

Virginia State Waters Delineation Certification Program

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Program Overview & Requirements



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PROGRAM SUMMARY

The Department of Environmental Quality (DEQ) has developed a *voluntary* certification program, the Virginia State Waters Delineator (VSWD) certification, for the public to submit state surface waters delineations in accordance with 9VAC25-210-10 and 9VAC25-210-45. The DEQ VSWD certificate signifies that a practitioner assumes professional responsibility for the accuracy of state surface waters field delineations and that the information submitted to DEQ for review is complete. One benefit of the VSWD certification is that DEQ will prioritize State Surface Waters Delineation (SSWD) reviews by a certified individual ahead of other SSWD requests. This prioritization acknowledges the professional expertise of the VSWD and allows DEQ to rely on the accuracy and completeness of an SSWD. With accurate and complete information, DEQ can approve SSWDs faster, which will also increase the efficiency of Virginia Water Protection (VWP) permit issuances.

Requirements for receiving the VSWD certification consists of two parts: (i) certification as a Professional Wetland Delineator (PWD) through the Department of Professional & Occupational Regulations (DPOR), and (ii) successful completion of the DEQ Stream Identification course and accompanying exam. Successful completion of both parts allows the individual to obtain the DEQ VSWD certification. The PWD exam solely evaluates wetland delineation skills and not how to identify stream parameters.

This document provides: (1) an explanation for the requirements to obtain a VSWD certification; (2) information required for a complete state surface waters delineation for DEQ review; (3) DEQ's determination process for a state surface waters delineation; and (4) the standards of conduct for a VSWD. While it was developed specifically for certified delineations, the materials are available for use by anyone conducting delineations in Virginia. However, **DEQ expects the SSWD Request Form to be used for *all* determination requests coming to the agency, regardless of the delineators certification status (*Appendix VI* of this VSWD Overview document).**

The overarching objective of this certification program is to identify, document, and geolocate the presence of all state surface waters, including isolated wetlands, on a parcel or study area for due diligence, site development, and DEQ permitting purposes. The VSWD certification is recommended for anyone who must accurately identify both wetlands and streams on their sites for project planning, project impact avoidance and minimization analyses, and compensatory mitigation planning. Accurate and reliable state surface waters delineations will increase efficiencies in the Virginia Water Protection (VWP) permit review process by reducing the number of incomplete VWP permit application submittals while awaiting Jurisdictional Determination (JD) confirmations by the U.S. Army Corps of Engineers (USACE).

In accordance with VWP Program Regulations 9VAC25-210-45 and 9VAC25-210-10 of the Virginia Administrative Code, *"each wetland delineation, including isolated wetlands, shall be conducted in accordance with the U.S. Army Corps of Engineers (USACE) "Wetland Delineation Manual, Technical Report Y-87-1, January 1987, Final Report" (Federal Manual) and any regional wetland supplements approved for use by USACE. These Federal Manuals shall be interpreted in a manner consistent with USACE guidance, and any delineation guidance adopted by DEQ as necessary to ensure consistency with the USACE implementation of delineation practices. USACE regulatory guidance letters or DEQ policy or guidance may be used to supplement preparation of wetlands delineations. Delineations for surface waters other than wetlands may be conducted in accordance with USACE or DEQ policy or USACE or DEQ guidance and shall take into consideration the location of an ordinary high-water mark if present."*

Delineations of wetlands are typically conducted by private-sector wetland professionals like consultants or environmental engineers but may also be conducted by trained VWP Permit Program staff. Staff are invited to use the materials in this VSWD Overview if helpful to conducting their

work. Delineations may be confirmed by the USACE or DEQ-VWP Permit Program staff. Delineations for other surface waters (streams, open water, etc.) are typically conducted in accordance with jointly approved DEQ and USACE guidance or policy, or in accordance with each agency's required procedures.

The *jurisdictional* extent of waters will depend on each agency's independent statutory and regulatory authority, policies, and guidance. Under the VWP Permit Program, DEQ specifically regulates alterations to surface waters, which include "all state waters that are not groundwater", including wetlands, streams, and open water (9VAC25-210 *et seq.*).

When possible DEQ uses the USACE's JD as representative of the extent of surface waters that are jurisdictional for VWP permitting purposes. However, DEQ permit staff may need to verify that no state-only jurisdictional waters exist on a proposed project site. **Nothing in the law, regulation or guidance precludes DEQ from independently performing its own delineations or determinations of state surface water boundaries.**

When a SSWD request is submitted, using the SSWD Request Form, DEQ will review the Final Delineation Report, including field delineation maps, for completeness within 15 days of receipt. If the information submittal is not complete, DEQ will require additional information from the VSWD and may suspend its verification review until complete information is submitted. Once the submittal is considered complete, DEQ will conduct its verification review within 30 days and provide a written determination, unless a field verification is needed. The need for a field verification will be sent to the VSWD.

In most cases, DEQ staff will verify SSWDs by reviewing reports, maps, and other documentation submitted by VSWDs, verifying the submitted information with available online and print resources at the desktop level, then issuing a written determination for the SSWD findings. To maintain reliability and integrity of the certification program, DEQ staff will randomly field verify each VSWD's work on a periodic basis. A pattern of deficient work may result in a greater frequency of field verifications, followed by the suspension or revocation of the VSWD certification (see Section IX).

In addition, state surface waters delineations – conducted in the 84 Tidewater localities – are subject to the Chesapeake Bay Preservation Act (Bay Act). A determination of whether the state water is also considered a Resource Protection Area (RPA) is a requirement of the Bay Act. Therefore, VSWD's working in a Bay Act locality will also need to determine the flow regime(s) (i.e., perennial, intermittent, or ephemeral) as part of the comprehensive SSWD. Additional Bay Act information, acceptable stream methods to identify flow regime, and DEQ Perennial Flow guidance, is provided in Section III. **To encourage qualified professionals to obtain DEQ's VSWD certification, the Stream Identification course and exam fee, as well as the VSWD certification fee, will be waived through 30 June 2024.**

Key points to be aware of:

1. Activities that discharge fill to, dredge, drain or otherwise cause significant alteration or degradation of state surface waters, including wetlands, on this site may require a VWP Permit. You may also be required to obtain other federal, state, and/or local authorizations from a United States Army Corps of Engineers (USACE) District Office, the Virginia Marine Resource Commission (VMRC), and/or a local wetlands board.
2. The U.S. Army Corps of Engineers (USACE) regulatory program *may or may not accept* DEQ's State Surface Water Determination as determinative for their jurisdictional

purposes. DEQ recommends coordination with a USACE representative on federal jurisdictional issues.

3. This state surface waters determination is valid for 5 years from the date of issuance in absence of a permit decision, or when a permit decision applies, the determination is valid for the life of the VWP general permit coverage or individual permit, unless new information or changes to the project occur that warrant revision of the determination before the expiration date.

I. OBTAINING A VIRGINIA STATE WATERS DELINEATOR CERTIFICATION

The Virginia State Waters Delineator (VSWD) certification is a voluntary certification program administered by the Department of Environmental Quality (DEQ). State Waters must be accurately identified in the field and properly documented to ensure that Virginia Water Protection (VWP) permits are properly issued and legally defensible. This certification is recommended for anyone who needs to accurately identify both wetlands and streams on their sites for project planning, project impact avoidance and minimization analyses, and compensatory mitigation planning. Accurate and reliable state waters delineations will increase efficiencies in the VWP permit review process. DEQ also encourages its VWP Permit staff to obtain this certification to ensure regulators also have the skills and training to identify state surface waters accurately and consistently.

The key objective of the VSWD program is to ensure that individuals have the skills to correctly determine wetland hydrology, hydric soils, and hydrophytic vegetation for wetlands; and stream bank presence, stream bed presence, and an ordinary high-water mark (OHWM) for streams. Together, these six parameters determine whether state waters occur on a site.

A. TRAINING REQUIREMENTS

Individuals seeking the VSWD certification must first obtain a Professional Wetland Delineator (PWD) certification. In accordance with Virginia Department of Professional and Occupational Regulation (DPOR) regulations (18VAC145-30-60(2)), a PWD certification requires the completion of a course of instruction, of a minimum of 32 hours, in state and federal delineation methods that includes a field component. Proof of completion of such a wetland delineation training course is required for the PWD certification.

DEQ will provide a DEQ Stream Identification training course on the field indicators used to identify the presence of a stream for DEQ's regulatory purposes. This training will include a field practicum and will cover the following topics: determining the upper limits of OHWM, flow regimes, channel geometry, streambed substrate, and other corroborative evidence. Successful completion of the training will require attendance for the full day, including the field practicum, and achieving an 80% passing score or higher on the accompanying examination. Individuals are required to take the course to sit for the Stream Identification Exam. Individuals will have three attempts to pass the exam. If the exam is not passed in three attempts, individuals must retake the DEQ Stream Identification course and the exam.

DEQ will not accept equivalent training for initial certification. Individuals must attend the DEQ Stream Identification training and pass the Stream Identification Exam to obtain initial certification. DEQ will use a continuing education model for recertification.

DEQ may charge reasonable training registration and recertification fees to recover instructor and administrative costs.

Total anticipated costs for individuals seeking the VSWD certification include the following:

1. Costs to obtain a PWD from DPOR.
2. Registration fees to attend DEQ Stream Identification training.
3. Certification renewal fees for the PWD certification.
4. Certification renewal fees for the DEQ VSWD certification.

B. INITIAL CERTIFICATION PROCESS

There are five steps to obtain an initial Virginia State Waters Delineator (VSWD) certification.

1. Obtain your Professional Wetland Delineator (PWD) certification from [DPOR](#).
2. Create a profile in DEQ's [Certification Accreditation Tracking System \(CATS\)](#) and enter your PWD number.
3. Create a profile in DEQ's [Environmental Learning Management System \(ELMS\)](#). Then register and pay for the DEQ Stream Identification training course.
4. Attend the training and pass the DEQ Stream Identification exam through DEQ's [Environmental Learning Management System \(ELMS\)](#).
5. Email your DEQ Stream Identification exam completion certificate from ELMS to: certification@deq.virginia.gov.

NOTE: Do not email your Stream Identification exam completion certificate until you have entered your PWD number into CATS.

Once you have emailed your exam completion certificate to DEQ, your Virginia State Waters Delineator (VSWD) certification number will be added to your CATS profile for you to manage. CATS will generate a unique certification number for each individual.

To encourage qualified professionals to obtain DEQ's VSWD certification, the Stream Identification course and exam fee, as well as the VSWD certification fee, will be waived through 30 June 2024.

C. CERTIFICATION RENEWAL PROCESS

A VSWD certification shall be renewed every 3 years from the date of initial issuance. Failure to renew will result in an expired certificate and individuals will be required to retake the DEQ Stream Identification training and accompanying exam to recertify. DEQ's [CATS](#) will send email reminders about certification renewal at the following intervals: 1 year, 6 months, 1 month.

VSWD certification renewal requires an individual to log into CATS and update their PWD certification expiration date, enter 6 hours of relevant continuing education (hereafter, referred to as contact hours), and pay the recertification fee as shown in CATS. Once renewed, CATS will update the expiration date of the VSWD certification for another 3 years from the date of the initial expiration date. Individual's may renew anytime during the last year of expiration.

Determining Contact Hour Relevancy

Contact hours are relevant if they maintain, improve, or expand upon the skills and knowledge presented in DEQ Stream Identification training. In addition, contact hours must be taught by qualified instructors, have a clear purpose and defined training objectives.

Contact hours can be provided by DEQ or by a third party, and may be obtained by attending or instructing workshops, webinars, online courses, or classroom courses. One hour of instruction equals 1 contact hour. One day of training equals 6 contact hours.

The individual will be asked to enter the instructor's and/or vendor's name, course name, delivery date, and contact hours issued into CATS; and may be asked to provide completion documentation if audited.

Relevant contact hours used for other certifications may be reused for VSWD recertification. However, the individual is responsible for ensuring that reusing contact hours for VSWD certification is not restricted or prohibited by the other certification-issuing authority.

Certificate holders are responsible for:

1. Determining course relevance; and if audited, certificate holders will be asked to justify how a particular training event is relevant and provide completion documentation.
2. Maintaining all records of relevant training that will be used for recertification. Records may include items such as completion certificates, class rosters or records of attendance maintained by the individual or at the individual's training or human resources office, or any other such items that can serve as proof that the individual attended the training.
3. Entering all contact hours into [CATS](#) and completing their recertification prior to expiration.

DEQ has the option of auditing the contact hours recorded in CATS for recertification and may request to review an individual's records at any time. In cases where audits reveal discrepancies, DEQ will contact the certificate holder and ask for more information and provide the individual with an opportunity to correct any errors. DEQ reserves the right to make the final determination regarding the applicability and relevance of credits the applicant submits to maintain certification.

II. CONDUCTING STATE WATERS DELINEATIONS

Conducting a state waters delineation is not unlike conducting a delineation of Waters of the United States (WOTUS) performed for the USACE regulatory program. The overarching objective is to identify, document, and geolocate the presence of all state surface waters, including isolated wetlands, on a parcel for due diligence, site development, and DEQ permitting purposes. It is the responsibility of the VSWD, and any uncertified field team members or other certified field team members under their supervision, to accurately identify and document the presence of all state waters, including isolated wetlands, on a parcel.

In accordance with state law (§ 62.1-44.15:21(C)) and VWP Permit Program Regulations (9VAC25-210-45), wetland delineations, including those for isolated wetlands, shall be conducted in accordance with the USACE "Wetland Delineation Manual, Technical Report Y-87-1, January 1987, Final Report" (Federal Manual) and any regional wetland supplements approved for use by USACE. The VSWD certification program and the VWP Permit Program requires all wetland delineations to follow the protocols and procedures outlined in the 1987 Federal Delineation Manual and regional supplements to properly identifying and document the presence of wetlands on a parcel. No new or alternate wetland field data sheets are required beyond those found in the Federal Manual and regional supplements.

Delineations for surface waters other than wetlands (i.e., streams and open water) shall be conducted and documented using the DEQ Stream Identification Field Data Form found in *Appendix I* of this document.

A. PRIOR TO CONDUCTING FIELD WORK

Relevant and current information for the project site and vicinity should be thoroughly reviewed, including the following sources where practicable:

1. USGS Quadrangle 7.5 Minute Series Topographic Map
2. DEQ's Wetland Condition Assessment Tool (includes National Wetland Inventory Maps)
3. U.S. Department of Agriculture Soils Map data
4. Localities' Resource Protection Area (RPA) Map, if applicable
5. Federal Emergency Management Agency (FEMA) Flood Insurance Rate Panels
6. Most current aerial photographs of the study area with the property boundary or limits overlain.
7. Near Color Infrared Imagery from Virginia Base Mapping Program
8. Natural Color Imagery from Nearmap
9. Local precipitation information within the two weeks prior to the field work from nearby precipitation gauges
10. Acid-Forming Soils Maps
11. Stream or tide gauge information, if applicable
12. Light Detection and Ranging (LIDAR) imagery, if available

While acid soils are not an issue of concern during the delineation process, the location of potential acid forming soils is important during the project development and permitting process (i.e., risk associated with construction activity, difficulty stabilizing soils, etc.). Additional information regarding acid-forming soils can be found at <https://landrehab.org/home/programs/acid-sulfate-soils-management/>.

DEQ's Wetland Condition Assessment Tool (WetCAT) has a substantial amount of information needed for reconnaissance prior to conducting the field delineation. WetCAT can be found on

DEQ's webpage at <https://www.deq.virginia.gov/our-programs/water/wetlands-streams/wetcat>. Other relevant information may be obtained from other sources. Suggested links for other information can be found in *Appendix II* of this document.

B. FIELD WORK

It is the responsibility of the VSWD, and any uncertified field team members working under their supervision, to accurately field identify and document the presence of all state surface waters, including isolated wetlands, on a parcel or study area.

Proper field documentation includes completed wetland and stream identification data sheets in all representative communities on site, photographs of the data point locations and representative communities, and any other existing site conditions. Data sheets shall thoroughly document field observations and articulate a satisfactory rational connection between the conditions observed and the conclusions made. VSWD shall use the USACE's appropriate wetland delineation data sheet from the regional supplement that corresponds to their project site (see *Appendix IV*). The USACE is developing [automated wetland determination data sheets](#). VSWDs shall use the Stream Identification Field Data Form (see *Appendix I*). For Bay Act flow determinations, VSWDs shall use one of the three Flow Regime forms as appropriate for the locality (see *Appendix III*).

The boundary of any identified state surface waters shall be marked in the field with sequentially numbered surveyors' flagging that correspond to their geolocations on the final delineation map. All data sheet locations and photograph stations shall also be geolocated (see Section IV) and provided on the final delineation map (see Section V).

III. CHESAPEAKE BAY PRESERVATION ACT AND LOCALITIES

The Chesapeake Bay Preservation Act (Bay Act) was enacted by the Virginia General Assembly in 1988 as a critical element of Virginia's nonpoint pollution source management program. The Bay Act recognizes that local governments have the primary responsibility for land use decisions and expands their authority to manage water quality and establish a direct relationship between water quality protection and local land use decision-making. Therefore, local governments are responsible for implementing their Bay Act program and the respective local government should be consulted for specific local program requirements.

Under the Bay Act and Regulations, DEQ's primary role is to provide local program oversight, policy guidance and technical assistance when requested or otherwise required. Each of the 84 Bay Act localities (see Figure 1) has a DEQ program contact, or liaison, who provides one-on-one assistance as needed, as well as assistance with program compliance reviews.

The Bay Act is one of the enforceable programs in Virginia's Coastal Zone Management (CZM) Program. As such, DEQ's Office of Environmental Impact Review reviews proposed state and federal projects or activities for CZM consistency. State agencies are required to be consistent with local comprehensive plans and ordinances adopted to comply with local Bay Act requirements. Similarly, the federal Coastal Zone Management Act requires actions undertaken by federal agencies that have reasonably foreseeable effects on any land or water use or natural resource of the coastal zone (also referred to as coastal uses or resources, or coastal effects) to be consistent with a coastal state's federally approved CZM Program.

Figure 1. Localities Subject to the Chesapeake Bay Preservation Act



A. STATE WATERS CONSIDERATIONS IN BAY ACT LOCALITIES

State waters delineations – conducted in the 84 Bay Act localities – require a determination of whether the state water is also considered a Resource Protection Area (RPA).

As outlined in 9VAC25-830-80, RPAs shall consist of lands adjacent to water bodies with perennial flow that have an intrinsic water quality value due to the ecological and biological processes they perform or are sensitive to impacts which may cause significant degradation to the quality of state waters. Specifically, RPAs shall include tidal wetlands; non-tidal wetlands connected by surface flow and contiguous to tidal wetlands or water bodies with perennial flow; tidal shores; such other lands considered necessary by the locality to protect the quality of state waters; and a 100-foot-wide vegetated buffer adjacent to, and landward of, these features.

Site-specific delineations of the extent of an RPA must be conducted during a locality’s plan of development review process or during the review of a water quality impact assessment for proposed land development on the site as outlined in the respective locality’s program and ordinances. Therefore, VSWD’s working in a Bay Act locality will also need to determine the flow regime(s) (i.e., perennial, intermittent, or ephemeral) as part of the comprehensive SSWD. Additional information about the Bay Act can be found on DEQ’s website at <https://www.deq.virginia.gov/our-programs/water/chesapeake-bay/chesapeake-bay-preservation-act>.

B. WETLANDS IDENTIFIED AS A RESOURCE PROTECTION AREA

Tidal wetlands are included as an RPA feature under 9VAC-830-80. Also included in RPAs are (i) nontidal wetlands connected by surface flow and contiguous to tidal wetlands, or (ii) water bodies with perennial flow. Thus, an RPA must include only those nontidal wetlands that are both connected by surface flow and contiguous to tidal wetlands or water bodies with perennial flow.

To determine whether water bodies have perennial flow, local governments must use “one of the following methods, as long as the methodology is adopted into the local program and applied consistently: (i) designation of water bodies depicted as perennial on the most recent U.S. Geological Survey 7 1/2 minute topographic quadrangle map (scale 1:24,000); or (ii) use of a scientifically valid system of in-field indicators of perennial flow.”

Under the Bay Act, DEQ has defined a water body with perennial flow as “a body of water that flows in a natural or man-made channel year-round during a year of normal precipitation. This includes, but is not limited to streams, estuaries, and tidal embayments and may include drainage ditches or channels constructed in wetlands or from former natural drainage ways, which convey perennial flow. Lakes and ponds, with perennial streams flowing into, out of, or through them, are a part of the perennial stream. Generally, the water table is located above the streambed for most of the year and groundwater is the primary source for stream flow.”

When evaluating whether a water body has perennial flow under the Bay Act, DEQ has identified three field-indicator protocols as acceptable for making site-specific determinations. As noted, which protocol is utilized or will be accepted within a locality will be in accordance with their local Bay Act program. The first and mostly commonly used protocol is the North Carolina “Methodology for Identification of Intermittent and Perennial Streams and Their Origins” (Version 4.11) which can be found at https://files.nc.gov/ncdeq/Water%20Quality/Surface%20Water%20Protection/401/Policies_Guides_Manuals/StreamID_v_4point11_Final_sept_01_2010.pdf. (See *Appendix III* for North Carolina Stream Form)

Another acceptable protocol is the James City County “Perennial Stream Protocol” which can be found at <https://www.jamescitycountyva.gov/DocumentCenter/View/2158/JCC-Perennial-Stream-Protocol-Manual-PDF>. (See *Appendix III* for James City County Stream Form)

The third acceptable protocol is the Fairfax County “Perennial Stream Field Identification Protocol” which can be found at https://www.fairfaxcounty.gov/publicworks/sites/publicworks/files/assets/documents/pdf/03_ps_protocol_ada.pdf. (See *Appendix III* for Fairfax County Stream Form)

All three protocols record a range of scores, which can be representative of a perennial stream’s transition points and thus identify which streams are perennial based upon their respective factors. Scoring criteria can be found in each of the respective protocols identified above, and, when evaluating the score, DEQ’s Guidance should be consulted. These protocols as well as other considerations are outlined in the Guidance “Determinations of Water Bodies with Perennial Flow” which can be found at <https://www.deq.virginia.gov/our-programs/water/chesapeake-bay/chesapeake-bay-preservation-act/local-program-regulations-guidance>.

Determining which nontidal wetlands should be included in an RPA will depend on evaluating whether the wetland is connected and contiguous to included water bodies. DEQ provides guidance on various common situations encountered on site for evaluating whether nontidal wetlands are connected and contiguous to include within the RPA. The Guidance “Resource Protection Areas: Nontidal Wetlands” can also be found at <https://www.deq.virginia.gov/our-programs/water/chesapeake-bay/chesapeake-bay-preservation-act/local-program-regulations-guidance>.

IV. PREPARING A DELINEATION REPORT

Delineation reports should provide a thorough and complete analysis of site conditions focused solely on the identification of all state surface waters, including isolated wetlands, on the project site. The delineation report must document all the vicinity and site-specific factors and sources, including map(s) and photographs, reviewed to make the state waters determination. In many cases, Delineation Reports prepared for the USACE will generally suffice for DEQ's review purposes, provided all state surface waters, including isolated wetlands, are field delineated, geolocated, depicted on the delineation map, and discussed in the final report. See *Appendix IV* for additional information in the Final Delineation Report Checklist.

A. FINAL DELINEATION REPORT COMPONENTS

A complete delineation report shall include:

1. Identification of all persons who conducted the delineation, their qualifications, and certification number (if applicable).
2. The date(s) of the site visit(s).
3. Recent weather conditions within approximately two weeks prior to, as well as during, the delineation field work.
4. Discussion of delineation methods used (i.e., routine, comprehensive, atypical, or problem areas), and the reasons for any deviation from accepted methods and standards.
5. A vicinity map with the subject site(s) outlined showing the project location and text identifying the street address, latitude/longitude, and any other location information necessary to identify the project site(s).
6. General description of the project vicinity and project site(s), potential risk of acid-forming soils, and summary of precipitation information that may affect the report's conclusions.
7. Findings from all desktop sources reviewed (see Section II.A), including all figures, photographs, etc., with the project site location(s) clearly outlined, a scale, a north arrow, and legend.
8. Photographs, appropriately labeled with date/time stamp, and georeferenced to location taken.
9. Field conditions and observations, including hydric soils, wetland hydrology, and hydrophytic vegetation data presented on wetland field data sheets (using the appropriate USACE Regional Supplement).
10. Stream bed, stream bank, and ordinary high water mark data presented on stream identification data sheets (see *Appendix I*).
11. All completed field data forms for the project site and corresponding to sample point geolocations identified on one or more mapping resources in the report.
12. Cowardin Classification of field observed wetlands, and discussion of any deviation from desktop sources. Cowardin classification should be identified for each wetland type on the map.
13. Other relevant information that supports the VSWD decision on the state surface water/upland boundary.
14. A narrative description of results and conclusions, including a) a thorough description of all state surface waters, including isolated wetlands (if any); b) characteristics and acreage of each wetland and non-wetland area; c) characteristics and linear footage of each stream; d) consistency of the field observations with the desktop resources; and e) if applicable, the possible reasons for any inconsistencies between field observations and desktop resources.
15. References and sources for all information used.
16. Final Delineation Map, georeferenced to the parcel boundary, at a scale no larger than one-inch equals four hundred feet (1" = 400'); One-inch equals two hundred feet (1" = 200') is preferred (see Section IV.C).

17. Bay Act/RPA findings, if applicable.
18. Certification statement (see Section IV.B).

B. VSWD CERTIFICATION STATEMENT

All Final Delineation Reports submitted to DEQ by certified VSWDs shall include the following statement:

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate 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.

Professional Name: _____

Certification No.: _____

Signature: _____

Date: _____

C. FINAL DELINEATION MAP COMPONENTS

Final Delineation Maps shall georeference all surveyed points, using North American Datum 1983 (NAD 83) for horizontal locations and North American Vertical Datum 1988 (NAVD 88) for vertical locations.

On January 1, 2023, the U.S. Survey Foot was revised using the International System of Units (SI). Approximate decimal SI equivalents for measures commonly given in U.S. Survey Feet and exact equivalents for the foot are published by the National Institute of Standards & Technology's (NISTs) in [NIST Handbook 44](#) (see Appendix C of the handbook, "General Tables of Units of Measurements") and will be published in the NIST Guide for the use of the International System of Units ([NIST Special Publication 811](#)). More information can be found on the NIST FAQs page at <https://www.nist.gov/pml/us-surveyfoot/frequently-asked-questions-faqs>.

The following units of measure are to be used:

Distance measure:

- All project data will be provided in **International Feet**. If a conversion from Meters to Feet is required, use the following conversion factor: 0.3048 Meters = 1 foot
- Provide distance to the nearest hundredth (i.e., 0.01') of a foot.

Angular measure:

- All angles must be formatted in **Degrees, Minutes and Seconds** to the nearest one second (i.e., 01°01'01").

Direction:

- All directions must be labeled in **Bearings** (i.e., N 12° 45' 23" E).

Area:

- All area measurements must be reported in **square feet** to the nearest whole square foot (i.e., 53ft²), **and in acres** to the nearest hundredth of an acre (i.e., 8.01 acres).

Volume:

- All volume measurements must be reported to the **nearest whole cubic yard** unless otherwise stated (i.e., 118yd³).

Horizontal Coordinates:

- Provide all horizontal coordinates in northing and easting to the nearest hundredth (i.e., 0.01') of a foot.

Elevation/Orthometric Height:

- Provide all elevations to the nearest hundredth (i.e., 0.01') of a foot.

In addition to the above units of measure, see *Appendix V* for detailed Delineation Map requirements.

V. SUBMISSION OF STATE WATERS DELINEATION REQUEST

In many cases, Delineation Reports prepared for the USACE will generally suffice for DEQ's review purposes, provided all state waters, including isolated wetlands, are field delineated and discussed in the final report. SSWD's may or may not be accepted by other regulatory agencies for their uses. When both state and federal waters appear to be located on a parcel or project site, it is recommended that the VSWD perform the necessary field work and prepare the final report in a manner that will serve both regulatory agency's purposes.

Digital data for the site, state waters boundaries, and data point and photograph locations must be provided in a geographic information system (GIS) format, with ESRI Shapefiles being the preferred format. Metadata needs to include at a minimum, datum(s) used, coordinate system, projection, and cartographer contact information.

The Final Delineation Report, including delineation map(s), GIS shapefiles, wetland and stream datasheets, Bay Act Flow Regime datasheets (if applicable), and a completed State Surface Waters Determination (SSWD) Request Form (see *Appendix VI*) must be submitted to the appropriate DEQ regional office indicated on the Request Form.

It is recommended that property owners obtain the services of a VSWD or other persons knowledgeable with stream and wetland identification and delineation procedures to provide SSWD assessments to obtain a formal DEQ review of the SSWD.

The Property Access Agreement, located within the SSWD Request Form, must be completed, signed, and included with the SSWD request package (see *Appendix VI*). Otherwise, the SSWD request will not be verified, using the streamlined review process until DEQ receives a signed Property Access Agreement (see Section VI of this Overview).

The information submitted for state surface waters determination does not alleviate the submittal requirements for a complete application should a VWP permit be required. VWP complete application requirements can be found at 9VAC25-210-80, 9VAC25-210-340, and in subsection -60 of each VWP general permit regulation.

Key points to be aware of:

1. Activities that discharge fill to, dredge, drain or otherwise cause significant alteration or degradation of state surface waters, including wetlands, on this site may require a VWP Permit. You may also be required to obtain other federal, state, and/or local authorizations from a [United States Army Corps of Engineers](#) (USACE) District Office, the [Virginia Marine Resource Commission](#) (VMRC), and/or a [local wetlands board](#).
2. The U.S. Army Corps of Engineers (USACE) regulatory program **may or may not accept** DEQ's State Surface Water Determination as determinative for their jurisdictional purposes. DEQ recommends coordination with a USACE representative on federal jurisdictional issues.
3. This state surface waters determination is valid for 5 years from the date of issuance in absence of a permit decision, or when a permit decision applies, the determination is valid for the life of the VWP general permit coverage or individual permit, unless new information or changes to the project occur that warrant revision of the determination before the expiration date.

VI. STREAMLINED REVIEW PROCESS FOR VSWD

The DEQ VSWD certificate signifies that a practitioner assumes professional responsibility for the accuracy of state surface waters field delineations and that the information submitted to DEQ for review is complete. One benefit of the VSWD certification is that DEQ will prioritize SSWD reviews by a certified individual ahead of other SSWD requests. This prioritization acknowledges professional expertise of the VSWD and allows DEQ to rely on the accuracy and completeness of an SSWD. With accurate and complete information, DEQ can approve SSWDs faster, which will also increase the efficiency of VWP permit issuances.

Upon receipt of an SSWD request from a VSWD, DEQ will review, within 15 days, the Final Delineation Report, including maps and the SSWD Final Delineation Report Checklist, to determine whether all necessary information has been provided. If all the information requirements, as outlined in this document, are complete, DEQ will review the information using DEQ's Wetland Condition Assessment Tool (WetCAT) and other appropriate desktop review methods and online resources. Typically, DEQ will perform its desktop review of the complete Final Delineation Report within 30 days and issue a written SSWD determination. Incomplete Final Delineation Reports will not receive a written SSWD determination until all missing information is submitted by the requestor and reviewed by DEQ. The SSWD determination may be relied upon for DEQ permitting purposes. The USACE and other state or federal agencies may or may not accept the SSWD for their permitting purposes.

In many cases, DEQ's desktop review and SSWD determination issuance will complete the Final Delineation Report review process. In some cases, DEQ may schedule a site visit to field-verify the state waters delineation. Instances where field verification may be scheduled include, but are not limited to:

1. DEQ has concerns with the delineation method relative to the site conditions.
2. DEQ has concerns with inconsistencies observed between the Final Delineation Report, including map(s) and photographs, and DEQ's desktop analysis.
3. DEQ has concerns with delineation data sheets that appear to lead to a different conclusion from that made in the Final Delineation Report; or
4. DEQ's random quality assurance/quality control audit procedures for VSWD (see Section VIII).

The VSWD responsible for oversight of the fieldwork and Final Delineation Report must be present on-site for any field verification. DEQ staff will track the SSWD approval process, and record deficiencies, if any. DEQ will programmatically audit individual VSWDs to maintain the high-quality standards of the certification program (see Section VII).

The streamlined SSWD review process applies to those holding a valid VSWD certification. Review of SSWD requests from non-VSWD certified individuals may not follow the timeframes outlined in this document due to DEQ staff workloads. Qualifying for the streamlined review process does not alleviate an applicant, owner, or permittee from the obligation to comply with all statutes, regulations, permit conditions, DEQ policies, or other applicable requirements.

VII. DEQ PROGRAMMATIC AUDIT PROCEDURES

To maintain the integrity and high professional standards of the VSWD program, DEQ will use a programmatic quality assurance/quality control (QA/QC) audit procedure for state surface waters delineations. DEQ will use the SSWD approval tracking information (completed when an SSWD Request is submitted) to determine which VSWD certified individual, if any, to audit. Based on the approval tracking information and overall quality of the materials submitted, the programmatic audit will determine if future field verifications are necessary for those VSWDs.

DEQ may field verify any delineation submitted to DEQ for verification. At a minimum, DEQ will randomly field verify at least one (1) Final Delineation Report for each VSWD certified individual every three years. Using the results of the programmatic audit, if DEQ observes a trend of deficient Final Delineation Reports performed by an individual VSWD, DEQ may conduct more field visits to verify the accuracy of the state surface waters delineation. For purposes of this document, DEQ defines a trend of deficiency as three (3) or more of any combination of the following:

1. Incomplete Final Delineation Report submittals, including, but not limited to, lack of some or all information components highlighted in this document over a given calendar year; or
2. Final Delineation Report reviews, which generate comments deemed significant enough to question the accuracy of the state surface waters delineation over a given calendar year; or
3. Field verifications over a given calendar year, where DEQ staff changes over 5% of the submitted delineation boundary on a project site. For purposes of this document, “over 5%” is expressed either as the percentage of (i) the total number of survey flags along the state surface waters boundaries, or (ii) the cumulative length of boundary line, whichever is more.

After the first year of the VSWD streamlined review process, DEQ will review the Final Delineation Reports submitted by each individual VSWD and perform a programmatic audit using the SSWD approval tracking information. Should the programmatic audit findings identify items of concern with an individual VSWD, DEQ will field verify a minimum of one random future Final Delineation Report. If DEQ observes a trend of deficient Final Delineation Reports or field verifications performed by the same VSWD, DEQ may conduct more field visits in the future to verify the accuracy of the state waters delineations. If a trend in overall work quality is not corrected by the individual VSWD, then DEQ may suspend or revoke the VSWD certification (see Section IX).

VIII. STANDARDS OF CONDUCT

Providing misleading, false, or fraudulent information is grounds for immediate forfeiture of VSWD certification. If a VSWD certificate is forfeited on misleading, false, or fraudulent grounds, DEQ will notify DPOR of such action. DPOR may or may not evaluate an individual's credentials issued under their authority in considering DEQ's actions. DEQ will suspend or revoke any VSWD certificate, where the certificate holder's quality of work has a pattern of continuous deficiencies, lacking accuracy or completeness, or has been found to have violated or cooperated with others in violating standards of conduct.

As adapted from DPOR regulations (18VAC145-30-140), a DEQ certified Virginia State Waters Delineator:

1. Shall not submit any false statements, make any misrepresentations, or fail to disclose any facts requested concerning any application for certification or recertification.
2. Shall not engage in any fraud, deceit, or misrepresentation in advertising, in soliciting or in providing professional services.
3. Shall not knowingly sign any plans, drawings, blueprints, surveys, reports, specifications, maps, or other documents not prepared or reviewed and approved by the certificate holder.
4. Shall not knowingly represent a client or employer on a project on which the certificate holder represents or has represented another client or employer without making full disclosure thereof.
5. Shall express a professional opinion only when it is founded on adequate knowledge of established facts at issue and based on a background of technical competence in the subject matter.
6. Shall not knowingly misrepresent factual information in expressing a professional opinion.
7. Shall immediately notify the client or employer and the appropriate regulatory agency if the certificate holder's professional judgment is overruled and not adhered to when advising appropriate parties of any circumstances of a substantial threat to the public health, safety, or welfare.
8. Shall exercise reasonable care when rendering professional services and shall apply the technical knowledge, skill, and terminology ordinarily applied by practicing wetland professionals.
9. Shall sign and date all plans, drawings, blueprints, surveys, reports, specifications, maps, or other documents prepared or reviewed and approved by the certificate holder. The VSWD shall also indicate that they are a DEQ certified VSWD on all plans, drawings, blueprints, surveys, reports, specifications, maps, or other documents prepared or reviewed and approved by the certificate holder and include their certificate number.
10. Shall not utilize the design, drawings, specifications, or work of another VSWD to complete or to replicate any work without the written consent of the person who or organization that owns the design, drawings, specifications, or work.

IX. REVOCATION

To ensure the integrity of the Virginia State Waters Delineator program, DEQ reserves the right to suspend or revoke an individual's certification if necessary. As described above, DEQ shall audit the submissions of certified VSWDs. DEQ reserves the right to submit written inquiries or requests for clarification or documentation to any certified VSWD. If an individual VSWD establishes a pattern of subpar quality of work, lacking in accuracy or completeness, DEQ may consider suspending or revoking an individual's VSWD certification. Any individual whose VSWD certification has been revoked by DEQ cannot apply for recertification for one year from the date of revocation. An individual seeking recertification after revocation shall be required to retake the Stream Identification course and pass the attendant test.

DEQ will forward to DPOR any observations regarding subpar or deficient work by the VSWD resulting in revocation of certification. DPOR may or may not consider suspension or revocation of a PWD within the limits of its authorities. Anyone whose PWD expires or has their PWD suspended or revoked by DPOR will also forfeit their VSWD certification. It is the individual VSWD's responsibility to maintain an active PWD.

Appendix I
DEQ Stream Identification Field Data Form

DEQ Stream Identification Field Data Form

Project/Site: _____ City/County: _____ Date: _____

Applicant/Owner: _____

Investigator(s): _____

Landform (hillslope, terrace, etc.): _____

Local relief (concave, convex, none): _____ Slope (%): _____

Lat: _____ Long: _____ Datum: _____

<p>SUMMARY OF FINDINGS – Attach site map showing sampling point locations within and upstream of the head of the stream.</p> <p>Stream bed present: <input type="checkbox"/> Yes <input type="checkbox"/> No</p> <p>Stream bank present: <input type="checkbox"/> Yes <input type="checkbox"/> No</p> <p>OHWM present: <input type="checkbox"/> Yes <input type="checkbox"/> No</p>	<p>Stream Identified: <input type="checkbox"/> Yes <input type="checkbox"/> No</p>
------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------	-----------------------------------------------------------------------------------------------

<p>Site overview from remote and online resources.</p> <p>Check boxes for online resources used to evaluate site:</p> <p><input type="checkbox"/> Gage data <input type="checkbox"/> LIDAR</p> <p><input type="checkbox"/> Regional Curve Data <input type="checkbox"/> Soil Survey</p> <p><input type="checkbox"/> Climatic data <input type="checkbox"/> Topographic Maps</p> <p><input type="checkbox"/> Aerial photos <input type="checkbox"/> Other</p>	<p>Describe land use and flow regime conditions from online resources. Were there any recent extreme events (flooding or drought)?</p>
-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------	-----------------------------------------------------------------------------------------------------------------------------------------------

Check the boxes next to the field indicators used in stream determination:

Geomorphic Indicators:

Channel Bank Features

- Natural line impressed on bank (above or below bankfull)
- Undercut bank
- Break in slope (on bank or at valley bottom)
- Continuous bed and bank
- Shelving (Top of bank, natural levee, or other)
- Clear bankfull storm event indicators present

Channel Bars

- Shelving (on bar)
- Unvegetated (on bar)
- Vegetation transition (on bar)
- Sediment transition or sorting (on bar)
- Upper limit of deposition (on bar)

Channel Bed / Bedload Transport Evidence

- Depositional (deposited sediment, lateral bars, mid channel bars, etc.)
- Bedform features (riffle, pool, steps, etc.)
- Erosional (scour, smoothing, etc.)
- Secondary channel (lateral or parallel along the same valley or floodplain)
- Evidence of thalweg
- Headcuts (with other evidence)
- Hydric soil development (changes in the character of soil)
- Mudcracks (found within an unvegetated flow path/channel)
- Changes in particle-size distribution (sediment sorting)

Vegetation Indicators:

Change in Vegetation Type / Density

- Vegetation absent (channel bed)
- Vegetation matted down or bent (channel bed or bars)
- Exposed roots below intact soil layer (channel banks)
- Destruction of terrestrial vegetation (channel banks, top of bank, etc.)
- Change in plant community (transition from channel bed to floodplain)

Ancillary Indicators:

- Wracking/presence of organic litter (along channel banks or floodplain)
- Presence of obstacle marks (i.e. erosion/sedimentation around large obstacles in flow path)
- Leaf litter disturbed or absent
- Water staining
- Weathered clast or bedrock
- Deposited sediment within leaf pack (floodplain)

Other observed Indicators and/or additional observations?

Describe rationale for location of stream and provide supporting evidence for stream identification:

Chesapeake Bay Preservation Act Flow Regime Determination (if applicable):

Site within CBPA locality? Yes No

If Yes, which flow regime determination was used:

NC DWQ Fairfax James City County

Flow Regime Determination Results: Ephemeral Intermittent Perennial

Note: Please refer to the "USACE 2022 National OHWM Field Delineation Manual for Rivers and Streams: Interim Version" at <http://dx.doi.org/10.21079/11681/46102> for detail on terminology.

Appendix II
Additional Reference Information

Additional Reference Information:

Acid-forming soils shall be identified as a potential risk in the Final Delineation Report and on the delineation map. While acid soils are not an issue of concern during the delineation process, the location of potential acid forming soils is important during the project development and permitting process (i.e., risk associated with construction activity, difficulty stabilizing soils, etc.). According to Virginia Tech's "Acid Sulfate Soils Management" webpage, acid sulfate soils form when sulfide-bearing materials are excavated from below the Earth's surface and are exposed to the atmosphere. The sulfides (primarily pyrite) oxidize to produce sulfuric acid, iron oxides/hydroxides, and sulfate precipitates. The resulting soil is typically highly acidic (pH less than 3.0), and is often associated with acidic, metal-laden surface water runoff that can often impair water quality. Additional information regarding acid-forming soils can be found at <https://landrehab.org/home/programs/acid-sulfate-soils-management/>.

Prior to conducting a site visit, precipitation information should be obtained and provided in the Final Delineation Report. Precipitation information can be found using the Antecedent Precipitation Tool (APT) which is an automation tool that the US Army Corps of Engineers (USACE) developed to facilitate the comparison of antecedent or recent precipitation conditions for a given location to the range of normal precipitation conditions that occurred during the preceding 30 years. In addition to providing a standardized methodology to evaluate normal precipitation conditions ("precipitation normalcy"), the APT can assess the presence of drought conditions and the approximate dates of the wet and dry seasons for a given location. Information regarding this tool can be found at <https://www.erc.usace.army.mil/Media/Publication-Notices/Article/2925744/antecedent-precipitation-tool-apt-version-10-technical-and-user-guide/>.

Vegetation

- 1) USACE National Wetland Plant List – http://wetland-plants.usace.army.mil/nwpl_static/v33/home/home.html
- 2) Digital Atlas of the Virginia Flora – <http://vaplantatlas.org/>
- 3) USDA-NRCS PLANTS database – <https://plants.usda.gov/home>
- 4) GoBotany (New England Wildflower Society) – <https://gobotany.nativeplanttrust.org/>
- 5) Information on Flora of Virginia App – <https://floraofvirginia.org/flora-app/>
- 6) Weakley's Flora (UNC Herbarium) – <https://ncbg.unc.edu/research/unc-herbarium/floras/>

Soils

- 1) NRCS Web Soil Survey – <https://websoilsurvey.nrcs.usda.gov/app/>
- 2) NRCS Official Soil Series Descriptions – https://www.nrcs.usda.gov/wps/portal/nrcs/detail/soils/survey/geo/?cid=nrcs142p2_053587
- 3) NRCS Hydric Soils List – <https://www.nrcs.usda.gov/wps/portal/nrcs/main/soils/use/hydric/>
- 4) NTCHS Field Indicators of Hydric Soils -https://www.nrcs.usda.gov/sites/default/files/2022-09/Field_Indicators_of_Hydric_Soils.pdf
- 5) NRCS Field Book For Describing and Sampling Soils
 - a. <https://www.nrcs.usda.gov/sites/default/files/2022-09/field-book.pdf>

Hydrology

- 1) Antecedent Precipitation Tool - <https://www.erc.usace.army.mil/Media/Publication-Notices/Article/2925744/antecedent-precipitation-tool-apt-version-10-technical-and-user-guide/>
- 2) USGS National Water Information System – <https://waterdata.usgs.gov/va/nwis/rt>
- 3) NOAA Tides and Currents – <https://tidesandcurrents.noaa.gov/>
- 4) NOAA Climate Data – <https://www.ncdc.noaa.gov/cdo-web/search>

- 5) US Drought Monitor – <https://droughtmonitor.unl.edu/>
- 6) Palmer Drought Severity Index – <https://climatedataguide.ucar.edu/climate-data/palmer-drought-severity-index-pdsi>

NWI

- 1) USFWS National Wetland Inventory – <https://www.fws.gov/wetlands/>

Mapping

- 1) VGIN Va GIS Clearinghouse – <https://vgin.maps.arcgis.com/home/index.html>
- 2) USGS LiDAR Download Website – <https://www.usgs.gov/faqs/what-lidar-data-and-where-can-i-download-it>

USACE

- 1) USACE Regional Supplements, including wetland delineation data sheets – https://www.usace.army.mil/Missions/Civil-Works/Regulatory-Program-and-Permits/reg_supp/

Chesapeake Bay Preservation Act

- 1) General information – <https://www.deq.virginia.gov/our-programs/water/chesapeake-bay/chesapeake-bay-preservation-act>
- 2) “Resource Protection Areas: Nontidal Wetlands” – <https://www.deq.virginia.gov/our-programs/water/chesapeake-bay/chesapeake-bay-preservation-act/local-program-regulations-guidance>
- 3) “Determinations of Water Bodies with Perennial Flow” which can be found at <https://www.deq.virginia.gov/our-programs/water/chesapeake-bay/chesapeake-bay-preservation-act/local-program-regulations-guidance>.
- 4) North Carolina “Methodology for Identification of Intermittent and Perennial Streams and Their Origins” (Version 4.11) – https://files.nc.gov/ncdeq/Water%20Quality/Surface%20Water%20Protection/401/Policies_Guides_Manuals/StreamID_v_4point11_Final_sept_01_2010.pdf
- 5) James City County “Perennial Stream Protocol” – <https://www.jamescitycountyva.gov/DocumentCenter/View/2158/JCC-Perennial-Stream-Protocol-Manual-PDF>.
- 6) Fairfax County “Perennial Stream Field Identification Protocol” – https://www.fairfaxcounty.gov/publicworks/sites/publicworks/files/assets/documents/pdf/03_ps_protocol_ada.pdf.

Appendix III
Chesapeake Bay Preservation Act Stream Forms

** The form below is provided by DEQ as a courtesy. It is the VSWD's responsibility to use the most current version of this form from the NC Division of Water Quality

North Carolina Stream Form

NC Division of Water Quality –Methodology for Identification of Intermittent and Perennial Streams and Their Origins v. 4.11

NC DWQ Stream Identification Form Version 4.11

Date:	Project/Site:	Latitude:
Evaluator:	County:	Longitude:
Total Points: <i>Stream is at least intermittent if ≥ 19 or perennial if ≥ 30*</i>	Stream Determination (circle one) Ephemeral Intermittent Perennial	Other <i>e.g. Quad Name:</i>

A. Geomorphology (Subtotal = _____)	Absent	Weak	Moderate	Strong
1 ^a . Continuity of channel bed and bank	0	1	2	3
2. Sinuosity of channel along thalweg	0	1	2	3
3. In-channel structure: ex. riffle-pool, step-pool, ripple-pool sequence	0	1	2	3
4. Particle size of stream substrate	0	1	2	3
5. Active/relict floodplain	0	1	2	3
6. Depositional bars or benches	0	1	2	3
7. Recent alluvial deposits	0	1	2	3
8. Headcuts	0	1	2	3
9. Grade control	0	0.5	1	1.5
10. Natural valley	0	0.5	1	1.5
11. Second or greater order channel	No = 0		Yes = 3	

^a artificial ditches are not rated; see discussions in manual

B. Hydrology (Subtotal = _____)	Absent	Weak	Moderate	Strong
12. Presence of Baseflow	0	1	2	3
13. Iron oxidizing bacteria	0	1	2	3
14. Leaf litter	1.5	1	0.5	0
15. Sediment on plants or debris	0	0.5	1	1.5
16. Organic debris lines or piles	0	0.5	1	1.5
17. Soil-based evidence of high water table?	No = 0		Yes = 3	

C. Biology (Subtotal = _____)	Absent	Weak	Moderate	Strong
18. Fibrous roots in streambed	3	2	1	0
19. Rooted upland plants in streambed	3	2	1	0
20. Macroinvertebrates (note diversity and abundance)	0	1	2	3
21. Aquatic Mollusks	0	1	2	3
22. Fish	0	0.5	1	1.5
23. Crayfish	0	0.5	1	1.5
24. Amphibians	0	0.5	1	1.5
25. Algae	0	0.5	1	1.5
26. Wetland plants in streambed	FACW = 0.75; OBL = 1.5 Other = 0			

*perennial streams may also be identified using other methods. See p. 35 of manual.

Notes:

Sketch:

** The form below is provided by DEQ as a courtesy. It is the VSWD's responsibility to use the most current version of this form from James City County, Virginia

James City Stream Form

James City County Perennial Stream Protocol (5/15/09)					
Date:	Project:				
Evaluator:	Evaluation Point:				
	Indicator Type				
A. Geomorphology (Subtotal =)		Absent	Weak	Moderate	Strong
1. Continuous bed and bank *	Primary	0	1	2	3
2. Sinuosity	Secondary	0	0.5	1	1.5
3. In channel structure: riffle-pool sequence	Primary	0	1	2	3
4. Soil texture/depth of channel downcutting *	Secondary	0	0.5	1	1.5
5. Degree of valley development	Primary	0	1	2	3
6. Floodplain/in-channel bench	Secondary	0	0.5	1	1.5
7. Recent alluvial deposits *	Secondary	0	0.5	1	1.5
B. Hydrology (Subtotal =)					
8. Groundwater discharge	Secondary	0	0.5	1	1.5
9. Leaf litter (inverse relationship)	Secondary	1.5	1	0.5	0
10. Flowing water in channel	Primary	0	1	2	3
11. Yorktown Formation	Primary	0	1	2	3
C. Biology (Subtotal =)					
12. Macroinvertebrates	Primary	0	1	2	3
13. Gilled amphibians	Secondary	0	0.5	1	1.5
14. Fish	Secondary	0	0.5	1	1.5
* This metric must be evaluated with consideration of upstream conditions, primarily check for presence of an upstream stormwater discharge into the reach					
Total Points					
Is the Stream Perennial? YES NO					
Reason:					
Additional Factors on which Determination is Based:					
Soil mottling					
Channel geometry, manmade modifications					
Offsite stormflow inputs					
Periphyton					
Grade control					
Primary Indicator is scored from 0 to 3 points, Secondary Indicator is scored from 0 to 1.5 points unless inverse relationship. If inverse relationship, Secondary Indicator is scored at 1.5 for absent down to 0 points for strong.					

** The form below is provided by DEQ as a courtesy. It is the VSWD's responsibility to use the most current version of this form from Fairfax County, Virginia

Fairfax Stream Datasheet

Site ID: _____	Total Score: _____
-----------------------	---------------------------

Date: _____

Recorder: _____

Time: _____

Evaluators: _____

Field Indicators:

I.) Streamflow and Hydrology	Absent	Weak	Moderate	Strong
1.) Presence or absence of flowing water and > 48 hrs since last rainfall	0	1	2	3
2.) Presence of high groundwater table or seeps and springs	0	1	2	3
3.) Leaf litter in streambed	1.5	1	0.5	0
4.) Drift lines	0	0.5	1	1.5
5.) Sediment on debris or plants	0	0.5	1	1.5

Total Streamflow and Hydrology Points: _____

II.) Geomorphology	Absent	Weak	Moderate	Strong
1.) Riffle-pool sequence	0	1	2	3
2.) Substrate Sorting (USDA texture in streambed)	0	1	2	3
3.) Natural Levees	0	1	2	3
4.) Sinuosity	0	1	2	3
5.) Active or Relic Floodplain	0	1	2	3
6.) Braided Channel	0	1	2	3
7.) Recent Alluvial Deposits	0	1	2	3
8.) Bankfull Bench present	0	1	2	3
9.) Continuous Bed and Bank	0	1	2	3
10.) 2nd order or greater channel present	Yes = 3		No = 0	

Total Geomorphology Points: _____

III.) Streambed Soils

1.) Redoximorphic features present in sides of channel or head cut.	Present = 0	Absent = 1.5
2.) Chroma	gleyed = 3 1 = 2	2 = 1 > 2 = 0

Total Streambed Soils Points: _____

IV.) Vegetation

	Absent	Weak	Moderate	Strong
1.) Rooted AQUATIC Plants in Streambed	0	1	2	3
2.) Presence of Periphyton/green algae	0	1	2	3
3.) Iron Oxidizing Bacteria/Fungus	0	0.5	1	1.5
4.) Wetland Plants in Streambed (Skip if no plants present in streambed)				
	SAV = 3	Mostly OBL = 1.5	Mostly FACW = 1	Mostly FAC = 0.5
	Mostly FACU, UPL, or None = 0			

Total Vegetation Points: _____

Comments:

Front Page Total _____ points

V.) Benthic Macroinvertebrates	Absent	Weak	Moderate	Strong
1.) Benthic Macroinvertebrates	0	0.5	1	1.5
2.) Bivalves	0	1	2	3
3.) EPT taxa	Present = 3			Absent = 0

Total Benthic Macroinvertebrates Points: _____

VI.) Vertebrates	Absent	Weak	Moderate	Strong
1.) Fish	0	0.5	1	1.5
2.) Amphibians	0	0.5	1	1.5

Total Vertebrates Points: _____

Total Score:

Benthics/Amphibians Found:

Weather
 Rain Gauge _____ Date of Last Rainfall _____ Rainfall Amount _____

Reach Description
 Upstream: TRB HCT GRC RCU POF SDO ARB RPA Other: _____
 Downstream: TRB HCT GRC RCU POF SDO ARB RPA Other: _____

Comments:

Storm Network Connections and Watershed Observations

Riparian Buffers Width						Riparian Buffer Comments
LB: Distance	>25 feet	26-50	51-75	76-100	100+	
Cover type:	Tree	Shrub	Herbaceous	Lawn	Other:	
Dominant Species:						
RB: Distance	>25 feet	26-50	51-75	76-100	100+	
Cover type:	Tree	Shrub	Herbaceous	Lawn	Other:	
Dominant Species:						

Other Observations and Comments:

Is the reach perennial? YES NO

Photo #	Direction (US, DS, LB, RB)	Notes

Appendix IV
Final Delineation Report Checklist

**** DEQ will consider your submission incomplete if the final delineation report, including the delineation map(s), does not include all the required information listed in this document. This checklist below is provided by DEQ to assist the VSWD with preparing a complete SSWD request. Note: the VSWD signed certification statement on page 15 of this document is required to be submitted with the delineation package.**

DELINEATION REPORT CHECKLIST**

Additional information and descriptions are depicted below in parentheses and normal text.
Examples of explanatory text are depicted below in [brackets] and *italics*.

Has a previous delineation or Jurisdictional Delineation (JD) been performed? If so, please provide USACE Project Number

Address of property (Include review area and directions (road names, cross streets, nearest town, etc.). Coordinates of center of property or review area in degrees, minutes, and seconds (i.e., 01°01'01"). Linear projects should also include degrees, minutes, and seconds location of the start and end of the review/project area. If there is a 911 address for the site(s), also provide this information.)

Size of the property (acres)

Provide the following information from DEQ's Wetland Condition Assessment Tool (WetCAT) (Soils on the property; impaired waters, if any; any permits associated with the site, list date data collected from WetCAT} WetCAT can be found at: <https://www.deq.virginia.gov/our-programs/water/wetlands-streams/wetcat>.)

Name of Impacted Waterbodies/ Nearest Waterbody(ies) (example given)

{XXXXXXXX Bay a (Tidal or Nontidal system) lies approximately 1,500 feet southeast of the subject parcel.

Man-made canal off XXXXXXXXX lies approximately 525 feet southeast of the subject parcel}

Water bodies onsite identified as Section 10 {XXXXXXXXXXXXXXXXX}

Delineation Methods (U.S. Army Corps of Engineers 1987 Wetland Delineation Manual in conjunction with (What is the date, name, and version of the Regional Supplement used for this delineation? What is the date, name, and version of the plant list used for this delineation?)

Wetland and Stream Data Sheets *{Data forms of both upland and wetland data points for each wetland type} {Stream data points both within the stream channel and upstream of the head of the stream channel} Wetland Delineation Datasheets and supplemental information can be found at: <https://www.nao.usace.army.mil/Missions/Regulatory/Commonly-Used-Forms/>. Individuals are required to use the appropriate delineation regional supplement that corresponds to the location of their project site.*

On-Site Determination Date *{Wetland and stream boundary delineation and site data collection conducted on XXXXXXXXXX.}*

Wetland and Stream Delineation Plan *{The proposed wetland and stream boundaries and Data Sampling Point locations are depicted on the plan entitled "XXXXXXXXXX" prepared by XXXXXXXXXX on XDateX.}*

Wetland Determination Results (Examples given below. This is a summary of totals, please also provide a table with each individual water, Cowardin classification, and area (in applicable units) shown. See table at end of questionnaire.)

Wetlands *{A total of approximately 0.172 acres of non-tidal wetlands were identified within the 0.241 acre parcel during this determination. Of the total proposed wetland area, approximately 0.115 acres are palustrine forested (PFO) wetlands, and 0.057 acres are palustrine emergent (PEM) wetlands (Phragmites stand in the southeast corner of the property). These wetlands, described by Data Sampling Point 1 provided in Appendix C, have a surface water connection to a man-made canal and XXXXX Bay to the south via a drainage ditch and culvert under XXXXX Road.}*

Streams *{Approximately XX linear feet of the subject parcel were classified as stream channels with a bed and bank and the presence of an ordinary high-water mark. Include Unified Stream Methodology classification for each stream channel.}*

Other Waters *{To be used for open waters/Ditches/etc. Include area/linear feet and Cowardin classification (i.e., emergent, scrub-shrub, or forested) or similar terminology for each waters.}*

Discussion of Chesapeake Bay Preservation Act (Bay Act) Determination on Site, if applicable

Discussion of Hydrology, plant communities, and habitat types on Site (Include Flow Regime Determination Datasheets, if applicable)

100-Year Floodplains *{As depicted on the Federal Emergency Management Agency's (FEMA) on-line Flood Insurance Rate Map # XXXXXXXX, effective date XXXXXX the subject property lies within the 100-year floodplain (Zone AE, Base Flood Elevation 5 Feet)}*

USDA Soil Survey *{The on-line USDA Natural Resource Conservation Service Soil Survey (Figure 7, Appendix A) identifies poorly drained Nimmo sandy loam (NmA) the northern portion of the subject property (approximately 80% of the site), and well drained Udorthents and Udipsamments (UpD) in the southern portion. The Nimmo series is found on the Virginia Hydric Soils List.}*

Uplands *{Example: 0.069 acres of the subject parcel were classified as uplands, as described by Data Sampling Point 2 provided in Appendix C. Representative site photos are provided in Appendix D.}*

Photographs (Should be representative of the site and may include pictures of the wetlands, soils, tributaries, on the site. Photographs will help in determining the need for a site visit.)

Notes (Note normal circumstances, or anything needed to be explained (site is ditched, farmed, etc.) to support your findings.)

Waters Table example:

Polygon or Unique Wetland/ Water ID	Latitude	Longitude	Cowardin Class	Stream (Linear Feet)	Area (Acres)	Class of aquatic resource (Tidal/Non-tidal, Section 10/404, etc.)

GIS Shapefiles (Must be provided in acceptable file types XXXX.)

Appendix V
Final Delineation Map Checklist

**** DEQ will consider your submission incomplete if the Final Delineation Report, including the delineation map(s), does not include all the required information listed in this document. This checklist below is provided by DEQ as a courtesy to assist the VSWD with preparing a complete SSWD Request.**

DELINEATION MAP REQUIREMENT CHECKLIST**

General Plan Information
Vicinity map (should include the nearest intersection of two state highways or other identifiable reference points. (USGS 7.5 Minute Series quadrangle map and/or street atlas is preferred.)
Map of the property boundary surveyed to property line
Scale of map needs to be 1 inch = 400 ft or less (converted into SI units)
North arrow
Plan legend
Plan scale
Plan sheet index
Aerial photographs (and Infrared maps if necessary). All maps and aerial photos need to have approximate location of property boundary.
Signature, date, and certificate number of the VSWD
Site Information
All delineated state surface water boundaries on site (see document narrative and checklist above for specific information)
Cowardin classification of all surface waters (i.e., emergent, scrub-shrub, forested)
Data point locations surveyed on map
Existing streams, ponds, ditches, wetlands & other water bodies
Representative photographs with latitude/longitude on each and location of photographs on a map
Ebb and flood or direction of flow (if applicable)
Ordinary High-Water mark in non-tidal areas
Tidal wetlands boundary (if applicable)
Mean low water and mean high water lines in tidal areas (if applicable)
Existing property boundaries
Existing topography (existing contours equal to 2 foot or less)
Existing karst features, if any
Existing acid-forming soils, if any
Existing 100-year FEMA floodplain
Resource Protection Areas (RPAs), if any, based on field conditions
Existing Improvements (including, buildings, roads, parking & utilities)
Existing vegetative areas (including, forest cover, open space)
Existing easements (including, Deed Book/Page ref. or Instrument #)
Pre-development drainage areas (including, acreage, divides and flow paths)
Soils map (available on WetCAT at https://www.deq.virginia.gov/our-programs/water/wetlands-streams/wetcat)

Appendix VI
State Surface Waters Determination (SSWD) Request Form
and
Property Access Agreement

DEQ State Surface Water(s) Determination (SSWD) Request FORM

This form is for requesting a determination of the absence or presence of surface water(s) under Virginia jurisdiction on the subject property (§ 62.1-44.3 of the Code of Virginia and 9VAC25-210-10 *et seq.*). Please supply the following information and supporting documents described below. Submitting this request authorizes DEQ to field inspect the property site, if necessary, to conduct a State Surface Water Determination. Please note that all property owners' signatures are required on the Virginia Water Protection Permit Program Property-Access Agreement located at the end of this document.

Key points to be aware of:

1. Activities that discharge fill to, dredge, drain or otherwise cause significant alteration or degradation of state surface waters, including wetlands, on this site may require a VWP Permit. You may also be required to obtain other federal, state, and/or local authorizations from a [United States Army Corps of Engineers](#) (USACE) District Office, the [Virginia Marine Resource Commission](#) (VMRC), and/or a [local wetlands board](#).
2. The U.S. Army Corps of Engineers (USACE) regulatory program *may or may not accept* DEQ's State Surface Water Determination as determinative for their jurisdictional purposes. DEQ recommends coordination with a USACE representative on federal jurisdictional issues.
3. This state surface waters determination is valid for 5 years from the date of issuance in absence of a permit decision, or when a permit decision applies, the determination is valid for the life of the VWP general permit coverage or individual permit, unless new information or changes to the project occur that warrant revision of the determination before the expiration date.

Property Location and Information:

Provide the physical street address, nearest street, or nearest route number; city or county; zip code; and if applicable, parcel number of the site or sites.

Contact Information:

Property Owner Legal Name:

Mailing Address:

City: State: Zip:

Telephone:

E-mail Address:

Date of Request:

If the person requesting the Jurisdictional Determination is **NOT** the Property Owner, please also supply the Requestor's contact information here:

Requestor Name:

Mailing Address:

City: State: Zip:

Daytime Telephone:

E-mail Address:

Date of Request:

If different from the Requestor, please supply the Agent's contact information here:

Agent Name:

Mailing Address:

City: State: Zip:

Daytime Telephone:

E-mail Address:

Site Information: (Check all that are included)

Property Location Map

U.S. Geological Survey map(s)

Delineation map including wetlands, open waters, and stream channels. The map must clearly show the subject property limits and identify the location of wetland data points and stream observation points. The table of state surface waters, including Cowardin classification, and quantification as recommended in the associated excel spreadsheet shall be depicted on the map sheets. Unless specifically approved by DEQ, this information is required.

Previous mapping and supporting information. If the U.S. Army Corps of Engineers has verified the map and report, provide a copy of the Corps verification letter.

Wetland Determination Data Sheets and supporting photographs

Stream assessment forms and supporting photographs (*Ex.: NC Stream Assessment Method, Fairfax stream assessment methodology, VA Ephemeral Stream Indicator Form*)

USGS 8 and 12 digit HUC maps

USGS National Hydrography Dataset

Natural Resources Conservation Service Soil Survey Information

National Wetlands Inventory mapping

FEMA/FIRM maps

Aerial Photographs

Other Photographs

Other Information: (*Ex: Copy of the property plat, Google Earth.kmz file with subject property limits, ArcGIS Shape files if available*)

Information related to potential exclusions from permitting as necessary

Waters Table:

[Add more rows as needed]

Polygon or Unique Wetland/ Water ID	Latitude	Longitude	Cowardin Class	Stream (Linear Feet)	Area (Acres)	Class of aquatic resource (Tidal/Non-tidal, Section 10/404, etc.)

Agent Certification

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate 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 hereby certify that this SWD Request identifies all wetlands, open waters, stream channels, or other surface waters on the subject property:

Authorized Signature: _____

Print Name: _____

VA PWD#: _____ **Phone:** _____

Date: _____ **Email:** _____

Property Access Agreement

[PROPERTY OWNER NAME] (“Owner”) who owns the property located at [ADDRESS and/or DEED BOOK INFORMATION and/or TAX PARCEL #] (“Property”) hereby authorizes the Department of Environmental Quality, its employees, agents, and contractors (“Authorized Parties”) the right and privilege to enter on the Property for the purpose of performing a surface waters determination from [DATE TO DATE].

Access to the Property will be conducted in the following manner:

1. The Authorized Parties will notify the Owner in writing at least 48 hours before entering the Property, except during an emergency. Access is limited to regular business hours (Monday through Friday from 8:00 a.m. to 5:00 p.m.) unless an emergency requires an immediate response.
2. In exercising its access privileges, the Authorized Parties will take reasonable steps not to interfere with the Owner’s use of the Property.
3. Owner ensures that the Authorized Parties will be granted access to the Property for the purposes set forth in this Agreement and will not interfere with the installation, maintenance, operation, or removal of equipment.
4. Upon termination of this property access agreement, all materials and equipment owned by the Authorized Parties shall be removed from the Property and the Property will be restored as reasonably as possible, to the condition it was in at the time this agreement was executed.
5. The Authorized Parties hereby indemnify and hold Owner harmless from any and all claims or causes of action arising out of or related to the acts or omissions of the Authorized Parties in connection with the performance of activities under this Agreement, except to the extent that any injury is caused due to the acts or omissions of Owner, any lessee of the Property, or any employee or agent of Owner.
6. The availability of any potential recovery against the Authorized Parties for claims asserting personal injuries or property damage arising out of this Agreement shall be determined in accordance with law. Nothing in this Agreement shall constitute a waiver of the sovereign immunity of the Commonwealth of Virginia.

The Owner understands that this is a voluntary agreement and the Authorized Parties acknowledge that this property access agreement does not constitute a grant of any permanent easement. The Owner reserves the right to revoke this agreement by sending written notice to DEQ at least 30 days in advance of the termination.

<u>Property Owner</u>
Print Name:
Sign Name:
Date:

Submit the completed form and supporting documents via email to the appropriate DEQ Regional Office listed below. A DEQ Project Manager will contact the Requestor to coordinate a State Surface Water Determination for the project area.

Northern Regional Office (703) 583-3800 13901 Crown Court Woodbridge, VA 22193

Counties: Arlington, Caroline, Culpeper, Fairfax, Fauquier, King George, Loudoun, Madison, Orange, Prince William, Rappahannock, Spotsylvania, Stafford, Louisa

Cities: Alexandria, Falls Church, Fairfax, Fredericksburg, Manassas, Manassas Park

vwp.nro@deq.virginia.gov

Piedmont Regional Office (804) 527-5020 4949-A Cox Road Glen Allen, VA 23060

Counties: Amelia, Brunswick, Buckingham, Charles City, Chesterfield, Cumberland, Dinwiddie, Essex, Gloucester, Goochland, Greensville, Hanover, Henrico, King and Queen, King William, Lancaster, Mathews, Mecklenburg, Middlesex, New Kent, Northumberland, Nottoway, Powhatan, Prince Edward, Prince George, Richmond, Surry, Sussex, Westmoreland

Cities: Colonial Heights, Emporia, Hopewell, Petersburg, Richmond

pro.vwpcompliance@deq.virginia.gov

Blue Ridge Regional Office - Salem (540) 562-6700 901 Russell Drive, Salem, VA 24153

Counties: Alleghany, Amherst, Appomattox, Bedford, Botetourt, Campbell, Charlotte, Craig, Floyd, Franklin, Giles, Halifax, Henry, Montgomery, Patrick, Pittsylvania, Pulaski, Roanoke

Cities: Bedford, Clifton Forge, Covington, Danville, Lynchburg, Martinsville, Radford, Roanoke, Salem

shawn.crist@deq.virginia.gov

Southwest Regional Office (276) 676-4800, 355 Deadmore Street, Abingdon, VA 24210

Counties: Bland, Buchanan, Carroll, Dickenson, Grayson, Lee, Russell, Scott, Smyth, Tazewell, Washington, Wise, Wythe

Cities: Bristol, Galax, Norton

david.nishida@deq.virginia.gov

Tidewater Regional Office (757) 518-2000, 5636 Southern Blvd, Virginia Beach, VA 23462

Counties: Accomack, Isle of Wight, James City, Northampton, Southampton, York

Cities: Chesapeake, Franklin, Hampton, Newport News, Norfolk, Portsmouth, Poquoson, Suffolk, Virginia Beach, Williamsburg

vwp.tro@deq.virginia.gov

Valley Regional Office (540) 574-7800, 4411 Early Road, Harrisonburg, VA 22801

Counties: Albemarle, Augusta, Bath, Clarke, Fluvanna, Frederick, Greene, Highland, Nelson, Page, Rockbridge, Rockingham, Shenandoah, Warren

Cities: Buena Vista, Charlottesville, Harrisonburg, Lexington, Staunton, Waynesboro, Winchester

vro.vwp@deq.virginia.gov

GLOSSARY

See 9VAC25-210-10 for all VWP definitions

(<https://law.lis.virginia.gov/admincode/title9/agency25/chapter210/section10/>)

"Cowardin classification" or "Cowardin classification method," unless otherwise specified in this chapter, means the waters classification system in Classification of Wetlands and Deepwater Habitats of the United States (Cowardin, Lewis M. II, et al., U.S. Fish and Wildlife Service, December 1979, Reprinted 1992).

"Hydrologic regime" means the entire state of water movement in a given area. It is a function of the climate and includes the phenomena by which water first occurs as atmospheric water vapor, passes into a liquid or solid form, falls as precipitation, moves along or into the ground surface, and returns to the atmosphere as vapor by means of evaporation and transpiration.

"Impacts" means results caused by those activities specified in § [62.1-44.15:20](#) A of the Code of Virginia.

"Impairment" means the damage, loss, or degradation of the acreage or functions of wetlands or the functions of state waters.

"Joint Permit Application" or "JPA" means an application form that is used to apply for permits from the Norfolk District Army Corps of Engineers, the Virginia Marine Resources Commission, the Virginia Department of Environmental Quality, and local wetland boards for work in waters of the United States and in surface waters of Virginia.

"Nontidal wetland" means those wetlands other than tidal wetlands that are inundated or saturated by surface water or groundwater at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions, as defined by the U.S. Environmental Protection Agency pursuant to § 404 of the federal Clean Water Act in 40 CFR 230.3(t). Wetlands generally include swamps, marshes, bogs, and similar areas.

"Open water" means an area that, during a year with normal patterns of precipitation, has standing water for sufficient duration to establish an ordinary high-water mark. The term "open water" includes lakes and ponds but does not include ephemeral waters, stream beds, or wetlands.

"Ordinary high water" or "ordinary high-water mark" means that line on the shore established by the fluctuations of water and indicated by physical characteristics such as a clear, natural line impressed on the bank; shelving; changes in the character of soil; destruction of terrestrial vegetation; the presence of litter and debris; or other appropriate means that consider the characteristics of the surrounding areas.

"Perennial stream" means a well-defined channel that contains water year-round during a year of normal rainfall. Generally, the water table is located above the stream bed for most of the year and groundwater is the primary source for stream flow. A perennial stream exhibits the typical biological, hydrological, and physical characteristics commonly associated with the continuous conveyance of water.

"Scrub-shrub wetland" means a class of wetlands dominated by woody vegetation, excluding woody vines, approximately three to 20 feet (one to six meters) tall. The species include true shrubs, young trees, and trees or shrubs that are small or stunted because of environmental conditions.

"Significant alteration or degradation of existing wetland acreage or function" means human-induced activities that cause either a diminution of the areal extent of the existing wetland or cause a change in wetland community type resulting in the loss or more than minimal degradation of its existing ecological functions.

"State waters" means all water, on the surface and under the ground, wholly or partially within or bordering the Commonwealth or within its jurisdiction, including wetlands.

"Stream bed" or "stream channel" means the substrate of a stream, as measured between the ordinary high-water mark along each side of a stream. The substrate may consist of organic matter, bedrock, or inorganic particles that range in size from clay to boulders, or a combination of both. Areas contiguous to the stream bed, but outside of the ordinary high-water mark along each side of a stream, are not considered part of the stream bed.

"Surface water" means all state waters that are not groundwater as groundwater is defined in § [62.1-255](#) of the Code of Virginia.

"Tidal wetland" means vegetated and non-vegetated wetlands as defined in § [28.2-1300](#) of the Code of Virginia.

"VWP permit" means an individual permit issued by the department or a general permit issued as a regulation adopted by the board under § [62.1-44.15:20](#) of the Code of Virginia that authorizes activities otherwise unlawful under § [62.1-44.5](#) of the Code of Virginia or otherwise serves as the Commonwealth of Virginia's § 401 certification. For any applicant to the Federal Energy Regulatory Commission for a certificate of public convenience and necessity pursuant to § 7c of the federal Natural Gas Act (15 USC § 717f(c)) to construct any natural gas transmission pipeline greater than 36 inches inside diameter, issuance of an individual VWP permit pursuant to this chapter and a certification issued pursuant to Article 2.6 (§ [62.1-44.15:80](#) et seq.) of the State Water Control Law shall together constitute the certification required under § 401 of the federal Clean Water Act.

"Wetlands" means those areas that are inundated or saturated by surface water or groundwater at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions. Wetlands generally include swamps, marshes, bogs, and similar areas.

9VAC25-210-45. Surface waters delineations.

A. Wetlands. Each wetland delineation, including those for isolated wetlands, shall be conducted in accordance with the U.S. Army Corps of Engineers (USACE) "Wetland Delineation Manual, Technical Report Y-87-1, January 1987, Final Report" (Federal Manual) and any regional wetland supplements approved for use by USACE. These Federal Manuals shall be interpreted in a manner consistent with USACE guidance and the requirements of this chapter, and any delineation guidance adopted by the department as necessary to ensure consistency with the USACE implementation of delineation practices. USACE regulatory guidance letters or Department of Environmental Quality policy or guidance may be used to supplement preparation of wetlands delineations.

B. Other surface waters. Delineations for surface waters other than wetlands may be conducted in accordance with USACE or DEQ policy or USACE or DEQ guidance and shall take into consideration the location of an ordinary high-water mark, if present.

ACKNOWLEDGEMENTS

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