

## **DEPARTMENT OF THE ARMY GENERAL PERMIT STATE OF VERMONT**

The New England Division of the U.S. Army Corps of Engineers (Corps) hereby issues this General Permit (GP) that expedites review of minimal environmental impact work associated with the aquatic environment of navigable and inland waters and wetlands within the State of Vermont. This general permit for Vermont is known as the Vermont General Permit.

### **I. GENERAL CRITERIA:**

Activities with **minimal impacts**, as specified by this GP's terms (Pages 1-7), general conditions (Pages 8-16) and Appendix A - Definition of Categories, qualify for authorization under the GP in either Category 1 or Category 2.

Proponents should first review Appendix A - Definition of Categories to see if a project meets either:

- Category 1: Non-reporting.  
Projects meeting Category 1 criteria and which are in full compliance with the general conditions may be authorized under this GP without notifying the Corps.
- Category 2: Reporting.  
An application to and written authorization from the Corps is required for these projects.

If you determine that your project is eligible for Category 1 as defined in Appendix A, you must then ensure that your project is in full compliance with this GP's terms and general conditions. If any of these terms and conditions are not met, your project must be reviewed in the Category 2 or the Individual Permit category. The Individual Permit thresholds are defined in Appendix A and the Individual Permit procedures are briefly described on Page 7. This GP does not affect the Corps Individual Permit review process or activities exempt from Corps regulation.

### **II. ACTIVITIES COVERED:**

- Work and structures that are located in or over any navigable water of the United States<sup>1</sup>, the excavating from or depositing of material in such waters, or the accomplishment of any other work affecting the course, location, condition, or capacity of such waters (regulated by the Corps under Section 10 of the Rivers and Harbors Act of 1899); and
- The discharge of dredged or fill material into waters of the U.S.<sup>1</sup> [regulated by the Corps under Section 404 of the Clean Water Act (CWA)]. This GP also covers secondary impacts, which are effects on an aquatic ecosystem that are associated with a discharge of dredged or fill materials, but do not result from the actual placement of the dredged or fill material. The Corps does not regulate secondary impacts unless there is an actual placement of dredged or fill material. See GC 3 on Page 8 and Appendix A, Endnote 4 for more information on secondary impacts.

<sup>1</sup> Waters of the U.S., inland waters and wetlands, and navigable waters of the U.S. are defined at Appendix A, Endnotes/Definitions.

### **III. PROCEDURES:**

#### **A. State Approvals**

Applicants are responsible for applying for and obtaining any of the required State approvals (see General Condition 1). Federal and State jurisdictions may differ in some instances. State permits may be required for specific projects regardless of the general permit category.

i. In order for authorizations under this GP to be valid, when any of the following state approvals or statutorily-required reviews is also required, the approvals must be obtained prior to the commencement of work in Corps jurisdiction.

(1) Vermont Agency of Natural Resources (VT ANR) approval of a Conditional Use Determination under the Vermont Wetland Rules;

(2) VT ANR approval of a Stream Alteration Permit under Title 10, Chapter 41, Subchapter 2;

(3) VT ANR approval of a Lake Encroachment Permit under Title 29, Chapter 11, Management of Lakes and Ponds;

(4) VT ANR approval of a Dam Construction Permit under Title 10, Chapter 43, Dams;

(5) Vermont Department of Fish and Wildlife (VT F&W) approval of a Stream Obstruction Permit under Title 10, Chapter 111, Section 4607.

(6) VT ANR, Water Quality Division, issuance of a Water Quality Certification (WQC) under Section 401 of the CWA (33 USC 1341). Section 401(a)(1) of the CWA requires applicants to obtain a WQC or waiver from the state water pollution control agency (VT ANR) to discharge dredged or fill materials into waters of the U.S. The VT ANR has granted WQC for GP Category 1 activities provided that the applicant obtains the required approvals listed above and the project fully complies with all terms and conditions of this GP. The VT ANR reserves the authority to enforce any violation of the Vermont Water Quality Standards that results from any Category 1 activity. Therefore, a separate 401 WQC application is not required for activities involving fill in waters of the U.S. authorized under Category 1 of this GP. However, all stream crossings at locations with drainage areas of one square mile or greater that would otherwise qualify for Category 1 of the VT GP are granted a WQC subject to the following:

- The crossing is a temporary installation consistent with “Acceptable Management Practices for Maintaining Water Quality on Logging Jobs in Vermont,” or
- The crossing has received written approval from the VT ANR, or
- More than 21 calendar days elapse without a response from the date of receipt by the VT ANR of complete information describing the crossing location and design.

The VT ANR conditionally granted WQC for GP Category 2 activities listed in Appendix A of this GP provided (1) the applicant obtains the required approvals listed above and (2) the Corps notifies the VT ANR and the VT ANR finds that the activity is reasonably likely to have minimal or no impact on water quality. The VT ANR retains the right to require an Individual WQC for any Category 2 activity. The VT ANR will respond within the same response times required of the Federal resource agencies.

ii. The State of Vermont also requires project proponents to obtain the following authorizations from the State when applicable:

(7) VT ANR approval of a 1272 Order under Title 10, Chapter 47;

(8) VT National Flood Insurance Program (NFIP) confirmation that the proposed project is in compliance with the minimum NFIP regulations consistent with 24 VSA 4424.

(9) VT ANR approval of a threatened and endangered species permit, 10 VSA Chapter 123, administered by VT F&W.

## **B. Corps Authorizations**

General permit authorizations consist of both Category 1 and 2 activities (see Appendix A). The thresholds outlined in this document are intended to ensure that the GP results in no more than a minimal impact to the aquatic environment. The Corps will coordinate review of all Category 2 activities with Federal resource agencies and the State of Vermont and may require project modifications or mitigation to minimize impacts.

### **Category 1 (Non-reporting)**

**Eligibility** - Activities in Vermont that are:

- Subject to Corps jurisdiction;
- Meet the definition of Category 1 in Appendix A - Definition of Categories; and
- Meet the general conditions of this GP (Pages 8-16)

may proceed without application or notification to the Corps provided the required Federal, State, and local authorizations are obtained (See page 2).

Although Category 1 projects are non-reporting, the Corps reserves the right to require either an Individual Permit (see GC 4) or Category 2 review if there are concerns for the aquatic environment or any other factor of the public interest. Secondary impacts must be accounted for (see GC 3).

Project proponents seeking Category 1 authorizations are not relieved of the obligation to comply with this GP's general conditions (Pages 8-16) and other Federal laws such as the National Historic Preservation Act, the Endangered Species Act and the Wild and Scenic Rivers Act. Therefore, consultation with the Corps and/or agencies such as the Vermont Division for Historic Preservation (VT DHP) (see Page 17) is required when there is a high likelihood of the presence of resources of concern. Secondary impacts must be included when determining if a project qualified for Category 1 (see GC 3). Fill area includes all temporary and permanent fill.

**Enforcement cases.** This GP does not apply to any existing or proposed activity in Corps jurisdiction associated with an on-going Corps or EPA enforcement action until such time as the enforcement action is resolved or the Corps determines that the activity may proceed independently without compromising the enforcement action. The Corps may choose not to accept applications or issue permits to any applicant with outstanding violations.

### **Category 2 (Reporting/Screening)**

**Eligibility**

Activities in Vermont that are:

- Subject to Corps jurisdiction;
- Meet the definition of Category 2 in Appendix A; and
- Meet the general conditions of this GP (Pages 8-16)

require written approval from the Corps. These projects will be reviewed through interagency screening to determine whether such activities may be authorized under this GP. To be eligible and subsequently authorized, an activity must result in no more than a minimal impact to the aquatic environment as determined by the Corps in coordination with the interagency review team (Page 5), in addition to meeting the criteria listed above. Mitigation may be required to compensate for unavoidable impacts to ensure net effects of a project are minimal.

To ensure compliance with this GP's general conditions, consultation with the Corps, other Federal or State resource agencies, or independent consultants, may be necessary. This includes consultation with the VT DHP (Page 17) to ensure compliance with GC 7 and the VT ANR to comply with applicable general conditions. Also, note the review thresholds under Category 2 apply to single and complete projects only (see GC 5).

### **Application Procedures**

Applicants must apply directly to the Corps at the Vermont Project Office (VPO), and are encouraged to simultaneously apply to the VT ANR for any related permits. Upon receipt of an application for a Category 2 activity, the Corps will determine if it:

- (1) Requires additional information;
- (2) Is appropriate for screening with the Federal resource agencies and State agencies (see Screening Procedures);
- (3) Is ineligible under the terms and/or conditions of this general permit;
- (4) Requires project modification, mitigation or other special conditions to minimize impacts and protect the aquatic environment to be eligible for this GP; or
- (5) Requires Individual Permit review regardless of whether the terms and conditions of this GP are met, based on concerns for the aquatic environment or any other factor of the public interest (see GC 4 on Discretionary Authority).

### **Information Typically Required**

In order to consider an application complete and review it with the interagency review team, the applicant must submit complete information. Please see [www.nae.usace.army.mil](http://www.nae.usace.army.mil) for a more comprehensive checklist. Select "Regulatory/Permitting," "Forms" and then "Application and Plan Guideline Checklist." This information includes, but is not limited to:

- Plans that illustrate the proposed work in reference to the limits of Corps jurisdiction as applicable. Plans should be on 8.5" x 11" paper and contain all other appropriate information.
- A description of the proposed work, project purpose and location, including a locus map and photographs, if applicable.
- Data sheets to support wetland delineations. See GC 2.
- A narrative description of the habitat(s) including dominant plant community(ies) present, soil type and relevant existing and adjacent land uses.
- A demonstration that there will be no more than minimal direct and indirect impacts to the aquatic resource(s) resulting from the project. Consideration should be given to impacts associated with expected hydrologic changes, effects on riparian habitat, forest fragmentation, impacts to headwater and ephemeral streams (Endnote 17), stormwater discharges and other potential water quality and wetland habitat impacts. See GC 3.
- Information on Federal endangered and threatened species and critical habitat, and State endangered and threatened species that occur or may occur in the project area. See GC 9. VT ANR, Department of Fish & Wildlife, Nongame and Natural Heritage program contact info is provided on Page 17. Refer to Additional References on Page 18 for additional information.
- Identification and description of potential impacts to essential fish habitat. See GC 10.
- Identification of potential discharges of pollutants to waters, including potential impacts to impaired waters, in the project area. See GC 22. Refer to Additional References on Page 18.
- Identification, quantification, and description of potential impacts to aquatic resources, including delineation of wetlands, special aquatic sites, special wetlands and vernal pools. See GC 27.

## **Federal/State Screening Procedures**

The Corps, Federal resource agencies [U.S. Fish and Wildlife Service (USFWS), U.S. Environmental Protection Agency (EPA), and National Marine Fisheries Service (NMFS)] and VT ANR will comprise the interagency review team. The Corps will also coordinate with VT DHP as to potential impacts of a project on historic properties.

Screening of Category 2 projects will be either through email, fax, mail or at interagency screening meetings at the Corps VPO. Projects are coordinated on a regular basis or as necessary to facilitate prompt decision making. The Corps and the Federal resource agencies, at the branch chief or equivalent level, may agree on certain activities that do not need to be coordinated at these meetings. The Corps, VT ANR and VT DHP will review/screen complete applications for Category 2 activities with impacts between 3,000 square feet (SF) and 5,000 SF. The Corps will review/screen all complete applications for Category 2 projects with impacts greater than 5,000 SF with the interagency review team and VTDHP.

The Corps may determine on its own or in consultation with the interagency review team, if applications for Category 2 work:

- Are eligible under the GP as proposed;
- Are ineligible under the terms and/or conditions of this GP;
- Require additional information;
- Will require project modification, mitigation or other special conditions to avoid or minimize adverse environmental impacts and protect the aquatic environment to be eligible for authorization under this GP; or
- Require Individual Permit review irrespective of whether the terms and general conditions of this GP are met, based on concerns for the aquatic environment or any other factor of the public interest (see GC 4).

The Federal resource agencies, the VT ANR, and VT DHP must provide verbal comments to the appropriate Corps project manager in the VPO within 10 business days of receiving the Determination of Eligibility (DOE) from the Corps. These verbal comments may consist of a request for additional information, recommendations for modification, mitigation, or special conditions to avoid or minimize adverse environmental impacts associated with the aquatic environment, and to ensure the terms and general conditions of the GP are met, a request for a site visit; or a “kickout” to Individual Permit review.

Federal resource agency additional information requests shall be within their area of expertise, commensurate to the level of impact, and agreed upon by the Corps. If additional information is requested, the agencies are allowed an additional 10 business days after receipt of this information to provide modifications, mitigation or special conditions, or provide a written Individual Permit request to the Corps.

Unless additional information is requested, the verbal notice must be confirmed with a written response to the appropriate Corps project manager at the VPO within an additional 10 working days from the date of the verbal comment. The Corps will begin its Individual Permit review procedures at the written request of the Federal resource agencies if an agency within 10 business days of either the screening date or receiving additional information expresses a concern within their area of expertise, states the resource or species that could be impacted by the project, and describes the impacts that, either individually or cumulatively, will be more than minimal. This must be directed to the appropriate Corps project manager at the VPO. Written responses must be signed by the Federal resource agency field supervisor or branch chief, as appropriate, and must identify the affected resource within their area of expertise.

The Corps may contact the applicant either by phone or in writing if there are concerns. If the applicant is unable to resolve the concerns or modify the project, the Corps may determine that a project is ineligible under this GP, “kickout” the project to the Individual Permit review category, and begin its Individual Permit review procedures. The Corps will send a “Kickout Letter” to the applicant and copy the VT ANR and the commenting Federal resource agency on any written correspondence to the applicant. The Corps may reinstate a project’s eligibility under the GP provided the Federal agencies’ concerns are satisfied.

The VT ANR within 10 business days of the date the project information is received from the Corps may require an Individual 401 WQC review for any Category 2 project. This 10-day notice may be verbal and is not required to be fully documented, but must be directed to the appropriate Corps Project Manager at the VPO. It must be confirmed with a written response to the appropriate Corps project manager within an additional 10 working days from the date of the verbal comment. If the VT ANR does not notify the Corps as outlined herein, WQC is conditionally granted for the project. In order for the Corps GP authorization to be valid, the WQC must be obtained or waived prior to the commencement of work.

If the Corps and Federal resource agencies determine that the activity is eligible for the GP, the Corps will send an authorization letter directly to the applicant. The Corps will generally issue an eligibility determination within 60 days from the date of a complete application. If the Corps determines that the activity is not eligible under the GP or that additional information is required, the Corps will notify the applicant in writing and will send a copy of this notification to VT ANR.

## **Emergency Situations**

Emergency situations are limited to sudden, unexpected occurrences that could potentially result in an unacceptable hazard to life, a significant loss of property, or an immediate, unforeseen, and significant economic hardship if corrective action requiring a permit is not undertaken within a time period less than the normal time needed to process an application under standard procedures. If an emergency situation requires action in less than 30 days after the occurrence, it qualifies for the amended notification procedures described below.

Notification Procedures for Emergency Situations: The Federal resource agencies, VT ANR and the VT DHP will each designate an alternate to be contacted in the event the regular contact is unavailable. The VT ANR, VT Emergency Management (VTEM) or FEMA will notify the Corps within 24 hours of the occurrence of a disaster and advise the Corps of the nature of the occurrence and any known remedial and/or protective measures. The Corps will notify agency representatives that a disaster has occurred within one working day of being notified by the VT ANR, VTEM or FEMA.

When an application for Category 2 work is received that the Corps Vermont Project Office (VPO) determines is an “emergency” as defined above, the Corps will fax a copy of the plans and Determination of Eligibility (DOE) to the agency representatives and their alternates. The resource agencies would then have sixteen working hours to notify the Corps if they have any comments on authorization of the project under the GP. Objections to the Corps determination of an “emergency” situation will not be accepted. If no response is received at the VPO within 16 working hours, the Corps will proceed with a decision on the application. If the resource agencies have comments on the proposal, they will have 16 working hours to put their comments in writing. If written comments from the Federal agencies are not received at the VPO within 16 working hours, the Corps will proceed with a decision on the application.

If a Federal agency requests that an Individual Permit be required for a project or requests modifications to the project based on concerns within their area(s) of expertise, the Corps will notify the applicant within 8 working hours of receipt of that request that the project as proposed does not qualify for authorization under the GP and that an Individual Permit will be required. In any event, the Corps will notify the applicant within 48 working hours of commencement of the screening process as to whether the project may proceed under the GP.

#### **IV. INDIVIDUAL PERMIT**

Work that is in the Individual Permit category as listed in Appendix A, or that does not meet the terms and conditions of this GP, will require an application for an individual permit from the Corps of Engineers (see 33 CFR 325.1). The applicant should submit the appropriate application materials (including the Corps application form) at the earliest possible date to expedite the permit review process. General information and application forms can be obtained at our web site or by calling us (see Page 17). An Individual 401 WQC will be required from the appropriate VT resource agency(ies). Filing an Individual Permit application does not relieve the applicant from their obligation to obtain all necessary State approvals from the appropriate Vermont resource agency(ies) or any applicable local approvals.

## **V. GENERAL CONDITIONS (and supporting general information):**

The following conditions apply to activities authorized under this GP, including all Category 1 (non-reporting) and Category 2 (reporting/ screening) activities:

### **General Requirements:**

**1. Other Permits.** Authorization under this general permit does not obviate (i.e., to make unnecessary) the need to obtain other Federal, state, or local authorizations required by law.

**2. Federal Jurisdictional Boundaries.** Applicability of this GP shall be evaluated with reference to Federal jurisdictional boundaries. Applicants are responsible for ensuring that the boundaries used satisfy the Federal criteria defined at 33 CFR 328-329. These sections prescribe the policy, practice and procedures to be used in determining the extent of jurisdiction of the Corps concerning “waters of the U.S.” and “navigable waters of the U.S.” Wetland boundaries shall be performed in accordance with the January 1987 Corps of Engineers Wetlands Delineation Manual located at [www.nae.usace.army.mil/reg/1987 Wetland Delineation Manual.pdf](http://www.nae.usace.army.mil/reg/1987%20Wetland%20Delineation%20Manual.pdf) and applicable regional supplements. Refer to Additional References on Page 18.

**3. Minimal Effects, Secondary (Indirect) and Cumulative Impacts.** (a) Projects authorized by this GP shall have no more than minimal individual and cumulative environmental impacts as determined by the Corps. Applicants must demonstrate that there will be no more than minimal direct and indirect impacts to the aquatic resource(s) resulting from the project. See Information Typically Required, Page 4. Mitigation may be required to offset unavoidable impacts. (b) Secondary impacts to waterway and/or wetland areas, (e.g., areas drained, flooded, cleared, excavated or fragmented) shall be added to the total fill area when determining the project review category (Category 1, 2 or Individual Permit review). Secondary and cumulative impacts are defined at Appendix A, Endnote 4.

**4. Discretionary Authority.** Notwithstanding compliance with the terms and general conditions of this GP, the Corps retains discretionary authority to require either a Category 2 or an Individual Permit review based on concerns for the aquatic environment or for any other factor of the public interest (33 CFR 320.4(a)). This authority is invoked on a case-by-case basis whenever the Corps determines that the potential impacts of the proposal warrant either a Category 2 or an Individual Permit review based on the concerns stated above. This authority may be invoked for projects with cumulative environmental impacts that are more than minimal or if there is a special resource or concern associated with a particular project that is not already covered by the remaining conditions of the GP and that warrants greater review. Whenever the Corps notifies an applicant that either a Category 2 or Individual Permit review is required, authorization under this GP is void and no work may be conducted until the Corps issues the required authorization or until the Corps notifies the applicant that further review has demonstrated that the work may proceed under this GP.

**5. Single and Complete Projects.** This GP shall not be used for piecemeal work and shall be applied to single and complete projects. All components of a single project and/or all planned phases of a multi-phased project shall be treated together as constituting one single and complete project, unless the Corps determines that a component has independent utility. For linear projects, such as power lines or pipelines with multiple crossings, the “single and complete project” (i.e., single and complete crossing) will apply to each crossing of a separate water of the U.S. (i.e., single waterbody) at that location; except that for linear projects crossing a single waterbody several times at separate and distant locations, each crossing is considered a single and complete project, and may be reviewed for Category 1 eligibility. (However, individual channels in a braided stream or river, or individual arms of a large, irregularly-shaped wetland



or lake, etc., are not separate waterbodies.) If any crossing requires a Category 2 activity, then the entire linear project shall be reviewed as one project under Category 2 provided that the impact thresholds in Appendix A are met. Also, this GP shall not be used for any activity that is part of an overall project for which an Individual Permit is required, unless the Corps determines the activity has independent utility. Note that modifications to State permits do not constitute a separate project. Modifications which involve Corps jurisdiction will be screened at the regular screening in order to ascertain compliance with the GP. Keep in mind that a linear project normally qualifying as a non-reporting Category 1 project will trigger a Corps review if the impacts exceed this GP's general conditions.

**6. Permit On-Site.** For Category 2 projects, the permittee shall ensure that a copy of this GP and the accompanying authorization letter are at the work site (and the project office) authorized by this GP whenever work is being performed, and that all personnel with operation control of the site ensure that all appropriate personnel performing work are fully aware of its terms and conditions. The entire permit authorization shall be made a part of any and all contracts and sub-contracts for work that affects areas of Corps jurisdiction at the site of the work authorized by this GP. This shall be achieved by including the entire permit authorization in the specifications for work. The term "entire permit authorization" means this GP and the authorization letter (including its drawings, plans, appendices and other attachments) and also includes permit modifications. If the authorization letter is issued after the construction specifications, but before receipt of bids or quotes, the entire permit authorization shall be included as an addendum to the specifications. If the authorization letter is issued after receipt of bids or quotes, the entire permit authorization shall be included in the contract or sub-contract as a change order. Although the permittee may assign various aspects of the work to different contractors or sub-contractors, all contractors and sub-contractors shall be obligated by contract to comply with all environmental protection provisions contained within the entire GP authorization, and no contract or sub-contract shall require or allow unauthorized work in areas of Corps jurisdiction.

#### **General Conditions Related to National Concerns:**

**7. Historic Properties.** Any activity authorized by this GP shall comply with Section 106 of the National Historic Preservation Act. Information on the location and existence of historic resources can be obtained from the VT DHP (See page 17) and the National Register of Historic Places. Project proponents shall apply to the Corps for all projects that would otherwise qualify for Category 1 if there is the potential for an effect on a historic property within the permit area or any known historic property that may occur outside the permit area. Historic properties include those that are eligible for inclusion, but not necessarily listed on the National Register. If the permittee, during construction of work authorized herein, encounters a previously unidentified archaeological or other cultural resource within the area subject to Corps jurisdiction that might be eligible for listing in the National Register of Historic Places, he/she shall stop work and immediately notify the Corps and the VT DHP.

**8. National and Corps Lands.** Activities authorized by this GP shall not impinge upon the value of any National Wildlife Refuge, National Forest, National Park or any other area administered by the U.S. FWS, U.S. Forest Service, or National Park Service. No Category 1 work is allowed on Corps properties and Corps-controlled easements (see Appendix A, Endnote 8).

#### **9. Federal and State Endangered Species.**

- a. No activity may be authorized under this GP which:
  - May affect a threatened or endangered species, a proposed species, designated critical habitat, or proposed critical habitat as identified under the Federal Endangered Species Act (ESA),
  - Would result in a "take" of any Federally listed threatened or endangered species of fish or wildlife, or

- Would result in any other violation of Section 9 of the ESA protecting threatened or endangered species of plants.
- b. Proponents for Category 1 and 2 projects shall ensure there are no impacts to Federally-listed threatened or endangered species or critical habitat and should ensure that there are no impacts to State threatened or endangered species.
- c. Proponents for Category 1 and 2 projects shall notify the Corps if any of the actions in 9a may occur and if any Federally listed threatened or endangered species or critical habitat, or proposed species or critical habitat, is in the project area or may be impacted by the project. For Category 1 projects, the Corps may then notify the proponent that the project will be reviewed under the Category 2 or Individual Permit procedures and if so the proponents shall not begin work until the Corps issues a written authorization.
- d. Applicants should also provide information on state threatened and endangered species. The Information Typically Required section on Page 4 provides guidance. Contact information for the VT ANR, Department of Fish & Wildlife, Nongame and Natural Heritage program is provided on Page 17, and more information is provided at Additional References, Page 18.

**10. Essential Fish Habitat (EFH).** As part of the GP screening process, the Corps will coordinate with the NMFS in accordance with the 1996 amendments to the Magnuson-Stevens Fishery, Conservation and Management Act (MSFCMA) to protect and conserve the habitat of marine, estuarine and anadromous finfish, mollusks, and crustaceans. This habitat is termed EFH and is broadly defined to include “those waters and substrate necessary to fish for spawning, breeding, feeding, or growth to maturity.” Any work in the following streams in the Connecticut River watershed that are stocked with Atlantic salmon shall not be authorized under Category 1 of this GP and must be screened for potential impacts to EFH. For additional EFH information and/or locations, see 50 CFR 600 ([www.nmfs.noaa.gov](http://www.nmfs.noaa.gov)), [www.nero.nmfs.gov/RO/DOC/appguide1.html](http://www.nero.nmfs.gov/RO/DOC/appguide1.html) or contact NMFS (see Page 17).

- |  |                       |                  |
|--|-----------------------|------------------|
| • Black River (from its mouth in<br>Springfield to its headwaters) | • Ompompanoosuc River | • Stevens River  |
| • Connecticut River  | • Ottauquechee River  | • Wells River    |
| • Deerfield River  | • Passumpsic River    | • West River     |
| • Nulhegan River   | • Paul Stream         | • White River    |
|  | • Saxtons River       | • Williams River |

**11. Wild and Scenic Rivers.** Currently there are no designated Wild and Scenic Rivers or rivers designated as Study Rivers in the State of Vermont.

**12. Federal Navigation Project.** Any structure or work that extends closer to the horizontal limits of any Corps navigation project than a distance of three times the project's authorized depth shall be subject to removal at the owner's expense prior to any future Corps dredging or the performance of periodic hydrographic surveys.

**13. Navigation.** (a) There shall be no unreasonable interference with navigation by the existence or use of the activity authorized herein, and no attempt shall be made by the permittee to prevent the full and free use by the public of all navigable waters at or adjacent to the activity authorized herein. (b) The permittee understands and agrees that if future operations by the U.S. require the removal, relocation or other alteration of the structure or work herein authorized, or if, in the opinion of the Secretary of the Army or his authorized representative, said structure or work shall cause unreasonable obstruction to the free navigation of the navigable waters, the permittee will be required, upon due notice from the Corps, to remove, relocate or alter the structural work or obstructions caused thereby, without expense to the U.S. No claim shall be made against the U.S. on account of any such removal or alteration.

**14. Federal Liability.** In issuing this GP, the Federal Government does not assume any liability for the following: (a) damages to the permitted project or uses thereof as a result of other permitted or unpermitted activities or from natural causes; (b) damages to the permitted project or uses thereof as a result of current or future activities undertaken by or on behalf of the U.S. in the public interest; (c) damages to persons, property or to other permitted or unpermitted activities or structures caused by the activity authorized by the GP; (d) design or construction deficiencies associated with the permitted work; (e) damage claims associated with any future modification, suspension or revocation of this permit.

### **Minimization of Environmental Impacts:**

**15. Avoidance, Minimization and Mitigation.** Discharges of dredged or fill material into waters of the U.S. and any secondary impacts shall be avoided and minimized to the maximum extent practicable. Mitigation of unavoidable direct and indirect impacts may be required on a case-by-case basis.

**16. Heavy Equipment in Wetlands.** Heavy equipment other than fixed equipment (drill rigs, fixed cranes, etc.) working in wetlands shall not be stored, maintained or repaired in wetlands, unless it is less environmentally damaging otherwise, and as much as possible shall not be operated there. Where construction requires heavy equipment operation in wetlands, the equipment shall either have low ground pressure (typically <3 psi), or shall not be located directly on wetland soils and vegetation; it shall be placed on swamp/construction mats or corduroy roads (defined at Appendix A, Endnote 16) that are adequate to support the equipment in such a way as to minimize disturbance of wetland soil and vegetation. Swamp mats are to be placed in the wetland from the upland or from equipment positioned on swamp mats if working within a wetland. Dragging swamp mats into position is prohibited. Other support structures that are less impacting and are capable of safely supporting equipment may be used with written Corps authorization. Similarly, not using mats during frozen, dry or other conditions may be allowed with written Corps authorization. (See GC 17 below.) An adequate supply of spill containment equipment shall be maintained on site. Corduroy roads and swamp/construction mats are considered as fill whether they're installed temporarily or permanently.

**17. Temporary Fill.** No temporary fill shall be placed in waters of the U.S., including wetlands, unless a) it is specifically authorized in writing by the Corps, or b) the project qualifies for the non-reporting Category 1 (the combined temporary and permanent fill totals less than 3,000 SF, it meets the Appendix A Category 1 definition, and it's in compliance with this GP's terms and general conditions).

- All temporary fill shall be stabilized to prevent its eroding into portions of waters of the U.S. where it is not authorized.
- Waters of the U.S. where temporary fill was discharged shall be restored (see GC 18).
- Unconfined temporary fill authorized for discharge into waters of the U.S. shall consist of material that minimizes impacts to water quality (e.g. sandbags or clean, gravel and/or stone).
- Temporary fill authorized for discharge into wetlands shall be placed on geotextile fabric laid on the pre-construction wetland grade. (Swamp and timber mats are excluded from this requirement.)
- Temporary fill shall be removed as soon as it is no longer needed, and it shall be disposed of at an upland site and suitably contained to prevent its subsequent erosion into waters of the U.S.
- Swamp/construction mats and corduroy roads (see GC 16 above) are considered as temporary fill when they are removed immediately upon work completion. The areas must be restored in accordance with GC 18.
- If temporary fill is staged and then returned to its original location, e.g., sewer projects through wetlands, the original location shall be restored.

## **18. Work Site Restoration.**

- Upon completion of construction, all disturbed wetland areas (the disturbance of these areas must be authorized) shall be properly stabilized. Any seed mix shall contain only plant species native to New England and shall not contain any of the plant species listed in the “Mitigation Guidance for New England District Mitigation Plan Checklist,” provided at [www.nae.usace.army.mil/reg/Mitigation%20Plan%20Checklist%20Guidance.pdf](http://www.nae.usace.army.mil/reg/Mitigation%20Plan%20Checklist%20Guidance.pdf) and referenced in the Planting Plan section. This list may be updated periodically.
- The introduction of non-native invasive and noxious species in disturbed areas is prohibited and any spread of such invasive plant species shall be controlled. See Additional References on Page 18. The Corps lists these species in the above mentioned checklist in the Invasive and Noxious Species section.
- In areas of authorized temporary disturbance, if trees are cut they shall be cut at ground level and not uprooted in order to prevent disruption to the wetland soil structure and to allow stump sprouts to revegetate the work area, unless otherwise authorized.
- Wetland areas where permanent disturbance is not authorized shall be restored to their original condition and elevation, which under no circumstances shall be higher than the pre-construction elevation. Original condition means careful protection and/or removal of existing soil and vegetation, and replacement back to the original location such that the original soil layering and vegetation schemes are approximately the same, unless otherwise authorized.

**19. Bank Stabilization.** Projects involving construction or reconstruction/maintenance of bank stabilization structures within Corps jurisdiction should be designed to minimize environmental effects, effects to neighboring properties, scour, etc. to the maximum extent practicable. Applicants must use the least intrusive method to stabilize the bank, following this sequential minimization process: avoidance, diversion of overland flow, vegetative stabilization, stone-sloped surfaces, and walls. Vertical walls/bulkheads must only be used in situations where reflected wave energy can be tolerated. This generally eliminates bodies of water where the reflected wave energy may interfere with or impact on harbors, marinas, or other developed shore areas. Refer to Additional References on Page 18.

**20. Sedimentation and Erosion Control.** Adequate sedimentation and erosion control management measures, practices and devices, such as phased construction, vegetated filter strips, geotextile silt fences or other devices, shall be installed and properly maintained to reduce erosion and retain sediment on-site during and after construction. Such measures shall be capable of preventing erosion, of collecting sediment, suspended and floating materials, and of filtering fine sediment. The temporary devices shall be removed upon completion of work and the disturbed areas shall be stabilized. The sediment collected by these devices shall be removed and placed at an upland location, in a manner that will prevent its later erosion into a waterway or wetland. All exposed soil and other fills shall be permanently stabilized at the earliest practicable date.

## **21. Waterway/Wetland Work and Crossings**

- (a) All temporary and permanent crossings of waterbodies shall be suitably culverted, bridged, or otherwise designed to withstand and to prevent the restriction of high flows, to maintain existing low flows, and to not obstruct the movement of aquatic life indigenous to the waterbody beyond the actual duration of construction.
- (b) No activity may substantially disrupt the necessary life-cycle movements of those species of aquatic life indigenous to the waterbody, including those species that normally migrate through the area, unless the activity’s primary purpose is to impound water.
- (c) To meet the objective of aquatic organism passage in (a) and (b) above, all temporary and permanent crossings of rivers, streams, brooks, etc. (hereon referred to as “streams”) shall meet the following performance standards in order to qualify for Category 1 (refer to Additional References on Page 18):

- i. Design the structure to maintain a streambed composition and form throughout the culvert similar to and continuous with the adjacent reaches. To do this:
    - o Design and install streambed material and bedforms if not adequately supplied and developed naturally,
    - o Design profile and alignment through structure similar to those of adjacent stream reaches,
    - o Design culvert elevation to remain embedded for the life of the structure and in consideration of future channel conditions.
  - ii. Maintain velocities, turbulence and depths within the structure similar to those found in adjacent stream reaches across a range of desired flows.
- (d) The requirements to comply with the performance standards in (c) above in order to proceed as a Category 1 project do not apply to the following:
- i. Temporary crossings in place for less than 90 days (the requirements in (a) do apply). Temporary culverts must be embedded unless they're installed during low flow (Jul. 15 – Oct. 1) and it's placed on geotextile fabric laid on the stream bed to ensure restoration to the original grade;
  - ii. Constructed drainage systems designed primarily for the conveyance of storm water or irrigation. Also, non-tidal drainage and irrigation ditches excavated on dry land are not Federally-regulated.
- (e) Applicants proposing new crossings, or maintenance or replacement of serviceable crossings should refer to the Guidelines for the Design of Stream/Road Crossings for Passage of Aquatic Organisms in Vermont when the State finalizes these guidelines. Refer to Additional References on Page 18.
- (f) Applicants shall use the least intrusive and environmentally damaging method to construct the stream crossing, following this sequential minimization process: bridge spans, open bottom arches or embedded culverts. Refer to Additional References, Page 18.
- (g) Culverts at waterbody crossings shall be installed in such a manner as to preserve hydraulic connectivity, at its present level, between the wetlands on either side of the road. The permittee shall take necessary measures to correct wetland damage due to lack of hydraulic connectivity.
- (h) Projects using retrofit methods increasing flow velocity or slip lining (retrofitting an existing culvert by inserting a smaller diameter pipe) are not allowed in Category 1, either as new or maintenance activities.
- (i) No projects involving open trench excavation in flowing waters, except riprap installation, are allowed under Category 1. Open trench excavation projects may qualify for Category 1 provided (1) the work doesn't occur in flowing waters (requires using management techniques such as temporary flume pipes, culverts, cofferdams, etc.) and (2) normal flows are maintained within the stream boundary's confines (see Appendix A, Endnote 5). Projects utilizing these management techniques must meet the other Category 1 requirements (see Appendix A, Page 1) and all of this GP's terms and general conditions.
- (j) For projects that otherwise meet the terms of Category 1, in-stream (e.g., rivers, streams, brooks, etc.) construction work shall be conducted only during the low flow period of July 15 to October 1 in any year. Projects that are conducted outside that time period are ineligible for Category 1 and shall be reviewed under Category 2, regardless of the waterway and wetland fill and/or impact area.
- (k) Work impacting upstream or downstream flood profiles must be reviewed under Category 2.

**General Information for GC 21:**

For stream crossing projects, see Page 2, III(A)(i)(6) for VT ANR WQC Category 1 qualifications.

**22. Discharge of Pollutants.**

- (a) All activities involving a discharge into waters of the U.S. authorized under this GP shall be consistent with applicable water quality standards, effluent limitations, standards of performance, prohibitions, and pretreatment standards and management practices established pursuant to the CWA (33 USC 1251) and applicable State and local laws. If applicable water quality standards, limitations, etc., are revised or modified during the term of this GP, the authorized work shall be modified to conform to these standards within six months of the effective date of such revision or modification, or within a longer period of time deemed reasonable by the Corps in consultation with the EPA.
- (b) All projects authorized by this GP shall be designed, constructed and operated to minimize or

eliminate the discharge of pollutants. Category 2 projects will be reviewed to determine if a project may result in a discharge of relevant pollutants to an impaired water. See the Additional Information Required section on Page 4.

(c) Unless otherwise notified by the VT ANR, applicants may presume that the Section 401 WQC for this GP constitutes the Section 401 WQC for their Section 404 activity, provided the terms and conditions of this GP are met.

### **23. Floodplain Work.**

(a) In order to qualify for authorization under Category 1 of this GP, projects shall result in no more than a minimal decrease in natural valley storage, and shall not result in an increase in the base flood elevation (where hydraulic information necessary to make this determination is available).

(b) There shall be no Category 1 projects located within a FEMA designated Special Flood Hazard Area as shown on the most current flood insurance studies and maps published by FEMA and adopted by the municipality within which the proposed project is located.

(c) Any project located within a FEMA designated Special Flood Hazard Area shall comply with minimum NFIP regulations, or local Flood Hazard Area regulations if more restrictive.

Note: Refer to Page 2, III(A)(i)(8) and Additional References, Page 18.

**24. Spawning and Breeding Areas.** Discharges of dredged or fill material, and/or suspended sediment producing activities in fish and shellfish spawning or nursery areas, or amphibian and migratory bird breeding areas, during spawning or breeding seasons shall be avoided. Impacts on these areas shall be minimized to the maximum extent practicable during all times of year.

**25. Storage of Seasonal Structures.** Seasonal or recreational structures such as pier sections, floats, etc., that are removed from the waterway for a portion of the year shall be stored in an upland location, located above ordinary high water and not in a wetland.

**26. Environmental Functions and Values.** (a) The permittee shall make every reasonable effort to carry out the construction or operation of the work authorized herein in a manner that minimizes adverse impacts on fish, wildlife and natural environmental values. (b) The introduction of invasive plant species identified by any Federal agency in disturbed areas is prohibited and any spread of such invasive plant species shall be controlled. Refer to GC 18 and Additional References on Page 18.

### **27. Protection of Special Aquatic Sites and Special Wetlands, including Vernal Pools.**

Special Aquatic Sites (SAS): Projects with any temporary or permanent fill in SAS (Endnote 7), or that could adversely affect SAS, whether directly or indirectly, do not qualify for the non-reporting Category 1. This does not apply to “inland wetlands,” but does apply to the other SAS types listed at Endnote 7.

Special Wetlands: When jurisdiction is triggered (see Activities Covered, Page 1), projects in or that could adversely affect Special Wetlands (Endnote 8), whether directly or indirectly, do not qualify for the non-reporting Category 1. Special wetlands are vernal pools, bogs, fens, and wetlands which provide habitat for threatened or endangered species as designated by the State of Vermont Natural Heritage Program. See Additional References on Page 18 for additional references.

Vernal Pools (VP): These are a type of special wetland (Endnote 8). Category 1 excludes projects in or within 200’ of a VP on the property when jurisdiction is triggered. The applicant must minimize surrounding upland impacts to the greatest extent practicable, with the effort to minimize impacts being commensurate with the value of the pool. Impact minimization should be in accordance with *Best Development Practices: Conserving pool-breeding amphibians in residential and commercial development in the northeastern U.S.*, Calhoun and Klemens, 2002; and *Science and Conservation of Vernal Pools in Northeastern North America*, Calhoun and deMaynadier, 2008, specifically Chapter 12, Conservation Recommendations section, Page 241. (See Additional References, Page 18). For example,

site clearing, grading and construction activities should be limited to <25% of the VP terrestrial habitat, and roads and driveways should be excluded from the VP envelope. For Category 2 projects, the applicant shall delineate all VPs on the property (see GC 2). The Corps may waive this requirement on a case-by-case basis.

**28. Fluvial Geomorphic Processes.** (a) Wherever practicable, projects should be designed to accommodate the natural tendencies of the fluvial system. This should greatly enhance the likelihood of long-term success of the project and minimize the chance of exacerbating an otherwise undesirable physical adjustment process. Recognition of these processes requires assessment of physical parameters and characteristics of the watershed, the water and sediment regimes, the channel and floodplain, the anthropogenic influences and constraints on the reach concerned and to what extent sediment transport continuity in the reach can be attained. (b) Applicants should consult with the VT River Management Program Stream Alteration Engineer for assistance in compliance with this condition.

Note: Refer to Additional References on Page 19 for additional information.

## **Procedural Conditions:**

**29. Inspections.** The permittee shall allow the Corps to make periodic inspections at any time deemed necessary in order to ensure that the work is being or has been performed in accordance with the terms and conditions of this permit. The Corps may also require post-construction engineering drawings for completed work, and post-dredging survey drawings for any dredging work.

**30. Maintenance.** (a) The permittee shall maintain the work authorized herein in good condition and in conformance with the terms and general conditions of this permit. Permittees must contact the Corps if maintenance will not take place or if they want to modify the existing project design. (b) The requirement to maintain the authorized work does not include maintenance of dredging projects. Maintenance dredging is subject to the review thresholds in Appendix A and/or any special conditions included in a written Corps authorization. Note: Refer to Additional References on Page 19 for information on maintaining stream restoration projects.

**31. Property Rights.** This GP does not convey any property rights, either in real estate or material, or any exclusive privileges, nor does it authorize any injury to property or invasion of rights or any infringement of federal, state, or local laws or regulations.

**32. Modification, Suspension, and Revocation.** This GP may be either modified, suspended, or revoked in whole or in part pursuant to the policies and procedures of 33 CFR 325.7. Any such action shall not be the basis for any claim for damages against the U.S.

**33. Restoration.** The permittee, upon receipt of a notice of revocation of authorization under this GP, shall restore the wetland or waterway to its former conditions without expense to the U.S., and as directed by the Secretary of the Army or his authorized representative. If the permittee fails to comply with such a directive, the Secretary or his designee may restore the wetland or waterway to its former condition, by contract or otherwise, and recover the cost from the permittee.

**34. Special Conditions.** The Corps may impose other special conditions on a project authorized pursuant to this GP that are determined necessary to minimize adverse navigational and/or environmental effects or based on any other factor of the public interest. Failure to comply with all conditions of the authorization, including special conditions, constitutes a permit violation and may subject the permittee to criminal, civil or administrative penalties and/or restoration.

**35. False or Incomplete Information.** If the Corps makes a determination regarding the eligibility of a project under this GP, and subsequently discovers that it has relied on false, incomplete, or inaccurate information provided by the permittee, the GP authorization shall not be valid and the U.S. Government may institute legal proceedings.

**36. Abandonment.** If the permittee decides to abandon the activity authorized under this GP, unless such abandonment is merely the transfer of property to a third party, he/she may be required to restore the area to the satisfaction of the Corps.

**37. Transfer of GP Verifications.** If the permittee sells the property associated with a GP verification, the permittee may transfer the GP verification to the new owner by submitting a letter to the Corps (see Page 17 for address) to validate the transfer. A copy of the GP verification must be attached to the letter and the letter must contain the following statement and signature: "When the structures or work authorized by this GP are still in existence at the time the property is transferred, the terms and conditions of this GP, including any special conditions, will continue to be binding on the new owner(s) of the property. To validate the transfer of this GP and the associated liabilities associated with compliance with its terms and conditions, have the transferee sign and date below."

**38. Enforcement cases.** This GP does not apply to any existing or proposed activity in Corps jurisdiction associated with a Corps or EPA enforcement action, until such time as the enforcement action is resolved or the Corps or EPA as appropriate determines that the activity may proceed independently without compromising the enforcement action.

## Duration of Authorization/Grandfathering:

**39. Duration of Authorization.** Activities authorized under this GP that have commenced (i.e., are under construction) or are under contract to commence before this GP's expiration date have:

- For Category 1 projects, 12 months after this GP's expiration date to complete the work in Corps jurisdiction.
- For Category 2 projects, until the project-specific date that the Corps provides to the permittee in the GP authorization letter to complete the work in Corps jurisdiction.

Activities authorized and completed under Category 1 or 2 of this GP will continue to remain authorized after this GP's expiration date. The permittee must be able to document that the project was under construction or contract by the appropriate date.

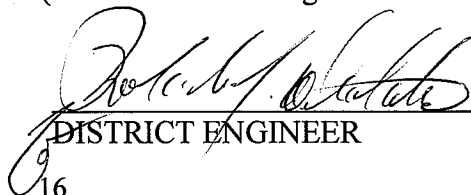
GP activities will remain authorized as specified above unless:

- The GP is either modified or is revoked, or
- Discretionary authority has been exercised on a case-by-case basis to modify, suspend or revoke the authorization in accordance with 33 CFR 325.2(e)(2).

## 40. Previously Authorized Activities.

(a) Projects that received written authorization from the Corps and that were completed under the previous GP's, nationwide permits, regional general permits or letters of permission, shall remain authorized as specified in each authorization letter.

(b) Activities authorized pursuant to 33 CFR 330.3 ("Activities occurring before certain dates") are not affected by this GP.

  
DISTRICT ENGINEER  
12/5/07  
DATE



## VI. CONTACTS FOR VERMONT GENERAL PERMIT:

### **U.S. Army Corps of Engineers**

New England District, Regulatory Division  
Vermont Project Office  
8 Carmichael Street, Suite 205  
Essex Junction, Vermont 05452  
(802) 872-2893, (802) 879-7638 fax  
[www.nae.usace.army.mil/reg/index.htm](http://www.nae.usace.army.mil/reg/index.htm)

### **Federal Endangered Species:**

U.S. Fish and Wildlife Service  
Federal Activities/Endangered Species  
70 Commercial Street, Suite 300  
Concord, New Hampshire 03301-5087  
(603) 223-2541  
[www.fws.gov/northeast/newenglandfieldoffice.htm](http://www.fws.gov/northeast/newenglandfieldoffice.htm)

### **National Park Service**

National Park Service  
North Atlantic Region  
15 State Street  
Boston, Massachusetts 02109  
(617) 223-5191

### **Vermont Agency of Natural Resources**

#### **Department of Environmental Conservation**

Water Quality Division – Wetlands Section  
103 South Main Street  
Waterbury, Vermont 05671-0408  
(802) 241-3770

#### **Department of Environmental Conservation**

Water Quality Division – Lakes and Ponds  
103 South Main Street  
Waterbury, Vermont 05671-0408  
(802) 241-3777

#### **Vermont Department of Fish and Wildlife**

103 South Main Street  
Waterbury, Vermont 05671-0501  
(802) 241-3700

### **U.S. Environmental Protection Agency**

New England Region  
Wetland Protection Program Unit – OEP/CWP  
JFK Federal Building 1 Congress Street, Suite 1100  
Boston, MA 02114-2023  
(617) 918-1399

### **Essential Fish Habitat:**

National Marine Fisheries Service  
Habitat Conservation Division (HCD)  
One Blackburn Drive  
Gloucester, Massachusetts 01930  
(978) 281-9300

### Historic Resources

#### **Division for Historic Preservation**

National Life Building  
Drawer 20  
Montpelier, Vermont 05620-0501  
(802) 828-3211

#### **Department of Environmental Conservation**

Water Quality Division - River Management Section  
103 South Main Street  
Waterbury, Vermont 05671-0408  
(802) 241-3770

#### **Department of Environmental Conservation**

Facilities Engineering Division - Dam Safety Program  
103 South Main Street  
Waterbury, Vermont 05671-0407  
(802) 241-3737

### State endangered species

#### **Vermont Department of Fish and Wildlife**

Nongame and Natural Heritage Program  
103 South Main Street  
Waterbury, Vermont 05671-0501  
[www.vtfishandwildlife.com/wildlife\\_nongame.cfm](http://www.vtfishandwildlife.com/wildlife_nongame.cfm)

## VII. ADDITIONAL REFERENCES:

**Page 4: Application.** Refer to [www.nae.usace.army.mil](http://www.nae.usace.army.mil) for a more comprehensive checklist. Select “Regulatory/Permitting,” “Forms” and then “Application and Plan Guideline Checklist.”

### **Page 4 & GC 9: Threatened and Endangered Species.**

The VT F&W provides information on Federal and State species:

[www.vtfishandwildlife.com/wildlife\\_nongame.cfm](http://www.vtfishandwildlife.com/wildlife_nongame.cfm).

The VT ANR Environmental Interest Locator provides an interactive web based GIS map with documented locations:

[http://maps.vermont.gov/imf/sites/ANR\\_NATRESViewer/jsp/launch.jsp](http://maps.vermont.gov/imf/sites/ANR_NATRESViewer/jsp/launch.jsp).

The U.S. Fish and Wildlife Service (U.S. FWS) provides information on Federal endangered species:

[www.fws.gov/northeast/newenglandfieldoffice/EndangeredSpec-Consultation\\_Project\\_Review.htm](http://www.fws.gov/northeast/newenglandfieldoffice/EndangeredSpec-Consultation_Project_Review.htm).

### **Page 4 and GC 22: Discharge of Pollutants - Impaired Waters and Stormwater Impaired Waters:**

The VT ANR lists and shows impaired waters and stormwater impaired waters at:

[www.vtwaterquality.org/planning.htm](http://www.vtwaterquality.org/planning.htm).

### **GC 2: Federal Jurisdictional Boundaries.**

Corps Wetlands Delineation Manual:

[www.nae.usace.army.mil/reg/1987 Wetland Delineation Manual.pdf](http://www.nae.usace.army.mil/reg/1987%20Wetland%20Delineation%20Manual.pdf).

U.S. FWS 1988 National List of Plant Species that Occur in Wetlands: [www.nwi.fws.gov](http://www.nwi.fws.gov).

The Natural Resources Conservation Service (NRCS) hydric soil definition, criteria and lists:

<http://soils.usda.gov/use/hydric/>.

Field Indicators for Identifying Hydric Soils in N.E.:

[www.neiwpsc.org/hydricsoils.asp](http://www.neiwpsc.org/hydricsoils.asp).

**GCs 18 and 26: Invasive Species.** See the Invasive Species section on the Corps website for control methods: [www.nae.usace.army.mil/reg/index.htm](http://www.nae.usace.army.mil/reg/index.htm).

### **GC 19: Bank Stabilization.**

Corps Coastal Engineering Manual: Select “Products/Services” and then “Publications.” Part 5, Chapter 7-8, a(2)c is particularly relevant. <http://chl.erdc.usace.army.mil>.

### **GC 21: Waterway/Wetland Work and Crossings**

21(c): Performance standards in GC 21 are taken from Section 8 - Alternative Designs, in the document “Guidelines for the Design of Stream/Road Crossings for Passage of Aquatic Organisms in Vermont.” These Guidelines are located at [www.vtfishandwildlife.com/library.cfm](http://www.vtfishandwildlife.com/library.cfm), “Reports and Documents.” This document should be referenced when designing and constructing stream crossing projects to help ensure compliance with GC 21 (a) - (c).

21(f): In general, bridges have greater longevity and overall success, and are easier to design for and more effective at aquatic life passage [see GC 21(a) and (b)].

**GC 23: Flood Hazard Management.** [www.anr.state.vt.us/dec/waterq/rivers/htm/rv\\_floodhazard.htm](http://www.anr.state.vt.us/dec/waterq/rivers/htm/rv_floodhazard.htm).

### **GC 27: Special Wetlands.**

Refer to the VT ANR Environmental Interest Locator, which provides an interactive web based GIS map with locations of significant (wetland) natural communities. At the Locator select map layers, fish and wildlife, and then significant natural communities:

[http://maps.vermont.gov/imf/sites/ANR\\_NATRESViewer/jsp/launch.jsp](http://maps.vermont.gov/imf/sites/ANR_NATRESViewer/jsp/launch.jsp). Some wetlands are more valuable and sensitive to fragmentation, non-point source runoff, and other secondary impacts. Upland buffers are especially essential to protect their functions.

The document *Best Development Practices: Conserving Pool-Breeding Amphibians in Residential and Commercial Development in the Northeastern U.S.*, Calhoun and Klemens, 2002, is available for purchase at [www.maineaudubon.org/resource/index.shtml](http://www.maineaudubon.org/resource/index.shtml).

The document *Science and Conservation of Vernal Pools in Northeastern North America*, Calhoun and deMaynadier, 2008, is available for purchase via the internet. Chapter 12 is available at [www.nae.usace.army.mil/reg/index.htm](http://www.nae.usace.army.mil/reg/index.htm) under Useful Links and Documents.

**GC 28: Fluvial Geomorphic Processes.** Consult with the VT River Management Program Stream Alteration Engineer for assistance in compliance with GC 28. Refer to information provided at: [www.anr.state.vt.us/dec/waterq/rivers/htm/rv\\_management.htm](http://www.anr.state.vt.us/dec/waterq/rivers/htm/rv_management.htm).

**GC 30: Maintenance.** River restoration projects that are designed to accommodate the natural dynamic tendencies of the fluvial system are maintained in accordance with the project's design objectives (Category 1) or the Corps authorization letter (Category 2). These projects are generally designed to support and implement channel assessment and management practices that recognize a stream's natural dynamic tendencies.

## APPENDIX A: DEFINITION OF CATEGORIES

<b>I. WATERS OF THE U.S. (INCLUDES WETLANDS) (other than Lake Champlain, Lake Memphremagog, Wallace Pond)</b>	<b>Waters of the U.S.<sup>1</sup> are comprised of Inland Waters of the U.S.<sup>2</sup> &amp; Navigable Waters of the U.S.<sup>3</sup>.</b> Navigable waters in Vermont are those designated as navigable by Congress (33 CFR 329). This section excludes the following navigable waters: Lake Champlain, Lake Memphremagog, Wallace Pond & wetlands adjacent to these waterbodies (See II. Navigable Waters below).		
	Projects not meeting Category 1 must apply/report to the Corps as either a Category 2 or Individual Permit project. All Category 1 and 2 projects must comply with all of this GP's applicable terms (Pages 1 – 7) and general conditions (Pages 8 – 16).		
	<b>CATEGORY 1</b>	<b>CATEGORY 2</b>	<b>INDIVIDUAL PERMIT</b>
<b>(a) NEW FILL/ EXCAVATION DISCHARGES</b>	<p>&lt;3,000 SF of waterway and/or wetland fill and secondary impacts<sup>4</sup>, (e.g., areas drained, flooded, fragmented, mechanically cleared or excavated). Fill area includes all temporary and permanent fill, and certain excavation discharges (except for incidental fallback<sup>5</sup>). Swamp/construction mats and corduroy roads are considered as fill [see General Condition (GC) 16].</p> <p><u>Provided:</u></p> <ul style="list-style-type: none"> <li>• In-stream (e.g., rivers, streams, brooks, etc.) work limited to Jul 15-Oct 1 (see GC 21).</li> </ul> <p><u>This category excludes:</u></p> <ul style="list-style-type: none"> <li>• Fills in Athens, Brookline, Chester, Dummerston, Grafton, Newfane, Putney, Rockingham, Springfield, Townshend, or Westminster, VT.</li> <li>• Fills below OHW in EFH waters (see GC 10).</li> <li>• Activities excluded in GC 21, i.e., dams, dikes, or activities involving water diversions<sup>6</sup> (other than dry hydrants used exclusively for firefighting activities with no stream impoundments); and sliplining.</li> <li>• Work in special aquatic sites (SAS)<sup>7</sup> other than wetlands.</li> <li>• Work in special wetlands<sup>8</sup> including work in vernal pools (VP) or within 200' of the VP's edge when jurisdiction is triggered.</li> <li>• Work on Corps properties &amp; Corps-controlled easements<sup>9</sup></li> </ul>	<p>3,000 SF to 1 acre waterway and/or wetland fill and secondary<sup>4</sup> impacts, (e.g., areas drained, flooded, fragmented, mechanically cleared or excavated). Fill area includes all temporary and permanent fill &amp; certain excavation discharges (except for incidental fallback<sup>5</sup>). Swamp/ construction mats and corduroy roads are considered as fill (see GC 16).</p> <p>Swamp mats filling ≥3,000 SF (see GCs 16 &amp; 17).</p> <p>Projects sponsored by a Federal or State agency with proactive restoration<sup>10</sup> as a primary purpose and impacts of any size ≥3,000 SF. Net impacts must not be greater than minimal.</p> <p>Restoration and/or enhancement approved for use by a Corps-approved In-Lieu Fee program or Corps-approved mitigation bank, with impacts of any size ≥3,000 SF</p> <p>Specific activities with impacts ≥3,000 SF required to affect the containment, stabilization, or removal of hazardous or toxic waste materials performed, ordered or sponsored by a government agency with established legal or regulatory authority. Wetlands must be restored in place.</p> <p>Work in special wetlands<sup>8</sup>, including work in VPs or within 200' of the VP's edge when jurisdiction is triggered on the property.</p> <p>The applicant shall delineate all special wetlands<sup>8</sup> including VPs on the property using Federal delineation methods (see GC 2). The Corps may</p>	<p>≥1 acre waterway and/or wetland fill &amp; secondary impacts<sup>4</sup> (e.g., area drained, flooded, fragmented, mechanically cleared or excavated). Fill area includes all temporary and permanent fill and certain excavation discharges (except for incidental fallback<sup>5</sup>). Swamp/ construction mats and corduroy roads are considered as fill (see GC 16).</p>

		waive these delineation requirements on a case-by-case basis. Wetland fill and/or secondary impacts (e.g., site clearing, grading and construction activities) should be limited to <25% of the VP habitat. Where practicable, roads & driveways should be excluded from the VP envelope <sup>8</sup> .	
--	--	---	--

<b>(b) BANK STABILIZATION PROJECTS</b>	<p>Inland bank stabilization &lt;100 linear FT and an average of &lt;1 CY of fill per linear FT below ordinary high water (OHW)</p> <ul style="list-style-type: none"> <li>• In-stream work limited to Jul 15-Oct 1.</li> <li>• No work in VPs<sup>8</sup> or within 200' of the VP's edge.</li> <li>• No work in SAS<sup>7</sup></li> <li>• No work in EFH waters (see GC 10).</li> <li>• No work in Rivers of Concern<sup>11</sup>.</li> <li>• No work on Corps properties and Corps-controlled easements<sup>9</sup>.</li> </ul>	Inland bank stabilization ≥100 linear FT, and/or an average of ≥1 CY of fill per linear foot below OHW.	
<b>(c) RIVER/ STREAM/ BROOK WORK &amp; CROSSINGS and WATERWAY/ WETLAND CROSSINGS</b>	<ol style="list-style-type: none"> <li>1. In-stream (e.g., rivers, streams, brooks, etc.) work limited to Jul 15 - Oct 1 (see GC 21).</li> <li>2. All stream crossings conform with the performance standards in GC 21. Note: Page 2, III(A)(i)(6) for VT ANR WQC Category 1 qualifications.</li> <li>3. Bridge spans, open bottom arches or embedded culverts are required.</li> <li>4. Culverts at waterbody crossings shall preserve hydraulic connectivity, at its present level, between any wetlands on either side of the road.</li> </ol> <p><u>Work in this category excludes:</u></p> <ul style="list-style-type: none"> <li>• Projects using retrofit methods increasing flow velocity or slip lining (only for 1 – 3 above).</li> <li>• Work in SAS<sup>7</sup>.</li> <li>• Open trench excavation in flowing waters except for riprap projects. (See GC 21.)</li> </ul>	Projects with proactive restoration <sup>10</sup> as a primary purpose with impacts of any area exceeding Category 1. Net impacts must not be greater than minimal.	

<p>(d) REPAIR, REPLACEMENT IN KIND &amp; MAINTENANCE OF AUTHORIZED FILLS</p>	<p>Repair/maintenance/replacement in kind of existing, currently serviceable, authorized fills with no expansion or change in use.</p> <ul style="list-style-type: none"> <li>• Conditions of the original authorization apply.</li> <li>• Minor deviations in fill design allowed<sup>11</sup>, except for stream crossings or dams.</li> <li>• No fills in special wetlands.</li> <li>• No fills in SAS<sup>6</sup> &amp; EFH waters (see GC 10).</li> </ul>	<p>Repair/maintenance/replacement in kind of existing, currently serviceable, authorized fills with expansion or a change in use &lt;1 acre.</p> <p>Replacement of non-serviceable authorized fills, including expansion or a change in use, totaling &lt;1 acre.</p>	<p>Repair/maintenance of existing, currently serviceable, authorized fills with expansion or a change in use &gt;1 acre.</p> <p>Replacement of non-serviceable authorized fills, including expansion or a change in use, totaling ≥ 1 acre.</p>
<p>(e) MISC.</p>	<p>Oil spill clean-up discharges.  Fish and wildlife harvesting such as duck blinds.  Temporary scientific measurement devices and survey activities, e.g., exploratory drilling, surveying, and sampling.  Monitoring wells.  Recreational gold mining.  Does not include oil/gas exploration and fills for roads or construction pads</p>	<p>Zebra Mussel Control Projects.  Fishery habitat enhancement structures.  Utility line crossings, water intakes and outfalls, and sea lamprey control projects.</p>	<p>Project where an EIS is required by the Corps</p>
<p>(f) MISC.  (applies only to NAVIGABLE WATERS other than Lake Champlain, Lake Memphremagog, Wallace Pond<sup>2</sup>)</p>		<p>New and maintenance dredging up to 5,000 CY with upland disposal or beach nourishment. No impacts to SAS<sup>7</sup>.</p> <p>Aerial transmission lines.  Floating or post supported docks or decks.  Private, non-commercial, single-boat moorings.  Utility lines installed by directional bores.</p>	<p>Maintenance dredging of any amount affecting a special aquatic site.</p> <p>New and maintenance dredging greater than 5,000 CY or in or affecting a special aquatic site.</p> <p>Dredging with open water disposal</p>

<b>II. NAVIGABLE WATERS OF THE U.S.<sup>3</sup> – LAKE CHAMPLAIN, LAKE MEMPHREMAGOG, WALLACE POND</b>	<b>Navigable Waters of the U.S.<sup>3</sup>:</b> These waters were designated as navigable by Congress (33 CFR 329).		
	Projects not meeting Category 1 must apply/report to the Corps as either a Category 2 or Individual Permit project. All Category 1 and 2 projects must comply with all of this GP's applicable terms (Pages 1 – 6) and general conditions (Pages 7 – 15).		
	<b>CATEGORY 1</b>	<b>CATEGORY 2</b>	<b>INDIVIDUAL PERMIT (IP)</b>
(a) FILL	No provisions for new or previously unauthorized fills in Category 1	<5,000 SF waterway/wetland fill and secondary impacts (e.g. areas drained, flooded, fragmented, mechanically cleared or excavated). Includes boat ramps & bridge fills.  Projects sponsored by a Federal or State agency with proactive restoration <sup>10</sup> as a primary purpose and impacts of any size. Net impacts must not be greater than minimal.	≥5,000 SF waterway/wetland fill and secondary impacts (e.g. areas drained, flooded, fragmented, mechanically cleared or excavated). Fill area includes all temporary and permanent waterway fills.  EIS required by the Corps.
(b) REPAIR, REPLACEMENT IN KIND AND MAINTENANCE WORK	Repair, replacement in kind or maintenance of existing, currently serviceable, authorized structures and fills.  <u>Provided:</u> <ul style="list-style-type: none"> <li>• No expansion or change in use.</li> <li>• Must be rebuilt in same footprint, however minor deviations in structure design allowed.<sup>12</sup></li> </ul>	Repair/replacement in kind/maintenance of currently serviceable authorized fills with expansion or a change in use <5000 SF.  Replacement of non-serviceable authorized fills, including expansion or a change in use, totaling <5000 SF.	Repair/maintenance/replacement in kind of currently serviceable authorized fills with expansion or a change in use >5000 SF.
(c) DREDGING	No provisions for dredging in Category 1	New and maintenance dredging <sup>13</sup> up to 5,000 CY with upland disposal or beach nourishment.  <u>Provided:</u> <ul style="list-style-type: none"> <li>• No impacts to SAS<sup>7</sup></li> <li>• Specific activities with impacts of any area or cubic yardage required to affect the containment, stabilization, or removal of hazardous or toxic waste materials that are performed, ordered, or sponsored by a government agency with established legal or regulatory authority may be reviewed as a Cat. 2 project. Wetlands must be restored in place.</li> </ul>	New or maintenance dredging <sup>13</sup> ≥5,000 CY.  Dredging affecting an SAS <sup>7</sup> .  All dredging with open water disposal.

(d) MOORINGS	<p>Private, non-commercial, non-rental, single-boat moorings.</p> <p><u>Provided:</u></p> <ul style="list-style-type: none"> <li>• Chains or other connections may not rest on the bottom in SAS<sup>7</sup> (eco-friendly mooring technology is required).</li> <li>• Not associated with a boating facility<sup>14</sup>.</li> <li>• No interference with navigation.</li> <li>• Moorings in Federal Anchorage<sup>15</sup> not associated with a boating facility<sup>14</sup>.</li> <li>• Not located within the buffer zone of the horizontal limits of a Federal Channel<sup>15</sup>.</li> </ul>	<p>Moorings that do not meet the terms of Category 1.</p> <p>Moorings located such that they, and/or vessels docked or moored at them, are within the buffer zone of the horizontal limits of a Federal Channel<sup>15</sup>.</p>	<p>Moorings and/or their moored vessels within the horizontal limits of a Federal Channel<sup>15</sup>.</p>
(e) PILE-SUPPORTED STRUCTURES AND FLOATS	<ol style="list-style-type: none"> <li>1. Reconfiguration of existing authorized docks with no additional slips and no expansion.</li> <li>2. Seasonal private, residential pile-supported structures for navigational access extending no further waterward than 50 FT MHW, not &gt;4 FT wide, &amp; a dock deck area &lt;500 SF.</li> <li>3. Private, bottom-anchored floats and seasonal swim floats ≤400 SF.</li> <li>4. Private boat &amp; float lifts to authorized residential docks.</li> </ol> <p>Provided for 1 - 4 above:</p> <ul style="list-style-type: none"> <li>• No structure extends across &gt;25% of the waterway width at MLW.</li> <li>• Not located over SAS<sup>7</sup>.</li> <li>• Not located within the buffer zone of the horizontal limits of an FNP<sup>15</sup>.</li> </ul>	<p>Private structures and floats for navigational access to the waterway that do not meet the terms of Category 1.</p> <p>Piers, docks, decks, floats, and similar structures that provide public recreational uses such as fishing, swimming, access, etc.</p> <p>Non-fill structures to provide recreational access to the waterbody (e.g. stairways, etc.).</p> <p>Minor modifications to existing, permitted boating facilities.</p> <p>Structures or floats and/or vessels docked or moored at them within the buffer zone of the horizontal limits of a FNP<sup>15</sup>.</p>	<p>Structures or floats and/or vessels docked or moored at them within the horizontal limits of a FNP<sup>15</sup>.</p> <p>Structures or floats associated with a new or previously unauthorized boating facility.<sup>14</sup></p>
(f) BANK STABILIZATION PROJECTS		<p>Bank stabilization &lt;500 linear feet and an average of 1 CY per linear ft. of fill below OHW or less provided no wetland fill.</p>	<p>Bank stabilization ≥500 linear ft. and/or involving more than an average of 1 CY per linear FT of fill below OHW.</p>



<p>(g) MISCELLANEOUS</p>	<p>Temporary buoys, markers, floats, etc. for recreational use during specific events, provided they are in place for no more than 30 days and are removed within 15 days after use is discontinued.</p> <p>The placement of aids to navigation and regulatory markers which are approved by and installed in accordance with the requirements of the U.S. Coast Guard. (See 33 CFR 66, Chapter I, subchapter C).</p> <p>Temporary oil spill clean up structures and fill.</p> <p>Scientific measurement devices &amp; survey activities such as exploratory drilling, surveying and sampling, provided that such structures do not restrict movement of aquatic organisms. Does not include oil and gas exploration or seismic testing, or fills for roads or construction pads.</p> <p>Fish and wildlife harvesting devices and activities such as pound nets, duck blinds, and small fish attraction devices such as open-water fish concentrators (sea kites, etc.). Provided: no hazard to navigation; activity is not in wetlands (except Sea Lamprey control projects) or sites that support submerged vegetation (including sites where submerged aquatic vegetation is determined to exist, but may not be present in a given year).</p>	<p>Structures/work in or affecting navigable waters that are not defined under any previous headings. Includes but is not limited to utility lines, aerial transmission lines, pipelines, outfalls, intakes, and horizontal directional drilling.</p> <p>Zebra Mussel control projects.</p> <p>Fishery habitat enhancement structures.</p> <p>Sea Lamprey control projects</p> <p>Nuisance aquatic plant control projects.</p> <p>Utility lines installed by directional bore.</p>	<p>Projects where an EIS is required by the Corps.</p> <p>Activities or activities with docked or moored vessels extending within the horizontal limits of Corps FNP<sup>15</sup> (does not include utility lines, aerial lines and subsurface crossings in Cat 2).</p>
------------------------------	---	--	---

***End Notes/Definitions***

**<sup>1</sup> Waters of the United States (U.S.):**

- a. All waters which are currently used, or were used in the past, or may be susceptible to use in interstate or foreign commerce, including all waters which are subject to the ebb and flow of the tide;
- b. All interstate waters including interstate wetlands;
- c. All other waters such as intrastate lakes, rivers, streams (including intermittent streams), mudflats, sandflats, wetlands, sloughs, prairie potholes, wet meadows, playa lakes, or natural ponds, the use, degradation or destruction of which could affect interstate or foreign commerce including any such waters:
  - i. Which are or could be used by interstate or foreign travelers for recreational or other purposes; or
  - ii. From which fish or shellfish are or could be taken and sold in interstate or foreign commerce; or
  - iii. Which are used or could be used for industrial purpose by industries in interstate commerce;
- d. All impoundments of waters otherwise defined as waters of the U.S. under the definition;
- e. Tributaries of waters identified in paragraphs (a)-(d) above;
- f. The territorial seas;

g. Wetlands adjacent to waters (other than waters that are themselves wetlands) identified in (a)-(f) above. Waste treatment systems, including treatment ponds or lagoons designed to meet the requirements of CWA (other than cooling ponds as defined in 40 CFR 123.11(m) which also meet this definition's criteria) are not waters of the U.S.

h. Waters of the U.S. do not include prior converted cropland. Notwithstanding the determination of an area's status as prior converted cropland by any other federal agency, for the purposes of the CWA, the final authority regarding CWA jurisdiction remains with the EPA.

<sup>2</sup>**Inland Waters and Wetlands:** These are a subset of waters of the U.S., are regulated under Section 404 of the CWA, and include rivers, streams, lakes, ponds and wetlands, excluding Section 10 Navigable Waters of the U.S. The jurisdictional limits [33 CFR 328.4(c)] are the ordinary high water (OHW) mark in the absence of adjacent wetlands, beyond the OHW mark to the limit of adjacent wetlands when adjacent wetlands are present, and the wetland limit when only wetlands are present.

<sup>3</sup>**Navigable Waters of the U.S.:** These are a subset of waters of the U.S., and are defined at 33 CFR 329. The jurisdictional limits [33 CFR 329.11] extend laterally to the entire water surface and bed of a navigable waterbody, which includes all the land and waters below the ordinary high water mark. Jurisdiction thus extends to the edge (as determined above) of all such waterbodies, even though portions of the waterbody may be extremely shallow, or obstructed by shoals, vegetation or other barriers. Marshlands and similar areas are thus considered navigable in law, but only so far as the area is subject to inundation by the ordinary high waters. In Vermont these waters are: the Connecticut River, Lake Champlain, Lake Memphremagog, Wallace Pond, Ompompanoosuc River (to mile 3.8), Waits River (to mile 0.9), the Black River (mouth to mile 25 in Craftsbury), the Battenkill River (to mile 50 in Manchester), the Lamoille River (mouth to mile 79 in Greensboro), the Missisquoi River (including the North Branch, from the mouth to mile 88.5 in Lowell), Otter Creek (mouth to mile 63.8 in Procter), Winooski River (mouth to Marshfield), Moose River (from Passumpsic River to the Victory Town Line), Nulhegan River (mouth to its source including the East Branch, the Black Branch and the Yellow Branch), Paul Stream (mouth to the source), East Branch of the Passumpsic River (from the confluence with the Passumpsic River to East Haven), Passumpsic River (mouth to confluence with the East Branch), White River (mouth to its source), Wells River (mouth to Groton Pond).

<sup>4</sup>**Direct, Secondary (Indirect), and Cumulative Impacts:**

Direct Impacts: The immediate loss of aquatic ecosystem within the footprint of the fill.

Secondary (Indirect) Impacts: These are effects on an aquatic ecosystem that are associated with a discharge of dredged or fill materials, but do not result from the actual placement of the dredged or fill material. (40 CFR 230.11 (h)). Secondary impacts are those impacts outside the footprint of the fill (e.g., beyond the bounds of the disposal site) that arise from and are associated with the direct discharge of dredged or fill material. Some examples are: I) Habitat Fragmentation. This occurs when a relatively undisturbed habitat block is interrupted or broken apart by roads, ditches, disturbance of vegetation, or development of structures. II) Interruption of Travel Corridors. Travel corridors are routes that many species travel on to find food, mates, shelter, and cover. Many aquatic species follow stream channels and wetlands, and follow established routes season after season. III) Vernal Pools. These are critically important breeding habitats for amphibians. Many amphibians disperse several hundred feet from their breeding ponds into the adjacent upland habitat after the breeding season has ended. IV) Hydrology, hydrological functions and non-point source impacts: A) Interference with the migration or movement of fish and shellfish from one area to another, such as placement of a dam eliminating access to spawning grounds for anadromous fish. B) Greater amounts of sediment, nutrients, and other pollutants such as lead, oil, gas, and salt that could impact wetlands and streams. Sediment causes turbidity, which reduces aquatic life and usually transports pesticides, heavy metals and other toxins into streams. This is especially a concern in watersheds where the streams are already listed as impaired by the VT ANR. C) Submerged aquatic vegetation is very dependent on light transmission and small changes in ambient turbidity can preclude it from growing in certain areas. D) Trout spawning areas are selected in areas that are well flushed and aerated, and new amounts of deposition may result in a spawning area being eliminated due to siltation of fish eggs. E) Physical effects such as erosion, accretion, entrenchment, sedimentation, embedment, channel or shoreline migration and failure to pass bedload material, organic matter and large woody debris.

Cumulative Impacts: The extent of past, present, and foreseeable developments in the area may be an important consideration in evaluating the significance of a particular project's impacts. Although the impacts associated with a particular discharge may be minor, the cumulative effect of numerous similar discharges can result in a large impact. Cumulative impacts should be estimated only to the extent that they are reasonable and practical.

<sup>5</sup>**Incidental Fallback:** The term "discharge of dredged or fill material" also includes certain discharges resulting from excavation.

<sup>6</sup>**Water Diversions:** Water diversions are activities such as bypass pumping or water withdrawals. Temporary flume pipes, culverts or cofferdams where normal flows are maintained within the stream boundary's confines aren't water diversions. "Normal flows" are defined as no change in flow from pre-project conditions. See GC 21.

<sup>7</sup>**Special Aquatic Sites:** Include inland wetlands, mudflats, vegetated shallows (permanently inundated areas that support rooted aquatic vegetation), and riffle and pool complexes. (40 CFR 230)

<sup>8</sup> **Special Wetlands:** Jurisdictional vernal pools, bogs, fens, and wetlands which provide habitat for threatened or endangered or species as designated by the State of VT Natural Heritage Program. See GC 27 for website. The following definitions for bogs, fens and vernal pools apply for the purposes of this GP:

**Bog** - A peat accumulating wetland with hydric, organic soils, a complete, or nearly complete, Sphagnum cover and a pH value ranging from 3.5 to 5.6 that receives water primarily from precipitation. Typical species include Sphagnum, leatherleaf and pitcher plant.

**Fen** - A peat accumulating wetland with hydric organic soils and a pH value ranging from 4.0 to 8.0. Sphagnum moss may be present, however, not as a complete cover. It generally receives water and minerals from runoff flowing through it. Typical species include low sedges, Sphagnum, other mosses and heath shrubs.

**Vernal Pools and Habitat:** Vernal pools are confined basin depressions with water for two or more continuous months in the spring and/or summer, for which evidence of one of more of the following obligate vernal pools species: wood frogs (*Rana sylvatica*), mole salamanders (*Ambystoma* spp), and fairy shrimp (*Eubranchipus* spp) has been documented **OR** for which evidence of two or more of the following facultative organisms: caddisfly (*Trichoptera*) larvae casings, fingernail clams (*Sphaeriidae*), or amphibious snails (*Basammatophora*) and evidence that the pool does not contain an established reproducing fish population has been documented. Vernal pool habitat is the seasonal pool depression, seasonal pool envelope (100 FT radius from the pool edge) and seasonal pool terrestrial habitat (750 FT radius from the pool edge).

<sup>9</sup> **Corps Properties & Easements:** Contact the Corps, Real Estate Division (978) 318-8580 to initiate reviews about both Corps holdings and permit requirements.

<sup>10</sup> **Restoration:** The manipulation of the physical, chemical, or biological characteristics of a site with the goal of returning natural/historic functions to a former wetland or other aquatic resource (called re-establishment) or a degraded wetland or other aquatic resource (called rehabilitation). Restoration means the result of actions which, in the opinion of the Federal and state resource agencies, reinstates, or will reinstate, insofar as possible, the functions and values of a wetland or aquatic resource which has been altered. Restoration is the re-creation or rehabilitation of wetland or other aquatic resource ecosystems whose natural functions have been destroyed or impaired. The Corps will decide if a project qualifies as proactive restoration and must determine along with Federal & state agencies that the net effects would be no more than minimal.

<sup>11</sup> **Rivers of Concern:** The following are rivers of concern due to either endangered species or cumulative impacts. There are no non-reporting bank stabilization activities in these rivers: Batten Kill River (to the headwaters), Black River (from its mouth in Springfield to its headwaters), Connecticut River, Lamoille River (from Hardwick to the confluence with Lake Champlain), Lewis Creek (from the Rte 116 crossing to the confluence with Lake Champlain), Missisquoi River (from the International Boundary in Richford, VT to the confluence with Lake Champlain), Ompompanoosuc River (to the headwaters), Otter Creek (from Rutland to the confluence with Lake Champlain), Pikes Falls (to the headwaters of North Branch of Ball Mountain Brook), Poultney River (to the headwaters), West River (from Jamaica to the confluence with the Connecticut River), White River (to the headwaters), Winooski River (from Montpelier to Lake Champlain).

<sup>12</sup> **Minor deviations.** Changes to the structure's configuration or filled area, including those due to changes in materials, construction techniques, or current construction codes or safety standards, which are necessary to make repair, rehabilitation, or replacement are permitted, provided the adverse environmental effects resulting from such repair, rehabilitation, or replacement are minimal. Currently serviceable means useable as is or with some maintenance, but not so degraded as to essentially require reconstruction.

<sup>13</sup> **Maintenance Dredging.** Includes areas and depths previously authorized by the Corps and dredged. **New Dredging:** Includes dredging proposed in previously undredged areas and/or in areas exceeding previously authorized dimensions (deeper or wider than previously authorized) excluding normal overdredge.

<sup>14</sup> **Boating Facilities:** Facilities that provide, rent or sell mooring space, e.g., marinas, yacht clubs, boat yards, dockominiums.

<sup>15</sup> **Federal Navigation Projects (FNPs):** FNPs are comprised of Federal channels and Federal anchorages. Contact the Corps for their location and information.

**Horizontal Limits:** The outer edge of an FNP. **Buffer zone:** Equal to three times the authorized depth of that channel.

<sup>16</sup> **Swamp Mats:** Swamp mats is a generic term used to describe structures that distribute equipment weight to prevent wetland damage while facilitating passage and providing work platforms for workers and equipment. They are comprised of sheets or mats made from a variety of materials in various sizes. A type of swamp mat is a timber mat, which consists of large timbers bolted or cabled together. Corduroy roads, which are not considered to be swamp mats, are cut trees and/or saplings with the crowns and branches removed, and the trunks lined up next to one another. Corduroy roads are typically installed as permanent structures. Like swamp mats, they are considered as fill whether they're installed temporarily or permanently.

<sup>17</sup> **Headwater and Ephemeral Streams:** Forested upland and wetland clearing can lead to additional direct and indirect impacts to the headwater streams and ephemeral streams on individual sites. Headwater streams and wetlands provide a rich resource base that contributes to the productivity of both local food webs and those farther downstream. Land use changes in the vicinity of small streams and wetlands can impair the natural functions of headwater systems. These systems are vitally important to maintaining the quality and quantity of water and aquatic health of streams lower in the watershed.