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See DISCLAIMER in INTRODUCTION.

# CHAPTER 3: JOINT PERMIT APPLICATION REVIEW

## 3.1 Typical Application Processes

The sections below apply to typical applications for impacts to surface waters. However, special procedures apply to certain types of projects, such as Virginia Department of Transportation (VDOT) projects, surface water withdrawal and supply projects, solid waste facilities (i.e., landfills), and certain natural gas pipeline projects (see Chapter 3 Appendix A for additional information, or for surface water withdrawals, contact the DEQ Water Withdrawal Permitting Program). Also, situational guidelines for permit decisions will be developed as needed to address events that affect DEQ’s existing processes – these are located in Chapter 3 Appendix C, as applicable.

*‘Days’ mean calendar days unless otherwise specified*. Days required by regulation or by statute are counted beginning with the day after the item is received or a specific action is required. Normal business hours are 8:00 AM to 5:00 PM Eastern Standard Time (EST), Monday through Friday, excluding holidays. DEQ staff alternative work schedules do not affect timelines.

Example 1: A DEQ staff person receives an application and permit application number from VMRC on Wednesday at 4:00 pm… the receipt date of the application for DEQ purposes is Wednesday, and Day 1 of the review period is Thursday.

Example 2: Virginia Marine Resources Commission (VMRC) sends a permit application number to a DEQ regional staff person at 6:00 pm on a Friday…outside of normal business hours. In this case, the receipt date of the application for DEQ purposes is the following Monday, provided that Monday is not a holiday or that the office is not officially closed. Day 1 is Tuesday for review purposes.

Example 3: An application was received by VMRC on Wednesday, but VMRC does not or cannot forward the application or a permit application number to DEQ that same day…in this case, the receipt date for DEQ purposes is the next *business day* on which DEQ receives the permit application number from VMRC.

Example 4: DEQ needs to coordinate an application with another agency. DEQ initiates contact with the agency on Wednesday…Day 1 of the coordination period is Thursday.

### 3.1.1 Application Forms

DEQ, the U.S. Army Corps of Engineers (USACE), VMRC, and local wetland boards participate in a Joint Permit Application (JPA, or application) receipt and review process. Two JPA forms are available for public use from the [USACE website](http://www.nao.usace.army.mil/Missions/Regulatory/JPA.aspx): the *Standard JPA* is used for the majority of projects incurring impacts to surface waters in Virginia; and the *Tidewater JPA* for certain types of projects incurring impacts to tidal surface waters. Detailed instructions on how to apply are included with each form. Hard copies can be obtained from the [VMRC](mailto:VMRC), Habitat Management Division at (757) 247-2200 or web.info@mrc.virginia.gov.

With the exception of VDOT-sponsored projects, the original application and all supporting materials must be submitted to VMRC who acts as the single point of receipt for processing and distribution among the agencies, including internally at VMRC. After the original application is submitted, each agency may request additional information from the applicant. VMRC will assign a permit application number to track each application and will provide that number to the applicant and the agencies. The original permit application number as assigned by VMRC is typically in the format YYYY#### (four-digit sequential number that repeats each year), for example *20181234*. This format is used when searching for application documents on the [VMRC website](https://webapps.mrc.virginia.gov/public/habitat/). However, a different permit application number format may be used by an agency once received. For example, DEQ incorporates the number into its own database tracking system by changing the format to YY-#### (four-digit sequential number provided by VMRC), and by adding a prefix to indicate when a Virginia Water Protection (VWP) general permit coverage applies, for example *18-1234* or *WP4-18-1234*.

### 3.1.2 Application Receipt

Regardless of how the application is received, the application is considered received for tracking purposes in CEDS (APRD) on the date the appropriate DEQ office *receives the VMRC* ***permit application number*** (see Example 2 above). In most cases, the application will be received by VMRC, a permit application number will be assigned by VMRC, and DEQ staff will receive the application and permit application number on the same day, typically via VITAShare or email.

If DEQ staff receives the permit application number, but not the actual application, please follow up with VMRC, the applicant, or the applicant’s agent as soon as possible. If DEQ staff receives a courtesy copy of an application, not directly from VMRC, DEQ’s **15-day review period does not begin until DEQ receives the permit application number from VMRC.** The JPA form instructions specifically direct applicants to submit all materials to VMRC for processing.

If staff receives a JPA from the applicant and does not receive the JPA number from VMRC within two business days, staff should reach out to the applicant and/or VMRC.

### 3.1.3 Completeness Review of Application

The VWP Permit Program regulation lists specific information necessary to apply for each type of VWP permit as listed below. In 2023, complete application checklists were developed to aid applicants in providing required information and to aid in application review by DEQ staff (on DEQ’s web site <https://www.deq.virginia.gov/permits/water/wetlands-streams-vwp>):

* WP1: [9VAC25-660-50](https://law.lis.virginia.gov/admincode/title9/agency25/chapter660/section50/), [9VAC25-660-60](https://law.lis.virginia.gov/admincode/title9/agency25/chapter660/section60/)
* WP2: [9VAC25-670-50](https://law.lis.virginia.gov/admincode/title9/agency25/chapter670/section50/), [9VAC25-670-60](https://law.lis.virginia.gov/admincode/title9/agency25/chapter670/section60/)
* WP3: [9VAC25-680-50](https://law.lis.virginia.gov/admincode/title9/agency25/chapter680/section50/), [9VAC25-680-60](https://law.lis.virginia.gov/admincode/title9/agency25/chapter680/section60/)
* WP4: [9VAC25-690-50](https://law.lis.virginia.gov/admincode/title9/agency25/chapter690/section50/), [9VAC25-690-60](https://law.lis.virginia.gov/admincode/title9/agency25/chapter690/section60/)
* Individual Permits: [9VAC25-210-80](https://law.lis.virginia.gov/admincode/title9/agency25/chapter210/section80/) (See Appendix A.3 for surface water withdrawal/diversion information)

The items listed are what constitute a complete application. The Standard JPA is the most common form used to apply for a VWP general permit coverage or individual permit and is shared by multiple agencies for multiple types of projects. As a result, the JPA lists informational requirements that are not required by the VWP Permit Program regulation per se and/or may not be required for a specific type of project. Staff must consider what is required by the regulation and what applies to a specific project when reviewing the application for completeness. In addition, the necessary information may not fit in the space provided in the JPA, and the applicant may choose to attach supplemental pages, tables, maps, plans or narrative information. DEQ may request other additional pertinent information necessary for a complete application, to make a permit decision, and/or issue a legal permit per regulation and Law.

***Special Note:*** For large or complex economic development project applications, the following topics are of key importance in moving an application forward, and staff should carefully consider the information provided on these topics before developing any necessary additional information request. Without these key topics adequately addressed in the application materials, there is little need to spend time reviewing in depth the other components for a complete application. See Section 3.5 of this chapter; Section 5.4 in Chapter 5 (VWP Individual Permits); and [*VWP Permitting Series* webinar nos. 4 through 6](https://www.deq.virginia.gov/our-programs/water/wetlands-streams) for more information on these topics.

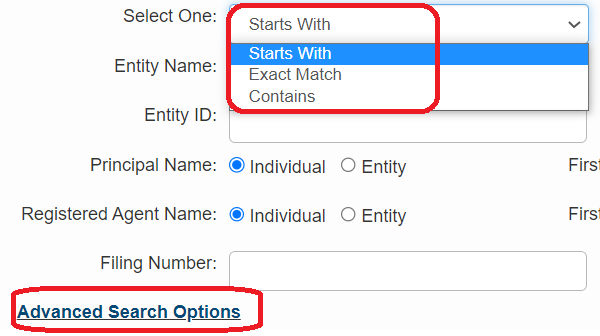
1. Purpose and Need – check for speculative projects;
2. Alternatives – check that on-site and/or off-site options are vetted, as required by the permit type; and
3. Avoidance and Minimization – check that obvious measures haven’t been overlooked.

Also, Section 50.A of each VWP general permit regulation lists the informational requirements that pertain to applications where the project has *permanent* impacts above and below certain limits. For notification pursuant to Section 50.A, temporary impacts are not factored in. When below, program staff commonly refer to the potential outcome as a reporting-only general permit coverage or a less-than-one-tenth coverage. Projects having permanent impacts below the limits are typically not required to submit detailed plan and cross-sectional view drawings; materials management plans; functional assessments; compensatory mitigation plans; and permit fees. One exception may be when the impacts are located on deed-restricted land.

#### 3.1.3.1 Legal Name

The regulation requires that an application include the *legal name* of the *applicant (person)* ([9VAC25-210-10](https://law.lis.virginia.gov/admincode/title9/agency25/chapter210/section10/)). **A VWP individual permit or general permit coverage, if issued, must be issued to a person – the legal entity.** However, the legal entity may not be required to be registered with the Virginia State Corporation Commission (SCC). Furthermore, denial of a VWP permit or coverage, based solely on the lack of having registered with the Virginia SCC, is not supported by the State Water Control Law or program regulations. Staff may suggest to an applicant who is not registered with the Virginia SCC that this may affect the applicant’s ability to conduct business in Virginia, per Virginia SCC rules and regulations. VWP permit staff may contact their regional or central office enforcement representative for assistance in verifying a person or name.

VWP permit staff should first check the [Clerk’s Information System](https://cis.scc.virginia.gov/EntitySearch/Index) (CIS) on the Virginia State Corporation Commission’s web site in order to verify the legal name and address of a corporate applicant. Any of the following situations listed below may apply to an applicant and are acceptable for confirming that an applicant is a person and has provided a legal name for a proposed project on the JPA form(s). When using the [Clerk’s Information System (CIS)](https://cis.scc.virginia.gov/) to check that the Legal name of an applicant, be sure to try more than one search method as shown below:



* The name provided is not an entity that is required to be registered with the Virginia SCC. Churches, certain airport or economic development authorities, government agencies, and certain other entities are not required to register. <https://www.scc.virginia.gov/pages/Commission-Authority>
* The name provided is not registered with the Virginia SCC but may be registered with another state agency having authority over business and/or economic interests.
* The name provided is shown on the VA SCC CIS system as a registered business with the exact spelling and punctuation and has an Active status.
* The name provided is shown on the VA SCC CIS system as a registered business with a slightly different spelling or punctuation but displays an Active status.

Also, a “fictitious name” is generally acceptable provided that the status is not Inactive. If the status is Inactive for a fictitious name, users should confirm with the applicant regarding their Virginia business status – they may be registered in another state and meet the criteria above regardless of the VA SCC CIS status.

Examples:

* 1-SHIELD DENTAL CARE (FARIFAX CO) (fictitious) and 2-SHIELD DENTAL CARE PLLC (legal) - both at same address, both Active: Both are legal entities. Using SHIELD DENTAL CARE is likely adequate for CEDS and PEEP data entry.
* 1-AIR PERFECTION INC. (legal) and 2-Air Perfection LLC (legal), at different addresses - both Active: Both are legal entities. Use the version with the corresponding address from the JPA, verifying with applicant if necessary.
* 1-STANLEY MARTIN COMPANIES, INC. (legal), 2-STANLEY MARTIN COMPANIES, LLC (legal), 3-stanley martin companies llc (fictitious) – 1 and 2 at same address, 3 has no address, 1 is shown as Inactive, 2 and 3 are shown as Active: Do not use 1 for permitting purposes. Using 2 is likely better than 3, but either is acceptable. Verify information in JPA with the applicant if necessary. When using 2 or 3, enter the name into CEDS just like it is shown by SCC (see CEDS Core User Procedures 8-31-2021).

To extent possible, do not duplicate entity or person names as Contacts in CEDS Core or VWP permit modules (Contacts tab). For example, if an existing Contact is shown as Stanley Martin Companies, LLC in CEDS, but the JPA provides Stanley Martin Companies LLC, do not create an additional contact simply because there is no comma in the JPA version. If in doubt, contact a CEDS Core regional lead or a Water Division Business Analyst for assistance.

#### 3.1.3.2 Mitigation Planning

When considering options for providing any required compensatory mitigation under a watershed approach[[1]](#footnote-2), DEQ uses a preferred order of options, as outlined in 9VAC25-210-116.C.2 and -.3 and further detailed in Table 3 of this chapter.

If permittee-responsible mitigation is proposed in an application, access to the mitigation site is one of many informational items that must be provided for a complete application, per [9VAC25-210-80](https://law.lis.virginia.gov/admincode/title9/agency25/chapter210/section80/).B.1.m(3)(a). While general site access is not listed as an item required for a complete application, it is a very important component to any proposed project review and is further addressed below in Section 3.1.6.

When applicants propose to use a bank or in-lieu fee credit purchase for mitigation, the compensatory mitigation plan should include a valid credit availability letter as a requirement for a complete application. In the case that no released mitigation credits are available for immediate sale on a permit specific basis, a signed contract for purchase of credits may be proposed, if all requirements in Section 3.7 are met. Information to be provided includes: the number and type of credits proposed to be purchased, documentation from the approved bank or in-lieu fee program sponsor of the availability of credits **at the time of application**, and all information required by § 62.2-44.15:23 of the Code of Virginia. Credits that are under contract or reserved at the time of application are not available credits, and letters received that state such should not be used to meet the complete application criteria.

To reduce the possibility of not having credits to purchase when they are needed, DEQ recommends that applicants or permittees purchase credits as soon as possible upon locating available and appropriate credits for compensatory mitigation purposes under the VWP Permit Program. If the permit staff is in doubt about the wording or information presented in a letter of credit availability or other mitigation credit information, contact a VWP-Central Office mitigation specialist for a case-by-case review.

#### 3.1.3.3 VDOT Applications

Note that applications submitted by VDOT may follow an Interagency Coordination Meeting (IACM Meeting) process to discuss and provide proposed project information to DEQ and other agencies in addition to submitting an application form.

#### 3.1.3.4 Time for Completeness Review

The VWP regulations and policies have mandatory timeframes[[2]](#footnote-3) for completing certain permitting tasks.

* **Within 15 days:** Review of an application should occur as soon as possible after receiving the permit application number and application, but staff must verify whether the application is complete within 15 days of receiving the permit application number and application[[3]](#footnote-4). If not complete, notify the applicant of the additional information necessary to complete the application. Although the 15-day clock does not start until the permit application number is received from VMRC, staff should always respond to the application as soon as possible. (§ [62.1-44.15:21](https://law.lis.virginia.gov/vacode/title62.1/chapter3.1/section62.1-44.15:21/).E and -F of the Code of Virginia, [9VAC25-690-60](https://law.lis.virginia.gov/admincode/title9/agency25/chapter690/section60/).D and -.E; [9VAC25-680-50](https://law.lis.virginia.gov/admincode/title9/agency25/chapter680/section50/).D and -.E; [9VAC25-670-60](https://law.lis.virginia.gov/admincode/title9/agency25/chapter670/section60/).D and -.E; [9VAC25-660-50](https://law.lis.virginia.gov/admincode/title9/agency25/chapter660/section50/).C and -.D; and [9VAC 25-210-80](https://law.lis.virginia.gov/admincode/title9/agency25/chapter210/section80/).D)
* **Within 14 days:** After receiving a permit application number and application, staff should initiate coordination with the appropriate resource agencies, unless the deficiencies of the application preclude coordination – see more on coordination in Section 3.2 below. Note: if an application is incomplete, and coordination is initiated but not completed, there is a chance that coordination will have to occur again, depending upon the nature of the incomplete application.

Staff must identify the date that the application is complete in order to identify permit decision deadlines in accordance with the statute and regulations. This date will typically correspond to one of the following, whichever occurs last: 1) the date the permit application fee was deposited by DEQ, when such a fee is required; 2) the receipt date of the last correspondence that is relevant to the complete application requirements, as per the regulation; or 3) the date of a documented telephone conversation or field visit that is relevant to the complete application requirements, as per the regulation. Staff should not delay conducting other application review steps, to the extent possible, while waiting on the receipt of a permit application fee. See Section 3.4 for more information on fees.

### 3.1.4 Information Requests

If information is required before an application may be deemed complete, DEQ staff must provide a written list to the agent and the applicant of all outstanding information required to complete the application and necessary to make a permitting decision. If the application is also requesting coverage under the SPGP, staff must request any additional information needed for that process in the initial request for information. Chapter 6 provides more details about the SPGP process, including the most recent SPGP Complete Application Checklist.

VWP permit staff may call or discuss verbally with the agent or applicant the information that has been requested, but it is critical that a written record of the request be provided, in order to document that DEQ met its 15-day review requirement. If Day 15 falls on a weekend or holiday, the information request must be sent on the last business day prior to Day 15. For example: an application is received on December 9th, and DEQ is closed on December 24th (Day 15)…the additional information request must be sent by the close of business on December 23rd.

The additional information request should:

* Be written in a manner consistent with the Additional Information Request template.
* Be addressed to the Applicant, copying the Agent, USACE, and VMRC.
* Clearly identify what information is required to complete the application, including calculation of any required permit fee.
* Clearly identify what information is required for staff to make a permit decision.
* Clearly identify what information is required to complete the SPGP application, if applicable.

Applications may include all of the information listed in the regulation, but still require additional information to make a permit decision. This information should be identified in the additional information request letter as not necessary to complete the application but necessary to make a permit decision. The template additional information letter provides a section for such requests. Staff should always discuss these situations with their supervisor.

After an application is complete, staff should issue general permit coverage or take the appropriate steps for denial of the application within 45 days; otherwise, the coverage is automatically granted (§ [62.1-44.15:21](https://law.lis.virginia.gov/vacode/title62.1/chapter3.1/section62.1-44.15:21/).F). For VWP individual permit applications, staff must issue an individual permit within 120 days of a complete application, or must take the appropriate steps to withdraw or suspend application processing or deny the application.

### 3.1.5 Incomplete Applications

#### 3.1.5.1 Pausing and Suspending Applications

When the additional information submitted does not include all information requested, the review clock does not recommence. For example: Half of the requested information is received by staff on Monday, and the other half of the requested information is received by staff on Wednesday (this would be the date entered into PEEP as information received)…Thursday is Day 1 of the 15-day review period by staff. Unless extenuating circumstances exist, subsequent reviews should not introduce new topics requiring additional information unless they are reasonably related to the original information request or new questions arise based on the information submitted or discovered.

DEQ’s application processing task is automatically paused when VWP staff send an additional information request letter in the sense that the PEEP display shifts responsibility to the applicant’s time clock. However, VWP staff may also give the applicant notice that it is suspending its application review process until the application becomes complete and any DEQ-requested information is provided (Additional Information Request Letter). This may be necessary for various reasons, such as not receiving an application fee in a timely manner. Additionally, an applicant may submit a written request to suspend the application technical review in cases where some issue needs to be resolved prior to DEQ finalizing its case decision, such as is commonly done when a threatened or endangered species field survey must be conducted but the window for such a study is outside the case decision timeline. Such situations stop the case decision time clock and restart it again upon submission of a revised application, or for example the survey results.

#### 3.1.5.2 Withdrawing Applications

If DEQ determines that a withdrawal of an application is warranted due to a failure by the applicant to provide required information within 60 days of the last DEQ request, it must follow the Administrative Process Act (APA) steps summarized in [9VAC25-210-80](https://law.lis.virginia.gov/admincode/title9/agency25/chapter210/section80/).D; [-660-60](https://law.lis.virginia.gov/admincode/title9/agency25/chapter660/section60/).D; [-670-60](https://law.lis.virginia.gov/admincode/title9/agency25/chapter670/section60/).E; [-680-60](https://law.lis.virginia.gov/admincode/title9/agency25/chapter680/section60/).E; or [-690-60](https://law.lis.virginia.gov/admincode/title9/agency25/chapter690/section60/).E (see also § [62.1-44.15:21](https://law.lis.virginia.gov/vacode/title62.1/chapter3.1/section62.1-44.15:21/)). VWP staff may need to apply discretion on the specific circumstances surrounding the incomplete application. An administrative withdrawal may not be necessary where applicants are continually working with staff to resolve outstanding informational requirements, such as submittal of a permit application fee, but may be necessary when applicants submit information in a piece-meal fashion.

The regulations state that a notice must be provided to the applicant explaining the reason(s) for withdrawing an application . VWP uses the Notice of *Pending* Administrative Application Withdrawal Letter, which also provides the applicant with an opportunity for an informal fact-finding proceeding per regulations. If, after 60 days, the requested information is *still not received* by DEQ, VWP staff should move forward with application withdrawal by sending the Notice of Application Administratively Withdrawn Letter to the applicant.

In in addition to DEQ taking the initiative, applicants may send a letter requesting a withdrawal of an application for any number of reasons, and DEQ may or may not approve the request.

Withdrawing an application requires the applicant to start over again with a new application and any required application fee if the proposed activities are pursued at some later time. Documents related to applications that are withdrawn by DEQ should be uploaded to ECM under the 009550 file series (“VWP Individual and General Permits”).

### 3.1.6 Site Ownership and Access

The Virginia Water Protection (VWP) Permit Program Property-Access Agreement-Standard should be completed for all projects (see Chapter 3 Templates subfolder). There is a different version of this agreement for use with State Surface Water Determinations.

A property owner may include: the landowner; the easement holder, as often occurs in residential development situations; the right-of-way holder, as often occurs on linear projects; or the controlling entity over the property, as often occurs in executed lease situations - hereafter ‘property owner’. The access agreement should be signed by the applicant and the property owner, or where the applicant and the property owner are not the same party(ies), both should sign. In order to ensure site access is available, staff must verify property ownership using local land records (or other ownership information submitted by the applicant). When in doubt about the person(s) signing the access agreement, staff may request documentation from the signer that demonstrates they have authority to act on the applicant’s or property owner’s behalf. A written contract may provide this documentation. When the project involves an applicant that is a lease holder or holds easements, VWP permit staff may accept the signed access form from these parties but also may request to view the lease or easement documents for information on access rights for DEQ staff. Receiving the signed access form regardless of these rights may be prudent in some circumstances.

The VWP Permit Program regulation does not require site ownership (hold title to the property) to obtain a VWP Permit, and the VWP Permit does not convey any real or personal property rights ([9VAC25-210-70](https://law.lis.virginia.gov/admincode/title9/agency25/chapter210/section70/).B). However, DEQ staff must be able to conduct inspections to ensure compliance with regulations and the permit coverage or permit, if issued. When an applicant applies for a permit, they have expressly signed a release in the Joint Permit Application and DEQ Property Access-Access Agreement allowing site access by DEQ staff (see Chapter 3 Templates subfolder). However, if the applicant or permittee is not the property owner, DEQ staff must obtain permission from the property owner to conduct the inspection prior to entering the site because DEQ and its staff do not have the right of trespass. DEQ staff should not accept through application, or rely upon, a property access permission document that is generated by another agency or locality and not DEQ.

Acquiring the VWP Property-Access Agreement may be challenging in cases where property acquisitions are not fully defined and/or right-of-way (ROW) negotiations have not begun. If the property owner will not grant site access permission, a VWP Permit cannot be issued because DEQ will be unable to verify compliance.

Further information regarding specific site access may be found in Chapter 7 or the [DEQ Enforcement Manual](https://www.deq.virginia.gov/home/showpublisheddocument/22405/638422031938000000). Contact DEQ’s Enforcement Program for assistance if uncertain about an access situation.

## 3.2 Agency Coordination

In addition to reviewing the application for completeness, the statute requires that DEQ *consider* comments from certain Virginia agencies and any other interested and affected agencies regarding the proposed project or permit (§ [62.1-44.15:20](https://law.lis.virginia.gov/vacode/title62.1/chapter3.1/section62.1-44.15:20/)). Coordination ensures consistency between federal and state permit actions, that fish and wildlife resources are protected, and, in the case of individual permits, that public water supplies will not be affected. However, coverage under a VWP general permit shall not be granted for activities that will impact federal or state listed threatened or endangered species or designated critical habitat or result in a taking of threatened or endangered species ([9VAC25-660-40](https://law.lis.virginia.gov/admincode/title9/agency25/chapter660/section40/).F.9; [-670-40](https://law.lis.virginia.gov/admincode/title9/agency25/chapter670/section40/).F.5; [-680-40](https://law.lis.virginia.gov/admincode/title9/agency25/chapter680/section40/).G.11; [- 690-40](https://law.lis.virginia.gov/admincode/title9/agency25/chapter690/section40/).G.12). DEQ states clearly in both the VWP general permit Coverage Letter and the VWP individual permit Special Conditions that the coverage or permit does not constitute, convey, or imply authority to any permittee to unlawfully or incidentally take any threatened or endangered species.

VWP staff may request comments via e-mail and provide the Joint Permit Application material (when necessary) through VITAShare. When staff expect that a VWP general permit coverage or individual permit decision is likely, use the Email template in Chapter 3 Templates subfolder to request comments from VMRC as soon as possible after making this determination, or on the date that the application is complete, whichever occurs first (DEQ-VMRC Memorandum of Agreement, Amended August 16, 2023). For VWP Permits sought by Virginia users of the *Potomac River*, the Maryland Department of Environment must be furnished copies of the applications and as an "interested and affected agency" must be consulted in the same manner as are Virginia agencies. Agency coordination requirements vary with the type of permit that the applicant requests, including coverage under the SPGP. Please also see Chapters 4, 5, and 6 for more specific agency coordination steps.

Per the Code of Virginia (§ [62.1-44.15:20](https://law.lis.virginia.gov/vacode/title62.1/chapter3.1/section62.1-44.15:20/).C), agencies may submit written comments on proposed permits within 45 days after comment request by DEQ. If written comments are not submitted by an agency within this time period, VWP permit staff may assume that the agency has no comments. After this 45-day period, VWP permit staff are not obligated to accept agency comments. If project boundaries or impact areas change, staff should contact applicable agencies to determine if re-coordination is necessary.

In accordance with the 2007 Memorandum of Understanding between VDEQ, Virginia Department of Conservation and Recreation (VDCR), and Virginia Department of Wildlife Resources (VDWR), staff will consider comments regarding migratory birds, natural area preserves, Stream Conservation Units (SCUs), stormwater or other issues outside of the direct impact areas. DEQ is not required, however, to incorporate these comments into the permit or permit coverage. In some cases, VWP permit staff may receive a recommendation from VDCR to coordinate directly with a federal agency about a specific species under the purview of VDWR. If coordination has already occurred with VDWR, then direct federal coordination may not be necessary, except in cases where the Northern Long-eared bat triggers are encountered – here, USFWS coordination may also be necessary (see December 2023 updates to NLEB coordination in the Chapter 3 References subfolder and/or the [VDWR website re: bats](https://dwr.virginia.gov/wildlife/bats/northern-long-eared-bat-application/). VDWR expects more updates to come in early 2024.). VDWR may or may not identify the species as a potential concern for the project being considered. Federal species coordination is conducted between federal agencies when there is a federal approval or authorization involved, such as an NWP verification or SPGP verification. It is best practice for VWP permit staff to share all recommendations with the applicant for general information purposes. A quick-reference tool for coordination with VDWR (*Virginia Fish and Wildlife Information Service (VaFWIS) Coordination Recommendations by Species Status*) is located in the “References JPA Review” subfolder of Chapter 3.

If the application indicates that a conversation occurred with a resource agency, but no documentation is provided, VWP staff should ask for clarification from the applicant. While VWP Permit Program regulations are vague on what information should be supplied as an “assessment” ([9VAC25-210-80](https://law.lis.virginia.gov/admincode/title9/agency25/chapter210/section80/).B.1.l), the information below has been identified by VDCR and VDWR as essential for a timely review of proposed projects:

1. VDWR/VDCR Natural Heritage Coordination Form (Note: projects submitted through [Natural Heritage Data Explorer](https://www.dcr.virginia.gov/natural-heritage/nhdeinfo), or NHDE (VDWR also prefers this method), may already include the information below, so it does not need to be provided again.)

2.  Project maps, including the project boundaries and site development plans if available.

3.  Description and maps of proposed impacts, preferably including impacts to vegetated/forested habitats.

4.  Description of the project site - photos, aerial imagery, identify surface waters on the site, including the ephemeral, intermittent or perennial classification of streams and how/if the streams are connected to downstream waters.

5.  Results of any Virginia Fish and Wildlife Information Service (VAFWIS)/NHDE searches (see Note in No. 1 regarding repetitive information submittal).

6.  Shapefile(s) (see Note in 1 regarding repetitive information submittal).

7.  *Results of any surveys or habitat assessments*, particularly if a VWP individual permit is being requested and/or reviewed.

8.  Any other details that may help resource agencies understand the project and what impacts it may have on threatened or endangered species and/or habitats.

Any information regarding threatened and endangered species, natural communities, caves, and significant historic and archaeological sites is excluded from the mandatory disclosure provisions of the Virginia Freedom of Information Act (FOIA), per Subdivision 10 of § [2.2-3705.7](https://law.lis.virginia.gov/vacodefull/title2.2/chapter37/) of the Code of Virginia. This exemption does not apply to information requests submitted by the owner of the land where the resource is located. Be sure to protect any information containing such sensitive information by watermarking documents and/or placing notifications in the subject line of emails, which state: FOIA Exempt Va. Code § 2.2-3705.7(10). Questions should be directed to the agency FOIA officer.

## 3.3 Identifying and Quantifying Impacts

In order to determine the type of permit that is appropriate for a project, the application must present the boundaries and quantity of impacts to all surface waters.

Refer to Appendix A.5 for information on how processing decisions may differ for single and complete projects.

### 3.3.1 Secondary Impacts

VWP permit staff should also review the application to identify any potential secondary impacts that may not be identified in the application. Secondary impacts result from activities both within and outside of jurisdictional boundaries that have adverse effects to the physical, chemical, or biological properties of on-site or downstream surface waters. Such impacts must be accounted for during the permit application process, unless measures are taken to avoid the impact, or the applicant agrees to long-term monitoring to ensure the potential impacts do not occur (which is not a preferable scenario). If secondary impacts appear likely, VWP permit staff should require that the applicant minimize the impacts to the maximum extent practicable and quantify and compensate for the impacts that will likely occur. The amount of these impacts should be considered when determining the appropriate type of permit to use, such as when evaluating impacts against the general permit thresholds and considering compensation requirements (e.g., a 2:1 ratio for use of BMPs in wetlands or streams). VWP permit staff must notify the applicant of this assessment in the initial request for information. Examples of potential secondary impacts include:

* Installation of ditches or stormwater conveyance systems that drain or alter the hydrology of a wetland or stream.
* Homeowner activities, such as mowing, clearing, planting, filling or placement of decks or playground equipment on surface waters remaining in lots.
* Homeowner Association activities in surface waters remaining within open space areas within a development (i.e., passive recreation; vegetation alteration, subsequent deeding over of portions to individual homeowners).
* Fragmentation of wetland or streams.
* Installation of steep slopes in areas with highly erodible soils.
* Filling, grading or other activities that occur immediately adjacent to surface water boundaries.
* Installation of fill or excavation resulting in angles that are extremely difficult to stabilize.
* Lack of or inadequate number or size of culverts to support downstream hydrology.

Each of the above potential secondary impacts are described further in Appendix A.

### 3.3.2 Mitigation Site Impacts

Impacts incurred from constructing or developing a permittee responsible mitigation (PRM) site should be incorporated with other project impacts and reflected in the VWP individual permit or general permit coverage and supporting documentation for the overall project. If the PRM site is part of a VWP individual permit, then impacts associated with the PRM site would trigger downstream riparian property owner notifications (see Chapter 5, Section 5.6). Compensatory mitigation for impacts related to PRM sites may be required. [Note: *This subsection is current as of Jan. 13, 2023. Revisions may follow*.]

### 3.3.3 Reviewing Specific Situations

Certain activities warrant special consideration based on the nature of the activity and associated impacts. The following situations are detailed in Appendix C:

* Stormwater Management Facilities
* Culverts
* Temporary impacts
* Boardwalk impacts
* Beaver dam removals
* Fences
* Herbicide and Pesticide Use within Surface Waters
* Mechanical Removal of Aquatic Plants
* Piles, Pylons, Piers, and Bridge Abutments
* Temporary Matting
* Manipulated Wetlands
* Nationwide Permits
* 45-Day VWP General Permit Coverage

### 3.3.4 Calculating Impacts

#### 3.3.4.1 How to Calculate Impacts

Each area of impact to wetlands and open water must be identified according to its Cowardin classification (i.e., emergent, scrub-shrub, or forested) or type and quantified in square feet to the nearest whole number. Individual stream impacts are (i) quantified by length in linear feet to the nearest whole number and by average width in feet to the nearest whole number; (ii) quantified in square feet to the nearest whole number; and (iii) when compensatory mitigation is required, the impacts identified according to the assessed type using the Unified Stream Methodology.

Impacts within jurisdictional ditches containing open water or vegetated wetlands are calculated in acres. Impacts within channelized streams or ditches containing streams are calculated in linear feet for compensation purposes; in square feet for DEQ permit application fee calculation purposes; and if applicable, in acres for purposes of DEQ staff providing SPGP verifications (see Chapter 6). Refer to Appendix A.5 for information on how processing decisions may differ for single and complete projects. Staff must verify all impacts using the plans provided by the applicant, if time allows, and review of other available documentation.

Finally, once all impacts have been accounted for, staff should verify that conversion of square feet to acreage has been completed correctly. Per [9VAC25-210-80](https://law.lis.virginia.gov/admincode/title9/agency25/chapter210/section80/).B.1.h: wetland impacts should be identified according to their Cowardin classification (i.e., emergent, scrub-shrub, or forested), and for each classification, the individual impacts quantified in square feet to the nearest whole number, cumulatively summed in square feet, and then the sum converted to acres and rounded to two decimal places using commonly accepted arithmetic principles of rounding. *These rounded values are to be used for the purposes of determining applicable permit application fees and any required compensatory mitigation.* The program recognizes that such math, for example, may result in impacts that technically exceed 0.10 acre (4,356 square feet) but still round down to 0.10 acre.

For example:

Table 1. Sample Impact Conversion and Rounding

| **Sample Impact Table** | | | |
| --- | --- | --- | --- |
|  | **PFO** | **PSS** | **PEM** |
| **Impact Area 1 (sq. ft.)** | 5,981 |  | 10,982 |
| **Impact Area 2 (sq. ft.)** | 4,378 | 23,478 |  |
| **Impact Area 3 (sq. ft.)** | 678 |  |  |
| **Impact Area 4 (sq. ft.)** | 2,977 |  |  |
| **Sum (sq. ft.)** | 14,600 | 23,860 | 10,982 |
| **Acreage** | 0.3352 | 0.5478 | 0.2521 |
| **Acreage Rounded** | 0.34 | 0.55 | 0.25 |
| **Total Acreage** | 1.14 acres | | |

#### 3.3.4.2 When Impacts Total Zero

In certain situations, a VWP individual permit or general permit coverage may not actually authorize any impacts. Here are some of the typical reasons that our database and permit records may not authorize impacts, but rather authorize the continuation of activities, etc.

* Certain surface water withdrawal projects involve the regulated removal or diversion of surface water but do not incur wetland, open water, or stream channel impacts. These projects also typical require reissuance of an individual permit to continue a withdrawal or diversion after the first individual permit expires, which may have had wetland or stream impacts.
* In some cases, an issued permit or coverage has authorized activities and impacts that occur, but then other requirements in the permit or coverage do not get completed before the permit or coverage expires. Examples include the completing of compensatory mitigation or a monitoring program or plan. DEQ may then issue a separate permit or coverage only for the outstanding activities – there could be no impacts left to take in these cases, and therefore, a zero-impact balance for the subsequent permit or coverage. This scenario can also occur if an issued permit or coverage is transferred to a new permittee; a permit or coverage is revoked and reissued and all impacts are already taken; or a permit or coverage is terminated, and a new permit or coverage is only needed for continuing activities.
* Administrative decisions made from time to time on issuing general permit coverage that do not require staff to enter impacts into the CEDS database. The typical situation at the time is when the 45-Day VWP general permit coverage issued in 45 days of a complete application, when no DEQ notification is received by the applicant, and where impacts are one-tenth acre or less of wetlands or open water, or where impacts are 300 linear feet or less of stream channel. Here, no compensatory mitigation or permit application fee applies.

From a database tracking perspective, zero impacts totals may be seen in application records where the final amounts have not been finalized yet, where an application ends in a waiver decision, or where an application is withdrawn.

## 3.4 Permit Application Fees

The fees are set by regulations that are separate from the VWP Permit Program regulations. The fee schedule for individual permit applications may be found at [9VAC25-20-110](https://law.lis.virginia.gov/admincode/title9/agency25/chapter20/section110/).C and [9VAC25-20-120](https://law.lis.virginia.gov/admincode/title9/agency25/chapter20/section120/).3, and the fee schedule for general permit applications may be found at [9VAC25-20-130](https://law.lis.virginia.gov/admincode/title9/agency25/chapter20/section130/). Refer to Appendix A.5 for information on how processing decisions may differ for single and complete projects.

### 3.4.1 Calculating Fees

To determine the appropriate application fee, VWP permit staff will need to determine the total acreage of impacts (permanent, conversion and temporary) proposed to all surface waters, including wetlands, non-excluded open water, and stream channels. Stream channel acreage shall be determined using the linear footage of impact and mean width, which must be submitted as part of the permit application. Other fees are applicable to surface water withdrawal projects ([9VAC25-20-110](https://law.lis.virginia.gov/admincode/title9/agency25/chapter20/section110/).C). Fees are not required if a project having permanent impacts meets the criteria in Section 50.A.2.b or -3.b of the VWP general permit regulations.

The permit fee should be based on the impact quantities that are proposed in the original application, not necessarily the final authorized impact amount; however, if staff recognize upon initial application review that impact quantities are likely to change, it may be best to wait to request the permit fee until impacts are appropriately quantified. Also, if there is a situation in which a previous permit was issued – and either previous impacts were not taken or newly identified impacts are proposed – do not count new temporary impacts cumulatively with previous temporary impacts *if* the previous temporary impacts have been restored, per program practice.

Provided below are examples of fee calculations. Table 2 below addresses some circumstances where determining the amount of acreage to use for fee calculations is not straightforward.

**Example 1**: A proposed project requires a new individual permit for impacts to 2.12 acres of wetlands and 3,105 linear feet of stream (0.60 acres). The permit fee is:

2.12 acres wetlands + 0.60 acres stream = 2.72 acres impact (two decimal places);

x.72 represents tenths and hundredths. Per the wording in the fee regulations for VWP actions, which states “[tenth] (or portion thereof)”, the x.72 here is interpreted as 7.2 tenths[[4]](#footnote-5). The fee regulations are silent on rounding. Thus,

2.72 acres impact = 2 acres + 7.2 *tenths*;

Fee = $2,400 base fee + ($220 x 7.2, or $1,584) = $3,984.

|  |  |
| --- | --- |
| [**9VAC25-20-110**](https://law.lis.virginia.gov/admincode/title9/agency25/chapter20/section110/)**.C**  VWP Individual/Surface Water Impacts (Wetlands, Streams and/or Open Water) | $2,400 plus $220 for *each* 4,356 sq. ft. (*1/10 acre*) *(or portion thereof)* of incremental impact over 87,120 sq. ft. (two acres) ($60,000 maximum) |

**Example 2**: A proposed project requires a new general permit coverage for impacts to 1.55 acres of wetlands and 292 linear feet of stream channel (0.06 acres). The permit fee is:

1.55 acres wetlands + 0.06 acres stream bed = 1.61 acres impact for fee calculation;

1.61 acres impact = 1 acre + 6.1 *tenths*;

Fee = $1,200 base fee + ($120 x 6.1, or $732) = $1,932

|  |  |
| --- | --- |
| [**9VAC25-20-130**](https://law.lis.virginia.gov/admincode/title9/agency25/chapter20/section130/)**.3**  VWP General/43,561 sq. ft. to 87,120 sq. ft. (greater than one acre to two acres) of Surface Water Impact (Wetlands, Streams and/or Open Water) | $1,200 plus $120 for *each* 4,356 sq. ft. (*1/10 acre*) *(or portion thereof)* of incremental impact over 43,560 sq. ft. (one acre) ($2,400 maximum) |

Table 2. Permit Fee Scenario Examples

| **Scenario Example** | **Fee Approach** |
| --- | --- |
| Projects with *surface water* impacts less than 0.10 acre but stream impacts greater than 300 LF | $0 |
| Projects with permanent impacts meeting the criteria of 9VAC25-[660, 670, 680, 690]-50.A.2.b or -3.b (also known as ‘reporting-only coverage’ or ‘less than one-tenth coverage’) | $0 |
| Projects which have cumulative impacts from previous permitting actions | Fee is based *only on acreage of permanent impacts that are being authorized by the current permit action*.  When applicable, this will include impacts that have not been completed under the previous permit or coverage. This includes any newly identified impacts. However, per program practice, do not count new temporary impacts cumulatively with previous temporary impacts *if* the previous temporary impacts have been restored. |
| Projects having individual permits where the activities need to continue beyond the permit expiration date | Fee is based *only on acreage of impacts that are being authorized by the current permit action*.  When applicable, this will include impacts that have not been completed under the previous permit. This includes any newly identified impacts. However, per program practice, do not count new temporary impacts cumulatively with previous temporary impacts *if* the previous temporary impacts have been restored. |
| Projects that require new coverage under a general permit due to changes in impacts that exceed Notice of Planned Change limits or the general permit limits | See Chapter 7 of this manual. |
| Projects that require a major modification of an individual permit | See Chapter 8 of this manual. |

DEQ officially requests the appropriate permit or modification application fee using the Permit Application Fee Form (fee form), which may be attached to the Additional Info letter if necessary. The most recent version of the fee form can be obtained from DEQnet: <https://covgov.sharepoint.com/:w:/r/sites/deqnet/Shared%20Documents/Water%20Division/Water%20Permitting/Water_Permit_Fee_Form_9VAC25-20_Form5_October_2018.docx?d=w4b10f6fbf79c408892a7f818df16b292&csf=1&web=1&e=epbudj>

Complete all sections of the fee form except the IRS Employer Identification Number (EIN) and the section marked ‘For DEQ Use Only’. Also, ***add*** ***the VWP permit staff name and phone number in the space to the right of the ‘amount’ field on the fee form so that questions can be directed accordingly***. This will ensure timely processing by DEQ’s financial office and aid in the electronic tracking of payments in CEDS.

The applicant is responsible for completing the IRS EIN and submitting the fee form and payment per the instructions on the fee form.

Should an applicant return the fee form and/or payment to VWP staff rather than to DEQ Receipts Control, immediately provide the form and the check to the office manager for the proper logging and mailing procedures. Staff should verify with OFM staff if record of payment is not observed in CEDS.

### 3.4.2 Permit Fee Refunds

DEQ Guidance Memorandum Number 06-2011 outlines the situations in which a refund of the permit application fee is appropriate. Generally, refunds should only be initiated when the general permit determination changes to an NPR determination, or when a mistake is made in determining the appropriate fee. It is the Regional VWP Manager’s decision to approve or deny a refund request by an applicant who has avoided and minimized impacts in order to change the required fee when VWP staff has spent time reviewing the application. Refunds may also be processed if the application is withdrawn within 90 days of receipt and has not been deemed administratively complete.

Refund requests may only be initiated for permit fees received within the fiscal year. Permit fee refund requests for fees received in June must be made within 90 days of receipt.

In those cases where a refund is appropriate, the refund is initiated by completing a Permit Fee Refund Request Form, then submitting the form and a copy of all applicable payment information to the OFM-AR manager at Central Office. The refund request form is included as Attachment B to Guidance Memorandum Number 06-2011 (staff can access on DEQnet at: <http://deqnet/docs/water/Guidance_Memoranda/2006_Guidance_Memos/GM06-2011.Water_Permit_Fee_Program_Procedures.pdf>).

When completing the form, check the appropriate reason for requesting the refund, such as ‘an incorrect fee amount was determined during the permit application review’. Attach a copy of the permit-application fee form, which shows the payment amount and date of deposit. Submit the request form and attachments to the Office of Wetlands and Water Protection for approval.

The request will be reviewed and approved or denied by OFM-AR staff. Denied requests will be returned to the requesting office.

When a general permit determination is elevated to an individual permit determination, such as when there are significant threatened and endangered species issues, the general permit application fee may be applied toward the cost of the individual permit application fee. DEQ Receipts Control will need a copy of the already-completed VWP general permit fee form, a check for the cost difference, and a brief explanation of the circumstances.

## 3.5 Avoidance and Minimization

As part of the permit evaluation process used to authorize a particular project proposing to impact surface waters, the VWP Permit Program regulations incorporate the concept of avoidance and minimization from the *Guidelines for Specification of Disposal Sites for Dredged or Fill Material*, [40 CFR Part 230](http://www.ecfr.gov/cgi-bin/text-idx?SID=c6734f3f1e97fb7f4c92dcadd9fa4744&mc=true&node=pt40.25.230&rgn=div5), also known as the Section 404(b)(1) guidelines (See [9VAC25-210-80](https://law.lis.virginia.gov/admincode/title9/agency25/chapter210/section80/).B.1.g).

The federal implementing guidelines for the Clean Water Act state that the burden of proof for demonstrating compliance with the guidelines is the responsibility of the applicant, not the permitting entity. Applicants must (1) establish that avoidance of impacts to state waters, including wetlands is not practicable; (2) demonstrate that all practicable efforts to minimize unavoidable impacts to state waters, including wetlands, have been taken in project design and construction plan; and (3) provide a plan for compensation for all unavoidable impacts. Note that compensatory mitigation is not considered as a method to reduce environmental impacts, but rather as a means to replace lost functions and values of those impacts that cannot be first avoided and minimized.

Per VWP Permit Program regulations, the applicant must clearly demonstrate that the proposed activity, in terms of impacts to state waters and fish and wildlife resources, is the least environmentally damaging practicable alternative, and must document site plan alternatives to this effect. The VWP Permit Program regulation defines the following terms, which are similar to those found in federal regulations and guidance.

* “Avoidance” means not taking or modifying a proposed action or parts of an action so that there is no adverse impact to the aquatic environment;
* “Minimization” means lessening impacts by reducing the degree or magnitude of the proposed action and its implementation; and,
* “Practicable” means available and capable of being done after taking into consideration cost, existing technology, and logistics in light of overall project purposes. [Note that in order to be practicable, an alternative must be both available to the permit applicant and capable of fulfilling the overall project purpose.]
* “Avoidance and minimization” means the *specific* measures taken to reduce the size, scope, configuration, or density of the proposed project, including review of alternative sites for individual permit applications, which would avoid or result in less adverse impact to surface waters.” ([9VAC25-210-80](https://law.lis.virginia.gov/admincode/title9/agency25/chapter210/section80/).B.1.g).

### 3.5.1 Project Purpose and Need

Water dependency and project purpose are entwined, as the project’s purpose is the foundation for evaluating water dependency and, subsequently, avoidance and minimization. Water dependent projects are defined by the Section 404(b)(1) guidelines as those activities that require “access or proximity to or siting within the wetland to fulfill [the project’s] basic purpose.” Examples of water dependent projects include boat ramps, bulkheads, marinas, piers, docks, or similar structures. If a project is determined to be water dependent, then it is presumed that alternatives that completely avoid impacts to the aquatic ecosystem are not practicable, and the review can move to other factors to further minimize impacts prior to considering compensation. If a project is determined to be non-water dependent, then the applicant must clearly demonstrate that there are no other practicable alternatives to the proposed impacts.[[5]](#footnote-6)

In light of the Section 404(b)(1) guidelines and relevant court rulings, VWP permit staff must give full consideration to the project applicant’s stated purpose and need. VWP permit staff should explore other practicable factors (i.e., design changes, siting changes, project reconfiguration, different construction practices, etc.) that first avoid the proposed impact, and then minimize those unavoidable impacts. Note that while the VWP Permit Program regulations require the applicant to provide the purpose and need for the project as part of the complete application, staff normally does not “judge” the practicality of an applicant’s demonstration of need for a project - for instance, multiple shopping centers in close proximity to each other. However, part of the USACE public interest review considers project need based upon the information provided in the application and any subsequently submitted additional information.

It is critical that the purpose and need provided by the applicant is sufficiently specific to enable review of avoidance and minimization for making both state permit decisions and in evaluating applications for SPGP verifications. If the purpose and need are not provided, or are vague, the VWP permit staff may need to ask for clarifying details. For example, an application that states that the project purpose is to “construct a retail development with a minimum of 250,000 square feet of space and three outparcels” enables VWP permit staff to more effectively evaluate layout, parking, and other requirements of the project, as opposed to an application simply states that the purpose of the project is “to construct a retail development.”

### 3.5.2 Alternatives Analysis

Once it is determined that a project is non-water dependent, it is the responsibility of the applicant to perform an alternatives analysis to clearly demonstrate to the satisfaction of DEQ that the project is the least environmentally damaging practicable alternative in light of the overall project purpose.

When evaluating the alternatives analysis, DEQ must take into account the objectives of the applicant’s project as presented, and not change the nature of the project – like substitute apartments for single family housing – in order to reduce impacts. However, staff may ask an applicant to reconfigure their project to further avoid and minimize wetland impacts, such as by changing the number or placement of dwelling units, if the cost of such modifications is practicable (see Section 3.5.3). If staff has questions regarding the alternatives analysis, such questions should be incorporated into the information request to document that an application is incomplete. Oftentimes a meeting with the applicant and/or agent after the request can be helpful in clarifying these issues; however, *the file must contain* documentation that the applicant’s assertion that less damaging alternatives are not practicable. Information provided and discussed in meeting(s) should be formally provided in writing to DEQ to ensure the file is complete.

#### 3.5.2.1 Off-Site Alternatives Analysis

Note that in some cases, siting determinations for certain utility, solar, and natural gas transmission pipeline activities that are regulated by the Virginia State Corporation Commission (SCC) or the Federal Energy Regulatory Commission (FERC) cannot be altered by a VWP permit action (§ 62.1-44.15:21.D.2; § 62.1-44.15:81.F). Therefore, an analysis of off-site alternatives in particular are unlikely to apply. DEQ may have limited control over alternatives once the National Environmental Policy Act (NEPA) process is concluded, or after the close of other opportunities to officially comment on the proposed activities.

Also, it is important to note that the general permit regulations ([9VAC25-660-60](https://law.lis.virginia.gov/admincode/title9/agency25/chapter660/section60/).B.11; [9VAC25-670-60](https://law.lis.virginia.gov/admincode/title9/agency25/chapter670/).B.11; [9VAC25-680-60](https://law.lis.virginia.gov/admincode/title9/agency25/chapter680/section60/).B.12; and [9VAC25-690-60](https://law.lis.virginia.gov/admincode/title9/agency25/chapter690/section60/).B.12) require an analysis of **on-site** alternatives, while the main regulation ([9VAC25-210-80](https://law.lis.virginia.gov/admincode/title9/agency25/chapter210/section80/).B.1.g) requires an analysis of **on- and off-site** alternatives.

Section 404(b)(1) guidelines state that a practicable alternative may include “an area not presently owned by the applicant which could reasonably be obtained, utilized, expanded, or managed in order to fulfill the basic purpose of the proposed activity” (40 CFR 230.10(a)(2)). An alternatives analysis is conducted to determine that the preferred alternative (i.e., using this site for that particular community need) will meet the project purpose at the exclusion of other alternatives.

There are a number of court decisions that have served as a basis for decision-making in the VWP Permit Program. These include:

1. *Bersani v. EPA*, the Second Circuit Court of Appeals held that the practicable alternatives test relative to the availability of sites should be conducted at the time an applicant enters the market for a site, instead of at the time it applies for a permit. The courts often, but not always, support the position that if a property with less environmental impact was available at the time of purchase of the subject property, then a less environmentally damaging alternative did exist. Note that this is often difficult to prove, especially for properties that have been owned for a long period of time but are just now being developed.
2. Based upon federal case law on this point (specifically, *Bersani v. EPA* and *National Wildlife Federation v. Whistler*), a project’s overall purpose should be established first, and then a list of alternative sites meeting the project’s purpose would be evaluated. Ideally, the preferred alternative should be selected that meets both the project purpose and has the least environmental impact. However, usually this sequential evaluation must occur in reverse, as the applicant may own a property for a period of time prior to establishing the purpose for a project on that property.
3. *Penn Central v. New York City*, the court established a multi-factor balancing test, where the economic impact and character of the government action is balanced against the extent to which the government action interferes with reasonable investment-backed expectations of the regulant.
4. *Claridge v. New Hampshire Wetlands Board*, the court held that “[a] person who purchases land with notice of statutory impediments to the right to develop that land can justify few, if any, legitimate investment-backed expectations of development rights....”
5. *City of Virginia Beach v. Bell*, where the court denied a takings claim by the plaintiff who acquired a parcel two years after a municipal sand dune protection ordinance had been adopted. In this case, the court held that “[plaintiffs] cannot suffer a taking of rights never possessed.”

Many times, an entity already owns, leases, contracts to purchase, or otherwise has control over a particular parcel of land. To maximize an investment-backed expectation, the entity identifies a project that serves a community need (i.e., housing, retail, institutional, or other socioeconomic factor), then seeks to fulfill this need by proposing to develop the parcel.

Often, the argument for pre-selecting the preferred alternative is that the entity is already in possession of or controls the land, the land may already have the required land use zoning, or the entity is attempting to realize an investment-backed expectation. This situation is precisely what the courts addressed in *Bersani*: that the practical alternatives test should be conducted at the time the applicant entered the market for a site.

Focusing on an investor’s actual expectations makes good sense. If an investor knows about restrictions already in place when he purchases a property, he cannot reasonably assert that the restrictions result in an unfair taking or that he is being asked to avoid impacts to an unreasonable extent. In essence, a property owner cannot complain of regulatory limits on the use of the property that the owner knew about at the time of purchase, or that the owner should have known about. Conversely, if regulations have changed in the time since the owner purchased the property, then he cannot have known at the time of purchase of the difficulties in developing the parcel due to new laws and regulations currently in place. Therefore, the applicant’s investment-backed expectations get more consideration than another applicant, who purchased property with knowledge of regulatory constraints.

Given regulatory requirements and the outcome of these various court cases, staff should ask the applicant to evaluate, and staff should consider, all practicable alternatives for a project that achieves the applicant’s stated purpose. Moving the proposed project to another parcel that would result in less environmental impact while achieving the overall project purpose is an alternative that must be considered, if practicable. However, the VWP permit staff must be mindful that using another parcel of land for a particular project is not practicable in every instance. The Section 404(b)(1) guidelines also allow the agency to require “minor project modifications” to minimize wetland impacts. “Minor project modifications” are defined as those that are feasible (cost, constructability) to the applicant and that will generally meet the applicant’s purpose. This includes reduction in scope and size, changes in construction methods or timing, operation and maintenance practices, and other changes reflecting sensitivity to environmental impacts. The VWP Permit Program regulations and incorporated federal guidelines also require DEQ to take into account the applicant’s investment backed expectations at the time of the purchase.

#### 3.5.2.2 Cost

When taking cost into consideration for the alternatives analysis, the preamble of the Section 404(b)(1) guidelines states that “[t]he determination of what constitutes an unreasonable expense should generally consider whether the project cost is substantially greater than the costs normally associated with the particular type of project under consideration.” The preamble further states that “if an alleged alternative is unreasonably expensive to the applicant, the alternative is not practicable.” The most important point regarding cost considerations is that the Section 404(b)(1) guidelines are not meant to consider financial standing of an individual applicant, but rather the characteristics of the project and what constitutes a reasonable expense for these projects that are most relevant to practicability determinations. Staff should consider whether the project cost would be substantially greater than the costs normally associated with a particular type of project (or the investment return substantially lower). For a developer, the federal guidelines state that the primary test of whether a project is still viable is, after all the costs have been paid from project revenues, the remaining value of the project is sufficiently high to proceed. DEQ relies on the applicant to provide financial information on the economic viability of the project, as modified. In complex cases, independent review of these economic figures may be warranted.

As each project has site-specific issues and constraints, it is impossible to establish a bright line to determine when enough avoidance and minimization has occurred. The following factors should be considered based upon data provided by the applicant: cost to develop the project on the chosen property versus cost to develop the project on another property; reasonable investment-backed economic expectations; logistics and feasibility; overall project purpose; and whether alternatives exist that would have less environmental impact.

#### 3.5.2.3 Examples of Questions Regarding Avoidance and Minimization

In practice, application of the Section 404(b)(1) Guidelines is proportional to the significance of the environmental impact proposed by a permit application. For example, the detail of information required of an applicant with regard to such requirements will be much greater if the proposed environmental impacts are significant. A less detailed analysis would be required for permit proposals that have impacts that are minor in nature.

The VWP permit staff should consider a general list of questions when performing the avoidance and minimization review. The list of questions below is not intended to be all-inclusive – it is based on permit-application-review practices employed by various state and federal regulatory agencies.

1. **On-Site Avoidance**

* **Spatial or dimensional changes to structure layout** 
  + Can another vertical level be added to a building to decrease the overall building footprint?
  + Can the building footprint be reduced and still achieve the project’s purpose and need?
  + Can a building be repositioned on the parcel to reduce or eliminate environmental impacts?
  + Can multiple structures be clustered to reduce or eliminate impacts?
  + Can road or utility alignments be reconfigured? Can spans and bridges be used instead of culverts? Crossings should occur perpendicular to and in the narrowest area of surface waters.
  + Is the parking provided the minimum required by local ordinances?
  + Can vertical parking structures (such as garages) that reduce the horizontal footprint of impervious surface be used?
  + Does the site provide the minimum number of road entrances allowed by local ordinances?
* **Site engineering changes** 
  + Can 2:1 side slopes be used instead of gentler slopes?
  + Can retaining walls be used instead of slopes?
  + Can grading be minimized by incorporating natural topography?
  + Can more trees and vegetation be preserved?
  + Can lot layout be reconfigured?
  + Can state waters, including wetlands, be concentrated into subdivision “common areas”?
  + Can the amount of impervious surface be reduced to preserve as much natural cover as possible, especially for soils in hydrologic groups A and B, and possibly reduce the footprint of required stormwater treatment facilities?
* **Stormwater Management Changes**
  + Can stormwater conveyances and treatment be reconfigured to maintain flow in downstream surface waters and mimic pre-construction storm flows?
  + Are stormwater management facilities the minimum area and volume necessary to meet Virginia Stormwater Management Program requirements?
  + Will stormwater management facilities, other ponds, ditches, swales, or other excavation drain or otherwise alter hydrology of nearby surface waters?
  + Can stormwater management facilities be sited outside of streams and wetlands?
  + Can the use of pipes be minimized?
  + Can LID stormwater techniques be used to reduce impervious areas and the need for larger stormwater retention/treatment areas?

1. **On-Site Minimization**

* Can some of the above-listed suggestions be used to further minimize impacts?
* Can directional drilling be used to install underground utilities across a state water instead of excavation and backfill?
* Can equipment fitted with low-pressure tires or tracks be used?
* Can any permanent impacts (e.g., access roads) be converted to temporary impacts?
* Can construction staging or stockpiling of materials occur in areas outside of State waters?
* Can impacts be confined to lower quality surface waters, avoiding higher quality surface waters areas?

## 3.6 Functional Assessments

An analysis of the functions of wetlands proposed to be impacted is required under the regulation ([9VAC25-210-80](https://law.lis.virginia.gov/admincode/title9/agency25/chapter210/section80/).C) when wetland impacts for each single and complete project are 1.01 acres or more, and any of the following applies:

* The proposed compensatory mitigation consists of permittee-responsible compensatory mitigation, including water quality enhancements as replacement for wetlands; or
* The proposed compensatory mitigation consists of purchasing mitigation bank or in-lieu fee program credits at less than the standard mitigation ratios of 2:1 for forest, 1.5:1 for scrub-shrub, and 1:1 for emergent.

When required, the method selected for the analysis shall assess water quality or habitat metrics and **must be preapproved by DEQ** in advance of conducting the analysis. DEQ does not endorse a specific functional assessment methodology. If a functional assessment is not coordinated in advance with DEQ, staff must verify that the methodology used evaluates habitat and water quality parameters and is appropriate for the project’s location and surface water resources.

The regulation prohibits DEQ from requiring a functional assessment when:

* Wetland impacts per each single and complete project total 1.00 acre or less; or
* The proposed compensatory mitigation consists of purchasing mitigation bank or in-lieu fee program credits at standard mitigation ratios of 2:1 for forest, 1.5:1 for scrub-shrub, and 1:1 for emergent, or higher.

## 3.7 Compensatory Mitigation

Compensatory mitigation is the last step in the three-step approach (Avoid, Minimize, Mitigate) to compensate for unavoidable impacts to wetlands. Unless total permanent impacts for a project fall under “reporting-only” general permit thresholds, permanent impacts to surface waters require compensatory mitigation sufficient to achieve no net loss of wetland acreage and no net loss of function of wetlands and surface waters. While not typical, temporary impacts may require compensation if they are not restored in accordance with VWP permit conditions and regulations. In Virginia, compensatory mitigation may include:

* Purchase or use of wetland or stream mitigation bank credits from a DEQ-approved mitigation bank [existing credits that meet the project’s proposed compensatory mitigation plan, or contract for purchase that will meet the timeline requirement for taking impacts, not future allocations of credits with unspecified timelines]
* Purchase of wetland or stream credits from a DEQ-approved in-lieu fee program [existing credits that meet the project’s proposed compensatory mitigation plan, or contract for purchase that will meet the timeline requirement for taking impacts, not future allocations of credits with unspecified timelines]
* Wetland creation or restoration
* Stream restoration or enhancement
* Preservation of existing wetland and streams, when utilized in conjunction with creation, restoration, or mitigation bank credits. This option should be used with caution because mitigation bank credits often already incorporate a preservation component in their credits. A compensation package with greater than 20% wetland preservation or upland buffer credits or 50% stream preservation credits does not meet no net loss.
* Preservation or restoration of upland buffers adjacent to surface waters, when utilized in conjunction with creation, restoration, or mitigation bank credits. This option should be used with caution because mitigation bank credits often already incorporate a preservation component in their credits. A compensation package with greater than 20% wetland preservation or upland buffer credits or 50% stream preservation credits does not meet no net loss.

As part of the application process, an applicant must provide a conceptual compensation plan. The purpose of the conceptual compensatory mitigation plan is to outline what the applicant intends to do to compensate for unavoidable impacts to surface waters. For mitigation bank or in-lieu fee program credit purchase, the plan must consist of the number of credits proposed for purchase and documentation from the approved bank or in-lieu fee program sponsor of the availability of credits at the time of application. For permittee-responsible compensation, the applicant must provide the items listed in the regulation for each plan type. PRM Checklists have been developed for reference (See Chapter 3 References subfolder). For wetland functional assessment information, see [DEQnet VWP Staff Training](https://covgov.sharepoint.com/:f:/r/sites/deqnet/Shared%20Documents/Water%20Division/Water%20Permitting/Wetlands%20%26%20Stream%20Protection%20-%20VWP/Staff%20Training/Functional%20Assessment%20Methods%202018?csf=1&web=1&e=kxVIe0). Remember that permittee-responsible compensatory mitigation projects must be held to the same standards as mitigation banks, in order to ensure that the agency meets the statutory requirements of no net loss of acreage and function.

Compensation proposals must fulfill the requirements of State Water Control Law and the VWP Permit Program regulations, which are consistent with the USACE-EPA 2008 “Final [Mitigation Rule](http://www.usace.army.mil/Missions/CivilWorks/RegulatoryProgramandPermits/mitig_info.aspx)” (Compensatory Mitigation for Losses of Aquatic Resources, April 10, 2008 (33 CFR 325 and 332; 40 CFR 230). SWCL and the VWP Permit Program regulations require compensation that is sufficient to ensure no net loss of wetland acreage and function and no net loss of stream functions. Generally, compensation must be “in-kind”, meaning that the resource provided as compensation must be the same as the resource impacted. However, the VWP Permit Program regulation allows for “out-of-kind” compensation, which includes measures that do not replace the same type of wetland or surface water that was impacted but does replace lost wetland or surface water functions or provide a water quality, habitat, or other desirable benefit. A common example of generally acceptable “out of kind” compensation is mitigating for open water impacts through purchase of wetland credits.

Compensation proposals are evaluated to be complete and meeting the regulations during the application completeness review. In the event that an application proposes in-kind, permittee-responsible compensation because there are no mitigation bank credits available for the project, then staff must review the proposal and consider if the proposal and supporting information are sufficient to meet the regulations in effect during the review of the application (see 3.7.1.3). Refer to Appendix A.5 for information on how processing decisions may differ for single and complete projects.

In the case that no mitigation credits are available (i.e., applicant finds no mitigation options 1-5 from Table 3), an applicant may propose a signed contract for purchase of mitigation credits from an approved bank or in-lieu fee program to satisfy the conceptual compensation plan.  This option is not for use in enforcement cases. The applicant should provide the following information to VWP permit staff. VWP permit staff may request that a DEQ Central Office Mitigation Specialist review the information, as needed. The applicant should provide the following:

* Draft contract for purchase of mitigation credits - Is the contract meant to be signed?  Does the contract create a binding obligation to generate / purchase the subject mitigation credits? Does the contract list the applicant, mitigation bank sponsor, number of credits, and purchase price?
* Timeline anticipated for taking impacts on the project site (generated by the applicant).
* Timeline anticipated for release of contracted mitigation credits from the mitigation site (generated by the mitigation sponsor) - Does the anticipated timeline for release of subject mitigation credits meet the anticipated timeline for taking project impacts?
* Mitigation Site Information - Does the mitigation sponsor have multiple approved and/or sold-out mitigation sites in Virginia?  Does the mitigation site from which contract mitigation credits are proposed have an approved, signed Mitigation Banking Instrument (MBI) or Site Development Plan (SDP), or is nearing approval based on DEQ Mitigation Specialist evaluation?  Is the mitigation site in compliance with its MBI or SDP?  Is the mitigation site currently suspended (in RIBITS)?
* Federal permitting – If a federal permit is required, does the USACE Project Manager support a proposed compensation plan involving a contract for purchase of mitigation credits?

***A compensation requirement is only satisfied when credits under contract are released to the approved mitigation bank(s) or mitigation in-lieu fee program site(s), and a credit sale statement has been provided to VWP permit staff.***

If additional information is required to complete the application or for VWP permit staff to evaluate the appropriateness of the proposed compensation, this information should be requested within the 15-day review period. Once the application is considered complete, VWP permit staff should process the application following typical protocols, with two possible exceptions:

1. In the event that mitigation bank credits become available prior to issuance, but after the application is complete, VWP permit staff should not *require* a change from permittee-responsible compensation to bank credits – the applicant may make this change voluntarily.
2. In the event that mitigation bank credits are not available – but become available after permit issuance – there is no requirement for the applicant to retrace bank credit availability efforts, and/or request a Modification or Notice of Planned Change to switch from in-lieu fee program credits back to bank credits. Again, the applicant may voluntarily choose to change the proposed compensation from permittee-responsible to bank credits, or to in-lieu fee program credits, should bank credits not be available.

### 3.7.1 Types of Mitigation Available

#### 3.7.1.1 Mitigation Banks

Mitigation banks are a form of “third-party” compensatory mitigation, in which the responsibility for compensatory mitigation implementation and success is assumed by a party other than the permittee.

A mitigation bank is a wetland, stream, or other aquatic resource area that has been restored, established, enhanced, or (in certain circumstances) preserved in order to provide compensation for impacts by other parties on other parcels. In Virginia, mitigation banks most often are created by private landowners or business entities, but some are completed by government agencies (such as VDOT or a locality) or nonprofit organizations. Under no circumstances does DEQ play a role in the pricing of bank credits. Banks operate under a mitigation banking instrument (MBI), approved by the Interagency Review Team (IRT), which is made up of representatives from DEQ, the USACE, VMRC, US FWS, EPA, VDWR, and other resource agencies.

The IRT determines the number of mitigation credits generated by the bank that may be offered for sale. “Initial release credits” are released to a bank prior to the on-site work being completed and are usually composed of preservation credits and a percentage of the credits from proposed creation or restoration activities onsite. Initial release credits are similar to advance credits in an in-lieu fee program, except that a mitigation site has already been identified with the mitigation bank. The Final Mitigation Rule mandates that “implementation of the approved mitigation plan shall be initiated no later than the first full growing season after the date of the first credit transaction.” “Released credits” are released to a bank, often in phases, after work has been completed and monitoring shows performance standards are met. The IRT also determines a bank’s “geographic service area”, which is the geographic area in which permitted impacts occur that can be offset by a sale of credits from the bank to a permittee. Initial release credits and released credits for a mitigation bank are available for sale *at the time of their release* by the IRT*.* As a point of information, “accelerated credits” must also be reviewed and released by the IRT, at the request of the *bank sponsor*, who is ultimately responsible for financial assurances and other associated requirements for credit releases (USACE RGL 19.01, February 22, 2019).

The Code of Virginia (see § [62.1-44.15:23](https://law.lis.virginia.gov/vacode/title62.1/chapter3.1/section62.1-44.15:23/)) allows the purchase of bank credits from banks with a Primary or Secondary geographic service area (GSA) that covers the project impacts, as defined in Code of Virginia § 62.1-44.15:23. *See Section 3.7.2.4 for requirements on the use of Primary and Secondary GSAs*.

*VWP permit staff are not responsible for furnishing to a permittee a list of banks where credits are available. Please direct all permittees to the USACE* [*RIBITS website*](https://ribits.ops.usace.army.mil/ords/f?p=107) *or have the permittee contact the DEQ mitigation specialist for information on initial release, released, and available credits.*

#### 3.7.1.2 In-Lieu Fee Programs

In-lieu fee programs are a form of “third-party” compensatory mitigation, in which the responsibility for compensatory mitigation implementation and success is assumed by a party other than the permittee.

State regulation defines an in-lieu fee program as “a program operated by a nonprofit organization or governmental agency that receives moneys from persons impacting wetlands or streams pursuant to an authorized permitted activity and that extends the moneys received to provide consolidated compensatory mitigation for permitted wetland and stream impacts.” Virginia legislative and regulatory authority for In-lieu fee programs comes from § [62.1-44.15:21](https://law.lis.virginia.gov/vacode/title62.1/chapter3.1/section62.1-44.15:21/).B of the Code of Virginia and [9VAC25-210-116](https://law.lis.virginia.gov/admincode/title9/agency25/chapter210/section116/).D. Note that, as of June 2020, the Virginia Aquatic Resources Trust Fund (VARTF) In-Lieu Fee Mitigation Program can no longer accept monetary contributions, donations, or payments of any amount that are not associated with mitigation credits.

There are several in-lieu fee programs approved by the department for operation in Virginia, including the VARTF and the Living River Restoration Trust (LRRT). Within the department, in-lieu fee programs are approved by issuing a VWP individual permit or general permit coverage for a specific project, taking an enforcement action, or approving an in-lieu fee program instrument that the department notices its intent to sign, according to [9VAC25-210-116](https://law.lis.virginia.gov/admincode/title9/agency25/chapter210/section116/).D.1. A Program Instrument is signed by the in-lieu fee program sponsor, DEQ (Central Office), and the USACE-Norfolk District. Similar to mitigation banks, an in-lieu fee program completes projects involving the restoration, establishment, enhancement, and/or preservation of aquatic resources, and monitors for performance standards. The Final Mitigation Rule mandates that an in-lieu fee sponsor must “secure in-lieu fee project sites and conduct the initial physical and biological improvements (e.g., grading and planting) by the third full growing season after the first advance credit for that service area is secured by a permittee.” An in-lieu fee program has two types of credits: advance and released credits. Advance credits may be sold for impacts anywhere in a given “river watershed” in which the in-lieu fee program operates and may be sold prior to a mitigation site being identified by the in-lieu fee sponsor. However, after advance credits are sold and a project is implemented, each project is assigned a geographic service area that adheres to the Code. In-lieu fee program released credits are those credits that have been constructed, are meeting performance standards, and are in excess of the in-lieu fee program’s existing liability for impacts within the river watershed or the geographic service area.

The Code of Virginia (see § [62.1-44.15:23](https://law.lis.virginia.gov/vacode/title62.1/chapter3.1/section62.1-44.15:23/)) allows the purchase of released credits from in-lieu fee sites with a Primary or Secondary geographic service area (GSA) that covers the project impacts, as defined in Code of Virginia § 62.1-44.15:23. *See Section 3.7.2.4 for requirements on the use of Primary and Secondary GSAs*.

*VWP permit staff are not responsible for furnishing to a permittee a list of in-lieu fee programs where credits are available. Please direct all permittees to the USACE* [*RIBITS website*](https://ribits.ops.usace.army.mil/ords/f?p=107) *or have the permittee contact the DEQ mitigation specialist for information on advance, released, and available credits.*

#### 3.7.1.3 Permittee-Responsible Compensatory Mitigation

“Permittee-responsible compensatory mitigation” or “permittee-responsible mitigation” (PRM) includes activities such as restoration, establishment, enhancement, and/or preservation of aquatic resources that are undertaken by the permittee, or an authorized agent or contractor, for which the permittee retains full responsibility. These activities may occur on the proposed project site or at another site and are constructed or implemented concurrent with permitted impacts – a PRM site is part of the proposed project. The permittee retains all liability for ensuring the long-term success of the mitigation project, and the permit contains a final mitigation plan, which lays out the conditions for site selection, planning, construction, financial assurances, monitoring, success criteria, long-term management, and site protection of the permittee-responsible mitigation site. Note: *If a permittee requests to create a multi-project mitigation site, please note that this mitigation strategy was historically allowed, but is no longer permitted under the regulation. Any mitigation site that is to be used for multiple permits/projects must go through the mitigation bank approval process.*

The Reference subfolder for Chapter 3 of this manual provides 1) a hand-out checklist on plan requirements for applicants proposing permittee-responsible wetland mitigation; 2) an example document that may serve as a template for a financial assurance mechanism; and 3) an example document that may serve as a template for a long-term management plan.

### 3.7.2 Mitigation Hierarchy

[9VAC25-210-116](https://law.lis.virginia.gov/admincode/title9/agency25/chapter210/section116/).C of the VWP Permit Program regulation specifies a sequence of preference for compensation alternatives. The mitigation hierarchy below has been expanded to include additional compensation alternatives, guided by Code of Virginia § [62.1-44.15:23](https://law.lis.virginia.gov/vacode/title62.1/chapter3.1/section62.1-44.15:23/), while still following the regulation. *See Section 3.7.2.4 for requirements of Primary and Secondary GSAs.*

Table 3. Compensation Preference Order[[6]](#footnote-7)

| **Preference Order** | **Wetlands** | **Streams** |
| --- | --- | --- |
| **1** | Mitigation bank wetland credits *(Primary GSA)* | Mitigation bank stream credits *(Primary GSA)* |
| **2** | In-lieu fee site/released credits *(Primary GSA)* | In-lieu fee site/released credits *(Primary GSA)* |
| **3** | Mitigation bank wetland credits *(Secondary GSA)* | Mitigation bank stream credits *(Secondary GSA)* |
| **4** | In-lieu fee site/released credits *(Secondary GSA)* | In-lieu fee site/released credits *(Secondary GSA)* |
| **5** | In-lieu fee program/advance credits | In-lieu fee program/advance credits |
| **6** | Permittee-responsible compensation using a watershed approach[[7]](#footnote-8) | Permittee-responsible compensation using a watershed approach |
| **7** | Permittee responsible on-site and in-kind compensation | Permittee responsible on-site and in-kind compensation |
| **8** | Permittee responsible off-site or out-of-kind compensation | Permittee responsible off-site or out-of-kind compensation |
| **9** | Upland buffer restoration, enhancement, or preservation when adjacent to wetlands and only when utilized in conjunction with options 1 through 5 | Upland buffer restoration, enhancement, or preservation when adjacent to streams and only when utilized in conjunction with one of the above options |
| **10** | Preservation of wetlands only when used in conjunction options 1 through 5 | Preservation of stream channels and adjacent riparian buffers only when used in conjunction options 1 through 5 |

#### 3.7.2.1 Evaluation of Mitigation Proposals that Differ from Mitigation Hierarchy

The evaluation of appropriate compensatory mitigation options is based in § [62.1-44.15:21](https://law.lis.virginia.gov/vacode/title62.1/chapter3.1/section62.1-44.15:21/) of the Code of Virginia. This section outlines considerations for evaluating the proposed compensatory mitigation options.

An applicant may present a proposed compensatory mitigation option that is different from the mitigation hierarchy. If there are *available* mitigation options on the hierarchy and are of *higher preference* to the proposal, then the applicant shall submit all required information, and DEQ shall evaluate the proposed compensatory mitigation option(s). When there are *higher-preference* mitigation options on the hierarchy, but they are *unavailable* to the applicant or permittee, the applicant/permittee should provide DEQ with information that demonstrates the option(s) are unavailable. In cases where the original proposal is to purchase bank credits, but the proposal changes to permittee-responsible mitigation due to lack of available credits, the applicant/permittee does not need to provide an ecologically and environmentally preferable analysis.

ECOLOGICALLY AND ENVIRONMENTALLY PREFERABLE

The Code of Virginia section above highlights the need to evaluate the practicable and ecologically and environmentally preferable mitigation option. The three parameters by which to evaluate ecological and environmental preferability are described below:

1. Replacement of acreage and functions – The degree to which the proposed compensatory mitigation option provides a greater replacement of wetland acreage and functions or stream functions and water quality benefits than available mitigation options higher on the hierarchy. This may take the form of an evaluation between the impacts, available hierarchy mitigation options, and the proposed compensatory mitigation option, and may include, but is not limited to: evaluation according to the Site Selection Criteria (USACE, 2018) for mitigation sites, evaluation of in-kind vs. out-of-kind compensation, the aquatic resource functions and services impacted and replaced by each option, a full no net loss evaluation, proximity to impacts, compensatory mitigation done under a watershed approach, special resource considerations at the impacted or compensation site(s) (i.e., presence of rare, threatened, or endangered species, rare plant communities, etc.), specific factors discussed under the type of mitigation option below, or other factors, as applicable.
2. Greatest likelihood of success – “Likelihood of ecological success and sustainability” of the proposed mitigation option, in comparison with other available mitigation options higher in the hierarchy (Final Mitigation Rule, 332.3(a)(1)). Generally, the greatest likelihood of success occurs where risks and uncertainties can be reduced to the greatest extent practicable and may include ecological and administrative aspects of a given mitigation option. For example, the Final Mitigation Rule states that restoration of wetlands may present a greater likelihood of success than creation of wetlands from uplands. In addition, those mitigation options with the greatest likelihood of success may be located at mitigation banks and in-lieu fee program mitigation sites, for the reasons established in the following sections. However, a permittee-responsible mitigation site may be evaluated for the greatest likelihood of success, if the applicant were to provide all the required elements provided by a mitigation bank or in-lieu fee program site. See the permittee-responsible mitigation section below.
3. Avoidance of temporal loss of acreage and functions – Temporal loss is defined as the time lag between the loss of aquatic resource functions caused by the permitted impacts and the replacement of aquatic resource functions at the compensatory mitigation site. This evaluation may consider, but is not limited to, the following factors: Anticipated impact date, impacted resource type, anticipated mitigation construction date (if not already built), released credit date, maturity of constructed mitigation site(s), specific factors discussed below, or other factors, as applicable. In most cases, released mitigation credits will have the greatest avoidance of temporal loss of acreage and functions.

PRACTICABLE

State regulations define practicable as “available and capable of being done after taking into consideration cost, existing technology, and logistics in light of overall project purposes.” For the purposes of the evaluation of compensatory mitigation options, ecological and environmental preference will always outweigh practicability. If a proposed mitigation option is equal in the evaluation of ecological and environmental preference to all other mitigation options higher on the hierarchy, then practicability may be considered.

#### 3.7.2.2 Mitigation Banks in the Hierarchy

The preference hierarchy in the VWP Permit Program regulation is consistent with the 2008 Mitigation Rule[[8]](#footnote-9). The hierarchy is designed to improve the effectiveness of compensatory mitigation at replacing lost aquatic resource functions and acreage and is based on a large body of science demonstrating that the typical large-scale mitigation project is more efficient and effective than multiple smaller mitigation projects. Research findings from numerous studies conclude mitigation banks and in-lieu fee fund programs are the most successful modes for mitigating impacts to aquatic resources for the following reasons:

1. Replacement wetlands are often sited in unsuitable locations under a system that prefers on-site mitigation.[[9]](#footnote-10)
2. Mitigation banks and in-lieu fee programs have advantages toward achieving the goal of no net loss of wetlands.[[10]](#footnote-11)
3. Mitigation banks provide economy of scale and better ecological performance, which benefits the aquatic environment.[[11]](#footnote-12)
4. Mitigation banks provide ecological benefits in advance of impacts.5

In addition to their ecological benefits, mitigation banks and in-lieu fee programs have several practicable advantages over permittee-responsible mitigation projects:

1. Mitigation Banking Instruments (MBI) require thorough planning and monitoring of mitigation banks. See <https://www.deq.virginia.gov/permits/water/compensatory-mitigation> for more information.
2. The Interagency Review Team (IRT) only issues released credits from banks and in-lieu fee programs when the IRT agrees that the compensatory mitigation is meeting certain success criteria.
3. DEQ recognizes the benefits of having mitigation in place before impacts are initiated, which is the case more often with mitigation banks and in-lieu fee program released credits than with permittee-responsible mitigation.
4. Current science shows that consolidated mitigation is ecologically preferable and fits a watershed approach as compared to permittee-responsible mitigation.

#### 3.7.2.3 In-Lieu Fee Programs in the Hierarchy

DEQ may consider in-lieu fee program released credits, but the applicant must demonstrate that the in-lieu fee project is more practicable and ecologically and environmentally preferable than available mitigation bank credits, which have a higher preference in the hierarchy set by the regulation. Factors to consider may include those listed above, as well as whether mitigation bank credits within the watershed have been issued as part of an initial release of credits, which takes place prior to work being completed.

DEQ may consider in-lieu fee program released credits to be more practicable and ecologically and environmentally preferable than in-lieu fee program advance credits, because in-lieu fee program released credits are those credits that have been constructed, are meeting performance standards, and are in excess of the in-lieu fee program’s existing liability for impacts in the watershed. In-lieu fee program released credits are the most equivalent mitigation option to released credits from a mitigation bank, for ecological and environmental preferability.

#### 3.7.2.4 Primary and Secondary Geographic Service Areas (GSAs)

The Interagency Review Team (IRT) sets Geographic Service Areas (GSAs) for approved mitigation banks and in-lieu fee sites. DEQ Central Office staff will ensure that approved GSAs meet the Code of Virginia § [62.1-44.15:23](https://law.lis.virginia.gov/vacode/title62.1/chapter3.1/section62.1-44.15:23/), including the definitions of Primary and Secondary GSAs and all tidal mitigation site GSAs (pursuant to section G of the referenced Code of Virginia).

Purchase of Primary GSA bank or in-lieu fee credits is listed in VWP Permit Program regulations as the most ecologically and environmentally preferable mitigation option ([9VAC25-210-116](https://law.lis.virginia.gov/admincode/title9/agency25/chapter210/section116/)). Primary GSA bank credits that cover project impacts may be used at any time, at the discretion of the VWP permit staff. Primary GSA in-lieu fee credits that cover project impacts may be used if there are no Primary GSA bank credits available or if determined to be ecologically or environmentally preferable, at the discretion of the VWP permit staff. *See the Mitigation Hierarchy in Section 3.7.2.*

Purchase of Secondary GSA bank or in-lieu fee credits may only occur if there are no Primary GSA bank or in-lieu fee credits available, or no Primary GSA bank credits below two [2] times the price of current applicable in-lieu fee advance credits (Code of Virginia § [62.1-44.15:23](https://law.lis.virginia.gov/vacode/title62.1/chapter3.1/section62.1-44.15:23/)). Secondary GSA credits will also be conditioned for use by the IRT for up to 1 acre of impacts under USACE Nationwide Permits, Regional Permits, or SPGPs. The sale of credits within a Secondary GSA is prohibited for USACE IP projects and permits with permanent wetland impacts (including permanent conversion) equal to or greater than 1 acre. Cumulative impacts resulting from single and complete projects, such as a linear project, may purchase credits from a bank or ILF Secondary GSA, if each single and complete project impacts less than 1 acre of wetlands, and all other Secondary GSA conditions are met. The use of Secondary GSA credits should be discussed with a VWP Manager and Central Office Staff when a GP coverage or an IP is required, but no USACE permit is required, and the permit proposes permanent wetland impacts (including permanent conversion) equal to or greater than 1 acre. Any proposal for the use of Secondary GSA credits that does not fit the above scenarios should be discussed with a VWP Manager, Central Office staff, and USACE staff. Open water impacts, isolated wetland impacts, and/or conversion impacts may be subject to permit-specific decisions on the use of a Secondary GSA.

If an applicant is proposing a compensatory mitigation plan based on purchase of credits from a bank or in-lieu fee site with a Secondary GSA to cover project impacts, the applicant shall notify DEQ of their intent to use a Secondary GSA in the conceptual compensatory mitigation plan submitted with the application.Through credit availability letters, the applicant shall demonstrate that no bank or in-lieu fee credits are available with a Primary GSA to cover the impact site, or the applicant shall demonstrate that if bank credits are available with a Primary GSA to cover the impact site, those credits are over two [2] times the price of in-lieu fee advance credits as referenced in the most recent Advance Credit Fee Schedules (*See In Lieu Fee Prices in Chapter 3 References subfolder*). For example, if the in-lieu fee price for non-tidal wetlands in the Potomac River is $200,000 per credit, then the applicant shall prove that available credits in the Primary GSA are over $400,000 in order to allow the use of a Secondary GSA for a given project. The applicant shall also demonstrate there are no in-lieu fee advance credits available to cover the impact site. The VWP permit staff should confirm the mitigation bank’s Mitigation Banking Instrument or in-lieu fee Site Development Plan has an approved Secondary GSA that covers the impact site. The applicant should provide the GSA map and description from the mitigation bank or in-lieu fee site (*See Example GSA Map and Description in Chapter 3 References subfolder*).

*If the Secondary GSA proposed for use was approved prior to July 1, 2021, then neither the credit multiplier nor the Tree Preservation and Replacement Plan is required* (Code of Virginia § [62.1-44.15:23](https://law.lis.virginia.gov/vacode/title62.1/chapter3.1/section62.1-44.15:23/))*.* ***For all Secondary GSAs approved after July 1, 2021 (MBI Modification approval date), the following requirements apply:***

1. The applicant shall propose a credit multiplier consistent with requirements for use of a Secondary GSA in Code of Virginia (Three [3] times the wetland credit requirement and two [2] times the stream credit requirement calculated for a Primary GSA, as applicable). *For examples of Secondary GSA credit requirement calculations, see Determining the Amount of Compensatory Mitigation Required Section 3.7.3.*
2. The applicant shall submit a Tree Preservation and Replacement Plan with credit proof of purchase if the project is classified as a subdivision, residential, business, commercial, institutional, industrial (including power substations) project, or a mixed-use project of any of the previous types. Transportation and utility line projects are not required to submit a Tree Preservation and Replacement Plan, but may still use a Secondary GSA, if the project otherwise meets the requirements for use. The Tree Preservation and Replacement Plan should follow this guidance:
   1. Meet the requirements outlined in the Code of Virginia § [62.1-44.15:23](https://law.lis.virginia.gov/vacode/title62.1/chapter3.1/section62.1-44.15:23/).I.2.
   2. Acceptable Plans may include those required as a result of the adoption of Code of Virginia § [15.2-961](https://law.lis.virginia.gov/vacode/title15.2/chapter9/section15.2-961/) or § [15.2-961.1](https://law.lis.virginia.gov/vacode/title15.2/chapter9/section15.2-961.1/) by local governments for the replacement or conservation of trees during development. Local governments may call these Plans by different names (tree preservation plan, landscaping plan, tree replacement plan, open space plan, etc.). *See Example Landscape Plan in Chapter 3 References subfolder.*
   3. If there are no existing tree preservation laws, regulations, or guidance required by local government, then the applicant shall follow the Code of Virginia § [62.1-44.15:23](https://law.lis.virginia.gov/vacode/title62.1/chapter3.1/section62.1-44.15:23/).C.2, with the following additional guidance.
      1. Tree replacement or planting areas should include a planting plan with tree canopy projections that follow accepted landscaping calculations for tree canopy based on the species, size, and age of planted stock. Consideration may be made for native or non-invasive species, where possible, using resources such as Virginia Department of Conservation and Recreation (VDCR) [Native Plant Finder](https://www.dcr.virginia.gov/natural-heritage/native-plants-finder) tool and the most recent [Virginia Invasive Plant Species List](https://www.dcr.virginia.gov/natural-heritage/invsppdflist).
      2. Tree preservation areas should include a graphic map depicting the site plan as well as all proposed tree preservation areas onsite. Acceptable tree preservation areas may include but are not limited to existing forested wetlands, RPAs, riparian buffers, proposed open space or common areas, or other existing forested areas, unless excluded by the locality.
      3. No recorded site protection (i.e., deed restriction or conservation easement) is required by DEQ in relation to the Tree Preservation and Replacement Plan.
   4. No additional permit conditions, monitoring, or compliance are recommended or required for the permit in relation to the Tree Preservation and Replacement Plan.
   5. Nothing in this section shall invalidate any local ordinance adopted pursuant to the provisions of Code of Virginia § [15.2-961](https://law.lis.virginia.gov/vacode/title15.2/chapter9/section15.2-961/) or § [15.2-961.1](https://law.lis.virginia.gov/vacode/title15.2/chapter9/section15.2-961.1/).

***Effective July 1, 2021, no further “out of service area” requests for credit sale will be processed by the IRT.*** *A VDOT or locality permit that meets the exceptions listed in Code of Virginia §* [*62.1-44.15:23*](https://law.lis.virginia.gov/vacode/title62.1/chapter3.1/section62.1-44.15:23/) *may be discussed with the DEQ Mitigation Specialist.*

#### 3.7.2.5 Permittee-Responsible Mitigation

DEQ may consider permittee-responsible mitigation (PRM), but the applicant must demonstrate that the proposed project is more practicable and ecologically and environmentally preferable, in terms of the Code of Virginia section above, than all available mitigation options having higher preference in the hierarchy above. In addition, the permittee must be held to the same standards as a mitigation bank or in-lieu fee program for likelihood of success through plans, success criteria, site protection, long-term stewardship, compensating impacts associated with PRM site development, etc. If a permittee responsible site is being compared to either initial release bank credits or in-lieu fee program advance credits, the applicant shall demonstrate whether the permittee-responsible mitigation will likely meet performance standards before the initial release credits or advance credits are fulfilled.

If an applicant proposes permittee-responsible mitigation using a watershed approach and has agreed to be held to the same standards as mitigation banks and in-lieu fee programs, VWP permit staff should consider whether a watershed approach is applicable. Factors to consider include but are not limited to:

1. Is there adequate information currently available on watershed conditions and needs?
   1. If there is a watershed plan, is it appropriate for wetland mitigation planning or is it mainly used for some other purpose such as stormwater planning? A watershed plan appropriate for mitigation planning should not focus exclusively on one or two specific functions (e.g., water quality or one habitat type), but should provide an analysis of the suite of functions typically provided by the affected aquatic resource. In addition, the plan should prioritize sites for mitigation, through identification of degraded aquatic resources and of immediate and long-term aquatic resource needs.
   2. Is this in an area where watershed boundaries are unclear or do not exist (e.g., coastal areas) and therefore a watershed approach is not relevant?
   3. Does the watershed approach account for geographic ecosystem type even within the watershed? For example, it should require impacts in coastal, non-tidal waters to be compensated for in coastal, non-tidal waters.
2. Do in-house resources (e.g., mapping, threatened or endangered species databases, aerial photographs) provide additional watershed or site-specific data? For example, where an impact site has Mabee’s salamander (a state-listed threatened species) habitat and an applicant proposes in-kind/off-site mitigation within the watershed where the compensation site provides Mabee’s salamander habitat, the off-site mitigation option may be given preference.
3. Is the scope of analysis adequate? The scope of analysis should be commensurate with the level of impact. When determining the scale of the watershed analysis, staff should consider factors such as aquatic habitat diversity, habitat connectivity, relationships to hydrological sources (including availability of water rights), trends in land use, ecological benefits, and compatibility with adjacent land uses.

#### 3.7.2.6 Preservation

The use of preservation of wetlands or stream channels with upland buffers as compensation should be very rare and should *always* be discussed with regional management prior to consideration. Preservation should only be used when no ecologically preferable options exist, and in conjunction with sufficient restoration or creation to achieve no net loss of acreage and function. Although allowed, caution should be taken in considering use of preservation in conjunction with use of mitigation bank credits, because bank credits often already incorporate a preservation component. It is critical to ensure that, when preservation is combined with bank credits made up in part by additional preservation, the project will still achieve no net loss of wetland acreage and function and no net loss of stream functions. As permittee responsible mitigation, preservation must meet the same criteria as a mitigation bank, in order to ensure success. Neither the statute nor the regulation lists economic practicability as a factor the agency should consider when evaluating compensatory mitigation proposals; therefore, choosing preservation due to anticipated savings to the applicant is not acceptable.

Managing long-term compliance and success of preservation instruments requires significant agency resources. In addition, oftentimes the agency must pursue enforcement judicially, rather than through the typical administrative enforcement process. As properties change hands, enforcement becomes more complex.

If no other options for compensatory mitigation are available, preservation may be considered. Appropriate preservation sites and proposals **must** meet all of the following criteria:

* The system to be preserved is of exceptional quality, and demonstrate all of the following characteristics:
  + documented presence of Threatened or Endangered species, Species of Greatest Conservation Need (classified as Tier 1 or 2, or assemblages of Tier 3 and/or 4 species (See [http://bewildvirginia.org/species](http://bewildvirginia.org/species/)/)) or areas listed as a Natural Heritage Resource;
  + invasive species absent[[12]](#footnote-13);
  + system at or near maturity; and
  + favorable water quality within the system.
* The system has an important, positive effect on downstream water quality.
* Documented threat of loss or degradation, such as from development, agriculture, or silviculture.
* Preservation requirements are not already in place (such as Resource Protection Areas (RPAs) or other local ordinances).
* The preservation plan protects the aquatic system, to the extent possible, against present and potential future adverse effects, such as fill, fragmentation, erosion or sedimentation, litter, stormwater inputs, hydrologic changes, and lack of buffer.
* Resources to be preserved are geographically connected to each other, are physically buffered from project development, and are not within subdivided lots or other areas that make them susceptible to human or other anthropological impacts.
* The preserved site must be legally protected in perpetuity through a protective mechanism such as, but not limited to, a conservation easement, a duly recorded declaration of restrictive covenants, or another protective instrument. When a conservation easement is used, it must be held by a third party in accordance with the Virginia Conservation Easement Act (§ [10.1-1009 *et seq*](https://law.lis.virginia.gov/vacodefull/title10.1/chapter10.1/). of the Code of Virginia) or Virginia Open-Space Land Act (§ [10.1-1700 *et seq*](https://law.lis.virginia.gov/vacodefull/title10.1/chapter17/). of the Code of Virginia). Declarations of restrictive covenants must follow the most recently approved template. Any changes to the template must be approved by Central Office prior to approval. See section 3.9 for additional information on preserved areas and the Declaration of Restrictions.
* A long-term stewardship plan must be completed and must include a description of long-term management and maintenance needs, the entity responsible for stewardship, annual cost estimates for management and maintenance, and provide funding to be used to meet those needs.
* All other IRT planning, execution and success criteria are met.

### 3.7.3 Determining the Amount of Compensatory Mitigation Required

#### 3.7.3.1 Ratios

Generally accepted compensation ratios are found in Table 4 below[[13]](#footnote-14). However, these are not firm for every situation and ratios may vary among VWP individual permits depending on specific site characteristics. Considering the length of time it takes to replace the vegetative community and functions of forested and scrub-shrub wetlands, ratios for impacts to these wetland types are greater than 1:1. Any proposed variation should be discussed with Central Office management. Variations require a functional analysis per [9VAC25-210 80](https://law.lis.virginia.gov/admincode/title9/agency25/chapter210/section80/).C. if the proposal includes bank/in-lieu fee program credit purchase at less than the listed ratios.

Table 4: Wetland Compensation Ratios

| **Resource Type** | **Total Compensation Ratio** |
| --- | --- |
| Palustrine Forested Wetland (PFO) | 2:1 |
| Palustrine Scrub Shrub Wetland (PSS) | 1.5:1 |
| Palustrine Emergent Wetland (PEM) | 1:1 |
| Conversion impact, PFO to PSS[[14]](#footnote-15) | 0.5:1 |
| Conversion impact, PSS to PEM | 0.5:1 |
| Conversion impact, PFO to PEM | 1:1 |
| Shading | 0.5:1 |

Ratios for conversion impacts may factor in the alteration or loss of habitat. When trees are cut, there is an obvious loss of habitat and thus loss of one or more functions. The stumps can be left behind and allowed to sprout which may reduce the time it takes for a forested wetland to regain functions. Stumps can also be removed (i.e., grubbing), but this practice is considered excavation, a regulated activity in a wetland, and increases the chance of erosion from soil disturbance. See also Chapter 2, Appendix A regarding utility management practices employed by applicants/permittees in order for DEQ to consider PFO to PSS as conversion impacts.

Compensation ratios for wetlands should be applied to the acreage of permanent wetland impacts *that has been rounded to the second decimal place*, and ratios for streams should be applied to the linear footage of stream channel impacts that has been rounded to the nearest whole number. Ratios should not be applied to square footage of wetland impacts. *These rounded values are to be used for the purposes of determining applicable permit application fees and any required compensatory mitigation.* The program recognizes that such math, for example, may result in impacts that technically exceed 0.10 acre (4,356 square feet) but still round down to 0.10 acre.

In the sample table below, note that compensation requirements would be different had the ratios been applied to the square footage of impacts or to acreage that had not been rounded to the second decimal place.

Table 5. Compensation Requirements Rounding Example

| **Sample Impact Table** | | | |
| --- | --- | --- | --- |
|  | **PFO** | **PSS** | **PEM** |
| **Impact Area 1 (sq. ft.)** | 5,981 |  | 10,982 |
| **Impact Area 2 (sq. ft.)** | 4,378 | 23,478 |  |
| **Impact Area 3 (sq. ft.)** | 678 |  |  |
| **Impact Area 4 (sq. ft.)** | 2,977 |  |  |
| **Sum (sq. ft.)** | 14,600 | 23,860 | 10,982 |
| **Acreage** | 0.3352 | 0.5478 | 0.2521 |
| **Acreage Rounded** | 0.34 | 0.55 | 0.25 |
| **Mitigation Ratio** | 2:1 | 1.5:1 | 1:1 |
| **Mitigation Credits** | 0.68 | 0.83 | 0.25 |

Compensation for stream channel impacts requires analysis of each impacted stream reach according to the [Unified Stream Methodology](https://www.nao.usace.army.mil/Missions/Regulatory/Unified-Stream-Methodology/) (USM) to determine compensatory requirements (9VAC25-210-80.B.1.h(2)). The USM was developed collaboratively between the Norfolk District and DEQ in 2007. USM training materials for DEQ staff are available on [DEQnet](https://covgov.sharepoint.com/:f:/r/sites/deqnet/Shared%20Documents/Water%20Division/Water%20Permitting/Wetlands%20%26%20Stream%20Protection%20-%20VWP/Training/USM%20Workshops%202020?csf=1&web=1&e=07VYYV).

The USM forms are completed by the applicant and provided with the permit application. **The forms must be reviewed by DEQ staff, preferably with a site visit, to ensure that the proper compensatory mitigation is being proposed.** A typical Reach Condition Index (RCI) value for a stream immediately surrounded by urban or agricultural conditions may be between 0.80 and 1.00. A typical RCI value for a stream immediately surrounded by forest, wetlands, or other natural or rural conditions may be between 1.10 and 1.30. All RCI values should be reviewed thoroughly, especially if they are above or below these typical ranges. Common mistakes include utilizing the Channel Alteration Parameter incorrectly, by evaluating not only the primary physical alteration, but also the impact the physical alteration is having on the assessment reach. The impact to the assessment reach resulting from physical alteration (i.e., scouring, head cuts, vertical banks, etc.) is accounted for in the Channel Condition Parameter.

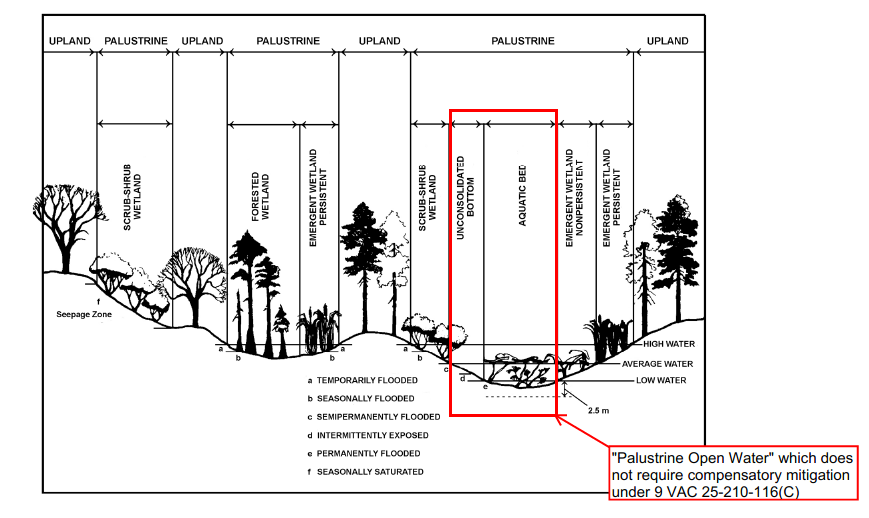
Impacts that require mitigating and that are co-mingled generally will require compensation appropriate for each resource separately.

For example, an ephemeral or intermittent stream that is flowing through a wetland, and the entire wetland is proposed to be filled, or culverted. In this example, compensation should be evaluated for both the stream bed running through the wetland and the wetland itself. The type of stream would not be of consequence, other than in computing the required compensation per the applicable USM methodology form to score the stream based on its Cowardin classification.

Certain open water impacts may require compensation if necessary to protect state waters and fish and wildlife resources from significant impairment if they do not otherwise qualify for the open water impacts exclusion ([9VAC25-210-60](https://law.lis.virginia.gov/admincode/title9/agency25/chapter210/section60/).6). The regulation prohibits DEQ from requiring compensation for permanent or temporary palustrine open water impacts unless they are within karst topography and were formed by the natural dissolution of limestone. Palustrine open waters fall into the Cowardin classes of Unconsolidated Bottom or Aquatic Bed and include nonvegetated wetland areas with all of the following four characteristics: (1) area less than 8 hectares (20 acres); (2) lacking active wave-formed or bedrock shoreline features; (3) water depth in the deepest part of basin less than 2.5 meters (8.2 feet) at low water; and (4) salinity due to ocean-derived salts less than 0.5 parts per thousand. A site visit should be made if a VWP permit staff determines that compensation for POW impacts may be necessary.

Figure 1: Palustrine Open Water Subject to [9VAC25-210-116](https://law.lis.virginia.gov/admincode/title9/agency25/chapter210/section116/).C

Source: <http://www.fws.gov/wetlands/Documents/Classification-of-Wetlands-and-Deepwater-Habitats-of-the-United-States-2013.pdf>



#### 3.7.3.2 Ditches

Impacts within jurisdictional ditches containing open water or vegetated wetlands are calculated in acres. Compensation is determined using standard ratios for the applicable Cowardin class (open water ditches are subject to guidelines on open water impact compensation above). Impacts within channelized streams or ditches containing streams are calculated in linear feet, assessed using the USM, and compensated as streams.

#### 3.7.3.3 Utilities

VWP staff should evaluate avoidance and minimization measures and then note the total temporary impacts and total permanent impacts at each single and complete crossing, as provided in the application.

The temporary and permanent impact sum determines if a VWP general permit coverage or VWP individual permit may be used. The permanent impact sum determines if compensatory mitigation is required - typically required for unavoidable, permanent impacts greater than one-tenth (0.10) of an acre nontidal wetlands/open water or greater than 300 linear feet of nontidal stream bed. See also Appendix A.5 of Ch 3 re: single and complete.

**WP2 Only**

VWP staff should evaluate avoidance and minimization measures as usual. Utility corridors in nontidal waters that are being evaluated for coverage under VWP General Permit WP2 have a provision in 9VAC25-670-30.A.7 that is unique to this general permit.

“When functions of surface waters are permanently adversely affected, such as for conversion of forested to emergent wetlands in a permanently maintained utility right-of-way, compensation shall be required for impacts outside of a 20-foot wide **permanently maintained corridor**. Compensation shall not be required for impacts within the 20-foot wide portion of permanently maintained corridor. For example, with a 50-foot wide, permanently maintained corridor, compensation on each side of the 20-foot portion would be required for impacts that occur between the 20-foot and the 50-foot marks.”

1. All permanent and temporary impacts count toward the total usage thresholds for using WP2 (up to one acre of nontidal wetlands or open water and up to 1,500 linear feet of nontidal stream bed), including those within the permanently maintained utility corridor. This total should be considered for permit application fee calculation purposes. However, impacts in the utility project’s support and/or staging areas that are not maintained permanently should be counted as temporary impacts, regardless of the VWP permit type being considered. *Avoidance and minimization of impacts must still be considered during the applicant’s project development and DEQ’s application review.*
2. Permanent impacts INSIDE a 20-foot wide, permanently maintained corridor, or INSIDE a 20-foot wide *portion* of a permanently maintained utility corridor of greater width, *count toward the project’s total permanent impacts for determining whether compensatory mitigation is required*. However, the *compensation* for the 20-foot corridor portion of permanent impacts is subtracted from the total compensation amount, giving a net compensation amount.
3. Unavoidable, permanent impacts OUTSIDE of the 20-foot wide area *count toward the project’s total permanent impacts for determining whether compensatory mitigation is required.* The *compensation* for these portions of permanent impacts is not subtracted from the total compensation amount.

Table 6. Examples of Determining Compensation

| Example Scenario | Example Compensation |
| --- | --- |
| 1. An applicant is proposing to construct a utility line project and has implemented avoidance and minimization, but unavoidable, permanent wetland impacts remain at one crossing. A portion of these permanent impacts occur INSIDE an applicant-established 20-foot wide, permanently maintained corridor. The total permanent impacts are greater than 0.10 of an acre. The net compensation requirement is calculated by subtracting the compensation required for inside-corridor permanent impacts from the compensation required for the total permanent impacts. | Permanent impacts total: **0.40** of an acre emergent wetlands  Permanent impacts inside the 20-ft corridor: 0.25 of an acre emergent wetlands  Compensation ratio: 1:1  Compensation method: purchase bank credits  Compensation amount: 0.40 credits - 0.25 credits = 0.15 credits |
| 1. An applicant is proposing to construct a utility line project and has implemented avoidance and minimization, but unavoidable, permanent wetland impacts remain at one crossing. A portion of these permanent impacts occur INSIDE an applicant-established 20-foot wide, permanently maintained corridor. The total permanent impacts are greater than 0.10 of an acre. The net compensation requirement is calculated by subtracting the compensation required for inside-corridor permanent impacts from the compensation required for the total permanent impacts. | Permanent impacts total: **0.35** of an acre emergent wetlands  Permanent impacts inside the 20-ft corridor: 0.30 of an acre emergent wetlands  Compensation ratio: 1:1  Compensation method: purchase bank credits  Compensation amount: 0.35 credits - 0.30 credits = 0.05 credits |
| 1. An applicant is proposing to construct a utility line project and has implemented avoidance and minimization, but unavoidable, permanent wetland impacts remain at one crossing. A portion of these permanent impacts occur INSIDE an applicant-established 20-foot wide, permanently maintained corridor. The total permanent impacts are less than or equal to 0.10 of an acre. | Permanent impacts total: **0.05** of an acre emergent wetlands  Permanent impacts inside the 20-ft corridor: 0.02 of an acre emergent wetlands  Compensation amount: No compensation is required. |
| 1. An applicant is proposing to construct a utility line project and has implemented avoidance and minimization, but unavoidable, permanent wetland impacts remain at one crossing. All of these permanent impacts occur INSIDE an applicant-established 20-foot wide, permanently maintained corridor. The total permanent impacts are greater than 0.10 of an acre. | Permanent impacts total: **0.12** of an acre emergent wetlands  Permanent impacts inside the 20-ft corridor: 0.12 of an acre emergent wetlands  Compensation amount: No compensation is required. Avoidance and minimization requirements still apply. |
| 1. An applicant is proposing to construct a utility line project and has implemented avoidance and minimization, but unavoidable, permanent stream impacts remain at one crossing. A portion of these permanent impacts occur INSIDE an applicant-established 20-foot wide, permanently maintained corridor. The total permanent impacts are greater than 300 linear feet. The net compensation requirement is calculated by subtracting the compensation required for inside-corridor permanent impacts from the compensation required for the total permanent impacts. | Permanent impacts total: **310** linear feet stream bed  Permanent impacts inside the 20-ft corridor: 275 linear feet  Compensation ratio: [USM results]  Compensation method: purchase bank credits  Compensation amount: Compensation credits for 310 linear feet – compensation credits for 275 linear feet = net compensation credits |

The 20-foot portion subject to the regulation is measured from the centerline of the applicant-identified, permanently maintained corridor such that 10 feet extend outward on either side from the corridor centerline. Measuring in this way allows flexibility in the placement of a utility structure (e.g., one or more pipes, footers, or wires) *within* the corridor. Potential utility configuration examples are shown in Figures 2 and 3 – these are illustrations of the information as examples and are *not* intended to show DEQ approved or preferred layouts.

Figure 2: Example graphic: Potential corridor, single utility line

Figure 2

Example graphic of a potential single utility layout to illustrate how compensation may apply

Background image source: [Big Stock](https://www.bigstockphoto.com/image-357517934/stock-photo-aerial-top-view-of-winding-river-in-wetlands-picturesque-spring-landscape)

Figure 3: Example graphic: Potential corridor, multiple utility lines

Figure 3

Example graphic of a potential multiple utility layout to illustrate how compensation may applyDiagram

Background image source: [Big Stock](https://www.bigstockphoto.com/image-357517934/stock-photo-aerial-top-view-of-winding-river-in-wetlands-picturesque-spring-landscape)

#### 3.7.3.3 Secondary Service Areas

If an applicant proposes the use of Secondary GSA bank or in-lieu fee credits as discussed in *Section 3.7.2.4 Primary and Secondary Geographic Service Areas (GSAs)*, the applicant must purchase three [3] times the wetland credit requirement and two [2] times the stream credit requirement calculated for a Primary GSA, as applicable. If the applicant is proposing impacts to 0.5 acres of PFO wetland, the standard mitigation at 2:1 ratio will result in 1 credit. If the applicant is proposing impacts to 0.25 acres of PEM wetland, the standard mitigation at 1:1 ratio will result in 0.25 credit. To use a Secondary GSA for the permit, the mitigation requirement will be 3.00 credits and 0.75 credits, respectively. If the applicant is proposing impacts to 400 linear feet of stream and the mitigation requirement according to the USM Form 1 is 450 credits. To use a Secondary GSA, the mitigation requirement will be 900 credits.

Table 7: Primary and Secondary GSA Credit Requirements Example

| **Sample Mitigation Credit Table – Primary & Secondary GSA** | | | |
| --- | --- | --- | --- |
|  | **PFO** | **PEM** | **Stream** |
| **Impact Acreage / LF** | 0.50 | 0.25 | 400 |
| **Mitigation Ratio** | 2:1 | 1:1 | --\* |
| **Mitigation Credits - Primary GSA** | 1.00 | 0.25 | 450 |
| **Secondary GSA Multiplier** | 3x | 3x | 2x |
| **Mitigation Credits - Secondary GSA** | 3.00 | 0.75 | 900 |
| *\*USM Form 1 is utilized to determine the Primary GSA stream credit requirement for a stream impact.* | | | |

### 3.7.4 Compensation Phasing

In some circumstances, due to economic or other concerns, applicants may request to phase the purchase of mitigation bank credits or other portions of the required compensatory mitigation. The phasing of compensatory mitigation within a permit is only applicable to VWP individual permits. Coordinate compensatory mitigation phasing with the regional VWP program manager. VWP permit staff are to utilize the following guidelines in phasing the compensatory mitigation of a permit:

* Compensatory mitigation is to be provided prior to initiating any authorized impact of a particular phase.
* Phase boundaries should be logical and contiguous.
* As part of the application, the applicant must submit an impact map depicting the phase boundaries and a table containing a list of each impact within each phase, with applicable compensation for each impact as well as total impacts and compensation for each phase.

Revise the Construction Status Update (CSU) form to clearly differentiate impact numbers across the phases.

Revise the Special Conditions of the VWP individual permit to:

* Include a requirement to provide a status and accounting of the compensatory mitigation completed to date for each phase as an attachment to the biannual CSU. Reference the impact map and table depicting the phases;
* Include hard deadlines for completing compensation for each phase, based on the applicant’s proposed schedule;
* Require 10-day notice for each phase separately; and
* Require the CSU forms for each phase separately.

Example compensation special conditions include the following:

1. The permittee shall provide compensation through the purchase of X wetland mitigation bank credits and the purchase of X USM stream mitigation bank credits from a mitigation bank that meets the requirements of § [62.1-44.15:23](https://law.lis.virginia.gov/vacode/title62.1/chapter3.1/section62.1-44.15:23/).A of the Code of Virginia and [9VAC25-210-116](https://law.lis.virginia.gov/admincode/title9/agency25/chapter210/section116/).E.1. Multiple banks may be used to fulfill compensation requirements.
2. The wetland and stream mitigation may be provided for Phase I and Phase II separately. Phase boundaries shall be those depicted on the exhibit entitled “Wetland Overall Impact Map” with the last revised date July 15, 2016, drawn by Wetland Consultant, Inc., and received by DEQ on July 18, 2016.
   1. Documentation that an approved mitigation bank has debited 6.34 wetland credits and 254 USM stream credits shall be submitted to and received by DEQ no later than July 1, 2017, or prior to initiating work in Phase I, whichever occurs *first*.
   2. Documentation that an approved mitigation bank has debited 3.06 wetland credits and 340 USM stream credits shall be submitted to and received by DEQ no later than July 10, 2021, or prior to initiating work in Phase II, whichever occurs *first*.
3. If any work activities cause direct or indirect unauthorized surface water impacts within a Phase, the permittee shall purchase all required mitigation for that Phase and submit documentation of such purchase to DEQ within 30 days of the occurrence of such impacts.

Permit conditions such as those above enable the VWP permit staff to enter specific mitigation due dates into CEDS as Compliance Events, in order to better track the project. Changes to the hard dates can be authorized as a minor modification under [9VAC25-210-180](https://law.lis.virginia.gov/admincode/title9/agency25/chapter210/section180/).E.2. Compensation totals for each phase should be entered as separate line items in the CEDS Compensation screen.

## 3.8 Site Visits

A site visit will be conducted for all new permit applications to the extent VWP permit staff schedules allow. VWP permit staff may use the visit to familiarize themselves with the site, investigate areas of concern as identified during the initial permit-application review process, review wetland functional assessments and/or USM scores, etc. Project characteristics, environmental sensitivity, and complexity should be considered when prioritizing project site visits. In lieu of site visits, VWP staff may wish to review the site photos and delineation data sheets submitted with the application, aerial imagery, [National Wetland Inventory](https://websoilsurvey.sc.egov.usda.gov/App/WebSoilSurvey.aspx) (NWI), USGS topo maps, and [soil survey data](https://websoilsurvey.sc.egov.usda.gov/App/WebSoilSurvey.aspx). Staff should review CEDS to determine if DEQ has previously visited the site. The [Wetland Condition Assessment Tool (WetCAT)](http://cmap2.vims.edu/WetCAT/WetCAT_Viewer/WetCAT_VA_2D.html) may also be used to gather information. Online resources may also provide street level photographs of the site.

If a site visit is conducted, a report should be completed after the site visit in order to document findings for the permit file, and pertinent photographs should be incorporated into the report to document significant findings.

If necessary, a copy of the report should be provided to the applicant in order to allow them to respond to any concerns noted during the site visit. Findings that will warrant further coordination with the applicant are inconsistencies with the permit application with what was observed in the field, such as identification of undocumented or misclassified surface water resources. In such cases, further coordination with the applicant will be necessary until these issues are resolved to the satisfaction of DEQ.

## 3.9 Preserved Areas / Declaration of Restrictions

All or part of a Declaration of Restrictions (DOR), or similar restrictive covenant, may need to be vacated, or work approved via existing Covenants and Restrictions by the applicable agency(ies) (i.e., DEQ and USACE). In some instances, part or all of a previously protected area may need to be vacated to allow for the same or another project to proceed. This often occurs when there is a conflict with a roadway or utility and maintenance easements.

If the proposed impacts are permanent, resulting in the permanent removal of all or a portion of the preservation/compensation area for road construction, structure changes, etc., or the activity will result in permanent vacatur of preserved areas, then a VWP individual permit modification or VWP general permit Notice of Planned Change may be necessary. Approval of such vacaturs is on a case-by-case basis via the formal or informal template revision and approval process should the recordation in question have Covenant and Restrictions languages to facilitate agency approval of such activities. The Formal DOR Amendment Approval Letter template in Chapter 3 Templates subfolder may be used by staff to respond to these instances. When a less formal approval will suffice, staff may use the Informal DOR Amendment Approval Email template provided in Chapter 3 Templates subfolder.

VWP permit staff should save all pertinent information associated with the approval of the vacatur to the applicable permit and/or non-permit file. Whether or not the vacatur of an existing DOR is necessary is a determination that should be made in consult with regional managers. Revisions should be reflective of proposed scope and any implications to the compensatory mitigation provided for existing permits and permit coverages. In some cases, the USACE may determine it can vacate a protective instrument such as a DOR through a simple revision and/or signature process. When such instances occur and do not involve compensatory mitigation requirements, DEQ permit managers may be able to process the vacatur in the same manner. As always, seek assistance from the DEQ Enforcement Program if in doubt on how to proceed.

**If a permit modification or Notice of Planned Change is determined to be necessary:**

The amendment(s) are included as part of the permit modification/Notice of Planned Change - see also Chapters 7 through 9.

If the permit or coverage associated with the preservation area is active, request the following information:

1. A modification request from existing permittee;
2. A request from the existing permittee to change the DOR or restrictive covenant;
3. An acknowledgement from the property owner, or the named person or entity on the DOR/covenant, to change the DOR/covenant for preserved areas;
4. A revised plat map(s) depicting the vacated preservation area, or similar exhibit(s);
5. The revised DOR/covenant; and,
6. A narrative regarding the compensation value of the preservation area and all proposed surface water impacts (if applicable). The compensation value associated with the vacated preservation areas must be replaced via appropriate wetland or stream in accordance with mitigation preference hierarchy.

If the permit has expired, DEQ requires items 3, 4, 5, and 6 above.

If the permit is active, but the project is not viable any longer (i.e., not constructed), and no impacts have occurred, request items 3, 4 and 5, and a request or Termination Agreement Form from the permittee to terminate the permit (see Chapter 9).

Confirmation of other signatory agencies’ acceptance of the revised DOR/covenant should be received by DEQ.

## 3.10 Permit Files

Program best practices include uploading permit files to ECM in accordance with the most current ECM program procedures within one week of the final permit decision.

### 3.10.1 GIS

The latitude and longitude of the project center should be added to the permit record in CEDS when the record is created, using the “Set GIS coordinates” tool on the General tab of the new CEDS record.

The project boundary shapefile is typically entered by VWP staff (subject to change) on a quarterly basis for incorporation into internal agency GIS platforms. *See the most recent communications from the DEQ Office of Information Services on how to access internal GIS tools.*

Tip: The new polygon editing portal is <https://gishost.deq.virginia.gov/portal/home/>. Select the 'Edit' tool on the right-hand-side toolbar. A menu appears that looks and works like the previous polygon editor. An updated training guide is not available at this time for the new editing portals but is available for the new staff map. However, once the new editing toolbar is opened, the instructions from the existing [VWP GIS Boundary Editing Web Application User Manual](https://gis.deq.virginia.gov/mapper_int/Portalimages/VWP_GIS_Boundary_Editing_Web_App_Manual_Rev_06162023.pdf) can be applied.

### 3.10.2 CEDS

Permit application and other applicable permit or permit coverage data should be kept up to date in CEDS daily if possible. See the most recent VWP CEDS Permit Module Manual and VWP PEEP Workflows Guide on [DEQNet](https://covgov.sharepoint.com/:f:/r/sites/deqnet/Shared%20Documents/Water%20Division/Water%20Permitting/Wetlands%20%26%20Stream%20Protection%20-%20VWP?csf=1&web=1&e=rKMQvD).

# APPENDIX A – SPECIAL APPLICATION SITUATIONS

## A.1 VDOT Projects

The Virginia Department of Transportation (VDOT) and DEQ have entered into a Memorandum of Agreement (March 8, 2017) which details how application and permitting processes are typically carried out for both agencies. The MOA provides clarifications in processing infrastructure projects but does not supersede VWP Permit Program official guidance or regulations. The MOA is not binding and may be rescinded at any time.

VDOT has several mechanisms by which applications may be submitted, and *there are specific application informational requirements listed in the VWP Permit Program regulations*. VDOT uses an Interagency Coordination Meeting (IACM Meeting) to discuss and provide application information to VWP permit staff and other agency staff.

Of special note is the 10-day, versus 15-day, review period for applications under WP3 for VDOT-sponsored projects only (*not* public or private applicants doing VDOT or other linear transportation projects). Also, note that there are VDOT-specific timelines associated with these same projects throughout the VWP Permit Program regulations.

For certain linear transportation projects, a State Program General Permit (YY-SPGP-LT) authorization on behalf of the USACE may also need to be processed (See Chapter 6). Under the 22-SPGP-LT the limits for linear transportation are: “The discharge must not cause the loss of greater than 1/2 acre of WOTUS (e.g., wetlands, open water, and stream channel). Stream channel loss must be reported in acreage and linear feet.”

Refer to A.5 below regarding considerations for approving linear projects when multiple crossings occur that may qualify as single and complete projects.

VDOT-sponsored projects are processed through DEQ’s Central Office. Because many transportation-related projects are occurring through third-party applicants, VWP programs in the regional offices are also processing transportation-related projects conducted by these third-party applicants. Central Office VDOT permit staff are available to assist regional offices as needed when permitting falls to that staff, or where workload or previous project coordination under NEPA may require CO involvement.

## A.2 Solid Waste Management Facilities

Solid Waste Disposal Facilities must have siting (Part A) approval in order to submit a Design Report (Part B) application and obtain a Solid Waste Permit. In the Part A application, the applicant must demonstrate how wetlands will be avoided and protected in the siting of the landfill or its supporting facilities. If wetlands cannot be avoided, then the applicant must minimize the impact and mitigate the taking of the wetlands. The VWP permit satisfies this requirement.

Va. Code [§ 10.1-1408.5](https://law.lis.virginia.gov/vacode/title10.1/chapter14/section10.1-1408.5/) of the Solid Waste Management Act contains special provisions regarding wetland impacts needed for new municipal solid waste landfills or expansion of existing municipal solid waste landfills. The provisions apply to landfills that will impact more than 2 acres of nontidal wetlands, or any tidal wetlands. Specifically, the statute states that Director may issue a solid waste permit for the expansion of a municipal solid waste landfill located in a wetland only if the following conditions are met:

1. the proposed landfill site is at least 100 feet from any surface water body and at least one mile from any tidal wetland;
2. the Director determines, based upon the existing condition of the wetland system, including, but not limited to, sedimentation, toxicity, acidification, nitrification, vegetation, and proximity to existing permitted waste disposal areas, roads, or other structures, that the construction or restoration of a wetland system in another location in accordance with a Virginia Water Protection Permit approved by the department would provide higher quality wetlands; and
3. the permit requires a **minimum two-to-one wetlands mitigation ratio**.

Follow these steps when VWP permit staff receive a VWP permit application or a request for a VWP pre-application meeting, and the development activity at the site is a new or existing landfill, or could be related to a landfill activity, (i.e., borrow area, access roads, other activities within 1,000 feet of a landfill):

1. Request certification from the applicant whether the project purpose involves a new municipal solid waste landfill or expansion of an existing municipal solid waste landfill, if not provided in the VWP permit application.
2. Notify, in writing, the Waste Permitting Office Director of the scope of the project and request coordination as needed, and existing technical guidance. Waste permit staff will assist in determining if such VWP activities are associated with a landfill and if the activity satisfies the Part A siting criteria. This determination will be confirmed after the completeness review of the water permit application and may be confirmed during the completeness review if time allows. The primary responsibility for the initial determination of VWP applicability with a landfill is with the applicant.
3. If the applicant certifies that the activity is not associated with a landfill or the Waste permit staff determine that the activity does not require siting review, the VWP application may be processed in accordance with standard water permit application processing procedures.
4. If the application specifies that impacts are associated with a landfill, the VWP permit staff must **notify the applicant in writing** as soon as possible during the completeness review, that the proposed activity may involve landfill siting approval limitations on wetlands and that **no further action can be taken** by the VWP Program (per [9VAC25-210-50](https://law.lis.virginia.gov/admincode/title9/agency25/chapter210/section50/).B.1) until the Waste Permit Program determines what those wetland limitations are in accordance with [9VAC20-81 *et seq*](https://law.lis.virginia.gov/admincode/title9/agency20/chapter81/). The VWP permit staff should copy the review letter and application to the Waste Permitting Office Director and the Regional Waste Program Manager.
5. Once both applications are submitted, coordination should be conducted to ensure that both regulations are satisfied, and to ensure that the permit conditions of the two permits are consistent.

## A.3 Surface Water Withdrawal Projects

The Code of Virginia (§ [62.1-44.15:22](https://law.lis.virginia.gov/vacode/title62.1/chapter3.1/section62.1-44.15:22/)) and VWP Permit Program regulations (primarily [9VAC25-210-300 through 9VAC25-210-390](https://law.lis.virginia.gov/admincodefull/title9/agency25/chapter210/partV/)) include provisions regulating surface water withdrawals and the preservation of instream flows. Reorganization of agency divisions in 2023 put the VWP portion of surface water withdrawal permitting into the Water Withdrawal Permitting Program (WWPP). The WWPP-Surface Water Permitting (SWP) is responsible for processing all new applications and managing existing VWP permits statewide that involve surface and groundwater withdrawals. The DEQ WWPP-Groundwater Permitting (GWP) group has responsibilities for groundwater characterization and statewide water supply planning. Please contact the WWPP-SWP regarding any VWP permit application, pre-application meeting request, or inquiry related to a water withdrawal activity.

## A.4 Natural Gas Projects

During the 2018 Virginia General Assembly, Senate Bill 950 (March 30, 2018) amended the Code of Virginia regarding the permitting of certain interstate natural gas pipelines. In accordance with § [62.1-44.15:20](https://law.lis.virginia.gov/vacode/title62.1/chapter3.1/section62.1-44.15:20/).D, projects meeting the stated criteria must receive a VWP individual permit *and* Section 401 Water Quality Certification pursuant to the new Article 2.6 (§§ [62.1-44.15:80 through -44.15:84](https://law.lis.virginia.gov/vacodefull/title62.1/chapter3.1/article2.6/)). Applications and permits for applicable natural gas pipeline projects must meet the criteria in § [62.1-44.15:21](https://law.lis.virginia.gov/vacode/title62.1/chapter3.1/section62.1-44.15:21/).J and Article 2.6 of the Code of Virginia. Several VWP Permit Program regulations were also revised in 2018 to reflect these statutory amendments ([9VAC25-210](https://law.lis.virginia.gov/admincode/title9/agency25/chapter210/), [9VAC25-670](https://law.lis.virginia.gov/admincode/title9/agency25/chapter670/), and [9VAC25-690](https://law.lis.virginia.gov/admincode/title9/agency25/chapter690/)).

**Article 2.6. Additional Upland Conditions for Water Quality Certification**

[**§ 62.1-44.15:80**](https://law.lis.virginia.gov/vacode/title62.1/chapter3.1/section62.1-44.15:80/)Findings and purpose

[**§ 62.1-44.15:81**](https://law.lis.virginia.gov/vacode/title62.1/chapter3.1/section62.1-44.15:81/)Application and preparation of draft certification conditions

[**§ 62.1-44.15:82**](https://law.lis.virginia.gov/vacode/title62.1/chapter3.1/section62.1-44.15:82/)Public notice of draft certification conditions

[**§ 62.1-44.15:83**](https://law.lis.virginia.gov/vacode/title62.1/chapter3.1/section62.1-44.15:83/)Requests for public hearing, hearings, and final decisions procedures

[**§ 62.1-44.15:84**](https://law.lis.virginia.gov/vacode/title62.1/chapter3.1/section62.1-44.15:84/)Requests for modification or revocation; public notice

During the 2021 Virginia General Assembly, Senate Bill 1311 amended Article 2.6 of the Code of Virginia regarding the application and approval processes for natural gas transmission pipelines greater than 36 inches inside diameter subject to § 7c of the federal Natural Gas Act. The amendments focus on coordination and approval of detailed erosion and sediment control and stormwater management plans that explain how these plans will address activities in or related to certain upland area features. Land-disturbing activities cannot begin until any issues identified through this process are resolved.

Legislation passed in 2022 defines controversial permits as any air or water permit for which a public hearing has been granted pursuant to § [10.1-1184.1](https://law.lis.virginia.gov/vacode/title10.1/chapter11.1/section10.1-1184.1/).C (as enacted by Senate Bill 657). For guidance on processing controversial VWP individual permits, please see the most recent version of [“Public Hearing Procedures for Permitting Decisions [9.23.22].pdf”](https://covgov.sharepoint.com/sites/deqnet/Shared%20Documents/Forms/Name%20sort.aspx?id=%2Fsites%2Fdeqnet%2FShared%20Documents%2FAdministration%2FPolicy&viewid=fe19566a%2Dc6e3%2D490e%2D9204%2Da79f6f6580b5) on DEQnet, as well as [9VAC25-210-140 through -174](https://law.lis.virginia.gov/admincodefull/title9/agency25/chapter210/partIII/).

## A.5 Single and Complete Projects

### A.5.1 Assessing Projects

Staff should review the project and surrounding area to reasonably verify that it is “single and complete” and is not actually part of other previously permitted projects ([9VAC25-210-10](https://law.lis.virginia.gov/admincode/title9/agency25/chapter210/section10/)). The Single and Complete Project Worksheet in the Chapter 3 Templates subfolder was developed to aid staff and applicants in reviewing projects. Portions of a phased development project or a renewable energy project like a solar farm that depend upon other phases of the project are not single and complete and would not pass the independent utility test – see definitions below. Portions of these types of projects that would be constructed even if the other portions or phases were not built can be considered as separate single complete projects with independent public and economic utility. Even where phases of a project may be conducted by separate or different owners, or their agents, each phase may be considered single and complete if it has independent utility – in the absence of having independent utility, the phases would be considered cumulative.

Example:

A renewable energy project includes the need for roads to access and install equipment, structures, etc. This is considered in the same way as a road network within a residential subdivision development project. Impacts from all components of the project are considered cumulative – each road crossing of a surface water is not parsed out as a single and complete project. Typically, a WP4 is adequate. A WP2 may be adequate for utility line activities, provided the activities are a single and complete project, and if applicable, the impacts from any such utility line activities and a substation do not exceed the one-acre and 1,500 linear feet limits of WP2. Also, if secondary impacts appear likely, VWP permit staff should require that the applicant minimize the impacts to the maximum extent practicable and quantify and compensate for the impacts that will likely occur.

Related regulatory definitions ([9VAC25-210-10](https://law.lis.virginia.gov/admincode/title9/agency25/chapter210/section10/)) include:

**Independent utility** “means a test to determine what constitutes a single and complete project. A project is considered to have independent utility if it would be constructed absent the construction of other projects in the project area. Portions of a phased development project that depend upon other phases of the project do not have independent utility. Portions of a phased development project that would be constructed even if the other phases are not built can be considered as separate single complete projects with independent public and economic utility.”

**Phased development** “means more than one project proposed for a single piece of property or an assemblage of contiguous properties under consideration for development by the same person, or by related persons, that will begin and be completed at different times. Depending on the relationship between the projects, a phased development may be considered a single and complete project, or each project may be considered a single and complete project if each project has independent utility, as defined in this section.”

**Single and complete project**: “means the total project proposed or accomplished by a person, which also has independent utility as defined in this section. For linear projects, the single and complete project (e.g., a single and complete crossing) will apply to each crossing of a separate surface water (e.g., a single water body) and to multiple crossings of the same water body at separate and distinct locations. Phases of a project that have independent utility may each be considered single and complete.”

**Note: When interpreting terms used in the VWP Program, staff should remember that the state policy (§** [**62.1-11**](https://law.lis.virginia.gov/vacode/title62.1/chapter2/section62.1-11/)**. B of the Code of Virginia) and the State Water Control Law (§** [**62.1-44.15:20**](https://law.lis.virginia.gov/vacode/title62.1/chapter3.1/section62.1-44.15:20/) **of the Code of Virginia) is to require the proper development, wise use, conservation, and protection of water resources by protecting their physical, chemical, or biological properties.  In the event of any ambiguity of terminology, the interpretation that most favors the state policy and is in accordance with the State Water Control Law should take precedence.** For example, although “person” is grammatically singular in the definition of “single and complete”, phases of a project, whether or not those phases are accomplished by different legal entities, must still have “independent utility” to be considered a “single and complete” project.  When individual phases of a project do not qualify as “single and complete” and do not have “independent utility”, individual phases should be evaluated cumulatively as part of a larger project purpose meeting the criteria.

### A.5.2 Linear Project Considerations

In addition to reviewing an application for the typical information, some linear projects must be evaluated to determine if multiple crossing can be considered ‘single and complete’. Aspects of the application review process, such as which type of VWP permit may apply, how fees are calculated, and whether compensation will be required, are all factors for consideration by VWP permit staff. Project location is another consideration, along with agency tracking of the project in CEDS, PEEP, and ECM. The project details may warrant one application processing pathway over another.

VWP permit staff working with linear projects in these cases may find that a pre-application meeting is helpful to layout options before too much time is spent completing and submitting an application.

Once a determination is made that a linear project includes multiple crossings that are each single and complete, then consider the following scenarios or options. This is not an exhaustive list, and case-by-case adjustments may be necessary:

1. Each single and complete crossing could qualify for a separate VWP general permit coverage – in other words, several of the same-type VWP general permit coverages for the same linear project (e.g., multiple WP3s). From an administrative perspective, tracking multiple coverages for the same linear project, under unique JPA numbers, is time consuming and confusing. Therefore, multiple coverages for the same linear project may be tracked in CEDS and ECM under one JPA number (a.k.a. VWP general permit coverage tracking number). This single-number tracking also aids with 1) data entry on the App Fee(s) tab in a permit record, as having fees broken out by crossing – but then receiving one lump sum payment from the applicant – could create auditing issues for the DEQ Finance Division (fee receipts are matched to JPA number and permit type); and 2) uploading and downloading project documents in ECM.

Currently, one permit record is entered into CEDS, and one PEEP workflow is generated under that record.

Permanent and temporary impacts are tallied for each single and complete crossing as if each were a separate coverage (not cumulatively); however, these are recorded on the various Impacts tabs cumulatively because there is not currently a mechanism in VWP CEDS to enter impacts crossing-by-crossing. Also, if secondary impacts appear likely, VWP permit staff should require that the applicant minimize the impacts to the maximum extent practicable and quantify and compensate for the impacts that will likely occur.

Fees are determined for each single and complete crossing separately. If a crossing incurs less than one-tenth acre of wetlands/open water or less than 300 linear feet of stream bed, no VWP application fee applies to that crossing. Once fees are calculated for all of the applicable crossings, add them together to get a total fee owed by the applicant. Enter one permit application fee record into the App Fee(s) tab, using the fee Description that most closely matches the project, and using the total fee. No entry of ‘zero’ fee crossings is necessary, but staff can record fee details in the Notes field on the General tab if desired. CEDS does not systematically verify the number of crossings, the amount of impacts, or that the total fee is calculated based on these parameters.

Compensation is determined for each single and complete crossing as if each crossing was receiving a separate VWP general permit coverage, including the requirement for a wetlands functional assessment per [9VAC25-210-80.C](https://law.lis.virginia.gov/admincode/title9/agency25/chapter210/section80/), and adhering to the bank credit provisions of § [62.1-44.15:23](https://law.lis.virginia.gov/vacode/title62.1/chapter3.1/section62.1-44.15:23/).B. If a crossing incurs one-tenth acre or less of permanent wetlands/open water, or 300 linear feet or less of permanent stream bed, no compensation is typically required, except that the Virginia Department of Transportation (VDOT) has a policy to mitigate all permanent impacts. Other mitigation requirements may apply as well, such as accepting voluntary habitat mitigation or applying resource agency recommendations. In CEDS, any required compensatory mitigation is entered on a per-resource, not per-crossing, basis.

Compliance and enforcement actions for each single and complete crossings may accrue the full compliance allowances for points and are not cumulative towards any necessary Warning Letter (WL) or Notice of Violation (NOV) (i.e., each WL or NOV applies to each single and complete crossing).

This pathway assumes that there is nothing about ANY crossing in the linear project that would preclude use of a VWP general permit. For example, none of the crossings incur impacts in tidal surface waters, or the permanent impacts from any one crossing does not exceed the maximum allowed under the applicable VWP general permit WP# (see limits in subsection 30 of each VWP general permit regulation). See the list of reasons below that could trigger the need for using the VWP individual permit pathway instead.

1. If one or more single and complete crossing(s) require(s) the application to be considered for a VWP individual permit, then the linear project as a whole is reviewed and assessed as one project, similarly to all other projects that qualify for a VWP individual permit.

CEDS: One JPA number, one PEEP VWP IP (or VDOT IP) workflow.

Impacts: calculated cumulatively across all impact areas within the project boundary.

Fees: calculated cumulatively across all impacts. Entered into CEDS as one record.

Compensation: calculated cumulatively across all crossings for all permanent impacts; includes the requirement for a wetlands functional assessment per [9VAC25-210-80.C](https://law.lis.virginia.gov/admincode/title9/agency25/chapter210/section80/) and the bank credit purchase provisions of § [62.1-44.15:23](https://law.lis.virginia.gov/vacode/title62.1/chapter3.1/section62.1-44.15:23/).B; other mitigation requirements that apply, such as accepting voluntary habitat mitigation or applying resource agency recommendations.

Compliance: same as for any other VWP individual permit.

1. Reasons that a VWP individual permit pathway may be necessary for multiple single and complete crossings in one linear project:

Any one single and complete crossing exceeds the applicable VWP general permit threshold;

When the activity may be a significant contributor to pollution per 9VAC25-210-130;

If cumulative impacts cause significant impairment per subsection 60 (Application) of each VWP general permit regulation;

When aquatic threatened or endangered (T-E) concerns are documented after coordination with relevant resource agencies (9VAC25-210-10);

When the linear project does not have independent utility and is be considered cumulatively with other projects; or

When any activity is prohibited from coverage under a VWP general permit per subsection 40 of each VWP general permit regulation.

### A.5.3 SPGP Verifications

A similar grouping of multiple single and complete crossings is permissible when VWP permit staff process 22-SPGP-RCIR and 22-SPGP-LT verifications, provided the terms and conditions of the applicable SPGP is met.

# APPENDIX B – SECONDARY IMPACTS

## B.1 Homeowner Association Activities

Homeowner Association activities in surface waters remaining within open space areas within a development (e.g., passive recreation; vegetation alteration; subsequent deeding over of portions to individual homeowners).

## B.2 Creating Overly Steep Slopes

Installation of fill or excavation resulting in angles that are extremely difficult to stabilize, greatly increasing the likelihood of sedimentation impacts.

# APPENDIX C – GUIDELINES FOR ASSESSING IMPACTS IN SPECIAL SITUATIONS

This Appendix addresses specific permitting scenarios that, based on the nature of the activity and associated impacts, warrant special consideration. The below subsections address these specific permitting scenarios with the aim of providing VWP staff some direction on how to permit such activities, and how to quantify and qualitatively assess the nature of proposed impacts. This is meant to be guide; project-specific considerations and permitting determinations are necessary, as is working closely with supervisors and technical assistance staff to ensure appropriate permitting outcomes.

## C.1 Stormwater Management Facilities

Quantifying primary and secondary surface water impacts resulting from the construction of stormwater management facilities (“SWM facilities” or stormwater “BMPs”) often requires special consideration.

### C.1.1 Primary Impacts due to Construction of SWM Facilities in Surface Waters

When evaluating SWM facilities proposed in surface waters, staff must determine to what extent surface waters within the inundation zone of the SWM facility should be considered impacted.

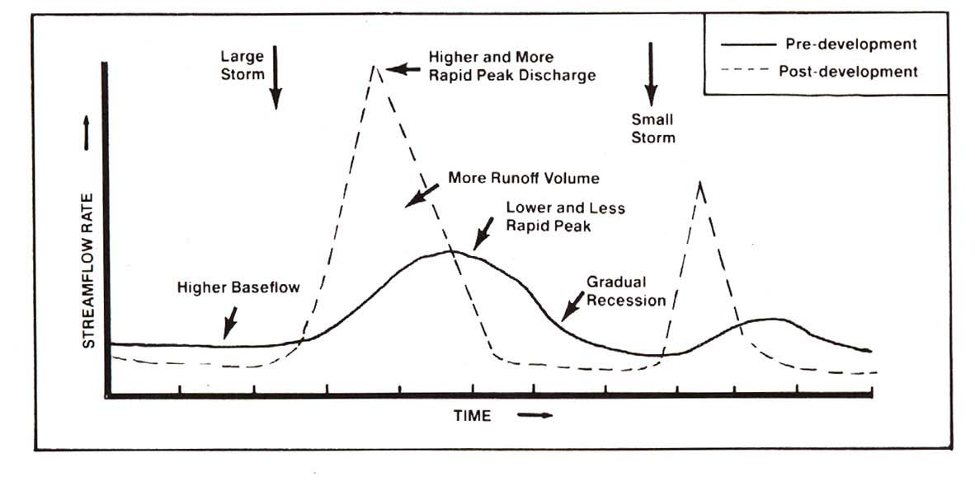
1. Wet Ponds: Surface waters located within the permanent pool, 10-year design elevation above normal pool elevation unless locally more stringent (i.e., designed to treat a 25- or 50-year storm), and all maintenance areas including, but not limited to, access areas and outlet structures will be considered impacted.
2. Extended Enhanced Retention/Detention Ponds: The definition of permanent flooding does not include back flooding resulting from the construction of an extended enhanced detention facility ([9VAC25-210-10](https://law.lis.virginia.gov/admincode/title9/agency25/chapter210/section10/)), unless that construction is not done in accordance with DEQ standards [Effective July 1, 2013, the 2013 Acts of Assembly transferred the stormwater management program from VDCR to DEQ].  Flooding – regardless of the definition – is not the only result of building these facilities. Converting surface waters to a stormwater treatment facility is by design an impact to the chemical and biological properties of the surface waters. At the time of the conversion of the surface water to a stormwater management facility, the original, primary functions of the surface water are shifted to treatment of stormwater quality and quantity. The loss of surface water function(s) is an impact under State Water Control Law. Furthermore, the surface water will be permanently maintained as a stormwater treatment facility, which oftentimes includes mowing, tree cutting, stabilization (such as riprap), grading, filling, dredging or the placement of structures in surface waters.  Therefore, impacts will occur to surface waters located within the defined treatment area, the maintenance area, including but not limited to outlet structures; the 10-year design elevation above normal pool elevation (unless locally more stringent (i.e., designed to treat a 25- or 50-year storm); and all maintenance access areas.
3. Non-quality Detention Facilities: Surface waters located within the defined detention volume and maintenance areas, including but not limited to the area located within the elevation of design detention storm event, outlet structures and all maintenance access areas will be considered impacted.
4. Permitting Implications:
   1. IPs - During application review staff should require submittal of a maintenance plan that delineates the geographic extent of all areas designated for maintenance, to include but not limited to outlet structures, 10-year design elevation above normal pool elevation (unless locally more stringent), and all maintenance access areas. If the VSMP approval process results in changes to the defined maintenance area and associated impacts to surface waters, coverage will require modification.   An Individual Permit can also be conditioned to require receipt of final maintenance agreement as approved by VSMP authority within 30 days following VSMP approval.
   2. GPCs – During application review staff should require submittal of maintenance plan that delineates the geographic extent of all areas designated for maintenance, to include but not limited to outlet structures, 10-year design elevation above normal pool elevation (unless locally more stringent), and all maintenance access areas. If the VSMP approval process results in changes to the defined maintenance area and associated impacts to surface waters, and we somehow find out about it, coverage will require modification.

### C.1.2 Potential Secondary Impacts due to Construction of SWM Facilities

Development of SWM facilities can have an impact on surface waters beyond the direct fill, dredge, or alteration of those waters. In many development projects, stormwater infrastructure has significant potential to cause secondary impacts because of the nature of those structures to manage, redirect or otherwise alter the hydrologic sources and characteristics of surface waters.

The Virginia Stormwater Management Program (VSMP) addresses the quantity and quality of stormwater discharged after construction has occurred. As impervious cover increases, the rate and volume of stormwater discharged from a site during storm events increases, as does the amount of pollutants, such as nutrients and sediments, carried within the stormwater.

Figure 4: Pre- and Post-Development Flow Rates (Source: VA DEQ Stormwater Training Program, Training Module 2)



The Stormwater Management (SWM) Program requires that SWM facilities be installed to 1) control storm-event runoff volume and peak discharge rate to levels that will protect downstream channels and prevent downstream flooding, and 2) reduce the concentration of pollutants discharged from a site to surface waters. The program seeks to replicate, as nearly as practicable, the existing pre-development site runoff rate and flow characteristics.

Although the VSMP regulations set methodologies to determine the maximum allowable volume and discharge rate needed to protect downstream channels, the VSMP regulations do not provide methodologies to calculate, or require consideration of, the *minimum* flow rate necessary to sustain downstream hydrology and ecological communities. Furthermore, in seeking to ensure downstream channels are protected and reduce flooding as much as possible, stormwater is oftentimes “over-managed”, by reducing or eliminating flows to smaller channels or wetlands on a site, in favor of rerouting storm flows through a few larger stormwater management (SWM) facilities. To evaluate potential impacts, staff should ensure that all SWM facilities and routing is shown on project drawings. An outfall of some sort should be shown at every remaining tributary, unless the tributary receives hydrology from another (upstream) source, which is documented through a water budget or flow calculations or will be otherwise be considered impacted. Even if an outfall is present, staff should request pre- and post-construction drainage areas and consider not just the size of drainage areas, but also any reduction in pre- and post-construction hydrology. A reduction in the drainage area will oftentimes reduce hydrology, but the reduction is not always proportional. VWP staff should coordinate project-specific questions with DEQ stormwater staff.

Installation of stormwater ponds and conveyance channels adjacent to surface waters can also have a secondary impact by influencing the groundwater supporting those resources. If the pond or conveyance channel is proposed to be installed below the elevation of adjacent surface water, it may intersect with the zone of influence and act as a drain on the groundwater supporting adjacent surface waters. This influence can be mitigated by lining the structures with a layer of impervious material.

### C.1.3 Other Considerations

Applicants and their consultants may use water quality treatments as justification for project layout or impacts to surface waters. Water quality can be mitigated offsite and should rarely be used to justify surface water impacts. Water quantity, on the other hand, must be managed onsite and fewer options may exist address that portion of the project. That said, stormwater management facilities come in a variety of sizes, and the SWM program gives priority to the reduction of runoff, which will in turn reduce the need for water quantity treatment. Low-impact development (LID), vegetated filter strips, and bioretention cells (among others) are all other options that are available to address stormwater quality and quantity on a more localized, micro-drainage area basis; however, they will not always be appropriate or adequate to eliminate the need for stormwater ponds. These options should be evaluated if the project proposes significant impacts associated with the construction of stormwater infrastructure.

## C.2 Installation of New Culverts

Culverts generally refer to structures, like pipes and boxes, which are placed in a stream to convey flow under another feature, such as a roadway. This subsection discusses the installation of *new* culverts. If the project involves the maintenance, repair, or replacement of an existing culvert, refer to Chapter 2, Section 2.2.5. Culverts placed in streams for crossings, and covered under VWP permits, must be countersunk, unless the culvert is a bottomless structure (see Section 100, Part I.B.2 of the general permit regulations or Part I.F.5 of the individual permit special conditions template). When reviewing any permit applications, staff should request cross-sections and details of the culvert construction. Such information should verify that the culverts are present, are designed to be countersunk to the correct depth and are designed to maintain the pre-construction hydrology of downstream surface waters, as opposed to a drop inlet or other conveyance that re-directs the hydrology into a stormwater management system, etc. Details of construction may also indicate whether secondary impacts (temporary or permanent) to the stream channel or adjacent wetlands are likely. The application and construction plans should demonstrate the following to ensure that impacts are minimized:

* The culvert must be countersunk at both the inlet and outlet to the correct depth for the structure’s size.
* The culvert should be designed with enough hydraulic capacity to allow for three or six inches of sediment deposition in the pipe bottom?
* The culvert should not impound water on the upstream side, nor should it redirect hydrology away from (and therefore impact) downstream surface waters, unless impacts associated with the hydrologic change are accounted for and authorized by the permit application.
* The material under the outlet or inlet of the culvert must not enable erosion of the channel at either end of the culvert.
* The length and depth of the riprap at the outlet or inlet of the culvert must be the minimum necessary to provide appropriate stability and erosion control.
* Aquatic organisms must be able to move through the crossing.

VWP permit staff may request the following information to facilitate the review of crossings that use culverts.

* Description provided of the materials to be used, the method of construction (including the use of cofferdams), the sequence of construction events, and if bedrock conditions may be encountered;
* Cross-sections and profile plans of the culvert crossings including wing walls and rip rap;
* Spot elevations of the stream bottom within the thalweg at the beginning and end of the pipe or culvert, extending to a minimum of 10 feet beyond the limits of proposed impact (including riprap aprons); and
* Verification that hydraulic studies have been performed that account for sediment within the culvert and any reduced hydraulic capacity due to countersinking.

The removal of a culvert structure (fill) *without replacement with another structure* and restoring the original drainage feature is not considered to be maintenance. This activity is a permanent impact and counts toward the impact threshold totals but does not require compensatory mitigation, as some benefits are being realized from ‘daylighting’ the feature. This applies if the feature is an ephemeral, intermittent, perennial, or ditched stream. Temporary impacts may also be necessary for staging and access. Temporary impacts of any surface water feature, if applicable, should be restored to original conditions like any other temporary impact. Additional consideration should be given to the Cowardian classification of the stream and stream connectivity in the area, and if warranted, request that the applicant or permittee maintain a low flow channel for aquatic organism passage. Impacts to culverted streams should be counted with the total stream impacts and a *note should be added to CEDS permit record* indicating that mitigation is not required for those impacts. As an example, the VWP general permit coverage may include:

*…Coverage Conditions:*

1. This coverage authorizes the surface water impacts as identified in Table 1 below.

Table 1.

|  |  |  |  |
| --- | --- | --- | --- |
| Impact Type | Surface Water Type | Authorized Impact Amount | |
| Acreage | Linear Feet |
| Permanent | Palustrine Forested Wetland (PFO) | 0.44 | N/A |
| Palustrine Emergent Wetland (PEM) | 0.10 | N/A |
| Stream Channel\* | 0.06 | 559 |
| *Subtotal* | *0.60* | *559* |
| Temporary | Stream Channel | 0.01 | 35 |
| *Subtotal* | *0.01* | *35* |

\*Permanent Stream Channel impacts include 90 linear feet (less than 0.01 acre) of stream channel within an existing culvert, which is included as an impact but does not require mitigation.

In addition, when drafting general permits (including reporting-only general permits) with stream crossings staff should add the following condition to the cover page: “When countersinking culverts in streams, the permittee shall comply with all other conditions of this permit, including Part I.B.2, and shall install the structure and any riprap or ancillary features in a manner to ensure reestablishment of the stream channel within 15 days post construction. When installing culverts in any surface water, the permittee shall install the culvert and ancillary features in a manner that will maintain the pre-construction hydrologic regime. Surface water depth within the impact area shall be consistent with depths upstream and downstream of the impact area.”

The condition in the regulation does not discuss a specific timeline in which this must be done or the possible need for the addition of finer materials to choke the larger stone and/or placement of riprap to allow for a low flow channel. However, the condition does align the VWP permit with one of the USACE regional conditions applicable to many of its 2017 Nationwide Permits (3, 7, 12, 14, 17, 18, 21, 23, 25, 27, 29, 32, 33, 37, 38, 39, 40, 41, 42, 43, 44, 45, 46, 49, 50, 51, and 52).

Chapter 8.3.7 of the *VDOT Drainage Manual* (Issued April 2002 - Revised July 2019) provides specifications for culvert countersinking and low flow considerations that have been used to develop DEQ and the USACE requirements. Additional sections of this reference also provide specifications for VDOT’s installation of aprons and other ancillary structures. (See <http://www.virginiadot.org/business/locdes/hydra-drainage-manual.asp>)

## C.3 Temporary Impacts

Impacts to surface waters are temporary when the surface water will be “returned to preconstruction elevations and contours such that wetland acreage and surface water functions will be restored” ([9VAC25-210-10](https://law.lis.virginia.gov/admincode/title9/agency25/chapter210/section10/)).

### C.3.1 Vegetation

The definition of temporary impact does not require replanting or restoration of the preconstruction vegetative community, but general and individual permits require replanting of temporary wetland impact areas by planting or seeding with the appropriate cover type as part of the minimization of the impact required by [9VAC25-210-80](https://law.lis.virginia.gov/admincode/title9/agency25/chapter210/section80/).B.1.g. The plants and seeds used to restore temporary disturbances or impacts should not be on the most recent Department of Conservation and Recreation [Virginia Invasive Plant Species List](https://www.dcr.virginia.gov/natural-heritage/invsppdflist) (2024) to the maximum extent practicable or without prior approval from DEQ. Using invasive or undesirable plants or seeds can affect the functions of the restored area and may unintentionally convert one type of surface water to another type. Such conversion may be a permanent impact to surface waters and may require a VWP general permit coverage, VWP individual permit, modification of an existing VWP general permit coverage or individual permit, and/or compensatory mitigation.

Under a general permit, DEQ is limited to the second-year post-disturbance to determine if temporary impact areas are progressing appropriately toward full vegetative restoration. Section 100, Part I B 11 of the VWP general permits ([9VAC25-660](https://law.lis.virginia.gov/admincode/title9/agency25/chapter660/), [9VAC25-670](https://law.lis.virginia.gov/admincode/title9/agency25/chapter670/), [9VAC25-680](https://law.lis.virginia.gov/admincode/title9/agency25/chapter680/), and [9VAC25-690](https://law.lis.virginia.gov/admincode/title9/agency25/chapter690/)) states, “…All temporarily disturbed wetland areas shall be restored to preexisting conditions within 30 days of completing work at each respective temporary impact area, which shall include reestablishing preconstruction elevations and contours with topsoil from the impact area where practicable and planting or seeding with appropriate wetland vegetation according to cover type (i.e., emergent, scrub-shrub, or forested). The permittee shall take all appropriate measures to promote and maintain revegetation of temporarily disturbed wetland areas with wetland vegetation through the second-year post-disturbance….” This permit condition does not require that the temporary impact area be fully restored to pre-construction conditions prior to permit expiration. It only requires planting (for PFO impacts) or seeding (for other vegetative communities) and restoring preconstruction contours. Again, the plants and seeds used to restore temporary disturbances or impacts should not be on the most recent Department of Conservation and Recreation Virginia Invasive Plant Species List to the maximum extent practicable or without prior approval from DEQ.

In evaluating proposed temporary forested wetland impacts, VWP permit staff should note size of the impact area, the vegetative community type and its functions and values, and inquire about restoration timelines. These details will assist VWP permit staff in determining the appropriate permit conditions for a given temporary impact area. Prior to permit issuance, VWP permit staff should confirm that the temporary impacts will be replanted with native wetland species at a minimum density of 400 stems per acre. VWP permit staff should also confirm that the species to be planted will be FAC, FACW, or OBL species located within the temporary impact area prior to clearing.

### C.3.2 Compensation/Restoration

All temporarily disturbed wetland areas shall be restored to preexisting conditions, which shall include reestablishing preconstruction elevations and contours with topsoil from the impact area where practicable and planting or seeding with appropriate wetland vegetation according to cover type (i.e., emergent, scrub-shrub, or forested). For (i) large (greater than one acre) proposed temporary forested wetland impacts; (ii) impacts to forested wetland communities that provide unique or high-value functions that cannot be readily replaced; or (iii) temporary impacts that will remain in place for a long period of time (more than 6 months), *the temporal loss of functions in a vegetated community affected by a temporary impact shall be compensated to the satisfaction of DEQ*. Such compensatory mitigation *should not* be used to justify converting a temporary impact to a permanent impact during the application process. If an impact need only be temporary to accomplish the project purpose, staff may not authorize it as a permanent impact as it would not be the least damaging practicable alternative.  If compensatory mitigation is not ecologically preferable, staff may require long-term monitoring to ensure successful restoration. Such monitoring may only be included in an individual permit because the general permit regulation limits DEQ’s oversight to the criteria in Part I.B.11.

### C.3.3 Monitoring

If requiring long-term monitoring for temporary impacts under an individual permit, the below long-term monitoring and defined success criteria serve as a guide. Monitoring and success criteria may be tailored to meet project- and site-specific needs.

* **Replanting** – Density of at least 400 stems/acre, with composition based on surrounding/adjacent forest coverage to compromise 50% of proposed plantings, with an additional 50% comprised of early successional species with the propensity to rapidly accumulate biomass, form a tree stratum, and provide some measure of canopy closure to facilitate later-stage successional tree growth.
* **Monitoring** – Seven (7) years of monitoring, with final release contingent on all defined success criteria being met by the 7th year of monitoring.
* **Success Criteria** – Establish vegetative plots or transects at a minimum density of four (4) per acre selected by randomized quadrant placement, and measures.
* **Stem Counts** – At least 400 stems/acre. Volunteers may be included. Stem counts are to include identification of species, [vegetative indicator status](http://wetland-plants.usace.army.mil/nwpl_static/v33/home/home.html) (<http://wetland-plants.usace.army.mil/nwpl_static/v33/home/home.html>), and computation stating FAC or wetter dominance. Tree heights to be included in the stem count are to be 12” by year one, 18” by year two, 24” by year three, and 36” by year 7.
* **Herbaceous Coverage** – Assess a 3 ft x 3 ft plot or area equivalent. Eighty percent coverage by year one, 95% coverage by year two of FAC or wetter dominance.
* **Invasive Species** – Aerial coverage of invasive species may not exceed 5% on any given monitoring year. To include identification of invasive species[[15]](#footnote-16) and percent coverage attributed to each invasive species, with total coverage summed.
* **Reporting –** Annual reporting with the January Construction Status Update Form, to include above measures of success, photo documentation representing four cardinal directions in each temporary impact restoration area, and if necessary, a corrective action plan to bring the site back into compliance with the defined success criteria.

### C.3.4 Temporary Matting

Temporary matting is to be used to facilitate the use of heavy equipment within wetlands while preventing soil compaction, and thus permanent impacts to wetlands. Temporary matting is a specific condition of all Virginia Water Protection Permits. However, in cases where the only disruption to surface waters involves the use of temporary matting, the nature and temporal aspects of the proposed activity need be considered in determining the applicability of a VWPP permit and/or permitting exclusions.

The duration of the use of the matting is of principal consideration, as short-term versus long-term matting can have significantly varying effects on existing vegetation. In instances where the use of temporary mats is to be of sufficient duration to result in the loss of vegetative cover, and the subsequent need for appropriate reseeding and mulching, projects will require a VWPP permit. Proposed projects are to be assessed on an individual basis. Planting and seeding should not be done with species identified on the most recent Department of Conservation and Recreation Virginia Invasive Plant Species List. For information on native plant species, VDCR has developed a [Native Plant Finder](https://www.dcr.virginia.gov/natural-heritage/native-plants-finder) tool to assist the public.

Another factor to be considered when assessing temporary matting is the proposed extent of use project-wide and purpose – for instance, maintenance access. A single timber matted access point of short duration may not warrant the need for a VWPP permit, however, extensive timber matting or other types of matting, if even of short duration, may require a VWPP permit given the number of mats in use and increased propensity for temporary wetland impacts that may require restoration. Extensive use of timber matting would complicate project timelines and add complexity to project oversight, and thus the potential for vegetative impacts would increase. Thus, VWP permit staff should assess projects individually, and utilize best professional judgment concerning the extent of mat usage as a determining factor in the need for a VWPP permit to ensure any impacts are adequately mitigated.

Oftentimes, the use of temporary mats in a Section 404 waters, particularly timber mats, is not considered a discharge of dredged or fill material as long as the matting is removed upon completion of work. Therefore, in many cases, a Section 404 permit from the USACE is not required. Applicants are to ensure that the placement of timber or other types of matting within the stream channel is in a manner that does not impede flow. The USACE has not established a set timeframe for the use of temporary matting; however, 6-12 months is usually an acceptable period time. Utilization of matting beyond this period may constitute a permanent impact.

Lastly, if there is a situation in which a previous permit was issued – and either previous impacts were not taken or newly identified impacts are proposed - do not count new temporary impacts cumulatively with previous temporary impacts *if* the previous temporary impacts have been restored, per program practice.

## C.4 Boardwalk Impacts

The use of boardwalks within wetlands is a means by which to provide pedestrian access to these unique systems while avoiding the use of impervious surfaces, grade alterations, or other such intensive alterations to the system’s landscape and associated hydrology. However, the use of boardwalks can impact wetlands.

### C.4.1 Boardwalks within PFO

If a boardwalk is within PFO and is proposing any tree cutting to facilitate boardwalk installation and/or permanent maintenance activities, the footprint of the boardwalk is to be considered a conversion impact from PFO to palustrine emergent wetland (PEM), and thus compensatory mitigation at a 1:1 ratio is required. The total area of the pilings is considered fill and compensatory mitigation is required at a 2:1 ratio.

If the boardwalk avoids tree removal within the PFO, impacts may still occur due to shading, as defined below.

### C.4.2 Shading Impacts

When assessing project’s use of boardwalks, VWP permit staff will require specific information regarding the height and width of the boardwalk.

In instances where the boardwalk has a height to width ratio less than 0.8, the boardwalk will be considered to have a permanent impact on the wetland’s functionality, and thus require compensatory mitigation at a 0.5:1 ratio. The reduced compensatory mitigation ratio is to account for the loss of vegetative functionality but recognize the maintenance of wetland hydrology and relatively undisturbed hydric soils.

The quantity of impact from shading is determined utilizing the following equation:

I = Lb(Wb-1.25Hb)

if I < 0, then assume I = 0

Where:

I = wetland impact (sq. ft)

Lb = bridge length over wetlands (ft)

Wb = bridge width (ft)

Hb = average bridge height over wetlands (ft)

## C.5 Beaver Dam Removals

In accordance with [9VAC25-210-60](https://law.lis.virginia.gov/admincode/title9/agency25/chapter210/section60/).6, the removal of a beaver dam may constitute an open water impact with no detrimental effect, and thus be excluded from requiring a VWP Permit. VWP permit staff should utilize the Open Water Exclusion Checklist to determine the applicability of the exclusion and determine if any component of the proposed beaver dam removal may require permitting, such as temporary impacts to wetlands for construction access, or the dewatering of fringe wetlands that would result from the dam removal. Any temporary impacts facilitating beaver dam removal or impacts to established wetlands due to changes in hydrology may require a VWP Permit.

In addition, if the backflooding from the beaver dam is affecting serviceable structures, the beaver dam removal may be excluded under [9VAC25-210-60](https://law.lis.virginia.gov/admincode/title9/agency25/chapter210/section60/).5.

## C.6 Fences within Surface Waters

The placement of fences across streams can serve as an impediment to stream flows by creating the propensity for large woody debris and other stream-transported materials to accumulate at the location of the fence crossing, which can block the typical flow of water and cause the stream bed to move or erode. Thus, when fences are proposed to cross streams, VWP permit staff should assess the nature of the crossing and determine the potential for stream impacts.

Applicants are to provide cross-sections of proposed fence crossings to ensure footers are outside of OHW, and that fence height across the channel is sufficient as to not intercept normative elevated flows (10-year storms). Furthermore, fences should be assessed on an individual basis, to ensure that proposed designs and fence type are consistent with what would constitute incidental fill.

Fences within wetlands typically do not constitute an impact, given the incidental nature of fill associated with fence posts. However, VWP permit staff should still assess the practicability of avoiding or minimizing placement of fences within wetlands via design alternatives, and/or placement within uplands. Unique fence applications that may result in significant fill given the number or volume of fence posts, or some other design characteristic that may have a detrimental impact on a wetland, may result in permanent wetland impacts (i.e., privacy fencing of sufficient height to pose a shading impact to adjacent vegetation, or maintenance corridor that results in a conversion).

In instances where fence infrastructure is within stream channels, this would constitute an impact to the stream channel, and thus require compensatory mitigation utilizing the USM, with the length of impact derived from the affected bank width. Furthermore, should assessment of the cross-sections demonstrate the potential for a fence to serve as an impediment to stream flow, VWP permit staff are to work with applicants to modify fence designs, re-orientate crossings, or develop alternatives that still achieve the applicant’s desired outcome.

## C.7 Herbicide/Pesticide Use within Surface Waters

While there is no specific prohibition for using herbicides and pesticides in surface waters under the VWP Permit Program regulations, there is the prohibition of otherwise altering the physical, chemical, or biological properties of state waters and make them detrimental to the public health, to animal or aquatic life, or to the uses of such waters for domestic or industrial consumption, for recreation, or for other uses, except in compliance with a permit (9VAC25-210-50). If issued a VWP permit or coverage, a permittee is generally prohibited from using herbicides unless permission is otherwise granted by DEQ. However, there is not a VWP permit or coverage that is specifically issued to authorize the use and application of herbicides. See Chapter 2, Section 2.2.2 on potential permitting exclusions and potential need for a Virginia Pollution Discharge Elimination System (VPDES) General Permit VAG87 in [9VAC25-800](https://law.lis.virginia.gov/admincodefull/title9/agency25/chapter800/) *et seq*.

Pesticide and herbicide use is considered jurisdictional for the Virginia Marine Resources Commission (VMRC) when a tidal wetlands plant is located within 1.5 times the mean tide range above mean low water. The decision of whether a permit is required is generally left up to the local wetlands board within the associated locality and may depend upon the specific application/treatment plan. In instances where an applicant/citizen is seeking herbicide/pesticide use within state surface waters, VWP permit staff are to refer inquiries to the VMRC, local wetlands board, and regional VPDES program.

Herbicides such as aquatic glyphosate may be approved for use in maintained utility corridors and under an approved long-term management plan (LTMP) for a compensatory mitigation site, bank, or fund as a targeted method to control invasive or undesirable plant species. Herbicides approved for use in or near surface waters should be labeled as safe for aquatic use and should be used or applied in accordance with the product instructions, any applicable LTMP provisions, and/or any applicable permit requirements.

## C.8 Mechanical Removal of Aquatic Plants

Mechanical removal of nuisance plants is considered jurisdictional for the Virginia Marine Resources Commission (VMRC) when a tidal wetlands plant is located within 1.5 times the mean tide range above mean low water. The decision of whether a permit is required is generally left up to the local wetlands board within the associated locality and may depend upon the specific application/treatment plan. In instances where an applicant/citizen is seeking mechanical removal of nuisance plants within state surface waters, VWP permit staff are to refer inquiries to the VMRC, local wetlands board, and regional VPDES program.

In situations where proposed mechanical removal of nuisance plants is not under VMRC jurisdiction, the activity may also not require a VWP permit under the below scenarios.

1. In accordance with [9VAC25-210-50](https://law.lis.virginia.gov/admincode/title9/agency25/chapter210/section50/).A, the activity does not require a permit because it does not involve a proposal to dredge, fill, or discharge any pollutant into, or adjacent to surface waters; withdraw surface water; otherwise alter the physical, chemical, or biological properties of state waters regulated under this chapter and make them detrimental to the public health, to animal or aquatic life, or to the uses of such waters for domestic or industrial consumption, for recreation, or for other uses; excavate in wetlands.
2. In accordance with [9VAC25-210-60](https://law.lis.virginia.gov/admincode/title9/agency25/chapter210/section60/).6, impacts to open waters that do not have a detrimental effect on public health, animal life, or aquatic life or to the uses of such waters for domestic or industrial consumption, recreation, or other uses, are excluded from permitting.
   1. Littoral aquatic plants along shorelines do not constitute emergent vegetation, and thus affected resources are typically open water, unless some other characteristic(s) would define a fringe emergent wetland system (i.e., seasonal variations in water elevation resulting in prolonged periods of exposed shoreline) or lotic system (flowing waters).
   2. VWP permit staff are to utilize the Open Water Exclusion Checklist to determine the applicability of the exclusion.
3. In accordance with [9VAC25-210-60](https://law.lis.virginia.gov/admincode/title9/agency25/chapter210/section60/).5, maintenance of currently serviceable structures, such as purpose-built stormwater and utility structures, transportation structures, dikes, groins, levees, dams, riprap breakwaters, causeways, or bridge abutments or approaches, are excluded from permitting. This exclusion applies when:
   1. Activities conducted to maintain the function of serviceable structures, such as docks and boat ramps.
   2. Removal activities are limited in scope to single-family homes, docks, boat ramps, and other associated attendant infrastructure.

If mechanical removal activities are proposed within wetlands or are proposed across multiple structures or resource-wide (an entire lake or section of lake), the activities may be subject to VWP permitting. In summary, the above situations apply in situations where the only affected resource is open water, and the scope of work is limited to a single-family homeowner and/or the maintenance of existing serviceable structures.

## C.9 Piles, Pylons, Piers, and Bridge Abutments

As dependent on the size and type of resource affected, the placement of pylons, pier posts, and bridge abutments within surface waters may be excluded from permitting. However, VWP permit staff will need to assess projects on an individual basis to determine the need for a permit or coverage and whether any permanent impacts to surface waters may result that require compensatory mitigation.

The installation of piers may qualify for a USACE 23-SPGP-PASDO[[16]](#footnote-17) (Pier, Aquaculture, Shoreline, Dredging, and Other). If so, no VWP permit or coverage is typically required – see potential exceptions below. Note: should the project qualify for PASDO Category C, an individual [Coastal Zone Management Act consistency determination](https://www.deq.virginia.gov/our-programs/environmental-impact-review/federal-consistency) from DEQ may be necessary depending upon the geographic location of the project.

### C.9.1 Piers in Open Waters and Large Waterways

The installation of piers (including floating piers) within open waters and large streams/rivers are typically excluded. Streams and rivers with widths exceeding 20 feet should be reviewed by VWP permit staff. The exclusion applies provided that:

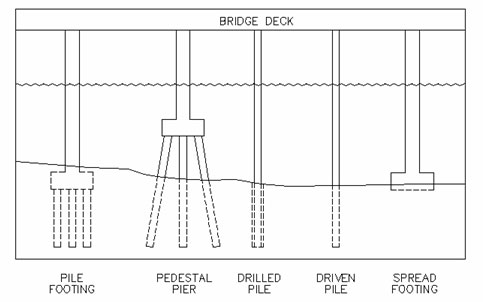
* All pier piles associated with the proposed structure(s) must be non-steel and no more than 12 inches in diameter, and no more than 25 pier piles may be installed channelward of mean high water (MHW) or ordinary high water (OHW).
* Piers are not of a channel-ward length as to pose an impediment to stream flows, as to affect flows within the stream thalweg, and/or exceed 25% of channel width (as measured from MHW to MHW, or OHW to OHW, and to include all channelward wetlands).
* The proposed structure(s) may not extend greater than 300 feet from MWH or OHW (including all channelward wetlands).
* The pier and attendant features do not exceed aerial coverage of an open water of 10%.
* The pier and attendant features do not impact fringe wetlands (if so, see Section C.9.3).

*Affects to submerged aquatic vegetation (SAV), including shading impacts, should be referred to the VMRC. VMRC may choose to submit comments regarding potential impacts to SAV for DEQ consideration in making a permit decision (§* [*28.2-1205*](https://law.lis.virginia.gov/vacode/title28.2/chapter12/section28.2-1205/)*.A).*

### C.9.2 Piles, Pylons, and Abutments in Open Waters and Large Waterways

USACE counts the cubic yards of the entire footing structure that is below the river bottom towards permitting threshold quantities, whereas DEQ only assesses the area of the pier at its interface with the stream bottom. However, DEQ does count the required volume of dredged material to accommodate the footing structure towards the 5,000 cubic-yard threshold for general permits. See Figure 5 for common types of bridge footings.

Figure 5: Types of Footings



The footprint of the piles, pylons, and/or abutments, or of the pile cap if it sits on the sub-aqueous bottom, counts towards impact totals. However, the installation of piles, pylons, and abutments within open waters and large streams/rivers (widths exceeding 20 feet) are exempt from compensatory mitigation, provided:

* The placement of the piles, pylons, or abutments is not within the stream thalweg.
* For effected open waters or fringe wetlands, height to width ratio of the supported structure is equal to or greater than 0.8 (see Section C.9.5).
* The footprint of the piles, pylons, or abutments does not exceed 10% of the effected resource.
* The construction of and the pylon(s)/abutment(s) permanent footprints do not impact fringe wetland (if so, see Section C.9.3).

### C.9.3 Piers in Wetlands

The placement of pier piles within a wetland would generally not constitute a permitted activity due to its incidental nature. However:

* All pier piles associated with the proposed structure(s) must be non-steel and no more than 12 inches in diameter.
* If the installation of a pier within a PFO results in the clearing of trees, such impacts would constitute a conversion impact requiring compensatory mitigation at a 1:1 ratio as based on the area of coverage of the pier and attendant features.
* Any temporary PFO impacts associated with pier construction should be evaluated using Section C.3.
* The installation of a floating pier within a wetland constitutes a permanent impact.
* If the aerial coverage of the piers exceeds 50% of the effected resource, secondary impacts due to fragmentation should be evaluated.
* If the proposed height to width ratio of the pier is less than 0.8, evaluate for shading impacts (see Section C.9.5).

### C.9.4 Pylons and Abutments in Wetlands

The footprint of the piles, pylons, and/or abutments, or of the pile cap if it sits on the soil interface, counts towards impact totals. However, the installation of piles, pylons, and abutments within a wetland would generally not require compensatory mitigation due to its incidental nature. However:

* If the aerial coverage of the pylons or abutments exceeds 10% of the effected wetland, impacts may require compensatory mitigation.
* If the proposed height to width ratio of the supported structure is less than 0.8, evaluate for shading impacts (see Section C.9.5).

### C.9.5 Shading from Bridges, Piers, and Walkways in Wetlands

For bridges, piers, and walkways with a height to width ratio less than 0.8, these structures may pose impacts to wetlands due to shading, and thus require compensatory mitigation of the effected resources at a 0.5:1 ratio. See Section C.4.2 for further details.

## C.10 Impoundment Drawdowns

In order to facilitate the maintenance of an impoundment infrastructure, dredging operations within the impoundment, and/or wide-scale homeowner maintenance activities, it may be necessary to drawdown the water level of an impoundment. While specific activities within an impoundment may be excluded from VWP permitting[[17]](#footnote-18), in some cases the staff may have to evaluate whether the drawdown[[18]](#footnote-19) causes an adverse effect that may constitute an impact to the open water feature, any associated fringe wetlands, and upstream and downstream receiving waters, which would require VWP Permit Program authorization.

Staff will generally encounter these common scenarios:

* The project is a maintenance activity that qualifies for exclusion [9VAC25-210-60](https://law.lis.virginia.gov/admincode/title9/agency25/chapter210/section60/).5, and therefore, staff does not review the project’s impact. However, if necessary, staff can require the applicant to demonstrate that the project is actually a maintenance activity.
* The project may qualify for the open water exclusion in accordance [9VAC25-210-60](https://law.lis.virginia.gov/admincode/title9/agency25/chapter210/section60/).6. Depending on the characteristics, storage and relative size to the watershed, staff may determine that additional information is necessary. The applicant must provide sufficient information to demonstrate the project will not have an adverse effect.
* The project may qualify for the exclusion related to wetland and open water impacts to a stormwater management facility that was created on dry land (uplands) for the purpose of conveying, treating, or storing stormwater. Other permits may be required pursuant to local, state, or federal law.Projects claiming this exemption shall create no more than minimal ecological impact.
* The project may have dredging or wetland impacts or other elements that preclude an exclusion; therefore, the activity will require a permit and must be reviewed by staff.

For the projects that require VWP Permit Program review, the applicant should submit sufficient information for VWP Permit Program and/or Water Withdrawal Permitting Program staff[[19]](#footnote-20) to process the request, including any necessary coordination with other resource agencies. The applicant should, as applicable, address the below:

* Are there any direct impacts to surface waters, including wetlands, associated with the proposed impoundment drawdown activities and any associated maintenance activities?
* Are there fringe wetlands associated with the impoundment that would be adversely affected by the drawdown, such as changes to hydrology due to prolonged periods of drying?
* How will the drawdown be implemented? Specifically, the applicant should provide:
  + What is the method of drawdown? For instance, a gate valve from bottom or from top with sluice gate or siphon (top withdrawal results in more O2 and higher temperature releases to receiving waters (bottom withdrawal may result in discharge of anoxic or low O2 water).
  + Would the rate of drawdown have adverse effects on receiving waters, such as prolonged elevated discharges?
  + The timing of drawdown (time of year implications). For instance, drawdowns occurring during wetter periods of the year may overwhelm the capacity of a receiving channel and cause localized flooding.
  + The duration of drawdown. Consider the biochemical implications on the open water, any associated wetlands, and upstream and downstream waters. A prolonged period of drawdown may not only affect the open water resource and associated aquatic life, but also fringe wetlands and upstream and downstream waters due to alterations to existing flow regime.
  + Is a routine drawdown being proposed? If so, would the duration and frequency of the scheduled drawdowns have potential biochemical implications?
* For an in-line BMP, will a new channel be allowed to cut into the newly exposed bottom of the impoundment? How will the new channel be stabilized, and how will downstream waters be protected from deposition of sediment?
* Are there downstream water users who would be affected by the lake drawdown?
  + Identify potentially affected users and how the proposed action may affect such uses. For instance, after drawdown the receiving channel may have reduced flow, however during drawdown, the potential to overwhelm downstream impoundments exists.
* Will the drawdown, as proposed, affect designated uses of upstream and downstream stream channel(s)?
* Are there potential impacts to protected species[[20]](#footnote-21)?
  + Is the resource subject to Time-of-Year Restrictions from the Virginia Department of Wildlife Resources (VDWR)?
  + Is the impoundment a VDWR managed resource?
  + Are threatened and endangered species present in the impoundment, or upstream or downstream of the impoundment?

After drawdown, refilling of the impoundment may also have impacts to upstream and downstream waters. The applicant should address the following concerns:

* The timing of refilling the impoundment. Refilling during dry months exacerbate effects to downstream receiving waters and water users.
* The duration of refilling the impoundment. A prolonged period of filling would result in an extended alteration to hydrologic inputs to downstream receiving waters.
* If permanent draining of an in-line impoundment, how with the new channel re-form and how will it be stabilized?
* Will the impoundment normal pool elevation be returned to its original elevation?
* What contingencies exist if drought conditions experienced during the refiling of the impoundment? Drought conditions would prolong the period of filling and exacerbate any direct effects of surface waters associated with the drawdown activity and may have significant implications on downstream waters.

## C.11 Manipulated Wetlands

Determining what type and quantity of compensatory mitigation may be needed for timbered wetlands will likely have to be determined on a case-by-case basis. One key aspect of this determination is whether or not the timbered wetland area is changing from a silviculture use to a new use.

Researching the historical use of the site is likely necessary. Information provided by an applicant may suffice, or use of GIS tools may be helpful. Contacting others that may have knowledge of the site or area such as the county/city planning and zoning office or Virginia Department of Forestry (VDOF) may also provide insight. Attempt to consider a site’s previous condition, going back five years on sites with manipulated or disturbed wetlands.

Historically, both DEQ and the USACE applied a five-year ‘rule’ to address previous site conditions in manipulated or disturbed wetlands. The agencies considered a palustrine forested (PFO) wetland site that was timbered within five years to still be PFO wetlands, regardless of conditions on the ground. DEQ-VWP Permit Program maintains the view that if a PFO wetland was timbered within the last five years, stumps remaining, that this area is still considered to be PFO wetland regardless of current state, such as a dominance of scrub-shrub growth rather than tree canopy.

For example, site X was timbered in 2018. The site currently (2020) contains wetlands with an abundance of scrub-shrub vegetation. If this site is sold and now, under new ownership, a new use is being planned, any JPA submitted by the new owner should identify all wetlands on the site, and VWP staff would consider this area as a PFO wetland for purposes of determining impact amounts and any potential compensatory mitigation. The USACE may or may not agree with this assessment and/or application of the site conditions within the last five years.

## C.12 Nationwide Permits

### C.12.1 Purpose

This special situation occurs when the federal jurisdiction over surface waters in Virginia changes under the Waters of the United States (WOTUS) and/or Section 401 Water Quality Certification rules. The most common result is a reduction in the types of waters regulated by the U.S. Army Corps of Engineers (USACE) in the Section 404 and Section 10 federal permit programs, including activities authorized by Nationwide Permits (NWP), Regional Permits (RP), or other USACE general permits.

In these situations, the Virginia Water Protection (VWP) Permit Program may be required to act on a proposed activity that it would normally not act upon. DEQ may be required to apply temporary measures in order to make permit decisions and Section 401 water quality certification (WQC) decisions.

### C.12.2 45-Day General Permit Coverage

The basis for the 45-day coverage is in [§ 62.1-44.15:21.F](https://law.lis.virginia.gov/vacode/title62.1/chapter3.1/section62.1-44.15:21/). As a result of the reissuance of the Nationwide Permits in 2021 (16 NWPs) and 2022 (41 NWPs), VWP permit staff developed a 45-day coverage process that can be used to assist DEQ and ultimately USACE with processing permit decisions or verifications that increased in volume as a result of the Nationwide Permit reissuance events. This process is captured in the June 2021 Request for Concurrence Memorandum to the DEQ Director David Paylor and was implemented in 2022 (see References subfolder in Chapter 3). The 45-day coverage process toolkit - previously on DEQnet – is now located in [Chapter 3 References subfolder](https://covgov.sharepoint.com/:f:/r/sites/deqnet/Shared%20Documents/Water%20Division/Water%20Permitting/Wetlands%20%26%20Stream%20Protection%20-%20VWP/1DRAFT-VWP%20Permit%20%26%20Compliance%20Manual/Chapter%203%20JPA%20Review/References%20JPA%20Review/45-day%20GP%20Coverage%20Toolkit?csf=1&web=1&e=jfClbg) of the VWP Permit and Compliance Manual.

The toolkit includes processing steps; a [checklist for applicant use](https://www.deq.virginia.gov/permits/water/wetlands-streams-vwp); VWP staff email templates for communicating the 45-day coverage process to prospective applicants and for notifying applicants, USACE staff, and VMRC staff; and two existing compliance forms.

The checklist identifies criteria that must be met in order for a proposed project to qualify for expedited processing of a VWP general permit coverage decision. Project proponents, USACE staff, and VMRC staff are notified via email by VWP staff if the project qualifies and which VWP General Permit applies, along with a link to that permit for understanding of the general permit terms and conditions. The *coverage becomes effective on the 45th day from the notification email*.

### C.12.3 DEQ Action Tables

When the USACE Nationwide Permits were last reissued, DEQ received the following response from USACE regarding its water quality certification conditions: “…This letter specifically addresses the 401 WQC for NWPs 12, 21, 29, 39, 40, 42, 43, 44, 48, 50, 51, 52, 55, 56, 57, and 58, which were published as a final rule in the *Federal Register* (86 FR 2744) on January 13, 2021. The Commonwealth of Virginia conditionally granted 401 WQC for NWPs 21, 29, 39, 40, 42, 43, 44, 48, 50, 51, 52, 55, 56, 57, and 58, as part of the overall certification for all the proposed NWPs. The Norfolk District has reviewed the granted 401 WQC for NWPs 21, 29, 39, 40, 42, 43, 44, 48, 50, 51, 52, 55, 56, 57, and 58 and has determined that some of the conditions upon which NWPs 21, 29, 39, 40, 42, 43, 44, 48, 50, 51, 52, 55, 56, 57, and 58 were granted are inconsistent with the Nationwide Permit rulemaking and the Corps regulations governing the nationwide permit program. Some of the 401 WQC Conditions A. 1-12 are not acceptable, because they require the Corps to alter its administration of the NWPs in a manner that is inconsistent with the regulations governing the regulatory program and with the rule establishing these nationwide permits. In addition, some of the conditions may be outside the Corps’ authority to enforce. …”

DEQ worked with USACE-Norfolk District on an implementation plan for these NWPs. Two tools emerged from that effort: *Nationwide Permit Clean Water Act Section 401 Certification Compliance* worksheets, developed by USACE-Norfolk, and DEQ ‘Action Tables’, developed collaboratively by the VWP Permit Program. These tools are designed to aid staff in processing applications and permit decisions that associate with any of the NWPs. The checklists and Action Tables are located in the References subfolder of Chapter 3.

Applicants use the USACE NWP Certification Compliance worksheets to indicate how the Section 401 water quality decision is likely to be obtained from DEQ and is attached to a Joint Permit Application or PCN materials submitted by the usual pathways. The USACE uses these worksheets to prepare NWP verifications if applicable. DEQ and USACE staff can use the Action Tables to determine the likely permit decision pathway and what materials are needed to make a decision in various project scenarios. The tables have been shared with project proponents upon request. *When no Nationwide Permit (NWP) or State Programmatic General Permit (SPGP) verification or decision is likely to occur because impacts are not considered to be occurring in Waters of the United States (WOTUS), DEQ continues processing applications and projects in accordance with established applicable laws, regulations, policies, and procedures.* Potential decision pathways include issue a VWP individual permit; issue a VWP general permit coverage, either through traditional pathway or 45-day coverage process/checklist; or provide a NPR-Exclusion-Waiver Letter for a number of potential exclusions, waivers, or non-regulated activities.

These tools were first provided to staff in 2022 and have been revised recently as a result of the most recent Waters of United States (WOTUS) rulemaking, effective September 8, 2023, and the most recent Section 401 Water Quality Certification rulemaking, effective November 27, 2023.

1. See § 62.1-44.15:23 of the Code of Virginia; 33 C.F.R. § 332 of the Code of Federal Regulations; and 40 C.F.R. § 230 of the Federal Code of Regulations. [↑](#footnote-ref-2)
2. See Chapter 3 Appendix A for alternate timeframes applicable to special situations. [↑](#footnote-ref-3)
3. Per regulation, some projects seeking general permit coverage have fewer application requirements because there are minimal impacts, and typically, no compensation is required. [↑](#footnote-ref-4)
4. One whole part can be split into 10 equal parts; each part is one tenth of the whole. Each tenth can be split into ten equal parts; each part is a hundredth of the whole. (Source: <https://helpingwithmath.com/decimals-tenths-hundredths-and-thousandths/>) [↑](#footnote-ref-5)
5. Courts generally have given significant discretion to the regulatory agencies regarding water dependency and purpose and need. In *Louisiana Wildlife Federation v. York*, the Fifth Circuit Court of Appeals held that “not only is it permissible for the [U.S. Army Corps of Engineers (the Corps)] to consider the applicant's objective; the Corps has a duty to take into account the objectives of the applicant's project. Indeed, it would be bizarre if the Corps were to ignore the purpose for which the applicant seeks a permit and to substitute a purpose it deems more suitable.” In *Friends of the Earth v. Hintz*, the Ninth Circuit Court of Appeals affirmed that the Corps had correctly determined that the siting of a sawmill and log export facility adjacent to a harbor was a water dependent activity, and, therefore, access to a special aquatic site was necessary. [↑](#footnote-ref-6)
6. The compensation preference order is based on state law and regulation referenced in this section 3.7.2 but is not intended to prevent evaluation of mitigation proposals that differ from the mitigation hierarchy, as discussed in the next section 3.7.2.1. [↑](#footnote-ref-7)
7. “Watershed approach” means an analytical process for making compensatory mitigation decisions that support the sustainability or improvement of aquatic resources in a watershed and that ensures authorized impacts and mitigation have been considered on a watershed scale. ([9VAC25-210-10](https://law.lis.virginia.gov/admincode/title9/agency25/chapter210/section10/)) [↑](#footnote-ref-8)
8. “Compensatory Mitigation for Losses of Aquatic Resources”. 73 Fed. Reg. 19594 (April 10, 2008) (codified at 33 CFR Parts 325 and 332 and 40 CFR Part 230 (<http://www.epa.gov/wetlandsmitigation/#plan>) [↑](#footnote-ref-9)
9. Michigan Department of Environmental Quality (Michigan DEQ). 2001. Michigan Wetland Mitigation and Permit Compliance Study: Final Report. Michigan Department of Environmental Quality, Land and Water Management Division. Lansing, Michigan. 59 pp. plus appendices. [↑](#footnote-ref-10)
10. National Research Council (NRC). 2001. Compensating for Wetland Losses Under the Clean Water Act. National Academy Press (Washington, DC). [↑](#footnote-ref-11)
11. Federal Register. 1995. Federal Guidance for the Establishment, Use and Operation of Mitigation Banks; Notice. Department of Defense, Environmental Protection Agency, Department of Agriculture, Department of the Interior, Department of Commerce, November 28, 1995. Volume 60, No. 228, pp. 58605-58614. [↑](#footnote-ref-12)
12. See the most recent Department of Conservation and Recreation (VDCR) Virginia Invasive Plant Species List. [↑](#footnote-ref-13)
13. See also DEQ Guidance Memorandum GM00-2003, February 1, 2000; *Scientifically Defensible Compensation Ratios for Wetland Mitigation*, Dennis M. King and Kenneth J. Adler, January 1991; and DEQ literature research on loss of functions from grubbing - Reference folder for Chapter 3. [↑](#footnote-ref-14)
14. Provided the applicant can confirm the area is being maintained as PSS. [↑](#footnote-ref-15)
15. See the most recent Department of Conservation and Recreation (VDCR) Virginia Invasive Plant Species List. [↑](#footnote-ref-16)
16. Per the USACE public notice dated February 27, 2023, the 23-SPGP-PASDO replaces USACE-Norfolk District Regional Permits 02, 17, 18, and 19. [↑](#footnote-ref-17)
17. See [9VAC25-210-50](https://law.lis.virginia.gov/admincode/title9/agency25/chapter210/section50/).5, -.6, and -.12. [↑](#footnote-ref-18)
18. A drawdown physically removes surface water. Permitting exclusions may apply. [↑](#footnote-ref-19)
19. Coordinate with staff in the Office of Water Supply for drawdown (withdrawal) activities. [↑](#footnote-ref-20)
20. If the applicant identifies possible species concerns, coordinate with the VDWR concerning threatened and endangered species and/or VDWR-managed resources, and how the proposed drawdown activity may affect them. See Section 3.2 of this manual for note about communications and FOIA. [↑](#footnote-ref-21)