

County of Augusta Post-Construction BMP Inspection Checklist



<b>FACILITY ID:</b> _____		<b>DATE:</b> ____/____/____		<b>ASSESSED BY:</b> _____	
<b>NAME:</b> _____					<b>HANDHELD/ GPS ID:</b>
<b>ADDRESS:</b> _____					
<b>PHOTO IDS:</b> _____					
<b>SECTION 1- BACKGROUND INFORMATION (GIS)</b>					
<b>BMP TYPE :</b>				<b>YEAR CONSTRUCTED:</b> _____	
Dry Detention Pond		Dry Swale	Wetland	<b>OWNERSHIP</b> Public    Private    Unknown	
Extended Detention Pond		Wet Swale	Level Spreader		
Wet Pond		Grass Channel	WQ Inlet		
Filter (specify: _____)		Dry Well	Proprietary Device		
Infiltration (specify: _____)		Permeable Pavement	Other _____		
Check if structure is underground		Bioretention _____			
<b>SITE CHARACTERIZATION</b>					
<b>DRAINAGE AREA:</b> ____ (acres)		<b>IMPERVIOUS COVER:</b> ____ (acres)		Discerned from:    Plan    County Data    GIS    Field	
<b>CONTRIBUTING DRAINAGE AREA (% land use):</b> <i>Note – All percentages should sum up to 100%.</i>				<b>WATER QUALITY VOL (FROM DESIGN PLAN):</b> ____ (ft <sup>3</sup> )	
____ Industrial	____ Commercial	____ Urban/Residential	____ Suburban/Res		
____ Forested	____ Institutional	____ Golf course	____ Park		
____ Crop	____ Pasture	____ Other: _____			
<b>SECTION 2- FIELD VISIT</b>					
Rain in last 48 hrs?    Yes    No		Evidence of high water table (e.g., excessive soil saturation)?    Yes    No			
<b>DESIGN ELEMENTS</b>					
<b>FACILITY SIZE:</b>		<b>OBSERVED WQ STORAGE VOL:</b>	<b>HYDRAULIC CONFIGURATION</b>	<b>DESIGN STORM(S):</b>	
Length: ____ (ft) Width: ____ (ft)		____ (ft <sup>3</sup> )	On-line Facility	Water Quality	
Surface Area: ____ (ft <sup>2</sup> )			Off-line Facility	Flood Control	
Depth of WQ storage ____ (ft)				Channel Protection	
				Unknown	
<b>BMP SIGNAGE:</b> (check all that apply)					
None	Flood Warning	Stormwater Education	No Trespassing	Wildlife Habitat	
Public Property	Do Not Mow	Other: _____			
<b>OUTLET CHARACTERISTICS</b>					
<b>PRIMARY OUTLET STRUCTURE:</b>	N/A – infiltration w/ no outlet	Pipe	Riser	Weir	Large Storm Overflow
	Large Storm By-pass	Other: _____			Open channel
<b>OUTLET FEATURES:</b>	N/A	Trash Rack	Pond Drain	Inverted outlet pipe	Hooded outlet
	Perforated pipe	Gravel Diaphragm	Micropool outlet	Multiple outlet levels	Anti-vortex device
	<i>Outlet includes restrictor?</i>	Yes	No		
<b>OUTLET STRUCTURE CONDITIONS:</b>	Erosion at Outlet:	None	Slight	Moderate	Severe
	Clogging:	None	Slight	Moderate	Severe
	Structural Problems:	None	Slight	Moderate	Severe
<b>CONDITIONS AT OUTFALL:</b>	Stream	Closed storm sewer	Surface channel	Road ditch	Other: _____
	Unknown				
Active Erosion:	None	Slight	Moderate	Severe	None
Trash:	Slight	Moderate	Severe	None	Slight
Sedimentation:	Moderate	Severe		Other WQ Problems:	None
					Slight
					Moderate
					Severe
Emergency Spillway Type:    Channel    Riser Overflow    Weir    Other: _____					



SOIL OR FILTER MEDIA		
<b>TYPE OF FILTER/INFILTRATION MEDIA:</b> (check all that apply) <input type="checkbox"/> Soil mix _____ (in) <input type="checkbox"/> Sand _____ (in) <input type="checkbox"/> Gravel _____ (in) <input type="checkbox"/> Large Stone _____ (in) <input type="checkbox"/> Organic material _____ (in) <input type="checkbox"/> Other _____ <input type="checkbox"/> N/A <input type="checkbox"/> Unknown Avg. depth of sediment build-up on surface? _____ (in)		
<b>SOIL MEDIA SAMPLE:</b> <i>Note – Complete during site investigation, if applicable</i> Dominant Soil Type <input type="checkbox"/> Clay <input type="checkbox"/> Loam <input type="checkbox"/> Sand <input type="checkbox"/> Sand/Loam Is the soil homogenous? <input type="checkbox"/> Yes <input type="checkbox"/> No		Comments:
VEGETATION		
<b>GENERAL OBSERVATIONS:</b> <input type="checkbox"/> Landscaped <input type="checkbox"/> Aquatic Bench <input type="checkbox"/> Invasive Species <input type="checkbox"/> Plant Diversity	<b>TYPE OF GROUND COVER</b> (% of Surface Area in Plan View up to low Outlet): <i>Note – All percentages should sum up to 100 %.</i> _____ Trees    _____ Grasses/Perennials    _____ Ponded water    _____ Other: _____ _____ Managed Turf    _____ Bare Soil    _____ Shrubs    _____ N/A _____ Gravel/stone    _____ Mulch    _____ Emergent wetland	
Depth of mulch, if present: <input type="checkbox"/> Hardwood _____ (in) <input type="checkbox"/> Pine Straw _____ (in) <input type="checkbox"/> Other _____ (in) Rate degree of shading of BMP Surface Area by trees: <input type="checkbox"/> Well Shaded <input type="checkbox"/> Some Shading <input type="checkbox"/> No Shading <input type="checkbox"/> N/A		
INLET CHARACTERISTICS		
<b>INLET #1:</b> Diameter/Width: _____ (in)	<b>TYPE OF INLET:</b> <input type="checkbox"/> Open Channel <input type="checkbox"/> Closed Pipe <input type="checkbox"/> Sheet Flow <input type="checkbox"/> Curb Cut <input type="checkbox"/> Other: _____	Elevation difference between bottom of inlet and BMP surface: _____ (in)  Comments:
<b>INLET SUBMERSION:</b> <input type="checkbox"/> Complete <input type="checkbox"/> Partial <input type="checkbox"/> None	<b>INLET CONDITIONS:</b> Inlet Erosion <input type="checkbox"/> None <input type="checkbox"/> Slight <input type="checkbox"/> Moderate <input type="checkbox"/> Severe Inlet Clogging <input type="checkbox"/> None <input type="checkbox"/> Slight <input type="checkbox"/> Moderate <input type="checkbox"/> Severe Structural Problems <input type="checkbox"/> None <input type="checkbox"/> Slight <input type="checkbox"/> Moderate <input type="checkbox"/> Severe	
<b>INLET #2:</b> Diameter/Width: _____ (in)	<b>TYPE OF INLET:</b> <input type="checkbox"/> Open Channel <input type="checkbox"/> Closed Pipe <input type="checkbox"/> Sheet Flow <input type="checkbox"/> Curb Cut <input type="checkbox"/> Other: _____	Elevation difference between bottom of inlet and BMP surface: _____ (in)  Comments:
<b>INLET SUBMERSION:</b> <input type="checkbox"/> Complete <input type="checkbox"/> Partial <input type="checkbox"/> None	<b>INLET CONDITIONS:</b> Inlet Erosion <input type="checkbox"/> None <input type="checkbox"/> Slight <input type="checkbox"/> Moderate <input type="checkbox"/> Severe <input type="checkbox"/> None Inlet Clogging <input type="checkbox"/> Slight <input type="checkbox"/> Moderate <input type="checkbox"/> Severe <input type="checkbox"/> None <input type="checkbox"/> Slight Structural Problems <input type="checkbox"/> Moderate <input type="checkbox"/> Severe <input type="checkbox"/> _____	
PRETREATMENT		
<b>TYPE OF PRETREATMENT</b> (check all that apply) <input type="checkbox"/> None <input type="checkbox"/> Grass Filter Strip <input type="checkbox"/> Sediment Forebay ( _____ ft <sup>3</sup> ) <input type="checkbox"/> Plunge Pool? <input type="checkbox"/> Grass Channel <input type="checkbox"/> Stone Diaphragm <input type="checkbox"/> Riprap Channel or Apron <input type="checkbox"/> Other: _____		<b>PRETREATMENT FUNCTION</b> <input type="checkbox"/> By design <input type="checkbox"/> Incidental Is pretreatment functioning? <input type="checkbox"/> Yes <input type="checkbox"/> No Is sediment removal necessary? <input type="checkbox"/> Yes <input type="checkbox"/> No Signs of pretreatment bypass? <input type="checkbox"/> Yes <input type="checkbox"/> No Signs of flow of sediment from pretreatment to BMP? <input type="checkbox"/> Yes <input type="checkbox"/> No Severity: <input type="checkbox"/> Slight <input type="checkbox"/> Moderate <input type="checkbox"/> Severe
GENERAL DESIGN		
<b>BMP FEATURES</b> (check all that apply) <input type="checkbox"/> Maintenance Access <input type="checkbox"/> Underdrain <input type="checkbox"/> Fence <input type="checkbox"/> Clean Out <input type="checkbox"/> Pond Drain <input type="checkbox"/> Multi-cell <input type="checkbox"/> Observation Well <input type="checkbox"/> Other: _____ <input type="checkbox"/> Micropool    Is water present in observation well? <input type="checkbox"/> Impermeable Liner <input type="checkbox"/> Yes <input type="checkbox"/> No    Depth: _____ ft		
<b>CONVEYANCE THROUGH BMP</b> <input type="checkbox"/> No Defined Channel <input type="checkbox"/> Low Flow Channel <input type="checkbox"/> Concrete <input type="checkbox"/> Eroded <input type="checkbox"/> Earthen <input type="checkbox"/> Other _____ Length of Shortest Flow Path: _____ (ft)		Is BMP designed with a Permanent Pool? <input type="checkbox"/> Yes <input type="checkbox"/> No



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<b>PERFORMANCE</b>								
<b>GENERAL PROBLEMS:</b> (check all that apply)								
<input type="checkbox"/> Maintenance Needed	<input type="checkbox"/> Erosion at Embankments	<input type="checkbox"/> Permanent Pools not stable						
<input type="checkbox"/> Water Bypass of Inlet	<input type="checkbox"/> Erosion within Facility	<input type="checkbox"/> Inadequate vegetation						
<input type="checkbox"/> Water Bypass of Outlet	<input type="checkbox"/> Deposition within Facility	<input type="checkbox"/> Dead or Diseased Vegetation						
<input type="checkbox"/> Incorrect Flow Paths	<input type="checkbox"/> Inappropriate Ponding of Water	<input type="checkbox"/> Too many invasive plants						
<input type="checkbox"/> Short-circuiting of treatment mechanism	<input type="checkbox"/> Clogged Pond Drain/Underdrain	<input type="checkbox"/> Trees on Embankment						
<input type="checkbox"/> No or ineffective treatment	<input type="checkbox"/> Clogged Media	<input type="checkbox"/> Failing structural components						
<input type="checkbox"/> Ineffective pretreatment	<input type="checkbox"/> Inappropriate media material	<input type="checkbox"/> Safety issue (Note: _____)						
<input type="checkbox"/> Others _____	<input type="checkbox"/> Inappropriate underlying soil (infiltration)							
<b>WATER QUALITY IN FACILITY:</b> <input type="checkbox"/> N/A		<b>EVIDENCE OF:</b>						
Algae <input type="checkbox"/> None <input type="checkbox"/> Slight <input type="checkbox"/> Severe	ate <input type="checkbox"/> Severe	<input type="checkbox"/> Geese						
Odor <input type="checkbox"/> None <input type="checkbox"/> Slight <input type="checkbox"/> Severe	ate <input type="checkbox"/> Severe	<input type="checkbox"/> Animal Burrows						
Turbidity <input type="checkbox"/> None <input type="checkbox"/> Slight <input type="checkbox"/> Severe	ate <input type="checkbox"/> Severe	<input type="checkbox"/> Mosquitoes						
Color <input type="checkbox"/> Normal <input type="checkbox"/> Abnormal: _____		<input type="checkbox"/> BMP Alteration						
<b>PROBLEM</b>	<b>1=NONE</b>	<b>2 - FEW</b>	<b>3 – SEVERAL</b>	<b>4-SEVERE</b>				
<b>TRASH</b>	No evidence of trash	A few pieces of trash throughout BMP	Trash accumulation near inlet/outlet	Lots of trash in BMP or BMP used for storage				
<b>BMP BANK EROSION</b>	No noticeable erosion	Slight erosion < 5% of bank affected	Moderate erosion ~15% of bank affected	Banks severely eroded, >25% of bank affected				
<b>SEDIMENT DEPOSITION</b>	No sediment deposition	Areas of minor sediment deposition	Areas of some deposition, may be severe near inlet/outlets	Lots of deposition resulting in pond bottom clogging				
<b>SURFACE SLOPE</b>	0-1% BMP surface slope	1-3% BMP surface slope or steeper slopes with check dams,	3-5% BMP surface slope with no check dams,	>5% surface slope;				
<b>SIDE SLOPES</b>	BMP side slopes 3:1 or flatter	BMP side slopes 2:1	Steep BMP side slopes	Risk of side slope failure				
<b>STRUCTURAL</b>	No evidence of structural damage	Minor problems (e.g., bank slump, eroded channels)	Moderate structural problems –failure pending	Structural failures (e.g., bank failure, blowout)				
<b>VISIBILITY</b>	High visibility, near high-traffic areas	Some visibility, near traffic areas	Limited visibility, near low traffic areas	No visibility, behind buildings or fences				
<b>ACCESSIBILITY</b>	Maintained access area for vehicles	Access area designated, but not maintained	Access for vehicles not designated	Access for vehicles not possible				
<b>VEG COVER</b>	No mowing in/around BMP	Mowing along BMP edges but areas of no mow in BMP bottom	Mowed turf vegetation	BMP bottom has large areas of bare soil				
	Dense plant cover (>75%)	Plant cover, 50-75%	Some plant cover, 25-50%	Sparse vegetative cover (<25%),				
<b>VEG HEALTH</b>	TREES	Healthy and established	Slightly stressed	Stressed	Dead			
	GROUND COVER	Healthy and established	Slightly stressed	Stressed	Dead			
	SHRUBS	Healthy and established	Slightly stressed	Stressed	Dead			
	EMERGENT WETLAND	Healthy and established	Slightly stressed	Stressed	Dead			
<b>OVERALL PERFORMANCE SCORE</b> (circle one number)								
Excellent design and function, no general problems with performance	BMP is well designed, but is undersized or has a few performance problems	BMP is adequately designed, several problems with performance are noted	Poor BMP design, severe performance problems or failure					
10	9	8	6	5	4	3	2	1



**FIELD NOTES**

GOOD OR INTERESTING DESIGN FEATURES:  
PHOTO #'S:

POOR OR PROBLEMATIC DESIGN FEATURES:  
PHOTO #'S:

**SECTION 3 – DESIGN PLAN VERIFICATION**

**PLAN AVAILABLE:**  As-built  Other: \_\_\_\_\_

Do field observations match design plans/as-builts? Describe any differences.

Soil type in facility	<input type="checkbox"/> N/A	<input type="checkbox"/> Yes	<input type="checkbox"/> No	If no, describe:
Pretreatment type and size	<input type="checkbox"/> N/A	<input type="checkbox"/> Yes	<input type="checkbox"/> No	If no, describe:
Signage	<input type="checkbox"/> N/A	<input type="checkbox"/> Yes	<input type="checkbox"/> No	If no, describe:
Low-flow channel	<input type="checkbox"/> N/A	<input type="checkbox"/> Yes	<input type="checkbox"/> No	If no, describe:
Dimensions/volume	<input type="checkbox"/> N/A	<input type="checkbox"/> Yes	<input type="checkbox"/> No	If no, describe:
Inlet type, #, and sizing	<input type="checkbox"/> N/A	<input type="checkbox"/> Yes	<input type="checkbox"/> No	If no, describe:
Outlet type, #, and sizing	<input type="checkbox"/> N/A	<input type="checkbox"/> Yes	<input type="checkbox"/> No	If no, describe:
Vegetation composition	<input type="checkbox"/> N/A	<input type="checkbox"/> Yes	<input type="checkbox"/> No	If no, describe:
Other features	<input type="checkbox"/> N/A	<input type="checkbox"/> Yes	<input type="checkbox"/> No	If no, describe: