgrown/ dead vegetation -Standing water -Condition of wetland vegetation
<b>CONDITION:</b> Satisfactory <input type="checkbox"/>	Unsatisfactory <input type="checkbox"/>

<b>RECOMMENDED MAINTANENCE</b>
_____ _____ _____ _____ _____ _____ _____ _____ _____ _____

<b>NOTES</b>
_____ _____ _____ _____
<b>DATE FOR FOLLOW UP</b>
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<b>FILTER BED</b>	APPLICABLE: Yes <input type="checkbox"/> No <input type="checkbox"/>
<u>Circle or note applicable element(s):</u> bioretention, sand filter, tree filter, dry water quality swale, permeable pavement _____	<u>Guidance on what to look for:</u> - Accumulated debris/ sediment -Overgrown/ dead vegetation and weeds -Standing water above filter bed -Erosion/ rutting in upgradient areas -Cracks or damage to permeable pavement
CONDITION: Satisfactory <input type="checkbox"/>	Unsatisfactory <input type="checkbox"/>

<b>RECOMMENDED MAINTANENCE</b>
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<b>DATE FOR FOLLOW UP</b>
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<b>SUBSURFACE RESERVOIR/ OBSERVATION WELL</b>	APPLICABLE: Yes <input type="checkbox"/> No <input type="checkbox"/>
<u>Circle or note applicable element(s):</u> infiltration trench, underground infiltration system, dry well, bioretention, tree filter, dry water quality swale, subsurface gravel wetland* _____	<u>Guidance on what to look for:</u> -Standing water in the  <div style="text-align: right;">*if underdra in present</div>

CONDITION: Satisfactory <input type="checkbox"/>	Unsatisfactory <input type="checkbox"/>
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<b>RECOMMENDED MAINTANENCE</b>
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<b>DATE FOR FOLLOW UP</b>
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<b>Berm/ Weir</b>	APPLICABLE: Yes <input type="checkbox"/>	No <input type="checkbox"/>
<u>Circle or note applicable element(s):</u> stormwater ponds, stormwater wetlands including subsurface gravel wetland, water quality swales _____	<u>Guidance on what to look for:</u> -Debris sediment buildup -Damage (e.g. erosion, cracks, spalling, seepage/ weeps, failure, animal burrows)	
<b>CONDITION:</b>	Satisfactory <input type="checkbox"/>	Unsatisfactory <input type="checkbox"/>

RECOMMENDED MAINTANENCE
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DATE FOR FOLLOW UP
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<b>Outlet</b>	APPLICABLE: Yes <input type="checkbox"/>	No <input type="checkbox"/>
<u>Circle or note applicable element(s):</u> outlet curb cut openings, raised overflow structures or risers, outflow weirs, outlet pipes/ culverts, stone riprap apron, stone riprap stilling basin or plunge pool _____	<u>Guidance on what to look for:</u> -Accumulated debris/ sediment at the outlet and within the structure (if applicable) -Structural damage or erosion	
<b>CONDITION:</b>	Satisfactory <input type="checkbox"/>	Unsatisfactory <input type="checkbox"/>

RECOMMENDED MAINTANENCE
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NOTES
_____ _____ _____ _____
DATE FOR FOLLOW UP
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**Maintenance Access**      APPLICABLE: Yes       No

All BMPs are applicable  
Guidance on what to look for:  
-Access to pretreatment and all parts of BMP that require routine maintenance or sediment removal  
-Structural damage or erosion access road  
-Overgrown/ dead vegetation preventing or impeding access by maintenance personnel or equipment

CONDITION:      Satisfactory       Unsatisfactory

**RECOMMENDED MAINTANENCE**

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**NOTES**

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**DATE FOR FOLLOW UP**

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**Other:** \_\_\_\_\_

Note applicable element(s):  
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CONDITION:      Satisfactory       Unsatisfactory

**RECOMMENDED MAINTANENCE**

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**DATE FOR FOLLOW UP**

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## Inspection and Maintenance Resources

### Bioretention

[https://stormwater.pca.state.mn.us/index.php?title=Operation\\_and\\_maintenance\\_of\\_bioretention\\_and\\_other\\_stormwater\\_infiltration\\_practices](https://stormwater.pca.state.mn.us/index.php?title=Operation_and_maintenance_of_bioretention_and_other_stormwater_infiltration_practices)

[https://www.epa.gov/sites/default/files/2016-11/documents/final\\_gi\\_maintenance\\_508.pdf](https://www.epa.gov/sites/default/files/2016-11/documents/final_gi_maintenance_508.pdf)

### Detention Basin

<https://s3.amazonaws.com/bethtwpassets/Bethelehem+SWM+Guideline.pdf>

[http://water.rutgers.edu/Projects/GreenInfrastructureChampions/Talks\\_2020/8\\_Handouts/8\\_DetentionBasinMaintenanceGuidelines.pdf](http://water.rutgers.edu/Projects/GreenInfrastructureChampions/Talks_2020/8_Handouts/8_DetentionBasinMaintenanceGuidelines.pdf)

### Dry Well

[https://www.cbf.org/document-library/presentation-webinar-materials/CBF\\_Dry\\_Well\\_011614.pdf](https://www.cbf.org/document-library/presentation-webinar-materials/CBF_Dry_Well_011614.pdf)

<https://www.youtube.com/watch?v=bflb0R-cYfs>

### Grass Swale

[https://www.aacounty.org/departments/public-works/wprp/bmp\\_maintenance/Archive/Grass%20Swale%20Maintenance-2.pdf](https://www.aacounty.org/departments/public-works/wprp/bmp_maintenance/Archive/Grass%20Swale%20Maintenance-2.pdf)

[https://stormwater.pca.state.mn.us/index.php?title=Operation\\_and\\_maintenance\\_of\\_dry\\_swale\\_\(grass\\_swale\)](https://stormwater.pca.state.mn.us/index.php?title=Operation_and_maintenance_of_dry_swale_(grass_swale))

[https://www.cbf.org/document-library/cbf-guides-fact-sheets/CBF\\_Vegetated-Swale\\_01161476fc.pdf](https://www.cbf.org/document-library/cbf-guides-fact-sheets/CBF_Vegetated-Swale_01161476fc.pdf)

[https://www.epa.gov/sites/default/files/2016-11/documents/final\\_gi\\_maintenance\\_508.pdf](https://www.epa.gov/sites/default/files/2016-11/documents/final_gi_maintenance_508.pdf)

### Infiltration Trench

[https://www.cbf.org/document-library/presentation-webinar-materials/CBF\\_Infiltration\\_Trench\\_011614.pdf](https://www.cbf.org/document-library/presentation-webinar-materials/CBF_Infiltration_Trench_011614.pdf)

[https://stormwater.pca.state.mn.us/index.php?title=Operation\\_and\\_maintenance\\_of\\_Infiltration\\_trench&redirect=no](https://stormwater.pca.state.mn.us/index.php?title=Operation_and_maintenance_of_Infiltration_trench&redirect=no)

### **Permeable Pavement**

<https://askhrgreen.org/wp-content/uploads/2015/04/PermeablePavement.pdf>

<https://www.montgomerycountymd.gov/DEP/Resources/Files/PostersPamphlets/Porous-Pavement-Maintenance.pdf>

[https://stormwater.pca.state.mn.us/index.php/Operation\\_and\\_maintenance\\_of\\_permeable\\_pavement](https://stormwater.pca.state.mn.us/index.php/Operation_and_maintenance_of_permeable_pavement)

[https://www.perviouspavement.org/downloads/pervious\\_maintenance\\_operations\\_guide.pdf](https://www.perviouspavement.org/downloads/pervious_maintenance_operations_guide.pdf)

[https://www.cbf.org/document-library/cbf-guides-fact-sheets/CBF\\_Pervious-Pavement\\_0116142c76.pdf](https://www.cbf.org/document-library/cbf-guides-fact-sheets/CBF_Pervious-Pavement_0116142c76.pdf)

### **Rain Barrel**

<https://montgomerycountymd.gov/DEP/Resources/Files/PostersPamphlets/Rain-Barrels.pdf>

[https://www.cbf.org/document-library/cbf-guides-fact-sheets/CBF\\_Rainbarrels\\_011614e420.pdf](https://www.cbf.org/document-library/cbf-guides-fact-sheets/CBF_Rainbarrels_011614e420.pdf)

### **Sand Filter**

[https://stormwater.pca.state.mn.us/index.php/Operation\\_and\\_maintenance\\_of\\_filtration](https://stormwater.pca.state.mn.us/index.php/Operation_and_maintenance_of_filtration)

### **Stormwater Pond**

[https://www.cbf.org/document-library/cbf-guides-fact-sheets/CBF\\_Pervious-Pavement\\_0116142c76.pdf](https://www.cbf.org/document-library/cbf-guides-fact-sheets/CBF_Pervious-Pavement_0116142c76.pdf)

### **Stormwater Wetland**

[https://stormwater.pca.state.mn.us/index.php?title=Operation\\_and\\_maintenance\\_\(O%26M\)\\_of\\_stormwater\\_treatment\\_wetland\\_practices](https://stormwater.pca.state.mn.us/index.php?title=Operation_and_maintenance_(O%26M)_of_stormwater_treatment_wetland_practices)

[https://www.cbf.org/document-library/cbf-guides-fact-sheets/CBF\\_Pervious-Pavement\\_0116142c76.pdf](https://www.cbf.org/document-library/cbf-guides-fact-sheets/CBF_Pervious-Pavement_0116142c76.pdf)

<https://www.fayettevillenc.gov/home/showdocument?id=8085>



### **Tree Box Filter/Tree Trench**

[https://stormwater.pca.state.mn.us/index.php?title=Operation and maintenance \(O%26M\) of tree trenches and tree boxes](https://stormwater.pca.state.mn.us/index.php?title=Operation_and_maintenance_(O%26M)_of_tree_trenches_and_tree_boxes)

<https://megamanual.geosyntec.com/npsmanual/treeboxfilters.aspx>

[https://archives.lib.state.ma.us/bitstream/handle/2452/803682/on1103924280-task\\_3\\_deliverables.pdf?sequence=5&isAllowed=y](https://archives.lib.state.ma.us/bitstream/handle/2452/803682/on1103924280-task_3_deliverables.pdf?sequence=5&isAllowed=y)

[https://www.unh.edu/unhsc/sites/unh.edu.unhsc/files/UNHSC%20Biofilter%20Maintenance%20Guidance%20and%20Checklist%201-11\\_0.pdf](https://www.unh.edu/unhsc/sites/unh.edu.unhsc/files/UNHSC%20Biofilter%20Maintenance%20Guidance%20and%20Checklist%201-11_0.pdf)