



Submit report to:  
 City of Richmond Stormwater Utility  
 730 East Broad St., 6th Floor  
 Richmond, VA 23219  
 Attn: Credit Applications

**City of Richmond Stormwater Utility**  
**Annual BMP Operation & Maintenance Inspection for Constructed Wetlands**  
 Due Every August 1st

Owner Name:	
Property Address: Street: City: Zip code:	
Date BMP placed in service:	
Site plan/permit number:	As-built plans available:      Y      N
Date of Inspection:	Date of Last Inspection:
Phone Number:	Email address:

**Check all that apply:**

- |   |  |   |
|---|--|---|
| Type of Wetland:<br><input type="checkbox"/> Extended detention<br><input type="checkbox"/> Ties into groundwater<br><input type="checkbox"/> Pond with some wetland plantings<br><input type="checkbox"/> Multiple pond system | Type of wetland:<br><input type="checkbox"/> Emergent<br><input type="checkbox"/> Forested | Type of Pretreatment facility:<br><input type="checkbox"/> Sediment forebay<br><input type="checkbox"/> Grass filter strip<br><input type="checkbox"/> Other: |
|---|--|---|

- Choose one of the following three:
- Permanent pool sized for full Tv
  - Shallow wetland sized for full Tv
  - Micropool

Checklist—Virginia Stormwater Management Handbook, chapter 9

BMP Element	Frequency	Problem	Yes or No?	Corrective Action
Contributing Drainage Area	On-going	Excessive trash/debris		
		Bare exposed soil		
		Evidence of erosion		
		Excessive landscape waste/yard clippings		
Pretreatment	Every 5 years	Maintenance access to pretreatment facility		
		Excessive trash/debris/sediment		
		Dead vegetation/exposed soil		
		Evidence of erosion		
		Evidence of clogging		
		Sediment accumulation is 50% of capacity, sediment marker not vertical		Dredging is required, fix sediment marker

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BMP Element	Frequency	Problem	Yes or No?	Corrective Action
Inlets	Twice per year	Inlets provide stable conveyance into system		
		Excessive trash/debris/sediment accumulation at inlet		
		Evidence of erosion at/around inlet		
		Cracking, bulging, or sloughing of dam, erosion and/or loss of dam material		Re-stabilize immediately
		Animal burrows		Fill in immediately
		Soft spots or boggy areas; woody growth or unauthorized plantings on dam		Remove within 2 weeks of discovery
Sediment forebay	Every 5 years	Sediment buildup has reduced the forebay capacity to 50%		Remove sediment buildup and restore forebay to original design specifications. Designers should also check to see whether removed sediments can be deposited or spread as spoil material on the site or must be hauled away. Sediments excavated from constructed wetlands are not usually considered toxic or hazardous and can be safely disposed by either land application or land filling.
Vegetation (trees, shrubs, aquatic plants)	Monthly	Plant composition consistent with approved plans.		
		Presence of invasive species/weeds.		
		Dead vegetation/exposed soil		
		Reinforcement planting recommended		
		Bare or eroding areas in the contributing drainage area or around the wetland buffer		Make sure they are immediately stabilized with grass cover.
		Trees planted in the buffer and on wetland islands and peninsulas need water during the first growing season.		Consider watering every 3 days for first month, and then weekly during first year (Apr—Oct), depending on rainfall.
		Poor survival can result from many unforeseen factors, such as predation, poor plant stock, changes in water levels, drought, and many other unpredictable factors.		Selectively replant portions of the wetland that fail to fill in or survive.

Checklist—Virginia Stormwater Management Handbook, chapter 9

BMP Element	Frequency	Problem	Yes or No?	Corrective Action
Vegetation, con't.	Monthly	Designers should expect significant changes in wetland species composition over time. Invasive plants should be dealt with as soon as they colonize the wetland. In general, control of undesirable invasive species such as cattail and Phragmites, should begin when their coverage exceeds 15% of a wetland cell area.		Invasive plants should be dealt with as soon as they colonize the wetland. Vegetation may need to be periodically harvested if the constructed wetland becomes overgrown. Inspections should track changes in wetland plant species distribution over time. Although the application of herbicides is not generally recommended, some types, such as Glyphosate, have been used to control cattails with some success. Extended periods of dewatering may also work.
		Practice has become overgrown and is not developing into a mature wetland.		Thinning or harvesting of excess forest growth may be periodically needed to guide the forested wetland into a more mature state. These operations should be scheduled for about 5 & 10 years after initial wetland construction. Removal of woody species near or on the embankment and maintenance access areas should be conducted every two years.
Emergency Spillway	Every 2 years	Woody growth or unauthorized plantings. Erosion or back cutting, soft or boggy areas, obstruction/debris		Remove immediately
Outfall	Monthly	Woody growth within 5' of outfall barrel		Prune vegetation back to specification
		Outfall channel functioning/released water undercutting outlet, Erosion displaced rip rap, excessive sediment deposits		Stabilize channel. Replace dead/dying vegetation. Replant on bare soil. Replace rip rap.
Outlet	Twice per year	Cracking, bulging, or sloughing of dam, erosion and/or loss of dam material		Re-stabilize immediately
		Animal burrows		Fill in immediately
		Soft spots or boggy areas, woody growth or unauthorized plantings on dam		Remove within 2 weeks of discovery
		Outlets provide stable conveyance out of facility		
		Excessive trash/debris/sediment accumulation at outlet.		
		Evidence of erosion at/around outlet		
Principle spillway	Twice per year	Minor spalling or sparging (<1"). Major spalling (exposed rebar). Joint failure. Loss of joint material. Leaking corrosion. Protective material deficient. Misalignment or split seams/joints.		Amend with new concrete. Replace broken pieces.

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BMP Element	Frequency	Problem	Yes or No?	Corrective Action
Riser	Annually	Pieces of the riser are broken or missing.		Replace immediately
		Maintenance access to riser		
		Structural condition of the riser		
		Condition of joints		
		Trash/debris accumulation		
Berm/ Embankment	On-going	Cracking, bulging or sloughing		
		Soft spots or sinkholes		
		Evidence of erosion		
		Evidence of animal burrows		
		Presence of woody vegetation		
Low flow orifice	On-going	Trash/debris accumulation		
		Adjustable control valve accessible and operational		
Pond drain system (underdrain)	On-going	Adjustable control valve accessible and operational		
		Broken, clogged		
Miscellaneous	On-going	Maintenance access to facility		
		Condition of structural components		
		Condition of hydraulic control components		
		Excessive trash/debris/sediment		
		Evidences of erosion		
		Evidence of oil/chemical accumulation		
		Evidence of standing water; ponding, noticeable odors, water stains, presence of algae or floating aquatic vegetation		
		Complaints from local residents		
		Mosquito proliferation		
		Encroachment on facility or easement by buildings or other structures		