



January 24, 2022

TO: Builders, Contractors, Developers and Engineers

FROM: Thomas J. Smith 
Director of Public Works

Purpose: Guidance from the Virginia Department of Environmental Quality on the use of Proprietary (Manufactured) Best Management Practices for Water Quality

The Virginia Department of Environmental Quality (DEQ) has issued the attached Guidance Memo No. GM21-2006 with an effective date of 12/29/2021 related to the use of Proprietary Best Management Practices (BMPs) used to meet the stormwater quality design criteria. According to the Guidance Memo, Proprietary BMPs on the prior-approved list (attached) may not be used to meet the water quality design criteria for any stormwater management plan submitted on or after January 1, 2022. This guidance is applicable until the manufacturer submits additional documents to DEQ for review and approval of their BMPs.

You can also find additional information on the BMPs at DEQ's Virginia Stormwater BMP Clearinghouse website (<https://swbmp.vwrrc.vt.edu/>). If you have questions, please feel free to contact my staff in Environmental Management Division at (703) 792-7070.

Prior-Approved List of Filtering Devices

In accordance with [9VAC25-870-65 D](#), the manufactured treatment devices (MTDs), also known as proprietary BMPs, listed on this page **may NOT be used to meet the water quality design criteria in any stormwater management plan submitted on or after January 1, 2022.**

These devices can be used to meet the total phosphorus (TP) water quality requirements of Virginia Stormwater Management Program (VSMP) regulation for plans submitted before January 1, 2022.* Under these circumstances, the assigned Event Mean Concentration (EMC) percent TP removal efficiency may be manually added into the Virginia Runoff Reduction Method (VRRM) spreadsheets to demonstrate water quality compliance.

***DEQ does not endorse any device and does not provide assistance with device selection.**

[Note: To expand text boxes, click the heading or arrow button.
To collapse them, click the heading or arrow button a second time.]

BACKGROUND

- ▼ DEQ Evaluations
- ▼ Sizing Information

FILTERING DEVICES AWARDED 50% TP REMOVAL EFFICIENCY

(listed alphabetically)

- ▼ BayFilter™ Stormwater Cartridge System
- ▼ BioPod™ Biofilter System with StormMix™ Media
- ▼ FocalPoint High Performance Modular Biofiltration System (HPMBS)
- ▼ Perk Filter
- ▼ Silva Cell Suspended Pavement System with Bioretention (Silva Cell)

FILTERING DEVICES AWARDED 40% TP REMOVAL EFFICIENCY

(listed alphabetically)

- ▼ Aqua-Filter™ Stormwater Filtration System
- ▼ EcoPure BioFilter™
- ▼ StormKeeper® Sediment Strip®
- ▼ StormTech® Isolator Row™
- ▼ StormVault BioFiltration (SVBF) with Sierra Blend Media
- ▼ Up-Flo Filter® with CPZ media

FILTERING DEVICES AWARDED 20% TP REMOVAL EFFICIENCY

- ▼ R-Tank Module Treatment/Maintenance Row
- ▼ StormTank Module Debris Row

Join BMP Clearinghouse Listserv

To receive notices about BMP Clearinghouse news and stakeholder meetings, send your name and contact information to

BMPClearinghouse@vt.edu. Please include "Join Stormwater BMP Clearinghouse Listserv" in the subject line.

For questions about stormwater management, contact:

Virginia Department of Environmental Quality
Water Permitting Division
1111 East Main Street, Suite 1400
Richmond, VA 23219
BMPClearinghouse@deq.virginia.gov



For questions about this Website, contact:

Virginia Water Resources Research Center
Virginia Tech
210 Cheatham Hall (MC 0444)
310 West Campus Dr.
Blacksburg, VA 24061
BMPClearinghouse@vt.edu




COMMONWEALTH OF VIRGINIA

Department of Environmental Quality

Subject: Guidance Memo No. GM21-2006 - Use of Stormwater Proprietary Best Management Practices to Meet Virginia Stormwater Management Program Technical Criteria for Water Quality Compliance

To: Regional Directors, Deputy Regional Directors

From: Melanie D. Davenport, Water Permitting Division Director 

Date: September 15, 2021

Copies: James Golden, Jeff Steers, Drew Hammond, Erin Belt, Allan Brockenbrough, Matt Stafford, Regional Stormwater Compliance Managers

Summary:

The Code of Virginia (§ 62.1-44.15:28 A 9) and the Virginia Stormwater Management Program (VSMP) Regulation (9VAC25-870-65 and 9VAC25-870-96) allow for the use of approved proprietary best management practices (BMPs). This guidance provides procedures used by the Department of Environmental Quality (Department or DEQ) to approve proprietary BMPs. Approved proprietary BMPs are listed on the Virginia Stormwater BMP Clearinghouse with an assigned total phosphorus (TP) pollutant removal efficiency. The proprietary BMPs listed on the Virginia Stormwater BMP Clearinghouse can be used to meet the water quality design criteria established in 9VAC25-870-65 and 9VAC25-870-96. This document replaces Guidance Memo No. 14-2009.

Electronic Copy:

Once effective, an electronic copy of this guidance will be available on:

- The Virginia Regulatory Town Hall under the Department of Environmental Quality (<http://www.townhall.virginia.gov/L/gdocs.cfm?agencynumber=440>); and,
- The Virginia Stormwater BMP Clearinghouse at <https://swbmp.vwrrc.vt.edu/>.

Contact Information:

Please contact Robert E. Cooper, Office of Stormwater Management, at (804) 698-4033 or Robert.Cooper@deq.virginia.gov with any questions regarding the application of this guidance.

Certification:

As required by Subsection B of § [2.2-4002.1](#) of the APA, the agency certifies that this guidance document conforms to the definition of a guidance document in § [2.2-4101](#) of the Code of Virginia.

Disclaimer:

This document is provided as guidance and, as such, sets forth standard operating procedures for the agency. However, it does not mandate or prohibit any particular action not otherwise required or prohibited by law or regulation. If alternative proposals are made, such proposals will be reviewed and accepted or denied based on their technical adequacy and compliance with appropriate laws and regulations.

Effective Date: 12/29/2021

Initials: EEB

USE OF STORMWATER PROPRIETARY BEST MANAGEMENT PRACTICES TO MEET VIRGINIA STORMWATER MANAGEMENT PROGRAM TECHNICAL CRITERIA FOR WATER QUALITY COMPLIANCE

Definitions:

"*Best management practice*" or "*BMP*" means schedules of activities, prohibitions of practices, maintenance procedures, and other management practices, including both structural and nonstructural practices, to prevent or reduce the pollution of surface waters and groundwater systems. This includes:

1. "*Nonproprietary best management practice*" means both structural and nonstructural practices to prevent or reduce the pollution of surface waters and groundwater systems that are in the public domain and are not protected by trademark or patent or copyright.
2. "*Proprietary best management practice*" means both structural and nonstructural practices to prevent or reduce the pollution of surface waters and groundwater systems that are privately owned and controlled and may be protected by trademark or patent or copyright.

Statutory and Regulatory Requirements for the Use of Proprietary BMPs:

The Code of Virginia (§ 62.1-44.15:28 A 9) permits the use of proprietary BMPs when another state, regional, or national certification program has verified and certified the BMP's nutrient or sediment removal effectiveness.

All regulated land-disturbing activities must meet the water quality design criteria of the VSMP Regulation (9VAC25-870).

- Part II B: 9VAC25-870-65 D grants approval of proprietary BMPs listed on the Virginia Stormwater BMP Clearinghouse for use in accordance with the Virginia Runoff Reduction Method. Additionally, a VSMP authority may establish limitations on the use of specific BMPs in accordance with § 62.1-44.15:33 of the Code of Virginia.
- Part II C: 9VAC25-870-96 C allows the use of proprietary BMPs listed in the 1999 Virginia Stormwater Management Handbook and listed on the Virginia Stormwater BMP Clearinghouse.

Approval of Proprietary BMPs for Listing on the Virginia Stormwater BMP Clearinghouse:

This guidance describes the procedures used by the Department to approve proprietary BMPs for listing on the Virginia Stormwater BMP Clearinghouse, including the method used to assign a total phosphorus (TP) pollutant removal efficiency for approved proprietary BMPs.

In accordance with 9VAC25-870-65 D 1, all manufacturers of proprietary BMPs listed on the Virginia Stormwater BMP Clearinghouse before July 1, 2020 must submit documentation to the Department on or before December 31, 2021 that shows current certification of TP or total suspended solids (TSS) removal effectiveness. The acceptable certifications include a general use level designation (GULD) by Washington State's Technology Assessment Protocol – Ecology (TAPE) program or certification from the New Jersey Department of Environmental Protection (NJDEP).

9VAC25-870-65 D 1 states, in part, "Any proprietary BMP that fails to provide the department with the documentation required by December 31, 2021, shall not be approved for use in any stormwater management plan submitted on or after January 1, 2022, until such proprietary BMP provides the department with such required documentation..." Proprietary BMPs without the required documentation will be moved from the

approved list on the Virginia Stormwater BMP Clearinghouse and placed on a prior-approved list. Proprietary BMPs on the prior-approved list may not be used to meet the water quality design criteria in any stormwater management plan submitted on or after January 1, 2022.

In accordance with 9VAC25-870-65 D 2, proprietary BMPs approved by the Department on or after July 1, 2020 must meet the requirements of § 62.1-44.15:28 A 9 of the Code of Virginia. To determine if a proprietary BMP meets the requirements of the statute, the Department will review the submitted registration statement, awarded certification letter(s), and other submitted material. All information submitted to the Department will be publicly available.

Currently, the Department recognizes two state certification programs, TAPE and NJDEP.

- TAPE: Proprietary BMPs with TAPE’s GULD for basic ($\geq 80\%$ TSS removal) or total phosphorus ($\geq 50\%$ TP removal).
- NJDEP: Proprietary BMPs with NJDEP certification.

The Department will assign a percent TP removal efficiency based on Table 1. Also, the Department will evaluate a TP removal efficiency value greater than 50% but less than or equal to 65% if TAPE’s GULD certificate includes results from TAPE’s statistical analysis that equals or exceeds 50% TP removal. For this evaluation to be performed, the TAPE Technical Evaluation Report (TER) should be submitted with the BMP application.

Table 1 – Removal efficiencies¹ assigned by DEQ based on other certifications.

Certification	DEQ Assigned TP Removal
TAPE TP Removal: $\geq 50\%$	50–65%
TAPE TSS Removal: $\geq 80\%$	40%
NJDEP TSS Removal: 80%	40%
NJDEP TSS Removal: 50%	20%

¹ Defined as the change in the average event mean concentration (EMC).

“TAPE” means Washington State’s Technology Assessment Protocol – Ecology program.

“NJDEP” means New Jersey Department of Environmental Protection.

“TP” means total phosphorus; “TSS” means total suspended solids.

This approval procedure and the assignment of removal efficiencies is not an endorsement of any product by the Department.

Additional State, Regional, or National Certification Programs:

Nutrient or sediment removal effectiveness verified and certified by additional state, regional, or national certification programs may be submitted to the Department and will be evaluated on a case by case basis.

Application Process:

To apply for approval in Virginia, complete the attached form entitled “Proprietary BMP Registration Statement” (Attachment 1) and submit it to the Department. Once the registration statement and supporting documentation are received, the Department will review the submission and if approved, assign the applicable percent TP removal efficiency based on Table 1. After the percent removal has been assigned, this value will be added to the Virginia Stormwater BMP Clearinghouse and can be used to meet the water quality design criteria requirements.

Prior-Approved List of Hydrodynamic Devices

In accordance with [9VAC25-870-65 D](#), the manufactured treatment devices (MTDs), also known as proprietary BMPs, listed on this page **may NOT be used to meet the water quality design criteria in any stormwater management plan submitted on or after January 1, 2022.**

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HYDRODYNAMIC DEVICES AWARDED 25% TP REMOVAL EFFICIENCY

- ▼ CrystalClean Separator-Single Vault

HYDRODYNAMIC DEVICES AWARDED 20% TP REMOVAL EFFICIENCY

(listed alphabetically)

- ▼ BaySeparator™
- ▼ Dual Vortex Separator (DVS)
- ▼ First Defense
- ▼ Hydroguard
- ▼ Jensen Deflective Separator (JDS)
- ▼ Nutrient Separating Baffle Box®
- ▼ SiteSaver®-4 Hydrodynamic Separator
- ▼ Stormceptor® OSR
- ▼ Stormceptor® STC
- ▼ StormPro
- ▼ Storm Water Quality Unit
- ▼ Terre Kleen™ Hydrodynamic Separator
- ▼ V2B1
- ▼ The Vortechs® System

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Virginia Department of Environmental Quality
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