



**DEPARTMENT OF THE ARMY
US ARMY CORPS OF ENGINEERS
NEW ENGLAND DISTRICT
696 VIRGINIA ROAD
CONCORD MA 01742-2751**

The following Connecticut Regional General Permits (RGPs) were issued on December 15, 2021, by the U.S. Army Corps of Engineers, New England District, Regulatory Division (NAE). On March 15, 2026, NAE began utilizing the 2026 Nationwide Permits (NWP), which effectively replaced many of the Connecticut RGPs. Activities that would have been reviewed under the replaced RGPs will now be reviewed under the 2026 NWP. A subset of the Connecticut RGPs remain available for use. The following document of the Connecticut RGPs has been edited to include only those RGPs that are still available (i.e., RGPs not replaced by NWP). As such, there may be references within the RGPs document for removed RGPs.

NOTE: Verifications received under the removed/replaced RGPs remain valid until the expiration date of the RGPs, or one year from that date of expiration if work has commenced or is under contract to commence.

**DEPARTMENT OF THE ARMY
REGIONAL GENERAL PERMITS FOR THE
STATE OF CONNECTICUT**

The New England District of the U.S. Army Corps of Engineers (USACE) hereby issues twenty-three (23) regional general permits (GPs), listed in Appendix A, for activities subject to USACE jurisdiction in waters of the United States (U.S.), including navigable waters within the State of Connecticut, adjacent ocean waters to the seaward limit of the outer continental shelf, and tribal lands¹. These GPs are issued in accordance with USACE regulations at 33 CFR 320 - 332 [see 33 CFR 325.5(c)(1)] and authorize activity-specific categories of work that are similar in nature and cause no more than minimal individual and cumulative adverse environmental impacts while providing protection to the aquatic environment and the public interest.

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GENERAL CRITERIA

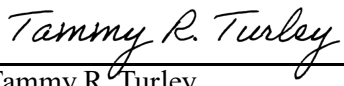
For activities to qualify for these GPs, they must meet the terms, eligibility criteria and stipulations listed in Appendix A – General Permits, the general conditions (GCs) in Appendix B, and any special conditions included in verification letters that are deemed necessary to protect aquatic resources.

Under these GPs, projects may qualify for the following:

- **Self-Verification (inland):** A Self-Verification Notification Form (SVNF) and supporting materials are required
- **Self-Verification (coastal):** An SVNF is not required, except for GP 12. USACE relies on Connecticut Department of Energy and Environmental Protection (CT DEEP) and applicant/agent submittals.
- **Pre-Construction Notification (PCN):**
 - **Inland:** Application to, and written approval from, USACE is required.
 - **Coastal:** Notification to USACE provided by CT DEEP or by applicants as necessary. Written approval from USACE is required.

¹ Tribal reservation lands are considered a sovereign nation and are therefore acknowledged separately from the State of Connecticut.

If an activity is not eligible for Self-Verification (SV), a PCN is required to allow USACE an opportunity to thoroughly review a proposed GP activity to ensure that the proposed activity qualifies for GP authorization. If the proposed activity does not qualify for GP authorization, USACE will inform the applicant and advise them on the process for seeking an Individual Permit. The thresholds for activities eligible for SV and PCN are stated in Appendix A. A number of terms and conditions can be found throughout the GPs and Appendices, including the General Conditions in Appendix B, which apply to all projects. These GPs do not affect the USACE Individual Permit review process or activities exempt from USACE regulation. The USACE does not intend to exclude projects from utilizing the SV process where Section 7 ESA, MSA (EFH), or Section 106 NHPA consultation is required and completed by another lead Federal agency; provided the scope of those actions sufficiently encompass the USACE Regulatory action.



Tammy R. Turley
Chief, Regulatory Division

December 15, 2021
Date

SECTION 1

REVIEW CATEGORIES AND APPLICATION PROCEDURES FOR ACTIVITIES WITHIN NON-TIDAL WATERS AND WETLANDS WITHIN THE STATE OF CONNECTICUT AND TRIBAL LANDS

I. JURISDICTION AND ACTIVITIES COVERED:

Authorizations are required for activities that will involve the discharge of dredged or fill material and certain discharges associated with excavation into waters of the U.S., including wetlands. These activities are regulated by USACE under Section 404 of the Clean Water Act (CWA), see 33 CFR 323 (see GC 2).

II. REVIEW PROCESS

1. State and Local Approvals - Water Quality Certification (WQC)

Section 401(a)(1) of the Clean Water Act (33 USC Sec.1341) requires that applicants proposing to discharge dredged or fill material into waters of the U.S. obtain a WQC or waiver from the certifying state water pollution control agency, which is CT DEEP or the U.S. Environmental Protection Agency (EPA) on Indian reservation lands. The CT DEEP has granted WQC for all activities authorized under these CT GPs provided those activities meet the criteria as contained in these General Permits.

A written determination of concurrence of eligibility for Section 401 WQC prior to the start of construction from the CT DEEP Commissioner is required for all PCN activities. Applicants seeking a written concurrence of eligibility for PCN activities must apply to the CT DEEP on such form as the Commissioner may prescribe and with such information as the Commissioner deems necessary to fulfill the purposes of Section 401 of the Federal CWA. Upon completion of the review and evaluation of such application, the Commissioner will issue either a written concurrence of eligibility determination of Section 401 Certification upon such terms, limitations or conditions as the Commissioner deems necessary, or a written determination that an individual (regular) Section 401 WQC is required for the proposed activity.

The EPA granted WQC for activities located on lands within the boundaries of an Indian Reservation.

2. Self-Verification Review Category

a. Notification: An application to the USACE is not required. However, submittal of a SVNF and required accompanying materials to USACE and CT DEEP in accordance with Section 2(c) below, at least two weeks prior to commencement of work authorized by these GPs, is required.

b. Eligibility Criteria: Activities in Connecticut and tribal lands that meet the following criteria are eligible under SV of this GP if they:

- Are subject to USACE jurisdiction (see Appendix B, GC 2);
- Meet the SV criteria in Appendix A - General Permits;
- Meet the requirements of the applicable GCs in Appendix B;
- Meet all other applicable terms and conditions of these GPs; and
- Result in no more than minimal impacts to the aquatic environment.

Project proponents seeking authorization under these GPs by qualifying for SV must comply with all GCs and other relevant federal laws such as the National Historic Preservation Act (NHPA), the Endangered Species Act (ESA) and the Wild and Scenic Rivers Act. Consequently, applicant consultation with USACE and outside experts such as the Connecticut State Historic Preservation Office (SHPO), which is the Connecticut Department of Economic and Community Development in Connecticut, Connecticut Native American Indian tribes (see Appendix D) and the National Park Service, is required for SV eligible activities when there is a likelihood of the presence of resources of concern and the proposed work has the potential to affect these resources. Federal agencies should follow their own procedures for complying with the above requirements and shall provide USACE with the appropriate documentation to demonstrate compliance with those requirements for both SV and PCN review.

c. How to Obtain Self-Verification Verification: Prospective permittees must:

(1) Confirm that the activity meets all the applicable SV eligibility criteria, terms and conditions stated in 2(b) above;

(2) Notify the CT SHPO and the State of Connecticut federally recognized Indian tribes and/or Tribal Historic Preservation Officers (THPOs) listed in Appendix D and GC 11 for submission requirements;

(3) Obtain an Official Species List of federally threatened and endangered species that may occur in the activity's action area (see GC 12); and

(4) Submit the SVNF and its required accompanying materials (see Appendix E) to USACE and CT DEEP at least two-weeks prior to start of project construction. Digital submittals by email (preferred), CD/DVD or USB flash drive are strongly encouraged. Please communicate with USACE staff if you are unable to provide a digital copy as allowances will be made. See

<https://www.nae.usace.army.mil/Missions/Regulatory/Submitting-Electronic-Correspondence> for information about our electronic submittal process.

Email: cenae-r-ct@usace.army.mil

Mail: Regulatory Division - Branch B, U.S. Army Corps of Engineers, New England District, 696 Virginia Road, Concord, MA 01742-2751

Email: DEEP.LWRDRegulatory@ct.gov

Mail: State of Connecticut, Department of Energy & Environmental Protection, 79 Elm Street, Hartford, CT 06106-5127

(5) If the activity is eligible for SV, you will receive a written verification from USACE. If it is determined that the work is not eligible for SV, you will be notified within 14-days of receipt of the SVNF.

3. PCN Review Category

a. Notification: For activities that are not eligible for SV or when it is stated that a PCN is required, an application to, and written verification from, USACE is required. No work requiring a PCN may proceed until written verification from USACE has been received.

b. Eligibility Criteria: Activities in Connecticut and tribal lands that meet the following criteria may be eligible for authorization under these GPs:

- Are subject to USACE jurisdiction (see Appendix B, GC 2);
- Meet the criteria of PCN in Appendix A – General Permits;
- Meet the requirements of the applicable GCs in Appendix B;
- Meet all other applicable terms and conditions of these GPs;
- Result in no more than minimal impacts to the aquatic environment, as determined by USACE in conjunction with the interagency review team which consists of Federal and State resource agencies. In some instances, this may require project modifications involving avoidance, minimization, and/or compensatory mitigation for unavoidable impacts to ensure the net effects of a project are minimal; and
- Receive written concurrence of eligibility with the 2021 GP WQC from CT DEEP before start of work.

c. Applying for authorization through the PCN process: Applicants must submit a PCN to USACE. See Section 3 for a full list of PCN requirements. Digital submittals by email (preferred), CD/DVD or USB flash drive are strongly encouraged. Please communicate with USACE staff if you are unable to provide a digital copy as allowances will be made. See <https://www.nae.usace.army.mil/Missions/Regulatory/Submitting-Electronic-Correspondence> for information about our electronic submittal process. USACE staff will notify you if a paper copy or large-scale drawings are required for the evaluation.

Email: cenae-r-ct@usace.army.mil

Mail: Regulatory Division - Branch B, U.S. Army Corps of Engineers, New England District, 696 Virginia Road, Concord, MA 01742-2751

Email: DEEP.LWRDRRegulatory@ct.gov

Mail: State of Connecticut, Department of Energy & Environmental Protection, 79 Elm Street, Hartford, CT 06106-5127

In addition to submitting a PCN to USACE, applicants must concurrently submit an LWRD Transmittal Form and Application Form L to CT DEEP, which can be found at: [Land and Water Resource Division LWRD Applications \(ct.gov\)](http://www.ct.gov/landwater/LWRD/Applications) or <https://www.nae.usace.army.mil/Missions/Regulatory/State-General-Permits/Connecticut-General-Permit>. Follow the application submission instructions on these forms.

Email: DEEP.LWRDRRegulatory@ct.gov

Mail: State of Connecticut, Department of Energy & Environmental Protection, 79 Elm Street, Hartford, CT 06106-5127

4. Emergency Procedures: Written authorization under these emergency procedures is required. Contact USACE immediately in the event of an emergency to obtain information on the verification process and coordination requirements. USACE regulation at 33 CFR 325.2(e)(4) states that an “emergency” is a situation which would 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 the application under standard procedures.” Emergency work is subject to the same terms and conditions of these GPs as non-emergency work, and similarly, must qualify for authorization under these GPs; otherwise, an Individual Permit shall be required. Upon notification, USACE will determine if a project qualifies for emergency procedures under the GPs and whether work may proceed prior to submittal of an application. Where an application is required, USACE staff will work with all applicable agencies to expedite verification according to established procedures in emergency situations.

5. Individual Permit Procedures: Work that is **NOT** eligible for authorization under the GPs as defined in Appendix A – General Permits and applicable GCs, or that does not meet the applicable terms and conditions of the GPs, will require review under USACE Individual Permit procedures (see 33 CFR 325.1). Applicants shall submit the appropriate application materials to USACE. General information and the application form can be obtained at <http://www.usace.army.mil/Missions/CivilWorks/RegulatoryProgramandPermits/ObtainPermit.aspx>.

Water Quality Certification for Individual Permits: Section 401(a)(1) of the CWA (33 USC 1341) requires that applicants proposing to discharge dredged or fill material into waters of the U.S. obtain a WQC or waiver from the certifying state water pollution control agency, which is CT DEEP in Connecticut or the EPA on Indian reservation lands. If the proposed work includes a discharge of fill or dredged material in waters of the U.S. and will require an Individual WQC from the CT DEEP, an applicant must submit a certification pre-filing meeting request to that agency at least 30-days prior to submitting the 401 WQC certification request. The CT DEEP is not obligated to respond to the pre-filing meeting request or to grant the meeting, but the agency may choose to grant one where early joint interagency and applicant coordination has the opportunity to promote efficiency in the Section 401 decision making process. A 401 WQC certification request must be submitted simultaneously to the certifying pollution control agency (CT DEEP or EPA) and USACE. Information pertaining to the Federal regulation is available at <https://www.epa.gov/CWA-401> and state-specific information can be found at the CTDEEP website <http://www.ct.gov/deep/cwp/view.asp?a=2709&q=324168&depNavGID=1643>. These links are also available at <https://www.nae.usace.army.mil/Missions/Regulatory/State-General-Permits/Connecticut-General-Permit>.

SECTION 2

REVIEW CATEGORIES & APPLICATION PROCEDURES FOR ACTIVITIES WITHIN TIDAL, COASTAL AND NAVIGABLE WATERS AND WETLANDS WITHIN THE STATE OF CONNECTICUT

I. JURISDICTION AND ACTIVITIES COVERED

1. CT DEEP

a. Jurisdiction: In the tidal, coastal, *or* navigable waters of Connecticut waterward of the coastal jurisdiction line (CJL), CT DEEP regulates dredging; the erection of structures; the placement of fill; and work incidental thereto pursuant to Connecticut General Statutes (CGS) Section 22a-359. Activities within tidal wetlands are regulated pursuant to CGS Section 22a-32. Your activity may be regulated by both CGS Sections 221-359 and 22a-32.

One of the following regulatory limits will apply to the activity:

- CJL: For activities not within tidal wetlands, the CJL is the upland limit of state regulatory jurisdiction, CGS Section 22a-359(c).
- Mean High Water Mark (MHW): For projects located upstream of a tide gate, dam, or weir, use MHW. The use of MHW would not apply to areas where a culvert, pipe, or narrow channel is causing a restriction as the purpose and function of such devices are not to modify the flow of tidal water (their purpose is to convey water).
- Tidal Wetland Boundary: Use the tidal wetland boundary if tidal wetland vegetation is located landward of CJL or MHW. The upland limit of tidal wetlands is one foot above local extreme high water, CGS Section 22a-29(2). Local extreme high water is defined in Section 22a-30-2(h) of the Tidal Wetlands Regulations as the elevation of the one-year frequency tidal flood at a particular location as shown on the most recently adopted U.S. Army Corps of Engineers tidal flood profile (<https://www.nae.usace.army.mil/Portals/74/docs/regulatory/Forms/TidalFloodProfiles.pdf>).

b. Authorizations:

Water Quality Certification (WQC): Section 401(a)(1) of the Clean Water Act (33 USC Sec. 1341) requires that applicants obtain a WQC or waiver from the state water pollution control agency (CT DEEP) or EPA for Indian reservation lands to discharge dredged or fill material into waters of the U.S.

Coastal Zone Management (CZM) Consistency: Concurrence under Section 307 of the Federal CZM Act of 1972, as amended. Section 307(c) of the CZM of 1972, as amended, requires applicants to obtain a certification or waiver from CT DEEP, Land and Water Resources Division that the activity complies with the state's CZM program for activities affecting a state's Coastal Area.

Projects involving dredging/excavation and associated disposal within the Byram River must

also coordinate with NY Department of State (NYDOS) directly to obtain a certification or waiver that the activity complies with NYDOS' CZM program. Also, all projects with disposal within any of the Long Island Sound disposal sites require NY DOS CZM consistency. See <https://dos.ny.gov/coastal-consistency-review-for-additional-information>.

2. USACE

a. Jurisdiction:

- Work and structures that are located in, under or over any navigable water of the U.S. (defined at 33 CFR 329) that affect the course, location, condition, or capacity of such waters; or the excavating from or depositing material in navigable waters, the Connecticut River has been determined to be a navigable water of the United States. (Regulated by USACE under Section 10 of the Rivers and Harbors Act of 1899).
- The discharge of dredged or fill material into waters of the U.S. (defined at 33 CFR 328), which is regulated by USACE under Section 404 of the CWA
- The transportation of dredged material for the purpose of disposal in the ocean. The USACE regulates these activities under Section 103 of the Marine Protection, Research and Sanctuaries Act. See 33 CFR 324.
- Use or alteration of a Civil Works project by another party is subject to approval by USACE under Section 408 of the Rivers and Harbors Act of 1899 after determining that the alteration proposed will not be injurious to the public interest and will not impact the usefulness of the Civil Works project.

b. Authorizations:

1. Self-Verification (SV): Applicants should submit a copy of their state permit application package directly to USACE and not submit Appendix E of the CT GPs to USACE unless specifically required (see GP 12). CT DEEP, Land and Water Resources Division, will forward copies of their approvals to USACE. If USACE determines that a project meets SV, USACE will forward verification of eligibility to the applicant.

SV Eligibility Criteria

Activities in Connecticut and lands located within the boundaries of an Indian reservation may proceed without application or notification to the Corps if they:

- are subject to Corps jurisdiction
- meet the definition of Self-Verification in **Appendix A - General Permits**, and
- meet the **Appendix B -General Conditions** of the GPs

Note: Activities subject to Corps jurisdiction that are NOT regulated by the CT DEEP will be subject to the Pre-Construction Notification (PCN) screening requirements of the GPs as noted below.

Project proponents seeking eligibility under the SV category must comply with the General Conditions of the GPs and other federal laws such as the National Historic Preservation Act (NHPA), the Endangered Species Act (ESA) and the Wild and Scenic Rivers Act (WSRA).

Therefore, consultation with the Corps and/or outside experts such as the State Historic Preservation Office and any appropriate Indian tribes is recommended when there is a likelihood of the presence of resources of concern.

2. Regional General Permit Pre-Construction Notification (PCN) (notification/application and written authorization required)

Projects not eligible under the SV category of the GPs may be reviewed under PCN category, provided they meet the criteria.

PCN Eligibility Criteria

Activities in Connecticut and lands located within the boundaries of an Indian reservation that meet the following criteria **require written approval from the Corps**:

- are subject to Corps jurisdiction,
- meet the definition of PCN in this Section and meets the criteria in **Appendix A - General Permit Activities**
- meet the **Appendix B - General Conditions** of the GPs

3. PCN process for each of the following CT DEEP approvals:

a. CT DEEP, Land and Water Resources Division regulated activities

Structures and Dredging Permit Applications: Applicants/agents shall submit to the Corps, a copy of the LWRD License Application Pre-Submission Consultation Form – U. S. Army Corps of Engineers along with project plans. The Corps will then coordinate this information with the interagency review team (see **4. Review Procedures** on the next page) and then return the form to applicants/agents for their submission to DEEP. This form can be found at:

https://portal.ct.gov/-/media/DEEP/Permits_and_Licenses/Land_Use_Permits/LWRD/consultUSACEpdf.pdf

Certificates of Permission (COPs), General Permits (GPs) and Modifications:

Applicants/agents shall submit to the Corps copies of application packages and approvals. If a project is determined to meet any of the PCN activities and is complete, the Corps will coordinate these projects with the interagency review team. If the Corps determines that an Individual permit or additional information is required, the Corps will coordinate directly with the applicant/agent.

For a full list of PCN requirements, see Section 3.

NOTE: For projects which involve dredging and open water disposal - Applicants/agents must submit requests for sampling plans to CT DEEP and the Corps simultaneously, along with other required information specific to dredging/open water disposal, a detailed open water disposal site alternative analysis, and a completed New York State, Department of State (NYS DOS) Federal Consistency Assessment Form found at

https://dos.ny.gov/system/files/documents/2020/09/fcaf_fillable.pdf.

The information needed to develop a sampling and analysis plan can be found at:

https://www.nae.usace.army.mil/Portals/74/docs/regulatory/Forms/NAE_SAP_Checklist.pdf?ver=YjOLbfZYTyHnt3Vc9QJpyg%3d%3d

Please see our website at <https://www.nae.usace.army.mil/Missions/Regulatory/State-General-Permits/Connecticut-General-Permit/> for more information.

Please also note for dredging projects, CT DEEP requires a completed Pre-Submission Consultation form, LWRD Application Pre-Submission Consultation Form, found at: https://portal.ct.gov/-/media/DEEP/Permits_and_Licenses/Land_Use_Permits/LWRD/consultdredgingpdf.pdf to be submitted with any license application to DEEP. For further guidance on the CT DEEP consultation process please refer to the following document, “Reference for Coastal/Tidal Dredging” found at: https://portal.ct.gov/-/media/DEEP/Permits_and_Licenses/Land_Use_Permits/LWRD/referencedredgingpdf.pdf

b. Aquaculture activities regulated by the Connecticut Department of Agriculture

This refers to marine and land-based aquaculture activities, including associated structures regulated by the Department of Agriculture, Bureau of Aquaculture (DA/BA), Connecticut General Statutes Section 22-11h.

Applicants should apply directly to the DA/BA using the Joint Application for Aquaculture form found at: http://www.nae.usace.army.mil/reg/Permits/CT_AquacultureApplication.pdf. The DA/BA will forward a copy of the aquaculture application package to the Corps, CT DEEP’s Boating Division, Marine Fisheries Division, and CT DEEP, Inland Water Resources Division (IWRD) for activities impacting inland waters.

These application packages for marine-based activities will be screened by the Corps, the Federal resource agencies, and the CT DEEP with input from CT DEEP Boating and Marine Fisheries Divisions. Screening will also initiate review of the application by CT DEEP for Coastal Zone Management consistency concurrence. CT DEEP will make a determination on the completeness of the application for CZM consistency review and/or the eligibility of the activity for state aquaculture permit exemption within 30 days from the date of the screening meeting.

4. Review Procedures:

The Corps will coordinate review of all PCN activities with federal and state agencies as necessary. To be eligible and subsequently authorized, an activity must meet the eligibility criteria listed above and result in no more than minimal impacts to the aquatic environment as determined by the Corps. This may require project modifications involving avoidance, minimization, and/or compensatory mitigation for unavoidable impacts to ensure the net effects of a project are minimal. Applicants are responsible for applying for the appropriate state and local approvals. Authorizations under these GPs are not valid until all required CT DEEP authorizations are granted.

Emergency Procedures: “Written approval to proceed” under these emergency procedures is required. Contact the Corps immediately in the event of an emergency to obtain information

on the verification process and coordination requirements. Corps regulation at 33 CFR 325.2 (e) (4) states that an “emergency” is a situation which would 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 the application under standard procedures.” Emergency work is subject to the same terms and conditions of these GPs as non-emergency work, and similarly, must qualify for authorization under these GPs; otherwise, an Individual Permit shall be required. Upon notification the Corps will determine if a project qualifies for emergency procedures under the GPs and whether work may proceed prior to submittal of an application. Where an application is required, Corps staff will work with all applicable agencies to expedite verification according to established procedures in emergency situations.

Individual/Standard Permit Procedures: Work that is not eligible under PCN activities as described therein or that does not meet the terms and general conditions of the GPs, will require the submission of an application to the Corps for an Individual Permit (see 33 CFR Part 325.1). The applicant should submit all the appropriate application materials, including the Corps ENG 4345 application form. General information and application can be obtained at our website at <http://www.usace.army.mil/Missions/CivilWorks/RegulatoryProgramandPermits/ObtainPermit.aspx> or by calling us. Individual WQC and CZM consistency concurrence are required, when applicable, from the State of Connecticut before Corps issuance of an individual permit. Individual Water Quality Certification must be obtained from EPA for activities on lands located within the boundaries of an Indian reservation. The Corps encourages applicants to concurrently apply for a Corps Individual Permit and state permits.

Water Quality Certification for Individual Permits: Section 401(a)(1) of the Clean Water Act (33 USC Sec. 1341) requires that applicants proposing to discharge dredged or fill material into waters of the U.S. obtain a WQC or waiver from the certifying state water pollution control agency, which is the (CT DEEP) or the EPA on Indian reservation lands. If the proposed work includes a discharge of fill or dredged material in waters of the U.S. and will require an Individual WQC from CT DEEP, an applicant must submit a certification pre-filing meeting request to that agency at least 30-days prior to submitting the 401 WQC certification request. CT DEEP is not obligated to respond to the pre-filing meeting request or to grant the meeting, but the agency may choose to grant one where early joint interagency and applicant coordination can promote efficiency in the Section 401 decision making process. A 401 WQC certification request must be submitted simultaneously to the 401 certifying pollution control agency (CT DEEP) and the Corps. Information pertaining to the federal regulation is available at <https://www.epa.gov/CWA-401> and state-specific information can be found at the CTDEEP web site at http://www.ct.gov/deep/cwp/view.asp?a=2709&q=324168&depNav_GID=1643.

SECTION 3

CONTENT OF PRECONSTRUCTION NOTIFICATION

I. INFORMATION REQUIRED FOR ALL PROJECTS

- The USACE application form ([ENG Form 4345](#)) is required for all inland activities. The form can be obtained electronically at www.usace.army.mil/Missions/Civil-Works/Regulatory-Program-and-Permits/Obtain-a-Permit. The CT DEEP LWRD Structures, Dredging & Fill or Certificate of Permission applications can be substituted for the USACE application form for activities in coastal waters provided it includes all the information required below. Submit a copy of the CT DEEP application directly to USACE.
- All anticipated direct, indirect, and secondary impacts, both permanent and temporary, to waters of the U.S. (in wetlands, and waterward of OHW in inland waters and the HTL in coastal waters) in square feet, acres, or linear feet (for stream and bank impacts), and cubic yards or other appropriate units of measure. The USACE New England District’s Compensatory Mitigation Standard Operating Procedures document is a resource for assessing secondary impacts (<https://www.nae.usace.army.mil/Missions/Regulatory/Mitigation>).
- For any activity that will alter or temporarily or permanently occupy or use a USACE Federally authorized Civil Works project, the PCN must include a statement confirming that the project proponent has submitted a written request for Sec. 408 permission from USACE. See GC 8(c) and (d).
- Information on historic properties (see GC 11), including a copy of the CT SHPO form found at: https://portal.ct.gov/-/media/DECD/Historic-Preservation/01_Programs_Services/Environmental-Review/ProjectNotificationForm_2021.pdf
- Information on Federal threatened or endangered species present at the site including a copy of the USFWS IPAC Official Species List, the NOAA Section 7 Species List (see GC 12) and the email address of the person who generated the list.
- If applicable, a restoration plan showing how all temporary fills and structures will be removed and the area restored to pre-project conditions (see GC 17).
- Photographs of wetland and/or waterway to be impacted. Photos at low tide are preferred for work in coastal waters.
- Provide any historic information available that you may have for the project area, e.g., existing USACE permit/file numbers, the names under which the permits were obtained if the permit/file numbers are unknown, construction dates and proof of prior existence (aerials, photos, town hall records, affidavits, state, or local permits, etc.) to verify “grandfathering.”
- If the project is in the Federal Emergency Management Agency designated floodplain or floodway, state whether the project will adversely affect the hydraulic characteristics of these features or existing floodplain storage capacity (see GC 5).

Information required for dredge activities shall also include:

- Sampling plan requests – submit completed Dredged Material Evaluation checklist found at [Dredged Material Evaluation Checklist, Sampling and Analysis Plan Requirements from Applicant \(army.mil\)](#)
- Whether the work is new, improvement or maintenance dredging and the method of handling/transporting the dredged material.
- Grain-size of material to be dredged (e.g., silty sand). Provide any existing sediment grain size and ~~h~~sediment chemistry data from the proposed project, previous dredging at the site, or from nearby projects.
- Information on any recent spills of oil and/or other hazardous materials and/or nearby outfalls.

Document the information source, e.g., EPA database, the harbormaster or fire chief.

- Total footprint of the dredged area when characterizing impact to resources.
- Provide an alternatives analysis to open-water disposal.

II. Plans for all projects shall include:

- Drawings, sketches, or plans that are legible, reproducible (color is encouraged, but features must be distinguishable in black and white), drawn to scale, and no larger than 11"x17". Numeric and graphic/bar scales must agree, and plan details must be measurable using a standard engineer's scale on printed plans. Reduced plans are not acceptable. Show the north arrow and wetland and waterway area impacts. Provide a color locus map and, if necessary, a plan overview of the entire property with a key index to the individual impact sheets.
- Datum in plan and elevation views.
 - The horizontal datum shall be in the NAD 83 Connecticut State Plane Coordinate System (Long Island Sound) in U.S. survey feet.
 - The vertical data in coastal projects shall be referenced to either MLLW or the North American Vertical Datum of 1988 (NAVD 88). Both the distance and depth units shall be U.S. survey feet. See <https://www.nae.usace.army.mil/Portals/74/docs/regulatory/Forms/VerticalDatumLetter.pdf>
- Existing and proposed conditions, and plan views and cross sections for all work.
- Limits and area (SF) of temporary and permanent fill to be placed in any wetlands or waterway, including construction access and work areas, cofferdams, bedding, and backfill. Show delineation of all wetlands including salt marsh; other special aquatic sites (vegetated shallows, mudflats, riffles and pools, coral reefs, and sanctuaries and refuges); other waters, such as lakes, ponds, vernal pools, and perennial, intermittent, and ephemeral streams; on the project site. Use Federal delineation methods and include USACE wetland delineation data sheets (see GC 2) for all wetlands. Vegetated shallow survey guidance is located at <https://www.nae.usace.army.mil/Missions/Regulatory/Jurisdiction-and-Wetlands/>. Maps of vegetated shallows in Connecticut can be obtained online from CT ECO at <https://cteco.uconn.edu/viewer/index.html?viewer=advanced>
- Copies of NRCS Topographic Map (identify the quad name and year) or NOAA Navigation chart (identify chart number) if in coastal waters marked to show the project location and/or site boundaries.
- Ebb and flood in tidal waters and direction of flow in non-tidal waters.
- Indicate the relationship of the proposed work site to waters of the U.S., i.e., adjacent wetlands, tidal influence or hydraulic connectivity through culverts, or other conveyances, etc.
- Total plan of development, including the proposed use of dependent upland and wetland areas.
- Names or numbers of all roads in the site's vicinity.
- Name and addresses of adjoining property owners on the plan view.
- For typical pipeline cross-sections, the details of the bedding and backfill to be used in wetlands and waters. Show proposed trench dams and detail for inland projects.
- Adjacent Federal navigation project (FNP) (anchorage or channel) and/or state/local navigation projects, distance to them, the authorized depths of the FNP, and state plane coordinates of the seaward end(s) of structures near an FNP.
- The 100, 500-year and regulatory floodway boundaries as shown on the community's current FEMA National Flood Insurance Program maps, if applicable.
- Include plans for any temporary water handling systems.
- Include appropriate plans for any phase construction sequencing.
- A statement regarding how the project proponent has determined the absence or presence of vegetated shallows, mudflats, or riffles and pools, e.g., personal visual observation, divers, online maps, conversations with local officials, etc. Note: a submerged aquatic vegetation survey may be

required.

- Presence or absence of shellfish beds near the site and how such was determined, e.g., personal visual observation, divers, online maps, conversations with local officials, etc. Note: a shellfish survey may be required.

1. Plans for projects involving structures shall also include:

- The MLLW, MHW and HTL elevations in tidal waters, and OHW in non-tidal navigable waters.
- Water depths around the project in all views.
- Dimensions of the existing and proposed structures. Show the location and dimensions of existing bulkheads and/or shoreline stabilization on adjacent properties and, if applicable, how the proposed work will tie into existing structures.
- For piers and other structures, the minimal height of structures frame above the marsh.
- For floats, the methods of securing them (piles, bottom anchors) and for keeping them off substrate (skids, stops) at low water.
- Any existing structures and moorings in waters adjacent to the proposed activity, their dimensions, and the distance to the limits and coordinates of any proposed mooring field, reconfiguration zone or aquaculture activity. Provide the coordinates for all corners based on the Connecticut State Plane Coordinate System. Specify the maximum number of slips and/or moorings within proposed reconfiguration zones. If no structures exist or are proposed, state this on the project plans.
- The dimensions of the structure or work and extent of encroachment waterward of MHW and from a fixed point on the shoreline or upland.
- Shoreline of adjacent properties and property boundary offset for structures.
- In narrow waterbodies, the distance to opposite shoreline, waterway width, and structures across from proposed work.
- For reconfiguration zones, the coordinates of the corners and specify the maximum number of slips and/or moorings within the zone.
- A description of the type of vessels that would use the facility, and any plans for sewage pump-out facilities, fueling facilities and contingency plans for oil spills.

2. Plans for projects involving fill shall also include:

- All locations of discharges of dredged or fill material waterward of the HTL or OHW.
- Describe historic permanent fill previously authorized by USACE, if known, and the date of authorization.
- The MLLW, MHW and HTL elevations in tidal waters, and OHW elevation in lakes and non-tidal streams.
- Structures, if any, proposed to be erected on the fill.
- Limits of wetlands (label: wetland boundary) and waterways (labels: OHW or HTL) on all views.
- Limits of temporary and permanent fill to be used in any wetland or waterway, including construction access and work areas, cofferdams, bedding, and backfill.
- Provide a description of the federal wetlands and aquatic habitats at the site and provide a map of their locations within the project area. Provide an assessment of the impacts expected from the project on the wetlands and aquatic resource functions. For wetlands include the Corps of Engineers Wetland Determination Data Form – Northcentral and Northeast Region consistent with the Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Northcentral and Northeast Region and include the federal wetland boundary keyed to paired transect plots on the project's existing condition plan(s). See

<https://www.nae.usace.army.mil/Missions/Regulatory/Jurisdiction-and-Wetlands/Wetland-Delineation-Manual> for more information.

- Description (length, width, flow character, water quality and streambed condition) of any streams at the project site
- Area (SF) of each fill that is waterward of the OHW in non-tidal waters, waterward of the HTL in tidal waters, and in wetlands. State if the fill is permanent or temporary.
- Disposal site of the excess excavated material. If necessary, submit an additional sheet showing the location of the proposed disposal site. Provide quantity of excess excavated material.
- Existing and proposed ground or waterway contours or spot elevations on all views.
- A statement describing how impacts to waters of the U.S. are to be avoided and minimized. For the remaining impacts, include a statement describing how aquatic resource function is being replaced through compensatory mitigation or explain why compensatory mitigation should not be required for the proposed impacts. Mitigation areas clearly identifying each area and showing the boundaries and SF of each area.
- Summary of any proposed mitigation (see <https://www.nae.usace.army.mil/Missions/Regulatory/Mitigation/> for the USACE 2020 Compensatory Mitigation Standard Operating Procedures).
- Total plan of development, including the proposed use of dependent upland and wetland areas.
- The CT DEEP Inland Water Resource Impact Table, Attachment 16 at https://portal.ct.gov/-/media/DEEP/Permits_and_Licenses/Land_Use_Permits/LWRD/waterresourceimpactpdf.pdf, if required by CT DEEP.

Completed CT SHPO Project Notification Form with verification of transmittal to the CT SHPO. The form is available on the CT SHPO website under Historic Preservation – Environmental Review or at https://portal.ct.gov/-/media/DECD/Historic-Preservation/01_Programs_Services/Environmental-Review/ProjectNotificationForm_2021.pdf

3. Plans for activities involving dredging shall also include:

- The area (SF) and volume (CY) of material to be dredged waterward of MHW for each dredge location.
- Dredge boundaries, including side slopes.
- Bathymetry for existing, proposed, and historical (include dates and USACE permits) dredge depths
- The likely final angle of repose of the side cuts based on the physical characterization of the material to be dredged and based upon the high/ medium/low, wave or current energy of the location.
- Whether the dredging is new, maintenance, improvement, or a combination.
- A description of the area to be dredged, i.e., open water, existing channel, wetlands, uplands, etc.
- Location of the disposal site (include location sheet).
- The methods and areas used to retain or prevent dredged material from running back into the wetland or waterway. Provide the capacity of the storage area and points of runback, including the overflow route, into the aquatic system.
- For beach nourishment, identify the disposal footprint, existing and proposed nourishment profiles (multiple profiles are appropriate if the site is more than 150 feet long or non-contiguous), total fill area (SF) and volume (CY), fill area and volume waterward of the HTL, and delineation of dunes, banks, existing beach vegetation, and contours. Also identify the substrate type (fine sand, sand, cobble, boulder) and/or grain-size of existing material.
- Show the finished top elevation of the disposal site.
- For open-water disposal, explain why inland or beneficial reuse sites are not practicable.
- Identification and description of any potential impacts to Essential Fish Habitat and threatened or endangered species.

Note: For projects proposing open water, nearshore disposal, or beach nourishment, contact USACE as early as possible for sampling and testing protocols. Sediment testing, including physical (e.g., grain-size analysis), chemical and biological testing may be required. Sampling and testing of sediments without such contact should not occur and if done, will be at the applicant's risk. The information needed to develop a sampling and analysis plan can be found at: <https://www.nae.usace.army.mil/Missions/Regulatory/Dredged-Material-Program/>.

II. Information that may also be required:

- Purpose and need for the proposed activity.
- Alternatives analysis.
- Schedule of construction activity.
- Location and dimensions of adjacent structures.
- Prospective permittees may be required to describe and identify potential adverse effects of the project on Essential Fish Habitat (refer to the NOAA Fisheries' EFH Mapper found at www.fisheries.noaa.gov/resource/map/essential-fish-habitat-mapper).
- Identification of potential discharges of pollutants to waters, including potential impacts to impaired waters, in the project area.
- Whether work will occur behind a temporary cofferdam or whether silt curtains will be deployed during project construction.
- Number and type (drill barge, work boat, tugboat, etc.) of temporary work vessels to be used.
- Number of permanent recreational vessels associated with a coastal structure.
- Number, size (diameter) and type (timber, steel, cement, combination, other) of pilings associated with a project in tidal waters and installation method (vibratory hammer, impact hammer, combination) for such pilings.
- Description of how the project will maintain aquatic organism passage during and after construction.
- An Invasive Species Control Plan (see GC 27). For sample control plans, see www.nae.usace.army.mil/missions/regulatory/invasive-species.
- Wetlands functions and values assessment (see [Highway Methodology Workbook Supplement](#))

APPENDIX A - GENERAL PERMITS FOR THE STATE OF CONNECTICUT & TRIBAL LANDS

All Self-Verification and Pre-Construction Notification activities must comply with all applicable terms, general conditions, and any additional eligibility requirements below.

“**INLAND**” as written in this appendix refers to non-tidal and non-navigable waters and wetlands, which are defined as waters that are regulated under Section 404 of the CWA, including rivers, streams, lakes, ponds, and wetlands. These resource areas exclude Section 10 Navigable Waters of the U.S, which are defined in Appendix F. The jurisdictional boundaries are the ordinary high water mark (OHW) in the absence of adjacent wetlands; beyond OHW to the limit of adjacent wetlands when adjacent wetlands are present; and the wetland limit when only wetlands are present.

“**COASTAL**” as written in this appendix refers to tidal, coastal & navigable waters of the U.S. These waters, subject to Section 10 of the Rivers and Harbors Act of 1899, are those waters subject to the ebb and flow of the tide in addition to the non-tidal portions of the Connecticut River from Long Island Sound to the Massachusetts state border. The jurisdictional limits are the mean high water mark (MHW) in tidal waters and OHW in non-tidal portions of the federally-designated navigable rivers. For the purposes of these GPs, fill placed in the area between MHW and the high tide line (HTL), in the bordering and contiguous wetlands to tidal waters, are also reviewed in the “coastal” sections below. Work in these waters that includes a discharge of dredged or fill material is regulated under Section 404 of the CWA seaward of HTL.

GP Activity #	Category of Activity
GP 1	
GP 2	
GP 3	Moorings <i>(Coastal only)</i>
GP 4	Pile-supported structures & floats, including boat lifts/hoists & other miscellaneous structures & work <i>(Coastal only)</i>
GP 5	
GP 6	
GP 7	Dredging, transport & disposal of dredged material, beach nourishment & rock removal and rock relocation <i>(Coastal only)</i>
GP 8	
GP 9	
GP 10	Aquatic habitat restoration, establishment, and enhancement activities <i>(Coastal and Inland)</i>
GP 11	
GP 12	
GP 13	
GP 14	
GP 15	
GP 16	
GP 17	
GP 18	
GP 19	
GP 20	
GP 21	
GP 22	
GP 23	

GP 3. MOORINGS (Section 10; navigable waters of the U.S.)

New private, non-commercial, non-rental, single-boat moorings & temporary moorings including moorings to facilitate construction or dredging; minor relocation of previously authorized moorings and mooring field expansions, boundary reconfigurations or modifications of previously authorized mooring fields and maintenance and replacement of moorings.

	SELF-VERIFICATION (SV)	PRE-CONSTRUCTION NOTIFICATION (PCN)
GP 3(A) INLAND	<p>Not Applicable</p> <p>These activities in inland waters (as defined in Appendix A, Page 1) do not require USACE authorization.</p>	<p>Not Applicable</p> <p>These activities in inland waters (as defined in Appendix A, Page 1) do not require USACE authorization.</p>
<p>GP 3(B) COASTAL</p> <p>An SVNF is not required.</p>	<p><u>Not eligible for SV:</u></p> <ul style="list-style-type: none"> • New moorings located in FNPs, including anchorages • New moorings located in tidal SAV • New moorings within 1000 SF of SAS (except tidal SAV) • New moorings located in shellfish beds. <p><u>Eligible for SV:</u></p> <ul style="list-style-type: none"> • Private, non-commercial, non-rental, single-boat moorings as well as temporary moorings needed to facilitate construction or dredging. • Minor relocation of previously authorized moorings provided no impact to SAS or shellfish beds. • Must receive local harbor master or municipal commission authorization. • Replacement of existing moorings within SAS (e.g., eelgrass) with low impact mooring technology that prevents mooring chains from resting or dragging on the bottom substrate at all tides, helical anchors, or equivalent SAS protection systems. 	<p><u>Not eligible for PCN (Individual Permit required):</u></p> <ul style="list-style-type: none"> • Moorings in Federal Navigation Channels <p><u>Eligible for PCN (includes work not eligible for SV):</u></p> <ul style="list-style-type: none"> • New moorings, including expansion of existing mooring fields, that are associated with an existing or proposed boating facility*. • Private moorings without harbor master or local approval. • 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 Anchorage. The buffer zone is equal to 3 times the authorized depth of that channel. • New individual moorings in SAS, including eelgrass. Locating moorings in SAS should be avoided to the maximum extent practicable. If SAS cannot be avoided, plans should show elastic mooring systems that prevent mooring chains from resting or dragging on the bottom substrate at all tides, helical anchors, or equivalent SAS protection systems, where practicable. <u>USACE may require an eelgrass survey to document presence or absence of SAS to determine the appropriate type and amount of compensatory mitigation for impact to SAS.</u> • Temporary and permanent impacts to >1000 SF of SAS (except tidal SAV) or intertidal habitats. • Temporary and permanent impacts to: (1) >100 SF of tidal SAV; or (2) ≤100 SF of tidal SAV if compensatory mitigation isn't required. <p>*Boating Facility: Facilities that provide for a fee, rent, or sell mooring space, such as marinas, yacht clubs, boat clubs, boat yards, town facilities, dockominiums, etc.</p>

GP 4. PILE-SUPPORTED STRUCTURES & FLOATS, INCLUDING BOAT LIFTS/HOISTS & OTHER MISCELLANEOUS STRUCTURES & WORK

(Section 10 and 404; navigable waters of the U.S.) New, expansions, reconfigurations, or modifications of structures for navigation access including floats, stairs/pads, and boat/float lifts as well as other miscellaneous structures.

	SELF-VERIFICATION (SV)	PRE-CONSTRUCTION NOTIFICATION (PCN)
GP 4(A) INLAND	<p>Not Applicable</p> <p>These activities in inland waters (as defined in Appendix A, Page 2) do not require USACE authorization, unless there is a discharge of dredged or fill material.</p>	<p>Not Applicable</p> <p>These activities in inland waters (as defined in Appendix A, Page 1) do not require USACE authorization, unless there is a discharge of dredged or fill material.</p>
<p>GP 4(B) COASTAL</p> <p>An SVNF is not required.</p>	<p><u>Not eligible for SV:</u></p> <ul style="list-style-type: none"> • New structures or floats associated with a boating facility.* • Structures located over, or within 25-feet of SAV. • Structures or floats located within the buffer zone (3x the authorized depth of the FNP) of the horizontal limits of FNPs. • Pile-supported structures within Shellfish Concentration Areas as designated by CT DEEP, Coastal Area Management Program by CGS Sec. 22a-90. • Hammered steel piles. • Wooden piles > 12 inches in diameter. • Structures or floats that extend across >25% of the waterway width at mean low water (MLW). <p><u>Eligible for SV:</u></p> <ul style="list-style-type: none"> • Private residential piers/floating docks/miscellaneous structures with a length limit not to exceed 40 feet beyond MHW and to a depth of 4 feet MLW and limited to 4 feet in width. • The fixed pier component of the dock located in tidal wetlands shall be constructed such that the lowest horizontal member of the fixed pier is no lower than 5' off the surface of any underlying wetland. • Wooden piles for a single and complete project ≤ 25 piles. • Floats and lifts must be supported at least 18 inches above the intertidal and shallow sub-tidal substrate during all tidal cycles. • Private boat lifts. • Letter of no objection from riparian property owner is required for new structures within 25 feet of riparian property line extensions. • Reconfiguration of existing authorized structures, both private or commercial, provided those structures do not extend beyond the existing footprint** of the facility or extend further waterward of MHW, or encroach into SAS or shellfish beds. • Access stairs. • Temporary structures not in FNPs such as scaffolding to facilitate activities covered by another GP 	<p><u>Not eligible for PCN (Individual Permit required):</u></p> <ul style="list-style-type: none"> • Permanent structures in a Federal Navigation Channel or in the buffer zone • New structures associated with an existing boating facility that are located beyond the existing footprint of the facility. <p><u>Eligible for PCN (includes work not eligible for SV):</u></p> <ul style="list-style-type: none"> • Wave attenuation structures and timber groins. • New structures within an existing boating facility, provided those structures do not extend beyond the existing footprint of the facility. • Structures that are located within 25 feet of riparian property line extensions unless the properties are owned by the same owner. If not, USACE may require a letter of no objection from the abutter(s). • Structures or work in or affecting coastal waters (as defined on Appendix A, Page 1) that are not defined under any other GP activity. <p>* Boating Facility: Facilities that provide for a fee, rent, or sell mooring space, such as marinas, yacht clubs, boat clubs, boat yards, town facilities, dockminiums, etc. ** Footprint is defined as the limit of structures, such as docks, pilings, piers, or platforms, at an established marina or docking facility.</p>

GP 7. DREDGING (Section 10; navigable waters of the U.S.), TRANSPORT & DISPOSAL OF DREDGED MATERIAL (Sections 10, 404 & 103; tidal waters of the U.S.), BEACH NOURISHMENT (Sections 10 & 404; tidal waters of the U.S.); ROCK REMOVAL (Section 10, navigable waters of the U.S.) & ROCK RELOCATION (Sections 10 & 404; tidal waters of the U.S.) New, improvement* and maintenance** dredging, including: (a) Disposal of dredged material at a confined aquatic disposal, beach nourishment, near shore, designated open water or ocean water disposal site, provided USACE finds the dredged material to be suitable for such disposal; (b) Beach nourishment not associated with dredging; (c) Beach grading or raking and (d) Rock removal and relocation for navigation.

	SELF-VERIFICATION (SV)	PRE-CONSTRUCTION NOTIFICATION (PCN)
GP 7(A) INLAND	<p>Not Applicable</p> <p>These activities in inland waters (as defined in Appendix A, Page 1) do not require USACE authorization.</p>	<p>Not Applicable</p> <p>These activities in inland waters (as defined in Appendix A, Page 1) do not require USACE authorization.</p>
<p>GP 7(B) COASTAL</p> <p>An SVNF is not required.</p>	<p><u>Not eligible for SV:</u></p> <ul style="list-style-type: none"> Maintenance dredging with >100 SF of impacts to tidal SAV or with >1000 SF of impacts to tidal SAS (except tidal SAV), intertidal habitats, natural rocky habitats, or shellfish areas. Work in waterways identified as habitat for Atlantic sturgeon and shortnose sturgeon including designated critical habitat, foraging, and overwintering areas. This includes, but is not limited to, the Housatonic River, Naugatuck River, Quinnipiac River, Connecticut River, Salmon River, Thames River and Yantic River (See GC 12 for a hyperlink to the NOAA ESA maps and waterway descriptions). Beach nourishment and beach grading. <p><u>Eligible for SV:</u></p> <ul style="list-style-type: none"> Maintenance dredging (any yardage amount) with contained upland disposal provided work occurs between October 1 and January 31 of the calendar year. Dredge area is >100 feet away from tidal SAV Dredge impacts are <1000 SF of tidal SAS (except tidal SAV), intertidal habitats, natural rocky habitats, or shellfish areas. Proper siltation controls are used and maintained to prevent inadvertent runback into adjacent waterway or wetland. Rock/boulder relocation with ≤200 SF of impact to subtidal bottom and no impact to SAV or shellfish beds. Beach grooming or raking between November 1 and January 31. <p>*Improvement is dredging to deeper depths in areas previously dredged after being authorized by USACE.</p>	<p><u>Not eligible for PCN (Individual Permit required):</u></p> <ul style="list-style-type: none"> New dredging (not previously authorized) with >1000 SF of impacts to intertidal areas or tidal SAS Maintenance dredging and/or disposal with >1/2 acre of impacts to tidal SAS other than vegetated shallows (saltmarsh, mud flats). New dredging for the primary purpose of mining or borrowing sand for beach nourishment. Rock removal and relocation for navigation with impacts >1/2 acre. <p><u>Eligible for PCN (includes work not eligible for SV):</u></p> <ul style="list-style-type: none"> New dredging (not previously authorized) with ≤1000 SF of impacts to intertidal areas or tidal SAS Work with ≤100 SF of impact to SAV. Maintenance dredging and/or disposal with ≤1/2 acre of impacts to tidal SAS other than vegetated shallows (saltmarsh, mud flats). New and improvement* dredging. Dredged material disposal including open water disposal, confined aquatic disposal cells (CAD cells), near-shore disposal or beach nourishment. Beach nourishment and beach grading. Beach grooming or raking not eligible for SV. Rock removal mechanically or by blasting (see below for additional criteria) For work that includes blasting, a blasting plan must be submitted and approved by USACE, CT DEEP and National Marine Fisheries Service (NMFS). <p>**Maintenance dredging includes areas and depths previously dredged after being authorized by USACE.</p>

GP 10. AQUATIC HABITAT RESTORATION, ESTABLISHMENT & ENHANCEMENT ACTIVITIES (Sections 10 & 404; tidal & non-tidal waters of the U.S.)

Activities in waters of the U.S. associated with the restoration, enhancement & establishment of wetlands & riparian areas, including invasive, non-native or nuisance species control; restoration & enhancement of non-tidal streams & waters including removal of artificial features & stream obstructions (dams, culverts, berms, weirs, walls); vegetative enhancement; installation of fish ladders, rock ramps & in-stream natural habitat features; relocation or conversion of non-tidal waters & associated wetlands for reestablishment of natural stream morphology & reconnection of the floodplain; removal of agricultural drainage tile & filling of drainage ditches; restoration & enhancement of native shellfish, finfish & wildlife habitat where it currently exists or once existed & rehabilitation or enhancement of tidal streams, tidal wetlands & tidal open waters provided that state & federal agencies concur that the activities will result in net increase to aquatic resource functions & services; modification to existing tide gates that are not eligible under GP 2 if they will change the hydraulic regime where state & federal agencies concur that such changes will be ecologically beneficial; activities for enhancement of existing wildlife impoundments where state & federal agencies concur that management practices will not adversely affect existing ecological diversity or work will have a net increase in overall aquatic resource functions & services. Baseline survey & hydraulic analysis may be required to demonstrate eligibility.

	SELF-VERIFICATION (SV)	PRE-CONSTRUCTION NOTIFICATION (PCN)
<p>GP 10(A) INLAND</p> <p>An SVNF is required.</p> <p>Note: Construction mats of any area necessary to conduct activities do not count towards the impact thresholds and should be removed as soon as work is completed.</p>	<p><u>Not eligible for SV:</u></p> <ul style="list-style-type: none"> • Permanent & temporary fill >1/2 acre of waters and/or wetlands. • Fill in waterways identified as habitat for Atlantic sturgeon and shortnose sturgeon including designated critical habitat, foraging, and overwintering areas. (See GC 12 for a hyperlink to the NOAA ESA maps). • New drainage ditch discharges or deepening (including side-casting of excavated material in wetland) to eliminate mosquito breeding habitat (see GP 22). • Stream channelization or channel reconstruction and alignment. • Aquatic habitat conversion. • Fill in a vernal pool depression that is located within waters of the U.S. <p><u>Eligible for SV:</u></p> <ul style="list-style-type: none"> • ≤5,000 SF of permanent & temporary fill and/or excavation discharges. • Placement of boulders clusters, woody debris clumps, log vanes or deflectors in waters for fish habitat restoration. • Temporary fill and excavation in stream discharges associated with mechanical removal of small relict dams (≤4-ft high and 15-ft. long) • Fill and excavation discharges are authorized provided the activity is supported in writing by a state or non-USACE Fed. environmental resource management agency • Relict small-dam removals may not result in hydraulic modification or loss (upland conversion) of wetland habitat upstream of the structure and no permanent fill/discharges other than in situ gravel, cobble, or stone for stream bed restoration. • Work must occur “in-the-dry” (behind cofferdams). See Appendix H for time of year restrictions for work in waterways (including installation of cofferdams) for streams with diadromous fish. Unconfined in stream work, including installation and removal of cofferdams in streams that do not possess diadromous fish is limited only from July 1 through September 30. • Removal of non-native invasive, exotic or nuisance vegetation. 	<p><u>Not eligible for PCN (Individual Permit required):</u></p> <ul style="list-style-type: none"> • Conversion of wetland to open water. • New wildlife, waterfowl impoundments or fish ponds. • Stream channelization. <p><u>Eligible for PCN (includes work not eligible for SV):</u></p> <ul style="list-style-type: none"> • Pond or lake restoration or enhancement for water quality or ecological habitat renovation. • Dam removals not eligible <u>for SV</u>. • Stream channel reconstruction, relocation, realignment, and stream bed modification • Installation of fish ladders • Management of existing wildlife or waterfowl impoundments.

APPENDIX B - GENERAL CONDITIONS

1. Other Permits. Authorizations provided by these GPs do not obviate the need for project proponents to obtain other Federal, State, or local permits, approvals, or authorizations required by law. Applicants are responsible for applying and obtaining all such permits, approvals or authorizations. Work that is not regulated by the State, but subject to USACE jurisdiction, may be still be eligible for these GPs.

2. Federal Jurisdiction

a. Applicability of these GPs shall be evaluated with reference to federal jurisdictional boundaries (e.g., mean high water mark (MWH), high tide line (HTL), ordinary high water mark (OHW), and wetland boundary). Activities shall be evaluated with reference to “waters of the U.S.” under the Clean Water Act (33 CFR 328) and “navigable waters of the U.S.” under Section 10 of the Rivers and Harbors Act of 1899 (33 CFR 329). Prospective permittees are responsible for ensuring that the boundaries 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 USACE jurisdiction.

b. Permittees shall identify the following aquatic resources on project plans: wetlands and other special aquatic sites (SAS) including vegetated shallows (also known as submerged aquatic vegetation (SAV)), riffle and pool complexes, sanctuaries and refuges, coral reefs, and mudflats; and other waters such as lakes and ponds; and perennial and intermittent streams on the project site. Wetlands shall be delineated in accordance with the Corps of Engineers Wetlands Delineation Manual and its applicable regional supplement.

3. Mitigation (Avoidance, Minimization, and Compensatory Mitigation)

a. Activities shall be designed and constructed to avoid and minimize adverse effects, both temporary and permanent, to waters of the U.S. to the maximum extent practicable at the project site (i.e., on site). Consideration of mitigation (avoiding, minimizing, rectifying, reducing, or compensating) is required to the extent necessary to ensure that the adverse effects to the aquatic environment are no more than minimal.

b. Applicants should consider riparian/forested buffers for stormwater management and low impact development (LID) best management practices (BMPs) to reduce impervious cover and manage stormwater to minimize impacts to the maximum extent practicable.

c. Compensatory mitigation¹ for unavoidable impacts to waters of the U.S., including direct, secondary and temporal², will generally be required for projects with permanent impacts that exceed the SV area limits, and may be required for temporary impacts that exceed the SV area limits, to offset unavoidable impacts which remain after all appropriate and practicable avoidance and minimization has been achieved and to ensure that the adverse effects to the aquatic environment are no more than minimal. Proactive restoration projects or temporary impact work with no secondary effects may generally be excluded from this requirement.

Note: The USACE Connecticut In-Lieu Fee Program allows USACE permittees, as compensation for their project impacts to aquatic resources of the U.S. in Connecticut to make monetary payment *in-lieu* of permittee-responsible mitigation. Information is provided at <https://www.nae.usace.army.mil/Missions/Regulatory/Mitigation/In-Lieu-Fee-Programs/CT/>. This only applies to USACE required mitigation and additional CT DEEP mitigation may be required.

4. Discretionary Authority. Notwithstanding compliance with the terms and conditions of this permit, USACE retains discretionary authority to require 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 USACE determines that the potential consequences of the proposal warrant Individual Permit review based on the concerns stated above. This authority may be invoked for projects with cumulative adverse environmental effects that are more than minimal, or if there is a special resource or concern

¹ Compensatory mitigation sites proposed to offset losses of aquatic resource function must comply with the applicable provisions of 33 CFR 332. See also the New England District Compensatory Mitigation Standard Operating Procedures at <http://www.nae.usace.army.mil/Missions/Regulatory/Mitigation.aspx>

² Temporal loss: The time lag between the losses of aquatic resource functions caused by the permitted impacts and the replacement of aquatic resource functions at the compensatory mitigation site(s) (33 CFR 332.2).

associated with a particular project. Whenever USACE notifies an applicant that an Individual Permit may be required, authorization under these GPs is voided and no work may be conducted in waters of the U.S. until a USACE Individual Permit is obtained or until USACE notifies the applicant that further review has demonstrated that the work may be reviewed under these GPs.

5. Fills Within 100-Year Floodplains. The activity shall comply with applicable Federal Emergency Management Agency (FEMA)-approved State of Connecticut or local floodplain management requirements. Permittees should contact FEMA and/or the State of Connecticut regarding floodplain management requirements.

6. Single and Complete Projects. The term “single and complete project” is defined at 33 CFR 330.2(i) as the total project proposed or accomplished by one owner/developer or partnership or other association of owners/developers. The GPs shall not be used for piecemeal work and shall be applied to single and complete projects.

a. For non-linear projects, a single and complete project must have independent utility. Portions of a multi-phase project that depend upon other phases of the project do not have independent utility. Phases of a project that would be constructed, even if the other phases were not built, can be considered as separate single and complete projects with independent utility.

b. Unless USACE determines the activity has independent utility, all components of a single project and/or all planned phases of a multi-phased project (e.g., subdivisions should include all work such as roads, utilities, and lot development) shall be treated together as constituting one single and complete project.

c. For linear projects such as power lines or pipelines with multiple crossings, a “single and complete project” is all crossings of a single water of the U.S. (i.e., single waterbody) at a specific location. For linear projects crossing a single waterbody several times at separate and distant locations, each crossing is considered a single and complete project. 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, and crossings of such features cannot be considered separately. If any crossing requires a PCN review or an individual permit review, then the entire linear project shall be reviewed as one project under PCN or the individual permit procedures.

7. Use of Multiple General Permits. The use of more than one GP for a single and complete project is prohibited, except when the acreage loss of waters of the U.S. authorized by the GPs does not exceed the acreage limit of the GPs with the highest specified acreage limit. For example, if a road crossing over waters is constructed under GP 19, with an associated utility line crossing authorized by GP 6, if the maximum acreage loss of waters of the U.S. for the total project is ≥ 1 acre it shall be evaluated as an IP.

8. USACE Property and Federal Projects

a. USACE projects and property can be found at: www.nae.usace.army.mil/Missions/Civil-Works

b. In addition to any authorization under these GPs, proponents must contact the USACE Real Estate Division at (978) 318-8585 for work occurring on or potentially affecting USACE properties and/or USACE-controlled easements to initiate reviews and determine what real estate instruments are necessary to perform work. Permittees may not commence work on USACE properties and/or USACE-controlled easements until they have received any required USACE real estate documents evidencing site-specific permission to work.

c. Any proposed temporary or permanent modification or use of a Federal project (including but not limited to a levee, dike, floodwall, channel, anchorage, seawall, bulkhead, jetty, wharf, pier or other work built but not necessarily owned by the United States), or any use which would obstruct or impair the usefulness of the Federal project in any manner, and/or would involve changes to the authorized Federal project’s scope, purpose, and/or functioning, is not eligible for SV and will also require review and approval by USACE pursuant to Section 14 of the Rivers and Harbors Act of 1899 (33 USC 408) (Section 408)

d. A PCN is required for all work in, over, under, or within a distance of three times the authorized depth of a USACE Federal Navigation Project (FNP) and may also require permission under Section 408.

e. Any structure or work that extends closer than a distance of three times the project’s authorized depth to the horizontal limits of any FNP shall be subject to removal at the owner’s expense prior to any future USACE dredging or the performance of periodic hydrographic surveys.

f. Where a Section 408 permission is required, written verification for the PCN will not be issued prior to the decision on the Section 408 permission request.

9. National Lands. Activities that impinge upon the value of any National Wildlife Refuge, National Forest, National Marine Sanctuary, or any area administered by the National Park Service, U.S. Fish and Wildlife Service (USFWS) or U.S. Forest Service are not eligible for SV and require either a PCN or Individual Permit.

10. Wild and Scenic Rivers

a. The following activities in designated rivers of the National Wild and Scenic River (WSR) System, or in a river designated by Congress as a “study river” for possible inclusion in the system, require a PCN or IP unless the National Park Service (NPS) has determined in writing to the proponent that the proposed work will not adversely affect the WSR designation or study status:

(1) Activities that occur in WSR segments, in and 0.25 mile up or downstream of WSR segments, or in tributaries within 0.25 miles of WSR segments;

(2) Activities that occur in wetlands within 0.25 mile of WSR segments; or

(3) Activities that have the potential to alter free-flowing characteristics in WSR segments. The

District Engineer will coordinate the application with the NPS or its designee with direct management responsibility for that river.

b. Information on Wild and Scenic Rivers may be obtained from the appropriate Federal land management agency responsible for the designated Wild and Scenic River or study river (e.g., National Park Service, U.S. Forest Service, Bureau of Land Management, U.S. Fish and Wildlife Service).

c. As of 2021, designated rivers in Connecticut include: the West Branch of the Farmington River from Colebrook to Canton (designated river); the Eightmile River and tributaries in Salem, Lyme, and East Haddam (designated river); the Lower Farmington River from Canton to Windsor (study river – including its tributary Salmon Brook) and the Wood & Pawcatuck Rivers. Additional information can be found at:

<http://www.rivers.gov/connecticut.php>.

11. Historic Properties

a. No undertaking shall cause effects (defined at 33 CFR 325 Appendix C and 36 CFR 800) to properties listed on, determined to be eligible for listing on, or potentially eligible for listing on the National Register of Historic Places³, including previously unknown historic properties within the permit area, unless USACE or another Federal action agency has satisfied the consultation requirements of Section 106 of the National Historic Preservation Act (NHPA). The State Historic Preservation Officer (SHPO), Tribal Historic Preservation Officer (THPO) and the National Register of Historic Places can assist with locating information on:

(1) Previously identified historic properties; and

(2) Areas with potential for the presence of historic or cultural resources, which may require identification and evaluation by qualified historic preservation and/or archaeological consultants or tribal entities in consultation with USACE and the SHPO and/or THPO(s).

b. For activities eligible for SV, proponents must document that the activity will not cause effects as stated in 11(a). To comply with this condition, both SV and PCN prospective permittees shall notify the CT SHPO and THPOs for projects in close proximity to tribal lands or with potential impacts to tribal lands and request their identification of historic properties and cultural resources. The notification shall consist of the project location, plans, and brief narrative and state that a federal permit is required. Documentation of the notification to the SHPO/THPO shall be included with the SV or PCN submittal and dated. If no response is received within 30-days from the SHPO/THPO notification, the Corps may proceed to a permit decision on an SV or PCN. A PCN or IP is required if any activity may have an adverse effect on a historic property or cultural resource.

³ Many historic properties are not listed on the National Register of Historic Places and may require identification and evaluation by qualified historic preservation and/or archaeological consultants in consultation with USACE and the SHPO and/or THPO(s).

c. Proponents must submit a PCN to USACE as soon as possible if the authorized activity may cause effects as stated in 11(a) to ensure that USACE is aware of any potential effects of the permitted activity on any historic property or cultural resource so that the consultation requirements of Section 106 of NHPA can be satisfied.

d. All PCN (inland projects) submittals shall:

1) show notification to the SHPO and applicable THPO(s) for their identification of historic properties or cultural resources (https://portal.ct.gov/-/media/DECD/Historic-Preservation/01_Programs_Services/Environmental-Review/ProjectNotificationForm_2021.pdf). If no response is received within 30-days from the SHPO/THPO notification, the Corps may proceed to a permit decision on an SV or PCN.

2) state which historic properties or cultural resources may be affected by the proposed work or include a vicinity map indicating the location of them, and

3) include any available documentation from the SHPO or THPO(s) indicating that there are, or are not, historic properties or cultural resources affected. Starting consultation early in project planning can save proponents time and money.

e. If you discover any previously unknown historic, cultural, or archeological remains and artifacts while accomplishing the activity authorized by this permit, you must immediately notify the district engineer of what you have found, and to the maximum extent practicable, avoid construction activities that may affect the remains and artifacts until the required coordination has been completed. The district engineer will initiate the Federal, Tribal, and state coordination required to determine if the items or remains warrant a recovery effort or if the site is eligible for listing in the National Register of Historic Places.

f. Federal agencies should follow their own procedures for complying with the requirements of Section 106 of the NHPA. Along with the application, Federal permittees shall provide USACE with the appropriate documentation to demonstrate compliance with those requirements.

g. Federal and non-federal applicants should coordinate with USACE before conducting any onsite archeological work (reconnaissance, surveys, recovery, etc.) requested by the SHPO or the THPOs, as USACE will determine the permit area for the consideration of historic properties based on 33 CFR 325 Appendix C. This is to ensure that work done is in accordance with USACE requirements.

12. Federal Threatened and Endangered Species

a. No activity is authorized by these GPs which:

(1) Is likely to directly or indirectly jeopardize the continued existence of a threatened or endangered species or a species proposed for such designation, as identified under the Federal Endangered Species Act (ESA), or which will directly or indirectly destroy or adversely modify the critical habitat or proposed critical habitat of such species.

(2) “May affect” a listed species or critical habitat, unless Section 7 consultation addressing the effects of the proposed activity has been completed.

(3) Is “likely to adversely affect” a listed species or critical habitat unless Section 7 consultation has been completed by USACE or another lead action agency in coordination with USACE.

(4) Violates the ESA.

b. All prospective permittees shall attach to their SVNF or PCN an Official Species List obtained from the U.S. Fish and Wildlife Service’s Information for Planning and Consultation (IPaC) found at: <https://ecos.fws.gov/ipac> and provide the email address of the person who generated the list.

c. For proposed activities in waters with tidal influence, prospective permittees shall also refer to the National Oceanic and Atmospheric Administration (NOAA) Fisheries’ Section 7 Mapper for federally-listed species found at: <https://noaa.maps.arcgis.com/apps/webappviewer/index.html>.

Several tidal freshwater waterways in Connecticut have been identified as foraging and overwintering areas, or designated as critical habitat, for the endangered Atlantic sturgeon and shortnose sturgeon. The extent of these waterways is highlighted below. The list of waters below does not include higher salinity coastal tidal creeks and brackish waterways which also possess habitat for these species, so it is strongly recommended that applicants refer to the NOAA Section 7 mapper (link above) for all work in waterways that may have tidal influence:

- Mainstem Housatonic River from Long Island Sound (LIS) to the upstream limit of the Derby Dam in Shelton, CT (Atlantic sturgeon critical habitat; migrating and foraging habitat for Atlantic sturgeon and shortnose sturgeon).
 - Naugatuck River confluence with the Housatonic River up to the Naugatuck River Reservoir dam in Ansonia, CT.
- Quinnipiac River from LIS to the bridge/intersection of Quinnipiac Street and River Road, Wallingford, CT (migrating and foraging habitat for Atlantic sturgeon and shortnose sturgeon).
- Mainstem Connecticut River from LIS to the Massachusetts Border (Atlantic sturgeon critical habitat; spawning, migrating, and foraging for Atlantic sturgeon; overwintering, migrating, and foraging for shortnose sturgeon).
 - Salmon River confluence at Connecticut River to the dam at Powerhouse Road, Leesville, CT
 - Farmington River confluence with the Connecticut River to Tunxis Road, Tariffville, CT
 - Pattaconk Brook confluence with the Connecticut River to North Quarter Park, Chester, CT
 - Confluence of Hamburg Cove with the Connecticut River to Eightmile River at Joshuatown Road/Old Hamburg Road, Hamburg, CT.
 - Lord Creek confluence with the Connecticut River to Coult's Hole and Mack Creek to Lord Hill Lane, Lyme, CT.
 - North Cove confluence with Connecticut River and Falls River confluence in North Cove to River Road, Essex, CT.
 - Mattabassett River confluence at the Connecticut River to Rt. 3, northeast of Newfield Street in Middletown, CT.
 - Coginchaug River confluence with the Mattabassett River to Johnson Street north of the Providence & Worcester Railroad.
 - Selden Creek, Lyme, CT.
- Mainstem of the Thames River to Norwich, Connecticut (migrating and foraging habitat for Atlantic sturgeon and shortnose sturgeon).
 - Shetucket River confluence with Thames River up to Greenville Dam, Greenville, CT
 - Yantic River confluence with the Thames River to Yantic Falls, Norwich, CT.
 - Horton Cove confluence with the Thames River to Stony Brook and Mohegan Brook, Montville, CT.
 - Poquetanuck Cove confluence with the Thames River to Poquetanuck Brook at Shingle Road, Poquetanuck, CT.

d. A PCN is required if a threatened or endangered species, a species proposed for listing as threatened or endangered, or designated or proposed critical habitat (all hereinafter referred to as “listed species or habitat”), as identified under the ESA, may be affected by the proposed work, unless consultation is completed by another lead Federal agency, in which case, an application can be SV. An activity may remain eligible for SV if the only listed species affected is the northern long-eared bat (*Myotis septentrionalis*), and only after Section 7 consultation has been completed by USACE under the 4(d) Rule Streamlined Consultation.

e. Federal agencies shall follow their own procedures for complying with the requirements of the ESA while ensuring that USACE and any other federal action agencies are included in the consultation process.

f. Non-federal representatives designated by USACE to conduct informal consultation or prepare a biological assessment shall follow the requirements in the designation document(s) and the ESA. Non-federal representatives shall also provide USACE with the appropriate documentation to demonstrate compliance with those requirements. The USACE will review the documentation and determine whether it is sufficient to address ESA compliance for the GP activity, or whether additional ESA consultation is necessary.

g. The requirements to comply with Section 7 of the ESA may be satisfied by a programmatic agreement (PA) or programmatic consultation (PC) with USACE, the New England District, or another federal agency. New England District PAs and PCs are found at: <https://www.nae.usace.army.mil/Missions/Regulatory/State-General-Permits/Connecticut-General-Permit>.

13. Pile Installation and Removal and Related Time of Year Restrictions

- a. Derelict, degraded, or abandoned piles and sheet piles in the project area shall be removed in their entirety as practicable and properly disposed of in an upland location and not in wetlands or other waters of the U.S. In areas of fine-grained substrates, piles/sheets shall be removed by direct, vibratory, or clamshell pull method to minimize potential turbidity and sedimentation impacts. If removal is not practicable, said piles/sheets shall be cut off or driven to a depth of, at least, one foot below substrate.
- b. Work involving pile installation and/or removal should occur “In-the-dry” or adhere to the applicable waterbody’s time-of-year restrictions in Appendix H.

14. Navigation

- a. No activity may cause more than a minimal adverse effect on navigation.
- b. Any safety lights and signals prescribed by the U.S. Coast Guard, through regulations or otherwise, must be installed and maintained at the permittee's expense on authorized facilities in navigable waters of the U.S.
- c. Any structure or work that extends closer to the horizontal limits of any USACE FNP 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 USACE dredging or the performance of periodic hydrographic surveys. This is applicable to SV and PCN.
- d. 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.
- e. The permittee understands and agrees that if future U.S. operations 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 USACE, 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.
- f. A PCN is required for all work in, over or under an FNP or its buffer zone unless otherwise indicated in Appendix A. as the work may also require a Section 408 permit.

15. Federal Liability. In issuing these permits, 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 this permit; (d) design or construction deficiencies associated with the permitted work; and/or (e) damage claims associated with any future modification, suspension, or revocation of these permits.

16. Heavy Equipment in Wetlands. Operating heavy equipment other than fixed equipment (drill rigs, fixed cranes, etc.) within wetlands shall be minimized, and such equipment shall not be stored, maintained, or repaired in wetlands, to the maximum extent practicable. Where construction requires heavy equipment operation in wetlands, the equipment shall either have low ground pressure (typically <3 psi), or it shall be placed on swamp/construction/timber mats (herein referred to as “construction mats”) that are adequate to support the equipment in such a way as to minimize disturbance of wetland soil and vegetation. Construction mats are to be placed in the wetland from the upland or from equipment positioned on construction mats if working within a wetland. Dragging construction mats into position is prohibited. Other support structures that are capable of safely supporting equipment may be used with written USACE authorization. Similarly, the permittee may request written authorization from USACE to waive use of mats during frozen or dry conditions. An adequate supply of spill containment equipment shall be maintained on site. Construction mats should be managed in accordance with the following construction mat BMPs:

- Mats should be in good condition to ensure proper installation, use and removal.

- Where feasible, mats should be carried and not dragged unless they are being used as a grading implement.
- Where feasible, place mats in a location that would minimize the amount needed for the wetlands crossing.
- Minimize impacts to wetland areas during installation, use, and removal.
- Install adequate erosion & sediment controls at approaches to mats to promote a smooth transition to, and minimize sediment tracking onto, swamp mats.
- In most cases, construction mats should be placed along the travel area so that the individual boards are resting perpendicular to the direction of traffic. No gaps should exist between mats. Place mats far enough on either side of the resource area to rest on firm ground.
- Provide standard construction mat BMP details to work crews.
- Construction mats shall be thoroughly cleaned before re-use to minimize spread of invasive species.

17. Temporary Fill

a. Temporary fill, including but not limited to construction mats and corduroy roads shall be entirely removed as soon as they are no longer needed to construct the authorized work. Temporary fill shall be placed in its original location or disposed of at an upland site and suitably contained to prevent its subsequent erosion into waters of the U.S.

b. All temporary fill and disturbed soils shall be stabilized to prevent its eroding into waters of the U.S. where it is not authorized. Work shall include phased or staged development to ensure only areas under active development are exposed and to allow for stabilization practices as soon as practicable. Temporary fill must be placed in a manner that will prevent it from being eroded by expected flows.

c. Unconfined temporary fill authorized for discharge into waters of the U.S. shall consist of material that minimizes impacts to water quality (e.g., washed stone, stone, etc.).

d. Appropriate measures must be taken to maintain normal downstream flows and minimize flooding to the maximum extent practicable when temporary structures, work, and discharges of dredged or fill material, including cofferdams, are necessary for construction activities, access fills, or dewatering of construction sites. Materials shall be placed in a location and manner that does not adversely impact surface or subsurface water flow into or out of the wetland. Temporary fill authorized for discharge into wetlands shall be placed on geotextile fabric or other appropriate material laid on the pre-construction wetland grade where practicable to minimize impacts and to facilitate restoration to the original grade. Construction mats are excluded from this requirement.

e. Construction debris and/or deteriorated materials shall not be located in waters of the U.S.

18. Restoration of Inland Wetland Areas

a. Upon completion of construction, all disturbed wetland areas (the disturbance of these areas must be authorized) shall be stabilized with a wetland seed mix containing only plant species native to New England and shall not contain any species listed in the “Invasive and Other Unacceptable Plant Species” Appendix D in the “New England District Compensatory Mitigation Guidance” found at

<http://www.nae.usace.army.mil/Portals/74/docs/regulatory/Mitigation/CompensatoryMitigationGuidance.pdf>.

b. The introduction or spread of invasive plant species in disturbed areas shall be controlled. If swamp or timber mats are to be used, they shall be thoroughly cleaned before re-use.

c. In areas of authorized temporary disturbance, if trees are cut, they shall be cut at or above ground level and not uprooted to prevent disruption to the wetland soil structure and to allow stump sprouts to revegetate the work area, unless otherwise authorized.

d. 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. Coastal Bank Stabilization. Projects involving construction or reconstruction/maintenance of bank stabilization structures within USACE jurisdiction should be designed to minimize environmental effects, effects to neighboring properties, scour, etc. to the maximum extent practicable. For example, vertical bulkheads should 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 harbors, marinas, or other developed shore areas. A revetment is sloped and is typically employed to absorb the direct impact of waves more effectively than a vertical seawall. For more information, go to the USACE Coastal Engineering Manual (supersedes the Shore Protection Manual) located at <https://www.nae.usace.army.mil/Missions/Regulatory/Useful-Documents-Forms-and-Publications/>. Select “Products/ Services,” “Publications.” Part 5, Chapter 7-8, a (2) c.

20. Soil Erosion and Sediment Controls. Appropriate soil erosion and sediment controls must be used and maintained in effective operating condition during construction, and all exposed soil and other fills, as well as any work below OHW or HTL, must be permanently stabilized at the earliest practicable date. Permittees are encouraged to perform work within waters of the U.S. during periods of low-flow or no-flow, or during low tides.

21. Aquatic Life Movements & Management of Water Flows

a. 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. Unless otherwise stated, activities impounding water in a stream require a PCN to ensure impacts to aquatic life species are avoided and minimized. All permanent and temporary crossings of waterbodies (e.g., streams, wetlands) shall be:

(1) Suitably culverted, bridged, or otherwise designed and constructed to maintain low flows to sustain the movement of those aquatic species; and

(2) Properly aligned and constructed to prevent bank erosion or streambed scour both adjacent to and inside the culvert. Permanent and temporary crossings of wetlands shall be suitably culverted, spanned or bridged in such a manner as to preserve hydraulic and ecological connectivity between the wetlands on either side of the road.

b. To avoid adverse impacts on aquatic organisms, the low flow channel/thalweg shall remain unobstructed during periods of low flow, except when it is necessary to perform the authorized work.

c. To the maximum extent practicable, the pre-construction course, condition, capacity, and location of open waters must be maintained for each activity, including stream channelization and storm water management activities. The activity must be constructed to withstand expected high flows. The activity must not restrict or impede the passage of normal or high flows unless the primary purpose of the activity is to impound water or manage high flows. The activity may alter the preconstruction course, condition, capacity, and location of open waters if it benefits the aquatic environment (e.g., stream restoration or relocation activities).

d. Refer to Appendix G for Stream Crossing BMPs.

22. Discharge of Pollutants. All activities involving any discharge of pollutants into waters of the U.S. authorized under these GPs 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 U.S.C. 1251), and applicable state and local laws. If applicable water quality standards, limitations, etc., are revised or modified during the term of this permit, the authorized work shall be modified to conform with these standards within six months of the effective date of such revision or modification, or within a longer period deemed reasonable by the District Engineer in consultation with the Regional Administrator of the EPA. Applicants may presume that state water quality standards are met with issuance of the Section 401 WQC (applicable only to the Section 404 activity).

23. Spawning, Breeding, and Migratory Areas

a. Jurisdictional activities and impacts such as excavations, discharges of dredged or fill material, and/or suspended sediment producing activities in jurisdictional waters that provide value as fish migratory areas, fish and shellfish spawning or nursery areas, or amphibian and migratory bird breeding areas, during spawning or breeding seasons shall be avoided and minimized to the maximum extent practicable.

b. Jurisdictional activities in waters of the U.S. that provide value as breeding areas for migratory birds must be avoided to the maximum extent practicable. The permittee is responsible for obtaining any “take” permits required under the USFWS’s regulations governing compliance with the Migratory Bird Treaty Act or the Bald and Golden Eagle Protection Act. The permittee should contact the appropriate local office of the USFWS to determine if such “take” permits are required for a particular activity.

24. Storage of Seasonal Structures. Coastal structures, such as pier sections and floats, that are removed from the waterway for a portion of the year (often referred to as seasonal structures) shall be stored in an upland location, located above MHW and not in tidal wetlands. These seasonal structures may be stored on the fixed, pile-supported portion of the structure that is seaward of MHW. This is intended to prevent structures from being stored on the marsh substrate and the substrate seaward of MHW.

25. Environmental Functions and Values. The permittee shall make every reasonable effort to carry out the construction or operation of the work authorized herein in a manner that minimizes any adverse impacts on existing fish, wildlife, and the environmental functions to the extent practicable. The permittee will discourage the establishment or spread of plant species identified as non-native invasive species by any federal or state agency.

26. Vernal Pools.

a. A PCN is required if a discharge of dredged or fill material is proposed within a vernal pool depression located within waters of the U.S.

b. GC 26(a) above does not apply to projects that are within a municipality that meets the provisions of a USACE-approved vernal pool Special Area Management Plan (SAMP) and are otherwise eligible for SV, and the applicant meets the requirements to utilize the vernal pool SAMP.

27. Invasive Species

a. The introduction, spread, or the increased risk of invasion of invasive plant or animal species on the project site, into new or disturbed areas, or areas adjacent to the project site caused by the site work shall be avoided. Hence, swamp and timber mats shall be thoroughly cleaned before reuse.

b. Unless otherwise directed by USACE, all applications for PCN inland projects proposing fill in USACE jurisdiction shall include an Invasive Species Control Plan. Additional information can be found at www.nae.usace.army.mil/missions/regulatory/invasive-species and <https://cipwg.uconn.edu/>

28. Permit/Authorization Letter On-Site. For PCN projects, the permittee shall ensure that a copy of these GPs and the accompanying authorization letter are at the work site (and the project office) whenever work is being performed, and that all personnel with operational 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 all contracts and sub-contracts for work that affects areas of USACE jurisdiction at the site of the work authorized by these GPs. This shall be achieved by including the entire permit authorization in the specifications for work. The term “entire permit authorization” means these GPs, including GCs and the authorization letter (including its drawings, plans, appendices, and other attachments) and 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 authorization letter, and no contract or sub-contract shall require or allow unauthorized work in areas of USACE jurisdiction.

29. Inspections. The permittee shall allow USACE to make periodic inspections at any time deemed necessary to ensure that the work is being or has been performed in accordance with the terms and conditions of this permit. To facilitate these inspections, the permittee shall complete and return to USACE the Work-Start Notification Form and the Compliance Certification Form when either is provided with a verification letter. The USACE may also require post-construction engineering drawings for completed work or post-dredging survey

drawings for any dredging work.

30. Maintenance. The permittee shall maintain the activity authorized by these GPs in good condition and in conformance with the terms and conditions of this permit. This does not include maintenance dredging projects. Maintenance dredging is subject to the review thresholds in Appendix A – General Permit #7 as well as any conditions included in a written USACE authorization. Maintenance dredging includes only those areas and depths previously authorized and dredged. Some maintenance activities may not be subject to regulation under Section 404 in accordance with 33 CFR 323.4(a)(2).

31. Property Rights. Per 33 CFR 320.4(g)(6), these GPs do 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. 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 this office 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 general permit are still in existence at the time the property is transferred, the terms and conditions of this general permit, including any special conditions, will continue to be binding on the new owner(s) of the property. To validate the transfer of this general permit and the associated liabilities associated with compliance with its terms and conditions, have the transferee sign and date below.

_____ (Transferee)
_____ (Date)

33. Modification, Suspension, and Revocation. These GPs and any individual authorization issued thereof may either be modified, suspended, or revoked in whole or in part pursuant to the policies and procedures of 33 CFR 325.7; and any such action shall not be the basis for any claim for damages against the United States.

34. Special Conditions. The USACE may impose other special conditions on a project authorized pursuant to this general permit that are determined necessary to minimize adverse environmental effects or based on any other factor of the public interest. These may be based on concerns from CT DEEP or a Federal resource agency. Failure to comply with all conditions of the authorization, including special conditions, will constitute a permit violation and may subject the permittee to criminal, civil, or administrative penalties and/or restoration.

35. False or Incomplete Information. If USACE decides regarding the eligibility of a project under this permit, and subsequently discovers that it has relied on false, incomplete, or inaccurate information provided by the permittee, the authorization will not be valid, and the U.S. government may institute appropriate legal proceedings.

36. Abandonment. If the permittee decides to abandon the activity authorized under this General Permit, 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 USACE.

37. Enforcement cases. These GPs do not apply to any existing or proposed activity in USACE jurisdiction associated with an on-going USACE or EPA enforcement action, until such time as the enforcement action is resolved or USACE determines that the activity may proceed independently without compromising the enforcement action.

38. Previously Authorized Activities

a. Completed projects that received prior authorization from USACE (via SV or PCN), shall remain authorized in accordance with the original terms and conditions of those authorizations, including their terms, general conditions, and any special conditions provided in a written verification.

b. Activities authorized pursuant to 33 CFR Part 330.3 (“Activities occurring before certain dates”) are not affected by these GPs.

39. Duration of Authorization

a. These GPs expire five years from the date issued as listed at the top of the cover sheet. Activities authorized by these GPs that have either commenced (i.e., are under construction) or are under contract to commence in reliance upon this authorization will have an additional year from the expiration date to complete the work. The permittee must be able to document to USACE satisfaction that the project had commenced or was under contract by the expiration date of these GPs. If work is not completed within the one-year extended timeframe, the permittee must contact USACE. The USACE may issue a new authorization provided the project meets the terms and conditions of the CT GPs in effect at the time.

b. Activities authorized under these GPs will remain authorized until the GP expires, unless discretionary authority has been exercised on a case-by-case basis to require an Individual Permit in accordance with 33 CFR 325.2(e)(2), or the authorization is modified, suspended, or revoked in accordance with 33 CFR 325.7. Activities completed under the SV or PCN authorizations of these GPs will continue to be authorized after its expiration date.

APPENDIX C
STANDARD AQUACULTURE TERMS AND
CONDITIONS FOR GENERAL PERMIT 16

2021 Connecticut General Permits

Aquaculture activities authorized under GP 16 in Appendix A are subject to the applicable conditions and requirements of the Connecticut GPs in addition to the following Standard Aquaculture Terms and Conditions:

1. The permittee shall ensure that a copy of the project authorization (including its drawings, plans, appendices, and other attachments) is present on the vessel that attends the work site (and the project office), and that all appropriate personnel performing work at the site are fully aware of its terms and conditions.
2. All gear, including buoys shall be marked and maintained in a manner that will make it identifiable to the specific aquaculture project/lease.
3. Before the authorized structures are installed the project proponent **must** contact the CT DEEP Boating Division, Navigation Safety/Boating Access Unit, P.O. Box 280, 333 Ferry Road, Old Lyme, CT 06371-0280 to either obtain a waiver as to the need to install gear-area boundary marker buoys or submit a permit application and receive authorization for Regulatory Markers ([Link to Regulatory Marker Permit](#)). If the CT DEEP boating regulation does not apply, the applicant shall contact the U.S. Coast Guard (USCG), First District; Sector Long Island Sound, 120 Woodward Avenue, New Haven, CT 06512 (203-468-4401) or SECLISSPWSMarineEvent@uscg.mil to coordinate the proper buoy markers per 33 CFR 64. The permittee shall install and maintain lights, markings, and other features as the CT DEEP/USCG requires. *Note:* Documentation of this coordination will be necessary for existing operations that seek reconfigurations and/or new approvals for structures from the Department of Army and for authorizations from the CT DA/BA.
4. If the authorized gear is inadvertently shifted to a location outside of the bounds of the approved perimeter (as a result of adverse environmental conditions, breakage, or other unforeseen event), the permittee must submit the enclosed Aquaculture Gear Recovery Form to the Dept. of Agriculture, Bureau of Aquaculture within 48 hours of discovery (phone: 203-874-0696; facsimile: 203-783-9976; email: lori.scianna@ct.gov) and submit a courtesy copy to USACE (phone: 978-318-8338 facsimile: 978-318-8303 or via email: cenae-r-ct@usace.army.mil). This condition is to facilitate notification of marine safety police and regulatory agencies so that the public can be alerted to the presence of free-floating gear and to prompt mitigating action before the lost gear becomes a threat to either navigation, marine animals or the environment, either individually or cumulatively.
5. Gear may not be located over or within beds of submerged aquatic vegetation (SAV) such as eelgrass or turtle grass, and coastal wetlands (salt marsh), nor shall such beds or vegetated marsh areas be damaged or removed. Routine lease activity including cage maintenance, washing etc. shall not occur within 25 feet of the edge of beds of SAV.
6. All gear shall be designed and deployed in such a manner as to limit, to the greatest extent practicable, negative impacts on avian resources such as, but not limited to, shore birds, wading birds, or members of the waterfowl group. This is meant to include nesting, feeding or resting activities by migratory birds identified at 50 CFR 10.13.
7. To prevent introduction of aquatic nuisance species, no material that has been taken from a different waterbody may be reused in the current project area, unless it has been treated in accordance with the applicable

APPENDIX C
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regional/Connecticut aquatic nuisance species management plan (see https://www.fws.gov/anstaskforce/State%20Plans/CT_ANS_Plan.pdf).

8. Installation of structures, their mooring tackle and lines and any attendant vessels shall not create a hazard or interfere with existing navigation uses in the waterway, and structures shall be set back from the Federal Navigation Project (FNP) a distance of at least 200 feet. A list of Connecticut FNP projects can be obtained from the U.S Army Corps of Engineers <http://www.nae.usace.army.mil/Missions/Navigation/Connecticut-Projects/>.
9. The right of the public to traverse or utilize the waters not physically occupied by authorized structures and/or moored vessels within the areal limits of the authorized gear perimeter shall not be impeded.
10. The placement of cultch shall comply with all special conditions in Section 5, part (h), items (1) through (7) of the Connecticut DEEP, General Permit for Coastal Maintenance (DEEP-OLISP-GP2015-02) as listed below:
- Such placement of cultch shall only be conducted by a licensed shellfish operator in beds or areas designated for shell fishing under section 26-194 or section 26-242 of the General Statutes.
 - Such placement of cultch shall be conducted only in appropriate locations for colonization by oysters, based upon factors of salinity, water quality, water circulation patterns and substrate composition.
 - Such placement of cultch shall not be conducted in areas of tidal wetlands or submerged aquatic vegetation beds.
 - (Prior to the commencement of such placement of cultch, such licensed shellfish operator obtains all required authorizations from the Department of Agriculture Bureau of Aquaculture and Laboratory and the local shellfish commission, as applicable.
 - Prior to the commencement of such placement of cultch, such licensed shellfish operator obtains permission in writing from the owner or lessee of such shellfish bed or area.
 - Such placement of cultch shall be conducted in such a manner that it does not exceed a layer of cultch on the seafloor greater than 12” in depth.
 - Such placement of cultch shall be conducted such that the placement does not exceed 1,500 bushels per acre of seafloor.
11. The permittee shall be responsible to remove all gear and associated equipment within the leased or designated shellfish area if the operator surrenders or loses the right to its use.
12. The subject aquaculture activity shall not discernibly interfere with natural sedimentation and erosion processes.
13. Suspended cages or nets for the rearing or grow out of shellfish are permitted as Self Verification, provided they are located wholly below and within the footprint of an existing, authorized fixed or floating structure and provided there is a vertical clearance of at least 2 feet between the bottom of the gear and the sea floor at MLW. The structures that the gear will be adhered to must be in conformance with the structures permit for that “site.”
14. Aquaculture projects authorized herein shall not interfere with public shore access at or below MHW or interfere with the access to any riparian or littoral property.
15. The following may be required as special conditions of an authorization to protect Federally-listed species:

APPENDIX C
STANDARD AQUACULTURE TERMS AND
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2021 Connecticut General Permits

a. In season, the gear site shall be visited by an attendant surface vessel at least once a week, site conditions permitting. During the off season the vertical mooring lines will be visited bi-weekly. Any noticeable difference in surface buoy or line tension such as any gaps in the horizontal line or movement of vertical lines will prompt an investigation into the tension of that line. If a problem is identified, it will be corrected that day. This condition has been included to ensure that if an entanglement or other issue related to the stability of the system arises, that it will be expeditiously addressed by the permittee.

b. Seasonal gear including cages, lines and buoys shall be removed during the offseason or when not in use. The gear shall be stored in upland areas to minimize the effects of habitat exclusion, loss, or alteration.

c. Any in-water lines, ropes, or chains must be made of materials and installed in a manner to minimize or avoid the risk of entanglement by using thick, heavy, and taut lines that do not loop or entangle.

d. For lines that are suspended in the water column, the permittee shall maintain all project equipment, including vertical mooring lines, to ensure that constant tension is kept on the line at all tides. This requirement for counterweight on the vertical lines is intended to minimize the likelihood that the lines will entangle as they will hang straight down and will be less likely to wrap around appendages of endangered marine sea turtles/mammals.

e. On-board staff will maintain a vigilant watch for protected resources (sea turtles, whales, sturgeon, or marine mammals). during all transit vessel speeds shall be kept to a minimum and operate below a speed limit of 10 knots, where feasible.

f. Each sighting of a federally listed threatened or endangered sea turtle or fish shall be recorded and the following information shall be provided:

- (1) Date, time, coordinates of vessel
- (2) Visibility, weather, sea state
- (3) Vector of sighting (distance, bearing)
- (4) Duration of sighting
- (5) Species and number of animals
- (6) Observed behaviors (feeding, diving, breaching, etc.)
- (7) Description of interaction with aquaculture facility

g. If any listed species of sea turtle is observed to be entangled or otherwise interacting with the facility's structure, the permittee (or onboard staff) shall immediately contact NOAA Stranding Hotline at (866) 755-NOAA (6622) and email incidental.take@noaa.gov. The permittee should also contact the NOAA Fisheries Protected Resources Division, Gloucester, MA at (978) 281-9328. This condition is included to ensure that the proper authorities will be consulted in case of gear interaction with protected resources.

APPENDIX D - CONTACTS

1. FEDERAL

U.S. Army Corps of Engineers
New England District, Regulatory Division
696 Virginia Road
Concord, Massachusetts 01742-2751
(800) 343-4789 or (978) 318-8335
(978) 318-8303 (fax)
cenae-r-ct@usace.army.mil (email preferred)

Wild and Scenic Rivers
National Park Service
North Atlantic Region
15 State Street
Boston, Massachusetts 02109
(617) 223-5203

Federal Endangered Species
U. S. Fish and Wildlife Service
70 Commercial Street, Suite 300
Concord, New Hampshire 03301-5087
(603) 223-2541

Federal Endangered Species &
Essential Fish Habitat
National Marine Fisheries Service
55 Great Republic Drive
Gloucester, MA 01930
(978) 281-9102
(978) 281-9301 (fax)

U.S. Environmental Protection Agency, Region I
5 Post Office Square, Suite 100
Boston, Massachusetts 02109
(617) 918-2000

2. STATE OF CONNECTICUT

Department of Energy & Environmental Protection
<https://portal.ct.gov/DEEP/Permits-and-Licenses/Permits-and-Licenses>

Land and Water Resource Division (LWRD)
79 Elm Street
Hartford, Connecticut 06106-5127
(860) 424-3034

<https://portal.ct.gov/DEEP/Permits-and-Licenses/Land-and-Water-Resource-Division-LWRD-Applications>

Aquaculture Projects
Connecticut Department of Agriculture
Bureau of Aquaculture & Laboratory
PO Box 97
Milford, CT 06460
(203) 874-0696

State Endangered Species
Bureau of Natural Resources
Wildlife Division
Natural Diversity Data Base
79 Elm Street
Hartford, Connecticut 06106-5127
(860) 424-3011

3. HISTORIC RESOURCES

Tribal Historic Preservation Officers

Mashantucket Pequot Tribal Nation
Marissa Turnbull, THPO
550 Trolley Line Boulevard
P. O. Box 3202
Mashantucket, Connecticut 06338-3202
(860) 396-6887
(860) 396-6914 (fax)

Mohegan Tribe of Indians of Connecticut
James Quinn, Tribal Historic Preservation Officer
13 Crow Hill Rd.
Uncasville, CT 06382
(860) 862-6393
(860) 862-6395 (fax)

Archaeological Information

State Historic Preservation Office
Department of Economic and Community Development
Mary Dunne, State Historic Preservation Officer
45 Columbus Boulevard, Suite 5
Hartford, Connecticut 06103
(860) 256-2800 (main)
(860) 256-2764 (direct)

Office of State Archaeology

Sarah Sportman, CT State Archaeologist
354 Mansfield Road, Unit 1176
Storrs, Connecticut 06269
860-486-5248

4. ORGANIZATIONAL WEBSITES

U. S. Army Corps of Engineers – New England District	www.nae.usace.army.mil/missions/regulatory.aspx
U. S. Army Corps of Engineers Headquarters	www.usace.army.mil (click “Regulatory Permits”)
U.S. Environmental Protection Agency	www.epa.gov/owow/wetlands/
National Marine Fisheries Service	www.nmfs.noaa.gov
U.S. Fish and Wildlife Service	www.fws.gov
National Park Service	www.nps.gov/rivers/index.html/
Federal Emergency Management Agency	www.fema.gov
Connecticut Dept. of Energy & Environmental Protection	http://www.ct.gov/deep/site/default.asp
U.S. EPA, Region 1 – Urban Runoff: Low Impact Development	https://www.epa.gov/nps/urban-runoff-low-impact-development
U.S. Environmental Protection Agency – Green Infrastructure website	www.epa.gov/greeninfrastructure



**US Army Corps
of Engineers**®
New England District

Appendix E: Self-Verification Notification Form

This form is required for all inland projects in Connecticut, but it is not required if work is done within boundaries of Mashantucket Pequot or Mohegan Tribal Lands. At least two weeks before work commences, complete all fields (write “none” if applicable) below, send this form, Official Species List (see GC 12), documentation of THPO and SHPO notifications if applicable, site location map, project plans (not required for projects involving the installation of construction mats only) and any State or local approval(s) to:

Regulatory Division, Branch B
U.S. Army Corps of Engineers
696 Virginia Road
Concord, MA 01742-2751
or cenae-r-ct@usace.army.mil

and

CT DEEP
79 Elm Street
Hartford, CT 06106-5127
DEEP.LWRDRRegulatory@ct.gov

State Permit Number: _____ Date of State Permit: _____

Permittee: _____
Address, City, State & Zip: _____
Phone(s) and Email: _____

Agent: _____
Address, City, State & Zip: _____
Phone(s) and Email: _____

Contractor: _____
Address, City, State & Zip: _____
Phone(s) and Email: _____

Project Name: _____
Project Location (provide detailed description & locus map):
Address, City, State & Zip: _____
Lat. ° N, Long ° (Decimal Degrees): _____
Waterway Name: _____

Proposed Work Dates: Start: _____ Finish: _____

Work will be done under the following GPs (circle all that apply):

2	5	6	9	10	11	12	13	14	15	17	18	19	21
---	---	---	---	----	----	----	----	----	----	----	----	----	----

Area of Wetland Impacts (SF): Permanent: _____ Temporary: _____

Area of Waterway Impacts (SF): Permanent: _____ Temporary: _____

TOTAL Project Impact (SF): Permanent: _____ Temporary: _____

Describe the specific work that will be undertaken in waters and wetlands: _____

Have the THPOs and the CT SHPO been notified of the proposed work per the procedures in GC 11? If so, attach any responses received to this form.

Yes _____ date contacted _____ No _____

Are there Federally listed endangered/threatened species, other than the northern long-eared bat, present? (see GC 12) Yes _____ No _____

Confirm no SAVs are present or will be impacted: Yes _____ No _____

Applicable to GPs:

2	5	6	9	10	11	12	13	14	15	17	18	19	21
---	---	---	---	----	----	----	----	----	----	----	----	----	----

Confirm no unconfined work with impact to diadromous fish (see App. H): Yes _____ No _____

Applicable to GPs:

2	5	6	9	10	19
---	---	---	---	----	----

Confirm work complies with Stream Crossing BMPs (see App. G): Yes _____ No _____

Applicable to GPs:

2	6	17	19
---	---	----	----

If GP 19 and work does not comply with Appendix G, identify date of Interagency Meeting where waiver was granted: Date of Meeting: _____

Identify interagency participants: CT DEEP: _____ USACE: _____

Will your project include any secondary effects? (Secondary effects include, but are not limited to, non-tidal waters or wetlands drained, flooded, fragmented, or mechanically cleared resulting from a single and complete project. See Appendix F - Definitions.) If YES, describe here:

Your signature below, as permittee, indicates that you accept and agree to comply with the terms, eligibility criteria, and general conditions for Self-Verification under the Connecticut GPs.

Permittee Signature: _____ Date: _____

APPENDIX F - DEFINITIONS

Artificial or Living Reef: A structure that is constructed or placed in waters for the purpose of enhancing fishery resources and commercial and recreational fishing opportunities.

Biodegradable: A material that decomposes into elements found in nature within a reasonably short period of time and will not leave a residue of plastic or a petroleum derivative in the environment after degradation. In contrast, degradable plastics break down into plastic fragments that remain in the environment after degradation. Examples of biodegradable materials include jute, sisal, cotton, straw, burlap, coconut husk fiber (coir) or excelsior. In contrast, degradable plastics break down into plastic fragments that remain in the environment after degradation. Photodegradable, UV degradable or Oxo-(bio)degradable plastics are not considered biodegradable under this GP.

Boating facilities: These provide, rent, or sell mooring space, such as marinas, boat/yacht clubs, boat yards, dockminiums, town facilities, dockminiums, etc. Not classified as boating facilities are piers shared between two abutting properties or town mooring fields that charge an equitable user fee based on the actual costs incurred.

Compensatory mitigation: The restoration (re-establishment or rehabilitation), establishment (creation), enhancement, and/or in certain circumstances preservation of aquatic resources for the purposes of offsetting unavoidable adverse impacts which remain after all appropriate and practicable avoidance and minimization has been achieved.

Confined Aquatic Disposal (CAD): The process of disposing dredged material, sometimes determined to be unsuitable for unconfined disposal in an aquatic environment in a manner to sequester it from the overlying water column. When this disposal takes place into a natural or constructed depression on the seafloor, it is referred to as a CAD cell.

Construction mats: Construction, swamp and timber mats (herein referred to as “construction mats”) are generic terms 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 timber mat consists of large timbers bolted or cabled together. This definition does not include “corduroy roads”.

Corduroy roads: Roads made from 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.

Cumulative effects: The changes in an aquatic ecosystem that are attributable to the collective effect of several individual 1) discharges of dredged or fill material, or 2) structures. Although the impact of a particular discharge may constitute a minor change, the cumulative effect of numerous such piecemeal changes can result in a major impairment of the water resources and interfere with the productivity and water quality of existing aquatic ecosystems. See 40 CFR 230.11(g).

Currently serviceable: Useable as is or with some minor maintenance, but not so degraded as to essentially require reconstruction.

Direct effects: Effects that are caused by the activity and occur at the same time and place.

Dredged material & discharge of dredged material: These are defined at 33 CFR 323.2(c) and (d). The term dredged material means material that is excavated/dredged from waters of the United States.

Dredging:

- **Improvement Dredging:** For the purposes of these GPs, this is dredging deeper than previously authorized by the Corps or dredged.
- **Maintenance Dredging:** For the purposes of these GPs, this is dredging from an area previously authorized by the Corps or dredged. The Corps may require proof of authorization and dredging. Maintenance dredging typically refers to the routine removal of accumulated sediment to maintain the design depths of serviceable navigation channels, harbors, marinas, boat launches and port facilities. Maintenance dredging is conducted for navigational purposes and does not include any expansion of

the previously dredged area. The Corps may review a maintenance dredging activity as new dredging if sufficient time has elapsed to allow for the colonization of SAS, shellfish, etc.

- **New Dredging:** For the purposes of these GPs, this is dredging of an area that has never been authorized by the Corps and dredged, including expansion of previously dredged areas. New dredging may also include those activities that do not meet the definition of maintenance dredging, as determined by the Corps.

Discharge: The term “discharge” means any discharge of dredged or fill material into waters of the United States.

Enhancement: The manipulation of the physical, chemical, or biological characteristics of an aquatic resource to heighten, intensify, or improve a specific aquatic resource function(s). Enhancement results in the gain of selected aquatic resource function(s) but may also lead to a decline in other aquatic resource function(s). Enhancement does not result in a gain in aquatic resource area.

Ephemeral stream: An ephemeral stream has flowing water only during, and for a short duration after, precipitation events in a typical year. Ephemeral stream beds are located above the water table year-round. Groundwater is not a source of water for the stream. Runoff from rainfall is the primary source of water for stream flow.

Establishment (creation): The manipulation of the physical, chemical or biological characteristics present to develop an aquatic resource that did not previously exist at an upland site. Establishment results in a gain in aquatic resource area.

Expansions: Work that increases the footprint of fill, depth of basin or drainage feature, structures, or floats, or slip capacity.

Footprint (boating facility): The limit of structures, such as docks, pilings, piers, or platforms, at an established marina or docking facility.

Fill material & discharge of fill material: These are defined at 33 CFR 323.2(e) and (f). The term fill material is defined as material placed in waters of the U.S. where the material has the effect of either replacing any portion of a water of the U.S. with dry land or changing the bottom elevation of any portion of a water of the U.S.

Federal navigation projects (FNPs): These areas are maintained by the Corps; authorized, constructed and maintained on the premise that they will be accessible and available to all on equal terms; and are comprised of Corps Federal anchorages, Federal channels and Federal turning basins. Information, including the limits, is provided at <http://www.nae.usace.army.mil/Missions/Navigation.aspx>

FNP buffer zone: The buffer zone of a Corps FNP is equal to three times the authorized depth of the FNP. For additional information see <http://www.nae.usace.army.mil/Missions/Navigation/Connecticut-Projects/>

High Tide Line: The line of intersection of the land with the water’s surface at the maximum height reached by a rising tide. The high tide line may be determined, in the absence of actual data, by a line of oil or scum along the shore objects, a continuous deposit of fine shell or debris on the foreshore or berm, other physical markings or characteristics, vegetation lines, tidal gages, or other suitable means that delineate the general height reached by a rising tide. The line encompasses spring high tides and other high tides that occur with periodic frequency but does not include storm surges in which there is a departure from the normal or predicted reach of the tide due to the piling up of water against a coast by strong winds such as those accompanying a hurricane or other intense storm.

Historic property: Any prehistoric or historic district, site (including archaeological site), building, structure, or other object included in, or eligible for inclusion in, the National Register of Historic Places maintained by the Secretary of the Interior. This term includes artifacts, records, and remains that are related to and located within such properties. The term includes properties of traditional religious and cultural importance to an Indian tribe or Native Hawaiian organization and that meet the National Register criteria (36 CFR part 60).

In the dry: Work that is done under dry conditions, e.g., work behind cofferdams or when the stream or tide is waterward of the work.

Intermittent stream: An intermittent stream has flowing water during certain times of the year, when groundwater provides water for stream flow. During dry periods, intermittent streams may not have flowing water. Runoff from rainfall is a supplemental source of water for stream flow.

Indirect effects: Effects that are caused by the activity and are later in time or farther removed in distance but are still reasonably foreseeable.

Individual Permit: A Department of the Army authorization that is issued following a case-by-case evaluation of a specific structure or work in accordance with the procedures of 33 CFR 322, or a specific project involving the proposed discharge(s) in accordance with the procedures of 33 CFR 323, and in accordance with the procedures of 33 CFR 325 and a determination that the proposed discharge is in the public interest pursuant to 33 CFR 320.

Living shoreline: Living shorelines stabilize banks and shores in coastal waters along shores with small fetch and gentle slopes that are subject to low-to mid-energy waves. A living shoreline has a footprint that is made up mostly of native material. It incorporates vegetation or other living, natural “soft” elements alone or in combination with some type of harder shoreline structure (e.g., oyster or mussel reefs or rock sills) to dissipate wave energy and to collect naturally deposited sediment for added protection and stability.

Maintenance:

a. The repair, rehabilitation, or replacement of any previously authorized, currently serviceable structure or fill, or of any currently serviceable structure or fill authorized by 33 CFR 330.3 – “Activities occurring before certain dates,” provided that the structure or fill is not to be put to uses differing from those uses specified or contemplated for it in the original permit or the most recently authorized modification.

- Minor deviations in the structure’s configuration or filled area, including those due to changes in materials, construction techniques, or current construction codes or safety standards that are necessary to make repair, rehabilitation, or replacement are authorized.
- Currently serviceable means useable as is or with some maintenance, but not so degraded as to essentially require reconstruction.
- No seaward expansion for bulkheads or any other fill activity is considered SV maintenance.
- Only structures or fills that were previously authorized and comply with the terms and condition of the original authorization can be maintained as a non-regulated activity under 33 CFR 323.4(a)(2), or in accordance with the SV or PCN thresholds in Section V.

b. The state’s maintenance provisions may differ from the Corps and may require reporting and written authorization from the state.

c. Contact the Corps to determine whether stream crossing replacements require a PCN.

d. Exempted Maintenance. In accordance with 33 CFR 323.4(a)(2), any discharge of dredged or fill material that may result from any of the following activities is not prohibited by or otherwise subject to regulation under Section 404 of the CWA: “Maintenance, including emergency reconstruction of recently damaged parts, of currently serviceable structures such as dikes, dams, levees, groins, riprap, breakwaters, causeways, bridge abutments or approaches, and transportation structures. Maintenance does not include any modification that changes the character, scope, or size of the original fill design.”

Navigable waters of the United States: Navigable waters of the U.S. are those waters that are subject to the ebb and flow of the tide and/or are presently used, or have been used in the past, or may be susceptible for use to transport interstate or foreign commerce. The Connecticut River has been determined to be a Navigable water of the United States. Refer to Title 33 CFR Part 329.

Ordinary High Water Mark (OHW): A line on the shore established by the fluctuations of water and indicated by physical characteristics, or by other appropriate means that consider the characteristics of the surrounding areas. See 33 CFR 328.3(e).

Perennial stream: A perennial stream has flowing water year-round during a typical year. The water table is located above the stream bed for most of the year. Groundwater is the primary source of water for stream flow. Runoff from rainfall is a supplemental source of water for stream flow.

Practicable: Available and capable of being done after taking into consideration cost, existing technology, and logistics in light of overall project purposes.

Preservation: The removal of a threat to, or preventing the decline of, aquatic resources by an action in or near those aquatic resources. This term includes activities commonly associated with the protection and maintenance of aquatic resources through the implementation of appropriate legal and physical mechanisms. Preservation does not result in a gain of aquatic resource area or functions.

Re-establishment: The manipulation of the physical, chemical, or biological characteristics of a site with the goal of returning natural/historic functions to a former aquatic resource. Re-establishment results in rebuilding a former aquatic resource and results in a gain in aquatic resource area.

Rehabilitation: The manipulation of the physical, chemical, or biological characteristics of a site with the goal of repairing natural/historic functions to a degraded aquatic resource. Rehabilitation results in a gain in aquatic resource function but does not result in a gain in aquatic resource area.

Restoration: The manipulation of the physical, chemical, or biological characteristics of a site with the goal of returning natural/historic functions to a former or degraded aquatic resource. For the purpose of tracking net gains in aquatic resource area, restoration is divided into two categories: reestablishment and rehabilitation.

Secondary effects: 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. Information about secondary effects on aquatic ecosystems shall be considered prior to the time final Section 404 action is taken by permitting authorities. Some examples of secondary effects on an aquatic ecosystem are: a) aquatic areas drained, flooded, fragmented, or mechanically cleared, b) fluctuating water levels in an impoundment and downstream associated with the operation of a dam, c) septic tank leaching and surface runoff from residential or commercial developments on fill, and d) leachate and runoff from a sanitary landfill located in waters of the U.S. See 40 CFR 230.11(h).

Shellfish dredging/harvesting: Shellfish dredging typically consists of a net on a frame towed behind a boat to capture shellfish and leave the sediment behind. Dredges may skim the surface, utilize hydraulic jets, toothed rakes or suction apparatus.

Special aquatic sites: These include inland and saltmarsh wetlands, mud flats, vegetated shallows (submerged aquatic vegetation), sanctuaries and refuges, coral reefs, and riffle and pool complexes. These are defined at 40 CFR 230.3 and listed in 40 CFR 230 Subpart E.

Stream bed: The substrate of the stream channel between the OHW marks. The substrate may be bedrock or inorganic particles that range in size from clay to boulders. Wetlands contiguous to the streambed, but outside of the OHW marks, are not considered part of the streambed.

Stream channelization: The manipulation of a stream's course, condition, capacity, or location that causes more than minimal interruption of normal stream processes. A channelized stream remains a water of the U.S.

Structure: An object that is arranged in a definite pattern of organization. Examples of structures include, without limitation, any pier, boat dock, boat ramp, wharf, dolphin, weir, boom, breakwater, bulkhead, revetment, riprap, jetty, artificial island, artificial reef, permanent mooring structure, power transmission line, permanently moored floating vessel, piling, aid to navigation, or any other manmade obstacle or obstruction.

Submerged aquatic vegetation: Submerged aquatic vegetation (SAV) such as eelgrass is known to play a critical ecosystem role. The U.S. Environmental Protection Agency (EPA) has designated SAV (referred to as vegetated shallows in the Section 404(b)(1) Guidelines), including eelgrass, as "special aquatic sites" under the 404(b)(1) Guidelines due to its important role in the marine ecosystem for nesting, spawning, nursery cover and forage areas for fish and wildlife. Furthermore, the MAFMC has designated SAV, including eelgrass as a Habitat Area of Particular Concern (HAPC) for summer flounder EFH and the NEFMC has designated SAV as part of the nearshore juvenile Atlantic cod HAPC.

Seagrasses provide important ecological services including fish and shellfish habitat, and shorebird feeding habitats, nutrient and carbon cycling, sediment stabilization, and biodiversity (Thayer et al 1984, Fonseca and Cahalan 1992, Fonseca et al., 1998, Kenworthy et al 1998, Orth et al., 2006). In many

locations along the east coast, eelgrass coverage has declined by fifty percent or more since the 1970's (Thayer et al. 1975, Short et al. 1993, Short and Burdick 1996). Loss of eelgrass is attributed to reduced water quality and clarity resulting from elevated inputs of nutrients or other pollutants such as suspended solids and disturbances such as dredging (Kemp et al. 1983, Short et al. 1993, Short and Burdick 1996, Orth et al. 2006). Eelgrass may also be adversely affected through shading and burial or smothering resulting from turbidity and subsequent sedimentation (Deegan and Buchsbaum 2005, Duarte et al. 2005, Johnson et al. 2008). In Massachusetts, surveys from 1995 to 2007 have shown statewide declines in seagrass cover in 90% of the embayments where it was studied (Costello and Kentworthy, 2010). In New Hampshire, eelgrass distribution throughout the entire Great Bay Estuary has declined precipitously since 1996, with a loss of 76% in the Great Bay and extirpation of nearly all beds in the Piscataqua River during that time (Short 2013). Given the widespread decline in eelgrass beds in New England, any additional loss to this habitat will likely significantly affect the resources that depend on these meadows. Successful compensatory mitigation for impacts to SAV can be costly and difficult to implement, making this habitat especially vulnerable to permanent loss.

Temporary impacts: Temporary impacts include waters of the U.S. that are temporarily filled, flooded, excavated, drained or mechanically cleared because of the regulated activity and restored to preconstruction contours and elevations upon completion of construction.

Tide gates: Structures such as duckbills, flap gates, manual and self-regulating tide gates, etc. that regulate or prevent upstream tidal flows.

Utility Line: Any pipe or pipeline for the transportation of any gaseous, liquid, liquescent, or slurry substance, for any purpose, and any cable, line, or wire for the transmission for any purpose of electrical energy, telephone, data, and telegraph messages, and radio and television communication. The term utility line does not include activities that drain a water of the U.S., such as drainage tile or French drains, but it does apply to pipes conveying drainage from another area.

Vegetated shallows: Permanently inundated areas that under normal circumstances support communities of rooted aquatic vegetation, such as eelgrass and widgeon grass (*Rupia maritima*) in marine systems (doesn't include salt marsh) as well as several freshwater species in rivers and lakes. Note: These areas are also commonly referred to as submerged aquatic vegetation (SAV).

Vernal pools (VPs): For the purposes of these GPs, VPs are depressional wetland basins that typically go dry in most years and may contain inlets or outlets, typically of intermittent flow. Vernal pools range in both size and depth depending upon landscape position and parent material(s). In most years, VPs support one or more of the following obligate indicator species: wood frog, spotted salamander, blue-spotted salamander, marbled salamander, Jefferson's salamander and fairy shrimp. However, they should preclude sustainable populations of predatory fish. VP areas are:

- Depression (includes the VP depression up to the spring or fall high water mark, and includes any vegetation growing within the depression),
- Envelope (area within 0-100 feet of the VP depression's edge), and
- Critical terrestrial habitat (area within 100-750 feet of the VP depression's edge).

The envelope and critical terrestrial habitat protect the water quality of the breeding site (e.g., providing shade, leaf litter, and coarse woody material) and support the non-larval life-cycle stages of amphibian species. **Note:** The Corps may determine that a waterbody should not be designated as a VP based on available evidence.

Weir: A barrier across a river designed to alter the flow characteristics. In most cases, weirs take the form of a barrier, smaller than most conventional dams, across a river that causes water to pool behind the structure (not unlike a dam) and allows water to flow over the top. Weirs are commonly used to alter the flow regime of the river, prevent flooding, measure discharge and help render a river navigable.

Waters of the United States.: Waters of the U.S. are defined in 33 CFR 328. These waters include more than navigable waters of the U.S. and are the waters where permits are required for the discharge of dredged or fill material pursuant to Section 404 of the CWA. Waters of the U.S. include jurisdictional wetlands.

CT DEEP WQC Definitions:

Special Wetlands: Include vernal pools, bogs, fens, cedar swamps, spruce swamps, calcareous seepage swamps, and wetlands that provide habitat for threatened or endangered species or species of special concern as designated by the State of Connecticut Natural Diversity Database. The following definitions for bogs, calcareous seepage wetlands, cedar swamps, fens, spruce swamps, and vernal pools apply for the purposes of this GP:

Calcareous Seepage Swamp: A forested wetland characterized by the discharge of groundwater with a chemistry influenced by an underlying limestone geology.

Cedar Swamp: A forested wetland characterized by the presence of Northern White Cedar or Atlantic White Cedar.

Fen: A peat accumulating wetland dominated by sedges and/or ericaceous shrubs. Typical plant species include low sedges, ericaceous shrubs, sphagnum and other mosses.

Spruce Swamp: A forested wetland characterized by the presence of Red or Black Spruce.

Vernal Pool: An often temporary body of water occurring in a shallow depression of natural or human origin that fills during spring rains and snow melt and typically dries up during summer months. Vernal pools support populations of species specially adapted to reproducing in these habitats. Such species may include wood frogs, mole salamanders (*Ambystoma* sp.), fairy shrimp, fingernail clams, and other amphibians, reptiles, and invertebrates. Vernal pools lack breeding populations of fish. **All vernal pools are subject to the jurisdiction of the CT DEEP under Connecticut Water Quality Standards.**

Threatened, Endangered or Special Concern Species; Significant Natural Communities/Critical Habitats: Species listed by CT DEEP pursuant to Chapter 495 of the Connecticut General Statute as threatened or endangered species or species of special concern. General locations of threatened and endangered species and species of special concern, and significant natural communities/critical habitats are identified on maps published by the Connecticut Department of Energy and Environmental Protection entitled “Natural Diversity Data Base Areas” and on the CTECO Interactive Map Viewers at www.cteco.uconn.edu.

Adverse Effect to Hydraulic Characteristics: An adverse effect to hydraulic characteristics includes an increase in flood water surface elevation, an increase in flood flow velocity or a restriction of flood low conveyance in a manner that would impact upstream, downstream, or adjacent property.

APPENDIX G – STREAM CROSSING BEST MANAGEMENT PRACTICES (BMPs)

Design and construction guidance may be found in the U.S. Forest Service stream simulation manual, “Stream Simulation: An Ecological Approach to Providing Passage for Aquatic Organisms at Road-Stream Crossings”¹. Section 5.3.3 Headcutting Potential and 6.2 Design of the Stream-Simulation Channel Bed are particularly relevant. Sections 7.5.2.3 Construction Methods and 8.2.11 Stream-Simulation Bed Material Placement both show important steps in the project construction. Chapter 6.1 is relevant for proper alignment and construction to prevent bank erosion or streambed scour.

Permanent Crossings in Tidal Streams

These are relevant for new and replacement crossings and culvert extensions.

1. Match the velocity, depth, cross-sectional area, and substrate of the existing stream outside the crossing, if it exists, and size crossings such that they do not restrict tidal flow over the full natural tide range seaward of the crossing. The Corps will typically require a low-lying property analysis to ensure flooding is not a concern.
2. Construct crossings in dry conditions.

Permanent Crossings in Non-Tidal Streams

These are relevant for new and replacement crossings and culvert extensions.

1. Span² streams or size culverts or pipe arches such that they are wider than bankfull width (BFW). Single span structures are required to the extent practicable as they avoid or minimize disruption to the streambed and avoid entire streambed reconstruction and maintenance inside the culvert or pipe arch (see 4, 5 & 7 below), which may be difficult in smaller structures. The span width of bridges, box culverts and arches at bankfull elevation should be ≥ 1.2 times BFW where practicable. In many cases bankfull width is not necessarily interchangeable with the elevation of ordinary high water.³
2. Embed culverts or pipe arches below the grade of the streambed. This is not required when ledge/bedrock and/or utilities prevents embedment, in which case spans are preferred. The following depths are recommended to prevent streambed washout, and ensure compliance and long-term success:
 - a. $\geq 1-2$ feet for box culverts and pipe arches⁴, or
 - b. $\geq 1-2$ feet and at least 25% for round pipe culverts.
3. Match the culvert gradient (slope) with the stream channel profile.
4. Construct crossings carrying normal flows with a natural bottom substrate within the structure matching the characteristics of the substrate in the natural stream channel and the banks (mobility, slope, stability, confinement, grain and rock size) at the time of construction and over time as the structure has had the opportunity to pass substantial high flow events.

¹ www.nae.usace.army.mil/missions/regulatory.aspx >> “Stream and River Continuity.”

² For the purposes of this GP, spans are bridges, three-sided box culverts, open-bottom culverts or arches that span the stream. The use of bridge piers or similar supports, where necessary, does not prevent a structure from being considered as a span.

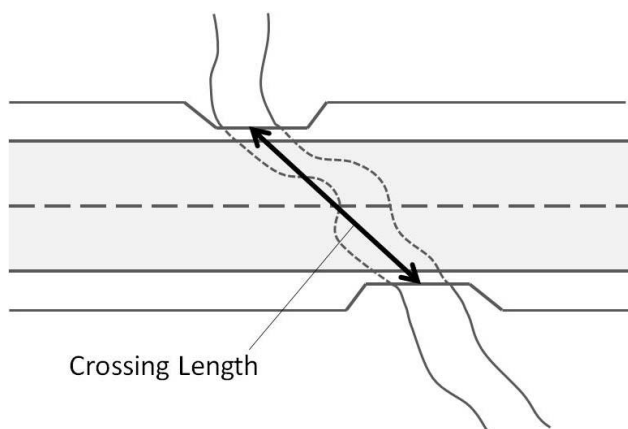
³ BFW corresponds with “bankfull stage” and this should be field delineated in accordance with the U.S. Forest Service also found at <https://www.nae.usace.army.mil/Missions/Regulatory/Stream-and-River-Continuity/>

⁴ For 2(a) and 2(b), deeper embedment depths may be needed if there are elements of the constructed stream bed that are greater than 15 inches in diameter.

5. Construct crossings with appropriate bed forms and streambed characteristics so that water depths and velocities are comparable to those found in the natural channel at a variety of flows at the time of construction and over time. In order to provide appropriate water depths and velocities at a variety of flows and especially low flows, it is usually necessary to reconstruct the streambed (sometimes including a low flow channel) or replicate or preserve the natural channel within the structure. Otherwise, the width of the structure needed to accommodate higher flows will create conditions that are too shallow at low flows. The grain and rock size, and arrangement of streambed materials within the structure should be in accordance with (4) above. Flows could go subsurface within the structure if only large material is used without smaller material filling the voids.

6. *Openness > 0.82 feet (0.25 meters)*

Openness is the cross-sectional area of a structure opening divided by its crossing length when measured in consistent units (e.g. feet). For a box culvert, openness = (height x width) / length.



For crossing structures with multiple cells or barrels, openness is calculated separately for each cell or barrel. At least one cell or barrel must meet the appropriate openness standard. The embedded portion of a culvert is not included in the calculation of cross-sectional area for determining openness.⁵

Openness > 0.82 feet is recommended to make the structure more likely to pass small, riverine wildlife such as turtles, mink, muskrat and otter that may tend to

avoid structures that appear too constricted. This openness standard is too small to accommodate large wildlife such as deer, bear, and moose. Structures that meet this openness standard are much more likely than traditional culverts to pass flood flows and woody debris that would otherwise obstruct water passage. It is likely that most structures that meet all the other general standards will also meet this openness standard. However, for some very long structures it may be impractical or impossible to meet this standard.

7. Construct banks on each side of the stream inside the span that match the horizontal profile of the existing stream and banks outside the span. To prevent failure, all constructed banks should have a height to width ratio of no greater than 1:1.5 (vertical:horizontal) unless the stream is naturally incised. Tie the banks into the up and downstream banks and configure them to be stable during expected high flows. Use materials that match the up and downstream banks (avoid the use of angular riprap and armored slopes, except where necessary for structural reasons, in which case they should be top-dressed with natural stream bed material). Construct a wildlife shelf on at least one of the banks. The constructed banks (with a wildlife shelf) will allow for terrestrial passage for wildlife and prevent flow from being focused to one side and scouring the bed, especially against the structure's sidewall which may undermine the footings in the case of spans.

⁵ An Openness Ratio Spreadsheet shows how to calculate the open area for embedded pipe culverts to meet the 0.82 standard for openness. See www.nae.usace.army.mil/missions/regulatory.aspx >> Stream and River Continuity.

Temporary Crossings in Non-Tidal Streams

Temporary crossings shall consist of spans, culverts, construction mats or fords designed and constructed as follows:

1. All temporary crossings:
 - a. Impacts to the streambed or banks require restoration to their original condition (see U.S. Forest Service stream simulation manual referenced on page 1 of this document for stream simulation restoration methods). Use geotextile fabric or other appropriate bedding for stream beds and approaches where practicable to ensure restoration to the original grade.
 - b. Avoid excavating the stream or embedding crossings.
2. Culverts:
 - a. Install energy dissipating devices downstream if necessary, to prevent scour.
3. Stream fords: Equipment may ford streams when: it is not feasible to construct a span or culvert (e.g., streams having no or low banks, emergency situations); the natural stream bed and banks consist of ledge, rock or sand that prevents disturbance and turbidity; and there is a stable, gradual approach.
4. Spans: Anchor spans where practicable so they do not wash out during high water.
5. Construction mats: Build construction mat stream crossings in accordance with the Construction Mat BMPs, specifically the Wetland/Stream Channel Crossing section. See www.nae.usace.army.mil/missions/regulatory.aspx>> [State General Permits](#) >> Connecticut General Permit Documents.

APPENDIX H
DIADROMOUS FISH IN CONNECTICUT

2021 Connecticut General Permit

DIADROMOUS FISH IN CONNECTICUT

Diadromous fish are a type of fish that move between salt and fresh water, usually for feeding or reproduction. Anadromous fish are a subset of diadromous fish that spend most of their lives in the coastal waterway as adults, but then migrate to fresh water to breed. Thus, young anadromous fish begin their life in freshwater, swim to the sea to feed and mature, then return to the rivers of their birth to reproduce. Diadromous fish are some of the more ecologically and economically important fish species in the region.

ANADROMOUS FISH IN CONNECTICUT:

Blueback herring (<i>Alosa aestivalis</i>)	Gizzard shad (<i>Dorosoma cepedianum</i>)
Alewife (<i>Alosa pseudoharengus</i>)	Striped bass (<i>Morone saxatilis</i>)
American shad (<i>Alosa sapidissima</i>)	Sea lamprey (<i>Petromyzone marinus</i>)

HOW TO DETERMINE IF ANY OF THE ANADROMOUS FISH ABOVE ARE AT MY PROJECT SITE

To see if any of the fish species above may be in the waterway affiliated with your project go to the Fisheries Division, Migratory-Fish-Runs-of-Connecticut webpage at <https://portal.ct.gov/DEEP/Fishing/Fisheries-Management/Migratory-Fish-Runs-of-Connecticut>.

ENDANGERED STURGEON IN CONNECTICUT:

Shortnose sturgeon (<i>Acipenser brevirostrum</i>)	Atlantic sturgeon (<i>Acipenser oxyrinchus oxyrinchus</i>)
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The shortnose sturgeon and shortnose sturgeon populations that are present in Connecticut are both listed under the Endangered Species Act. Critical habitat for Atlantic sturgeon was designated in the Connecticut River and the Housatonic River in 2012. Species presence and designated critical habitat can be viewed by going to <https://noaa.maps.arcgis.com/apps/webappviewer/index.html>. See General Condition 11 of these CT GPs for more information and conditional requirements.

CATADROMOUS FISH IN CONNECTICUT

American eel (*Anguilla rostrata*)

Catadromous fish spend most of their adult life in fresh water, then migrate to salt water where they return to the Sargasso Sea to reproduce. The only catadromous fish in Connecticut is the American eel, which are found in all waterbodies in Connecticut except for the following locations:

- East Branch Farmington River and tributaries upstream of the Saville Dam in Barkhamsted.
- West Branch Farmington River and tributaries upstream of the Goodwin Dam in Hartland.
- Shepaug River and tributaries upstream of the Shepaug Reservoir Dam in Warren.

CONDITIONS AND TIME OF YEAR RESTRICTIONS (TOYRS) TO PROTECT ANADROMOUS FISH

These GPs use conservation recommendations to minimize adverse impact to anadromous fish in Connecticut waterways. **The following conditions are required for work under Self-Verification:**

- Unconfined, in-stream work, not including installation and removal of cofferdams, is limited to the low-flow period, July 1 – September 30 unless the agencies require a different resource-driven time of year restriction.
- In-water work is prohibited from April 1 to June 30 unless it occurs behind a cofferdam (see above).
- In non-tidal streams, controls shall only be installed and removed during the approved window for work (July 1 – March 31) and must not encroach >25% of the stream width measured from OHW during the prohibited work window.

Tammy Turley, Regulatory Division
U.S. Army Corps of Engineers New England District
696 Virginia Road
Concord, MA 01742-2751

RE: SECTION 401 WATER QUALITY CERTIFICATION

Department of the Army
General Permits for the State of Connecticut 2021
CT DEEP License No.: WQC-202108351 (Non-Tidal),
WQC-202108352 (Tidal) & FCC-202108353

NON-TIDAL WATERS, WETLANDS AND WATERCOURSES

Pursuant to Section 401 of the Federal Clean Water Act (33 USC 1341), and except for those activities specifically waived or denied herein, Water Quality Certification is hereby **granted with conditions** for activities that comport with the water quality standards contained within section 22a-426-1 et seq. of the Regulations of Connecticut State Agencies and with terms, limitations and conditions specified in this Certification for the Department of the Army, Regional General Permits for the State of Connecticut ("RGPs"), dated July 16th and revised July 19th, 2021 for activities, including but not limited to, the construction or operation of facilities, which may result in any discharge into the waters of the State. Such terms, limitations and conditions of this permit are outlined in the **General Terms and Conditions** contained herein.

This certification does not apply in cases where the Commissioner has deemed an activity to have greater than minimal direct, indirect, secondary or cumulative impacts to state waters.

Pursuant to Section 401 of the Federal Clean Water Act (33 USC 1341), Water Quality Certification is hereby **waived** in entirety for GP 10., GP 11., GP 12., GP 13., GP 14. and GP 15.

Further, the following limited activities that are potentially authorized by this RGP are **not eligible** for Section 401 Water Quality Certification under this general permit certification and will instead require an individual Section 401 Water Quality Certification:

Detention or retention of stormwater in non-tidal waters, wetlands or watercourses including any watercourse or wetland crossing that by design or default functions to provide stormwater detention, and any construction of a stormwater detention or retention basin in non-tidal waters or wetlands.

Piping, boxing, enclosing or covering of a non-tidal watercourse for a purpose other than a driveway or roadway crossing.

Activities with direct, indirect or secondary impact(s) to: Special Wetlands ⁽¹⁾, Threatened, Endangered, or Special Concern Species ⁽²⁾, Significant Natural Communities/Critical Habitats ⁽²⁾ identified by the Connecticut Natural Diversity Database.

Activities within a FEMA established floodplain that would adversely affect the hydraulic characteristics of the floodplain ⁽³⁾.

TIDAL, COASTAL AND NAVIGABLE WATERS

With respect to tidal, coastal and navigable waters, Section 401 Water Quality Certification is granted conditionally for Self-Verification (SV) and Pre-Construction Notification (PCN) eligible activities. The conditional granting of Section 401 Water Quality Certification for SV and PCN eligible activities is subject to the applicant obtaining the appropriate Structures, Dredging and Fill authorization, Tidal Wetland authorization, or Coastal Consistency Concurrence, and the Commissioner finding that the activity is reasonably likely to have no more than minimal impact on water quality individually or cumulatively. Substantive evaluations of consistency of individual activities, listed under the GP in Section 2, paragraph II. with state water quality standards and coastal management policies will be conducted at the time of application.

Pursuant to Section 307(c)(1) of the Coastal Zone Management Act the proposed regional general permits were reviewed and determined to be consistent with the enforceable policies of Connecticut's federally approved Coastal Management Program as contained in Sections 22a-90 through 22a-112 of the Connecticut General Statutes

GENERAL TERMS AND CONDITIONS

Section 401 Water Quality Certification **granted with the following conditions** for **NON-TIDAL WATERS, WETLANDS and WATERCOURSES**, and **TIDAL, COASTAL and NAVIGABLE WATERS**:

1. **Activities in Non-tidal Waters.** A written determination of concurrence of eligibility for Section 401 Water Quality Certification prior to the start of construction from the Commissioner is required for all Pre-Construction Notification (PCN) for non-tidal activities. Applicants seeking a written concurrence of eligibility for PCN activities must submit an application to the Connecticut Department of Energy and Environmental Protection (CT DEEP) on

such form as the Commissioner may prescribe and with such information as the Commissioner deems necessary to fulfill the purposes of Section 401 of the Federal Clean Water Act and to determine compliance with the conditions of this Water Quality Certification. Upon completion of the review and evaluation of such application, the Commissioner will issue either a written concurrence of eligibility determination of Section 401 Certification upon such terms, limitations or conditions as the Commissioner deems necessary, or a written determination that an individual Section 401 Water Quality Certification is required for the proposed activity or activities. CT DEEP shall give the applicant a written concurrence of eligibility or a notification that the applicant must obtain an individual 401 Water Quality Certification within 120 days of receiving a complete request for a concurrence of eligibility.

2. **Best Management Practices.** In constructing or maintaining the activities authorized herein, the permittee shall employ best management practices in accordance with Section 22a-426-1 of the Regulations for Connecticut State Agencies, consistent with the terms and conditions of this certificate, to control storm water discharges and erosion and sedimentation and to prevent pollution. Such practices to be implemented by the permittee at the site include, but are not necessarily limited to:
 - a. Prohibiting dumping of any quantity of oil, chemicals or other deleterious material on the ground;
 - b. Immediately informing the Commissioner's Oil and Chemical Spill Response Division at (860) 424-3338 (24 hour phone line) of any adverse impact or hazard to the environment, including any discharges, spillage, or loss of oil or petroleum or chemical liquids or solids, which occurs or is likely to occur as the direct or indirect result of the activities authorized herein;
 - c. Separating staging areas at the site from the regulated areas by silt fences or straw/hay bales at all times;
 - d. Prohibiting storage of any fuel and refueling of equipment within twenty-five (25) feet from any wetland or watercourse;
 - e. Preventing pollution of wetlands and watercourses in accordance with the document "Connecticut Guidelines for Soil Erosion and

Sediment Control" as revised. Said controls shall be inspected by the permittee for deficiencies at least once per week and immediately after each rainfall and at least daily during prolonged rainfall. The permittee shall correct any such deficiencies within 48 hours of said deficiencies being found;

- f. Stabilizing disturbed soils in a timely fashion to minimize erosion. If a grading operation at the site will be suspended for a period of thirty (30) or more consecutive days, the permittee shall, within the first seven (7) days of that suspension period, accomplish seeding and mulching or take such other appropriate measures to stabilize the soil involved in such grading operation. Within seven (7) days after establishing final grade in any grading operation at the site the permittee shall seed and mulch the soil involved in such grading operation or take such other appropriate measures to stabilize such soil until seeding and mulching can be accomplished.
- g. Prohibiting the storage of any materials at the site which are buoyant, hazardous, flammable, explosive, soluble, expansive, radioactive, or which could in the event of a flood be injurious to human, animal or plant life, below the elevation of the five hundred (500) year flood. Any other material or equipment stored at the site below said elevation by the permittee or the permittee's contractor must be firmly anchored, restrained or enclosed to prevent flotation. The quantity of fuel stored below such elevation for equipment used at the site shall not exceed the quantity of fuel that is expected to be used by such equipment in one day.
- h. Immediately informing the Commissioner's Land & Water Resources Division at (860) 424-3019 and the U.S. Army Corps of Engineers' Permit Compliance Section at (617) 647-8674, of the occurrence of pollution or other environmental damage resulting from construction or maintenance of the authorized activity or any construction associated therewith in violation of this certificate. The permittee shall, no later than 48 hours after the permittee learns of a violation of this certificate, report same in writing to the Commissioner. Such report shall contain the following information:
 - (i) the provision(s) of this certificate that has/have been violated;
 - (ii) the date and time the violation(s) was first observed and by whom;

- (iii) the cause of the violation(s), if known
- (iv) if the violation(s) has ceased, the duration of the violation(s) and the exact date(s) and times(s) it was corrected;
- (v) if the violation(s) has not ceased, the anticipated date when it will be corrected;
- (vi) steps taken and steps planned to prevent a reoccurrence of the violation(s) and the date(s) such steps were implemented or will be implemented;
- (vii) the signatures of the permittee and of the individual(s) responsible for actually preparing such report, each of whom shall certify said report in accordance with condition 7 of this certificate.

For information and technical assistance, contact the Land & Water Resources Division at (860) 424-3019.

3. **Inspection of the Facility or Activity, Adaptive Best Management Practices & Compliance with Conditions.** The concurrence of eligibility letters for Pre-Construction Notifications will be considered the initial inspection of the facility or activity for the purpose of determining whether the discharge from the certified project may violate this certification. The concurrence of eligibility letters may also address the remedial actions necessary in order to be considered to be compliance with this certification.

In the event that Best Management Practices employed to maintain compliance with the conditions of this Water Quality Certificate, as described in paragraph 2 above, have been found to be insufficient to protect existing and designated uses of waters such as propagation of fish, shellfish and wildlife, recreation, public water supply, and agriculture, industrial use and navigation, and the water quality necessary for their protection, such permittee shall employ additional or alternative adaptive best management practices to protect water quality.

All work and all activities authorized herein conducted by the permittee at the site shall be consistent with the terms and conditions of this certificate. Upon initiation of the activities authorized herein, the permittee thereby accepts and agrees to comply with the terms and conditions of this Water Quality Certificate.

4. **Rights.** This certificate is subject to and does not derogate any present or future property rights or other rights or powers of the State of Connecticut, and conveys no property rights in real estate or material nor any exclusive privileges, and is further

subject to any and all public and private rights and to any federal, state, or local laws or regulations pertinent to the property or activity affected hereby. This certification does not comprise the permits or approvals as may be required by Chapters 440, 446i, 446j and 446k of the Connecticut General Statutes.

5. **Expiration of Certificate.** The Section 401 Water Quality Certifications contained herein shall be valid until such time as the Department of the Army Regional General Permits for the State of Connecticut expires or is modified, suspended, revoked or reissued.
6. **Transfer of Certificate.** This authorization is not transferable without the written consent of the Commissioner.
7. **Reliance on Application.** In evaluating the permittee's application, the Commissioner has relied on information provided by the permittee. If such information subsequently proves to be false, deceptive, and incomplete or inaccurate, this certificate may be modified, suspended or revoked.
8. **Installation and Removal of Confining Structures.** Confinement of a work area by cofferdam techniques using sand bag placement, sheet pile installation (vibratory method only), portadam, or similar confinement devices is allowed any time of the year unless specifically prohibited by a permit condition. The removal of such confinement devices is allowed any time of the year unless specifically prohibited by a permit condition. Once a work area has been confined, in-water work within the confined area is allowed any time of the year. The confinement technique used shall completely isolate and protect the confined area from all flowing water. The use of silt boom/curtain or similar technique as a means for confinement is prohibited.
9. **Certification of Documents.** Any document, including but not limited to any notice, which is required to be submitted to the Commissioner under this certificate shall be signed by the permittee, a responsible corporate officer of the permittee, a general partner of the permittee, or a duly authorized representative of the permittee and by the individual or individuals responsible for actually preparing such document, each of whom shall certify in writing as follows:

"I have personally examined and am familiar with the information submitted in this document and all attachments and certify that based on reasonable investigation, including my inquiry of those individuals responsible for obtaining the information, the submitted information is true, accurate and complete to the best of my knowledge and belief, and I

understand that any false statement made in this document or its attachments may be punishable as a criminal offense in accordance with Section 22a-6 under Section 53a-157 of the Connecticut General Statutes."

10. **Submission of Documents.** The date of submission to the Commissioner of any document required by this certificate shall be the date such document is received by the Commissioner. Except as otherwise specified in this certificate, the word "day" as used in this certificate means the calendar day. Any document or action which falls on a Saturday, Sunday, or legal holiday shall be submitted or performed by the next business day thereafter.

Any document or notice required to be submitted to the Commissioner under this certificate shall, unless otherwise specified in writing by the Commissioner, be directed to:

Director, Land & Water Resources Division
Bureau of Water Protection and Land Reuse
Department of Energy & Environmental Protection
79 Elm Street
Hartford, Connecticut 06106-5127

Issued by the Commissioner of Energy & Environmental Protection on November 1, 2021

Betsey C. Wingfield
Deputy Commissioner

CC: Diane M. Ray, US ACENED
Kevin Kotelly, US ACE NED
Nathaniel Margason, US EPA Region 1
Jacqueline LeClair, US EPA Region 1

DEFINITIONS

- (l) **Special Wetlands:** Include vernal pools, bogs, fens, cedar swamps, spruce swamps, calcareous seepage swamps, and wetlands that provide habitat for threatened or endangered species or species of special concern as designated by the State of Connecticut Natural Diversity Database. The following definitions for bogs, calcareous seepage wetlands, cedar swamps, fens, spruce swamps, and vernal pools apply for the purposes of the RGP:

Bog: a peat accumulating wetland dominated by sphagnum moss. Typical plant species include sphagnum moss, leatherleaf, black spruce, pitcher plant and s u n d e w .

Calcareous Seepage Swamp: a forested wetland characterized by the discharge of groundwater with a chemistry influenced by an underlying limestone geology.

Cedar Swamp: a forested wetland characterized by the presence of Northern White Cedar or Atlantic White Cedar.

Fen: a peat accumulating wetland dominated by sedges and/or ericaceous shrubs. Typical plant species include low sedges, ericaceous shrubs, sphagnum and other mosses.

Spruce Swamp: a forested wetland characterized by the presence of Red or Black Spruce.

Vernal Pool: an often temporary body of water occurring in a shallow depression of natural or human origin that fills during spring rains and snow melt and typically dries up during summer months. Vernal pools supporting populations of species specially adapted to reproducing in these habitats. Such species may include wood frogs, mole salamanders (*Ambystoma* sp.), fairy shrimp, fingernail clams, and other amphibians, reptiles and invertebrates. Vernal pools lack breeding populations of fish. **All vernal pools are subject to the jurisdiction of the Connecticut Department of Energy and Environmental Protection under Connecticut Water**

Quality Standards.

- (2) **Threatened, Endangered or Special Concern Species; Significant Natural Communities/Critical Habitats:** Species listed by CT DEEP pursuant to Chapter 495 of the Connecticut General Statute as threatened or endangered species or species of special concern. General locations of threatened and endangered species and species of special concern, and significant natural communities/critical habitats are identified on maps published by the Connecticut Department of Energy and Environmental Protection entitled "Natural Diversity Data Base Areas" and on the CTECO Interactive Map Viewers at www.cteco.uconn.edu .
- (3) **Adverse Effect to Hydraulic Characteristics:** An adverse effect to hydraulic characteristics includes an increase in flood water surface elevation, an increase in flood flow velocity or a restriction of flood flow conveyance in a manner that would impact upstream, downstream or adjacent property.