Module 1: Introduction to the Virginia Erosion and Sediment Control Program (VESCP)

Module 1 Content

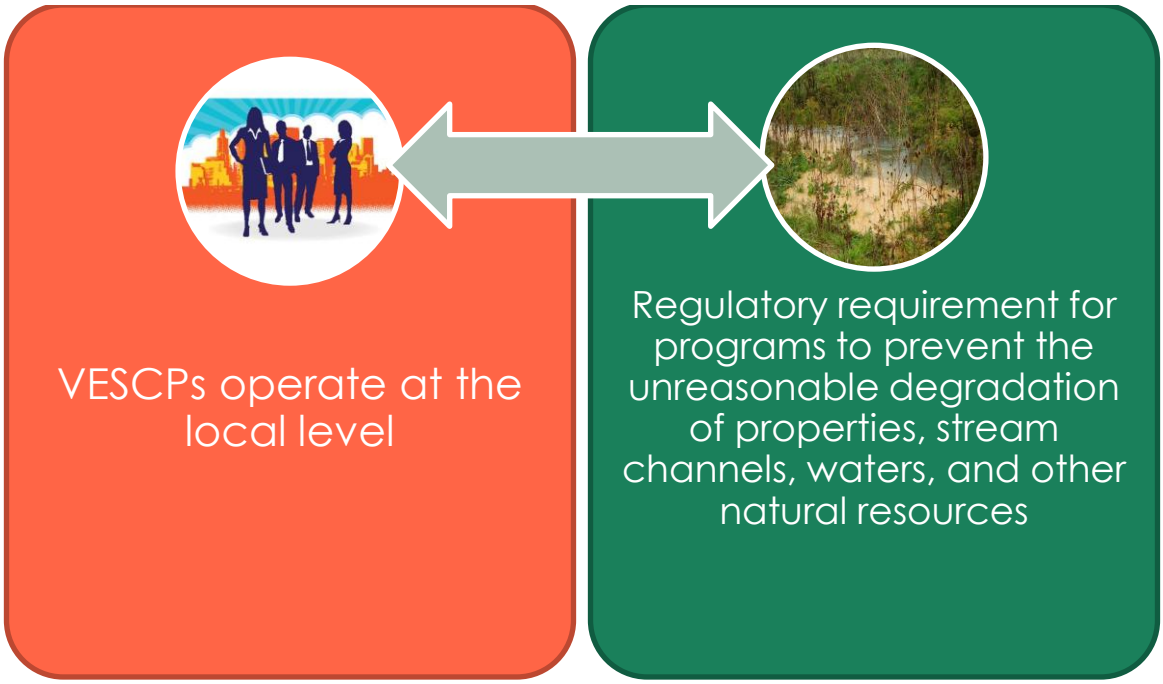
1a. Overview of the Virginia Erosion and Sediment Control Program

Goal and purpose of the Virginia Erosion and Sediment Control Law (VESCL)… 2
Brief History of the VESCL…… 3
Integration of the Virginia Stormwater Management Program (VSMP)…… 7

1b. Training and Certification Program

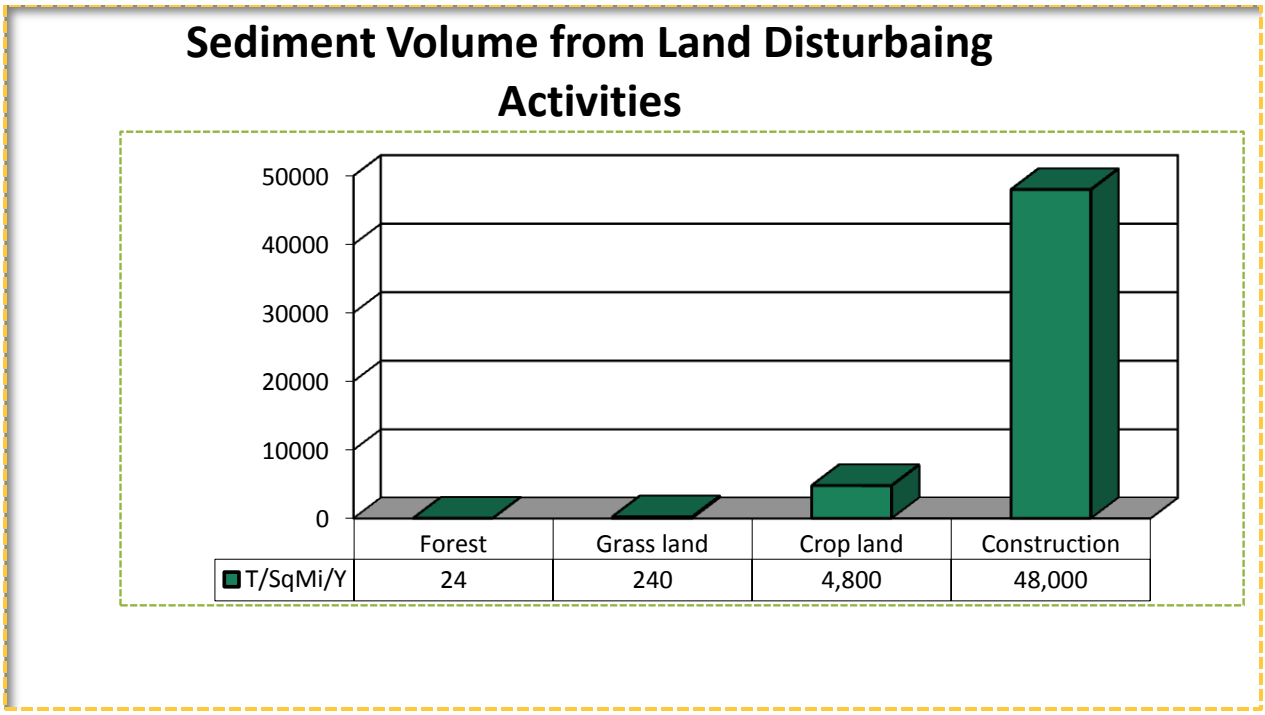
Law and regulation requirements…… 9
Required training courses and/or work experience…… 10
Provisional certification…… 11
Licensed professionals……11
Examinations……12
Dual certificates……14
Re-certification…… 15

1a. Overview to the Virginia Erosion and Sediment Control Program (VESCP)



Goal

The original goal of the VESCP was to control sediment from non-agricultural land disturbing activities from damaging downstream properties and natural resources from construction sites. Sediment loss from these land disturbing activities can be many times greater than other types of land disturbing activities as the graphic below illustrates.



The Virginia Erosion and Sediment Control Law (ESCL) (§ 62.1-44.15:52) requires that the State Water Control Board (Board) "… *shall develop a program and promulgate regulations for the effective control of soil erosion, sediment deposition, and nonagricultural runoff that must be met in any control program to prevent the unreasonable degradation of properties, stream channels, waters and other natural resources … .*"

Brief History of the VESCL

The Federal Water Pollution Control Act of 1948 was the first major US law to address water pollution. The Act was one of the earliest references to clean water as a resource and the importance of protecting water quality through the managed reduction of pollutants flowing into waterways.

Congress passed major amendments to the Federal Water Pollution Control Act in 1972, creating what we now know as the Clean Water Act (CWA). The amendments made a number of changes to strengthen the existing law including:

- Consolidated the control of water pollution policy under the administrator of the newly created US Environmental Protection Agency (EPA)

- Established the National Pollutant Discharge Elimination System (NPDES) Permit Program, which in Virginia is administered by the Virginia Pollutant Discharge Elimination System (VPDES), to control water pollution by regulating point sources that discharge pollutants

Stormwater discharges from land disturbing activities are permitted under the Construction General Permit (GP) through the NPDES.

Erosion and sediment control in Virginia

The impetus for a statewide regulatory erosion and sediment control program began in the '60s as sedimentation problems were becoming increasingly evident in areas undergoing fast-paced urban development such as Northern Virginia and the Tidewater region. These faster growing and more progressive localities in the state initiated local ordinances to control erosion and sedimentation in their localities. Since Virginia is a Dillon Rule state, the Commonwealth's main option was to address this issue state-wide. In 1971, the Governor's Council on the Environment created a task force to study the issue of sedimentation across the state. That same year the task force completed its report which verified the existence of statewide sedimentation

The Dillon Rule states that municipal governments only have the powers that are:

1. Expressly granted to them by the state legislature;
2. Those that are necessarily implied from that grant of power;
3. Those which are essential and indispensable to the municipality's existence and functioning.

problems and recommended that a statewide program be developed to address erosion and sedimentation.

State Attorney General Andrew P. Miller added emphasis to the issue of erosion and sedimentation when he issued an opinion in response to a question from the Soil and Water Conservation Commission at its August 1971 meeting, saying:

> *"The problem of sediment pollution is a cause of increasing concern in the Commonwealth, and its serious proportions and effects indicate a pressing need for the development of a comprehensive state sedimentation control program."*

The Virginia Erosion and Sediment Control Law (VESCL) was adopted by the General Assembly in 1973 as an addendum to the Soil and Water Conservation District Law. The new law required the Commission to establish statewide criteria, standards, and guidelines for the effective control of soil erosion, sediment deposition, and nonagricultural runoff from regulated land-disturbing activities that must be met in any Virginia Erosion and Sediment Control Program (VESCP) to prevent the unreasonable degradation of properties, stream channels, waters, and other natural resources. The 1973 law required all Counties and Cities in Virginia to adopt a local ESC program by July 1, 1974.

Over time it became evident to the General Assembly that modifications to the law were needed to improve the program's structure and create consistency across all state and local erosion and sediment control programs. As a result, the General Assembly passed an amendment requiring the Soil and Water Conservation Board, which replaced the Soil and Water Conservation Commission, to promulgate **regulations** for the administration, implementation and enforcement of the VESCL. The regulations became effective on May 1, 1990. Several separate changes to the Act have been made since then.

House Bill 1065 (also called the integration bill) which was passed in 2012 made some significant changes to the VESCL and the Virginia Stormwater Management Act (VSMA). Among the changes is the requirement to align the VESCL with the SWMA. In addition, House Bill 1065 required that all counties, cities, and towns with regulated Municipal

Separate Storm Sewer Systems (MS4) programs adopt and administer a local Virginia Stormwater Management Program (VSMP) – effectively creating a statewide stormwater management program that operates at the local level, much like what has been the case for the VESCP.

Amendments to the VESCL were also passed in 2013 to consolidate and move some of the programs from the Soil and Water Conservation Board and Department of Conservation and Recreation to the State Water Control Board and Department of Environmental Quality.

The movement of the VSMP from the state level to the local level allows localities to integrate their stormwater management requirements with the requirements of erosion and sediment control, flood insurance (if applicable), flood plain management, and Chesapeake Bay Preservation Act (if applicable) into a unified stormwater program. This was intended to make the submission and approval of plans, issuance of permits, payment of fees, and coordination of inspection and enforcement activities more convenient and efficient for both the locality and the applicant.

The VSMA and VSMP Regulations also bring about a new shift to the runoff reduction paradigm where designers will focus on reducing the post-development stormwater runoff volume from a site, as well as meeting more stringent nutrient load reduction requirements to improve water quality. The VESCL and VESCP Regulations mostly address soil erosion and sediment deposition during construction.

Integration of the VSMP

During construction, the removal of vegetation can lead to soil erosion, water pollution, sediment transport, etc., which is why the ESC minimum standards (MS) in the regulations include structural and non-structural practices that must be used during construction to keep sediment in place and capture any sediment that is carried by stormwater before it leaves the site.

Sedimentation resulting from missing ESC practices

During construction, stormwater runoff can also pickup and transport construction related waste and other pollutants which can pollute waterways and property. To address this concern, the Virginia Stormwater Management Program (VSMP) regulations require operator's of regulated LDAs to develop and implement a stormwater pollution prevention plan which consists of an erosion and sediment control plan and pollution prevention plans. These plans must detail how erosion and sediment control measures, and pollution prevention measures will be implemented on the construction site.

Trash around construction site – pollution prevention measures not in place

Even after construction stormwater runoff remains a concern. The addition of impervious surfaces such as pavement and roofs decreases a site's ability to infiltrate rainwater. As a result, there is more stormwater runoff reaching waterways, which can cause erosion, localized flooding and property damanage.

Flooding of downstream properties from inadequate post-construction stormwater management
Source: June Bailey, property owner

Starting July 1, 2014, any locality that operates a regulated MS4 is required to adopt and administer a VSMP. Non-MS4 localities may choose to adopt a VSMP or have DEQ administer the program.

Before July 1, 2014, post-construction stormwater was addressed by MS-19; however, plans approved after July 1, 2014, ESC plans must comply with the water quantity and quality requirements in the Virginia Stormwater Management Act.

After July 1, 2014 regulated land disturbing activities which are equal to or exceed one acre shall provide evidence of Virginia Stormwater Management Program Permit coverage (CGP Construction General Permit)

Erosion & sediment controls

(Vehicle washout)

Pollution prevention practices

(Concrete washout)

Post-construction stormwater management

(Rain garden)

Stormwater runoff – always a concern

1b. Training and Certification (9VAC25-850)

Section § 62.1-44.15:52 the VESCL requires the establishment of "Local Erosion and Sediment Control programs." Section § 62.1-44.15:53 requires that a local program "… *shall provide that within one year following the adoption of amendments to the local program adding the provisions of this section, (i) a conservation plan shall not be approved until it is reviewed by a certified plan reviewer; (ii) inspections of land-disturbing activities are conducted by a certified inspector; and (iii) a local program shall contain a certified program administrator, a certified plan reviewer, and a certified project inspector, who may be the same person.*"

The VESCL also requires personnel working in a VESCP to obtain and maintain a certificate of competence in the area of erosion and sediment control. These requirements are further spelled out in the Erosion and Sediment Control and Stormwater Management Certification Regulations (9VAC25-850) which require individuals who perform certain duties in a VESCP and/or a Virginia Stormwater Management Program (VSMP) to be certified. The VESCL further requires the Board to conduct and supervise educational program for VESCP's.

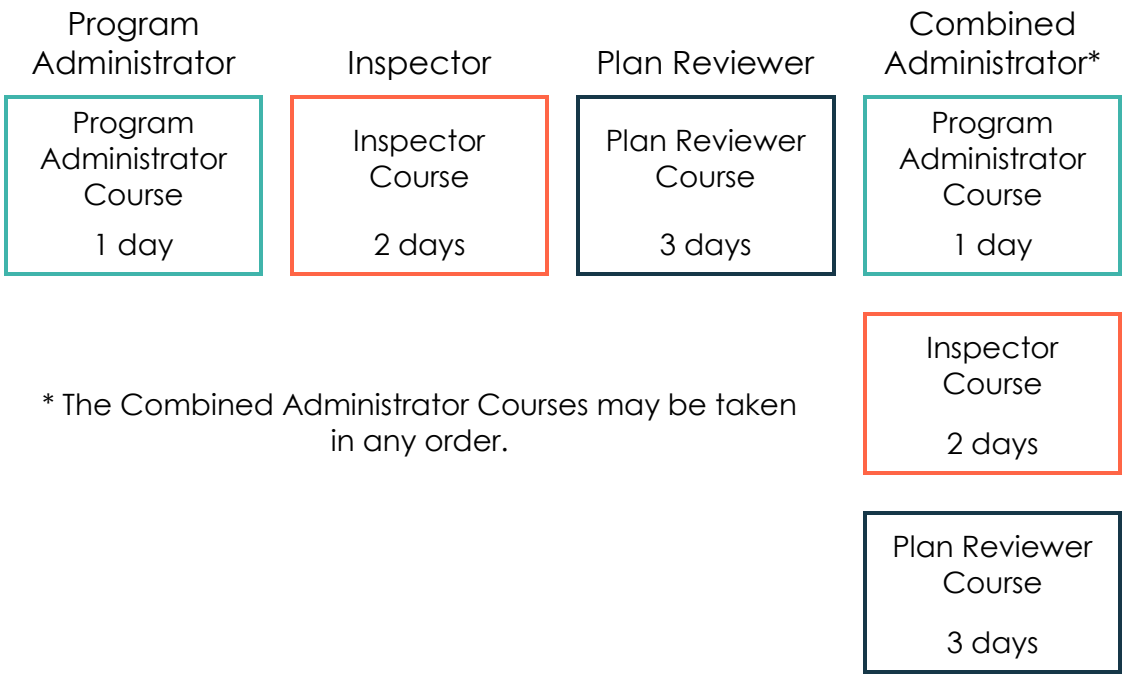
These regulations made effective March 22, 1995, require Board-approved training and certification for individuals who:

- Administer a local program ("program administrators"),
- Inspect regulated land-disturbing projects ("inspectors"), or
- Review ESC plans ("plan reviewers"),

The Erosion and Sediment Control and Stormwater Management Certification Regulations (9VAC25-850) provided for the fourth track of Combined Administrator, "*anyone who is responsible for performing the combined duties of a program administrator, plan reviewer and project inspector of a VESCP authority.*"

While the ESC certification has been in effect since 1995, the VSMP requirements for certification was adopted in 2013 and DEQ is required by the Stormwater Management Act to develop an expanded training and certification program.

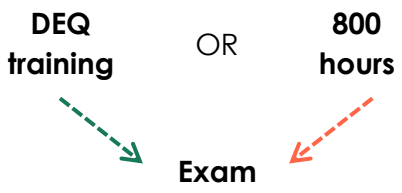
The following graphic illustrates the prerequisite training courses needed for each certification through the traditional training and certification curriculum for either ESC or SWM.



On-The-Job Experience

Individuals with at least 800 hours of on-the-job work experience as a stormwater management program administrator, inspector, plan reviewer, or combined administrator may complete the 800 Hour Work Experience Form on the DEQ website instead of completing the DEQ training course(s). Individuals still need to pass the exam.

The Work Experience Form is located on the DEQ web site at: http://www.deq.virginia.gov/Portals/0/DEQ/ConnectwithDEQ/Training/WorkExperienceForm.pdf



Provisional certification

From the day you complete your first required training course, you have ***two years*** 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. *NOTE:Individuals can only be provisionally certified **once** per classification.*

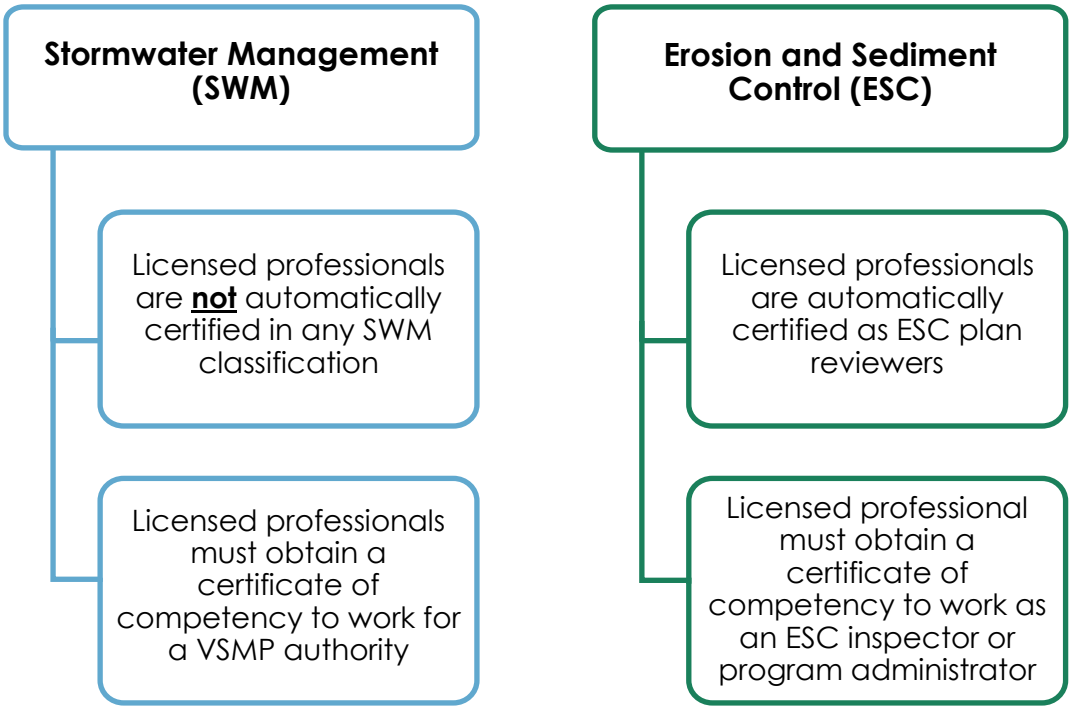
If an individual does not obtain a certification within two years, they will not be considered certified until they pass the respective exam, which may include qualifying for the exam through 800 hours of work experience.

Review the DEQ Provisional Certification Guidance at:
http://www.deq.virginia.gov/ConnectWithDEQ/TrainingCertification/LearningResources/ExamInformation.aspx

Licensed professionals

(9VAC25-850-50)

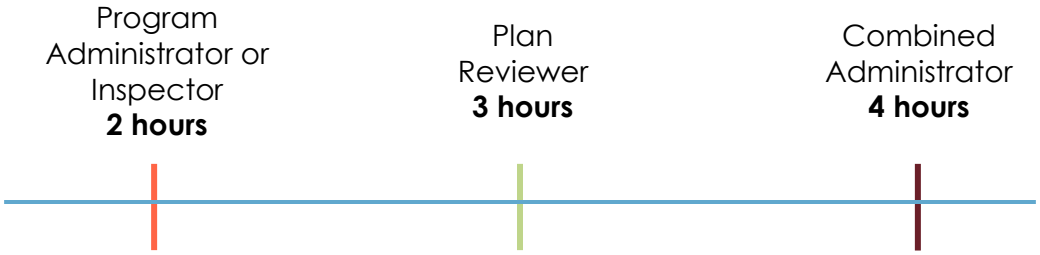
Please see DEQ's Professional Engineers FAQ at:
http://www.deq.virginia.gov/Portals/0/DEQ/ConnectwithDEQ/Training/PE_FAQ.pdf



EXAMINATION

All exams are administered by PearsonVue. Visit: http://www.pearsonvue.com/va/deq/ to register for an exam. The exams are delivered on a computer, are open book, and have time limits.

Exam Time Limits

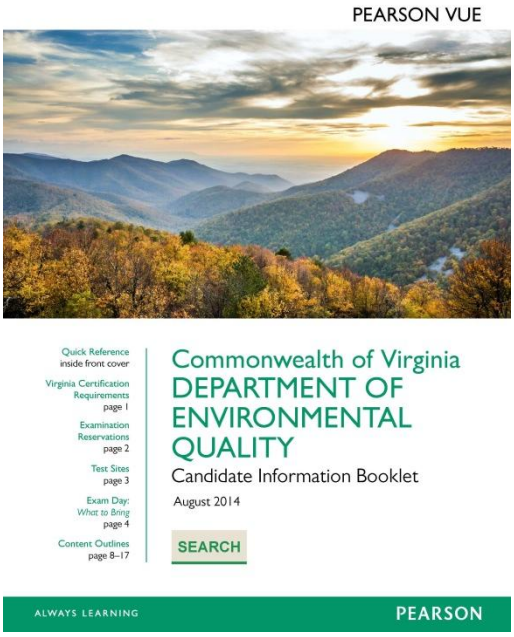


Candidate Information Booklet

You are strongly encouraged to download and read the ***Candidate Information Booklet (CIB)*** before taking the exam. The CIB is available at: http://www.pearsonvue.com/va/deq/

The CIB includes information about:

- Exam reservations
- What to bring into the exam
- What not to bring into the exam
- Candidate identification
- Course certifications
- Exam content outlines



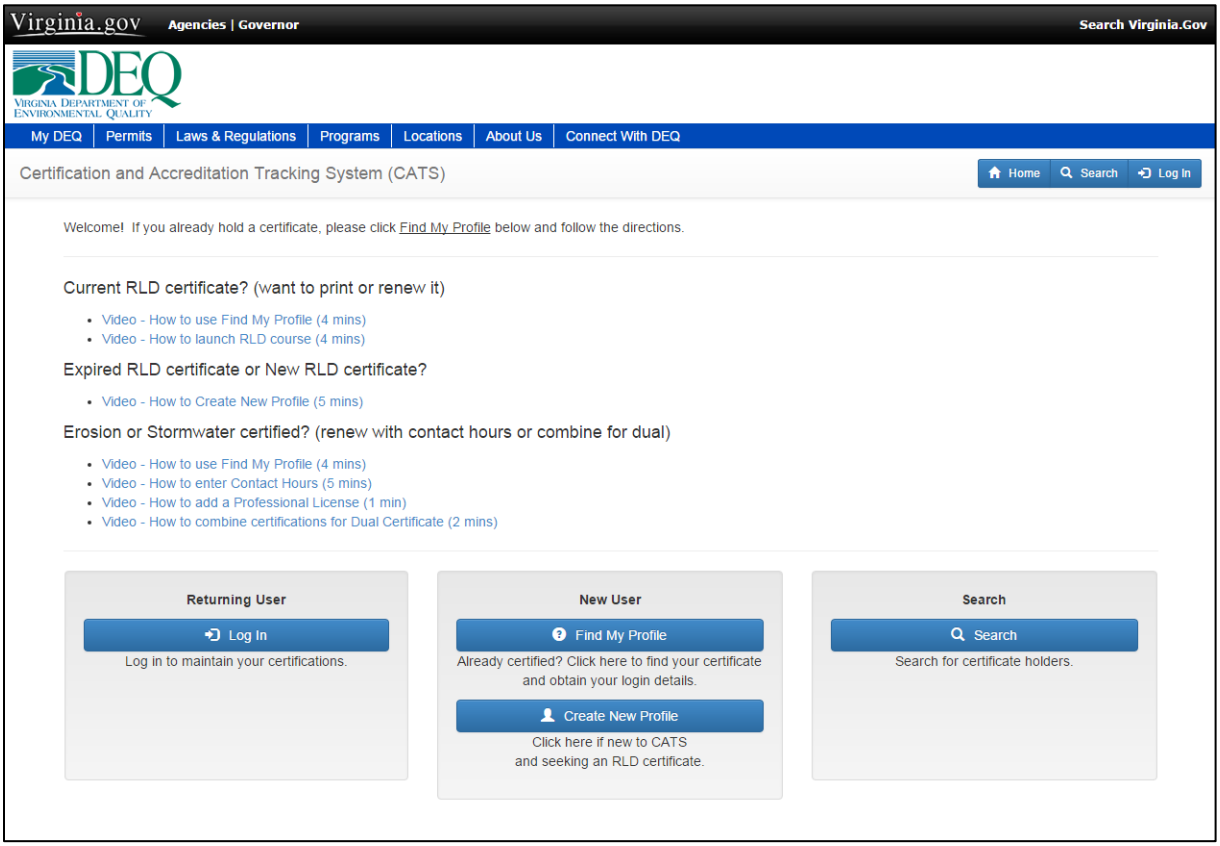
Use the exam content outlines to help you study!

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 receive your certificate https://apps.deq.virginia.gov/CATS/

If you do not pass the examination, you can reschedule another examination after 24 hours.

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



Dual Certificate

Individuals who perform both VESCP and VSMP duties may obtain a Dual Certificate of Competence by surrendering both valid certificates to the Department and paying the required administrative fee. For instance, a person who holds a valid ESC Inspector Certificate and obtains a SWM Inspector Certificate may surrender both certificates and obtain a Dual Inspector Certificate.

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

Dual Certificates of Competence				
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**

RECERTIFICATION

3 Years

Recertification is tracked in CATS. Certificates of competency are valid for ***three years***. In order to maintain your certificate, you must recertify ***before*** your certificate expires.

Recertification Options		
Re-take exam	**Complete contact hours***	**Maintain professional license**
1. Retake the certification examination with PearsonVue before certificate expires.	1. Complete required contact hours by completing DEQ courses or other relevant training before certificate 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.

* Review the DEQ Contact Hour guidance at:
http://www.deq.virginia.gov/ConnectWithDEQ/TrainingCertification/CATS.aspx

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

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