Program Administrator for Stormwater Management

Participant Guide

Training provided by the Virginia Department of Environmental Quality
Office of Training Services

Version 5.1

June 2025

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Acronyms

ac.: Acre

BMP: Best management practice

CATS: Certification Accreditation Tracking System

C-BMP: Construction Best Management Practice

CBPA: Chesapeake Bay Preservation Act

CGP or Construction GP: Construction General Permit; General VPDES permit for the discharges of stormwater from construction activities

CWP: Center for Watershed Protection

DEQ: Virginia Department of Environmental Quality

ESC: Erosion and sediment control

ESD or SD: Environmental Site Design: Stormwater Site Design

ESM: Soil Erosion Control and Stormwater Management (Plan)

HUC: Hydrologic unit code

lbs.: Pounds

LDA: Land-disturbing activity

MS4: Municipal Separate Storm Sewer System

O&M: Operation and maintenance

P2 plan: Pollution prevention plan

P-BMP: Post-Construction Best Management Practice

PCB: Polychlorinated Biphenyl

RLD: Responsible land disturber

SWM: Stormwater management

SWPPP: Stormwater pollution prevention plan

TMDL: Total maximum daily load

VESCP: Virginia Erosion and Sediment Control Program

VESMA: Virginia Erosion and Stormwater Management Act

VESMP: Virginia Erosion and Stormwater Management Program

VPDES: Virginia Pollutant Discharge Elimination System

VRRM: Virginia Runoff Reduction Method

VSMP: Virginia Stormwater Management Program

VSMH: Virginia Stormwater Management Handbook

Course Goal

Provide Program Administrators with training that will enable participants to adequately administer a Virginia Erosion and Stormwater Management Program (VESMP) that is consistent with the Virginia Erosion and Stormwater Management Act (VESMA) and accompanying regulations.

Module 1: Introduction

Learning Objectives

At the end of this module, you will be able to:

- Summarize the goals of the erosion and stormwater management program
- Explain the requirements for who must be certified
- Describe the eligibility requirements for taking the certification exam
- List (and follow) the requirements for maintaining certification

1a. Overview

WHAT'S THE PROBLEM?

What happens when it rains? Well, it depends upon which surface the rain is falling. When rain falls onto a meadow or forest, some of the rain will soak into the ground (infiltration) where it will either be absorbed by plants (transpiration) or it will migrate into groundwater (groundwater recharge). The remaining water will become stormwater runoff and flow to nearby streams.

Figure 1: Rain falling on a forest

Photo credit: www.pexels.com

When it rains on a construction site, the rain that falls on bare soil will erode away the soil, carrying sediment and other pollutants, such as fuel and construction debris, to a stream or stormwater conveyance system that discharges to a stream.

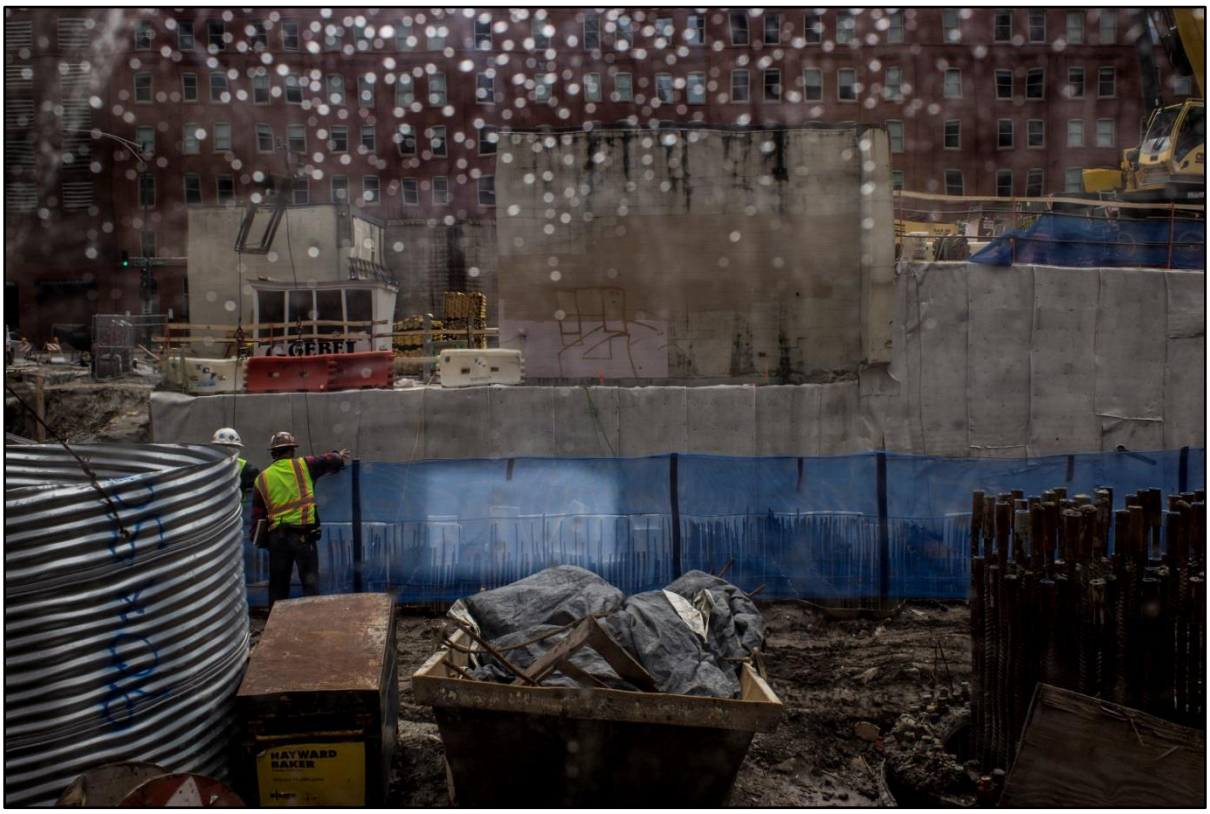


Figure 2: Rain falling on a construction site

Photo credit: www.pexels.com

When it rains on hard (impervious) surfaces, like roads, parking lots, or rooftops, rain will not soak into the ground. Instead, it becomes stormwater runoff, and as it flows over hard surfaces, it will pick up speed and energy before leaving the site. The increased quantity of runoff can cause stream channel erosion and flooding. The runoff can also transport pollutants from the hard surfaces, such as sediment, trash, oil, and fertilizers to streams affecting water quality.

Figure 3: Rain falling on a street and sidewalk

Photo credit: DEQ

WHAT'S THE SOLUTION?

As a program administrator, you are part of the solution by administering an erosion and stormwater program to manage the ***quality*** and ***quantity*** of runoff that results during construction as well as after construction through the use of ***construction Best Management Practices (C-BMPs)***, pollution prevention (P2) practices, and post-construction BMPs (P-BMPs).

Construction BMPs (C-BMPs)

Structural and non-structural practices are used during construction to keep sediment in place and capture any sediment that is carried by stormwater before it leaves the site.
Photo credit: DEQ

Pollution Prevention (P2) Practices

Good housekeeping practices are used during construction to prevent contamination of stormwater from a wide range of materials and wastes found on construction sites.
Photo credit: DEQ

Post-Construction BMPs (P-BMPS)

Structural and non-structural practices are used for controlling the quality and quantity of post-construction stormwater runoff.
Photo credit: Chesapeake Bay Program

LAWS AND REGULATIONS

The Virginia Erosion and Stormwater Management Program (VESMP) is authorized by the Virginia Erosion and Stormwater Management Act (VESMA) (§ 62.1-44.15:24 et. al) and administered through the Virginia Erosion and Stormwater Management (VESM) Regulation (9VAC25-875).

As a program administrator…

You are responsible for overseeing your locality's program to ensure it complies with the law and regulations. It is also important that you have a broad understanding of the program's goal to manage the quality and quantity of stormwater runoff.

The General VPDES Permit for Discharges of Stormwater from Construction Activities (9VAC25-880), also known as the Construction General Permit (CGP), authorizes the discharge of stormwater from construction activities that are ≥ one acre. A violation of this permit also constitutes a violation of VESMA. The permit is discussed in Modules 4 and 5.

Part IV of the VESM Regulation (9VAC25-875) further explains the requirements for achieving and maintaining certifications.

Remember, the VESM Regulation does not limit the applicability of other laws and regulations, including, but not limited to the Clean Water Act, Virginia Erosion and Sediment Control Law for Localities Not Administering a VESMP, and the Chesapeake Bay Preservation Act (9VAC25-875-480).

STATE WATER CONTROL BOARD

(§62.1-44.15:25)

VESMA requires the State Water Control Board (Board) to ***permit, regulate, and control soil erosion and stormwater runoff*** and act to protect the ***quality*** and ***quantity*** of state waters from the potential harm of unmanaged stormwater and soil erosion in the Commonwealth. When used outside the context of the promulgation of regulations, "board" means the Department (DEQ).

DEQ

(§62.1-44.15:27, :27.1)

	Responsible for providing technical assistance, training, and general assistance to localities in administering their VESMP.
	Oversight of all stormwater programs, including locality VESMP authorities.
	Virginia Stormwater Management Program (VSMP) authority for localities that administer a Virginia Erosion and Sediment Control Program (VESCP)

1b. Training and Certification

REGULATORY REQUIREMENTS AND APPLICABILITY

(§62.1-44.15:52,:53); (§62.1-44.15:27, :30); (9VAC25-875-390)

VESMA requires the staff of VESMP authorities to obtain and maintain certifications in the areas of erosion and sediment control (ESC) and stormwater management (SWM). Anyone who is contracted by a program authority to perform any or all of the functions of that authority must also obtain and maintain their certification. Entities with approved standards and specifications must have certified staff just as if the entity were a program authority. The certification requirements of personnel are outlined in Part IV of the VESM Regulation (9VAC25-875-380 – 460).

Law and Regulation References

The "§" symbol is a section sign referring to the Code of Virginia law. "VAC" means the Virginia Administrative Code, which contains the permanent regulations for the Commonwealth of Virginia.

ROLES OF THE PROGRAM STAFF

(9VAC25-875-400)

There are four potential roles for a locality's program staff. The following items are generally the day-to-day duties of each position.

Program administrator

- Ensures plan review and approval, inspections, and enforcement actions are conducted in accordance with the ESC law or VESMA, regulation, and local ordinances
- Completes reports to be sent to DEQ
- Coordinates enforcement proceedings
- Keeps records, collects fees, and updates local ordinances as needed

Additionally, the program administrator ensures that other positions, such as inspectors and plan reviewers, are certified.

Inspector

- Conducts regular inspections of active construction sites and post-construction sites to ensure proper construction, function, and maintenance of C-BMPs and P-BMPs
- Documents inspections
- Initiates enforcement action when needed
- Ensures compliance to correct deficiencies or violations

Plan reviewer

- Responsible for review of ESC, erosion control and stormwater management (ESM), and/or SWM plans to ensure plans adhere to the laws, regulations, minimum standards, and local ordinances

Combined administrator

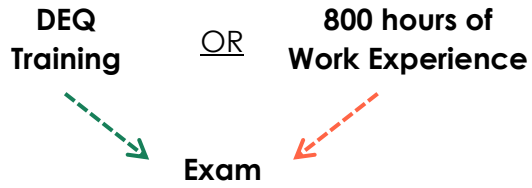
- Responsible for performing the combined duties of a program administrator, inspector, and plan reviewer

EXAM ELIGIBILITY

(9VAC25-875-410.A)

There are two ways to be eligible to take a certification examination:

1. Complete DEQ training course(s)
2. Complete the DEQ Verification of Work Experience Form, with supervisor signature



DEQ training courses

The following graphic illustrates the training courses needed for each certification through the traditional training and certification curriculum for either ESC or SWM. Those seeking both ESC and SWM certifications should complete the parallel ESC class first. Online prerequisites must be completed before enrolling in either live webinar or classroom certification courses.

For information on DEQ Training and Certification, please visit:

https://www.deq.virginia.gov/our-programs/training-certification

Work experience

Individuals with at least 800-hours of on-the-job work experience as a program administrator, inspector, plan reviewer, or combined administrator may complete the Verification of Work Experience Form, instead of completing the DEQ training course(s).

The form is located under the Resources section of the DEQ Exam Information page: https://www.deq.virginia.gov/our-programs/training-certification/exam-information

PROVISIONAL CERTIFICATION

(9VAC25-875-410.A.2)

From the day you complete your first required training course, you have ***one year*** to complete all required training courses and obtain a passing score on the certification exam. This provisional certification allows individuals to continue working for an authority while they seek full certification. It is not a substitute for obtaining certification.

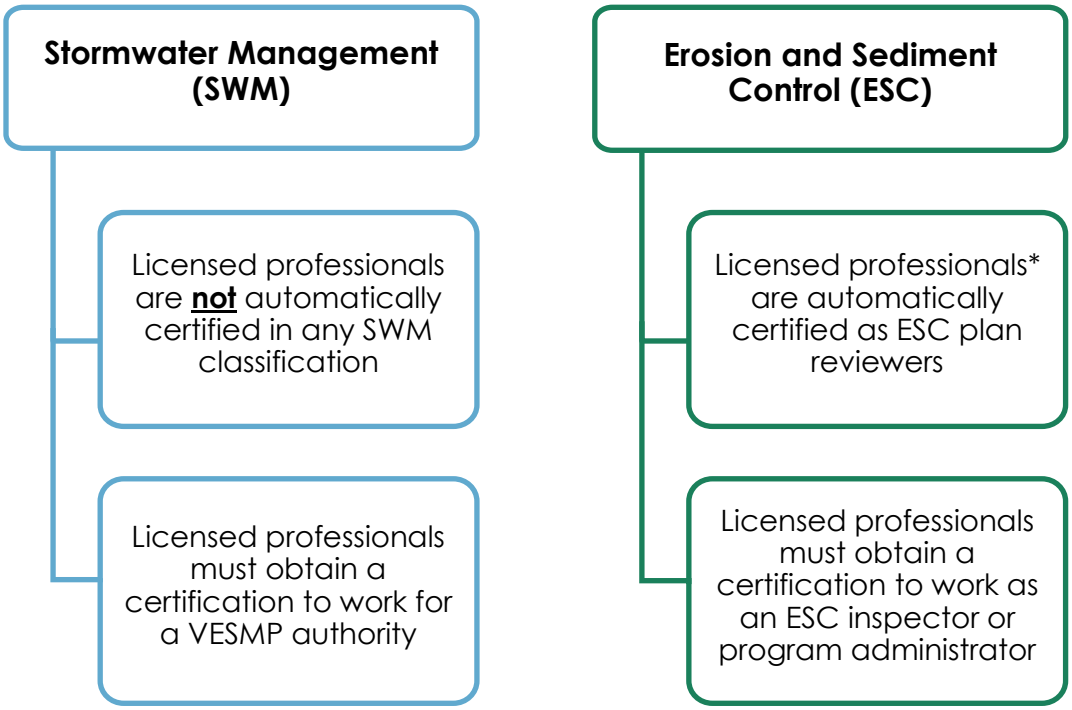
NOTE

Individuals can only be provisionally certified once per classification.

If an individual does not obtain a certification within one year, they will not be considered certified until they pass the respective exam, which may include qualifying for the exam through 800-hours of work experience.

LICENSED PROFESSIONALS

(9VAC25-875-400.D)



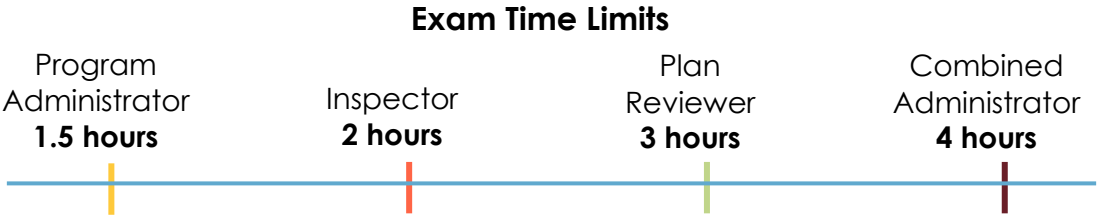
*Professional engineer, architect, landscape architect, or land surveyor pursuant to article 1 (§54.1-400 et seq.) of chapter 4 of title 54.1 of the Code of Virginia; or is a professional soil scientist as defined in chapter 22 (§54.1-2200 et seq.) of title 54.1 of the Code of Virginia.

For more information, please see DEQ's Licensed Professionals FAQ at: https://www.deq.virginia.gov/our-programs/training-certification/frequently-asked-questions

EXAMINATIONS

(9VAC25-875-440)

All exams are administered by Pearson VUE. Visit: https://www.pearsonvue.com/us/en/va/deq.html to register for an exam. The exams are multiple choice with four answer options and delivered on a computer. They are open book and have specific time limits.



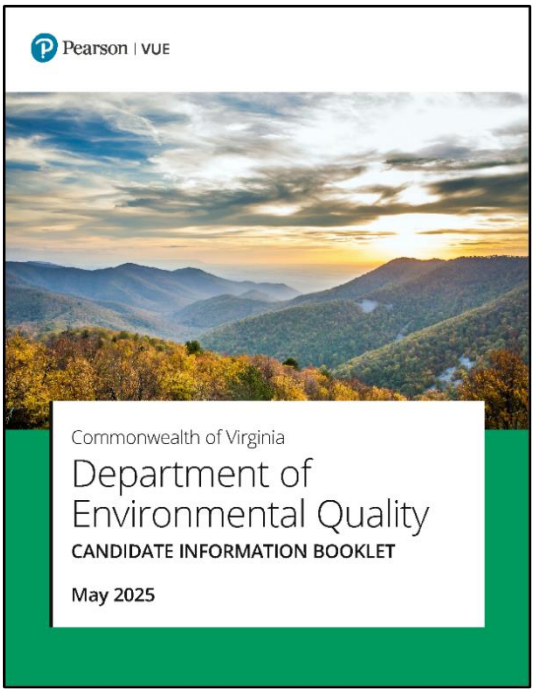
Candidate Information Booklet

You are strongly encouraged to download and read the Candidate Information Booklet (CIB) before taking the exam. The CIB is available at:

https://www.pearsonvue.com/us/en/va/deq.html.

The CIB includes information about:

- Exam reservations
- Testing center locations
- What to bring into the exam
- What not to bring into the exam
- Candidate identification
- Course completion certificates
- Exam content outlines



Use the exam content outlines to help you study!

Americans with Disabilities Act

Pearson VUE complies with the provisions of the Americans with Disabilities Act (ADA) as amended. Please refer to the ADA section of the CIB for full details. Pearson VUE provides reasonable and appropriate accommodations to individuals with documented disabilities who demonstrate a need for accommodations.

English as a Second Language

Candidates for whom English is a second language may request additional time for the examination by sending the English as a Second Language (ESL) Request Form (found at the back of the CIB) to Pearson VUE. Candidates MUST include a letter from his/her English instructor or sponsoring company (on official letterhead, if from a company) stating that English is not the candidate's primary language. Please refer to the ESL section of the CIB for full details.

Please wait to make any exam reservations until after hearing back from Pearson VUE about the accommodations' approval to ensure the appropriate accommodation will be available at the testing center.

Examination results

You will be notified of your examination results at the examination center. You must attain a minimum score of ***70%*** to pass. If you receive a passing score on your exam, you will receive an email from DEQ prompting you to log into the DEQ Certification Accreditation Tracking System (CATS) to manage your certification.

It is very ***important*** that you activate your CATS profile!
Please keep your information current.
CATS will send recertification reminders via email.

If you do not pass the examination, you can reschedule another examination after 24 hours. You will receive a score report at the testing center that will estimate your performance on each of the content areas of the exam. Use this report and the content outline from the CIB to help you study before you retake the exam again.

DUAL CERTIFICATIONS

(9VAC25-875-400.A 9-12, E)

Individuals who perform both erosion and stormwater program duties may obtain a dual certification by surrendering both valid certifications to DEQ and paying the required administrative fee. For instance, a person who holds a valid ESC Inspector Certification and obtains a SWM Inspector Certification may surrender both and obtain a Dual Inspector Certification. A person holding a dual certification meets the certification requirement for that role in a consolidated VESMP.

The dual certification will ***expire three years*** from the latest date of either certification being surrendered.

Erosion and Sediment Control		Stormwater Management		Dual Certification
ESC Program Administrator	+	SWM Program Administrator	=	**Dual Program Administrator**
ESC Inspector	+	SWM Inspector	=	**Dual Inspector**
ESC Plan Reviewer	+	SWM Plan Reviewer	=	**Dual Plan Reviewer**
ESC Combined Administrator	+	SWM Combined Administrator	=	**Dual Combined Administrator**

Be aware…

According to 9VAC25-875-460, DEQ may revoke or suspend any certification, or refuse to grant or renew a certification, if fraudulent or misleading actions have been taken on the part of the certified individual.

RECERTIFICATION

(9VAC25-875-410.B-C)

Recertification is tracked in CATS. Certifications are valid for ***three years***. In order to maintain your certification, you must recertify ***before*** your certification expires.

3 Years

Recertification Options		
Complete contact hours*	**Maintain professional license**	**Re-take exam**
1. Complete required contact hours by completing DEQ courses or other relevant training before certification expires. *Program admin = 12 hours* *Inspector = 18 hours* *Plan reviewer = 21 hours* *Combined admin = 24 hours* 2. Enter contact hour information into CATS and pay recertification fee.	1. Keep professional license valid.** 2. Enter license number into CATS and pay recertification fee.	Re-take and pass the certification examination with Pearson VUE before certification expires.

*Review the DEQ Contact Hour guidance at:
https://www.deq.virginia.gov/home/showpublisheddocument?id=1809

**Professional engineers, architects, land surveyors, and landscape architects may use their professional license to recertify for ESC, SWM, and dual certifications. Soil scientists may use their professional license to recertify for ESC roles only.

If your certification expires, you must re-take the certification exam. **It is your responsibility to enter contact hours into CATS and pay the recertification fee.** Contact hours can be entered anytime. *You may re-certify during the last 12-months of your valid certification without losing time. Three years will be added to the expiration of that valid certification. You do not lose time on your valid certification.*

Please send any questions regarding training and certification to certification@deq.virginia.gov.

Summary

This module provides the VESMP administrator with the information and processes needed to:

- Discuss the overall goal of the erosion and stormwater management program to the regulated community and other applicable stakeholders
- Understand and follow the:

  i) Certification requirements

  ii) Eligibility options for the certification exam

  iii) Recertification requirements

Module 2: Managing Runoff

Learning Objectives

At the end of this module, you will be able to:

- Recall the components of a complete stormwater pollution prevention plan (SWPPP)
- Explain how runoff characteristics can change as landcover conditions change
- Generalize the goal of the Virginia Erosion and Stormwater Management (VESM) regulation water quality technical criteria
- Generalize the goal of the VESM regulation water quantity technical criteria
- Describe how each of the 17 non-proprietary Post-Construction BMPs (P-BMPs) removes pollutants from stormwater runoff

2a. Stormwater Pollution Prevention Plan (SWPPP)

([9VAC25-875-500](), [(9VAC25-880-70 PART II)]()

The stormwater pollution prevention plan (SWPPP) is the cornerstone of the stormwater program. Each SWPPP must be site-specific, address the potential sources of pollution that may be generated during and after construction, and be updated throughout construction.

As a program administrator…

It is important to ensure an erosion control and stormwater management (ESM) plan has been approved prior to issuing approval to start land disturbance ([9VAC25-875-110).]() This includes aspects of both ESC and SWM plans included in the SWPPP. See Module 4 for more information.

A complete SWPPP includes:

Approved erosion and sediment control (ESC) plan

Describes the structural and non-structural practices to be used during construction to keep sediment in place and capture any sediment that is moved by stormwater before it leaves the site. The ESC plan must be approved by a Virginia Erosion and Stormwater Management Program (VESMP) authority before land disturbance begins. Where DEQ acts as the Virginia Stormwater Management Program (VSMP) authority, the ESC plan approval is done by the Virginia Erosion and Sediment Control Program (VESCP) authority.

Approved stormwater management (SWM) plan

Describes the methods to be used for controlling post-construction stormwater discharges. The SWM plan must be approved by a VESMP authority or DEQ, as the VSMP authority, before land disturbance. *Note: other program requirements by a VESMP, VESCP, or DEQ as a VSMP authority are discussed in Module 3.

Pollution prevention (P2) plan

Describes good housekeeping practices designed to minimize the discharge of pollutants from a wide range of materials and wastes found on construction sites. While the P2 plan does not need to be approved by the VESMP authority, it must be developed before land disturbance and updated throughout construction.

Additional control measures for impaired, TMDL, or exceptional waterways

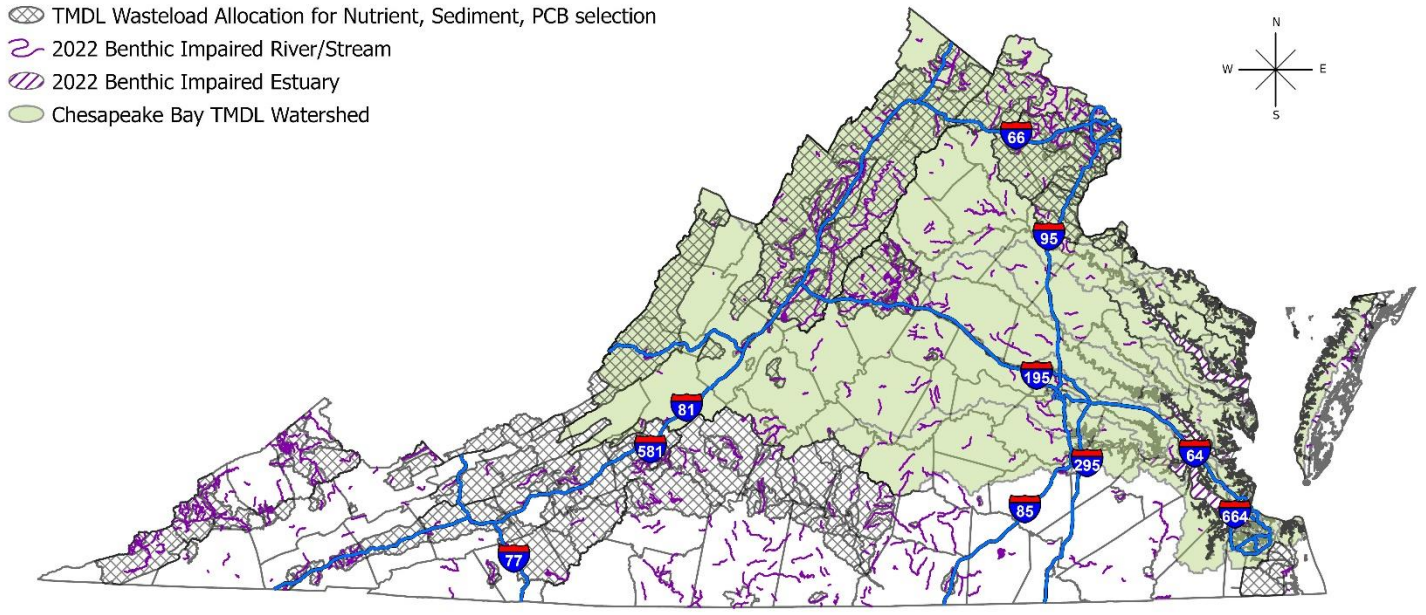
Sites discharging to surface waters identified as impaired for Benthic Macroinvertebrates in the 2022 § 305(b)/303(d) Water Quality Assessment Integrated Report, with a Total Maximum Daily Load (TMDL) wasteload allocation that was established and approved before July 1, 2024 for (i) sediment or a sediment-related parameter (i.e., total suspended solids or turbidity) or (ii) nutrients (i.e., nitrogen or phosphorus), or exceptional waterways must include the additional controls listed in the CGP, as discussed in Module 5.

In addition, construction activity discharges from demolition of any structure with at least 10,000 square feet of floor space built or renovated before January 1, 1980, to surface waters impaired in the 2022 § 305(b)/303(d) Water Quality Assessment Integrated Report with a TMDL wasteload allocation that was established and approved before July 1, 2024 for Polychlorinated Biphenyl (PCB) must also include the additional controls listed in the CGP and discussed in Module 5.

See the map on the following page to locate impaired waters and TMDLs.

2024 Construction General Permit Limitations on Coverage

Impaired Waters and Total Maximum Daily Load (TMDL)



Notes:

- Surface waters identified as impaired in the 2022 305(b)/303(d) Water Quality Assessment Integrated Report
- TMDL wasteload allocation (established and approved prior to July 1, 2024 for:
- (i) sediment or a sediment related parameter (i.e. total suspended solids, or turbidity) or
- (ii) nutrients (i.e. nitrogen or phosphorus) or
- (iii) PCB

DEQ
Virginia Department of Environmental Quality

0 25 50 100
Miles

Map Created by: DEQ – February 2024

Data Sources: Virginia Department of Environmental Quality, VA Department of Conservation and Recreation, VA Department of Transportation.

2b. Stormwater Management Plan

Figure 1: Typical changes in landcover (1958 – 1999) for a commercial area

Source: Atlanta Regional Commission

Over the past 40 years, the population in Virginia has grown rapidly. During this same time, forest cover has decreased while the impervious cover associated with residential areas, roads, institutions, and commercial development has increased.

This dramatic increase in population, impervious cover, and corresponding loss of tree cover has resulted in excessive amounts of stormwater runoff. Stormwater runoff harms streams in two ways:

1. Stormwater runoff picks up pollutants like sediment, trash, oil, and fertilizer and carries them to streams affecting ***water quality***.
2. With less infiltration occurring, the volume and velocity of stormwater runoff increases. This increase in ***water quantity*** can result in channel erosion and flooding as well as pose risks to downstream properties.

To address these concerns, the Virginia Erosion and Stormwater Management (VESM) regulation lays out the technical criteria that must be met in the SWM plan. The primary objective of these technical criteria is to protect against the impacts that result from development and the associated increases in stormwater runoff.

WATER QUALITY CRITERIA

The goal of the VESM regulation water quality criteria (9VAC25-875-580) is to reduce the amount of pollutants discharged after construction to streams via stormwater runoff by reducing runoff volumes and/or removing pollutants from runoff.

Figure 2: Algae in a stream

Photo credit: Courtesy of Chesapeake Bay Program

The criterion targets ***total phosphorus*** because it is a pollutant and marker for other pollutants. Phosphorus attaches to sediment that is easily carried with stormwater runoff. While phosphorus is naturally found in fresh water, small increases can have an adverse effect on water quality and aquatic life. Excess phosphorus fuels abundant growth of algae. The excess algae die off and bacterial decomposition of all this additional organic matter consumes oxygen in the water. This excess oxygen consumption results in sudden declines of the dissolved oxygen content in the water and serious stress and/or death to fish and other aquatic life that need this dissolved oxygen to survive. Excessive algal blooms can also produce a dense mat-like surface cover in natural waters that effectively blocks the sun from reaching underwater grasses, hindering their growth. Underwater grasses form a very important part of aquatic ecosystems by providing food, habitat, and oxygen and helping to support aquatic life that keeps the water clear and healthy. This type of pollution can have a negative impact on

Virginia's economy, affect public drinking water supplies, and degrade recreational opportunities.

How does impervious cover affect water quality?

Under natural woodland and meadow conditions, only a small portion of the annual rainfall becomes stormwater runoff. The volume and velocity of stormwater runoff increases as natural vegetation is replaced with roads, buildings, parking areas, and other impervious surfaces. The increase in stormwater runoff leads to an increase in pollutants, such as sediment and phosphorus that are carried to waterways, which has a negative effect on water quality. The relationship between impervious cover and runoff is illustrated below.

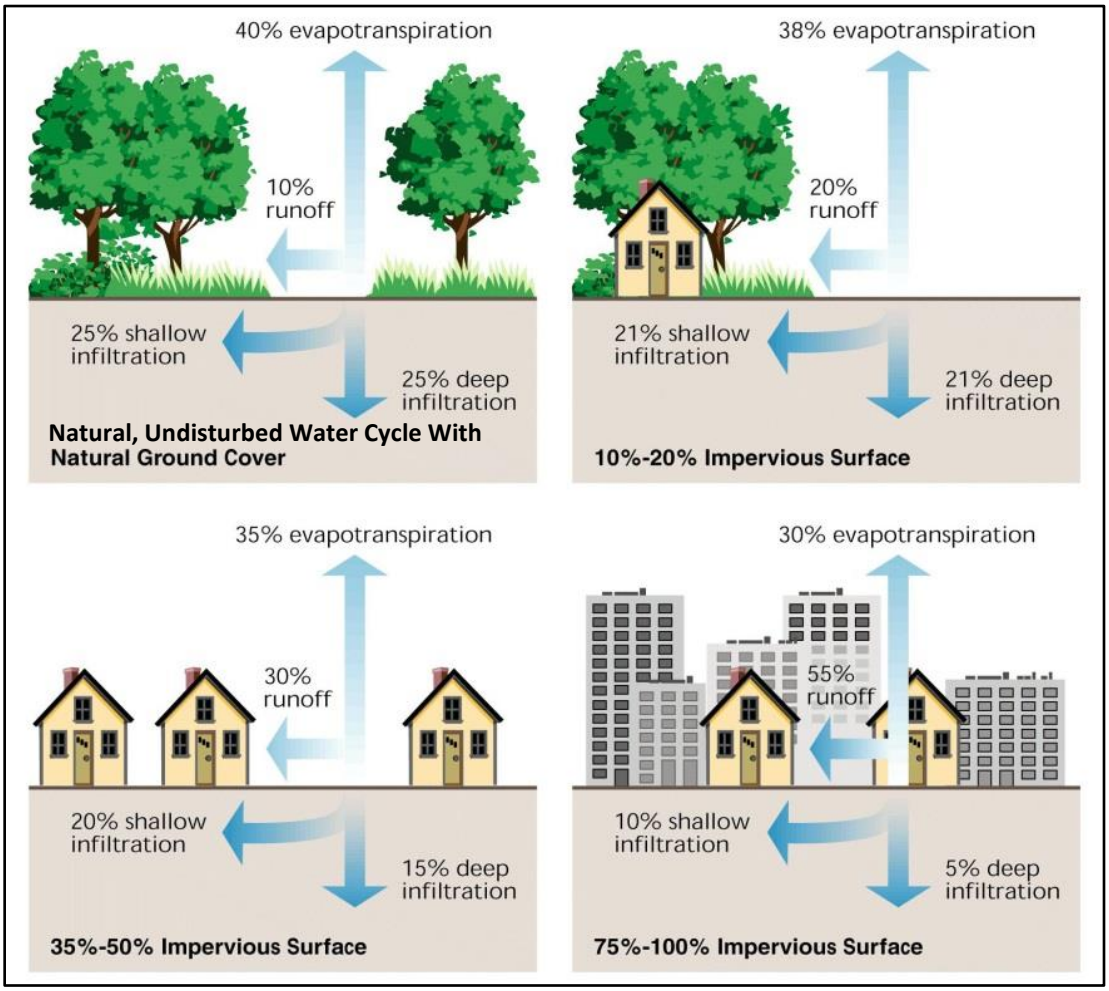


Figure 3: Relationship between impervious cover and runoff

Federal Interagency SWRG, 1998

Research has shown that when impervious cover in a watershed reaches between 10 and 25 percent, ecological stress becomes apparent (Schueler et al., 2009). Beyond 25 percent impervious cover, stream stability is reduced, habitat is lost, water quality is degraded, and biological diversity is diminished. This relationship is displayed in the graph below. In developed watersheds with significant residential, commercial, and industrial development, overall watershed imperviousness often exceeds stream ecological stress thresholds.

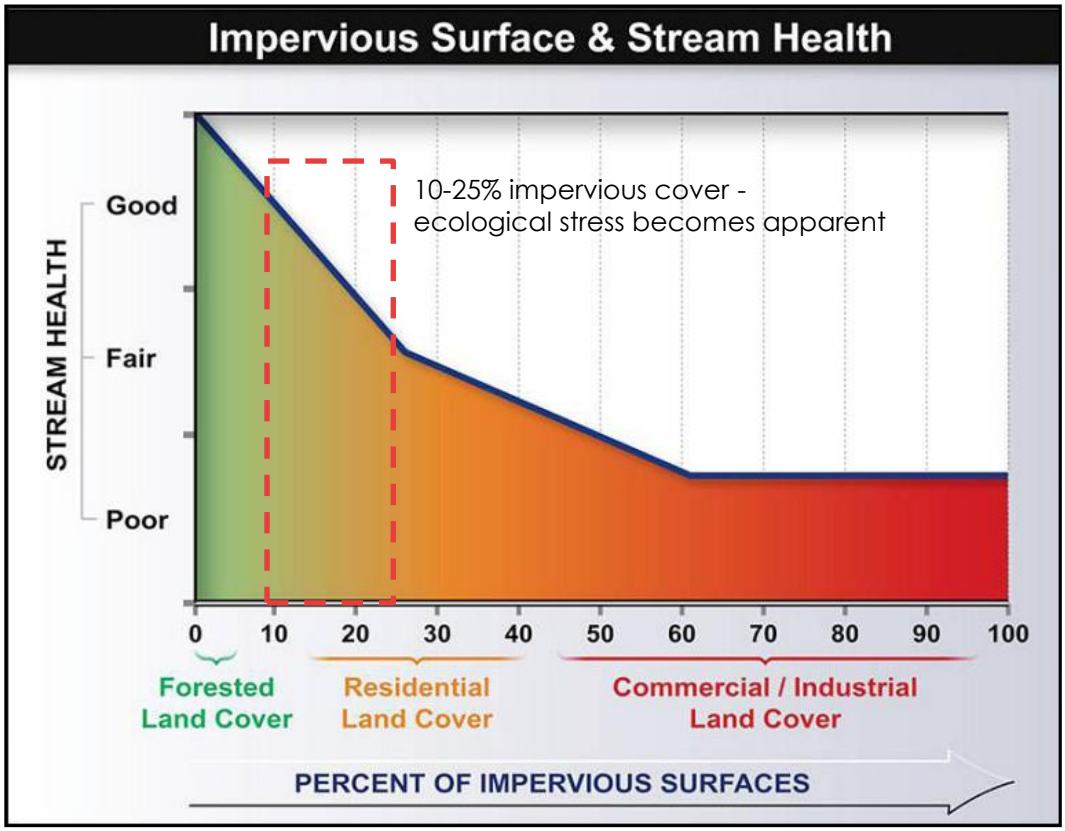


Figure 4: The Impervious Cover Model: How Imperviousness Impacts Stream Health

Source: Chesapeake Bay Stormwater Training Partnership

How does managed turf affect water quality?

In addition to impervious cover, research also indicates that managed turf affects water quality (Law et al, 2008). During construction, turf areas are graded, which removes the topsoil layer – a good growing medium for vegetation. The remaining subsoil is compacted from heavy construction equipment, which decreases soil permeability, and therefore increases the volume and velocity of runoff (OCSCD et al, 2001; Pitt et al, 2002; Schueler and Holland, 2000). Mowing and applying fertilizers and pesticides are other contributors to elevated nutrient loads in runoff.

Accounting for pollutant loads based on landcover and soil type

(9VAC25-875-580)

The Impervious Cover Model shown above uses 10% impervious cover as the ideal threshold for development to maintain good stream health within a watershed. Remember, phosphorus binds to sediment as well as serves as a marker for other pollutants that can be carried off with stormwater runoff. This serves as the rationale for using phosphorus as the water quality marker for development across Virginia to ensure development can continue while minimizing those negative impacts to stream health.

The water quality criterion sets a site-based load limit of ***0.26 pounds/acre/year of Total Phosphorus for new development***. The ***Virginia Runoff Reduction Method*** (VRRM) is a compliance approach used in Virginia to address pollutant loads by incorporating environmentally sensitive design elements, runoff treatment control and runoff volume control options. Load calculations are based on ***landcover types*** and ***soils*** as represented by the runoff coefficients included with the VRRM (see #1 on the VRRM spreadsheet example in Table 1 on page 12). The runoff coefficients are volumetric representations and so link pollutant loads to runoff volume generated from a site. Loads calculated for areas with low composite runoff coefficients will have lower loads than areas with high composite runoff coefficients.

Runoff coefficients are weighted across landcover types and soils and used to compute the total phosphorus load for the site based on the proposed landcover data entered by the user (see #2 on Table 1). The total phosphorus load limit of 0.26 pounds per acre per year for new development is based on research using the Chesapeake Assessment Scenario Tool (CAST), which incorporates updated data reflecting more recent trends in land cover changes and pollutant discharges by development across the Chesapeake Bay watershed. The required load reduction is based on the difference between the computed post-development site load and 0.26 pounds total phosphorus per acre per year for new development (see #3 on Table 1).

Runoff coefficient (C) is a dimensionless number between 0 and 1 that is used to relate the amount of runoff to the amount of precipitation. It is a larger value for areas with low infiltration and high runoff (pavement, compacted soils) and lower for permeable, well-vegetated areas (forest, natural vegetation).

Alternate water quality methodologies

The Virginia Stormwater Management Handbook (VSMH) Appendix A details alternate water quality compliance methodologies that, if approved by DEQ, may be used to address a site's water quality compliance strategy.

Stormwater site design

The VSMH Chapter 6 introduces stormwater site design (SD) principles (discussed in Module 2d) that, when used for the preservation and protection of natural vegetation and protection of good soils, can lead to lower runoff volumes and phosphorus loads. This is one of the recommended approaches for new projects, which facilitates the goal of meeting site compliance for water quality. Low impact development (LID), which is included in SD, is a design approach to manage stormwater runoff by decreasing the volume of stormwater runoff that leaves a site.

Table 1: Site Information of the Virginia Runoff Reduction Method Spreadsheet v4.1

Constants — VRRM 4.1, 2024

Target Rainfall Event (inches)	1.00
Target TP Load (lb/acre/yr)	0.26

Runoff Coefficients (Rv) 1

	A Soils	B Soils	C Soils	D Soils
Forest	0.02	0.03	0.04	0.05
Mixed Open	0.08	0.11	0.13	0.15
Managed Turf	0.15	0.20	0.22	0.25
Impervious Cover	0.95	0.95	0.95	0.95

Curve Numbers (CN)

	A Soils	B Soils	C Soils	D Soils
Forest	30	55	70	77
Mixed Open	34	59	72	79
Managed Turf	39	61	74	80
Impervious	98	98	98	98

Phosphorus Loading Rates (lb/acre/yr)

	A Soils	B Soils	C Soils	D Soils
Forest	0.042	0.062	0.083	0.104
Mixed Open	0.239	0.341	0.385	0.454
Managed Turf	0.508	0.677	0.745	0.846
Impervious Cover	0.858	0.858	0.858	0.858

Nitrogen Loading Rates (lb/acre/yr)

	A Soils	B Soils	C Soils	D Soils
Forest	0.702	1.054	1.405	1.756
Mixed Open	1.091	1.559	1.760	2.075
Managed Turf	5.405	7.207	7.928	9.009
Impervious Cover	12.334	12.334	12.334	12.334

DEQ Virginia Runoff Reduction Method New Development Compliance Spreadsheet - Version 4.1

Project Name: Sample
Date: 7/1/2025

CLEAR ALL (Ctrl+Shift+R)

data input cells
constant values
calculation cells
final results

BMP Design Specifications List: 2024 Stds & Specs

Site Information

Post-Development Project (Treatment Volume and Loads)

Land Cover (acres)

	A Soils	B Soils	C Soils	D Soils	Totals
Forest (acres) -- undisturbed, protected forest or reforested land		2.50			2.50 *
Mixed Open (acres) -- undisturbed/infrequently maintained grass or shrub land					0.00
Managed Turf (acres) -- disturbed, graded for yards or other turf to be mowed/managed			1.00		1.00
Impervious Cover (acres)			5.00		5.00
					8.50

** Forest and Mixed Open areas must be protected in accordance with the Virginia Runoff Reduction Method*

Post-Development Requirement for Site Area 3

TP Load Reduction Required (lb/yr)	2.98

LAND COVER SUMMARY -- POST DEVELOPMENT

2

Land Cover Summary

Forest Cover (acres)	2.50
Weighted Rv (forest)	0.03
% Forest	29%
Mixed Open (acres)	0.00
Weighted Rv (mixed open)	0.00
% Mixed Open	0%
Managed Turf Cover (acres)	1.00
Weighted Rv (turf)	0.22
% Managed Turf	12%
Impervious Cover (acres)	5.00
Rv (impervious)	0.95
% Impervious	59%
Site Area (acres)	**8.50**
Site Rv	**0.59**

Treatment Volume and Nutrient Loads

Treatment Volume (acre-ft)	0.4204
Treatment Volume (cubic feet)	18,313
TP Load (lb/yr)	5.19
TN Load (lb/yr)	72.23

Post-construction best management practices (P-BMPs)

If a total phosphorus load reduction is required, the site designer must use DEQ-approved post-construction stormwater best management practices (P-BMPs) to remove phosphorus by runoff volume reduction, pollutant removal, or both (see #4 in Table 2 on the following page). Runoff reduction practices can also be applied towards water quantity compliance (9VAC25-875-600). The VRRM calculates when the total phosphorus load reduction has been achieved.

VRRM version 4.1

(9VAC25-875-580)

The VRRM version 4.1 spreadsheets that help designers meet compliance with the VESM regulation's water quality technical criteria are available on DEQ's stormwater webpage: https://www.deq.virginia.gov/our-programs/water/stormwater/stormwater-construction/guidance-vrrm.

VRRM 4.1 introduces multiple changes to the previous 3.0 version of the VRRM including:

- Land cover types have been expanded to include a fourth type; Mixed Open Space (see #5 in Table 2)
- The target phosphorous load for new and redevelopment projects has been changed from 0.41 to 0.26 lbs./ac/year of phosphorous; although, the supporting methodology for computing the two targets differs
- Pollutant loading rates for each land cover and soil type have been adjusted based on more recent data
- VRRM v4.1 requires the use of the 2024 P-BMPs specifications and accommodates two additional P-BMPs, including Regenerative Stormwater Conveyances (RSCs) and Tree Planting, as well as updates to previous P-BMPs

The current version of the VSMH Appendix B provides additional, supporting information on VRRM version 4.1.

Table 2: Drainage Area Tab of the Virginia Runoff Reduction Method Spreadsheet v4.1

Drainage Area A

Drainage Area A Land Cover (acres)

	A Soils	B Soils	C Soils	D Soils	Totals	Land Cover Rv	Composite Loading P
Forest (acres)		2.50			2.50	0.03	0.06
Mixed Open (acres)					0.00	0.00	0.00
Managed Turf (acres)			1.00		1.00	0.22	0.75
Impervious Cover (acres)			5.00		5.00	0.95	0.86
				Total	8.50		

5

Stormwater Best Management Practices (RR = Runoff Reduction)

4 Practice	Runoff Reduction Credit (%)	Mixed Open Credit Area (acres)	Managed Turf Credit Area (acres)	Impervious Cover Credit Area (acres)	Volume from Upstream Practice (ft^3)	Runoff Reduction (ft^3)	Remaining Runoff Volume (ft^3)	Total BMP Treatment Volume (ft^3)
1. Vegetated Roof (RR)								
1.a. Vegetated Roof #1 (P-FIL-02)	45					0	0	0
1.b. Vegetated Roof #2 (P-FIL-02)	60					0	0	0
2. Rooftop Disconnection (RR)								
2.a. Simple Disconnection to A/B Soils (P-FIL-01)	50				0	0	0	0
2.b. Simple Disconnection to C/D Soils (P-FIL-01)	25				0	0	0	0
2.c. To Soil Amended Filter Path as per specifications (existing C/D soils) (P-FIL-08)	50				0	0	0	0
2.d. To Dry Well or French Drain #1, Micro-Infilration #1 (P-FIL-04)	50				0	0	0	0
2.e. To Dry Well or French Drain #2, Micro-Infiltration #2 (P-FIL-04)	90				0	0	0	0

Development on prior developed lands

(9VAC25-875-580)

There are ***two*** Virginia Runoff Reduction Method spreadsheets that are used to verify compliance with the VESM regulation water quality criteria. The ***New Development*** Spreadsheet was featured above and is used as the name suggests for new development projects. The ***ReDevelopment*** Spreadsheet, used for redevelopment projects or development on prior developed lands, checks for compliance with the phosphorus threshold by comparing the proposed landcover to the predevelopment (existing) landcover. Predevelopment refers to existing land conditions at the time the plan is submitted to the VESMP authority (9VAC25-875-30).

Table 3: Part V, Article 3 Water Quality Design Criteria Requirements

Development Scenario	Phosphorus (P) Load
New development	Cannot exceed **0.26** lbs./acre/yr.
Development on prior developed land	
LDA **does not** increase impervious cover from pre-development conditions	
LDA ≥ 1 acre	Must be reduced at least **20%** below pre-development P load
LDA < 1 acre	Must be reduced at least **10%** below pre-development P load
LDA **does** increases impervious cover over pre-development conditions	
LDA ≥ 1 acre	Increased impervious area cannot exceed **0.26** lbs./acre/yr. and on remainder of site must be reduced **20%** below pre-development P load
LDA < 1 acre	Increased impervious area cannot exceed **0.26** lbs./acre/yr. and on remainder of site must be reduced **10%** below pre-development P load
Linear development	Must be reduced **20%** below the pre-development P load

★ The total P load must not be required to be reduced below the new development standard unless a more stringent standard has been established by a locality.

WATER QUANTITY CRITERIA

The VESM regulation water quantity criteria address ***channel protection*** and ***flood protection*** because as stormwater runoff increases, there is a direct impact on stream channels and flooding. The hydrograph below shows how differently a stream responds to a storm and stormwater runoff in a pre- and post- development watershed.

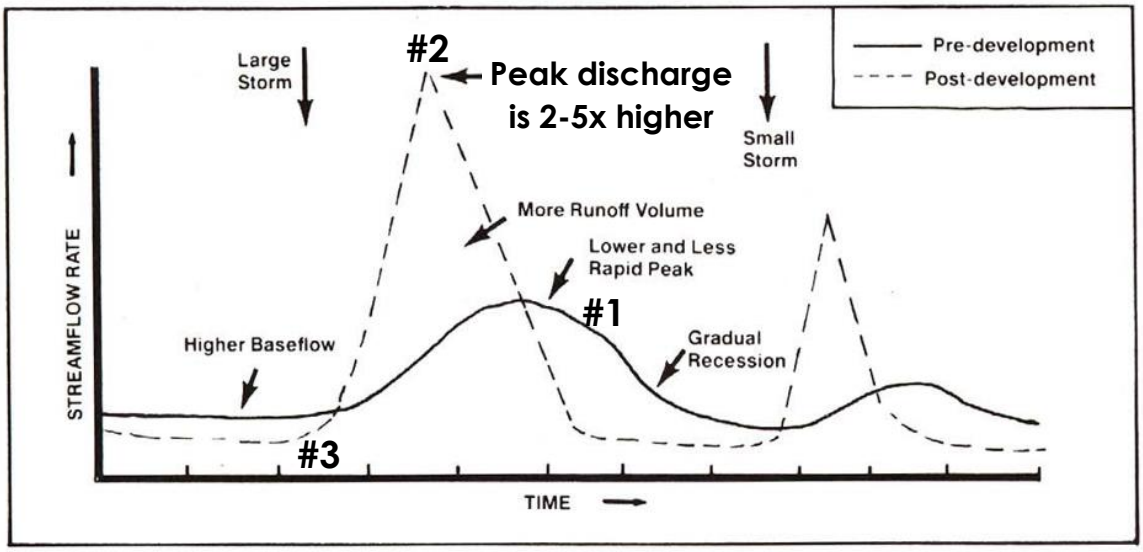


Figure 5: Pre- and Post-Development Stormwater Runoff Hydrographs

1. Following a storm in a ***pre-development*** watershed, the peak discharge, or flow, which occurs when the maximum flood stage, or depth, in a stream is reached, gradually increases and gradually declines (curve is rounded).

2. After a storm in a ***post-development*** watershed**,** the peak discharge can be two to five times higher than in a pre-development watershed. This characterization translates into the sharp peak and increased size of the post-development hydrograph.

   This happens in a post-development watershed because there is more impervious surface and less opportunity for evapotranspiration and infiltration.

3. It takes less time for runoff to travel over the impervious surface in a ***post-development*** watershed, so it takes less time for runoff to reach a stream (time of concentration). The energy of stream flows ranging from low to bankfull flows can most quickly alter a stream channel's physical shape and size.

The combination of greater volumes of runoff occurring more often and at higher flow rates, even in small storm events, can create:

- Altered stream flows that can affect water conditions and habitat for fish
- Channel erosion, widening, and downcutting that can degrade stream habitat and produce substantial increases in sediment loads from accelerated erosion
- Increased frequency of flooding and floodplain expansion
- Entrenched streams cutoff from the floodplain

Figure 6: Incised channel

Photo credit: Arlington County

Channel protection and flood protection criteria

(9VAC25-875-600)

In order to protect downstream properties and natural resources from channel erosion and flooding, SWM plans must account for the water quantity volume expected to be generated from the increase in impervious surfaces after the final build out of the site. The water quantity criteria calculations use the expected frequency and size of a storm event to plan for the stormwater management facilities that will prevent the added runoff from causing erosion and flooding.

The *channel protection* criterion is a regulatory framework to avoid stream erosion by development. It prescribes the compliance requirements for each type of channel that may receive post-development concentrated stormwater runoff. A separate requirement is prescribed for non-concentrated runoff or sheet flow.

The *flood protection* criterion is based on an assessment of the existing and post-developed condition of the downstream stormwater conveyance system in order to avoid, or address, flooding issues that may result from development.

When *sheet flow* is discharged from a site, there are three scenarios:

1. Post-development sheet flow runoff is expected to be same as pre-development
2. Any increase in post-development sheet flow runoff is not expected to be harmful
3. Potentially harmful increases in post-development sheet flow runoff will be diverted to a stormwater conveyance system

2c. 17 Non-Proprietary Post-Construction Best Management Practices

P-BMPs are used to reduce phosphorus loads as required in the water quality criteria and, in some cases, to reduce stormwater runoff (water quantity). When a site design utilizes P-BMPs from either the 2011 or 2013 design specifications, the stormwater regulations allow for the use of non-proprietary P-BMPs and manufactured treatment devices (MTDs) listed on the Virginia Stormwater BMP Clearinghouse to achieve the water quality criteria: https://www.deq.virginia.gov/our-programs/water/stormwater/stormwater-construction/bmp-clearinghouse

As of July1, 2025, newly submitted SWM or ESM plans must utilize P-BMP design specifications detailed in the VSMH as the approved material for the most recent P-BMP designs: https://online.encodeplus.com/regs/deq-va/index.aspx

Changes or modifications to ESM plans that were previously complete or approved ***prior to July 1, 2025,*** utilizing 2011 or 2013 P-BMP specs and VRRM 3.0, can continue to meet compliance under those previously approved conditions as long as the modifications will not increase the annual phosphorus (P) load or increase the stormwater volume discharging from the development. If P load or stormwater runoff are increased, those modified plans must meet compliance by using VRRM 4.1 and the VSMH 2024 P-BMP specifications.

Pollution control

P-BMPs use three primary mechanisms to control pollution:

Infiltration: Practices that use infiltration to remove pollutants collect stormwater runoff in a basin. The water gradually soaks through the basin and into the subsoil. After all the runoff is infiltrated, sediment and pollutants stay within the basin. Permeable pavement, infiltration practices, bioretention systems, and dry swales use infiltration as a pollution control mechanism.

Settling: Another way P-BMPs remove pollutants is by collecting runoff in a basin and temporarily holding the water. While the runoff is contained, heavy solids and pollutants settle to the bottom of the basin while the cleaner runoff is discharged through the outlet. Constructed wetlands, wet swales, extended detention basins, and wet ponds use settling as a pollution control mechanism.

Vegetative uptake or filtering: The third way to remove pollutants from runoff is by allowing it to flow through a vegetated area. Pollutants can be filtered out by physical contact with plants - causing sediment to settle out, plant root uptake, or consumption by microbes. Vegetative filter strips, grass channels, vegetated roofs, bioretentions, and filtering practices use vegetative uptake or filtering as a pollution control mechanism.

Flood and erosion control

P-BMPs can also be used to achieve the water quantity criteria be reducing the amount of runoff that leaves a site or detaining the water and slowly releasing it. Rainwater harvesting, permeable pavement, and infiltration are examples of runoff reduction practices. Extended detention basins, wet ponds, and constructed wetlands are examples of detention practices.

Overview of P-BMPs

The current version of the VSMH organizes the 17 non-proprietary P-BMPs and supporting components, which can apply to any P-BMP, into groups based on type and function of each practice. The P-BMPs are categorized and highlighted below:

Basins – P-BAS

- P-BAS-01 Constructed Wetland
- P-BAS-02 Wet Pond
- P-BAS-03 Extended Detention Pond
- P-BAS-04 Rainwater Harvesting

Conveyances – P-CNV

- P-CNV-01 Grass Channels
- P-CNV-02 Dry Swales
- P-CNV-03 Wet Swales
- P-CNV-04 Regenerative Stormwater Conveyance

Filtration and Infiltration – P-FIL

- P-FIL-01 Rooftop/Impervious Surface Disconnection
- P-FIL-02 Vegetated Roof
- P-FIL-03 Permeable Pavement
- P-FIL-04 Infiltration Practices
- P-FIL-05 Bioretention
- P-FIL-06 Filtering Practices
- P-FIL-07 Sheet Flow to Vegetated Filter Strip/Conserved Open Space
- P-FIL-08 Soil Compost Amendments
- P-FIL-09 Tree Planting

Support Components – P-SUP

- P-SUP-01 Earthen Embankment
- P-SUP-02 Principal Spillway
- P-SUP-03 Vegetated Emergency Spillway
- P-SUP-06 Pretreatment
- P-SUP-07 Quantity-only Approach to BMPs
- P-SUP-08 Permanent Level Spreader

P-BAS-01 Constructed Wetlands

Constructed wetlands, sometimes called stormwater wetlands, are shallow depressions that receive stormwater inputs for water quality treatment. Wetlands are typically less than one-foot deep and possess variable microtopography to promote dense and diverse wetland cover.

Runoff from each new storm displaces runoff from previous storms, and the long residence time allows multiple pollutant removal processes to occur. The wetland environment provides an ideal environment for gravitational ***settling***, ***vegetative uptake,*** and ***microbial activity***. Constructed wetlands are the final element in the roof-to-stream runoff reduction sequence. They should only be considered for use after all other upland runoff reduction opportunities have been exhausted and there is still a remaining water quality or channel protection volume to manage.

Figure 7: Constructed wetland

Photo credit: Seuss, Flickr

P-BAS-02 Wet Pond

Wet ponds consist of a permanent pool of standing water that promotes a better environment for gravitational ***settling***, ***vegetative uptake,*** and ***microbial activity***. Runoff from each new storm enters the pond and partially displaces water from previous storms. The pool also acts as a barrier to re-suspension of sediments and other pollutants deposited during prior storms. When sized properly, wet ponds have a residence time that ranges from many days to several weeks, which allows numerous pollutant removal mechanisms to operate. Wet ponds can also provide extended detention above the permanent pool to help meet channel protection requirements.

Figure 8: Wet pond

Photo credit: Stormwater Maintenance LLC

P-BAS-03 Extended Detention Pond

An extended detention pond relies on 24-to-36-hour detention of stormwater runoff after each rain event. An under-sized outlet structure restricts stormwater flow so it backs up and is stored within the basin. The temporary ponding enables particulate pollutants to ***settle*** out and reduces the maximum peak discharge to the downstream channel, thereby reducing the effective shear stress on banks of the receiving stream.

Figure 9: Extended detention pond

Photo credit: DEQ

P-BAS-04 Rainwater Harvesting

Rainwater harvesting systems intercept, divert, store, and release rainfall for future ***reuse***. The term rainwater harvesting is used in this specification, but it is also known as a cistern. Rainwater that falls on a rooftop is collected and conveyed into an above- or below-ground storage tank where it can be used for non-potable water uses and on-site stormwater disposal/infiltration. Non-potable uses may include flushing of toilets and urinals inside buildings, landscape irrigation, exterior washing (e.g. car washes, building facades, sidewalks, street sweepers, fire trucks, etc.), and fire suppression (sprinkler) systems.

In many instances, rainwater harvesting can be combined with a secondary (down-gradient) runoff reduction practice to enhance runoff volume reduction rates and/or provide treatment of overflow from the rainwater harvesting system.

Figure 10: Cistern

Photo credit: Courtesy Chesapeake Bay Program

P-CNV-01 Grass Channels

A grass channel is a stable, vegetated swale that is used as part of a stormwater conveyance system. Grass channels reduce stormwater runoff and pollutants by slowing the flow and allowing sediment and attached pollutants to ***settle*** and runoff to be ***filtered*** by the vegetation.

Grass channels can be used to treat runoff from managed turf areas, such as sports fields and golf courses, and drainage areas with combined impervious and turf cover, such as roads and yards.

Photo credit: Fairfax County

Photo credit: Montgomery County, MD

Photo credit: Maryland DOT

Photo credit: Stormwater Maintenance LLC

Figure 11: Four examples of grass channels

P-CNV-02 Dry Swales

Dry swales are essentially shallow, linear bioretention cells with a turf cover or other surface material (other than mulch and ornamental plants). They are a soil filter system that temporarily stores and then ***filters*** the desired treatment volume. Dry swales rely on a pre-mixed soil media filter below the channel that is similar to that used for bioretention. If soils are extremely permeable, runoff ***infiltrates*** into underlying soils. In most cases, however, the runoff treated by the soil media flows into an underdrain, which conveys treated runoff back to the conveyance system further downstream.

Dry swales may appear as simple grass channels with the same shape and turf cover, while others may have more elaborate landscaping. Swales can be planted with turf grass, tall meadow grasses, decorative herbaceous cover, or trees.

Figure 12: Dry swale

Photo credit: Montgomery County Planning District Commission

P-CNV-03 Wet Swales

Wet swales are a cross between a wetland and a swale. These linear wetland cells often intercept shallow groundwater to maintain a wetland plant community. The saturated soil and wetland vegetation provide an ideal environment for gravitational ***settling***, ***vegetative uptake,*** and ***microbial activity***. Cells are formed within the channel to create saturated soil or shallow standing water conditions (typically less than six inches deep).

Figure 13: Wet swale

Photo credit: Lake County Illinois Stormwater Management Commission

P-CNV-04 Regenerative Stormwater Conveyance

Regenerative stormwater conveyances (RSCs) are P-BMPs designed to restore incised and eroded channels, ditches, outfalls, ephemeral streams, and in certain cases, perennial streams. These P-BMPs are constructed with a series of shallow pools, riffles, weirs, and outfalls that help dissipate stormwater runoff energy and allow for ***settling*** and ***infiltration***. Wood chips and/or sand layers can provide filtering, while woody and herbaceous plants in the ponding areas provide ***vegetative uptake*** of runoff and pollutants as well as stabilizing surrounding soils.

Figure 14: Regenerative stormwater conveyance

Photo credit: Chesterfield County

P-FIL-01 Rooftop (Impervious Area) Disconnection

This strategy involves managing runoff close to its source by ***infiltrating***, ***filtering,*** or ***reusing*** it as it moves from the impervious surface to the drainage system.

Two kinds of disconnection are allowed:

1. Simple disconnection whereby rooftops and/or on-lot residential impervious surfaces are directed to pervious areas
2. Disconnection leading to one of the following alternative runoff reduction practice(s):

- Soil compost amended filter path
- Infiltration by micro-infiltration practice
- Filtration by rain gardens or micro-bioretention
- Storage and release into a stormwater planter
- Storage and reuse with a cistern

Figure 15: Rooftop disconnection to rain garden

Photo credit: DEQ

P-FIL-02 Vegetated Roofs

Vegetated roofs are alternative roof surfaces that typically consist of waterproofing and drainage materials and an engineered growing media that is designed to support plant growth. Vegetated roofs capture and temporarily store stormwater runoff in the growing media before it is conveyed into the storm drain system. A portion of the captured stormwater evaporates or is ***taken up by plants***, which helps reduce runoff and pollutant loads.

There are two different types of vegetated roof systems:

1. *Intensive* (Figure 17) vegetated roofs have a deep growing media layer that ranges from 6 inches to 4 feet thick, which is planted with a wide variety of plants, including trees
2. *Extensive* (Figure 16) systems that typically have much shallower growing media (4 to 6 inches) and is planted with carefully selected drought-tolerant vegetation

Figure 16: Extensive green roof

Photo credit: Chesapeake Bay Program

Figure 17: Intensive green roof

Photo credit: Chris Bruekner, Flickr

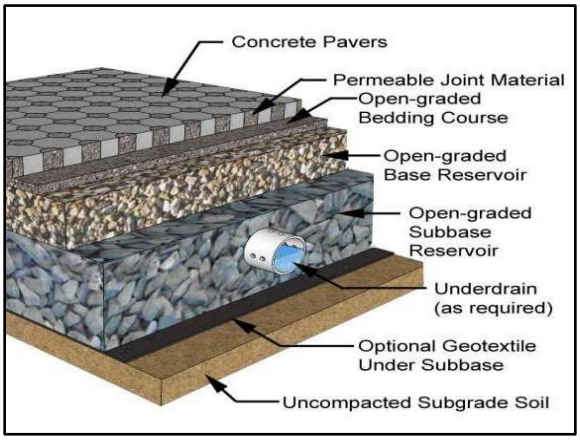
P-FIL-03 Permeable Pavement

Permeable pavement is an alternative to asphalt or concrete that allows stormwater to ***filter*** through openings in the surface into an underlying stone reservoir, where it is temporarily stored and/or ***infiltrated*** into underlying soil. Varieties of permeable pavement surfaces are available, including porous concrete, pervious asphalt, and permeable interlocking concrete pavers. While the specific design may vary, all permeable pavements have a similar structure, consisting of a surface pavement layer, an underlying stone aggregate reservoir layer, and a filter layer or fabric installed on the bottom.

Porous concrete
Photo credit: DEQ

Pervious asphalt
Photo credit: NEMO UConn

Permeable interlocking concrete pavers
Photo credit: DEQ



Cross section of concrete pavers

Figure 18: Examples of types of permeable pavement

P-FIL-04 Infiltration Practices

Infiltration practices use temporary surface or underground storage to allow incoming stormwater runoff to ***infiltrate*** underlying soils. Runoff first passes through multiple pretreatment mechanisms to trap sediment and organic matter before it reaches the practice. As the stormwater penetrates the underlying soil, chemical and physical adsorption processes remove pollutants. Infiltration practices have the greatest runoff reduction capability of any stormwater practice and are suitable for use in residential and other urban areas where measured soil permeability rates exceed 0.5 inches per hour.

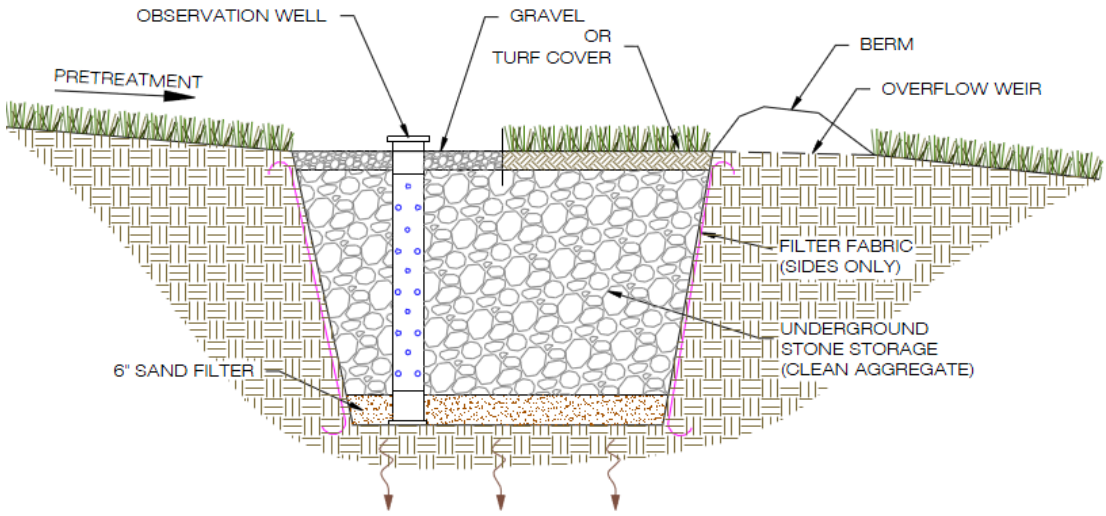


Figure 19: Infiltration trench

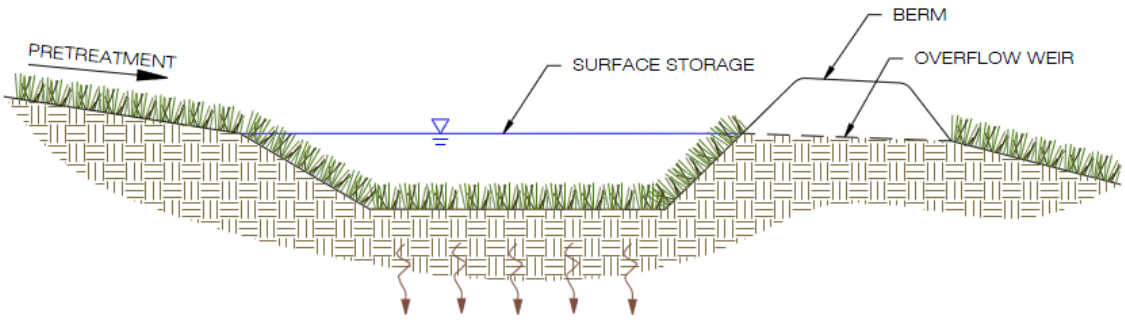


Figure 20: Infiltration basin

P-FIL-05 Bioretention

A bioretention facility is a depressed area that uses a custom soil mix and plants to reduce stormwater runoff and filter pollutants – much like a forested ecosystem. The primary component of a bioretention practice is the filter bed, which has a mixture of sand, soil, and organic material as the ***filtering*** media with a surface mulch layer.

During storms, runoff temporarily ponds six to 12 inches above the mulch layer and then rapidly ***infiltrates*** through the bed. Normally, the filtered runoff is collected in an underdrain and returned to the storm drain system. The underdrain consists of a perforated pipe in a gravel layer installed along the bottom of the filter bed.

Bioretention facilities can be used in a variety of locations including:

- Parking lot islands
- Parking lot edges
- Curb extensions
- Courtyards
- Residential lots

Figure 21: Urban bioretention

Photo credit: VA DGS

Figure 22: Micro-bioretention/rain garden

Photo credit: Chesapeake Stormwater Network

Figure 23: Bioretention basin

Photo credit: Chesapeake Bay Program

P-FIL-06 Filtering Practices

Stormwater filters are a useful practice to treat stormwater runoff from small, highly impervious sites. Stormwater filters capture, temporarily store, and treat stormwater runoff by passing it through an engineered filter media, collecting the filtered water in an underdrain then returning it back to the storm drainage system. The filter consists of two chambers. The first chamber is devoted to ***settling***, and the second serves as a ***filter*** bed consisting of sand or organic filter media.

Underground sand filter
Photo credit: Center for Watershed Protection

Perimeter sand filter
Photo credit: Center for Watershed Protection

Surface sand filter with turf cover
Photo credit: Center for Watershed Protection

Surface sand filter
Photo credit: Center for Watershed Protection

Figure 24: Four examples of filtering practices

P-FIL-07 Sheet Flow to a Vegetated Filter Strip/Conserved Open Space

Filter strips are vegetated areas that treat sheet flow from adjacent impervious and managed turf areas by slowing the flow and allowing sediment and attached pollutants to ***settle*** and runoff to be ***filtered*** by the vegetation. The two design variants of filter strips are: designed vegetated filter strips -or-conserved open space.

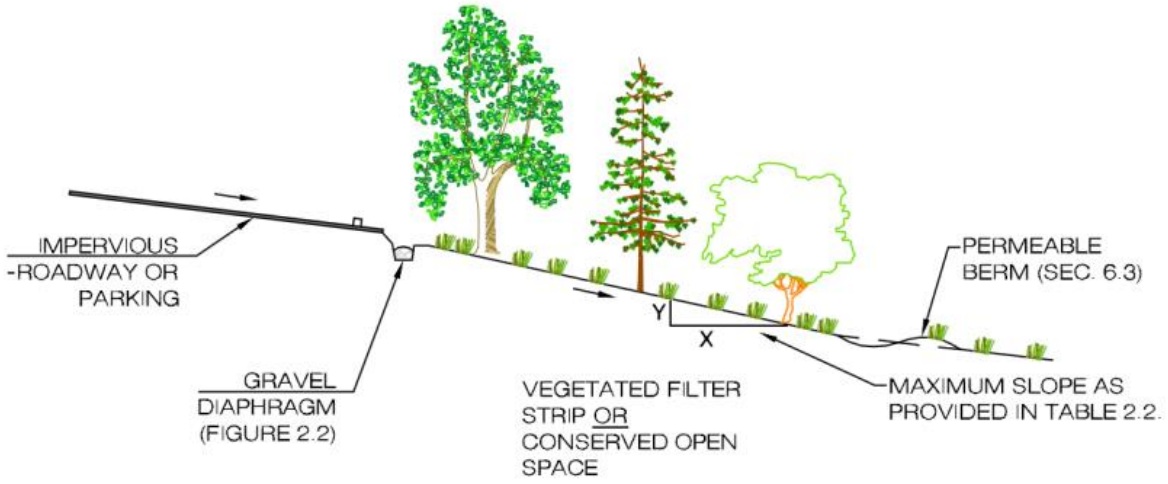


Figure 25: Sheet flow to vegetated filter strip

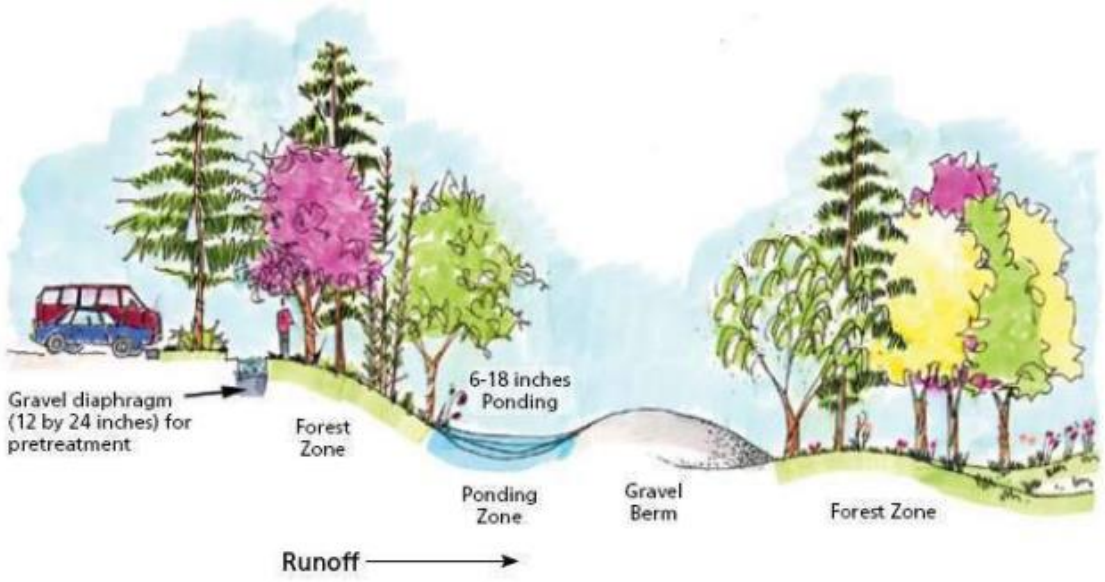


Figure 26: Sheet flow to open space

P-FIL-08 Soil Compost Amendments

Soil compost amendments are applied to compacted soil after construction to improve ***infiltration*** and reduce runoff. Soil amendments can be used on compacted urban lawns, downspout disconnections, grass channels, and filter strips.

Figure 27: Area being prepared for compost amendments

Photo credit: Center for Watershed Protection

Figure 28: Reseeded area with recently applied compost amendments

Photo credit: DEQ

P-FIL-09 Tree Planting

Tree plantings are P-BMPs that provide hydrological and biological functions that reduce stormwater runoff and improve water quality through interception and ***settling***, ***infiltration***, and ***vegetative uptake***. Tree plantings can be used at commercial, institutional, and residential sites, and placed in treatment trains with other P-BMPs such as bioretentions.

Figure 29: Tree Planting for water quality compliance

Photo credits: City of Chesapeake Specifications Manual

2d. Stormwater Site Design

In addition to using P-BMPs, designers can use Stormwater Site Design (SD) – the practice of using small-scale stormwater management practices, nonstructural techniques, and better site planning to mimic natural runoff characteristics and minimize the impact of land development on water quality and quantity by reducing the amount of stormwater runoff that will leave a site. Environmental Site Design (ESD) and Low-Impact Development (LID) are additional terms used to refer to this same concept.

SD promotes:

- Conserving natural features (e.g., drainage patterns, native soil, native vegetation)
- Minimizing impervious surfaces (e.g., pavement, concrete channels, rooftops)
- Slowing down runoff to maintain discharge timing and to increase infiltration and evapotranspiration
- Using other non-structural practices or innovative technologies approved by DEQ

Figure 30: House and property exhibiting stormwater SD features

Photo credit: W.L. Tarbert, via Wikimedia Commons

Summary

This module provides the program administrator of a VESMP with the information needed to:

- Identify and educate the regulated community on which major components comprise a complete SWPPP
- Understand how the changes in landcover during and after construction affect runoff and lead to negative impacts downstream. A good understanding of these aspects will help program administrators discuss the difference between poor and acceptable site activities and support other program staff in the protection of post-construction BMPs for full post-construction functionality
- Comprehend the overall goals of the VESM regulation water quality and quantity criteria that form the basis for the compliance requirements on development sites
- Discuss the main functions of the non-proprietary stormwater practices that can be used to manage water quality and quantity from developed sites

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Knowledge Check Questions

1. Which two plans in the SWPPP must be approved as part of an ESM plan?

2. Does the SWM plan address runoff during construction or after?

3. What impact does impervious cover have on water quality?

4. What is the target pollutant in the water quality criteria?

5. What is the lower limit of the range of imperviousness that can result in stream degradation?

6. The VESM regulation ensures water quantity is considered in stormwater management planning to protect against which two destructive forces?

7. Discuss how the rate of runoff changes after development.

8. What are the three primary mechanisms P-BMPs use to control pollution?

Answers to the Knowledge Check Questions can be found in the APPENDIX

Module 3: Administering an Erosion and Stormwater Management Program

Learning Objectives

At the end of this module, you will be able to:

- List the basic requirements of a Virginia Erosion and Stormwater Management Program (VESMP) and a locality's erosion and stormwater management ordinance
- Summarize the enforcement elements that are minimally required and those that are optional within an erosion and stormwater program and locality's erosion and stormwater ordinance
- State the maximum civil penalty that can be issued for violations
- Recall examples of violations that can be included in a locality's schedule of civil penalties
- Describe the conditions under which a locality is authorized to adopt a more stringent ordinance
- Recall the conditions under which a locality VESMP authority may prohibit a DEQ approved BMP or require more stringent conditions
- Summarize the standards and specifications requirements and identify the entities that are or may be regulated under them

3a. Locality Programs

REQUIREMENT FOR LOCALITIES TO ADOPT AND ADMINISTER AN EROSION AND STORMWATER MANAGEMENT PROGRAM

(§62.1-44.15:27), (9VAC25-875-100)

Localities that operate a regulated Municipal Separate Storm Sewer System (MS4) must adopt and administer a Virginia Erosion and Stormwater Management Program (VESMP). Non-MS4 localities may choose to administer a VESMP or Virginia Erosion and Sediment Control Program (VESCP), where DEQ serves as the Virginia Stormwater Management Program (VSMP) authority and administers the stormwater management component for any land-disturbing activity (LDA) of an acre or more.

As a program administrator…

It's important to understand the program and ordinance requirements as you will be overseeing your locality's program. There are key distinctions between localities that are required to operate a VESMP, and those localities who choose to operate a VESCP, where DEQ administers the stormwater management component.

Administer VESCP: • Counties and cities must • Towns may	**Administer VESMP:** • MS4 permit localities must • Counties, cities, and towns may
Locality VESCP authority: May enter into agreements or contracts with soil and water conservation districts, adjacent localities, or other public or private entities to carry out or assist with plan review, inspections, and enforcement.	**Locality VESMP authority:** May enter into agreements or contracts with DEQ, soil and water conservation districts, adjacent localities, planning district commissions, or other public or private entities to carry out or assist with plan review and inspections.
Stormwater Management by DEQ	**Stormwater Management by Locality**

*Note: Programmatic differences between the VESMP and VESCP are detailed further in the Erosion and Sediment Control certification course material, as well as in the VESM Regulation (9VAC25-875; Part II & Part III).

PROGRAM REQUIREMENTS

(§62.1-44.15:27), (9VAC25-875-100)

Each locality that administers a VESMP must do so in conjunction with a local MS4 program (if applicable), and shall, by ordinance, establish a program that includes the following:

- Ordinances, policies, and technical materials consistent with the VESM and CGP Regulations
- Requirements for land disturbance approvals

The General Virginia Pollutant Discharge Elimination System (VPDES) Permit for Discharges of Stormwater from Construction Activities (CGP) is issued by DEQ to authorize stormwater discharges from construction activities that will disturb one acre or more or are part of a larger common plan of development or sale that will disturb one acre or more.

The CGP authorizes locality VESMP authorities to act on behalf of DEQ (9VAC25-875-40). Locality VESMP authorities are also responsible for enforcing local ordinances.

- Program requirements for plan review, periodic inspections including the installation of stormwater management (SWM) measures, and enforcement
- Provisions charging applicants a reasonable fee to defray the cost of program administration for LDAs that do not require permit coverage
- Provide provisions for the long-term responsibility for and maintenance of SWM control devices and other techniques for the management of the quality and quantity of stormwater runoff
- Coordinate with flood insurance, flood plain management, and other programs requiring compliance before authorizing the start of construction

ENFORCEMENT

Informal and formal administrative enforcement procedures

(9VAC25-875-150)

A locality VESMP authority must include components of the following informal and formal administrative enforcement procedures in its local ordinance:

- Verbal warnings and inspection reports
- Notice of corrective action
- Consent orders including civil charges in accordance with §62.1-44.15:25.1 and §62.1-44.15:48
- Notices to comply and stop work orders in accordance with §62.1-44.15:37

Notice to comply

(§62.1-44.15:37)

If it is determined by the locality VESMP authority or DEQ that there is a failure to comply with the permit or land disturbance approval conditions, the authority or DEQ may serve a notice to comply upon the owner, permittee, or person conducting land-disturbing activities by delivery via:

- fax, email, or other technology;
- mailing, with confirmation of delivery, to the address specified in the permit, land-disturbance application, or in locality land records; or
- delivery at the site to a person previously identified to the VESMP authority by the permittee or owner.

The notice must:

- Specify the measures needed to comply with the permit or land disturbance approval conditions
- Specify the time within which such measures shall be completed, taking into account the risk of damage and other relevant factors

Upon failure to comply within the time specified, the following actions may be taken:

- Stop work order may be issued by the locality VESMP authority or DEQ
- DEQ or the locality VESMP authority may take enforcement action

Stop work order

(§62.1-44.15:37), (9VAC25-875-160)

If a permittee fails to comply with a notice within the time specified, the locality VESMP authority or DEQ may issue a stop work order requiring the permittee or person conducting the LDA without a required permit or approved plan(s) to cease all land-disturbing activities. The stop work order is in effect until the violation of the permit has stopped, or an approved plan and required permits are obtained, and specified corrective measures have been completed.

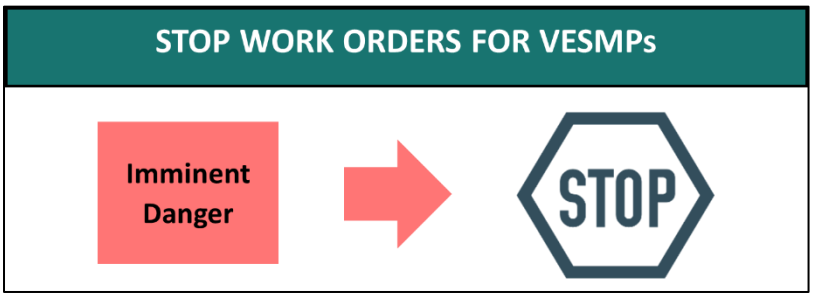
Such orders must be issued in accordance with local procedures if issued by a locality VESMP authority or after a hearing held in accordance with the requirements of the Administrative Process Act if issued by DEQ.

Such orders shall become effective upon service to the owner, permittee, or person conducting land-disturbing activities by delivery via the same methods discussed earlier.

Emergency stop work order

(§62.1-44.15:37)

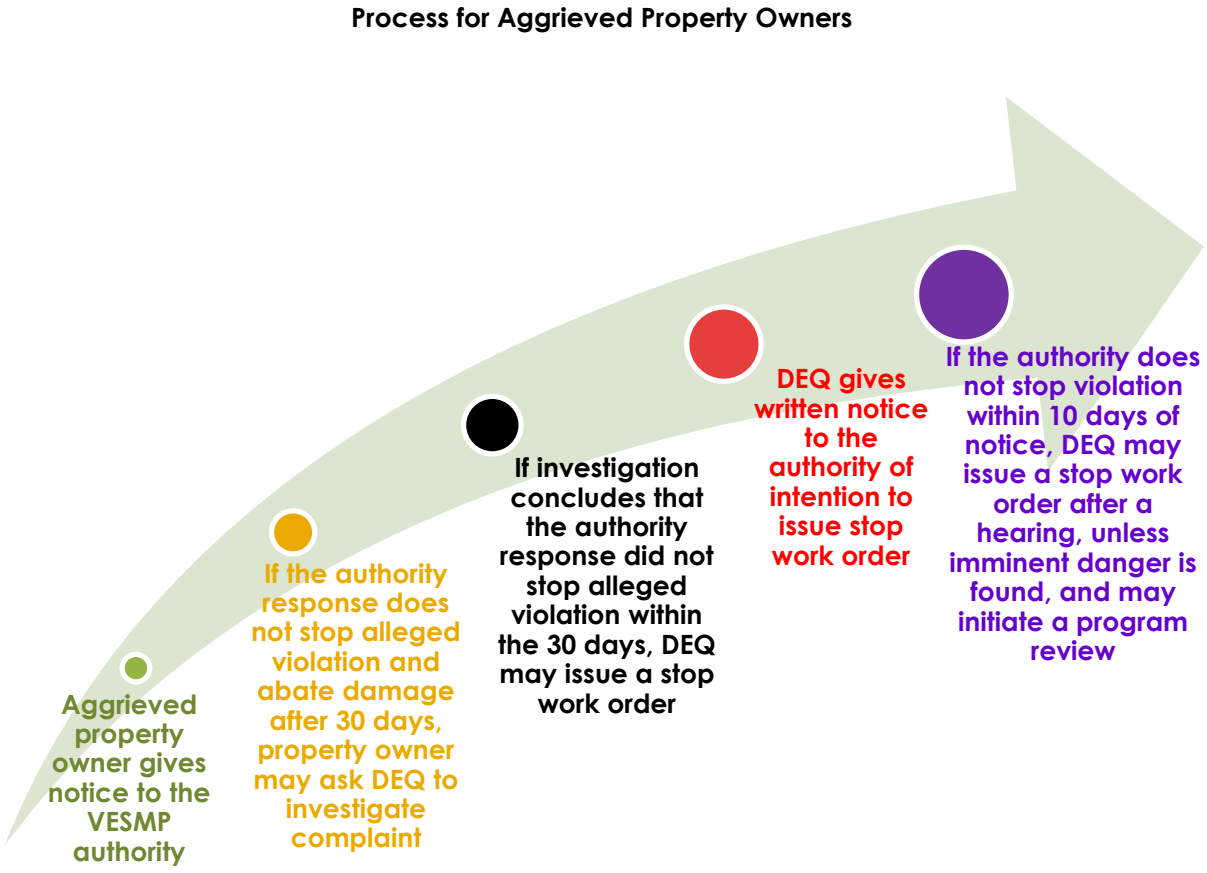
An emergency stop work order can be issued if the locality VESMP authority or DEQ finds any alleged non-compliance that is ***causing*** or presents an ***imminent*** and ***substantial danger*** of causing harmful erosion of lands or sediment deposition in state waters or otherwise substantially impacting water quality. The order can be issued without advance notice or procedures, and the activity must stop immediately. DEQ or the locality VESMP authority must provide an opportunity for a hearing and give reasonable notice as to the time and place. The hearing will affirm, modify, amend, or cancel such emergency order.



Aggrieved property owner appeal process

(§ 62.1-44.15:37)

The graphic below outlines the procedure that aggrieved property owners can follow when their property has been damaged from erosion or sediment deposition resulting from a violation, with or without approvals and plans.



Civil and criminal judicial enforcement procedures

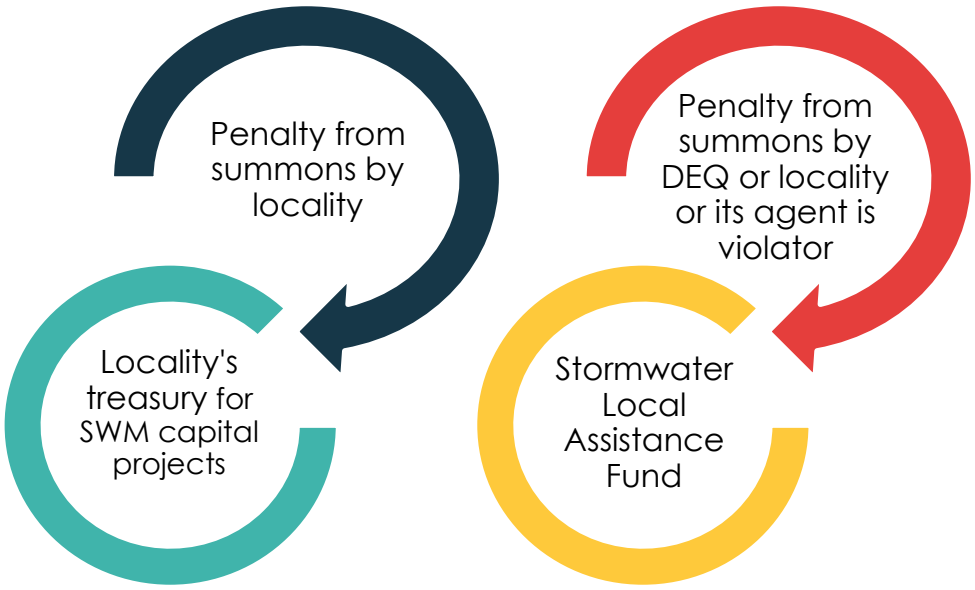
(§62.1-44.15:48), (9VAC25-875-150)

A locality VESMP authority must also include enforcement authority and a schedule of civil penalties for enforcement actions in its local ordinance. Criminal, misdemeanor, felony charges, and injunctions per §62.1-44.15:48.C are also an option and are laid out in Table 3-1 on page 11 and Table 3-2 on page 12.

Examples of potential violations for which a penalty may be imposed include, but are not limited to:

1. No state permit(s) – including but not limited to a CGP
2. No Stormwater Pollution Prevention Plan (SWPPP)
3. Incomplete SWPPP
4. SWPPP not available for review
5. Engaging in a regulated LDA without an approved Erosion and Sediment Control (ESC), SWM, Erosion Control and Stormwater Management (ESM) plan(s)
6. Failure to install construction best management practices (C-BMPs) or post-construction BMPs (P-BMPs)
7. Failure to properly install or maintain C-BMPs or P-BMPs
8. Operational deficiencies
9. Failure to conduct required onsite qualified person inspections
10. Incomplete, improper, or missed onsite inspections
11. Discharges not in compliance with the CGP

Any civil penalty assessed by a court as a result of a summons issued by a locality VESMP authority must be paid into the locality's treasury and used solely for SWM capital projects, like new stormwater BMPs; stormwater BMP maintenance, inspection, or retrofitting; stream restoration; low-impact development projects; buffer restoration; pond retrofitting; and wetlands restoration. When the penalties are assessed by the court as a result of a summons by DEQ, or where the violator is the locality or its agent, the court will direct the penalty to be paid into the state treasury and deposited into the Stormwater Local Assistance Fund.


Penalty from summons by locality
Locality's treasury for SWM capital projects
Penalty from summons by DEQ or locality or its agent is violator
Stormwater Local Assistance Fund

Injunctive relief
(§62.1-44.15:48)

DEQ or a locality VESMP authority may bring a civil action requesting the court to compel compliance.

Civil actions
(§ 62.1-44.15:48)

Any person who violates any part of the Virginia Erosion and Stormwater Management Act (VESMA), the regulations, local ordinances, or standards and specifications, or who fails, neglects, or refuses to comply with any order of a locality VESMP authority, DEQ, or a court, shall be subject to a civil penalty, within the discretion of the court. LDAs one acre or greater, or 2,500sqft or greater and within a Chesapeake Bay Preservation Act (CBPA) locality, are subject to penalties not to exceed ***$32,500*** for each violation. A civil penalty may also be assessed up to $5,000 for each violation with a limit of $50,000 for an LDA 10,000sqft or more but under one acre outside of CBPA localities. Each day of a violation constitutes a separate offense.

DEQ or a locality VESMP authority may issue a summons for collection of the civil penalty and the action may be prosecuted in the appropriate court. Actions on behalf of DEQ are brought by the Virginia Attorney General's Office.

Criminal actions
(§ 62.1-44.15:48), (§62.1-44.32)

Violators who act willfully, negligently, or knowingly may also be subject to the criminal penalties noted in the tables on the next two pages. Criminal actions are prosecuted by the Commonwealth's Attorney in the locality where the criminal act occurred. Prosecution must be pursued within three years after discovery of the offense, notwithstanding the limitations provided in any other statute.

Table 3-1: Misdemeanor Criminal Actions

Behavior	Punishment for individuals	Punishment for non-individuals
Willfully or negligently violates any of the following: VESMA Regulation of the Board Condition of land disturbance approval from DEQ Locality VESMP authority ordinance or order DEQ order Locality VESMP authority land disturbance approval State permit Order of a court	Jail for up to 12 months and/or a fine between $2,500 and $32,500 Each day of violation of each requirement constitutes a separate offense	Fine ≥ $10,000 Each day of violation of each requirement constitutes a separate offense

Table 3-2: Felony Criminal Actions

Behavior	Punishment for individuals	Punishment for non-individuals
Knowingly violates any of the following: VESMA Regulation of the Board Condition of land disturbance approval from DEQ Locality VESMP authority ordinance or order DEQ order Local VESMP authority land disturbance approval State permit Order of a court	Imprisonment for 1-3 years, or in the discretion of the jury or the court, confinement in jail for up to 12 months and a fine between $5,000 and $50,000 for each violation Each day of violation of each requirement constitutes a separate offense	Fine ≥ $10,000 Each day of violation of each requirement constitutes a separate offense
Knowingly makes any false statement in any form required by VESMA		
Knowingly causes any required monitoring device or method to be inaccurate		
Knowingly violates a provision of VESMA and knows at the time that they are placing another person in imminent danger of death or serious bodily harm	Imprisonment for 2-15 years and/or a fine up to $250,000 Maximum fine and imprisonment doubled for subsequent convictions of same person	Fine up to the greater of $1 million or 3x the economic benefit realized by the defendant as a result of the offense Maximum fine and imprisonment doubled for subsequent convictions of same non individual

Consent orders

(§62.4-44.15:25, -25.1, -48)

DEQ or a locality VESMP authority may issue a consent order to any person who has violated or failed, neglected, or refused to obey VESMA, an ordinance, a permit condition, a regulation of the Board, condition of a land disturbance approval, or an order of DEQ or a locality VESMP authority. A consent order may include civil charges up to ***$32,500*** for each violation instead of a civil penalty for LDAs ≥ one acre, or ≥ 2,500sqft and within a CBPA locality. A consent order may otherwise include civil charges up to $5,000 for each violation with a limit of $50,000 for an LDA not less than 10,000sqft but under one acre outside of CBPA localities.

Hearings

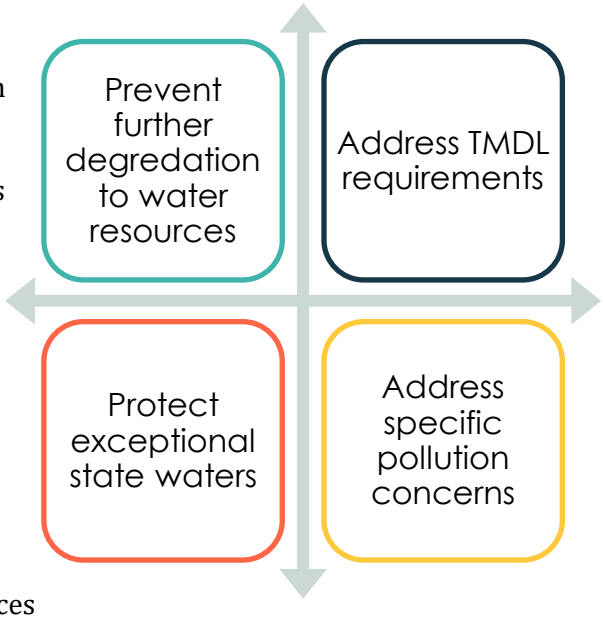
(§62.1-44.15:37), (9VAC25-875-160)

Any permit applicant, permittee, or person subject to state permit requirements under VESMA aggrieved by any action of DEQ taken without a formal hearing may demand in writing a formal hearing. All hearings held under these regulations must be conducted in a manner consistent with §62.1-44.26 or as otherwise provided by law.

Locality hearings must follow local hearing procedures and are not held to the provisions of the Administrative Process Act. Appeals of local decisions must follow local appeal procedures and include an opportunity for judicial review in the locality circuit court where the LDA occurs.

MORE STRINGENT ORDINANCES

(§62.1-44.15:33)



Localities may adopt more stringent ordinances than the minimum ESC and SWM requirements outlined by the state in VESMA and the associated regulations if they are based upon factual findings of local or regional comprehensive watershed management studies or findings developed through the implementation of an MS4 permit or a locally adopted watershed management study and are determined by the locality to be necessary to do at least one of the following:

- Prevent further degradation to water resources
- Address total maximum daily load (TMDL) requirements
- Protect exceptional state waters
- Address specific existing water pollution including nutrient and sediment loadings, stream channel erosion, depleted groundwater resources, or excessive localized flooding within the watershed

Before adopting more stringent ordinances, a public hearing must be held after due notice is given. Localities must submit a letter report to DEQ within ***30 days*** after adoption of more stringent ordinances. The letter report must include a summary of why the ordinance is necessary. Following this process is not necessary when implementing a more strict threshold for land disturbance.

An affected landowner or their agent has ***90 days*** after the adoption of ordinances to request a review of the ordinances by DEQ. The request is submitted to DEQ, and a copy of the letter is sent to the locality. The locality must then submit the ordinances and supporting materials to DEQ for determination of whether the requirements of VESMA have been met. DEQ must issue a written decision with rationale within ***90 days*** of submission. The determination or failure to make a determination may be appealed.

PROHIBITING BMPS AND MORE STRINGENT BMP REQUIREMENTS

(§62.1-44.15:33)

A locality VESMP authority may prohibit the use of an approved BMP or require more stringent conditions for a ***specific land-disturbing project*** based on a review of the plan and project site conditions. Prohibitions can be appealed to DEQ.

A locality VESMP authority may also prohibit the use of an approved BMP or require more stringent conditions ***across its jurisdiction or in a specific geographical area***.

An affected landowner or their agent may request to have DEQ review the locality's decision. Within ***90 days*** after adoption, an affected landowner or their agent may submit a request asking DEQ to review the locality's determination.

3b. Local Ordinances for Chesapeake Bay Preservation Act LDAs

CHESAPEAKE BAY PRESERVATION ACT LAND-DISTURBING ACTIVITIES

(§62.1-44.15:24,:27, :34), (9VAC25-875-20, -70, -80, -740)

Chesapeake Bay Preservation Act land-disturbing activities (CBPA LDAs) are defined as LDAs ***in Chesapeake Bay Preservation Areas that result in a land disturbance greater than or equal to 2,500 ft.^{2} and less than one acre.*** VESCP and VESMP localities subject to the provisions of the CBPA (§62.1-44.15:67 et al) must regulate CBPA LDAs.

Chesapeake Bay Preservation Areas are delineated by a local government within Tidewater Virginia that if improperly developed may result in substantial damage to the water quality of the Chesapeake Bay and its tributaries. A Chesapeake Bay Preservation Area includes a Resource Protection Area and a Resource Management Area (§62.1-44.15.1:68, 9VAC25-830-40).

However, localities may choose whether or not to require a full plan submittal for single-family residences that are separately built with a land disturbance greater than 2,500 square feet but less than one acre. Most localities will choose to accept an agreement in lieu of a plan in these instances. In addition to compliance with the water quantity criteria (9VAC25-875-600), a locality may also require compliance with the water quality criteria (9VAC25-875-580, 9VAC25-875-590) for single-family residences that will disturb more than 2,500 sq. ft in the CBPA.

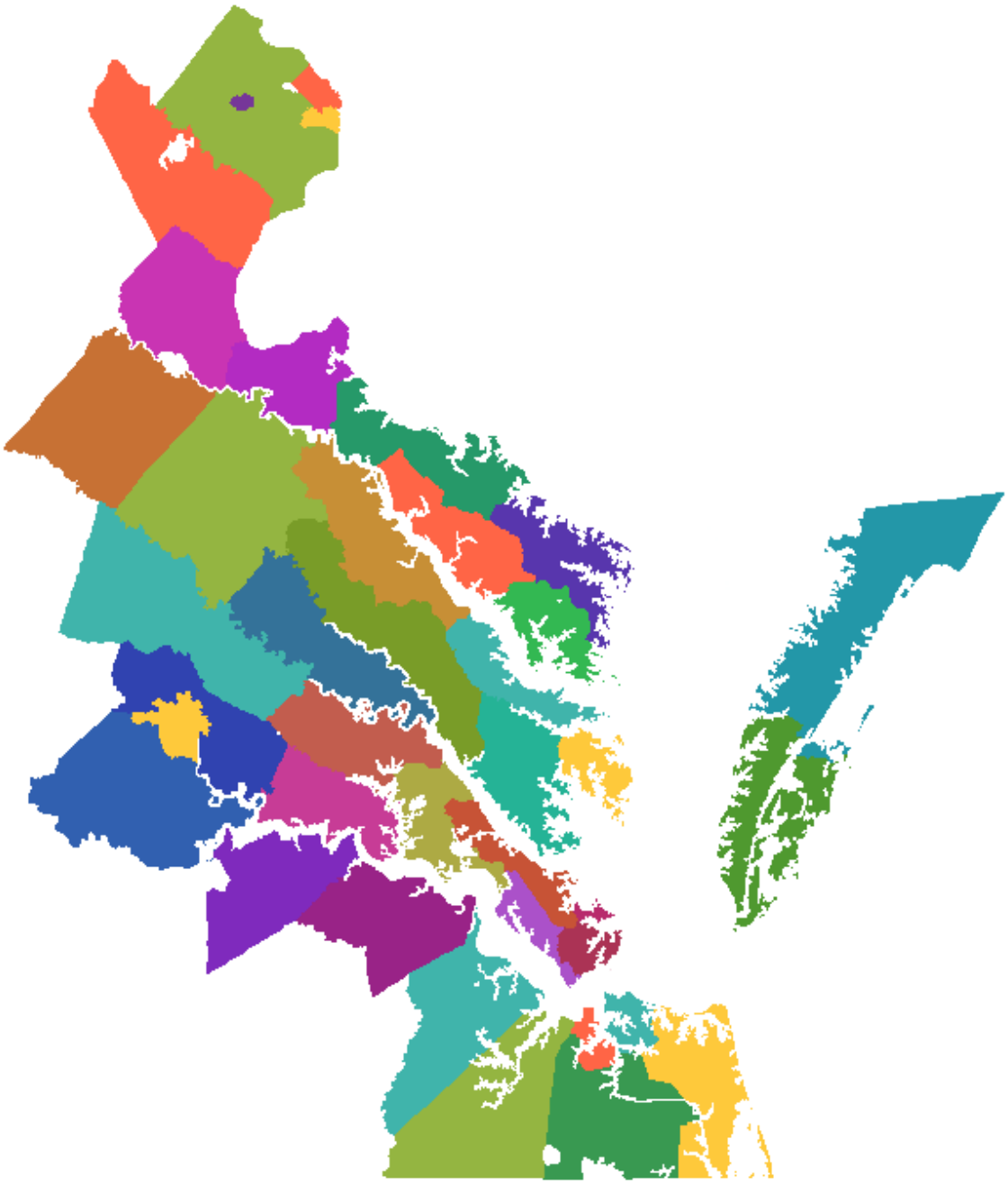
As a program administrator, you need to know that CBPA LDAs must have the following:

- Approved ESM plan (including both ESC and SWM plans)
- Local approval to start land disturbance
- Long-term maintenance agreement
- Construction record drawings

CBPA LDAs ***do not*** require the following:

- CGP coverage or entry into DEQ's online reporting system (for LDAs ≥ 1 acre)
- Developing a pollution prevention plan and implementing additional control measures to address a construction-related TMDL

Localities subject to the Chesapeake Bay Preservation Act



Localities subject to the Chesapeake Bay Preservation Act

Counties

Accomack
Arlington
Caroline
Charles City
Chesterfield
Essex
Fairfax
Gloucester
Hanover
Henrico
Isle of Wight
James City
King & Queen
King George
King William
Lancaster
Mathews
Middlesex
New Kent
Northampton
Northumberland
Prince George
Prince William
Richmond
Spotsylvania
Stafford
Surry
Westmoreland
York

Cities

Alexandria
Chesapeake
Colonial Heights
Fairfax
Falls Church
Fredericksburg
Hampton
Hopewell
Newport News
Norfolk
Petersburg
Poquoson
Portsmouth
Richmond
Suffolk
Virginia Beach
Williamsburg

Towns

Ashland
Belle Haven
Bloxom
Bowling Green
Cape Charles
Cheriton
Claremont
Clifton
Colonial Beach
Dumfries
Eastville
Exmore
Hallwood
Haymarket
Herndon
Irvington
Kilmarnock
Melfa
Montross
Nassawadox
Occoquan
Onancock
Onley
Painter
Parksley
Port Royal
Quantico
Saxis
Smithfield
Surry
Tangier
Tappahannock
Urbanna
Vienna
Warsaw
West Point
White Stone
Windsor

3c. Standards and Specifications

(§62.1-44.15:31), (9VAC25-875-830)

The Virginia Department of Transportation must submit standards and specifications for DEQ approval. Other state or federal entities, linear project companies listed below in Table 3-3, locality service authorities (i.e. water or sewer authorities), or person(s) creating multijurisdictional stream or wetland banks may submit a single set of standards and specifications to DEQ for approval that describes how land-disturbing activities will be conducted. Where required, CGP coverage must be obtained before the start of land disturbance. Each land-disturbing project needs a site-specific approved ESC plan, approved SWM plan, and pollution prevention plan. Projects approved under standards and specifications must still comply with any applicable local ordinances.

Table 3-3: Standards and Specifications

What	Who must submit	Who may submit	Coverage under the CGP
Single set of standards and specifications approved by DEQ that describes how LDA must be conducted. Must be consistent with VESMA, the regulation, and the CGP.	VDOT	Other state agencies Federal entities Multijurisdictional stream/wetland banks Local service authorities Linear projects: Electric Natural gas Telephone Railroad	Must be obtained before the start of LDA ≥ 1 acre

Must Include

Technical criteria laid out in the Virginia Erosion and Stormwater Management Act and Regulation	Stds & Specs program administration; project-specific plan design, plan review and plan approval; and construction inspection and compliance
Provisions for the long-term responsibility and maintenance of SWM control devices and other techniques to manage the quality and quantity of stormwater runoff	Provisions for personnel and contractors to obtain certifications or qualifications for ESC and SWM comparable to those required for local government personnel
Implementation of project tracking and notification system to DEQ of all LDAs	Requirements for documenting onsite changes as they occur

DEQ Inspections

DEQ must perform random site inspections or inspections in response to a complaint.
DEQ may take enforcement action.

Administrative Charge

DEQ must assess an administrative charge to cover the costs of services rendered

3d. Reports and Record Keeping

FISCAL YEAR REPORTING TO DEQ

(9VAC25-875-180)

By October 1 of each year, locality VESMP authorities must submit the following information from the previous fiscal year (July 1 to June 30) to DEQ:

- Information on each permanent SWM facility completed, including:
  - Type of facility
  - Geographic coordinates
  - Acres treated
  - Surface waters or karst features into which the facility will discharge
- List of each LDA with a plan approved by the VESMP authority
- Number and type of enforcement actions taken
- Number of exceptions granted

RECORD KEEPING

(9VAC25-875-180)

A locality VESMP authority must keep records in accordance with the following:

3 Project records, including approved ESM plans and registration statements, shall be kept for ***three*** years after CGP termination or project completion.

5 Post construction SWM facility inspection records shall be documented and retained for at least **five** years from the date of inspection.

Construction record drawings of any permanent stormwater BMPs shall be maintained ***in perpetuity or until the SWM facility is removed*.**

3e. Program Reviews

REQUIREMENTS

(§62.1-44.15(19)), (9VAC25-875-190)

DEQ is required to conduct a program review once every five years, or on a more frequent basis if deemed necessary by DEQ. To avoid redundancy and overlap, the review can be coordinated with the entity's other program reviews such as the Chesapeake Bay Program.

The review will consist of the following:

- Consultation with the VESMP administrator or designee
- Review of the local ordinance(s) and other applicable documents
- Review of a subset of the plans approved by the VESMP authority for consistency of application including exceptions granted and calculations or other documentation that demonstrates that all ESC minimum standards are met and required nutrient reductions are achieved using appropriate onsite and off-site compliance options
- Review of inspections of regulated activities
- Review of enforcement actions and an accounting of amounts recovered through enforcement actions, where applicable

If DEQ finds areas that need corrective actions, it will provide a checklist and develop a corrective action agreement or plan for the VESMP authority to come into compliance.

Summary

This module provides the VESMP administrator with the information and processes needed to:

- Summarize the minimum requirements that must be included in a locality's ordinance
- Recall the maximum civil penalty that can be issued for violations
- Recall examples of violations that can be included in a locality's schedule of civil penalties
- Discuss when and under what conditions localities are authorized to adopt more stringent ordinances
- Recall when and under what conditions a locality VESMP authority may prohibit a DEQ-approved BMP or require more stringent conditions

Knowledge Check Questions

1. A locality VESMP must be at least as stringent as what state permit?

2. List three (3) violations for which a penalty may be imposed.

3. What is the maximum penalty a locality can impose under the erosion and stormwater management act for a land-disturbing activity that disturbs more than 2,500 square feet in a CBPA?

4. How long must a locality VESMP authority hold on to a registration statement?

5. How often must DEQ conduct program reviews?

Answers to the Knowledge Check Questions can be found in the APPENDIX

Module 4: Approval to Start Land Disturbance

Learning Objectives

At the end of this module, you will be able to:

- Explain what land-disturbing activities are regulated under the Virginia Erosion and Stormwater Management Act (VESMA)
- List the required components of an erosion control and stormwater management (ESM) plan
- Describe the ESM plan review schedule
- Determine, for a given project, the time limits of applicability for the Part V, Article 3 & 4 technical criteria and the time and conditions under which grandfathering can occur
- Discuss offsite compliance options and exceptions for meeting stormwater management technical criteria, including how and under which conditions requests can be made
- Describe the locality VESMP authority approval and distinguish it from the Construction General Permit
- Recall the steps that are required before a VESMP authority can authorize the start of land disturbance for a project
- Describe the pertinent components of the registration statement and the critical steps of the construction general permitting system

4a. Regulated Land-Disturbing Activities

LAND-DISTURBING ACTIVITY

(§ 62.1-44.15:24), (9VAC25-875-20)

A *land-disturbing activity* (LDA) is defined as a man-made change to the land surface that may result in soil erosion or has the potential to change its runoff characteristics, including construction activity such as the clearing, grading, excavating, or filling of land.

As a program administrator…

You will get questions about what activities are regulated. Be familiar with these requirements and any additional requirements of your locality.

REGULATED LAND-DISTURBING ACTIVITY

(§62.1-44.15:34.E), (9VAC25-875-70)

LDAs of the following sizes must comply with the Virginia Erosion and Stormwater Management Act (VESMA) and Regulation:

- One acre or more
- Activities that are part of a larger common plan of development or sale that is one acre or more
- 2,500 square feet or more in all areas of jurisdictions designated as subject to the Chesapeake Bay Preservation Act (CBPA)
- Any activity, including single-family additions and modifications, which disturbs 10,000 square feet or more, and less than one acre, are subject to soil erosion requirements and water quantity technical criteria
- A more stringent area as established in local ordinance

Common plan of development or sale

(9VAC25-875-20)

The regulation describes a *common plan of development* as a contiguous area where separate and distinct construction activities may be taking place at different times on different schedules. Subdivision plans are examples.

EXEMPTIONS

[(§ 62.1-44.15:34.F-G), (9VAC25-875-90)]

The following activities are exempt from the erosion and stormwater program:

	Minor LDAs, including home gardens and individual home landscaping, repairs, and maintenance work.
	Installation, maintenance, or repair of any individual service connection.
	Installation, maintenance, or repair of any underground utility line when such activity occurs on an existing hard surfaced road, street, sidewalk, provided the LDA is confined to the hard surface area.
	Installation, maintenance, or repair of any septic tank line or drainage field unless included in an overall plan for land-disturbing activity relating to construction of the building to be served.
	Permitted surface or deep mining operations and projects, and oil and gas operations and projects conducted under the provisions of Title 45.2.
	– Clearing of lands specifically for agricultural purposes, and the – Management, tilling, planting, or harvesting of agricultural, horticultural, or forest crops, and livestock feedlot operations. **However this exemption only applies when harvested forest crops are reforested or the area is converted to an agriculture use*. – Agricultural engineering operations: construction of terraces, terrace outlets, check dams, desilting basins, dikes, ponds, ditches, strip cropping, lister furrowing, contour cultivating, contour furrowing, land drainage, and land irrigation.
	Installation of fence and sign posts or telephone and electric poles and other kinds of posts or poles.

	Shoreline erosion control projects on tidal waters when ***all*** of the land-disturbing activities are within the regulatory authority of and approved by local wetlands boards, the Marine Resources Commission, or the US Army Corps of Engineers.
	Repair or rebuilding of the tracks, rights-of-way, bridges, communication facilities, and other related structures and facilities of a railroad company.
	Conducting LDAs in response to a public emergency where the related work requires immediate authorization to avoid imminent endangerment to human health or the environment. In such situations, the VESMP authority shall be advised of the disturbance within ***seven days*** of commencing the LDA and shall submit a permit application must be submitted within ***30 days*** of starting the LDA.
	Discharges to a sanitary sewer or a combined sewer system that ***are not from*** an LDA.

The following activities *must comply* with the soil erosion control requirements of the erosion and stormwater program but are *not required to comply* with the water quantity and quality technical criteria (9VAC25-875-590 & -600):

	Activities under a state or federal reclamation program to return abandoned property to an agricultural or open land use.
	Routine maintenance that is performed to maintain the original line and grade, hydraulic capacity, or original construction of the project. The paving of an existing road with a compacted or impervious surface and re-establishment of existing associated ditches and shoulders is considered routine maintenance if performed in accordance with the previous statement.
	Discharges from an LDA to a sanitary sewer or a combined sewer system.

4b. Application Package

(9VAC25-875-110, -530)

Before starting an LDA, an operator must submit an application package to the locality VESMP authority for review and approval. Land disturbance cannot begin until the proper approvals have been issued, including the Construction General Permit (CGP) coverage.

Application package requirements

- Approved erosion control and stormwater management (ESM) plan (or an executed agreement in lieu of a plan, if allowed)
- Security for performance*
- Fees*
- Registration statement*

* If required

As a program administrator…

Your role in the permit issuance process is to:

- Ensure ESM plan review is completed within the required timeframe and proper notice is sent to the applicant
- Verify application package is complete
- Confirm registration statement information is accurate (ensure the correct operator is listed)
- Enter registration statement into the Construction General Permit System
- Ensure approval to start land disturbance is given at the correct time

EROSION CONTROL AND STORMWATER MANAGEMENT (ESM) PLAN REVIEW SCHEDULE

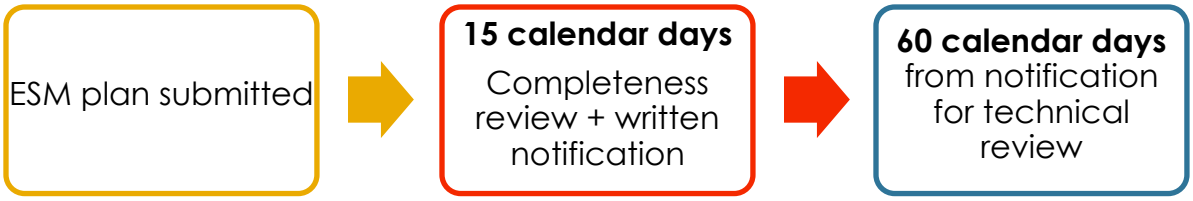
(§62.1-44.15:34) (9VAC25-875-110)

Completeness review

The VESMP authority must determine completeness of an ESM plan within **15 calendar days** in accordance with 9VAC25-875-510 and notify the applicant (in writing) of its determination. If the plan is not complete, the VESMP authority must notify the applicant in writing or electronically of the reason(s). An ESM plan submitted to the VESMP authority for review will include aspects of both an erosion and sediment control (ESC) plan and a stormwater management (SWM) plan. The ESC plan will contain elements to conserve soil and water resources during the construction phase of a regulated LDA, which are detailed in the ESC certification courses. The SWM plan will include material that addresses the water quantity and water quality requirements of VESMA and attendant regulations for post-construction compliance. The SWM plan components are discussed on the following pages.

Technical review

If a plan is complete and the applicant has been notified within **15 days** of submission, the VESMP authority has ***60 calendar days from the time of notification*** to review the plan.



The VESMP authority must notify the operator in writing of the decision to approve or disapprove the plan, and any rationale for not approving must be included.

Remember, a VESMP authority may enter into an agreement with an adjacent VESMP authority for administration of multijurisdictional projects, specifying who shall be responsible for all or part of a project. If no agreement is reached, then each VESMP authority will be responsible for administering the area of the project that lies within its jurisdiction.

Resubmittal

The VESMP authority has **45 calendar days** after receipt to review a plan that was previously disapproved, including determination of completeness within the first 15 days.

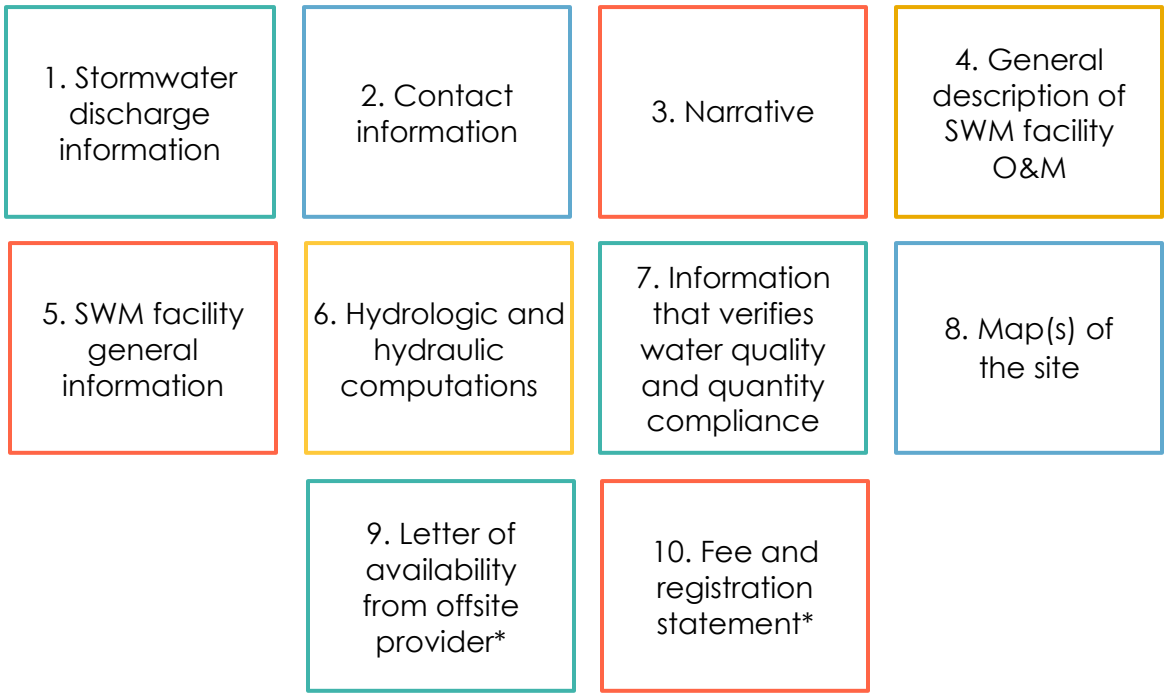
Modifications or Changes

Previously approved ESM plans, including SWM plan components, which have been modified or changed and submitted for review and approval will be treated as a new submittal. The VESMP authority has **60 calendar days** to respond in writing to plans that have been modified after approval with either an approval or disapproval.

Stormwater management (SWM) plan contents

(9VAC25-875-510)

Required Contents of a Stormwater Management Plan



*If required

1. Information on the type of and location of stormwater discharges, information on the features to which stormwater is being discharged including:
   - Surface waters or karst features if present
   - Pre-development and post-development drainage areas

2. Contact information including:
    - Name, address, telephone number, and email address of the owner
    - Tax reference number and parcel number of the property or properties affected
3. Narrative including:
    - Description of current site conditions and final site conditions
    - If allowed by the VESMP authority, the information provided and documented during the review process that address the current and final site conditions
4. General description of the proposed SWM facilities and the mechanisms through which the facilities will be operated and maintained after construction is complete. ***This information will also be included in the long-term maintenance agreement, which must be recorded before permit termination (Module 5).***
5. Information on the proposed SWM facilities including:
    - Details on conversion from an ESC measure, if applicable
    - Type of facilities
    - Location, including geographic coordinates
    - Acres treated
    - Surface waters or karst features into which the facility will discharge
6. Hydrologic and hydraulic computations, including runoff characteristics
7. Documentation and calculations verifying compliance with the water quality and quantity requirements of the Virginia Erosion and Stormwater Management (VESM) Regulation
8. Map(s) of the site that depict the topography of the site and includes:
    - All contributing drainage areas
    - Existing streams, ponds, culverts, ditches, wetlands, other water bodies, and floodplain
    - Soil types, karst features if present, forest cover, and other vegetative areas

- Current land use including existing structures, roads, and locations of known utilities and easements
- Sufficient information on adjoining parcels to assess the impacts of stormwater from the site on these parcels
- Limits of clearing and grading, and the proposed drainage patterns on the site
- Proposed buildings, roads, parking areas, utilities, and SWM facilities
- Proposed land use with tabulation of the percentage of surface area to be adapted to various uses, including but not limited to planned locations of utilities, roads, and easements

9. Letter of availability from the offsite provider if using offsite compliance options for nutrient credits as described in 9VAC25-875-610 as a requirement of the registration statement in 9VAC25-880-50.
10. Fee and registration statement if required

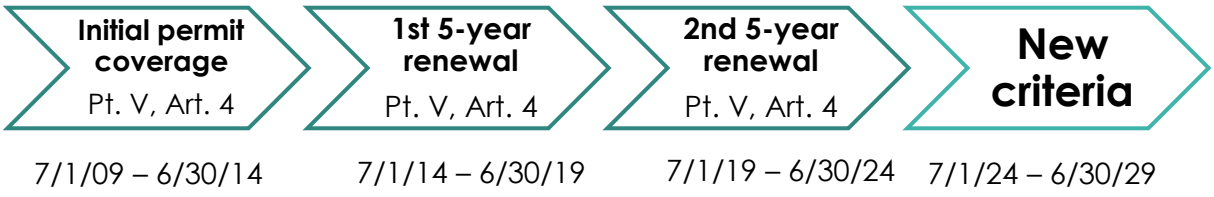
Time limits of technical criteria applicability

(9VAC25-875-480)

The VESM Regulation includes technical criteria that must be met in the SWM plan. There are two sets of criteria – Part V, Article 3 and Part V, Article 4.

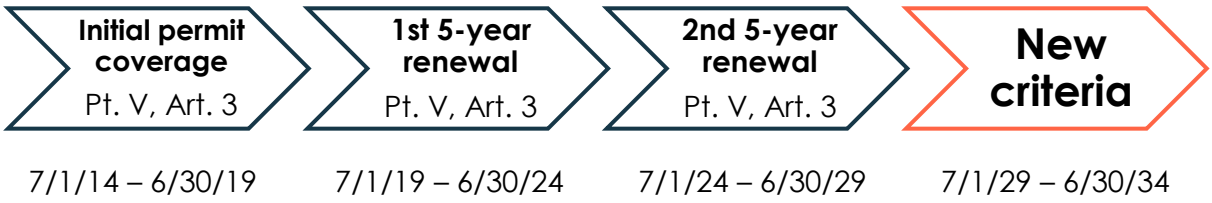
Permits issued before July 1, 2014

Part V, Article 4 technical criteria applied to projects that obtained permit coverage before July 1, 2014. These projects would have been approved to progress under Article 4 for the initial five-year CGP term, then two subsequent five-year renewal periods, if necessary. After the initial permit term and two renewal periods, any remaining sections of these Article 4 projects not actively under construction at the time of the third renewal term will be required to continue construction under Part V, Article 3 technical criteria. This requirement is outlined in the graphic below. *Under construction* means construction activities have commenced. Section 20 of the VESM Regulation (9VAC25-875-20) defines *construction activity* as any clearing, grading, or excavation associated with large construction activity or associated with small construction activity.

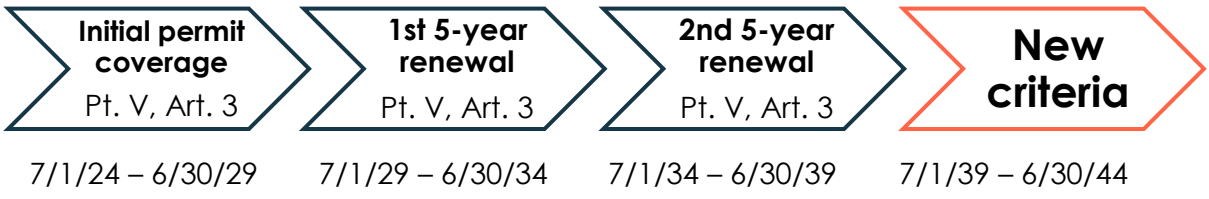


Permits issued on and after July 1, 2014

LDAs that obtained initial CGP coverage on or after July 1, 2014, must meet the Part V, Article 3 technical criteria, with the exception of grandfathered projects. LDAs conducted in accordance with the Part V, Article 3 technical criteria shall remain subject to the Part V, Article 3 technical criteria for two additional state permit cycles. After such time, portions of the project not under construction shall become subject to any new technical criteria adopted by the Board.



Example of Current Permit Term Technical Criteria Timeline



Grandfathering

(9VAC25-875-490)

The grandfathering section of the regulations lays out conditions for determining whether an LDA approved under the older technical criteria in Part V, Article 4 may be allowed to continue without being required to update the ESM plan to the current technical criteria discussed under Time Limits of Applicability.

Locality, state, and federal projects

Locality, state, and federal projects shall be considered grandfathered by the VESMP authority and shall be subject to the Article 4 technical criteria (9VAC25-875-670) provided:

1. There has been an *obligation* of locality, state, or federal funding, in whole or in part, prior to July 1, 2012, or DEQ has approved a SWM plan prior to July 1, 2012
2. A state permit has not been issued prior to July 1, 2014
3. Land disturbance did not start before July 1, 2014
4. Land disturbance commenced prior to July 1, 2019

In cases where governmental bonding or public debt financing ***has been issued*** for a project prior to July 1, 2012, the project is subject to the technical criteria of Part V, Article 4 and there is ***no specified time for completion.***

All other land-disturbing activities

All other LDAs must be considered grandfathered and shall be subject to the Part V, Article 4 technical criteria provided the ***following four conditions are fully met:***

1. A proffered or conditional zoning plan, zoning with a plan of development, preliminary or final subdivision plat, preliminary or final site plan, or any document determined by the locality to be equivalent and satisfy all of the following:
    - Was approved by the locality prior to July 1, 2012
    - Provided a layout (a conceptual drawing sufficient to provide for the specified SWM facilities required at the time of approval as defined in 9VAC25-875-670)
    - Complies with the Part V, Article 4 technical criteria
2. A state permit has not been issued prior to July 1, 2014

3. Land disturbance did not start before July 1, 2014
4. Land disturbance commenced prior to July 1, 2019

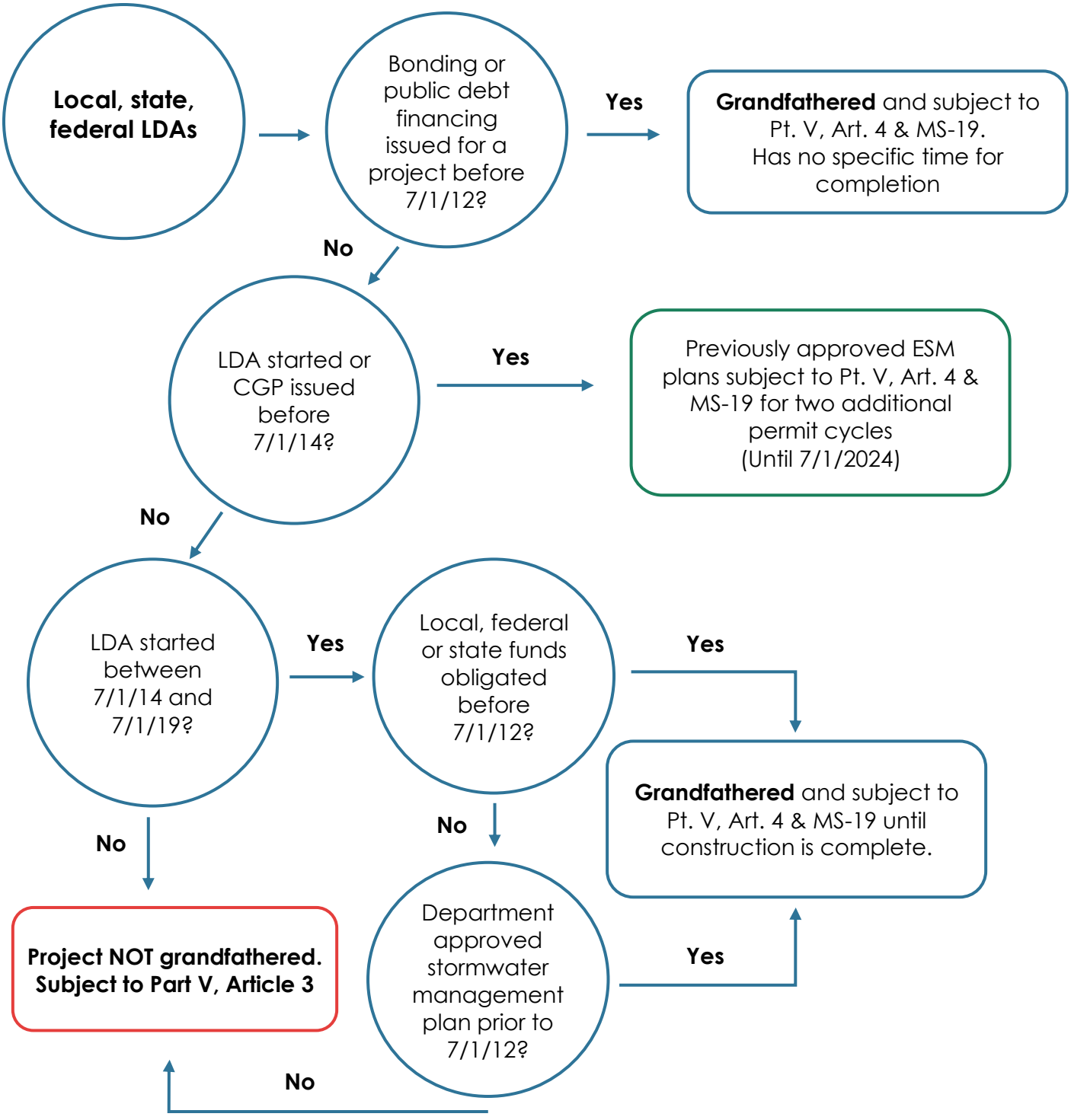
Land disturbing activities grandfathered under the provisions listed above, shall remain subject to the Part V, Article 4 technical criteria **until construction is complete**.

To remain subject to the technical criteria of Part V, Article 4, subsequent modifications or amendments to a previously approved SWM plan may not result in an increase in the amount of phosphorus, or an increase in the volume or rate of stormwater runoff leaving each point of discharge. Any modifications or amendments that increase the amount of phosphorus or quantity of runoff from any point of discharge, or additional LDAs not previously authorized, shall comply with the technical criteria in Part V, Article 2 (9VAC25-875-540), Article 3 (9VAC25-875-570), or Article 5 (9VAC25-875-740), as applicable.

See the flow charts on the next two pages for more assistance with determining time limits on applicability of approved design criteria and grandfathering.

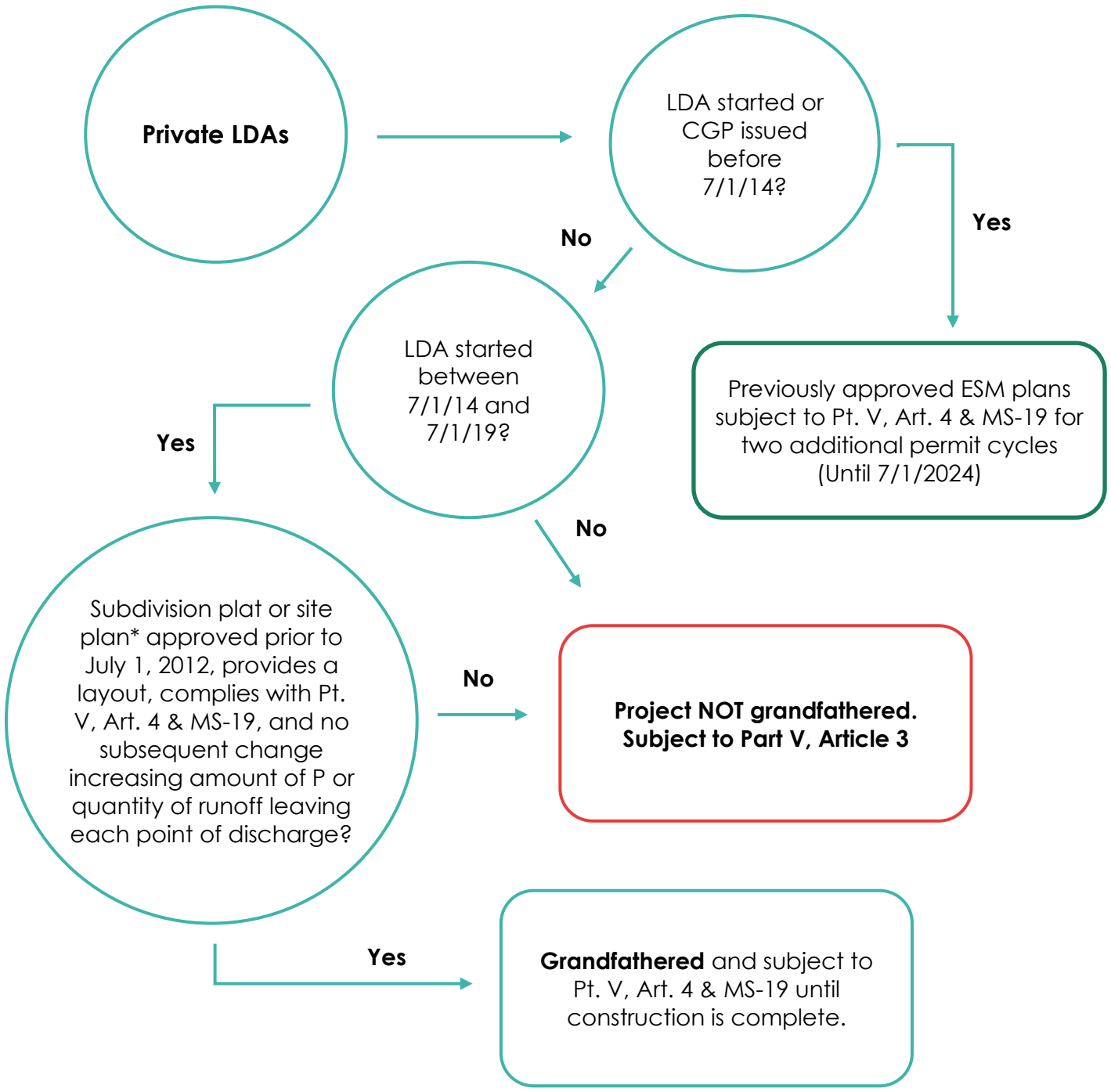
Flow Chart for Time Limits of Applicability of Approved Technical Criteria and Grandfathering

-Local, State, Federal LDAs-



Flow Chart for Time Limits of Applicability of Approved Technical Criteria and Grandfathering

-Private LDAs-



*Or a proffered or conditional zoning plan, zoning with a plan of development, preliminary or final subdivision plat, preliminary or final site plan, or any document determined by the locality to be equivalent thereto.

Offsite compliance options

(§62.1-44.15:35), (9VAC25-875-610)

Operators may use offsite options to satisfy the water quality criteria provided the necessary nutrient reductions are achieved before the start of land disturbance. In the case of phased projects, the operator may acquire or achieve offsite nutrient reductions before the start of each phase of land-disturbing activity in an amount sufficient for each phase.

As a program administrator…

It's important to remember that operators who intend to use an offsite compliance option must include a letter of availability from the offsite provider with the stormwater management plan.

Offsite options cannot be used in violation of local water quality-based limitations at the point of discharge based on an impaired waters plan, a MS4 program plan, or otherwise established or approved by DEQ.

Offsite options

Comprehensive stormwater management plan*

A locality pollutant loading pro rata share program*

Nonpoint nutrient offset program

Other offsite options

*The first and second options may also be used to meet the water quantity criteria

Comprehensive stormwater management plans

(9VAC25-875-660)

A locality VESMP authority may develop a comprehensive SWM plan to be approved by DEQ that meets the water quality criteria, water quantity criteria, or both. During the plan's implementation, the authority must document nutrient reductions accredited to the post-construction BMPs specified in the plan.

State and federal agencies may develop comprehensive SWM plans and may participate in locality-developed comprehensive SWM plans where practicable and permitted by the locality VESMP authority.

Pro rata share program

(§15.2-2243)

Localities may have a pro rata share program established by ordinance, for developers to pay the locality the proportional cost of providing offsite stormwater management.

Nutrient offset program

(§62.1-44.15:35)

A VESMP authority is authorized to allow the use of nutrient credits. The credits must be from the same or adjacent fourth order subbasin, as defined by the hydrologic unit boundaries of the National Watershed Boundary Dataset, as the LDA. If no credits are available within these subbasins when the VESMP or VSMP authority accepts the final site design, credits available within the same tributary may be used.

Nutrient credits ***must*** also do ***all*** of the following:

- Comply with a 1:1 ratio of credits to the required phosphorus reduction
- Achieve necessary nutrient reductions before the start of land disturbance
- Be documented in a certification from the credit provider with the number of phosphorus nutrient credits acquired and the associated ratio of nitrogen nutrient credits at the credit-generating entity
- Documentation must be provided to the locality VESMP authority and DEQ

Nonpoint Source Nutrient Trading Banks

Albemarle:
Al1 - Pigeon Hill
Al2 - Albermarle Sound

Atlantic Ocean:
At1 - Mick's Blade

Big Sandy:
B1 - Lincoln's Bend

Chowan:
Ch1 - Dillon Grove
Ch2 - Optimist Farm

Clinch/Powell:
Cl1 - Long Hollow

Eastern Shore:
ES1 - Qualen Woods

Holston:
H1 - Golden Knoll

James:
J1 - Wildwood Farms
J2 - Malvern
J3 - Cranston Mill Pond
J4 - Swiss Dixie
J5 - Eastern Henrico
J6 - Layne
J7 - Leinster
J8 - Stone Tavern
J9 - Dungeness
J10 - Shaefer
J11 - Buckingham
J12 - Prince Edward
J13 - Greyfields
J14 - Gold Hill
J15 - Namozine
J16 - Farmville
J17 - Millboro
J18 - Willis River
J19 - Sandston
J20 - Wingina
J21 - Eastview
J22 - Nelco
J23 - Sandyford
J24 - Sams
J25 - Oak Grove
J26 - Burton
J27 - Hunts Creek
J28 - Cotton Farm Lane
J29 - Turkey Island
J30 - Elk Island
J30 - MMB Holdings
J31 - Wilhelmi
J32 - Bappert
J33 - Finchum
J34 - Debonair Acre
J35 - Gully Tavern
J36 - Orange
J38 - Kings Fork
J39 - Rivanna River
J40 - Fainter
J41 - Aquila Farms
J42 - Gate's Farm
J43 - Big Valley
J45 - Slate River
J46 - Miyagi
J47 - Surry
J49 - Troublesome Creek
J50 - Upper James
J51 - Seven Islands
J52 - Knabe

New:
N1 - Stallone Farms
N2 - Hiwassee
N3 - Crab Creek Vista
N5 - New River
N6 - Blacksburg

Potomac:
P1 - Buena Vista
P2 - Swinging Bridge
P4 - Wampler Road
P5 - Holy Cross Abbey
P7 - South River
P8 - Autumn Lane
P9 - Wentworth Driv
P10 - Bowen
P11 - Owl Run
P12 - Cross Junctio
P13 - Red Hill Farm
P14 - Kinsale
P16 - Montross
P17 - Sandy
P18 - Antonio
P19 - Windright Run
P20 - Stone Bridge
P21 - Berryville
P22 - Boones Run Farm
P24 - Five L Farms
P26 - Five Thompson
P27 - Mossy Creek
P28 - Hull Springs Farm
P29 - Elk Run Farm
P30 - The Carlton
P44 - Upper Potomac
P31 - Shenandoah Valley
P32 - Northern VA
P33 - Ellerslie
P34 - Mill Creek
P35 - Maple Grove
P36 - Millwood
P38 - Glenowen
P39 - Potomac Neck
P40 - Licking Run
P41 - Coles Point
P42 - Bristerburg
P43 - Drum Bay

Rappahannock:
Ra1 - Rappahannock
Ra2 - Culpepper
Ra4 - Pristine Waters
Ra5 - Twymans Mill
Ra6 - Kinloch Farm
Ra7 - Rappacat
Ra8 - Sharps
Ra9 - Belle Meade

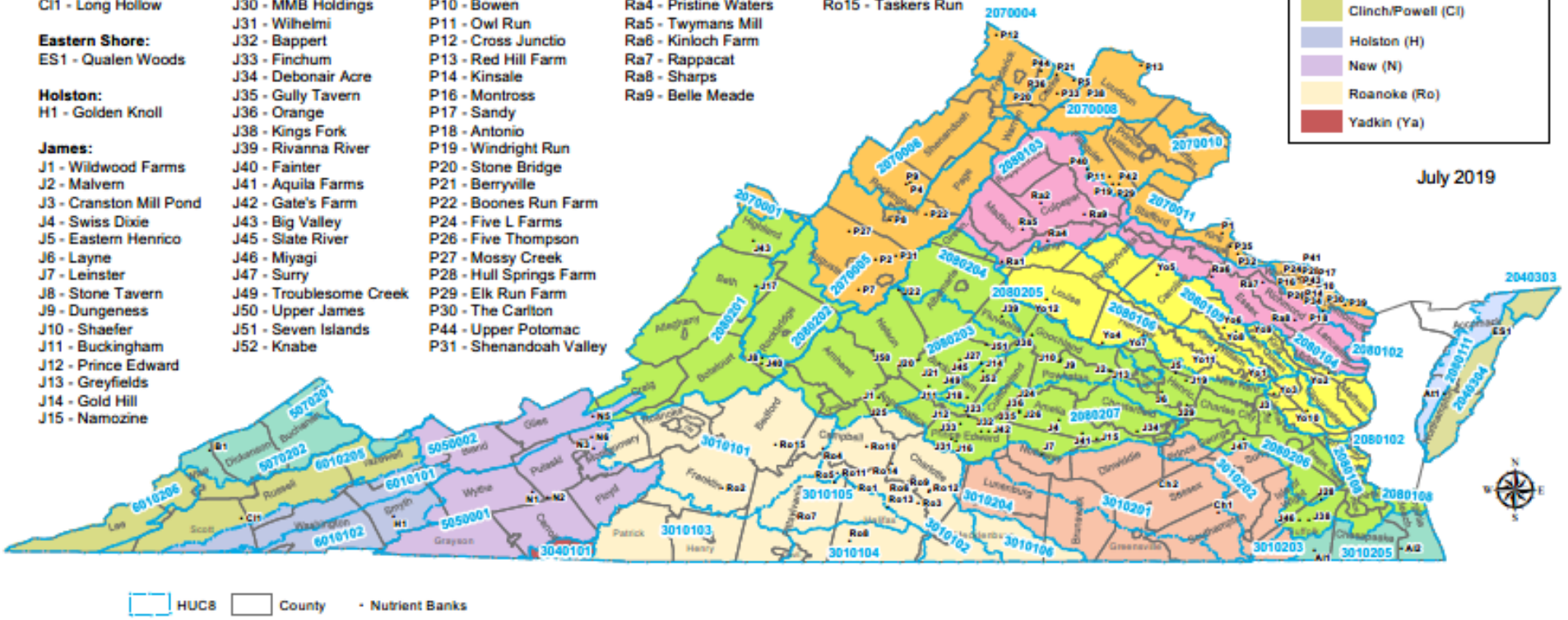
Roanoke:
Ro1 - Hawkins Forest
Ro2 - Glade Hill
Ro3 - Halifax
Ro4 - Chappy's Ridge
Ro5 - Renan
Ro6 - The Cove
Ro7 - Chatham
Ro8 - Seagal Rock
Ro9 - Saxe
Ro10 - Quaid Landing
Ro11 - Gretna
Ro12 - Twittys Creek
Ro13 - Crystal Hill
Ro14 - Turnip Creek
Ro15 - Taskers Run

York:
Yo1 - Pamunkey Farms
Yo2 - Healy's Pond
Yo3 - York
Yo4 - Clover Creek
Yo5 - Woodford
Yo6 - Biscoe
Yo7 - Luck Farm
Yo8 - Goshen Farm
Yo9 - Princess
Yo10 - RCP's Landing
Yo11 - CP Manquin
Yo12 - South Anna

Chesapeake Bay Watersheds
- Eastern Shore (ES)
- James (J)
- Potomac (P)
- Rappahannock (Ra)
- York (Yo)

Southern Watersheds
- Albemarle (Al)
- Atlantic Ocean (At)
- Big Sandy (B)
- Chowan (Ch)
- Clinch/Powell (Cl)
- Holston (H)
- New (N)
- Roanoke (Ro)
- Yadkin (Ya)

July 2019



The map of Virginia on the previous page represents a generalized infographic showing the boundaries of fourth order subbasins across the state. More specific information on nutrient trading and nutrient banks with credits available to operators can be tracked through DEQ's Non-Point Source nutrient trading data viewer tool, which can be found on DEQ's website: https://vadeq.maps.arcgis.com/apps/webappviewer/index.html?id=227927eefaf64c47853c081760077216. Further guidance on nutrient trading regulations is also available through Guidance Memo GM21-2007.

Conditions when offsite compliance options must be allowed

(§62.1-44.15:35), (9VAC25-875-610)

A VESMP authority ***must*** allow an operator to utilize offsite options under ***any*** of the following conditions:

Scenario 1: Less than five acres of land will be disturbed

Scenario 2: The post-construction phosphorus control requirement is less than 10 pounds per year

Scenario 3: The operator demonstrates ***all*** of the following to the satisfaction of the VESMP authority:

i. Alternative site designs have been considered that may accommodate on-site best management practices,

ii. On-site best management practices have been considered in alternative site designs to the maximum extent practicable,

iii. Appropriate on-site best management practices will be implemented, and

iv. Full compliance with the water quality technical criteria cannot practicably be met on-site.

*If an applicant demonstrates on-site control of at least 75% of the required phosphorus nutrient reductions, the applicant is deemed to have met the four requirements above.

Requesting an exception from the Part V, Article 3 technical criteria

(9VAC25-875-170)

A request for an exception from the Part V, Article 3 technical criteria, including the reason for making the request, may be submitted in writing to the VESMP authority.

A VESMP authority ***may*** grant exceptions to the technical requirements of Part V, Article 3 provided ***all of the following*** conditions are met:

- The exception is the minimum necessary to afford relief
- Reasonable and appropriate conditions shall be imposed so that the intent of VESMA and regulations are preserved
- Granting the exception will not confer any special privileges that are denied in other similar circumstances
- Exception requests are not based upon conditions or circumstances that are self-imposed or self-created

Exceptions ***must not*** be granted for:

- Economic hardship alone
- Obtaining required permits
- Use of a post-construction BMP not found on the Virginia Stormwater BMP Clearinghouse or VSMH (unless Part V, Article 4)

Exceptions to requirements for phosphorus reductions are not allowed unless offsite options have been considered and found not available (9VAC25-875-170).

SECURITY FOR PERFORMANCE

(§62.1-44.15:34)

Before plan approval, a locality VESMP authority ***may*** require an applicant, excluding state or federal entities, to submit a security for performance to ensure that measures could be taken by the locality VESMP authority at the applicant's expense should they fail, after proper notice, to initiate or maintain appropriate actions that may be required by the authority for the LDA. If the locality VESMP authority takes action, and it costs more than the security held, the locality may collect the difference. The security must be refunded within ***60 days*** of completing the VESMP authority's conditions (Module 5).

4d. Single-Family Detached Residential Structures

Single-family detached residential structures disturbing equal to or greater than one acre of land ***require coverage under the CGP***. Single-family structures that disturb less than one acre, but 10,000sqft or more (2,500sqft or more in a CBPA), are also regulated LDAs *but do not require CGP coverage*. However, there are some differences that set these LDAs apart from the rest.

As a program administrator…

Operators of single-family residential structures do not pay the DEQ permit fee. Local fees may still apply. Like all other regulated LDAs, these projects must be inspected and compliance issues addressed.

AGREEMENT IN LIEU OF A PLAN

(§ 62.1-44.15:24), (9VAC25-875-110)

A locality VESMP authority or DEQ ***may*** execute a contract with the owner of a single-family residence that specifies methods that must be implemented to comply with the requirements of the erosion and stormwater program instead of an ESM plan. Failure to follow the agreement may result in the owner having to prepare a site-specific ESM plan. Additionally, these projects can utilize the DEQ SWPPP template.

Note:
Agreements in lieu of a plan are also permitted for farm structures on a parcel of land where the total impervious cover, including the structure(s), is less than 5% of the parcel.

CONSTRUCTION GENERAL PERMIT

(§ 62.1-44.15:28), (9VAC25-875-20,), (9VAC25-880-50)

While CGP coverage is required, "small construction activities" for single-family dwellings (one to less than five acres of disturbance) are ***not required to submit a registration statement***. Instead, operators need to download a copy of the CGP and place it into their single-family SWPPP after the locality VESMP authority has given approval to start land disturbance.

"Large construction activities" for single-family dwellings (five acres of disturbance or more) must complete and submit a registration statement but do not pay the permit fee.

Single-family detached residential structures must still comply with the terms of the permit. This includes complying with ESC requirements, which, at the discretion of the VESMP authority, may be stated in an agreement in lieu of a plan.

4e. Construction General Permit Issuance

LDAs that will disturb one acre or more or are part of a larger common plan of development or sale that will disturb one acre or more, must obtain coverage under the CGP.

ROLE OF THE LOCALITY VESMP AUTHORITY

The locality VESMP authority is responsible for plan review and approval and confirming the registration statement is complete and accurate. After both the ESC plan and SWM plan have been approved, the program administrator will enter the information from the registration statement into the Construction General Permit System, a database that notifies DEQ to issue permit coverage.

REGISTRATION STATEMENT

(§62.1-44.15:34), (9VAC25-875-530), (9VAC25-880-30, -50)

By signing the registration statement, the operator is certifying they have prepared a SWPPP in accordance with the permit requirements.

A copy of the registration statement and instruction can be found on the next six pages. A few key items from the statement are discussed in the next section.

The registration statement can be downloaded from:
https://www.deq.virginia.gov/permits/water/stormwater-construction

VIRGINIA DEPARTMENT OF ENVIRONMENTAL QUALITY
GENERAL VPDES PERMIT FOR DISCHARGES OF STORMWATER FROM CONSTRUCTION ACTIVITIES (VAR10)
REGISTRATION STATEMENT 2024

PERMIT #: _____
PLAN/ID #: _____

Application type. (CHOOSE ONE)
☐ **NEW PERMIT ISSUANCE**
☐ **MODIFICATION WITH ACREAGE INCREASE: Permit #** _____
☐ **MODIFICATION WITHOUT ACREAGE INCREASE: Permit #** _____
☐ **EXISTING PERMIT REISSUANCE: Permit #**_____

Section I. Operator/Permittee/Billing Information.

A. Construction Activity Operator (Permittee). The person or entity that is applying for permit coverage and will have operational control over construction activities to ensure compliance with the general permit. A person with signatory authority for this operator must sign the certification in Section V (per Part III.K of the VAR10 Permit).	
Operator Name:	
Contact person:	
Address:	
City, State and Zip Code:	
Phone Number:	
Primary and CC Email(s):	
State Corporation Commission Entity Number (if applicable):	
B. Electronic correspondence. To receive an emailed coverage letter or to pay by credit card, you must choose **YES** and include a valid email. May we transmit correspondence electronically? **YES ❑ NO ❑**	

Section II. Construction Activity Information.

A. Include a legible site map showing the location of the existing or proposed land-disturbing activities for which the operator is seeking permit coverage, the limits of land disturbance, construction entrances, construction support activities, and all waterbodies receiving stormwater discharges from the construction site.	
B. Project site location information.	
Construction Activity Name:	
Address:	
City and/or County and Zip Code:	
Construction Activity Entrance Location (description or street address):	
Latitude and Longitude (6-digit, decimal degrees format, e.g. 37.1234, -78.1234):	
C. Acreage totals for all land-disturbing activities to be included under this permit coverage. Report to the nearest one-hundredth of an acre.	
Total area of the construction site (including off-site area):	
Estimated area to be disturbed by the construction activity (on-site only):	
Off-site estimated area to be disturbed (if applicable; please also refer to Section III):	
D. Construction Activity Status:	**FEDERAL ☐ STATE ☐ PUBLIC ☐ PRIVATE ☐**
E. Nature of the Construction Activity Description (i.e. commercial, industrial, residential, agricultural, utility, solar, linear, stream restoration, etc.):	

F. Municipal Separate Storm Sewer System (MS4) name(s) (if the construction activity is discharging to an MS4):	
G. Estimated Construction Activity Dates.	
Start Date:	
Completion Date:	
H. Is this construction activity part of a larger common Plan of development or sale?	**YES ☐ NO ☐**

I. 6th Order Hydrologic Unit Code (HUC) and Receiving Water Name(s). Include additional areas on a separate page.

HUC	NAME(S) OF RECEIVING WATER WATERBODY

Section III. Off-site Support Activity Location Information.

List all off-site support activities and excavated material disposal areas being utilized for this project. Include additional areas on a separate page.

Off-site Activity Name:	
Address:	
City or County:	
Off-site Activity Entrance Location (description or street address):	
Latitude and Longitude (6-digit, decimal degrees format, e.g., 37.1234, -78.1234):	
Is this off-site activity an excavated material disposal area?	**YES ☐ NO ☐**
If this off-site activity is an excavated material disposal area, list the contents of the excavated fill material:	
Will a separate VPDES permit cover this off-site activity?	**YES ☐ Permit #_____ NO ☐**

Section IV. Other Information.

A. A Stormwater Pollution Prevention Plan (SWPPP) must be prepared in accordance with the requirements of the General VPDES Permit for Discharges of Stormwater from construction activities prior to submitting the registration statement. By signing the registration statement, the operator certifies the SWPPP has been prepared.	
B. Has an Erosion and Sediment Control Plan been submitted to the VESC Authority for review?	**YES ☐ NO☐**
Erosion and Sediment Control Plan Approval Date: (for the estimated area to be disturbed; MM/DD/YYYY)	
C. Has land-disturbance commenced?	**YES ☐ NO ☐**
D. Standards and Specifications. If this project is utilizing approved Standards and Specifications (S&S), attach the completed S&S Entity Form.	
E. Will nutrient credits be used to comply with the water quality design criteria requirements (9VAC25-875-580)? **YES ☐ NO ☐** (If yes, please include a copy of the letter of availability from an appropriate nutrient bank that nonpoint source nutrient credits are available.)	

Section V. Certification. A person representing the operator as identified in Section I.A and meeting the requirements of Part III.K of 9VAC25-880-70 must physically sign this certification. A typed signature is not acceptable. Please note that operator is defined in 9VAC25-875-20 as follows:

> *"Operator" means the owner or operator of any facility or activity subject to the VESMA and this chapter. In the context of stormwater associated with a large or small construction activity, "operator" means any person associated with a construction project that meets either of the following two criteria: (i) the person has direct operational control over construction plans and specifications, including the ability to make modifications to those plans and specifications or (ii) the person has day-to-day operational control of those activities at a project that are necessary to ensure compliance with a stormwater pollution prevention plan for the site or other permit or VESMP authority permit conditions (i.e., the person is authorized to direct workers at a site to carry out activities required by the stormwater pollution prevention plan or comply with other permit conditions). In the context of stormwater discharges from an MS4, "operator" means the operator of the regulated MS4 system.*

9VAC25-880-70. Part III.K. Signatory requirements. All registration statements shall be signed as follows:

a. "For a corporation: by a responsible corporate officer. For the purpose of this chapter, a responsible corporate officer means: (i) a president, secretary, treasurer, or vice-president of the corporation in charge of a principal business function, or any other person who performs similar policy-making or decision-making functions for the corporation; or (ii) the manager of one or more manufacturing, production, or operating facilities, provided the manager is authorized to make management decisions that govern the operation of the regulated facility including having the explicit or implicit duty of making major capital investment recommendations, and initiating and directing other comprehensive measures to assure long-term compliance with environmental laws and regulations; the manager can ensure that the necessary systems are established or actions taken to gather complete and accurate information for permit application requirements; and where authority to sign documents has been assigned or delegated to the manager in accordance with corporate procedures;

b. For a partnership or sole proprietorship: by a general partner or the proprietor, respectively; or

c. For a municipality, state, federal, or other public agency: by either a principal executive officer or ranking elected official. For purposes of this chapter, a principal executive officer of a public agency includes (i) the chief executive officer of the agency or (ii) a senior executive officer having responsibility for the overall operations of a principal geographic unit of the agency."

Certification: "I certify under penalty of law that I have read and understand this registration statement and that this document and all attachments were prepared in accordance with a system designed to assure that qualified personnel properly gathered and evaluated the information submitted. Based on my inquiry of the person or persons who manage the system or those persons directly responsible for gathering the information, the information submitted is to the best of my knowledge and belief true, accurate, and complete. I am aware that there are significant penalties for submitting false information including the possibility of fine and imprisonment for knowing violations."

Printed Name: _____

Signature (signed in ink): _____

Date Signed: _____

Section VI. Submittal Instructions. Submit this form to the VESMP Authority. If the locality is the VESMP Authority, please send your registration statement submittal directly to the locality; do NOT send this form to DEQ. A list of local VESMP Authorities is available here: VESMP Authorities.

If DEQ is the VESMP Authority, please send to:

Department of Environmental Quality
Office of Stormwater Management Suite 1400
PO Box 1105
Richmond VA 23218
constructiongp@deq.virginia.gov

If the locality is the VESMP Authority, please send to:

The Local VESMP Authority *(insert address below):*

CONSTRUCTION GENERAL PERMIT (VAR10) REGISTRATION STATEMENT 2024
INSTRUCTIONS
PLEASE DO NOT PRINT OR SUBMIT

This registration statement is for coverage under the General Virginia Pollutant Discharge Elimination System (VPDES) Permit for Discharges of Stormwater from Construction Activities (also referred to as the Construction General Permit). This form covers the following permit actions: new permit issuance, existing permit modification with an increase in acreage, existing permit modifications that result in a plan modification but do not result in an increase in disturbed acreage, and reissuance of an active permit coverage.

Application type. Select **NEW PERMIT ISSUANCE** to obtain a new permit coverage. Modifications are for modifying an existing, active permit coverage. Select **MODIFICATION WITH ACREAGE INCREASE** when the previously approved acreage(s) increases (permit modifications are not performed for decreases in acreage unless they result in plan changes see Modification WITHOUT Acreage Increase). Select **MODIFICATION WITHOUT ACREAGE INCREASE** when there is a change to the site design resulting in a change to the approved plans with no increase in acreage(s). Select **EXISTING PERMIT REISSUANCE** to extend an expiring permit coverage for the next permit cycle and include the existing permit number.

Section I. Operator/Permittee/Billing Information.

A. Construction Activity Operator (Permittee). The person or entity that is applying for permit coverage and will have operational control over construction activities to ensure compliance with the general permit. For companies, use the complete, active, legal entity name as registered with a state corporation commission. Entities that are considered operators commonly consist of the property owner, developer of a project (the party with control of project plans and specifications), or general contractor (the party with day-to-day operational control of the activities at the project site that are necessary to ensure compliance with the general permit). If an individual person is listed as the operator, that person (or a legal representative of) must sign the certification in Section V. An operator may be one of the following:

9VAC25-875-20. Definitions.

"Operator" means the owner or operator of any facility or activity subject to the VESMA and this chapter. In the context of stormwater associated with a large or small construction activity, "operator" means any person associated with a construction project that meets either of the following two criteria: (i) the person has direct operational control over construction plans and specifications, including the ability to make modifications to those plans and specifications or (ii) the person has day-to-day operational control of those activities at a project that are necessary to ensure compliance with a stormwater pollution prevention plan for the site or other permit or VESMP authority permit conditions (i.e., the person is authorized to direct workers at a site to carry out activities required by the stormwater pollution prevention plan or comply with other permit conditions). In the context of stormwater discharges from an MS4, "operator" means the operator of the regulated MS4 system.

"Owner" means the same as that term as defined in § 62.1-44.3 of the Code of Virginia. For a regulated land-disturbing activity that does not require a permit, "owner" also means the owner of the freehold of the premises of lesser estate therein, mortgagee or vendee in possession, assignee of rents, receiver, executor, trustee, lessee, or other person, firm or corporation in control of a property.

"Person" means any individual, partnership, firm, association, joint venture, public or state corporation, trust, estate, commission, board, public or private institution, utility, cooperative, county, city, town, or other political subdivision of the Commonwealth, governmental body, including a federal or state entity as applicable, any interstate body or any other legal entity.

B. May we transmit correspondence electronically? If you choose **YES** to this question and provide an email address in Section I. A., all correspondence, forms, invoices and notifications will be transmitted by email to the operator. This will also give the operator the ability to pay by credit card and to receive permit coverage approval letters immediately upon permit approval.

Section II. Construction Activity Information.

A. A legible site map showing the location of the existing or proposed land-disturbing activities for which the operator is seeking permit coverage, the limits of land disturbance, construction entrances, construction support activities, and all water bodies receiving stormwater discharges from the construction site must be included with the submittal of this form. Aerial imagery maps or topographic maps showing the required items are acceptable. Plan sheet sized site maps are not required. Please consult your VESMP authority if you have additional questions regarding site map requirements.

B. Construction Activity Name and location. Provide a descriptive name of the construction activity to be covered under the general permit (it is helpful to use the same naming convention as listed on the Stormwater Management plans), 911 street address (if available), city/county of the construction activity, and the 6-digit latitude and longitude in decimal degrees format for the centroid, main construction entrance or start and end points for linear projects (i.e., 37.1234, -77.1234).

C. Acreage totals for all construction site activities, on- and off-site, to be included under this permit. Acreages are to be reported to the nearest one-hundredth acre (two decimal places, i.e., 1.15 acres). Provide the total acreage of the construction site as approved on the Stormwater Management Plans and the estimated on-site acreage to be disturbed by the construction activity as approved under the Erosion and Sediment Control Plans. The off-site estimated area to be disturbed is the sum of the disturbed acreages for all off-site support activities to be covered under this general permit. The total area of the construction site includes the construction support activities located on-site and off-site. Permit fees are calculated based on your disturbed acreage total for all on- and off-site areas being disturbed under this permit coverage (the sum of all on-site and off-site disturbed acreages).

D. Construction activity owner status. The status of the construction activity property owner. Any property not owned by a government entity or agency (i.e. federal, state or local governments) is **PRIVATE**.

E. Nature of the construction activity description. Choose the designation that best describes the post-construction use of this project (you may choose more than one). (i.e. commercial, industrial, residential, agricultural, utility, solar, linear, stream restoration, etc.). Describe the post-construction use of the project (i.e. commercial one new office building and associated parking and utilities; transportation linear roads, sidewalks and utilities; agricultural three poultry houses, etc.).

F. Municipal Separate Storm Sewer System (MS4) name(s) if discharging to an MS4. If stormwater is discharged through an MS4 (either partially or completely), provide the name of the MS4(s) that will be receiving water from this construction activity. The MS4 name is typically the town, city, county, institute, or federal facility where the construction activity is located.

G. Estimated construction activity dates. Provide the estimated construction activity start date and completion date in Month/Day/Year or MM/DD/YYYY format (i.e. 07/30/2019).

H. Is this construction activity is part of a larger common plan of development or sale? Per 9VAC25-875-20, "common plan of development or sale" means a contiguous area where separate and distinct construction activities may be taking place at different times on different schedules (i.e. a subdivision, commercial development, business park, etc.).

I. Sixth (6^{th}) Order Hydrologic Unit Code (HUC) and associated Receiving Water Name(s). Provide all 6^{th} order HUCs and receiving waterbody names, for the primary site and any off-site areas included under this permit coverage, that could potentially receive stormwater runoff discharging from this activity. The HUC can be either a 12-digit number (i.e., 0208010101) or 2-letter, 2-number code (i.e., JL52). Include additional HUCs or receiving waters on a separate page. You may utilize DEQ's web-based GIS application to obtain this information.

- DEQ Environmental Data Mapper (EDM) application link: Environmental Data Mapper
- Instructions, help and resources for using DEQ's EDM application link: EDM Help & Resources

Section III. Off-site Support Activity Location Information.

This general permit also authorizes stormwater discharges from support activities (e.g., concrete or asphalt batch plants, equipment staging yards, material storage areas, excavated material disposal areas, borrow areas, etc.) located on-site or off-site provided that (i) the support activity specifically supports the construction activity that is required to have general permit coverage; (ii) the support activity is not a commercial operation, nor does it serve multiple unrelated construction activities by different operators; (iii) the support activity does not operate beyond the completion of the construction activity it supports; (iv) the support activity is identified in the registration statement at the time of general permit coverage; (v) appropriate control measures are identified in a SWPPP and implemented to address the discharges from the support activity areas; and (vi) all applicable state, federal, and local approvals are obtained for the support activity.

Off-site activity name and location information. Provide a descriptive off-site project name, 911 street address (if available), construction entrance location (address or description), city/county and the 6-digit latitude and longitude in decimal degrees (i.e., 37.1234, -77.1234) of all off-site support activities. Indicate whether the off-site support activity will be covered under this general permit or a separate VPDES permit.

If excavated material (i.e., fill) will be transported off-site for disposal, the name and physical location address, when available, of all off-site excavated material disposal areas including city or county; 6-digit latitude and longitude in decimal degrees (i.e., 37.1234, -77.1234) and the contents of the excavated material.

List additional off-site areas to be included under this permit coverage on a separate page. Off-site areas not included on this registration will need to obtain coverage under a separate VPDES permit.

Section IV. Other Information.

A. A stormwater pollution prevention plan (SWPPP) must be prepared prior to submitting the registration statement per 9VAC25-880. See 9VAC25-880-70 Part II Of the General Permit for the SWPPP requirements.

B. If the Erosion and Sediment Control Plan for the estimated area to be disturbed listed in Section II. C has been submitted to the Virginia Erosion and Sediment Control Program (VESCP) Authority for review and approval, choose **YES**. If you are submitting this application to reissue an existing permit coverage, please provide the date that the VESCP Authority approved the Erosion and Sediment Control Plan for the estimated area to be disturbed. If land disturbance has commenced, choose **YES**. "Land disturbance" or "land-disturbing activity" means a man-made change to the land surface that may result in soil erosion or has the potential to change its runoff characteristics, including construction activity such as the clearing, grading, excavating, or filling of land.

D. If this project is using approved Standards and Specifications (S&S), attach the completed S&S Entity Form. If the S&S Entity is different from the operator identified in Section I.A., list the S&S Entity Name. The S&S entity is the entity or agency that holds the approved standards & specification. Please indicate if this project is also requesting a plan waiver.

- S&S Entity Form link: Standards and Specifications Entity Information Form

E. If nutrient credits will be used to comply with the water quality design criteria requirements (9VAC25-875-590), choose **YES**. In addition, include a copy of the letter of availability from an appropriate nutrient bank that nonpoint source nutrient credits are available. If nutrient credits will not be used, choose **NO**.

Section V. Certification.

A properly authorized individual associated with the operator identified in Section I.A. of the registration statement is responsible for certifying and signing the registration statement. A person must physically sign the certification, a typed signature is unacceptable. State statutes provide for severe penalties for submitting false information on the registration statement. State regulations require that the registration statement be signed as follows per 9VAC25-880-70 Part III.K.1:

"a. For a corporation: by a responsible corporate officer. For the purpose of this part, a responsible corporate officer means:

(i) a president, secretary, treasurer, or vice-president of the corporation in charge of a principal business function, or any other person who performs similar policy-making or decision-making functions for the corporation; or

(ii) the manager of one or more manufacturing, production, or operating facilities, provided the manager is authorized to make management decisions that govern the operation of the regulated facility including having the explicit or implicit duty of making major capital investment recommendations, and initiating and directing other comprehensive measures to assure long-term compliance with environmental laws and regulations; the manager can ensure that the necessary systems are established or actions taken to gather complete and accurate information for permit application requirements; and where authority to sign documents has been assigned or delegated to the manager in accordance with corporate procedure;

b. For a partnership or sole proprietorship: by a general partner or the proprietor, respectively; or

c. For a municipality, state, federal, or other public agency: by either a principal executive officer or ranking elected official. For purposes of this part, a principal executive officer of a public agency includes:

(i) the chief executive officer of the agency, or

(ii) a senior executive officer having responsibility for the overall operations of a principal geographic unit of the agency.

Section VI. Submittal Instructions.

Submit this completed signed form to the VESMP/VSMP authority that has jurisdiction for your construction activity. The appropriate authority may be either the local government your locality depending on the location and type of project or DEQ. If your project is under the jurisdiction of a local VESMP authority, please contact the locality for additional submittal instructions. A blank area is provided for the local VESMP authority's mailing address.

Who is the authority for my project? DEQ or the locality?

- **DEQ:** DEQ is the VSMP Authority and administers permit coverage for land-disturbing activities that are:
  - within a locality that is not a VESMP authority;
  - owned by the State or Federal government; or
  - utilizing approved Standards and Specifications.

  Email the completed and signed form to: constructiongp@deq.virginia.gov

- **The Locality:** The local government (locality) is the VESMP authority and administers permit coverage for all other projects not covered by DEQ as listed above. For these projects, please submit permit forms directly to the local VESMP authority. A list of local VESMP authorities is available on DEQ's website here: Local VESMP Authority List.

Section I: Operator/Permittee/Billing Information

CGP coverage will be issued to the operator listed. As a program administrator, it is important to confirm the certification in Section V is signed by someone with signatory authority for the associated operator listed in Section I.

> If a site is found to be out of compliance, the operator listed on the registration statement is ultimately responsible.
>
> Remember, the person/company who is assigned the permit is responsible until the permit is terminated or transferred.

Section II: Construction Activity Information

The applicant provides a map with the registration statement to indicate the location of the existing or proposed LDAs. The map includes limits of disturbance, construction entrances, construction support activities, and water bodies receiving stormwater discharges. This could be in the form of aerial imagery maps or topographic maps.

Item C requires the applicant to report the total acreage of all LDAs to be covered under the permit. This includes the total acreage of the primary development site as on the approved plan(s) and the offsite estimated area to be disturbed (total the disturbed acreages for all offsite support activities to be covered under this general permit). Offsite disturbed areas must also have approved plans. The permit fee is calculated based on the total land disturbance (i.e. the sum of the primary and all offsite disturbed acreages).

C. Acreage totals for all land-disturbing activities to be included under this permit coverage. Report to the nearest one-hundredth of an acre.	
Total area of the construction site (including off-site area):	
Estimated area to be disturbed by the construction activity (on-site only):	
Off-site estimated area to be disturbed (if applicable; please also refer to Section III):	

Item I on the registration statement asks for the name of the receiving water(s) and 6th order hydrologic unit code (HUC), which DEQ will use to determine if a site is discharging to:

- Surface waters identified as impaired in the 2022 305(b)/303(d) Water Quality Assessment Integrated Report for Benthic Macroinvertebrates
- Waterways with a TMDL wasteload allocation that was established and approved before July 1, 2024 for (i) sediment or a sediment-related parameter (i.e., total suspended solids or turbidity) or (ii) nutrients (i.e., nitrogen or phosphorus)

- Exceptional waters identified in 9VAC25-260-30 A 3 c

The operator also lists the name(s) of the receiving water(s) and 6th order HUC for construction activities including the demolition of any structure with at least 10,000 square feet of floor space built or renovated before January 1, 1980, for DEQ to determine if the site is discharging to:

- Surface waters identified as impaired for PCB (polychlorinated biphenyl) in the 2022 § 305(b)/303(d) Water Quality Assessment Integrated Report
- Waterways with a TMDL wasteload allocation that was established and approved before July 1, 2024 for PCBs

The program administrator should map this information in DEQ's GIS Mapping Application, the Virginia Environmental Geographic Information System (VEGIS), or a local GIS database to verify accuracy. The name of the receiving waters, HUC, and latitude and longitude can be obtained by using VEGIS.

TMDL stream segments can be located at: https://www.deq.virginia.gov/our-programs/water/water-quality/tmdl-development/approved-tmdls

Section III: Offsite Support Activity Location Information

The permit also authorizes stormwater discharges from on-site and offsite support activities. The estimated area to be disturbed by all offsite support activities must be included in Section II. These offsite support activity locations must be provided in Section III. Additionally, appropriate control measures must be identified in the SWPPP and implemented to address discharges from the support activity areas.

If the offsite support activity is an excavated material disposal area, the operator must disclose this, as well as the contents of the excavated fill material to be deposited.

Section IV: Other Information

The applicant marks yes in item B if the ESC plan for the estimated area to be disturbed listed in Section II.C has been submitted to the Virginia Erosion and Sediment Control Program (VESCP) authority for review and plan approval. If the applicant is submitting the registration statement for reissuance, they report the date that the VESCP authority approved the ESC plan for the estimated area listed in Section II.

The applicant indicates whether land-disturbing activity has commenced on the site. *Land disturbance* or *land-disturbing activity* means a man-made change to the land surface that may result in soil erosion or has the potential to change its runoff characteristics, including construction activity such as the clearing, grading, excavating, or filling of land per 9VAC25-875-20.

The permit applicant fills out Section IV, Box E to indicate if nutrient credits will be used to comply with water quality technical criteria requirements per 9VAC25-875-580. If yes, then the permittee must provide documentation to the VESMP authority and DEQ that includes a copy of the letter of availability from the nutrient credit provider.

The SWM plan submittal must include a letter of availability. When DEQ is the VSMP authority, the affidavit of sale is required in order to receive CGP coverage. The Notice of Termination must include information about the final credits purchased.

FEES

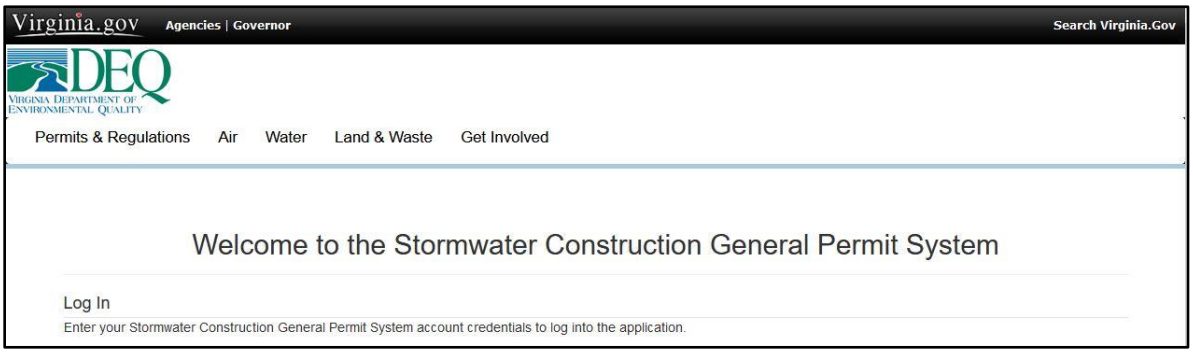
(9VAC25-875-1400)

Applicants are required to pay fees for state permit issuance, reissuance, modification, or transfer. Registration statements will be considered incomplete if the proper fee is not paid and will not be processed until the fee is received.

A locality VESMP authority can change the fee schedule with approval by DEQ. However, the state portion of the fee schedule cannot be changed. These fees are also independent of any ESC fees. There are also annual state permit maintenance fees.

CONSTRUCTION GENERAL PERMIT SYSTEM

(https://apps.deq.virginia.gov/swcgp)



The Construction General Permit System is utilized by locality VESMP authorities to coordinate the issuance and termination of CGP coverage with DEQ. Each locality VESMP authority must coordinate with DEQ to establish administrator access to the system. The link above includes how-to videos for using the system.

Do not enter the following activities into the CGP System:

- LDAs less than one acre and not part of a larger common plan of development or sale
- LDAs associated with the construction of single-family detached residential structures.

CGP System questions should be sent to: constructiongp@deq.virginia.gov.

CONSTRUCTION GENERAL PERMIT APPROVAL

Locality VESMP authority collects the state portion of the permit fee

After the locality VESMP authority enters the information from the registration statement into the system, the locality VESMP authority and DEQ receive an email notifying receipt of the submission. Then, DEQ issues CGP coverage, and the operator receives an email with the coverage letter. The locality VESMP authority is copied on the email. If the operator has chosen not to receive information electronically, the notice of coverage letter will be sent via the US Postal Service. The locality will be billed at the beginning of each month for all submissions to DEQ from the previous month.

1st — Locality VESMP authority confirms application is complete

2nd — Locality VESMP authority enters information from registration statement into system and submits to DEQ

3rd — Email notifying receipt of registration statement sent to locality VESMP authority and DEQ

4th — The DEQ system issues permit coverage to the operator and locality upon receipt of a complete registration statement and payment, if applicable.

Please direct all Construction Permitting questions to:
ConstructionGP@deq.virginia.gov

Locality VESMP authority does not collect the state portion of the permit fee

After the locality VESMP authority enters the information from the registration statement into the system, the locality VESMP authority and DEQ receive an email notifying receipt of the submission. Then the operator receives an email from DEQ explaining their payment options.

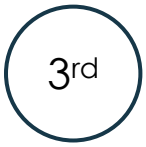
Payment options:

- Credit card online (fastest method)
- Check or money order

Once the operator makes their payment, DEQ issues CGP coverage and the operator receives an email with the coverage letter. The locality VESMP authority is copied on the email. If the operator has chosen not to receive information electronically, the notice of coverage letter will be sent via the US Postal Service.

Locality VESMP authority confirms application is complete

Locality VESMP authority enters information from registration statement into system and submits to DEQ



Email notifying receipt of registration statement sent to locality VESMP authority and DEQ

Email notifying operator of their payment options sent

Payment submitted

The DEQ system issues permit coverage to the operator and copies locality upon receipt of a complete registration statement and payment, if applicable.

Sample notice of coverage letter

Commonwealth of Virginia

VIRGINIA DEPARTMENT OF ENVIRONMENTAL QUALITY

1111 E. Main Street, Suite 1400, Richmond, Virginia 23219
P.O. Box 1105, Richmond, Virginia 23218
(800) 592-5482
www.deq.virginia.gov

Michael S. Rolband, PE, PWD, PWS Emeritus
Director
(804) 698-4020

«TableStart:CoverageLetter»
«PermitCoverageApprovedDate»

«OperatorName»
«OperatorFullAddress»
«OperatorEmail»

RE: Coverage under the VPDES Construction General Permit (VAR10)
General Permit Number **«PermitNumber»**
«AuthorityUniqueId»
«ConstructionActivityName»
«NatureOfConstructionActivity»
«ConstructionActivityLocation»

Dear Permittee:

The Virginia Department of Environmental Quality (DEQ) has reviewed your Registration Statement received complete on «AppCompleteDate» and determined that the proposed «DisturbedAcres» acre land-disturbing activity is covered under the General VPDES Permit for Discharges of Stormwater from Construction Activities (VAR10). The effective date of your coverage under this general permit is July 1, 2024 or the date of this letter, whichever is later. A copy of the general permit may be obtained at the following link: https://law.lis.virginia.gov/admincode/title9/agency25/chapter880/section70/.

The general permit contains the conditions of coverage and Stormwater Pollution Prevention Plan (SWPPP) requirements. Please print the general permit and read it carefully as you will be responsible for compliance with all permit conditions. Coverage under this construction general permit does not relieve the operator of complying with all other federal, state, or local laws and regulations.

Our records indicate that your site may discharge to waters identified as impaired or exceptional. Please see below for additional requirements:

1. Does this proposed land-disturbing activity discharge to a surface water identified as impaired in the 2022 § 305(b)/303(d) Water Quality Assessment Integrated Report for Benthic Macroinvertebrates Bioassessments or for which a TMDL wasteload allocation has been established and approved prior to the term of the general permit for (i) sediment or a sediment-

related parameter or (ii) nutrients, including all surface waters within the Chesapeake Bay Watershed? **«NutrientSedimentImpairedYesNo»**. If YES, then the following general permit (Part I B 4 a) and SWPPP requirements (Part II B 5 and Part II B 8) must be implemented for the land-disturbing activity:

- Permanent or temporary soil stabilization shall be applied to denuded areas within seven (7) days after final grade is reached on any portion of the site;
- Nutrients (e.g., fertilizers) shall be applied in accordance with manufacturer's recommendations or an approved nutrient management plan and shall not be applied during rainfall events;
- Inspections shall be conducted at a frequency of (i) at least once every four (4) business days or (ii) at least once every (5) business days and no later than 24 hours following a measurable storm event. In the event that a measurable storm event occurs when there are more than 24 hours between business days, the inspection shall be conducted on the next business day; and
- Representative inspections used by utility line installation, pipeline construction, or other similar linear construction activities shall inspect all outfalls; and
- Implement the requirements for construction dewatering discharges as outlined in Part II B 8.

2. Does this proposed land-disturbing activity discharge to a surface water identified as impaired in the 2022 § 305(b)/303(d) Water Quality Assessment Integrated Report or for which a TMDL wasteload allocation has been established and approved prior to the term of the general permit for polychlorinated biphenyl (PCB)? **«PcbImpairedYesNo»**. If YES, then the following general permit (Part I B 4 b) and SWPPP requirements (Part II B 6) must be implemented for the land-disturbing activity **if** the construction activity involves the demolition of structures (i) equal to or greater than 10,000 square feet and (ii) built or renovated on or before January 1, 1980:
   - Implement an approved erosion and sediment control plan;
   - Dispose of PCB-contaminated materials in compliance with applicable state, federal, and local requirements to minimize the exposure of PCB-containing building materials;
   - Inspections shall be conducted at a frequency of (i) at least once every four (4) business days or (ii) at least once every (5) business days and no later than 24 hours following a measurable storm event. In the event that a measurable storm event occurs when there are more than 24 hours between business days, the inspection shall be conducted on the next business day; and
   - Representative inspections used by utility line installation, pipeline construction, or other similar linear construction activities shall inspect all outfalls.

3. Does this proposed land-disturbing activity discharge to an exceptional water identified in 9VAC25-260-30 A 3 c? **«ExceptionalWatersYesNo».** If YES, then the following general permit (Part I B 5) and SWPPP requirements (Part II B 7 and Part II B 8) must be implemented for the land-disturbing activity:
   - Permanent or temporary soil stabilization shall be applied to denuded areas within seven (7) days after final grade is reached on any portion of the site;

- Nutrients (e.g., fertilizers) shall be applied in accordance with manufacturer's recommendations or an approved nutrient management plan and shall not be applied during rainfall events;
- Inspections shall be conducted at a frequency of (i) at least once every four (4) business days or (ii) at least once every (5) business days and no later than 24 hours following a measurable storm event. In the event that a measurable storm event occurs when there are more than 24 hours between business days, the inspection shall be conducted on the next business day; and
- Representative inspections used by utility line installation, pipeline construction, or other similar linear construction activities shall inspect all outfalls; and
- Implement the requirements for construction dewatering discharges as outlined in Part II B 8.

The general permit requires that you submit a complete Notice of Termination packet no later than 30 days after meeting one or more of the termination conditions set forth in the general permit (Part I F). In accordance with the Virginia Erosion and Stormwater Management Regulation (9VAC25-875-1420), an annual permit maintenance fee may be required until coverage under this general permit has been terminated. If you are required to pay an annual permit maintenance fee, you will receive an invoice from the appropriate Virginia Erosion and Stormwater Management authority or DEQ when acting in the capacity of the Virginia Stormwater Management Program authority.

The general permit will expire on June 30, 2029. The conditions of the general permit require that you submit a new registration statement at least 90 days prior to that date if you wish to continue coverage under the general permit unless permission for a later date has been granted by the Board. Permission cannot be granted to submit the registration statement after the expiration date of the general permit.

If you have any questions about this permit, please contact the DEQ Office of Stormwater Management at ConstructionGP@deq.virginia.gov.

Sincerely,

Rebeccah Rochet, P.E.
Deputy Director
Division of Water Permitting

«TableEnd:CoverageLetter»

4f. Locality VESMP Authority Approval to Start Land Disturbance

(§62.1-44.15:27, -:34)

A locality VESMP authority may only approve the start of land disturbance ***after*** DEQ has issued coverage under the CGP. When the CGP is not required, authorization may be given after any required plans have been approved and any local fees have been paid.

Summary

This module provides the VESMP administrator with the information needed to:

- Determine and explain how and when to regulate LDAs under VESMA
- Assist program staff and the regulated community with basic knowledge of the required components of an erosion control and stormwater management plan (ESM plan)
- Support the plan review process within the erosion and stormwater program, including administrative functions associated with plan review scheduling, determination of applicable regulatory criteria for projects, processing of offsite compliance options, and processing of exception requests to the technical criteria
- Follow the procedural requirements for VESMP authority approval for land disturbance, including the steps needed for issuance of the Construction General Permit

Knowledge Check Questions

1. What must permit applicants submit to the VESMP authority about permanent stormwater management facilities before the SWM plan can be approved?

2. What must permit applicants submit to the VESMP authority as part of the ESM plan if they are using the offsite compliance option for a nutrient offset program?

3. After a determination of completeness is communicated to the applicant, how long does the VESMP authority have to review the ESM plan?

4. If a project received permit coverage in May 2012, what technical criteria is the project subject to? How long is the project subject to the technical criteria?

5. What type of regulated LDA requires coverage under the CGP but does not need to submit a registration statement?

6. What must an operator submit in order to receive CGP coverage?

7. When can a locality approve the start of land disturbance for projects one acre or greater?

Answers to the Knowledge Check Questions can be found in the APPENDIX

Module 5: Inspection Requirements, Permit Termination, & Post-Construction Inspection Requirements

Learning Objectives

At the end of this module, you will be able to:

- Describe the Virginia Erosion and Stormwater Management Program (VESMP) authority inspection requirements
- List all the Construction General Permit (CGP) termination requirements
- Describe the VESMP authority post-construction inspection requirements

5a. Construction Inspection Requirements

VESMP AUTHORITY CONSTRUCTION INSPECTION FREQUENCY

9VAC25-875-140.A-B)

As a program administrator…

You need to know the inspection requirements so you can ensure your locality's program meets the regulatory requirements.

You should read through and become familiar with the Construction General Permit (CGP) Regulation (9VAC25-880).

The Virginia Erosion and Stormwater Management Program (VESMP) authority must inspect a regulated land-disturbing activity (LDA) during construction for ***all of the following***:

1. Compliance with the approved erosion control and stormwater management (ESM) plan
   a. Approved erosion and sediment control (ESC) plan
   b. Approved stormwater management (SWM) plan
2. Development, updating, and implementation of a pollution prevention (P2) plan
3. Development and implementation of any additional control measures necessary to address a construction-related TMDL (Total Maximum Daily Load).

The VESMP authority must conduct ***periodic*** inspections during construction by either:

1. Providing an inspection:
   a. during, or immediately following, initial installation of erosion and sediment controls;
   b. at least once in every two-week period and within 48 hours following any runoff-producing storm event; and
   c. at the completion of the project, prior to the release of any performance bonds; **OR**
2. Establish an alternative inspection program approved by DEQ that ensures compliance.

Keep in mind, the Virginia Erosion and Stormwater Management (VESM) Regulation requires both VESMP and Virginia Erosion and Sediment Control Program (VESCP) authorities to inspect projects during construction, but the contents of the VESMP authority's inspections are broader.

Details on alternative inspection programs were discussed in the ESC Program Administrator Certification Course.

INSPECTION OF PROJECTS WITH STANDARDS AND SPECIFICATIONS

(§62.1-44.15:31), (9VAC25-875-140, -790, -830)

Standards and specifications (S&S) staff or contracted inspectors performing programmatic inspections under standards and specifications (similar to inspections of private projects by locality VESMP authorities) must conduct periodic inspections to the same extent as noted previously to determine compliance during construction. Those working as Qualified Personnel for an S&S entity performing stormwater pollution prevention plan (SWPPP) inspections under the CGP must follow the inspection schedule in the CGP (9VAC25-880-70 Part I B 4-5 and II G 2). DEQ is required to randomly inspect projects with standards and specifications.

RIGHT OF ENTRY

(§62.1-44.15:39)

The Virginia Erosion and Stormwater Management Act (VESMA) authorizes DEQ, a locality VESMP authority, or a Municipal Separate Storm Sewer System (MS4) authority to, at reasonable times and under reasonable circumstances, enter establishments or properties for the purpose of obtaining information, conducting surveys, or investigations necessary to enforce VESMA.

In accordance with a performance bond with surety, cash escrow, letter of credit, any combination thereof, or such other legal arrangement, an authority may also enter any establishment or upon any property for the purpose of initiating or maintaining appropriate actions that are required by the VESMP authority's conditions associated with an LDA when an owner, after proper notice, has failed to take acceptable action within the time specified.

MODIFICATIONS TO PLANS

(9VAC25-875-110)

Based on an inspection, the VESMP authority may require changes to the approved erosion control and stormwater management (ESM) plan to address any deficiencies. Remember, the plan review timelines, covered in Module 4, state that the VESMP authority has *60 days* to review proposed modifications to previously approved plans.

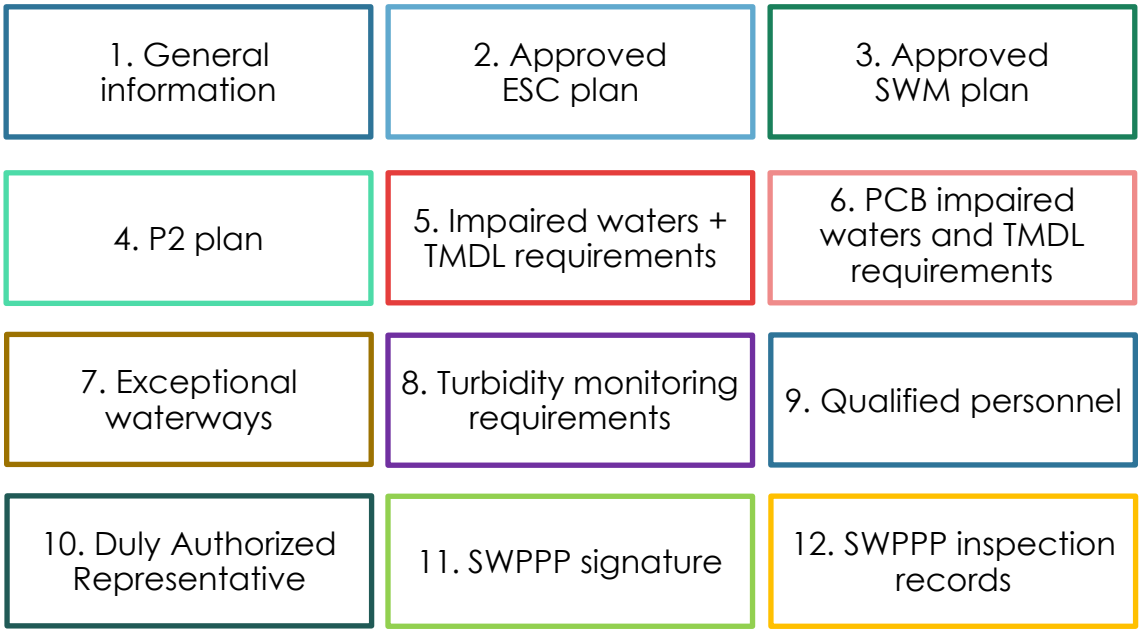
SWPPP DOCUMENTATION

(9VAC25-880-70 PART II)

As discussed in Module 2, the SWPPP is the cornerstone of the consolidated erosion and stormwater program. Each SWPPP must be site-specific and address the potential sources of pollution that may be generated during and after construction. Authority inspectors must review an operator's SWPPP to confirm it has the required elements.

The SWPPP requirements may be fulfilled by ***incorporating other plans by reference*** such as a spill prevention control and countermeasure (SPCC) plan. All plans incorporated by reference into the SWPPP become enforceable under the CGP. If a plan incorporated by reference does not contain all of the required elements of the SWPPP, the operator must develop the missing elements and include them in the SWPPP.

SWPPP Documentation



1. General information

- Signed copy of the registration statement (if required)
- Copy of the notice of coverage letter (if required)
- Copy of the CGP
- Narrative description of the nature of the construction activity, including the function of the project (e.g., low density residential, shopping mall, highway)
- Legible map of the construction site

2. Approved erosion and sediment control (ESC) plan

3. Approved stormwater management (SWM) plan

4. Pollution prevention (P2) plan

5. Additional requirements for discharges to nutrient and sediment impaired waters, or surface waters with an applicable TMDL wasteload allocation, including all surface waters within the Chesapeake Bay Watershed

- Identify the impaired water(s), approved TMDL(s), and pollutant(s) of concern,
- Provide clear documentation that:
    - Permanent or temporary soil stabilization must be applied to denuded areas within ***seven days after final grade is reached on any portion of the site***
    - Nutrients must be applied in accordance with manufacturer's recommendations or an approved nutrient management plan and must not be applied during rainfall events
    - A modified SWPPP inspection schedule shall be implemented in accordance with Part II G 2 a. of the CGP

6. Additional requirements for discharges from demolition of buildings built or renovated before January 1, 1980, which are impaired or have a TMDL Wasteload allocation for polychlorinated biphenyls (PCBs):

- Identify the PCB impaired water(s), approved PCB TMDL(s), and pollutant(s) of concern,
- Provide clear documentation that:
    - An ESC plan will be implemented in accordance with Part II B 2 of the CGP

- Disposal of waste materials is compliant with applicable state, federal, and local requirements
- A modified SWPPP inspection schedule shall be implemented in accordance with Part II G 2 a. of the CGP

7. Additional requirements for discharges to surface waters identified in 9VAC25-260-30.A.3.c as an exceptional waterway

- Identify the exceptional surface waters in the SWPPP,
- Provide clear documentation that:
  - Permanent or temporary soil stabilization must be applied to denuded areas within ***seven days after final grade is reached on any portion of the site***
  - Nutrients must be applied in accordance with manufacturer's recommendations or an approved nutrient management plan and must not be applied during rainfall events
  - A modified SWPPP inspection schedule shall be implemented in accordance with Part II G 2 a. of the CGP

8. Turbidity benchmark requirements for construction dewatering discharges to impaired, sediment-related TMDL, or exceptional waterways

- The operator shall undertake one of three turbidity benchmark options outlined in the CGP for controlling and documenting mechanical construction dewatering discharges to impaired or exceptional receiving waters
- All three options require the operator to implement turbidity monitoring methods ***and*** document required information in the SWPPP, including discharge locations, pollutant control measures, sampling reports, and corrective actions in response to any observed issues with dewatering operations outside of acceptable turbidity thresholds described in the CGP
- Dewatering discharges from single-family homes are exempt, provided discharges are not directly to surface waters
- An operator can request an alternative benchmark threshold, pending DEQ approval

9. Qualified personnel

The name, telephone number, and qualifications of the qualified personnel conducting inspections must be listed.

10. Duly Authorized Representative

List the individuals or positions duly authorized, in accordance with Part III K of the CGP, to sign inspection reports or modify the SWPPP.

11. SWPPP signature

The SWPPP must be signed and dated by the operator or duly authorized representative of the operator with the following certification (Part III K 4 of the CGP):

"I certify under penalty of law that I have read and understand this document and that this document and all attachments were prepared in accordance with a system designed to assure that qualified personnel properly gathered and evaluated the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations."

Reports, including inspection reports, must also be signed by the operator. The operator may be the same person that signed the registration statement, or that person may authorize a representative to sign on their behalf. The representative may be an individual or a position having responsibility for the overall operation of the regulated facility or activity.

Reports can be signed by:

- Corporations – Responsible corporate officer
- Partnership or sole proprietorship – General partner or the proprietor
- Municipality, state, federal, other public agency – Principal executive office or ranking elected official

12. SWPPP inspection records

(9VAC25-880-70 PART II C, G, H)

The operator must have a qualified person conducting inspections to ensure compliance with the SWPPP. *Qualified personnel* is defined in the CGP as someone who is knowledgeable in the principles and practices of erosion and sediment and stormwater management controls who possesses the skills to assess conditions at the construction site for the operator that could impact stormwater quality and quantity and to assess the effectiveness of any sediment and erosion control measures or stormwater management facilities selected to control the quality and quantity of stormwater discharges from the construction activity (9VAC25-880-1). In order to obtain the appropriate knowledge in the above content, any persons identified as "qualified personnel" must have completed training and obtained one of the following:

- An unexpired certification in Inspector for Erosion and Sediment Control, and Inspector for Stormwater Management (or Dual Inspector Certification) issued by DEQ
- An unexpired CGP Qualified Personnel Certificate, issued by DEQ or VDOT
- An equivalent certification provided by EPA

The operator must add these inspections to the SWPPP within four business days of the inspection, complete the identified corrective actions as soon as practicable but no later than five business days (unless a longer period is approved by the VESMP authority), and update the SWPPP as soon as possible (but within five business days) following any modification of its implementation.

QUALIFIED PERSONNEL SWPPP INSPECTION FREQUENCY

SWPPP Inspection Schedule (9VAC25-880-70 PART I B 4-5 AND PART II G 2)	
Discharges to impaired waters, surface waters with an applicable TMDL, or exceptional waters	**Standard Inspections**
Inspections must be conducted either: 1. At least once every **4 business days**; or 2. At least once every **5 business days and no later than 24 hours** following a measurable storm event	Inspections must be conducted either: 1. At least once every **5 business days**; or 2. At least once every **10 business days and no later than 24 hours** following a measurable storm event

For all sites: where areas have been **temporarily stabilized** or construction activities will be **suspended due to continuous frozen ground conditions and stormwater discharges are unlikely**, the inspection frequency may be reduced to ***once per month***.

The operator must add these inspections to the SWPPP within four business days of inspection.

If weather conditions (such as above freezing temperatures or rain or snow events) make discharges likely, the operator shall immediately resume the regular inspection frequency.

If adverse weather causes the safety of the inspection personnel to be in jeopardy, the inspection may be delayed until the next business day on which it is safe to perform the inspection. This must be noted in the SWPPP.

Areas that have reached final stabilization do not require further SWPPP inspections provided the SWPPP has been updated (Part II C 4c).

Applicable TMDL = *Total maximum daily load allocation that has been established and approved prior to July 1, 2024 for (i) sediment or a sediment-related parameter (i.e., total suspended solids or turbidity), (ii) nutrients (i.e., nitrogen or phosphorus), or (iii) PCB when performing demolition, including all surface waters within the Chesapeake Bay Watershed*

Exceptional waters = *Waters identified in 9VAC25-260-30 A 3 c*

Impaired waters = *Surface waters identified as impaired in the 2022 § 305(b)/303(d) Water Quality Assessment Integrated Report for Benthic Macroinvertebrates Bioassessments or PCBs*

Measurable storm event = *A rainfall event producing 0.25 inches of rain or greater over 24 hours or snow melt from a snow event producing 3.25 inches or more of snow within a 24-hour period (9VAC25-880-1).* If a measurable storm event occurs when there are more than 24 hours between business days, the inspection should occur on the subsequent business day.

The map in Module 2 shows the impaired waters and waterways with an applicable TMDL.

DUTY OF THE OPERATOR TO PROVIDE INFORMATION

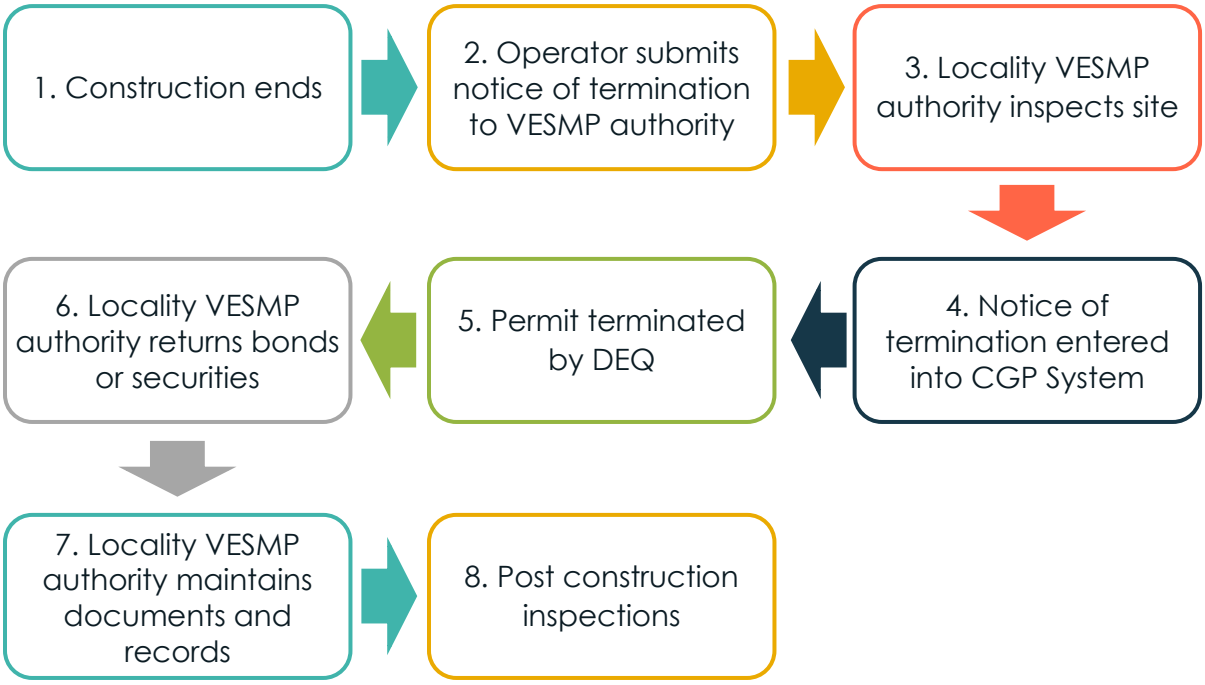
(§62.1-44.15:40), (9VAC25-880-70 PART III D)

EPA, DEQ, or the locality VESMP authority may require every owner, permit applicant, or permittee to provide the following to determine the effect of the discharge on the quality of surface waters:

- Application materials
- Plans
- Specifications
- Monitoring reports and other pertinent information

Additionally, DEQ can require any VESMP authority to provide documentation to demonstrate program compliance with VESMA and the regulations.

5b. Permit Termination



When an operator is ready to terminate their CGP coverage, they submit the DEQ notice of termination form to the locality VESMP authority. Before entering the information on the form into the CGP System, the locality VESMP authority should confirm the following has been completed:

Permit termination requirements:

- Permit termination requirements at the site have been met
- DEQ Notice of Termination form completed
    - Confirmation of long-term maintenance agreement(s) recorded in local land records (when applicable). Proof of recordation is required.
    - Information on permanent control measures recorded (when applicable)
- Construction record drawing(s) for permanent stormwater management facilities submitted to the VESMP authority (when applicable). The completion of construction record drawings is in accordance 9VAC25-875-535.

NOTICE OF TERMINATION

(9VAC25-875-100), (9VAC25-880-60)

For any projects where a registration statement was submitted, the operator must submit the DEQ notice of termination (N.O.T.) form to the VESMP authority within 30 days of meeting one or more of the following conditions:

As a program administrator…

You will be entering the information from the notice of termination forms into the Construction General Permit System.

1. Necessary permanent control measures included in the SWPPP for the construction site are in place and functioning effectively, and final stabilization has been achieved on all portions of the construction site for which the operator is responsible (provides at least *75%* vegetative cover with no significant bare areas). ***When applicable, long-term responsibility and maintenance requirements for permanent control measures must be recorded in the local land records before the submission of the N.O.T.*** The construction record drawing(s) for SWM facilities should also be submitted by the operator for review and approval by the VESMP authority.
2. Another operator has assumed control over all areas of the construction site that have not been fully stabilized and obtained coverage for the ongoing discharge
3. Coverage under an alternative Virginia Pollutant Discharge Elimination System (VPDES) or other applicable permit has been obtained
4. For individual lots in residential construction only, temporary soil stabilization has been completed, and the residence has been transferred to the homeowner.

If option 4 is used, the operator must provide the homeowner with written information about the importance of final stabilization and maintain signed documentation that the homeowner has been notified. This documentation is to be kept for **three years**.

When receiving a complete N.O.T., the VESMP authority shall recommend within **60 days** that DEQ terminate CGP coverage.

Authorization terminates either 90 days following receipt of a complete and accurate N.O.T. or upon notification from DEQ, whichever occurs first, unless otherwise notified by the VESMP authority or DEQ.

The DEQ Notice of Termination form can be downloaded from:

https://www.deq.virginia.gov/permits/water/stormwater-construction

A copy of the N.O.T. form and instructions can be found on the next eight pages.

VIRGINIA DEPARTMENT OF ENVIRONMENTAL QUALITY
GENERAL VPDES PERMIT FOR DISCHARGES OF
STORMWATER FROM CONSTRUCTION ACTIVITIES (VAR10)
NOTICE OF TERMINATION 2024

Permit Coverage Number (VAR10####):_____

Section I. Operator/Permittee Information. The person or entity that has active permit coverage approval and operational control over construction activities to ensure compliance with the general permit. A person with signatory authority for this operator must sign the certification in Section VII (per Part III K of the VAR10 Permit).

Construction Activity Operator Name: _____

Contact Person: _____

Address: _____

City, State, Zip Code: _____

Phone Number: _____

Primary Email: _____

Section II. Construction Activity Location Information. Project site information.

Construction Activity Name: _____

Address: _____

City and/or County and Zip Code: _____

Latitude and Longitude (6-digit, decimal degrees format): _____

Section III. Requirements for Termination of general permit coverage. The operator of the construction activity shall submit a complete and accurate notice of termination, unless a registration statement was not required to be submitted in accordance with 9VAC25-880-50 A 1 c or A 2 b for a stormwater discharge associated with a small construction activity of a single family detached residential structure, within or outside of a common plan of development or sale, to the VESMP authority after one or more of the following conditions have been met:

☐ Necessary permanent control measures included in the SWPPP for the construction site are in place and functioning effectively **and** final stabilization has been achieved on all portions of the construction site for which the operator has operational control. When applicable, long-term responsibility and maintenance requirements for permanent control measures shall be recorded in the local land records prior to the submission of a complete and accurate notice of termination, and the construction record drawing prepared.

☐ Another operator has assumed control over all areas of the construction site that have not been finally stabilized and obtained coverage for the ongoing discharge.

☐ Coverage under an alternative VPDES permit or other applicable permit has been obtained.

☐ For individual lots in residential construction only, final stabilization as defined in 9VAC25-880-1 has been completed, including providing written notification to the homeowner and incorporating a copy of the notification and signed certification statement into the SWPPP, and the residence has been transferred to the homeowner.

Section IV. Participation in a Regional Stormwater Management Plan. If your site discharges to a regional stormwater management facility, provide information related to the regional stormwater management plan. Attach a separate list if discharging to multiple regional facilities.

Regional Stormwater Management Facility Type:_____

Address: _____

City, State, Zip Code: _____

Latitude and Longitude (6-digit, decimal degrees format): _____

Total Site Acres Treated by Regional Facility (report to one-hundredth of an acre):_____

Impervious Site Acres Treated by Regional Facility (report to one-hundredth of an acre):_____

Section V. Perpetual Nutrient Credits. If your site is utilizing nutrient credits, provide information related to the perpetual nutrient credits that were acquired in accordance with § 62.1-44.15:35 of the Code of Virginia. Attach a separate list if needed.

Nonpoint Nutrient Credit Generating Entity (Bank Name):_____

Perpetual Nutrient Credits Acquired (pounds/acres/year):_____

*An affidavit of sale is required for all nutrient credits acquired.

Section VI. Permanent Control Measures. If applicable, list the permanent stormwater management facilities or best management practices (BMPs) that were constructed and installed as part of this activity to comply with the stormwater management water quality and water quantity technical criteria (structural and nonstructural, on-site and off-site). Attach a separate list if needed.

Was a permanent control measure constructed and installed to comply with the stormwater management water quality and water quantity technical criteria? ☐YES ☐NO

If you have permanent control measures, the following items are required to be submitted with this form to complete your Notice of Termination submittal:

- ☐ A. Engineer's Certification Statement
- ☐ B. As-built plans (construction record drawings) – digital
- ☐ C. Stormwater Management Plans - digital
- ☐ D. BMP Maintenance Agreement (notarized original for projects where DEQ is the VSMP Authority)
- ☐ E. BMP Maintenance Agreement Court Receipt
- ☐ F. Affidavit of Sale for any nutrient credit purchases

Stormwater Management Facility Types *(please choose from the following bmp types):*

Part V, Article 4 (previously Part IIC) BMPs
Bioretention basin
Bioretention filter
Constructed wetlands
Extended detention (2 x WQ Vol)
Extended detention basin-enhanced
Grassed swale
Infiltration (1 x WQ Vol)
Infiltration (2 x WQ Vol)
Retention basin I (3 x WQ Vol)
Retention basin II (4 x WQ Vol)
Retention basin III (4 x WQ Vol with aquatic bench)
Sand filter
Vegetated filter strip
Other:

- Detention Only BMP
- Forest/Open Space
- Manufactured Treatment Device – Filtering
- Manufactured Treatment Device – Hydrodynamic
- Etc.

Part V, Article 3 (previously Part IIB) BMPs
Bioretention 1
Bioretention 2
Constructed Wetland 1
Constructed Wetland 2
Dry Swale 1
Dry Swale 2
Extended Detention Pond
Extended Detention Pond 2
Filtering Practice 1
Filtering Practice 2
Grass Channel
Infiltration 1
Infiltration 2
Permeable Pavement 1
Permeable Pavement 2
Rooftop Disconnection
Sheet flow to Vegetated Filter or Conserved Open Space 1
Sheet flow to Vegetated Filter or Conserved Open Space 2
Urban Bioretention
Vegetated Roof 1
Vegetated Roof 2
Wet Pond 1
Wet Pond 2
Wet Swale 1
Wet Swale 2
Other:

- Detention Only BMP
- Forest
- Manufactured Treatment Device – Biofilter
- Manufactured Treatment Device – Filtering
- Manufactured Treatment Device – Hydrodynamic
- Regenerative Stormwater Conveyance 1
- Regenerative Stormwater Conveyance 2
- Tree BMP over Impervious
- Tree BMP over Pervious, A/B Soils
- Tree BMP over Pervious, C/D Soils
- Etc.

Stormwater Management Facility #1 BMP Type:	
Date BMP Became Functional:	
Address (if available):	
City and/or County and Zip Code:	
Latitude and Longitude (6-digit, decimal degrees format):	
Receiving Water(s) (outfall discharge):	
Total Acres Treated (report to one-hundredth of an acre):	
Impervious Acres Treated (report to one-hundredth of an acre):	

Stormwater Management Facility #2 BMP Type:	
Date BMP Became Functional:	
Address (if available):	
City and/or County and Zip Code:	
Latitude and Longitude (6-digit, decimal degrees format):	
Receiving Water(s) (outfall discharge):	
Total Acres Treated (report to one-hundredth of an acre):	
Impervious Acres Treated (report to one-hundredth of an acre):	

Stormwater Management Facility #3 BMP Type:	
Date BMP Became Functional:	
Address (if available):	
City and/or County and Zip Code:	
Latitude and Longitude (6-digit, decimal degrees format):	
Receiving Water(s) (outfall discharge):	
Total Acres Treated (report to one-hundredth of an acre):	
Impervious Acres Treated (report to one-hundredth of an acre):	

Section VII. Certification. This Certification must be signed by a person representing the operator identified in Section I. and meeting the requirements of Part III K of 9VAC25-880-70.

Certification: "I certify under penalty of law that I have read and understand this notice of termination and that this document and all attachments were prepared in accordance with a system designed to assure that qualified personnel properly gathered and evaluated the information submitted. Based on my inquiry of the person or persons who manage the system or those persons directly responsible for gathering the information, the information submitted is to the best of my knowledge and belief true, accurate, and complete. I am aware that there are significant penalties for submitting false information including the possibility of fine and imprisonment for knowing violations."

Printed Name: _____

Signature (signed in ink): _____

Date: _____

Section VIII. Submittal Instructions. Please submit this form to the appropriate Virginia Erosion and Stormwater Management Program (VESMP) authority that has jurisdiction for your construction activity or to DEQ where DEQ serves as the Virginia Stormwater Management Program (VSMP) authority. If the locality is the VESMP Authority, please submit your form directly to the locality; do NOT send this form to DEQ. A list of local VESMP Authorities is available here: VESMP Authorities.

If DEQ is the VSMP Authority, please send to:

Department of Environmental Quality
Office of Stormwater Management Suite 1400
PO Box 1105
Richmond VA 23218
constructiongp@deq.virginia.gov

If the locality is the VESMP Authority, please send to:

Local VESMP Authority *(insert address below)*

Permit terminations may be delayed if there are outstanding Annual Maintenance Fee balances.

A complete and accurate notice of termination is required for terminating coverage under the General VPDES Permit for Discharges of Stormwater from Construction Activities. Termination shall become effective upon notification from the department that the provisions of termination have been met or 90 days after receipt of a complete and accurate notice of termination, whichever occurs first, unless otherwise notified by the VESMP authority or the department. With terminating coverage, the operator shall submit all permit fees including all outstanding permit maintenance fees in accordance with 9VAC25-875-1290 unless not required.

Permit Coverage Number. Include your existing, active permit coverage number. Example: VAR10####.

Section I. Operator/Permittee Information. The construction activity operator (permittee). The permittee with active permit coverage and that has operational control over the construction activities to ensure compliance with the general permit. For companies, use the complete, active, legal entity name as registered with a state corporation commission. Entities that are considered operators commonly consist of the property owner, developer of a project (the party with direct operational control of construction plans and specifications), or general contractor (the party with day-to-day operational control of the activities at the project site that are necessary to ensure compliance with the general permit). If an individual person is named as the operator, that person (or a representative of) must sign the certification in Section VII.

Section II. Construction Activity Location Information. Project site information. Complete this section with the same information as listed on the current registration statement. A list of active permits and location information is available on the DEQ website.

Section III. Reason for Terminating Coverage under the General Permit. The operator shall submit the notice of termination in accordance with 9VAC25-880-60, unless a registration statement was not required to be submitted in accordance with 9VAC25-880-50 A 1 c or A 2 b for single-family detached residential structures, to the VESMP authority after one or more of the following conditions being met:

1. Necessary permanent control measures included in the SWPPP for the construction site are in place and functioning effectively and final stabilization has been achieved on all portions of the construction site for which the operator has operational control. When applicable, long-term responsibility and maintenance requirements for permanent control measures shall be recorded in the local land records prior to the submission of a complete and accurate notice of termination and the construction record drawing prepared;
2. Another operator has assumed control over all areas of the construction site that have not been finally stabilized and obtained coverage for the ongoing discharge;
3. Coverage under an alternative VPDES permit or other applicable permit has been obtained; or
4. For individual lots in residential construction only, final stabilization as defined in 9VAC25-880-1 has been completed, including providing written notification to the homeowner and incorporating a copy of the notification and signed certification statement into the SWPPP, and the residence has been transferred to the homeowner.

The notice of termination shall be submitted no later than 30 days after one of the above conditions is met. Termination of authorization to discharge shall become effective upon notification of the department of the provisions of this section have been met or 90 days after receipt of a complete and accurate notice of termination, in accordance with 9VAC25-880-60 C, whichever occurs first, unless otherwise notified by the VESMP authority or the department.

Section IV. Participation in a Regional Stormwater Management Plan. Where applicable, include information for each regional stormwater management facility to which this site contributes. If your site is contributing to more than one regional facility, please include the information for each facility in a separate list.

The following information shall be included for each regional stormwater management facility installed:

- The type of regional facility to which the site contributes (see the list of facility types on page 3 of the notice of termination).
- The location of the facility, including city or county, and latitude and longitude in decimal degrees.
- The number of total and impervious site acres treated by the regional facility to the nearest one-hundredth of an acre.

Section V. Perpetual Nutrient Credits. Where application, the following information related to perpetual nutrient credits that were acquired in accordance with§ 62.1-44.15:35 of the Code of Virginia:

- The name of the nonpoint nutrient credit generating entity from which perpetual nutrient credits were acquired, and
- The number of perpetual nutrient credits acquired (pounds per acre per year).

Attach the affidavit(s) of sale for the purchase of all nutrient credits acquired for this activity.

Section VI. Permanent Control Measures. Where applicable, a list of the on-site and off-site permanent control measures (both structural and nonstructural) that were installed to comply with the stormwater management water quality and water quantity technical criteria. Clearly indicate if a permeant control measure was constructed and installed by selecting yes or no. For each permanent measure that was installed, the follow information shall be included. Choose the type from the list provided in the notice of termination form Section VI. If you have multiple BMPs, attach a separate list if needed.

The following information shall be included for each permanent control measure installed:

- the type of permanent control measure installed and the date that it became functional as a permanent control measure;
- the location of the permanent control measure, including city or county, and latitude and longitude in decimal degrees (i.e., 37.1234, -77.1234);
- the receiving water(s) to which the permanent control measure discharges; and
- the number of total and impervious acres treated by the permanent control measures to the nearest one-hundredth of an acre.

The following items are required to be submitted with the Notice of Termination if you have permanent control measures:

- Engineer's Certification Statement: Signed by a professional registered in the Commonwealth of Virginia, certifying that the stormwater management facilities were constructed in accordance with the approved plan;
- Construction record drawing(s) (as-built plan) in a format as specified by the VESMP authority for long-term stormwater management facilities in accordance with 9VAC25-875-535 appropriately sealed and signed by a professional registered in the Commonwealth of Virginia, certifying that the stormwater management facilities have been constructed in accordance with the approved plan;
- Stormwater management plans (digital); and
- BMP Maintenance Agreement. Where applicable, evidence that the signed Stormwater Maintenance Agreement has been recorded in an instrument within the local land records; *Termination is not final until you submit the local court record of receipt to DEQ showing that the signed Stormwater Management Maintenance Agreement was recorded with the land deed.*

Section VII. Certification. This Certification must be signed by a person representing the operator identified in Section I and meeting the requirements of Part III K of 9VAC25-880-70.

Section VIII. Submittal Instructions. Submit this form to the VESMP authority that has jurisdiction for your construction activity. Depending on the location and type of project, the appropriate authority may be either your locality or DEQ where DEQ serves as the VSMP authority. If your project is under the jurisdiction of a local VESMP authority, please contact the locality for additional submittal instructions. A blank area is provided for the local VESMP authority to include their mailing address.

Who is the appropriate stormwater management authority for my project? DEQ or the locality?

DEQ: DEQ is the VSMP Authority and administers permit coverage for land-disturbing activities that are:

- within a locality that is not a VESMP Authority;
- owned by the State or Federal government; or
- utilizing approved Standards and Specifications.

Email the completed and signed form to: constructiongp@deq.virginia.gov

The Locality: The local government (locality) is the VESMP Authority and administers permit coverage for all other projects not covered by DEQ as listed above. For these projects, please submit permit forms directly to the Local VESMP Authority. A list of Local VESMP Authorities is available on DEQ's website here: Local VESMP Authority List.

For assistance or questions about the termination process, email constructiongp@deq.virginia.gov.

Long-term maintenance agreements

(9VAC25-875-130, -535), (9VAC25-880-60)

The long-term responsibility for and maintenance of permanent SWM facilities and other techniques specified to manage the quality and quantity of runoff requirements must be set forth in an instrument recorded in the local land records prior to CGP termination or earlier as required by the locality VESMP authority.

DEQ's long-term maintenance agreement and the engineer's certification statement for construction record drawings can be downloaded from:

https://www.deq.virginia.gov/permits/water/stormwater-construction

At a minimum, the agreement must:

- Be submitted to the authority for review and approval prior to the approval of the SWM plan
- Be stated to run with the land (will transfer to a new owner)
- Provide for all necessary access to the property for purposes of maintenance and regulatory inspections
- Provide for inspections and maintenance and the submission of inspection and maintenance reports to the VESCP or VESMP authority, or DEQ acting as the Virginia Stormwater Management Program (VSMP) authority
- Be enforceable by all appropriate governmental parties

Maintenance agreements must be recorded within local land records prior to termination and proof of recordation must be provided.

Information on permanent control measures

(9VAC25-880-60.C)

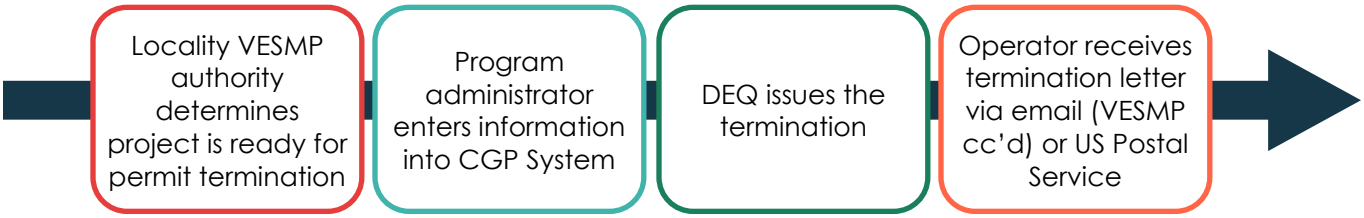
When applicable, the operator must include a list of on-site and off-site permanent control measures (both structural and non-structural) on the N.O.T. form. It is important to work with the site's operator and VESMP authority inspector to ensure the accuracy of this information before entering it into the CGP System.

Construction record drawings

(9VAC25-875-130, -180, -535)

Once construction is complete, a construction record drawing for permanent SWM facilities must be submitted to the VESMP authority. The construction record drawing must be appropriately sealed and signed by a professional registered in the Commonwealth of Virginia, certifying that the SWM facilities have been constructed in accordance with the approved plan (or showing any adjustments and revisions made during construction). Remember, the VESMP authority must keep construction record drawings ***until the SWM facility is removed***.

PROCESSING PERMIT TERMINATION



Once the locality VESMP authority determines a project is ready for permit termination, the program administrator finds the permit in the CGP System and enters the required information. Once submitted in the CGP System, DEQ issues the termination, and the operator is sent a termination letter via email or US Postal Service. The locality VESMP authority will also receive the email notification.

SECURITY FOR PERFORMANCE

(§62.1-44.15:34), (9VAC25-875-110)

Within **60 days** of completing the requirements of the VESMP authority's conditions, the locality must return or terminate any bonds or securities provided by the operator at the onset of the project.

SINGLE-FAMILY DETACHED RESIDENTIAL STRUCTURES

(9VAC25-875-110,-130, -140, -535)

For single-family detached residential structures that did not require a registration statement for permit coverage ("small construction activities" of less than five acres), an N.O.T. is not required.

The VESMP authority does not have to require long-term maintenance agreements for SWM facilities designed to treat stormwater runoff primarily from an individual residential lot on which they are located, provided it is demonstrated to the satisfaction of the authority that future maintenance of such facilities will be addressed through an enforceable mechanism at the discretion of the authority.

If a long-term maintenance agreement is not required, then the authority has no mechanism to conduct post-construction inspections. However, construction record drawings for SWM facilities are still required.

5c. Post-Construction Inspection Requirements

POST-CONSTRUCTION INSPECTION FREQUENCY

(9VAC25-875-140)

VESMP authorities must ensure post-construction best management practices (P-BMPs) are inspected by the VESMP authority or its designee at least ***once every five years***. The inspections must be documented by records.

The VESMP authority may utilize the inspection reports of the owner of a SWM facility as part of its established inspection program if the inspection is conducted by either:

- A Virginia licensed professional engineer, architect, landscape architect, or land surveyor
- Someone working under the direction and oversight of a licensed professional
- A person who holds a SWM Inspector or Dual Inspector certification from DEQ.

Remember, if a recorded long-term maintenance agreement is not required for single-family residences (9VAC25-875-130.C) then, the facility is not subject to the VESMP authority post-construction inspection requirements.

P-BMP RESPONSIBILITY FOR STATE AGENCIES WITH STANDARDS AND SPECIFICATIONS

(9VAC25-875-790)

Responsibility for the operation and maintenance of SWM facilities must remain with the state agency but passes to any successor or owner. If portions of the land are to be sold, legally binding arrangements must be made to pass the basic responsibility to successors in title. These arrangements designate for each state project the property owner, governmental agency, or other legally established entity to be permanently responsible for maintenance.

At a minimum, a SWM facility must be inspected by the responsible state agency on an annual basis and after any storm that causes the capacity of the facility's principal spillway to be exceeded.

Summary

This module provides the VESMP administrator with the information needed to:

- Understand and support the inspection program within the erosion and stormwater management program, including administrative and compliance functions
- Assist program staff and the regulated community by explaining and supporting basic inspection requirements, options, and procedures allowed under the law

Knowledge Check Questions

1. How often must a VESMP authority inspect a land-disturbing activity?

2. What must a VESMP authority inspect a land-disturbing activity for?

3. What must the operator submit to the VESMP authority before the Construction General Permit is terminated that certifies the SWM facilities have been constructed in accordance with the approved SWM plan?

4. How long does a locality VESMP authority have to return or terminate any bonds or securities?

5. How often must the VESMP authority ensure SWM facilities are inspected after construction?

Answers to the Knowledge Check Questions can be found in the APPENDIX

Appendix: Program Administrator for Stormwater Management Knowledge Check Questions and Answers

I: Module 2: Knowledge Check Answers

1. Which two plans in the SWPPP must be approved as part of an ESM plan?
    - *Erosion and sediment control plans and stormwater management plans must be approved*
2. Does the stormwater management plan address runoff during construction or after?
    - *The stormwater management plan addresses post-construction stormwater runoff*
3. What impact does impervious cover have on water quality?
    - *The volume and velocity of stormwater runoff increases as natural vegetation is replaced with roads, buildings, parking areas and other impervious surfaces. The increase in stormwater runoff leads to an increase in pollutants, such as sediment and phosphorus that are carried to waterways, which has a negative effect on water quality*
4. What is the target pollutant in the water quality criteria?
    - *Phosphorus*
5. What is the lower limit of the range of imperviousness that can result in stream degradation?
    - *10%*
6. The VESM regulation ensures water quantity is considered in stormwater management planning to protect against which two destructive forces?
    - *Channel erosion and flooding*
7. Discuss how the rate of runoff changes after development.
    - *The rate of runoff increases after development because of the replacement of vegetation with impervious surfaces. A larger volume of water will travel more quickly through a stream channel, potentially causing erosion and flooding.*
8. What are the three primary mechanisms P-BMPs use to control pollution?
    - *Infiltration, settling, and vegetative uptake or filtering*

II: Module 3: Knowledge Check Answers

1. A locality VESMP must be at least as stringent as what state permit?
    - *CGP*
2. List three (3) violations for which a penalty may be imposed.
    - *Any of the following: No state permit; no SWPPP; incomplete SWPPP; SWPPP not available for review; no approved plan(s); failure to install stormwater management BMPs or ESCs; stormwater BMPs or erosion and sediment controls improperly installed or maintained; operational deficiencies; failure to conduct required inspections; incomplete, improper, or missed inspections; discharges not in compliance with the CGP*
3. What is the maximum penalty a locality can impose under the erosion and stormwater management act for a land-disturbing activity that disturbs more than 2,500 square feet in a CBPA?
    - *$32,500 for each violation*
4. How long must a locality VESMP authority hold on to a registration statement?
    - *All registration statements must be documented and retained for at least three years from the date of project completion or state permit termination*
5. How often must DEQ conduct program reviews?
    - *DEQ is required to conduct a program review once every five years*

III: Module 4: Knowledge Check Answers

1. What must permit applicants submit to the VESMP authority about permanent stormwater management facilities before the SWM plan can be approved?
    - *Initial terms of the long-term maintenance agreement*
2. What must permit applicants submit to the VESMP authority as part of an ESM plan if they are using the offsite compliance option for a nutrient offset program?
    - *A letter of availability from the offsite provider*
3. After a determination of completeness is communicated to the applicant, how long does the VESMP authority have to review the ESM plan?
    - *60 days from the notification of completeness to the applicant or the date of submission if notification is not made*
4. If a project received permit coverage in May 2012, what technical criteria is the project subject to? How long is the project subject to the technical criteria?
    - *The project is subject to the Part V, Article 4 technical criteria until June 30, 2024. After that time, any portion of the site not under construction is subject to any new technical criteria*
5. What type of regulated LDA requires coverage under the CGP but does not need to submit a registration statement?
    - *Single-family homes disturbing greater than or equal to one acre, but less than 5 acres*

6. What must an operator submit in order to receive CGP coverage?

    - *Approved erosion control and stormwater management (ESM) plan; or an Agreement in Lieu of a plan for single-family home, or agricultural use/construction*
    - *Registration statement**
    - *Fees**
    - *Security for performance**

      ** As required*

7. When can a locality approve the start of land disturbance for projects one acre or greater?

    - *A locality VESMP authority may only approve the start of land disturbance after DEQ has issued CGP coverage.*

IV: Module 5: Knowledge Check Answers

1. How often must a VESMP authority inspect a land-disturbing activity?
    - *Periodically*
2. What must a VESMP authority inspect a land-disturbing activity for?
    - *Compliance with the approved ESM plan, including the ESC and SWM plan portions*
    - *Development, updating, and implementation of a P2 plan*
    - *Development and implementation of any additional control measures necessary to address a TMDL*
3. What must the operator submit to the VESMP authority before the Construction General Permit is terminated that certifies the SWM facilities have been constructed in accordance with the approved SWM plan?
    - *Construction record drawings*
4. How long does a locality VESMP authority have to return or terminate any bonds or securities?
    - *Within **60 days** of completing the requirements of the VESMP authority's conditions, the locality must return or terminate any bonds or securities provided by the operator at the onset of the project*
5. How often must the VESMP authority ensure SWM facilities are inspected after construction?
    - *At least once **every five years***