

3rd Party Construction Inspection Checklist and Certification: Bioretention (P-FIL-05)



(DEQ Spec. P-FIL-05 (Formerly DEQ Spec. No. 9) & PFM 6-1307)
Site Development and Inspections Division
Fairfax County Land Development Services
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Project Name: _____ Construction Firm: _____

County Record Number: _____ 3rd Party Inspection Firm: _____

Site Address: _____ 3rd Party Inspector's Name: _____

Latitude / Longitude: _____ °N _____ °W Contact Info / Phone Number: _____

BMP ID Number as shown on plan and general location on the site: _____

- A certification is required for all SWM/BMP facilities under PFM 6-1300 et. seq.
- A Virginia licensed professional engineer or licensed professional meeting the exemption requirements of the Code of Virginia §54.1-401 must sign the certification at the end of this checklist.

Instructions:

- Check each item as complete or write in "N/A" for those items that are not applicable.
- Fill in blanks for requested information on dimensions, materials, etc.
- Provide one or more photos for applicable items; checkboxes indicate items that require photos. Name the photo what it relates to and upload.

Pre-Installation Meeting and Site Preparation

CHECK	PHOTO	DESCRIPTION	DATE OF INSPECTION / COMMENTS
<input type="checkbox"/>		Pre-Installation Meeting with - contractor designated to install the facility - 3rd party inspector (or designee) - Fairfax County Inspector A review of checklist and tentative schedule for interim inspections and sign-offs has been discussed	
<input type="checkbox"/>		Bioretention area has not been impacted during construction or has been remediated prior to installation. Circle one: Not Impacted Remediated	
<input type="checkbox"/>		Impervious cover draining to the BMP have been constructed and area is free of equipment, vehicles and material storage	
<input type="checkbox"/>		Pervious areas of contributing drainage area have been stabilized with adequate vegetation.	
<input type="checkbox"/>	<input type="checkbox"/>	Stormwater diverted around the bioretention area and perimeter E&S controls to protect the BMP during construction have been installed.	
<input type="checkbox"/>		Drainage area slopes toward the bioretention facility.	

Excavation

CHECK	PHOTO	DESCRIPTION	DATE OF INSPECTION / COMMENTS
<input type="checkbox"/>		Size & horizontal location conforms to approved plans. Area of Excavation (L x W) _____	
<input type="checkbox"/>		If the area has previously been used as sediment trap, verify that the bottom of the proposed stone reservoir is lower than the bottom elevation of the existing trap.	
<input type="checkbox"/>		Level 2 bioretention: Excavation bottom was scarified prior to placement of stone.	
<input type="checkbox"/>	<input type="checkbox"/>	Subgrade surface free of rocks, roots, and large voids. (Voids may be refilled with base aggregate to create a level surface for the placement of aggregates and underdrain.)	
<input type="checkbox"/>		No groundwater seepage or standing water is present. Any standing water is dewatered to an acceptable dewatering device, and the design consultant has been notified.	
<input type="checkbox"/>	<input type="checkbox"/>	Excavation depth and side grades per approved plans. Depth of Excavation _____ ft. Grade of Side Slope _____ ft./ft.	
<input type="checkbox"/>		Excavation of the facility has not compacted the bottom.	

Filter Layer, Underdrain and Stone Reservoir Placement

CHECK	PHOTO	DESCRIPTION	DATE OF INSPECTION / COMMENTS
<input type="checkbox"/>	<input type="checkbox"/>	Impermeable liner (when required) is placed in accordance with manufacturer specs & approved plans.	
<input type="checkbox"/>	<input type="checkbox"/>	Sides of excavation covered with non-woven geotextile (when required), with no tears, holes, or excessive wrinkles.	
<input type="checkbox"/>	<input type="checkbox"/>	Underdrain size, spacing, base material installed per approved plans. Underdrain Diameter _____ inches Underdrain Material _____ Slope _____ % Underdrain Spacing _____ ft. Perforation Size & Spacing _____ inches. Bedding material _____ Depth above/below underdrain _____/_____ inches Number of Cleanouts_____	
<input type="checkbox"/>	<input type="checkbox"/>	Underdrain discharge/daylight per approved plans. Underdrain Diameter _____ inches Underdrain Material _____ Underdrain blocked (Check one) <input type="checkbox"/> Yes <input type="checkbox"/> No	
<input type="checkbox"/>		Restriction device / flow control device (when required) placed per approved plans.	
<input type="checkbox"/>	<input type="checkbox"/>	Observation well(s) installed per approved plans. Number of Observation Wells_____ Pipe material_____ Pipe Diameter_____ Perforation Size & Spacing_____	
<input type="checkbox"/>		Stone aggregate placed to per approved plans. Gravel material: _____ Depth of gravel stone sump layer_____ ft.	
<input type="checkbox"/>	<input type="checkbox"/>	choker stone/pea gravel installed per approved plans. Choker material: _____ Depth of choker material: _____	

Soil Media Placement

CHECK	PHOTO	DESCRIPTION	DATE OF INSPECTION / COMMENTS
<input type="checkbox"/>		Soil media certification per project specifications.	
<input type="checkbox"/>		Filter media placed in 8 – 12-inch lifts. No machinery over the filter media. Filter media raked to a level grade after final lift.	
<input type="checkbox"/>		Depth of Bioretention filter media _____ ft.	
<input type="checkbox"/>		Filter media settlement Facility flooded (2-4 days after initial placement) until the underdrain is activated. Top elevation verified after draining.	

Final Stabilization and Plant Installation

CHECK	PHOTO	DESCRIPTION	DATE OF INSPECTION / COMMENTS
<input type="checkbox"/>	<input type="checkbox"/>	Pretreatment practices (leaf screens, grass filter strips, gravel diaphragm, forebay, sump pit, energy dissipators, etc.) upstream of the bioretention conform to approved plans. List practices here with dimensions if applicable: _____ _____ _____	
<input type="checkbox"/>		Drainage area draining to the facility, including roof drains and overland flow conforms to approved plan. Total contributing area: _____acres	
<input type="checkbox"/>	<input type="checkbox"/>	Overland inflow area grading visually conforms to approved plans. Number of inflow pipes flowing overland toward facility _____	
<input type="checkbox"/>	<input type="checkbox"/>	Downspout piping conforms to approved plans. Number of downspouts piped to the facility _____	

CHECK	PHOTO	DESCRIPTION	DATE OF INSPECTION / COMMENTS
<input type="checkbox"/>	<input type="checkbox"/>	External bypass structure (when required) conforms to approved plans.	
<input type="checkbox"/>		Mulch composition and depth conform to approved plans. Depth of mulch layer: _____ Inches	
<input type="checkbox"/>		Final ponding depth (from top of mulch to lowest overflow point) conforms to plan. Depth of ponding area _____ Inches. (above mulch, 12" maximum)	
<input type="checkbox"/>	<input type="checkbox"/>	Riser or overflow weir conforms to approved plans.	
<input type="checkbox"/>		Perimeter berm and overflow weir placed per approved plans. Berm Height _____ ft (2' max from downstream toe). Berm Width (usually 2 ft.) _____ ft. Side Slopes (max. 3:1) _____ %	
<input type="checkbox"/>		Signs installed as shown on approved plans.	
<input type="checkbox"/>	<input type="checkbox"/>	Plant installation conforms to approved plans, and all plants are healthy. No. of trees _____ No. of shrubs _____	
<input type="checkbox"/>	<input type="checkbox"/>	Final grades within the bioretention after plant and mulch installation match the approved plan elevations.	
<input type="checkbox"/>	<input type="checkbox"/>	Provide a photo of the BMP facility after the mulch and plants installed.	
<input type="checkbox"/>		Only for Bioretentions that do not have underdrains. Drawdown observed after (check one) <input type="checkbox"/> Rainfall event <input type="checkbox"/> Artificial flooding Observed drawdown time _____ hours (include test results)	
<input type="checkbox"/>		Copy of material delivery tickets included	

Final Certification

I do hereby certify that this as-built information for the stormwater management/BMP facility was inspected by me (or by an individual under my responsible charge) and conforms to the approved plans, except as indicated.

Signature:_____Date:_____

License Number (Seal):_____

(“Certify” means to state or declare a professional opinion based on sufficient and appropriate onsite inspections and material tests conducted during construction)