

**Applicant: General Public, State of Connecticut &  
Lands Located within Boundaries of an Indian Reservation**

**Effective Date: July 15, 2016  
Expiration Date: July 15, 2021**

**DEPARTMENT OF THE ARMY  
GENERAL PERMITS FOR THE  
STATE OF CONNECTICUT  
&  
LANDS LOCATED WITHIN THE  
BOUNDARIES OF AN INDIAN RESERVATION<sup>1</sup>**

The New England District of the U.S. Army Corps of Engineers (Corps) hereby issues twenty-two (22) General Permits (GPs) for activities subject to Corps jurisdiction in waters of the United States (U.S.), including navigable waters, within boundaries of the State of Connecticut and lands located within the exterior boundaries of an Indian reservation. These GPs are issued in accordance with Corps regulations at 33 CFR 320 - 332 [see 33 CFR 325.5(c)(1)], and authorizes activity-specific categories of work that are similar in nature and cause no more than minimal individual and cumulative adverse environmental impacts. These GPs will provide protection to the aquatic environment and the public interest while effectively authorizing activities that have no more than minimal individual and cumulative adverse environmental effects.

**GENERAL CRITERIA**

In order for activities to qualify for these GPs, they must meet the terms and eligibility criteria and stipulations listed in Appendix A – Eligible Activities as well as the general conditions.

Projects may qualify for the following:

- Self-Verification (inland) Self -Verification Notification Form (SVNF) is required
- Self-Verification (coastal) – SVNF NOT required. Corps relies on CT DEEP, OLISP submittals.
- Pre-Construction Notification (PCN) – No work may proceed until written authorization from the Corps is received.
  - Inland - Application to and written approval from the Corps is required.
  - Coastal - Notification to Corps provided by CT DEEP, OLISP or by applicants as necessary.

If your project is ineligible for Self-Verification (SV), it may qualify for either a PCN or an Individual Permit. The thresholds for activities eligible for Self-Verification and PCN are defined in the Appendix A. These GPs do not affect the Corps Individual Permit review process or activities exempt from Corps regulation.

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<sup>1</sup> Indian reservation lands are considered a sovereign nation, and are therefore acknowledged separately from the State of Connecticut for purposes of this General Permit.

## Connecticut General Permits

1. Aids to Navigation
2. Repair, replacement and maintenance of authorized or grandfathered structures/fills
3. Moorings
4. Pile-supported structures and floats, including boat lifts/hoists and other miscellaneous structures/work
5. Boat ramps/marine railways
6. Utility line activities
7. Dredging, disposal of dredged material, beach nourishment, rock removal & rock relocation
8. Discharges of dredged or fill material incidental to the construction of bridges
9. Shoreline and bank stabilization projects
10. Aquatic habitat restoration, establishment and enhancement activities
11. Fish and wildlife harvesting, enhancement and attraction devices and activities
12. Oil spill and hazardous material cleanup
13. Cleanup of hazardous and toxic waste
14. Scientific measurements devices
15. Survey activities
16. Aquaculture projects and fisheries
17. New/expanded developments & recreational facilities
18. Linear transportation projects – wetland crossings only
19. Stream, river & brook crossings
20. Energy generation and renewable energy facilities and hydropower projects
21. Mining activities
22. Temporary fill not associated with a project within Corps jurisdiction
23. Agricultural Activities

## SECTION 1

### **REVIEW CATEGORIES & APPLICATION PROCEDURES FOR PROJECTS WITHIN INLAND WATERS AND WETLANDS WITHIN THE STATE OF CONNECTICUT & LANDS LOCATED WITHIN THE EXTERIOR BOUNDARIES OF AN INDIAN RESERVATION**

#### **I. ACTIVITIES COVERED:**

The discharge of dredged or fill material into Waters of the United States, which is regulated by the Corps under Section 404 of the Clean Water Act (CWA), see 33 CFR 328.

#### **II. REVIEW PROCESS:**

##### **1. State and Local Approvals:**

In order for authorizations under these GPs to be valid and before commencing any work within Corps jurisdiction, applicants must apply for and obtain any of the following required State approvals as well as any local approvals (see **General Condition 1**):

**Water Quality Certification (WQC)** under Section 401 of the Federal CWA (33 USC Sec. 1341). Section 401(a)(1) of the Clean Water Act requires that applicants obtain a WQC or waiver from the state water pollution control agency which in Connecticut is the Connecticut Department of Energy and Environmental Protection (CT DEEP) or U. S. EPA for Indian reservation lands to discharge dredged or fill material into waters of the U.S.

The CT DEEP, Inland Water Resources Division (CT DEEP IWRD) has conditionally granted WQC for Self-Verification (SV) activities in inland wetlands and waterways provided those activities meet the criteria as contained in the attached definition of categories.

The U.S. EPA granted WQC for Self-Verification and PCN activities located on land within the exterior boundaries of an Indian Reservation.

The CT DEEP- IWRD has denied WQC for Pre-Construction Notification (PCN) activities in inland wetlands and waterways, until the Commissioner issues a written 401 eligibility determination.

##### **2. General Permit Review Categories:**

**a. Self-Verification – An application to the Corps is NOT required. However, submittal of the attached Self Verification Form at Appendix E to the Corps and CT DEEP, IWRD is required prior to commencement of work authorized by these GPs.**

#### **Eligibility Criteria**

Activities in Connecticut and lands located within the exterior boundaries of an Indian reservation that meet the following criteria are eligible under Self-verification of this General Permit:

- are subject to Corps jurisdiction (See **General Condition 2**),
- meet the definition of Self-Verification in the attached Appendix A - General Permits, and
- meet the General Conditions of the GPs

Project proponents seeking Self-Verification authorizations must comply with the General Conditions and other federal laws such as the National Historic Preservation Act, the Endangered Species Act (ESA) and the Wild and Scenic Rivers Act. 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 high likelihood of the presence of resources of concern.

**b. Pre-Construction Notification (PCN) – An application to the Corps is required.**

Projects not eligible under Self-Verification of the GPs may be screened under PCN, provided they meet the criteria as defined in the attached Definition of Categories for PCN activities.

**Eligibility Criteria**

Activities in Connecticut and lands located within the exterior boundaries of an Indian reservation that meet the following criteria are eligible under PCN of this General Permit:

- are subject to Corps jurisdiction (See **General Condition 2**),
- meet the definition of PCN in the attached **Appendix A – General Permits**, and
- meet the General Conditions of the GPs

**3. Applying for an authorization through the PCN process:**

A Corps application form (ENG Form 4345) is required for PCN activities and can be found on our website along with instructions, regulations and guidance:

<http://www.usace.army.mil/Missions/CivilWorks/RegulatoryProgramandPermits/ObtainPermit.aspx>

Applicants must also submit two copies of the following to the Corps, on a CD or hard copy:

- application form
- 8.5" x 11" or 11" x 17" drawings and one large-scale drawing,
- wetlands functions and values assessment,
- Federal wetland delineation documentation (data sheets),
- The CT DEEP addendum found at:  
[http://www.ct.gov/deep/lib/deep/Permits\\_and\\_Licenses/LandUse\\_General\\_Permits/Inland\\_Water\\_General\\_Permits/CT\\_addendum\\_app.pdf](http://www.ct.gov/deep/lib/deep/Permits_and_Licenses/LandUse_General_Permits/Inland_Water_General_Permits/CT_addendum_app.pdf)
- correspondence with the State Historic Preservation Office and Tribal Historic Preservation Officer indicating coordination with these entities,
- an Invasive Species Control Plan (See **General Condition 25**), and
- a plan describing any proposed mitigation.

Applicants must concurrently submit three copies of the following to the CT DEEP at the address below:

- the Corps application form,
- 8.5" x 11" or 11" x 17" drawings and one large-scale drawing,
- wetlands functions and values assessment,
- Federal wetlands delineation documentation (data sheets),
- CT DEEP addendum, and
- a plan describing any proposed mitigation.

**State of Connecticut  
Department of Energy & Environmental Protection  
Central Permit Processing Unit  
79 Elm Street  
Hartford, CT 06106-5127**

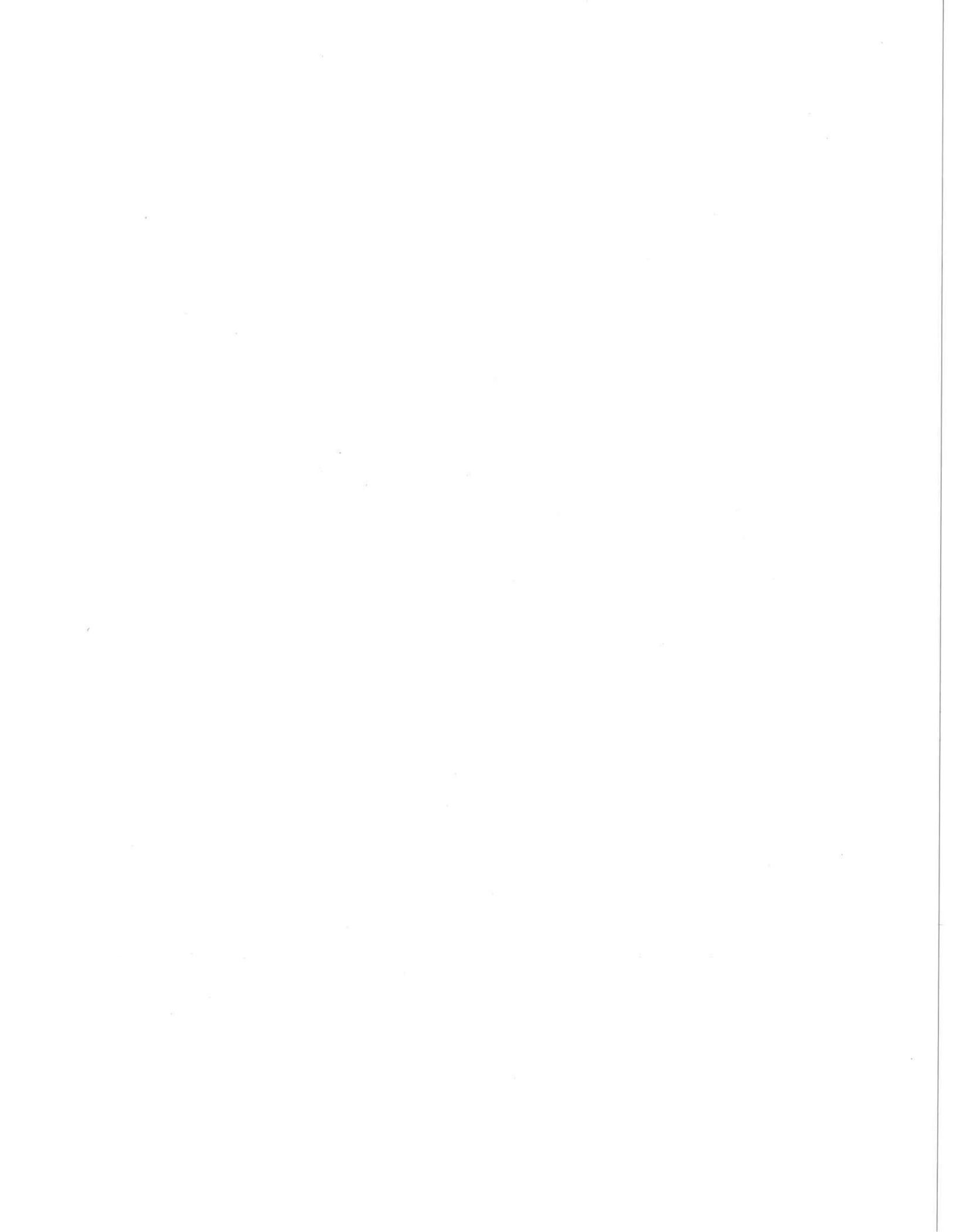
**NOTE: Applicants must submit all project revisions and modifications to both agencies.**

The Corps will coordinate review of all PCN activities with federal and state agencies to ensure that the proposed activity results in no more than a minimal impact to the aquatic environment. To be eligible and subsequently authorized, an activity must meet the eligibility criteria in 2. General Permit Review Categories above and result in no more than minimal impacts to the aquatic environment as determined by the Corps in conjunction with the interagency review team which consists of federal and state resource agencies. 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.

**Written approval from the Corps for PCN activities is required before work can commence.**

**Emergency Situation Procedures:** 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." Notification to the Corps and CT DEEP – IWRD is required. The Corps will determine if a project qualifies as an emergency and will work with all applicable agencies to expedite authorization in emergency situations. If the project qualifies as an emergency, authorization under Self-verification or PCN of the GPs is not required.

**Individual Permit Procedures:** Work that is NOT eligible under PCN as defined in the attached **Appendix A** – General Permits, or that does not meet the terms and conditions of the GPs, will require review under the Corps Individual Permit procedures (see 33 CFR Part 325.1). The applicant shall submit the appropriate application materials (including the Corps ENG 4345 application form) to the Corps of Engineers. General information and application forms can be obtained at the Corps web site noted in Paragraph 3 above. An individual Water Quality Certification is required from the CT DEEP, IWRD before Corps' permit issuance. **The application form and instructions for Section 401 Water Quality Certification are available from the Connecticut DEEP web site at [http://www.ct.gov/deep/cwp/view.asp?a=2709&q=324168&depNav\\_GID=1643](http://www.ct.gov/deep/cwp/view.asp?a=2709&q=324168&depNav_GID=1643).**



**SECTION 2:**  
**REVIEW CATEGORIES & APPLICATION PROCEDURES FOR PROJECTS WITHIN  
TIDAL, COASTAL AND NAVIGABLE WATERS WITHIN THE STATE OF  
CONNECTICUT**

Connecticut's coastal area is statutorily defined as: all lands and waters within the municipalities of Greenwich, Stamford, Darien, Norwalk, Westport, Fairfield, Bridgeport, Stratford, Shelton, Milford, Borough of Woodmont, Orange, West Haven, New Haven, Hamden, North Haven, East Haven, Branford, Guilford, Madison, Clinton, Westbrook, Deep River, Chester, Essex, Borough of Fenwick, Old Saybrook, Lyme, Old Lyme, East Lyme, Waterford, New London, Montville, Norwich, Preston, Ledyard, Groton (city, Town and Long Point Borough), Mystic and Stonington (Town & Borough) [Section 22a-94(a) CGS].

**Navigable Waters:** Navigable waters of the United States 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]

**I. ACTIVITIES COVERED:**

- 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. (Regulated by the Corps 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 the Corps under Section 404 of the Clean Water Act (CWA)
- The transportation of dredged material for the purpose of disposal in the ocean. The Corps regulates these activities under §103 of the Marine Protection, Research and Sanctuaries Act. See 33 CFR 324.

**II. REVIEW PROCESS:**

**1. Connecticut Department of Energy & Environmental Protection, Office of Long Island Sound Programs (DEEP OLISP) approvals:**

In order for authorizations under these GPs to be valid and before commencing any work within Corps jurisdiction, applicants are responsible for applying for and obtaining any of the following required State or local approvals (see **General Condition 1**):

**Water Quality Certification (WQC)** Issuance or waiver under Section 401 of the Federal CWA (33 USC Section 1341). Section 401(a)(1) of the Clean Water Act 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 Consistency (CZM)** - 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 OLISP that the activity complies with the state's CZM program for activities affecting a state's Coastal Area.

Project proponents involving dredging/excavation and associated disposal within the Byram River must also coordinate with NY DOS directly to obtain a certification or waiver that the activity complies with NYDOS' CZM program. Also, all projects with disposal at any of the Long Island Sound Disposal Sites require NY DOS CZM consistency. Additional information can be found at their website: <http://www.dos.ny.gov/opd/programs/consistency/>.

## **2. Corps Authorizations**

**a. Self-Verification (SV) – No application or Appendix E is required to be submitted to the Corps by the applicant.** However, DEEP OLISP will forward copies of application packages and their approvals to the Corps on a weekly basis. If the Corps determines that a project meets this category, the Corps will forward verification of eligibility to the applicant.

### **Eligibility Criteria**

Activities in Connecticut and lands located within the exterior 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 non-reporting in **Appendix A – General Permits**, and
- meet the General Conditions of the GPs

**Note:** Activities subject to Corps jurisdiction that are NOT regulated by the DEEP OLISP will be subject to the Preconstruction 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, the Endangered Species Act (ESA) and the Wild and Scenic Rivers Act. 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.

### **b. Preconstruction Notification (PCN) (notification/application and written authorization required)**

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

### **Eligibility Criteria**

Activities in Connecticut and lands located within the exterior 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
- meet the General Conditions of the GPs

### **3. Applying for authorization through the PCN process:**

#### **a. CT DEEP, OLISP regulated activities**

Structures and Dredging Permit Applications: Applicants/agents shall submit to the Corps, a copy of the DEEP Permit Consultation Form for U.S. Army Corps of Engineers Review along with project plans. The Corps will then coordinate this information with the interagency review team (see paragraph 4 below) and then return the form to applicants/agents for their submission to DEEP OLISP.

Certificates of Permission (COPs), General Permits (GPs) and Modifications: OLISP will forward copies of application packages and approvals to the Corps. 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.

**NOTE:** For projects which involve dredging and open water disposal - Applicants/agents must submit requests for sampling plans to the DEEP, OLISP and the Corps simultaneously, as well as 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 <http://nyswaterfronts.com/downloads/pdfs/fcaf2.pdf>. Please see our website at <http://www.nae.usace.army.mil/Regulatory/> for a list of all required additional information.

#### **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](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, the State of Connecticut Department of Energy & Environmental Protection's (CT DEEP) Boating Division, Marine Fisheries Division, Office of Long Island Sound Programs (OLISP), 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, OLISP with input from the CT DEEP Boating and Marine Fisheries Divisions. Screening will also initiate review of the application by the CT DEEP OLISP for Coastal Zone Management consistency concurrence. The CT DEEP OLISP 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 (interagency review team), 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, OLISP authorizations are granted.

**Emergency Situation Procedures:** 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.” Notification to the Corps is required. The Corps will determine if a project qualifies as an emergency and will work with all applicable agencies to expedite authorization in emergency situations. If the project qualifies as an emergency, authorization under these General Permits is not required.

**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 the appropriate application form and materials at the earliest possible date. General information and application forms 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.

## APPENDIX A – GENERAL PERMITS

### **GP 1. AIDS TO NAVIGATION & TEMPORARY RECREATIONAL STRUCTURES (Section 10; navigable waters of the United States)**

The placement of aids to navigation and regulatory markers which are approved by and installed in accordance with the requirements of the U.S. Coast Guard (see 33 CFR, chapter I, subchapter C, part 66)

#### **Self-Verification (SV) Eligible**

Aids to navigation and regulatory markers that are not located within Corps Federal Navigation Projects (FNPs)

Temporary buoys, markers, floats, etc. for recreational use during specific events, provided they are not located within Corps FNPs **and** are removed within 30 days after use is discontinued

No structures in SAV.

#### **Preconstruction Notification (PCN) Eligible**

Work not eligible for SV

Aids to navigation or temporary markers, floats, etc. that are within a Corps FNP

Temporary markers, floats, etc. that are not to be removed within 30 days

**GP 2. REPAIR OR MAINTENANCE OF EXISTING CURRENTLY SERVICEABLE, AUTHORIZED OR GRANDFATHERED STRUCTURES & FILLS, REMOVAL OF STRUCTURES (Section 10 & 404; tidal and non-tidal waters of the U.S.)** 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, 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, requirements of other regulatory agencies, or current construction codes or safety standards that are necessary to make the repair, rehabilitation, or replacement are authorized. Includes removal of structures and fill. **Stream, river, brook or other watercourse crossing repair/maintenance/replacement/ are not eligible under GP 2 (See GP 19)**

**Self-Verification (SV) Eligible**

Removal of previously authorized structures or fills. **NOTE:** Removal of bridge structures in navigable waters are covered under **GP 8**, if the Coast Guard issues a bridge permit.

Any stream channel modification is limited to the minimum necessary for the repair, rehabilitation, or replacement of the structure or fill; such modifications, including the removal of material from the stream channel, must be immediately adjacent to the project or within the boundaries of the structure or fill.

Appropriate measures must be taken to maintain normal downstream flows and minimize flooding to the maximum extent practicable, when temporary discharges, such as sandbag cofferdams, access fills, etc. are necessary for construction activities or dewatering of construction sites.

Temporary fills must consist of materials, and be placed in a manner, that will not be eroded by expected high flows. Temporary fills must be removed in their entirety and the affected areas returned to pre-construction elevations. The areas affected by temporary fills must be re-vegetated as appropriate.

Bulkhead replacement via installation of new bulkhead within 18" of existing bulkhead & backfill.

Work to previously approved tide gates with a Corps-approved operation and maintenance plan and tide gates not affecting the hydraulic regime.

Any bank stabilization measures not directly associated with the structure will require a separate authorization under **GP 9**.

No impacts in Special Aquatic Sites (SAS).

**Preconstruction Notification (PCN) Eligible**

Work not eligible for SV

<0.5 acre of impacts in non-tidal waters and wetlands

<0.5 acre of impacts in tidal waters, <1,000 SF in tidal SAS other than vegetated shallows or <100 SF in tidal vegetated shallows

Removal of accumulated sediments and debris in the vicinity of existing structures (e.g., bridges, culverted road crossings, water intake structures, etc.) and/or the placement of new or additional riprap, minimum necessary to protect the structure.

The removal of accumulated sediment is limited to the minimum necessary to restore the waterway in the vicinity of the structure to the approximate dimensions that existed when the structure was built, but cannot extend farther than 200 feet in any direction from the structure. Excavated materials must be deposited and retained in an area that has no waters of the United States unless otherwise specifically approved by the district engineer.

Drawdown of impoundment for dam/levee repair is eligible provided it does not exceed 18 months and one growing season (April through September) and there is no permanent change in water elevation of the impoundment.

Work to previously approved tide gates without a Corps-approved operation and maintenance plan, or to tide gates affecting the hydraulic regime.

**NOTE: Some maintenance activities may not be subject to regulation under Section 404 in accordance with 33 CFR 323.4(a) (2).**

**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. **Moorings within Federal Navigation channels are not authorized by this GP.**

**Self-Verification (SV) Eligible**

**Preconstruction Notification (PCN) Eligible**

1. Private, non-commercial, non-rental, single-boat moorings and temporary moorings including moorings that facilitate construction or dredging provided:

No new moorings located in Federal anchorages;

No new moorings located in **Special Aquatic Sites (SAS)** which includes wetlands, mud flats, vegetated shallows (permanently inundated areas that support rooted aquatic vegetation such as eel grass, celery grass, and tape grass), riffle and pool complexes;

No new moorings located in shellfish beds;

Authorized by local harbormaster/town;

When existing, authorized moorings in SAS are going to be replaced, they shall be replaced with low impact mooring technology that prevents mooring chains from resting or dragging on the bottom substrate at all tides and helical anchors, or equivalent SAS protection systems.

2. Minor relocation of previously authorized moorings, provided:

Authorized by the local harbormaster/town;

Not located in SAS;

Not located in Federal anchorages.

Work not listed as eligible for SV

Moorings associated with an existing boating facility\*

Private moorings without harbormaster 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.

*\*Facilities that provide for a fee, rent, or sell mooring space, such as marinas, yacht clubs, boat clubs, boat yards, town facilities, dockominiums, etc.*

*Locating new individual moorings in SAS, including eelgrass, shall 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 and helical anchors, or equivalent SAS protection systems, where practicable. For moorings that appear to impact SAS, the Corps may require an eelgrass survey.*

**GP 4. PILE-SUPPORTED STRUCTURES & FLOATS, INCLUDING BOAT LIFTS/HOISTS & OTHER MISCELLANEOUS STRUCTURES & WORK (Section 10; navigable waters of the U.S.)** New, expansions, reconfigurations or modifications of structures for navigation access including floats and boat/float lifts. Not authorized are structures associated with a new boating facility. No fill or excavation authorized under GP 4. **Structures within Federal Navigation channels are not authorized by GP 4.**

<b>Self-Verification (SV) Eligible</b>	<b>Preconstruction Notification (PCN) Eligible</b>
<p>Private residential structures with a length limit not to exceed 40' beyond mean high water and to a depth of -4' mean low water and limited to 4' in width. Pile-supported structures/floats may not be positioned over SAS.</p> <p>Floats must be supported at least 18" above the intertidal and shallow sub-tidal substrate during all tidal cycles.</p> <p>No structures or floats can be located within the buffer zone (3x the authorized depth of the FNP) of the horizontal limits of FNPs.</p> <p>No structures or floats can extend across &gt;25% of the waterway width at mean low water.</p> <p>No new structures within 25' of property line extensions.</p> <p>No new structures or floats associated with boating facilities.</p> <p>No new pile-supported structures within Shellfish Concentration Areas as designated by the Connecticut Department of Environmental Protection, Coastal Area Management Program under CGS Sec. 22a-90</p> <p>Reconfiguration of existing authorized structures; private or commercial, provided those structures do not extend beyond the existing perimeter of the facility or encroach into SAS.</p>	<p>Work not eligible for SV</p> <p>New structures within an existing boating facility* provided those structures do not extend beyond the existing perimeter of the facility.</p> <p>Structures or work in or affecting tidal or navigable waters that are not defined under any other GP activity.</p> <p><i>*Facilities that provide for a fee, rent, or sell mooring space, such as marinas, yacht clubs, boat clubs, boat yards, town facilities, dockminiums, etc.</i></p>

**GP 5. BOAT RAMPS AND MARINE RAILWAYS (Sections 10 and 404; tidal and non-tidal waters of the U.S.)**

Activities required for the construction of boat ramps and marine railways, including excavation and fill.

Not authorized are under **GP 5**: a) permanent impacts that are >1 acre in non-tidal waters and wetlands, >½ acre in tidal waters, >1000 SF in tidal SAS other than vegetated shallows, or >100 SF in tidal vegetated shallows; and b) dredging in navigable waters of the U.S. (see **GP 7**)

<b>Self-Verification (SV) Eligible</b>	<b>Preconstruction Notification (PCN) Eligible</b>
<p>Activity not allowed in tidal waters of the United States.</p> <p>≤5,000 SF of inland waterway and/or inland wetland fill (permanent and temporary).</p> <p>No work April 1 through June 30 in non-tidal waters that support diadromous fish species.</p>	<p>Work not eligible for SV</p> <p>Work occurs in navigable waters of the United States</p> <p>Boat ramps are located within 25 feet of property line extensions unless the properties are owned by the same owner. If so, the Corps may require a letter of no objection from the abutter(s).</p> <p>Permanent and temporary impacts are:</p> <p>&gt;5000 SF to ≤1 acre in non-tidal waters and inland wetlands</p> <p>≤1/2 acre in tidal waters</p> <p>≤1,000 SF in tidal SAS other than vegetated shallows</p> <p>≤100 SF in tidal vegetated shallows</p>

**GP 6. UTILITY LINE ACTIVITIES (Sections 10 & 404; tidal & non-tidal waters of the U.S.)** Activities required for (a) The construction, maintenance, relocation, repair, & removal of utility lines, including outfall and intake structures, and the associated excavation, backfill, or bedding for utility lines; (b) The construction, maintain or expansion of utility line substation facilities associated w/ a power/utility line in non-tidal waters; and (c) The construction and maintenance of foundations for overhead utility line towers, poles, and anchors provided the foundations are the minimum size necessary and separate footings for each tower leg (rather than a larger single pad) are used where feasible. This GP authorizes the construction of access roads to facilitate construction of the above activities provided the activity, in combination with all other activities included in one single and complete project, does not cause the permanent loss of great than 1 acre of non-tidal waters of the U.S. Impacts resulting from mechanized pushing, dragging or other similar activities that redeposit excavated soil material shall be figured into the area limit determination.

**GP 6** does not authorize blasting or storage of equipment in wetlands.

<b>Self-Verification (SV) Eligible</b>	<b>Preconstruction Notification (PCN) Eligible</b>
<p>No work in tidal waters</p> <p>No outfalls.</p> <p>≤5,000 square feet SF of inland waterway and/or inland wetland fill (permanent and temporary).</p> <p>Temporary fills necessary to conduct the utility line activity are also allowed, provided the utility line activity is <b>within</b> Corps jurisdiction. Material resulting from trench excavation may be temporarily sidecasted into waters of the United States for no more than three months, provided the material is not placed in such a manner that it is dispersed by currents or other forces. If the utility line activity is not within Corps jurisdiction then see <b>GP 21</b> for temporary fills, etc.</p> <p>Intake structures that are dry hydrants used exclusively for firefighting activities with no stream impoundments</p> <p>No silt producing activities from April 1 through June 30 in non-tidal waters that support diadromous fish species.</p> <p><b>NOTE:</b> Construction mats of any area necessary to conduct activities do not count towards the 5,000 s.f. threshold and should be removed as soon as work is completed.</p>	<p>Work not eligible for SV.</p> <p>Overhead utility lines constructed over Section 10 waters and submarine utility lines that are routed in or under such waters.</p> <p>Permanent and temporary fill &gt; 5,000 SF to ≤1 acre of inland waterway and/or wetlands.</p> <p>Permanent and temporary impacts ≤1/2 acre in tidal waters, ≤1000 SF in tidal SAS other than vegetated shallows, or ≤100 SF in tidal vegetated shallows.</p> <p><b>NOTE:</b> Construction mats of any area necessary to conduct activities do not count towards the 1 acre threshold and should be removed as soon as work is completed.</p>

**GP 7. DREDGING (Section 10; navigable waters of the U.S.), DISPOSAL OF DREDGED MATERIAL (Sections 10, 404 & 103; tidal waters of the U.S.), BEACH NOURISHMENT (Sections 10 & 404; tidal and non-tidal waters of the U.S.); ROCK REMOVAL (Section 10, navigable waters of the U.S.) and ROCK RELOCATION (Sections 10 & 404; tidal and non-tidal waters of the U.S.)** New dredging 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 the Corps finds the dredged material to be suitable for such disposal; (b) Beach nourishment not associated with dredging; (c) Rock removal and relocation for navigation. **GP 7** does not authorize blasting. **GP 7** does not authorize new dredging where the primary purpose is sand mining for beach nourishment.

<b>Self-Verification (SV) Eligible</b>	<b>Preconstruction Notification (PCN) Eligible</b>
<p>Maintenance dredging (with any amount of yardage) provided:</p> <ul style="list-style-type: none"> <li>Contained upland disposal</li> <li>Proper siltation controls used &amp; maintained to prevent runback into waterway/wetland</li> <li>No impacts to SAS, intertidal areas or shellfish beds</li> <li>Not located within 100' of vegetated shallows or shellfish areas.</li> <li>No work in the Connecticut River</li> <li>Work occurs from October 1 through January 15.</li> </ul> <p>Rock/boulder relocation:</p> <ul style="list-style-type: none"> <li>&lt;200 sf with no impacts to SAS</li> </ul> <p>No rock removal.</p>	<p>Work not eligible for SV.</p> <p>Maintenance or improvement dredging (any amount) and new dredging <math>\leq 1/2</math> acre provided:</p> <ul style="list-style-type: none"> <li>&lt;1,000 SF of impacts to intertidal areas; &lt;1,000 SF of impacts to tidal SAS, other than vegetated shallows or &lt; 100 SF of impacts to vegetated shallows.</li> </ul> <p>Disposal options include upland disposal, open water disposal, confined aquatic disposal cells (CAD cells), near-shore disposal or beach nourishment.</p> <p>Beach nourishment &lt;1,000 sf of impacts to tidal SAS other than vegetated shallows or &lt;100 sf of impacts to vegetated shallows.</p>

**GP 8. DISCHARGES OF DREDGED OR FILL MATERIAL INCIDENTAL TO THE CONSTRUCTION OF BRIDGES (Sections 10 & 404; navigable waters of the U.S.)**

Discharges of dredged or fill material incidental to the construction and modification of bridges across navigable waters of the U.S., including cofferdams abutments, foundation seals, piers, and temporary construction and access fills **provided that the USCG authorizes the construction of the bridge structure under Section 9 of the Rivers and Harbors Act of 1899 or other applicable laws.** A USCG Authorization Act Exemption or a STURRA (144h) exemption do not constitute USCG authorization.

**Self-Verification (SV) Eligible**

No new or previously unauthorized fills other than discharges of dredged or fill material incidental to the construction of bridges across navigable waters of the U.S., including cofferdams, abutments, foundation seals, piers, and temporary construction and access fills provided the U.S. Coast Guard issues a bridge permit or appropriate approval.

No fill in SAS

No fill in the Connecticut River

**Preconstruction Notification (PCN) Eligible**

Work not listed as eligible for SV

Causeways and approach fills.

**GP 9. SHORELINE AND BANK STABILIZATION PROJECTS (Sections 10 & 404; tidal and non-tidal waters of the U.S.)** Bank stabilization activities necessary for erosion protection along the banks of lakes, ponds, streams, estuarine and ocean waters, and any other open waters. Includes bulkheads, seawalls, riprap, revetments/slope protection and similar structures as well as vegetative planting, soil bioengineering or alternative techniques that are a combination of the two (e.g. living shorelines), specifically for the purpose of shoreline protection. Stream channelization activities; or breakwaters, groins and jetties are not authorized under this GP.

<b>Self-Verification (SV) Eligible</b>	<b>Preconstruction Notification (PCN) Eligible</b>
<p>Shoreline &amp; bank stabilization projects <math>\leq 200</math> linear feet (includes total for more than one stream bank) provided:</p> <p><math>\leq 1</math> cubic yard of fill per linear foot placed between the high tide line (HTL) and mean low water (MLW) provided no discharge of fill material within SAS, including mudflats, tidal wetlands, SAV and/or shellfish beds.</p> <p>Soft stabilization measures such as bioengineered fiber roll revetments or equivalent, shall be used wherever practicable.</p> <p>No vertical stone structures or embankments angled steeper than 1H:1V. No new bulkheads.</p> <p><math>\leq 1</math> cubic yard of fill per linear foot placed waterward of ordinary high water (OHW) or high tide line (HTL)</p> <p>No fill within the streambed beyond the toe of slope of the stream bank</p> <p>Unconfined work, including installation and removal of cofferdams, is limited to June 30 through September 30 in non-tidal waters supporting diadromous fish.</p> <p>Unconfined work, including installation and removal of cofferdams in other non-tidal waters is limited to the low-flow period June 1 through September 30.</p> <p>Work occurring behind a cofferdam may occur at any time.</p>	<p>Work not eligible for SV.</p> <p>Shoreline &amp; bank stabilization projects <math>&gt; 200</math> feet in length to <math>\leq 500</math> feet in length (includes total for more than one stream bank and/or coastal shoreline)</p> <p>The slope of the structure is steeper than 1V:3H in lakes/ponds; and 1V:1H in non-tidal streams and tidal waters and streams.</p> <p>Fill waterward of the HTL in coastal waters including alternative stabilization techniques that are a combination of soft and hard shoreline stabilization techniques that will affect SAS, change the natural shoreline configuration or alter natural or ecological processes.</p> <p>No materials of any type, or is placed in any location, or in any manner, that will impair surface water flow into or out of any waters of the United States.</p>

**GP 10. AQUATIC HABITAT RESTORATION, ESTABLISHMENT & ENHANCEMENT**

**ACTIVITIES (Sections 10 and 404; tidal and non-tidal waters of the U.S.)** Activities in waters of the United States associated with the restoration, enhancement and establishment of non-tidal and tidal wetlands and riparian areas, including invasive, non-native or nuisance species control; the restoration and enhancement of non-tidal streams and other non-tidal open waters; the relocation of non-tidal waters, including non-tidal streams & associated wetlands for reestablishment of a natural stream morphology and reconnection of the floodplain; the restoration and enhancement of shellfish, finfish and wildlife; and the rehabilitation or enhancement of tidal streams, tidal wetlands and tidal open waters; provided those activities result in net increases in aquatic resource functions and services. Conversions of wetlands to open water are not allowed except for the excavation of new salt pannes. Artificial reefs are not eligible under **GP 10**.

**Self-Verification (SV) Eligible**

Pro-active salt marsh restoration work for the purposes of restoring subsiding marsh surfaces and dieback areas.

No new ditching to eliminate mosquito breeding habitat

No thin layer deposition

No fill for purposes of converting marsh to upland

Placement of seed shellfish, spatted-shell or cultch in tidal waters for the restoration or enhancement of existing, publicly-managed, recreational shellfish beds provided there is no placement in or impacts to SAS and does not result in degradation of habitat for other aquatic resources.

≤5,000 square feet (SF) of inland waterway and/or inland wetland fill provided the activity is supported in writing by a local, state, or non-Corps Federal environmental resource management agency.

No stream channelization.

Add tidal limits to SV/PCN – check with Cori

**Preconstruction Notification (PCN) Eligible**

Work not eligible for SV

Aquatic habitat restoration, establishment, and enhancement of tidal wetlands and riparian areas provided those activities are proactive and result in net increases in aquatic resource functions and services as decided by the Corps in consultation with federal and state agencies, such that the net effects are beneficial.

Pro-active salt marsh restoration work that includes draining of ponded dieback areas through excavation of runnels with handheld tools or low-impact ground equipment; blocking or unclogging of historic mosquito ditches to restore tidal flushing; excavation of new salt pannes to increase shorebird and waterfowl foraging habitat and placing excavated materials on the marsh surface for establishing suitable vegetative beds.

Pond or lake reestablishment or restoration

Water impoundments

Dam removals

Integrated Marsh Management in tidal wetlands for combined wetland enhancement and mosquito control and reduction.

**GP 11. FISH & WILDLIFE HARVESTING, ENHANCEMENT AND ATTRACTION DEVICES AND ACTIVITIES (Sections 10 and 404; tidal and non-tidal waters of the U.S.)**

Activities in waters of the United States associated with fish and wildlife harvesting devices including pound nets, crab traps, crab dredging, eel pots, lobster traps, duck blinds, and clam and oyster digging, fish aggregating devices, and small fish attraction devices such as open water fish concentrators (sea kites, etc.). Impoundments or semi-impoundments of waters of the U.S. for the culture or holding of motile species such as lobster and new fish weirs with an impoundment area.

Artificial reefs are not authorized under this GP.

<b>Self-Verification (SV) Eligible</b>	<b>Preconstruction Notification (PCN) Eligible</b>
<p>Activities associated with fish and wildlife harvesting devices including pound nets, crab traps, crab dredging, eel pots, lobster traps, duck blinds, clam and oyster digging, small fish aggregating and attraction devices such as open water fish concentrators (sea kites, etc.).</p> <p>No permanent impacts to SAS, including salt marshes and SAV.</p> <p>No structures, cages or traps located in SAS.</p>	<p>Work not eligible for SV</p> <p>Impoundments or semi-impoundments of waters of the U.S. for the culture or holding of motile species such as lobster and new fish weirs with an impounded area <math>\leq 1/2</math> acre</p> <p>Devices located in tidal SAS, including salt marsh and SAV.</p> <p>Shellfish dredging, either mechanical or hydraulic in SAS.</p>

**GP 12. OIL SPILL AND HAZARDOUS MATERIAL CLEANUP (Sections 10 and 404;**

**tidal and non-tidal waters of the U.S.):** a. Activities conducted in response to a discharge or release of oil and hazardous substances that are subject to the National Oil and Hazardous Substances Pollution Contingency Plan (40 CFR 300) including containment, cleanup, and mitigation efforts, provided activities are done under either (i) The Spill Prevent, Control & Countermeasure Plan require by 40 CFR 112.3; (ii) The direction or oversight of the Federal on-site coordinator designated by 40 CFR 300; or (iii) Any approved existing State, regional or local contingency plan provided that the Regional Response Team concurs with the proposed response efforts or does not object to the response effort. b. Activities required for the cleanup of oil releases in waters of the U.S. from electrical equipment that are governed by EPA's polychlorinated biphenyl (PCB) spill response regulations at 40 CFR 761. c. Booms placed in tidal waters. d. Use of structures & fills for spill response training exercises. Special Aquatic Sites must be restored in place to pre-impact elevations.

**Self-Verification (SV) Eligible**

**Preconstruction Notification (PCN) Eligible**

1. Activities are conducted in accordance with a. or b. above;

Work not eligible for SV

2. Booms placed in navigable waters for hazardous and toxic waste containment, absorption and prevention, provided they are removed upon completion of the cleanup.

Permanent structures or impacts for spill response training exercises

3. Temporary impacts for spill response training exercises are <5,000 SF in non-tidal waters and <1,000 SF in tidal waters, and temporary structures in tidal waters with no impacts to SAS and in place for ≤30 days.

The activity is planned or scheduled, not an emergency response, and will cause turbidity or sediment resuspension in tidal waters or streams.

**Note:** For non-tidal waters of the U.S., permittees have up to two weeks following commencement of these activities to submit the Self-verification form (Appendix E)

**GP 13. CLEANUP OF HAZARDOUS AND TOXIC WASTE (Sections 10 and 404; tidal and non-tidal waters of the U.S.)** Specific activities to effect the containment, stabilization or removal of hazardous or toxic waste materials, including court ordered remedial action plans or related settlements which are performed, ordered or sponsored by a government agency with established legal or regulatory authority. Not authorized is the establishment of new disposal sites or the expansion of existing sites used for the disposal of hazardous or toxic waste. Special Aquatic Sites must be restored in place to pre-impact elevations.

**Self-Verification (SV) Eligible**

**Preconstruction Notification (PCN) Eligible**

Permanent and temporary impacts are  $\leq 5,000$  SF in non-tidal waters and inland wetlands

Work not eligible for SV

Booms placed in navigable waters for oil and hazardous substance containment, absorption and prevention, provided they are removed upon completion of the cleanup.

Permanent and temporary impacts are  $> 5,000$  SF in non-tidal waters and wetlands

**Notes:**

Work in navigable waters of the U.S. other than booms placed for hazardous and toxic waste containment, absorption and prevention.

1. Activities undertaken entirely on a Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) site by authority of CERCLA as approved or required by EPA, are not required to obtain permits under Section 404 of the CWA or Section 10 of the Rivers and Harbors Act.

2. For non-tidal waters of the U.S., permittees have up to two weeks following commencement of these activities to submit the Self-verification form (Appendix E)

**GP 14. SCIENTIFIC MEASUREMENT DEVICES (Sections 10 and 404; tidal and non-tidal waters of the U.S.)** Scientific devices for measuring and recording scientific data, such as staff gauges, tide and current gauges, meteorological stations, water recording and biological observation devices, water quality testing and improvement devices, and similar structures. Also eligible are small temporary weirs and flumes constructed primarily to record water quantity and velocity are also authorized provided the discharge is less than 25 cubic yards. Upon completion of the use of the device to measure and record scientific data, the measuring device and any other structures or fills associated with that device (e.g., foundations, anchors, buoys, lines, etc.) must be removed to the maximum extent practicable.

<b>Self-Verification (SV) Eligible</b>	<b>Preconstruction Notification (PCN) Eligible</b>
<p>Permanent and temporary impacts are <math>\leq 1,000</math> SF in non-tidal waters and wetlands.</p> <p>Permanent and temporary impacts in non-SAV tidal SAS with impacts <math>\leq 100</math> s.f.</p> <p>Devices in tidal waters that do not restrict movement of aquatic organisms and will not adversely affect the course, condition or capacity of a waterway.</p> <p>No impacts in tidal SAV</p>	<p>Work not eligible for SV</p> <p>Impacts <math>&gt; 1,000</math> SF to <math>&lt; 1</math> acre in non-tidal wetlands</p> <p>Impacts <math>&gt; 100</math> s.f. to <math>&lt; \frac{1}{2}</math> acre in SAS</p> <p>Impacts occur in tidal SAV</p>

**GP 15. SURVEY ACTIVITIES (Sections 10 and 404; tidal and non-tidal waters of the U.S.)** Survey activities such as soil borings, core sampling, seismic exploratory operations, plugging of seismic shot holes and other exploratory-type bore holes, exploratory trenching and historic resources surveys.

<b>Self-Verification (SV) Eligible</b>	<b>Preconstruction Notification (PCN) Eligible</b>
<p>Permanent and temporary impacts <math>\leq 5,000</math> SF in non-tidal waters and wetlands.</p> <p>No impacts, other than soil borings or core sampling, in tidal waters</p> <p>No permanent structures or drilling and discharge of excavated material from test wells for oil and gas exploration allowed.</p> <p><b>NOTE:</b> Construction mats of any area necessary to conduct activities do not count towards the 5,000 s.f. threshold and should be removed as soon as work is completed.</p>	<p>Work not eligible for SV</p> <p>Permanent and temporary impacts <math>&gt; 5,000</math> SF to <math>&lt; 1</math> acre in non-tidal waters and inland wetlands</p> <p>Permanent and temporary impacts <math>\leq \frac{1}{2}</math> acre in tidal waters</p> <p>Permanent and temporary impacts <math>\leq 100</math> sf tidal SAV and <math>\leq 1,000</math> sf in tidal SAS</p> <p><b>NOTE:</b> Construction mats of any area necessary to conduct activities do not count towards the 1 acre threshold and should be removed as soon as work is completed.</p>
<p><b>NOTE:</b> For the purposes of this GP, the term “exploratory trenching” means mechanical land clearing of the upper soil profile to expose bedrock or substrate, for the purpose of mapping or sampling the exposed material. The area in which the exploratory trench is dug must be restored to its preconstruction elevation upon completion of the work and must not drain a water of the United States. In wetlands, the top 6 to 12 inches of the trench should normally be backfilled with topsoil from the trench.</p>	

**GP 16. AQUACULTURE PROJECTS AND FISHERIES (Sections 10 and 404, navigable waters of the US)** No shellfish dredging, including mechanical or hydraulic in SAS, including SAV, no placement of cultch in beds of SAV. Depth of cultch or spatted-shell limited to the minimum necessary for full coverage of the framed bed bottom & must not result in visible degradation of habitat for other aquatic resources. All structures must be permitted by State of Connecticut Navigation Safety/Boating Access Unit and marked in conformance with applicable State or U.S. Coast Guard Aids to Navigation.

**NOTE: All facilities must be installed and operated in compliance with the attached Appendix C Aquaculture Conditions**

**Self-Verification (SV) Eligible**

**Preconstruction Notification (PCN) Eligible**

Placement of seed shellfish, spatted-shell or cultch for commercial shellfish aquaculture on leased grounds when performed in compliance with the conditions in Section 5 h. of the CT DEEP General Permit for Coastal Maintenance (DEEP-OLISP-GP-2015-02).

The placement of aids to navigation and regulatory markers to demarcate gear areas when approved by and installed in accordance with the requirements of the U.S. Coast Guard (see 33 CFR, chapter I, subchapter C, part 66).

The installation of temporary (< six months) structures for research, educational or experimental aquaculture gear impacting  $\leq 1,000$  SF for indigenous species under the direct supervision of the Dept. of Agricultural, Bureau of Aquaculture provided there is no adverse effect to navigation.

Suspended cages or nets located wholly below and within the footprint of an existing authorized fixed or floating structure provided there is a vertical clearance of at least 2 feet between the bottom of the gear and the sea floor at mean low water.

Work not eligible for SV.

Vertical-drop longlines for the culture of shellfish or other marine organisms, such as kelp and seaweed.

Cages, trays, racks, netting or other structures on the ocean bottom or floating on the water surface for the rearing or depuration of cultured shellfish.

Installation of intake and discharge structures for a land-based hatchery.

Research, educational or experimental aquaculture gear for indigenous species that exceed  $>1,000$  SF.

Shellfish dredging, either mechanical or hydraulic in SAS.

Activities that involve a change from authorized gear for bottom culture to floating or suspended gear.

**GP 17. NEW/EXPANDED DEVELOPMENTS & RECREATIONAL FACILITIES**

**(Section 404, non-tidal waters of the U.S.)** Discharges of dredged or fill material for the construction or expansion of developments and/or recreational facilities. Fill area includes all temporary and permanent fill, and regulated discharges associated with excavation. Note: For residential subdivisions, the aggregate total loss of waters authorized by GP 17 cannot exceed one acre. This includes all impacts to waters of the United States associated with the development of individual subdivision lots.

<b>Self-Verification (SV) Eligible</b>	<b>Preconstruction Notification (PCN) Eligible</b>
<p>Permanent and temporary impacts <math>\leq 5,000</math> SF of inland waterway and/or wetland provided:</p> <p>No impacts to SAS other than wetlands (e.g. riffle and pool stream habitat, shellfish beds).</p> <p><b>NOTE:</b> Construction mats of any area necessary to conduct activities do not count towards the 5,000 s.f. threshold and should be removed as soon as work is completed.</p>	<p>Work not eligible for SV</p> <p>Permanent and temporary impacts are <math>&gt;5,000</math> SF to <math>&lt;1</math> acre in non-tidal waters and inland wetlands</p> <p>Permanent and temporary impacts are <math>\leq 1/2</math> acre in non-tidal SAS other than wetlands</p> <p><b>NOTE:</b> Construction mats of any area necessary to conduct activities do not count towards the 1 acre threshold and should be removed as soon as work is completed.</p>

**GP 18. LINEAR TRANSPORTATION PROJECTS – WETLAND CROSSINGS ONLY**

**(Section 404, non-tidal waters of the U.S.)** Activities required for the construction, expansion, modification, or improvement of linear transportation projects (e.g., driveways, roads, highways, railways, trails, airport runways, and taxiways) and attendant features. See GP 19 for Stream, River, & Brook Crossing activities

**Self-Verification (SV) Eligible**

Permanent and temporary impacts  $\leq 5,000$  SF of inland wetland fill provided:

No work in SAS other than wetlands.

No slip lining

**NOTE:** Construction mats of any area necessary to conduct activities do not count towards the 5,000 s.f. threshold and should be removed as soon as work is completed.

**Preconstruction Notification (PCN) Eligible**

Work not eligible for SV

Permanent and temporary impacts  $> 5,000$  SF to  $< 1$  acre of inland wetland

**NOTE:** Construction mats of any area necessary to conduct activities do not count towards the 1 acre threshold and should be removed as soon as work is completed.

**GP 19. STREAM, RIVER & BROOK CROSSINGS (NOT INCLUDING WETLAND CROSSINGS) (Sections 10 and 404; tidal and non-tidal waters of the U.S.)** Activities required for the construction, expansion, modification, or improvement of linear transportation projects (e.g., driveways, roads, highways, railways, trails, airport runways, and taxiways) and attendant features.

<b>Self-Verification (SV) Eligible</b>	<b>Preconstruction Notification (PCN) Eligible</b>
<p>Permanent and temporary impacts ≤5,000 SF of inland waterway and/or inland wetland provided:</p> <p>No work in SAS other than wetlands.</p> <p>River, stream and brook work and crossings provided:</p> <p>No slip lining.</p> <p>No open trench excavation in flowing waters.</p> <p>Unconfined, in-stream work limited to the low-flow period, June 1 through September 30.</p> <p>No stream relocations.</p> <p>No dams or dikes.</p> <p>No new culvert crossings of perennial streams.</p> <p><b>NOTE:</b></p> <p>1. Construction mats of any area necessary to conduct activities do not count towards the 5,000 s.f. threshold and should be removed as soon as work is completed.</p> <p>2. Work shall be performed in accordance with Stream Crossing Best Management Practices - See Appendix G.</p>	<p>Work not eligible for SV</p> <p>Permanent and temporary impacts &gt;5,000 square feet (SF) to &lt;1 acre of inland waterway and/or inland wetland</p> <p>Permanent impacts &lt;1/2 acre in tidal waters of the U.S.; &lt;1000 SF in tidal SAS other than vegetated shallows, or &lt;100 SF in tidal vegetated shallows.</p> <p>Temporary impacts &lt;1 acre in tidal waters of the U.S.; &lt;5,000SF in tidal SAS other than vegetated shallows, or &lt;1,000 SF in vegetated shallows</p> <p>Installation of new permanent culvert crossings of perennial streams.</p> <p><b>NOTE:</b> Construction mats of any area necessary to conduct activities do not count towards the 1 acre threshold and should be removed as soon as work is completed.</p>

**GP 20. ENERGY GENERATION & RENEWABLE ENERGY GENERATION FACILITIES (Sections 10 and 404; tidal and non-tidal waters of the U.S.) and HYDROPOWER PROJECTS (Section 404; tidal and non-tidal waters of the U.S.)**

Structures and work in navigable waters of the U.S. and discharges of dredged or fill material into tidal and non-tidal waters of the U.S. for the construction, expansion, modification or removal of:

- (a) Land-based renewable energy production facilities, including attendant features;
- (b) Water-based wind or hydrokinetic renewable energy generation pilot projects and their attendant features; and
- (c) Discharges of dredged or fill material associated with hydropower projects.

Attendant features may include, but are not limited to, land-based collection and distribution facilities, control facilities, and parking lots. For each single and complete project in (b) above, no more than 10 generation units (e.g., wind turbines or hydrokinetic devices) are authorized in navigable waters of the U.S.

**Self-Verification (SV) Eligible**

**Preconstruction Notification (PCN) Eligible**

*For land-based facilities:*

Permanent and temporary impacts  $\leq 5,000$  SF of inland waterway and/or inland wetland provided:

No stream channelization, relocation or loss of streambed including impoundments

No new water-based wind or hydrokinetic renewable energy generation pilot projects, and hydropower projects are eligible.

No fill in tidal waters or SAS.

**NOTE:** Construction mats of any area necessary to conduct activities do not count towards the 5,000 s.f. threshold and should be removed as soon as work is completed.

Work not eligible for SV

*For land-based facilities, impacts are:*

Permanent and temporary impacts  $> 5,000$  SF to  $\leq 1$  acre in non-tidal waters and inland wetlands, or located in non-tidal SAS other than non-tidal wetlands; or

Permanent impacts  $\leq 1/2$  acre in tidal waters; or  $\leq 100$  SF in tidal vegetated shallows or  $\leq 1,000$  SF in other tidal SAS;

Temporary impacts  $\leq 1$  acre in tidal waters;  $\leq 1,000$  SF in vegetated shallows and  $\leq 5,000$  SF in other tidal SAS

Stream channelization, relocation or loss of streambed including impoundments may occur.

*For water-based wind or hydrokinetic renewable energy generation pilot projects, and hydropower projects permanent and temporary impacts are:*

$> 5,000$  SF to  $\leq 1$  acre in non-tidal waters and wetlands, or

$\leq 1/2$  acre in tidal waters

**NOTE:** Construction mats of any area necessary to conduct activities do not count towards the 1 acre threshold and should be removed as soon as work is completed.

**GP 21. MINING ACTIVITIES (Section 404; non-tidal waters of the U.S.)**

Discharges of dredged or fill material into non-tidal waters and wetlands for mining activities, except for coal mining activities

<b>Self-Verification (SV) Eligible</b>	<b>Preconstruction Notification (PCN) Eligible</b>
<p>Permanent and temporary impacts <math>\leq</math>5,000 SF of inland waterway and/or inland wetland provided:</p> <p>No stream channelization, relocation or loss of streambed including impoundments, or discharge of tailings into streams</p> <p><b>NOTE:</b> Construction mats of any area necessary to conduct activities do not count towards the 5,000 s.f. threshold and should be removed as soon as work is completed.</p>	<p>Work not eligible for SV</p> <p>Permanent and Temporary impacts are: &gt;5,000 SF to <math>\leq</math>1 acre in non-tidal waters and inland wetland or in SAS other than non-tidal wetlands</p> <p>Stream channelization, relocation or loss of streambed including impoundments, or discharge of tailings into streams occurs</p> <p><b>NOTE:</b> Construction mats of any area necessary to conduct activities do not count towards the 1 acre threshold and should be removed as soon as work is completed.</p>

**GP 22. TEMPORARY FILL NOT ASSOCIATED WITH ANY OTHER GPs (Section 404, non-tidal waters of the U.S.)** Temporary discharges, such as sandbag/earth cofferdams, access fills, etc., necessary for construction activities or dewatering of construction sites.

**Self-Verification (SV) Eligible**

**Preconstruction Notification (PCN) Eligible**

Temporary impacts  $\leq 5,000$  SF of temporary inland waterway and/or inland wetland.

**NOTE:** Construction mats of any area necessary to conduct activities do not count towards the 5,000 s.f. threshold and should be removed as soon as work is completed.

Work not eligible for SV

Temporary impacts  $> 5,000$  SF to  $\leq 1$  acre of inland waterway and/or inland wetland fill.

**NOTE:** Construction mats of any area necessary to conduct activities do not count towards the 1 acre threshold and should be removed as soon as work is completed.

Temporary fill, construction mats and corduroy roads shall be **entirely removed as soon as they are no longer needed** to construct the authorized work.

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 high flows.

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.).

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.

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

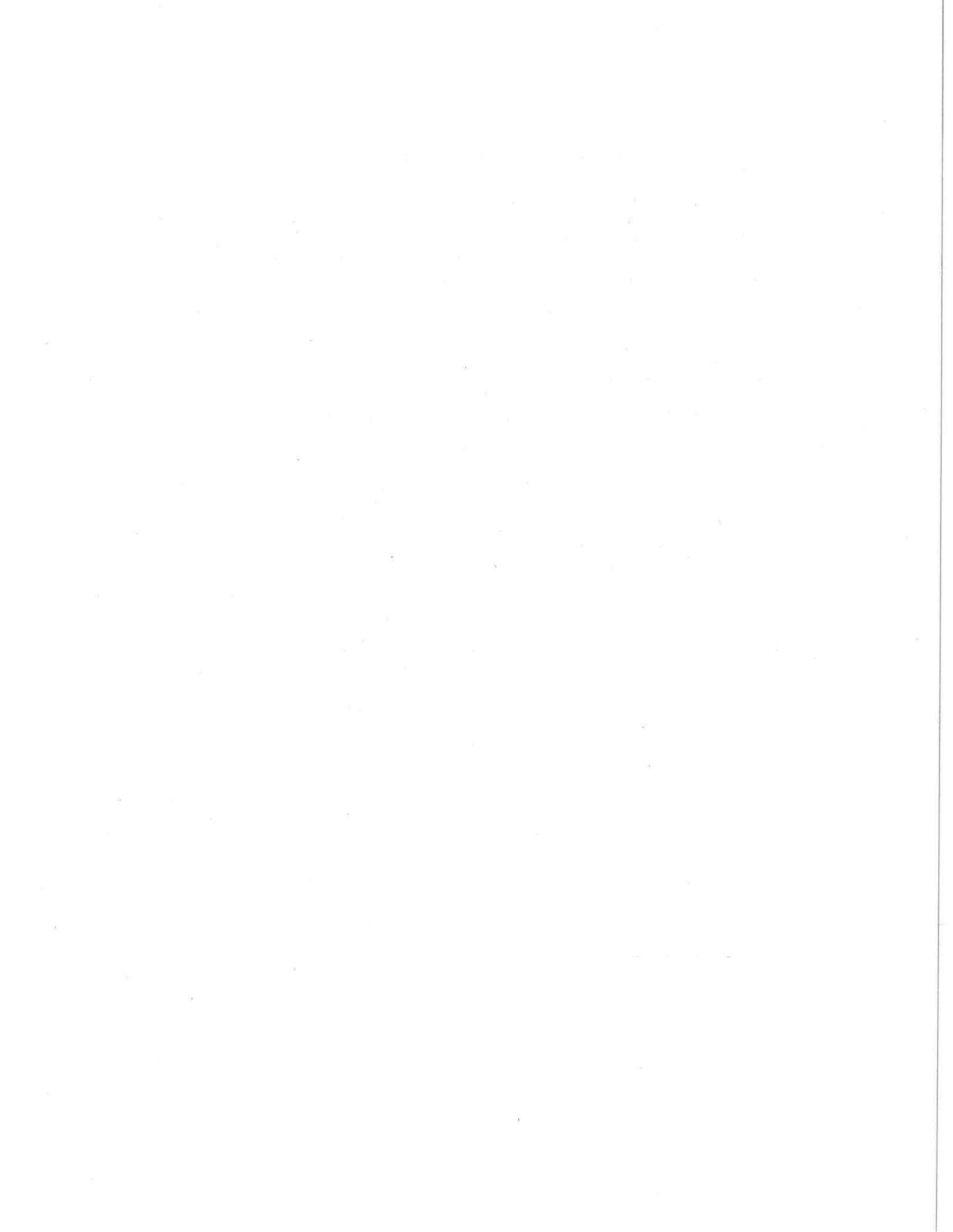
**GP 23. AGRICULTURAL ACTIVITIES (Section 404, non-tidal waters of the United States)**

Discharges of dredged or fill material in non-tidal waters of the U.S. for agricultural activities with impact to non-tidal waters and wetlands such as pads for barn/greenhouse, mechanized land clearing, land leveling and installation of drainage tiles for irrigation. Also includes the relocation or modification of existing, serviceable drainage ditches in wetlands and farm ponds for livestock, food and fiber production and horticultural nursery irrigation purposes.

**Note:** Some discharges for agricultural activities may qualify for an exemption under Section 404(f)(1) of the Clean Water Act (see 33 CFR 323.4). **GP 23** is intended to cover those agricultural discharges that do not qualify for agricultural exemption and/or are subject to the recapture provision under section 404(f)(2) of the Act.

**GP 23 Does not authorize aquaculture fish ponds in waters of the U.S. and the construction of farm ponds in perennial streams.**

<b>Self-Verification (SV) Eligible</b>	<b>Preconstruction Notification (PCN) Eligible</b>
Permanent and temporary impacts $\leq$ 5,000 SF of inland waterway and/or inland wetland	Work not eligible for SV  Work that does not qualify for exemption under Section 404(f) of the Clean water Act.  Permanent and temporary impacts are $>$ 5,000 SF to $\leq$ 1 acre in non-tidal waters and wetlands; or non-tidal SAS and other than non-tidal wetlands.  New drainage ditches in wetlands.  Stream channelization, relocation, impoundments, loss of streambed or farm ponds in non-perennial streams will occur.  The activity causes turbidity or sediment suspension in non-tidal streams



## APPENDIX B - GENERAL CONDITIONS

**1. Other Permits.** Permittees must obtain other Federal, State, or local authorizations required by law. Applicants are responsible for applying for and obtaining all required State or local approvals. Work that is not regulated by the State, but is subject to Corps jurisdiction, may be eligible for this GP.

### **2. Federal Jurisdiction.**

a. Applicability of the GPs shall be evaluated with reference to Federal jurisdictional limits. Applicants are responsible for ensuring that the limits depicted satisfy the Federal criteria defined at 33 CFR 328 “Waters of the U.S.” and 33 CFR 329 “Navigable Waters of the U.S.”

**NOTE:** Waters of the U.S. include the subcategories “navigable waters of the U.S.” and “wetlands.”

b. Pre-Construction Notification (PCN) Eligible projects require an application to the Corps which must include a delineation of wetlands, other special aquatic sites, and other waters such as lakes and ponds and perennial, intermittent, and ephemeral streams that are on the project site. Wetland delineations must be prepared in accordance with the current federal method required by the Corps. For Corps Wetland Delineation Manual, regional supplements and data sheets, and the National List of Plant Species that Occur in Wetlands, visit our website at <http://www.nae.usace.army.mil/Missions/Regulatory.aspx> and then click on “Jurisdiction and Wetlands”. The Natural Resources Conservation Service (NRCS) publishes the current hydric soil definition, criteria and lists which can be found at <http://www.nrcs.usda.gov/wps/portal/nrcs/main/soils/use/hydric/>. For the Field Indicators for Identifying Hydric Soils in New England, visit: [www.neiwpcc.org/hydricsoils.asp](http://www.neiwpcc.org/hydricsoils.asp).

**3. Minimal Effects.** Projects shall have no more than minimal direct, indirect, and secondary adverse environmental effects. Project proponents shall identify all indirect and secondary effects to the extent reasonable and practicable. All PCNs should include this information.

### **4. Mitigation (Avoidance, Minimization, and Compensatory Mitigation)**

a. Activities must 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 mitigation<sup>1</sup> for effects to waters of the U.S., including direct, secondary and temporal<sup>2</sup>, 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.

**5. Discretionary Authority.** Notwithstanding compliance with the terms and conditions of this permit, the Corps 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 the Corps 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 associated with a particular project. Whenever the Corps notifies an applicant that an Individual Permit may be

<sup>1</sup> Compensatory mitigation projects provided to offset losses of aquatic resources must comply with the applicable provisions of 33 CFR 332. See also the New England District Compensatory Mitigation Guidance at <http://www.nae.usace.army.mil/Missions/Regulatory/Mitigation.aspx>

<sup>2</sup> 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).

required, authorization under these GPs is voided and no work may be conducted until a Corps Individual Permit is obtained or until the Corps notifies the applicant that further review has demonstrated that the work may be reviewed under these GPs.

**6. Single and Complete Projects** means 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 the Corps 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. Historic Properties.**

a. No undertaking shall cause effects (defined at 33 CFR 325 Appendix C and 36 CFR 800) on properties listed on, determined to be eligible for listing on, or potentially eligible for listing on the National Register of Historic Places<sup>3</sup>, including previously unknown historic properties within the permit area, unless the Corps 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: i) previously identified historic properties; and ii) areas with potential for the presence of historic resources, which may require identification and evaluation by qualified historic preservation and/or archaeological consultants in consultation with the Corps and the SHPO and/or THPO(s).

b. For activities eligible for SV (inland projects), proponents must ensure and document that the activity will not cause effects as stated in 7(a).

c. Proponents must submit an application to the Corps if the authorized activity may cause effects as stated in 7(a) as soon as possible to ensure that the Corps is aware of any potential effects of the permitted activity on any historic property to ensure all Section 106 requirements.

d. All PCN (inland projects): i) show notification to the SHPO and applicable THPO(s)<sup>4</sup> for their identification of historic properties, ii) state which historic properties may be affected by the proposed work or include a vicinity map indicating the location of the historic properties or the potential for the presence of historic properties, and iii) include any available documentation from the SHPO or THPO(s) indicating that there are or are not historic properties 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.

<sup>3</sup> The majority of 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 the Corps and the SHPO and/or THPO(s).

<sup>4</sup> Appendix D, #3 Historic Resources, provides contact information and each tribe's "area of concern."

## 8. Corps Property and Federal Projects

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

b. 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), 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 that go beyond minor modifications required for normal operations and maintenance, is not eligible for SV and will also require review and approval by the Corps pursuant to 33 USC 408. Where Section 408 is applicable, a decision on a Department of the Army general permit application will not be rendered prior to the decision on a Section 408 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.

**10. Wild and Scenic Rivers.** No activity may occur in a component of the National Wild and Scenic River System, or in a river officially designated by Congress as a "study river" for possible inclusion in the system while the river is in an official study status, unless the appropriate Federal agency with direct management responsibility for such river, has determined in writing that the proposed activity will not adversely affect the Wild and Scenic River designation or study status. 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).

As of July 15, 2016, affected 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); and the Lower Farmington River from Canton to Windsor (study river – including its tributary Salmon Brook). Additional information can be found at: <http://www.rivers.gov/connecticut.php>

## 11. Federal Threatened and Endangered Species.

a. No activity is authorized which: a) 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 of such species; b) "may affect" a listed species or critical habitat, unless Section 7 consultation addressing the effects of the proposed activity has been completed; or c) violates the ESA.

b. An application to the Corps 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") under U.S. Fish and Wildlife Service (USFWS) jurisdiction is present in the action area<sup>5</sup>. Applicants must determine this from the Official Species List, which they must obtain from <http://ecos.fws.gov/ipac>. This USFWS IPaC website will record the request and immediately email the list to you. Include the list with all applications. (Note: An activity remains SV eligible if the Official Species List states northern long-eared bats (*Myotis septentrionalis*) are present and the activity will not cut or remove trees  $\geq 3$  inches dbh. Contact the Corps if cutting or clearing trees  $\geq 3$  inches dbh and the activity is otherwise SV eligible.)

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<sup>5</sup> The "Endangered Species Consultation Handbook – Procedures for Conducting Consultation and Conference Activities under Section 7 of the ESA," defines action area as "all areas to be affected directly or indirectly by the Federal action and not merely the immediate area involved in the action. (50 CFR 402.02)."

For listed species or habitat under NMFS jurisdiction, the Corps has determined that all work eligible for SV will have no effect on listed species or habitat; therefore project proponents are not required to check for listed species or habitat for work that is SV eligible.

c. Federal agencies should follow their own procedures for complying with the requirements of the ESA. Work may be eligible for SV if another Federal agency has satisfied the requirements of Section 7 of the ESA. Upon request, permittees must provide the Corps with the appropriate documentation to demonstrate compliance with those requirements.

## **12. Pile Driving and Removal and Related Time of Year Restrictions**

a. Derelict, degraded or abandoned piles and sheet piles in navigable waters, except for those inside of existing work footprints for piers, must be completely removed, cut and/or driven to 3 feet below the substrate to prevent interference with navigation and in some cases to remove polluting materials. Existing creosote piles in the project area that are affected by project activities should be completely removed. In areas of fine-grained substrates, piles must be removed by the direct, vibratory or clamshell pull method<sup>6</sup> to minimize turbidity and sedimentation impacts and prevent interference with navigation from cut piles. Removed piles shall be disposed of in an upland location landward of MHW or OHW and not in wetlands, tidal wetlands, their substrate or mudflats.

b. A PCN is required for all pile-driving work in designated Critical Habitat or that does not meet one of the following conditions in navigable waters of the U.S. (pile driving can generate underwater sound pressure waves that may injure, harm or kill managed fish and prey species):

i. Noise levels < 150db or pile size larger than 12"

ii. Piles are ≤12 inches in diameter. Use a soft start each day of pile driving, building up power slowly from a low energy start-up over a period of 20-40 minutes to provide adequate time for fish and marine mammals to leave the vicinity. The buildup of power should occur in uniform stages to provide a constant increase in output. Bubble curtains can be used to reduce sound pressure levels during vibratory or impact hammer pile driving; or

iii. Piles are installed between Nov 1 and March 15.

c. A PCN is required for the installation of structures with jetting techniques.

## **13. 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 must be installed and maintained at the permittee's expense on authorized facilities in navigable waters of the United States.

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

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<sup>6</sup> Direct Pull: Each piling is wrapped with a choker cable or chain that is attached at the top to a crane. The crane then pulls the piling directly upward, removing the piling from the sediment. Vibratory Pull: The vibratory hammer is a large mechanical device (5-16 tons) that is suspended from a crane by a cable. The vibrating hammer loosens the piling while the crane pulls up. Clamshell Pull: This can remove intact, broken or damaged pilings. The clamshell bucket is a hinged steel apparatus that operates like a set of steel jaws. The bucket is lowered from a crane and the jaws grasp the piling stub as the crane pulls up. The size of the clamshell bucket is minimized to reduce turbidity during piling removal.

his authorized representative, said structure or work shall cause unreasonable obstruction to the free navigation of the navigable waters, the permittee will be required, upon due notice from the Corps, to remove, relocate, or alter the structural work or obstructions caused thereby, without expense to the U.S. No claim shall be made against the U.S. on account of any such removal or alteration.

f. An application to the Corps is required for all work in, over or under an FNP or its buffer zone unless otherwise indicated in Appendix A.

**14. Federal Liability.** In issuing this permit, 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; (e) damage claims associated with any future modification, suspension, or revocation of this permit.

**15. 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 swamp 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 Corps authorization. Similarly, the permittee may request written authorization from the Corps 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 best management practices**:

- 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.

See [www.nae.usace.army.mil/missions/regulatory.aspx](http://www.nae.usace.army.mil/missions/regulatory.aspx) >> [State General Permits](#) >> Connecticut General Permit Documents for Construction Mat BMPs.

#### **16. 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 in order 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.

**17. Coastal Bank Stabilization.** Projects involving construction or reconstruction/maintenance of bank stabilization structures within Corps jurisdiction should be designed to minimize environmental effects, effects to neighboring properties, scour, etc. to the maximum extent practicable. 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 on 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. It typically has a less adverse effect on the beach in front of it, abutting properties and wildlife. For more information on this topic, go to the Corps Coastal Engineering Manual (supersedes the Shore Protection Manual), located at <http://chl.erd.c.usace.army.mil>. Select "Products/ Services," "Publications." Part 5, Chapter 7-8, a (2) c.

**18. 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 the ordinary high water mark or high tide line, must be permanently stabilized at the earliest practicable date. Permittees are encouraged to perform work within waters of the United States during periods of low-flow or no-flow, or during low tides.

**19. 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:

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

ii. 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).

**20. 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 6 months of the effective date of such revision or modification, or within a longer period of time 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).

## 21. 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 United States 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.

**22. 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 mean high water (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.

**23. 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.

## 24. Vernal Pools.

a. Only vernal pools that meet the current definition of waters of the U.S. are regulated by the Corps.

b. Direct and indirect adverse effects to all vernal pools (VPs), including their envelopes and critical terrestrial habitats (VP Management Areas), shall be avoided and minimized to the maximum extent practicable. Site clearing, grading, and construction activities associated with a regulated activity in the VP Management Area may cause these adverse effects to the VP.

c. When any regulated activities occur within 750 feet of a vernal pool, the following management practices must be followed for all work within any VP Management Area (750' of a VP's edge) *in order to qualify for SV*:

i. No disturbance within the VP Depression or VP Envelope (area within 100 feet of the VP Depression's edge)– does not apply to temporary impact associated with construction mats in previously disturbed areas of existing utility projects or linear transportation projects provided there is a Vegetation Management Plan that avoids, minimizes and mitigates impacts to aquatic resources.

ii. Maintain a minimum of 75% of the Critical Terrestrial Habitat (area within 100-750 feet of the VP Depression's edge) as unfragmented forest with at least a partly-closed canopy of overstory trees to provide shade, deep litter and woody debris;

iii. Maintain or restore forest corridors connecting wetlands and significant vernal pools;

iv. Minimize forest floor disturbance;

v. Maintain native understory vegetation and downed woody debris; and

vi. Cape Cod style-curbings or no curbing options shall be used on new roads to facilitate amphibian passage.

d. A PCN is required for any regulated activity within 750' of a vernal pool when all work within the VP Management Area does not comply with the SV requirements in (c) above. Information on directional buffers in accordance with the VP Directional Buffer Guidance document may be provided in order to demonstrate minimal impact and avoid compensation requirements. Conservation of the un-impacted area within the VP Management Area will often be required.

## **25. 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 the Corps, all applications for PCN inland projects proposing fill in Corps jurisdiction shall include an Invasive Species Control Plan. Additional information can be found at [www.hort.uconn.edu/cipwg/](http://www.hort.uconn.edu/cipwg/)

**26. 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 any and all contracts and sub-contracts for work that affects areas of Corps 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 General Conditions and the authorization letter (including its drawings, plans, appendices and other attachments) and also includes permit modifications. If the authorization letter is issued after the construction specifications, but before receipt of bids or quotes, the entire permit authorization shall be included as an addendum to the specifications. If the authorization letter is issued after receipt of bids or quotes, the entire permit authorization shall be included in the contract or sub-contract as a change order. Although the permittee may assign various aspects of the work to different contractors or sub-contractors, all contractors and sub-contractors shall be obligated by contract to comply with all environmental protection provisions contained within the entire authorization letter, and no contract or sub-contract shall require or allow unauthorized work in areas of Corps jurisdiction.

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

- a. For **SV Coastal** projects, the permittee shall complete and return the **Compliance Certification Form** which will be attached to your verification letter.
- b. For **SV Inland** projects, the permittee shall complete and return to the Corps the **Appendix E Self-Verification Form**.
- c. For all **PCN** projects, except for dredging with open water disposal projects, the permittee shall complete and return to the Corps both the **Work-Start Notification Form** and the **Compliance Certification Form** which will be provided as attachments with each authorization letter.

**28. 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 of 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 Corps 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).

**29. Property Rights.** 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.

**30. Transfer of GP Verifications.** When the work authorized by these GPs are still in existence at the time the property is transferred, the terms and conditions, including any special conditions, will continue to be binding

on the entity or individual who received the authorization, as well as the new owner(s) of the property. If the permittee sells the property associated with a General Permit authorization, the permittee may transfer the General Permit authorization to the new owner by submitting a letter to the Corps to validate the transfer. A copy of the General Permit authorization letter must be attached to the letter, and the letter must include the following statement: "The terms and conditions of these General Permits, including any special conditions, will continue to be binding on the new owner(s) of the property". This letter should be signed by both the seller and new property owner(s).

**31. Modification, Suspension, and Revocation.** This permit and any individual authorizations 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.

**32. Special Conditions.** The Corps 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.

**33. False or Incomplete Information.** If the Corps makes a determination 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.

**34. 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 the Corps.

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

**36. Duration of Authorization.** 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 the Corps' satisfaction that the project was under construction or under contract by the appropriate date. If work is not completed within the one year extended timeframe, the permittee must contact the Corps. The Corps may issue a new authorization provided the project meets the terms and conditions of the CT GPs current at the time.

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 modify, suspend, or revoke the authorization in accordance with 33 CFR 325.2(e)(2).

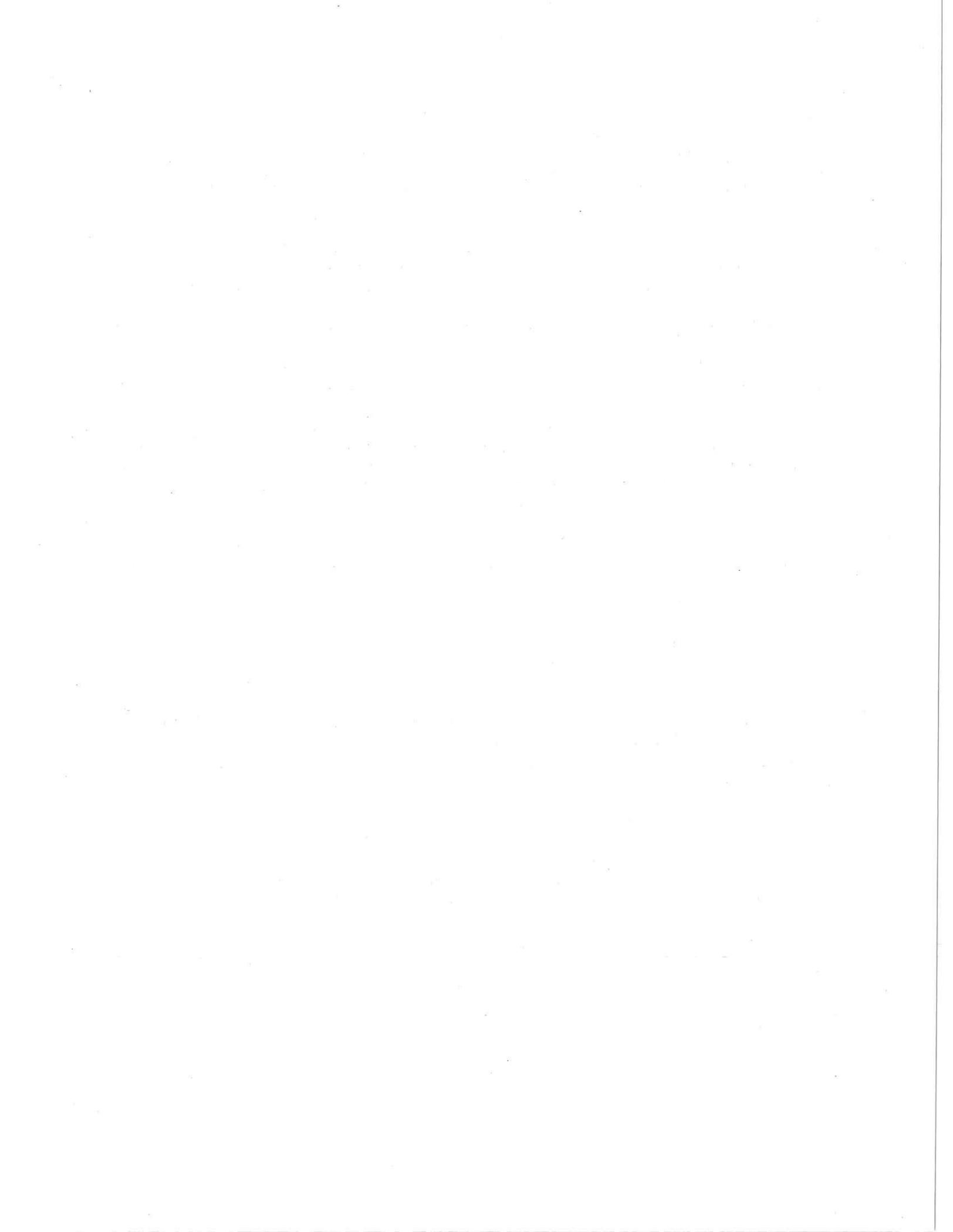
Activities completed under the SV or PCN authorizations of these GPs will continue to be authorized after its expiration date.

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DISTRICT ENGINEER

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DATE



## APPENDIX C

### GENERAL PERMIT - STANDARD AQUACULTURE TERMS AND CONDITIONS

#### DEPARTMENT OF THE ARMY/STATE OF CONNECTICUT

#### 2016 Connecticut General Permit

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1. Aquaculture activities under this General Permit as identified within Appendix 2, Section F are subject to the current General Permit Conditions and Requirements of the Connecticut General Permit.
2. The project proponent must receive all applicable local and state authorizations for shellfish and aquaculture related activities from Connecticut Department of Agriculture, Bureau of Aquaculture (CT DA/BA) and the Connecticut Department of Environmental protection (CT DEP) including a CT DA/BA lease and/or license in accordance with Connecticut General Statutes (CGS) §22-11h, register, if required, with CT DEP Office of Long Island Sound Programs (OLISP) under the *General Permit for Minor Aquaculture Activities and/or General Permit for Placement of Cultch*, and be in receipt of a *Permit for Regulatory Markers* from CT DEP Boating Division, if one is required.
3. Before the authorized structures are installed the project proponent **must** submit a permit application and receive authorization for Regulatory Markers ([Link to Regulatory Marker Permit](#)) from the CT DEP Boating Division, Navigation Safety/Boating Access Unit, P.O. Box 280, 333 Ferry Road, Old Lyme, CT 06371-0280. If CT DEP Boating regulation does not apply, the applicant shall contact the U.S. Coast Guard (USCG), First District; Aids to Navigation Branch at 408 Atlantic Avenue, Boston, MA 02110-3350 (800-848-3942) to coordinate the proper buoy markers. The permittee shall install and maintain lights, markings and other features as the CT DEP/USCG requires. Note: Documentation of this coordination will be necessary for existing operations that seek reconfigurations and/or new approvals for structures from the Dept. of Army and for authorizations from the CT DA/BA.
4. 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.
5. 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.

## APPENDIX C

### GENERAL PERMIT - STANDARD AQUACULTURE TERMS AND CONDITIONS

#### DEPARTMENT OF THE ARMY/STATE OF CONNECTICUT

#### 2016 Connecticut General Permit

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6. 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 website ([Link to Federal Navigation Projects](#)).
7. 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.
8. The placement of cultch shall occur only in appropriate locations for working the bed bottom and colonization by oysters, based upon factors of salinity, water quality, water circulation patterns, and substrate composition and such placement shall not create or exacerbate adverse impact to any aquatic resource (finfish, shellfish, marine mammals, coastal birds), water quality, Essential Fish Habitat<sup>1</sup> or Special Aquatic Sites<sup>2</sup>.
9. New applications of cultch and spatted-shell for the purposes of enhancement or restoration of a native shellfish population and for bottom cultivation associated with commercial shellfish aquaculture on leased grounds cannot be placed within SAV and is limited to the minimum amount necessary for coverage of the target area.
10. The permittee shall be responsible to remove all gear and associated equipment within any leased or designated shellfish area in the event that the operator surrenders or loses the right to its use.<sup>3</sup>

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<sup>1</sup> Essential Fish Habitat: Those waters and substrate necessary to fish for spawning, breeding, feeding and growth to maturity.

<sup>2</sup> Special Aquatic Sites: Include Wetlands (inland and salt marsh), intertidal mud flats, vegetated shallow (permanently inundated areas that support rooted aquatic vegetation such as eelgrass, celery grass and tapegrass), and coral reefs. Per §) CFR Part 230 Subpart E.

<sup>3</sup> In some situations, a performance bond may be required.

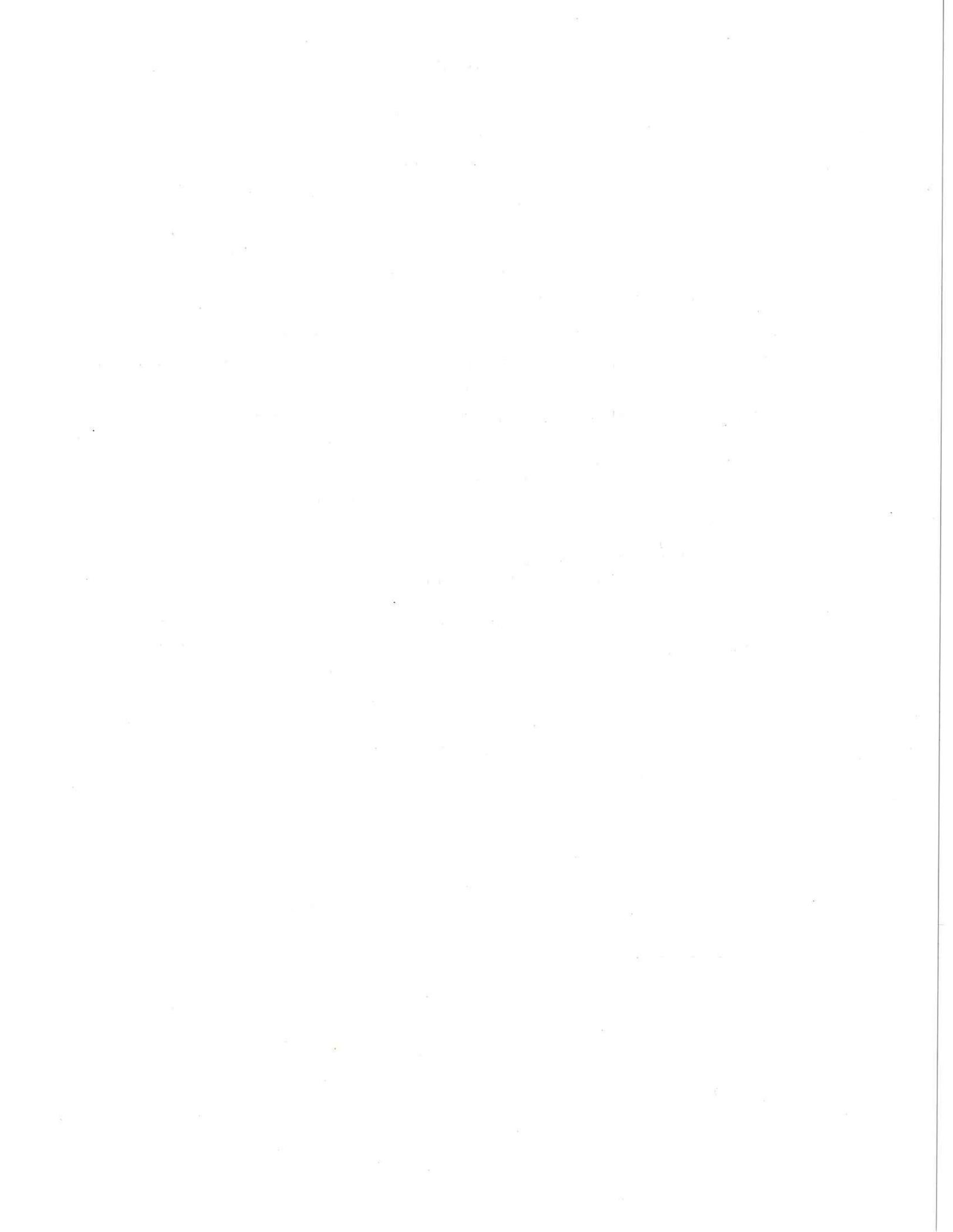
APPENDIX C

GENERAL PERMIT - STANDARD AQUACULTURE  
TERMS AND CONDITIONS

DEPARTMENT OF THE ARMY/STATE OF CONNECTICUT  
**2016 Connecticut General Permit**

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11. The subject aquaculture activity shall not discernibly interfere with natural sedimentation and erosion processes.
12. To be eligible for authorization under Self-Verification of this permit, an upwelling device and/or work floats cannot exceed two units or a combined total square footage of 160 square feet. These structures must be permitted by State of Connecticut Navigation Safety/Boating Access Unit and/or marked in conformance with applicable State or U.S. Coast Guard Aids to Navigation.
13. Suspended cages or nets for the rearing or grow out of shellfish are permitted under this category, 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 mean high water or interfere with the access to any riparian or littoral property.



## APPENDIX D

### CONTACTS FOR CONNECTICUT GENERAL PERMIT:

#### **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

##### ***National Park Service***

North Atlantic Region  
15 State Street  
Boston, Massachusetts 02109  
(617) 223-5203  
*(Wild & Scenic Rivers)*

##### ***Federal Endangered Species (F&WS):***

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

##### ***Federal Endangered Species & EFH (NMFS)***

National Marine Fisheries Service  
55 Great Republic Drive  
Gloucester, MA 01930  
Phone: (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

##### ***Department of Agriculture***

Bureau of Aquaculture  
P. O. Box 97  
190 Rogers Avenue  
Milford, Connecticut 06460  
(203) 874-0696

#### **2. STATE OF CONNECTICUT**

##### ***Department of Energy & Environmental Protection***

##### **(Coastal Projects)**

Office of Long Island Sound Programs  
79 Elm Street  
Hartford, Connecticut 06106-5127  
(860) 424-3034

##### **(Aquaculture Projects)**

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

##### **(Inland Projects)**

Inland Water Resources Division  
79 Elm Street  
Hartford, Connecticut 06106-5127  
(860) 424-3019

##### **(State Endangered Species)**

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

##### **(Mashantucket Pequot Tribal Nation)**

Department of Natural Resources Protection &  
Regulatory Affairs  
550 Trolley Line Boulevard  
P. O. Box 3202  
Mashantucket, Connecticut 06338-3202

### **3. HISTORIC PROPERTIES**

#### ***Tribal Historic Preservation Officers***

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

Mohegan Tribe of Indians of Connecticut  
James Quinn, Tribal Historic Preservation Officer  
13 Crow Hill Rd.  
Uncasville, CT 06382

Phone (860) 862-6393  
Fax (860) 862-6395

Mohegan Tribe of Indians of Connecticut  
Compliance and Regulations Department  
13 Crow Hill Road  
Uncasville, CT 06382

#### ***Archaeological Information***

State Historic Preservation Office  
Department of Economic and Community Development  
Catherine Labadia, Deputy State Historic Preservation Officer  
One Constitution Plaza, 2<sup>nd</sup> Floor  
Hartford, Connecticut 06103-6103  
(860) 256-2800 (main)  
(860) 256-2764 (direct)

### **4. ORGANIZATIONAL WEBSITES**

U. S. Army Corps of Engineers [www.nae.usace.army.mil/missions/regulatory.aspx](http://www.nae.usace.army.mil/missions/regulatory.aspx)  
U. S. Army Corps of Engineers Headquarters [www.usace.army.mil](http://www.usace.army.mil) (click "Services for the Public")  
U.S. Environmental Protection Agency [www.epa.gov/owow/wetlands/](http://www.epa.gov/owow/wetlands/)  
National Marine Fisheries Service [www.nmfs.noaa.gov](http://www.nmfs.noaa.gov)  
U.S. Fish and Wildlife Service [www.fws.gov](http://www.fws.gov)  
National Park Service [www.nps.gov/rivers/index.html/](http://www.nps.gov/rivers/index.html/)  
Federal Emergency Management Agency [www.fema.gov](http://www.fema.gov)  
Connecticut Dept. of Energy & Environmental Protection <http://www.ct.gov/deep/site/default.asp>  
Connecticut Dept. of Agriculture, Bureau of Aquaculture & Laboratory  
<http://www.ct.gov/doag/cwp/view.asp?a=3768&q=451508&doagNav=>  
U.S. Environmental Protection Agency, Region 1 – Low Impact Development-practices and state-specific  
resources, including CT DEP Stormwater Quality Manual [www.epa.gov/ne/topics/water/lid.html](http://www.epa.gov/ne/topics/water/lid.html)  
U.S. Environmental Protection Agency – Green Infrastructure website [www.epa.gov/greeninfrastructure](http://www.epa.gov/greeninfrastructure)



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

**Appendix E: Self Verification Form**

This is required for all **inland projects in Connecticut**, not required if work is done within exterior boundaries of Mashantucket Pequot or Mohegan Tribal Lands. **Before** work commences, complete **all** fields (write "none" if applicable), attach project plans (not required for projects involving the installation of swamp mats only) and any state or local approval(s), and send to:

Permits & Enforcement Branch B  
U.S. Army Corps of Engineers  
696 Virginia Road  
Concord, MA 01742-2751  
*or* cenae-r@usace.army.mil

*and*

CT DEEP  
Inland Water Resources Division  
79 Elm Street  
Hartford, CT 06106-5127

\*\*\*\*\*

State or local Permit Number: \_\_\_\_\_  
Date of State or local Permit: \_\_\_\_\_  
State/local Project Manager: \_\_\_\_\_

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

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

Consultant/Engineer/Designer: \_\_\_\_\_  
Address, City, State & Zip: \_\_\_\_\_  
Phone(s) and Email: \_\_\_\_\_

Wetland/Soil Scientist Consultant: \_\_\_\_\_  
Address, City, State & Zip: \_\_\_\_\_  
Phone(s) and Email: \_\_\_\_\_

Project Location (provide detailed description & locus map): \_\_\_\_\_

Address, City, State & Zip: \_\_\_\_\_  
Latitude/Longitude Coordinates: \_\_\_\_\_  
Waterway Name: \_\_\_\_\_

Project Purpose (include all aspects of the project including those not within Corps jurisdiction):

Work Description: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Work will be done under the following GPs (check all that have associated impacts):

\_\_\_\_\_ **Repair, replacement and maintenance of authorized or grandfathered structures/fills**

Area of total wetland impacts: temporary \_\_\_\_\_ SF permanent \_\_\_\_\_ SF  
Area of total waterway impacts: temporary \_\_\_\_\_ SF permanent \_\_\_\_\_ SF

\_\_\_\_\_ **Boat ramps/marine railways**

Area of total wetland impacts: temporary \_\_\_\_\_ SF permanent \_\_\_\_\_ SF  
Area of total waterway impacts: temporary \_\_\_\_\_ SF permanent \_\_\_\_\_ SF

\_\_\_\_\_ **Utility line activities (include calculations for each single & complete crossing)**

Area of total wetland impacts: temporary \_\_\_\_\_ SF permanent \_\_\_\_\_ SF  
Area of total waterway impacts: temporary \_\_\_\_\_ SF permanent \_\_\_\_\_ SF

\_\_\_\_\_ **Shoreline stabilization projects**

Area of total wetland impacts: temporary \_\_\_\_\_ SF permanent \_\_\_\_\_ SF  
Area of total waterway impacts: temporary \_\_\_\_\_ SF permanent \_\_\_\_\_ SF

\_\_\_\_\_ **Aquatic habitat restoration, establishment and enhancement activities**

Area of total wetland impacts: temporary \_\_\_\_\_ SF permanent \_\_\_\_\_ SF  
Area of total waterway impacts: temporary \_\_\_\_\_ SF permanent \_\_\_\_\_ SF

\_\_\_\_\_ **Fish and wildlife harvesting, enhancement and attraction devices and activities**

Area of total wetland impacts: temporary \_\_\_\_\_ SF permanent \_\_\_\_\_ SF  
Area of total waterway impacts: temporary \_\_\_\_\_ SF permanent \_\_\_\_\_ SF

\_\_\_\_\_ **Oil Spill and Hazardous material cleanup**

Area of total wetland impacts: temporary \_\_\_\_\_ SF permanent \_\_\_\_\_ SF  
Area of total waterway impacts: temporary \_\_\_\_\_ SF permanent \_\_\_\_\_ SF

\_\_\_\_\_ **Cleanup of hazardous and toxic waste**

Area of total wetland impacts: temporary \_\_\_\_\_ SF permanent \_\_\_\_\_ SF  
Area of total waterway impacts: temporary \_\_\_\_\_ SF permanent \_\_\_\_\_ SF

\_\_\_\_\_ **Scientific measurements devices**

Area of total wetland impacts: temporary \_\_\_\_\_ SF permanent \_\_\_\_\_ SF  
Area of total waterway impacts: temporary \_\_\_\_\_ SF permanent \_\_\_\_\_ SF

\_\_\_\_\_ **Survey activities**

Area of total wetland impacts: temporary \_\_\_\_\_ SF permanent \_\_\_\_\_ SF  
Area of total waterway impacts: temporary \_\_\_\_\_ SF permanent \_\_\_\_\_ SF

\_\_\_\_\_ **New/expanded developments & recreational facilities**

Area of total wetland impacts: temporary \_\_\_\_\_ SF permanent \_\_\_\_\_ SF  
Area of total waterway impacts: temporary \_\_\_\_\_ SF permanent \_\_\_\_\_ SF

\_\_\_\_\_ **Linear transportation projects (include calculations for each single & complete crossing)**

Area of total wetland impacts: temporary \_\_\_\_\_ SF permanent \_\_\_\_\_ SF  
Area of total waterway impacts: temporary \_\_\_\_\_ SF permanent \_\_\_\_\_ SF

\_\_\_\_\_ **Energy generation & renewable energy facilities and hydropower projects**

Area of total wetland impacts: temporary \_\_\_\_\_ SF permanent \_\_\_\_\_ SF  
Area of total waterway impacts: temporary \_\_\_\_\_ SF permanent \_\_\_\_\_ SF

\_\_\_\_\_ **Mining activities**

Area of total wetland impacts: temporary \_\_\_\_\_ SF permanent \_\_\_\_\_ SF  
Area of total waterway impacts: temporary \_\_\_\_\_ SF permanent \_\_\_\_\_ SF

\_\_\_\_\_ **Temporary fills not associated with a project within Corps jurisdiction**

Area of total wetland impacts: temporary \_\_\_\_\_ SF permanent \_\_\_\_\_ SF  
Area of total waterway impacts: temporary \_\_\_\_\_ SF permanent \_\_\_\_\_ SF

\_\_\_\_\_ **Agriculture activities**

Area of total wetland impacts: temporary \_\_\_\_\_ SF permanent \_\_\_\_\_ SF  
Area of total waterway impacts: temporary \_\_\_\_\_ SF permanent \_\_\_\_\_ SF

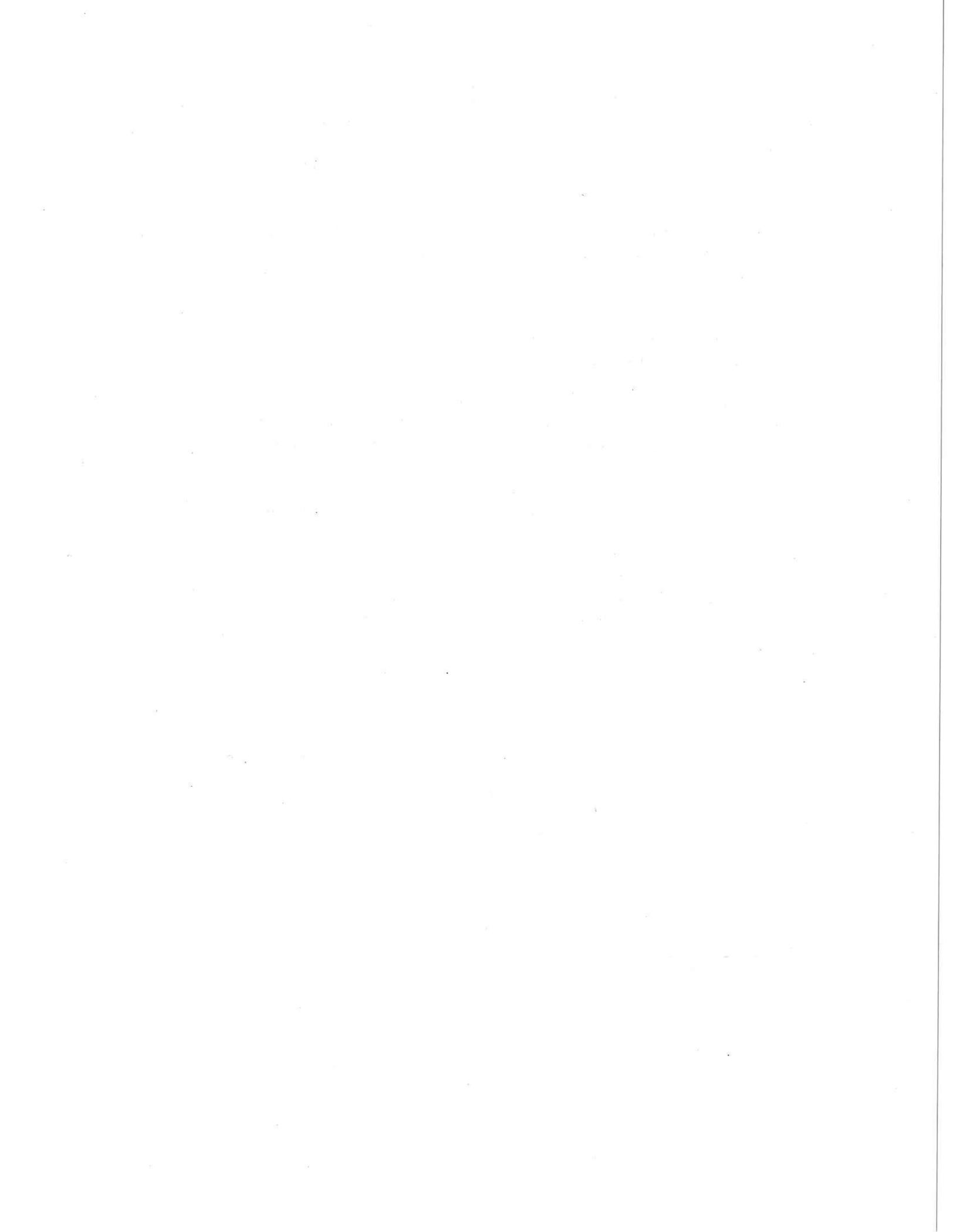
Does your project include any secondary impacts? Yes \_\_\_\_\_ No \_\_\_\_\_  
(Secondary impacts include, but are not limited to, impacts to inland waters, or wetlands drained, dredged, flooded, cleared or degraded resulting from a single and complete project. See General Condition 3.) If YES, describe here: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Proposed Work Dates: Start: \_\_\_\_\_ Finish: \_\_\_\_\_

**Your name/signature below, as permittee, confirms that your project a) meets the self-verification criteria and b) that you accept and agree to comply with the applicable terms and conditions in the Connecticut General Permit.**

\_\_\_\_\_  
**Signature of Permittee**

\_\_\_\_\_  
**Date**



## APPENDIX F. DEFINITIONS

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

**Boating facilities:** These provide, rent or sell mooring space, such as marinas, yacht clubs, boat yards, dockominiums, town facilities, land/home owners, 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.

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

**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 or dredged from waters of the U.S.

**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.

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

**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.

**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:** A term used to describe a combination of mostly naturally derived materials including plants, shell and rock or manufactured rock-like surfaces that are used along a shoreline exhibiting erosion to dissipate wave energy and to collect naturally deposited sediment.

**Maintenance:** 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 United States 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).

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

**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:** 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.

**Streambed:** 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 United States.

**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.

**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.

**Vernal pools (VPs):** 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,

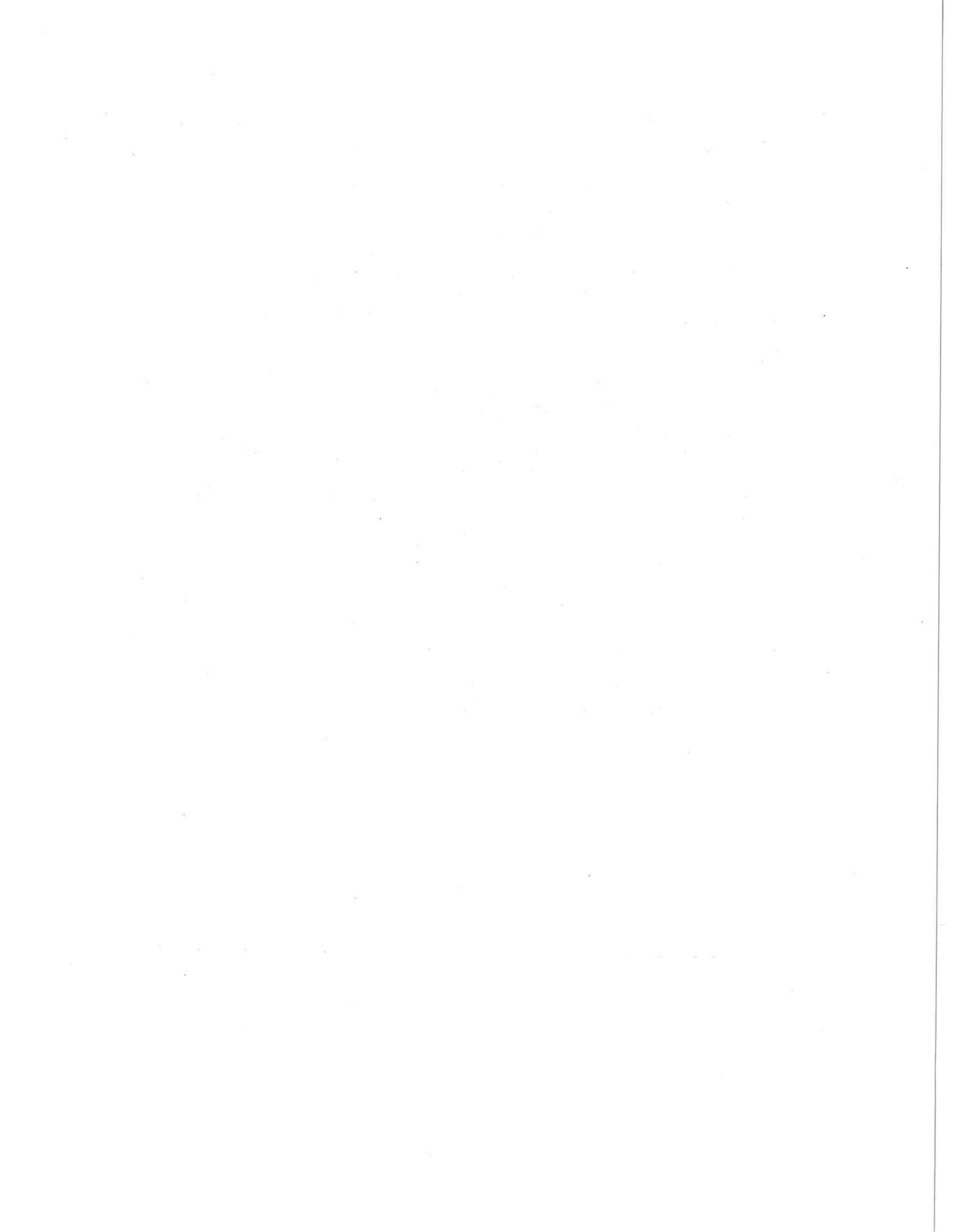
Jefferson's salamander and fairy shrimp. However, they should preclude sustainable populations of predatory fish. VP areas are:

- 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 U.S.:** Waters of the United States are defined in Title 33 CFR Part 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 Clean Water Act. Waters of the U.S. include jurisdictional wetlands.





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”<sup>1</sup>. 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. Span<sup>2</sup> streams or size culverts or pipe arches such that they are wider than bankfull width (BFW). Spans are strongly preferred 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. Footings and abutments for spans and scour protection should be landward of 1.2 times BFW. The width of culverts and arches at bankfull elevation should be  $\geq 1.2$  times BFW. In many cases bankfull width is not necessarily interchangeable with the elevation of ordinary high water.<sup>3</sup>
2. Embed culverts or pipe arches below the grade of the streambed. This is not required when ledge/bedrock prevents embedment, in which case spans are required. The following depths are recommended to prevent streambed washout, and ensure compliance and long-term success:
  - a.  $\geq 2$  feet for box culverts and pipe arches<sup>4</sup>, or
  - b.  $\geq 2$  feet and at least 25% for round pipe culverts<sup>4</sup>.
3. Match the culvert gradient (slope) with the stream channel profile.
4. Construct crossings with a natural bottom substrate within the structure matching the characteristics of the substrate in the natural stream channel and the banks (mobility, slope,

<sup>1</sup> [www.nae.usace.army.mil/missions/regulatory.aspx](http://www.nae.usace.army.mil/missions/regulatory.aspx) >> “Stream and River Continuity.”

<sup>2</sup> For the purposes of this GP, spans are bridges, three-sided box culverts, open-bottom culverts or arches that span the stream with footings landward of BFW. The use of bridge piers or similar supports does not prevent a structure from being considered as a span.

<sup>3</sup> BFW corresponds with “bankfull stage” and this should be field delineated in accordance with the U.S. Forest Service documents: a) [U.S. Forest Service stream simulation manual](#)<sup>1</sup>; b) “Stream Channel Reference Sites: An Illustrated Guide to Field Technique” (Harrelson, et al. 1994); and c) “[A Guide to Identification of Bankfull Stage in the Northeastern United States](#)”.

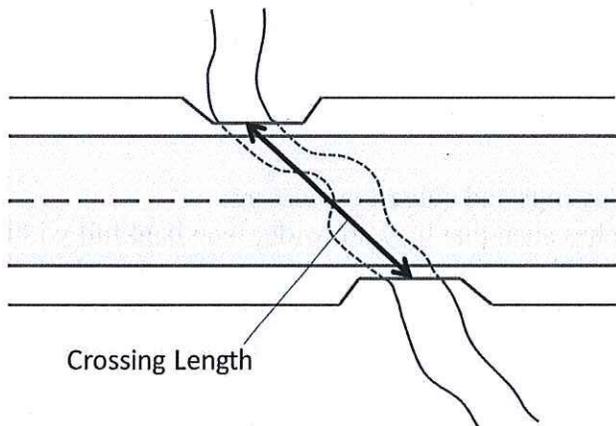
<sup>4</sup> For 2(a) and 2(b), deeper embedment depths may be needed if there are elements of the constructed stream bed that are greater than 15 inches in diameter.

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.

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.<sup>5</sup>

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 (see note at the end of this document). 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.

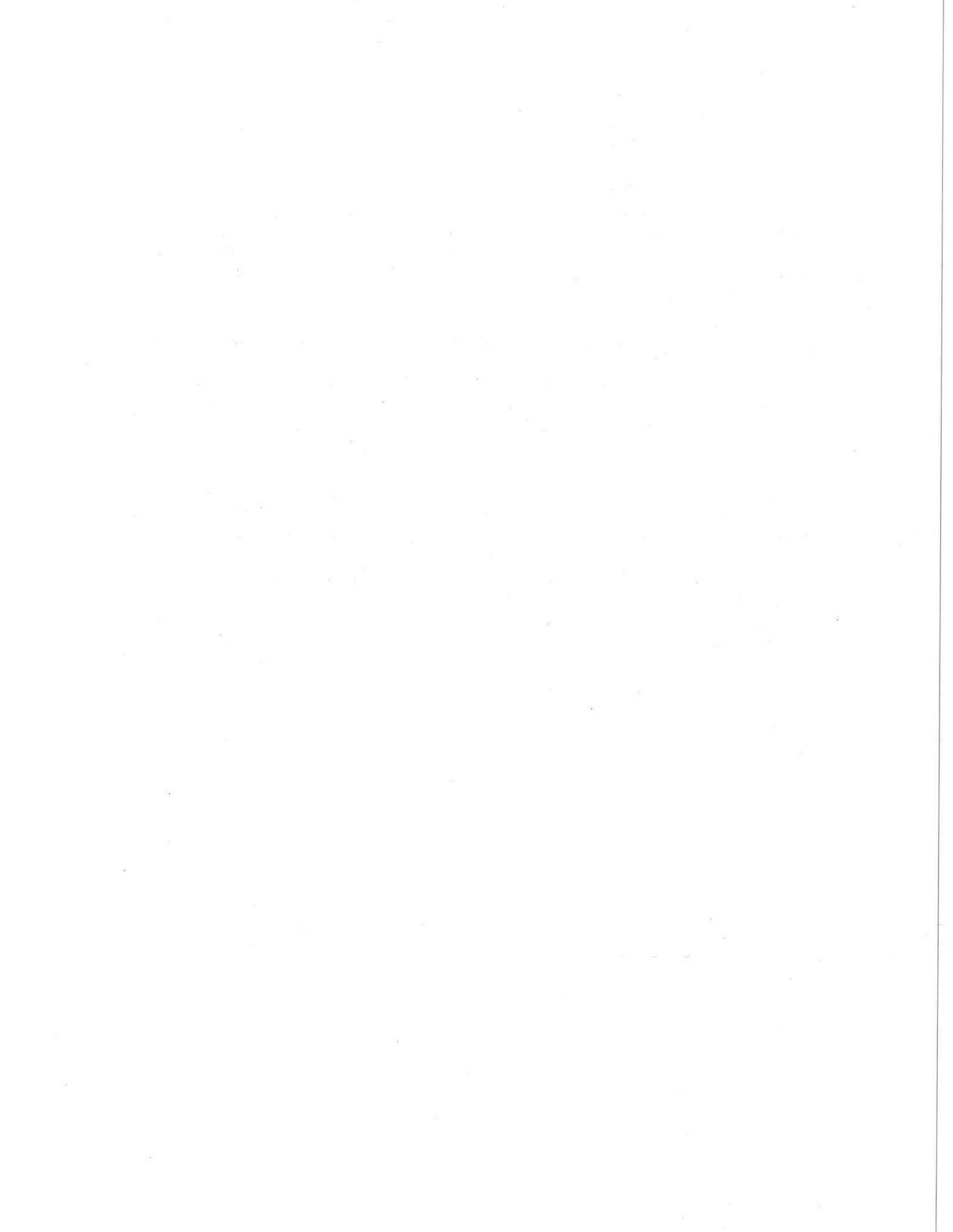
7. Construct banks on each side of the stream inside the crossing that match the horizontal profile of the existing stream and banks outside the crossing. To prevent failure, all constructed banks should have a height to width ratio of no greater than 1:1.5 (vertical:horizontal) unless the stream is 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). The constructed banks will allow 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.

<sup>5</sup> 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](http://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. The water height should be no higher than the top of the culvert's inlet and the culvert is large enough to pass debris.
  - b. 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:
  - a. Anchor spans where practicable so they do not wash out during high water.
  - b. A typical span method is provided at [www.nae.usace.army.mil/missions/regulatory.aspx](http://www.nae.usace.army.mil/missions/regulatory.aspx)  
>> Stream and River Continuity >> Skidder Bridge Fact Sheet.
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](http://www.nae.usace.army.mil/missions/regulatory.aspx) >> [State General Permits](#) >> Connecticut General Permit Documents.





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

## Construction Mat Best Management Practices (BMPs)

### Installation

- Mats should be in good condition to ensure proper installation, use and removal.
- Operating heavy equipment in wetlands shall be minimized, and such equipment other than fixed equipment (drill rigs, fixed cranes, etc.) shall not be stored, maintained, fueled or repaired in wetlands unless the equipment is broken down and cannot be easily removed.
- An adequate supply of spill containment equipment shall be maintained on site.
- General Permits in New England do not authorize dragging construction mats into position in waters of the U.S.
- Woody vegetation (trees, shrubs, etc.) shall be cut at or above ground level and not uprooted in order to prevent disruption to the wetland soil structure and to allow stump sprouts to revegetate the work area.
- 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 and 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 (examples provided below).

### Wetland/Stream Channel Crossing

- At “dry” crossings where no flow is present or anticipated during project construction, the mats may be placed directly onto the ground in order to prevent excessive rutting, provided stream banks and bottoms are not adversely altered.
- Construction mats may be used as a temporary bridge over a stream to allow vehicles access to the work site. Small sections of mat are placed within and along the stream parallel to the flow of water. Mats may then be placed perpendicular to the stream, resting on top of the initial construction mat supports. It may be necessary to place additional reinforcement for extra stability and to minimize the amount of sediment that could fall between the spaces of each timber.
- In areas where wildlife passage or migration is a consideration, mats may be installed in accordance with the diagram “Typical Stream Crossing with Swamp Mats.”
- Mats should not be placed so that they restrict the natural flow of the stream.
- Minimize number of stream/wetland crossings. Where feasible, locate crossing site where stream channel is narrow for the shortest possible clear span and where stream banks are stable and well defined. For large wetland complexes, consider accessing structures from opposite sides where possible to avoid crossing the entire wetland.
- More than one layer of mats may be necessary in areas which are inundated or have deep organic wetland soils.

### Maintenance

- Matted wetland crossings should be monitored to assure correct functioning of the mats. Inspect mats after use. Look for any defects or structural problems. Mats which become covered with soils or construction debris should be cleaned and the materials removed and disposed of in an upland location. The material should not be scraped and shoveled into the resource area. Mats which become imbedded must be reset or layered to prevent mud from covering them or water passing over them.

### Removal

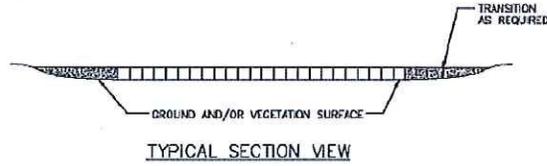
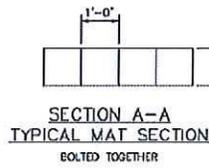
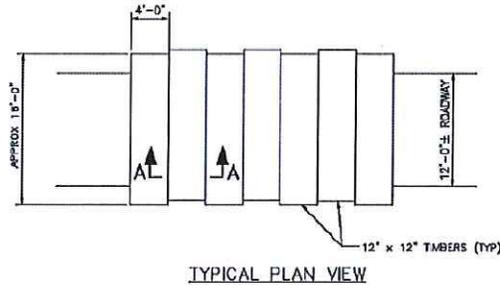
- Matting should be removed by “backing” out of the site, removing mats one at a time. Any rutting or significant indentations identified during mat removal should be regraded immediately, taking care not to compact soils.
- Mats should be cleaned before transport to another wetland location to remove soil and any invasive plant species seed stock or plant material.
- Mats shall be cleaned of soil and any invasive plant species seed stock or plant material from before installation.
- Cleaning methods may include but are not limited to shaking or dropping mats in a controlled manner with a piece of machinery to knock off attached soil and debris, spraying with water or air, and sweeping.
- Crossings should be inspected following mat removal to determine the level of restoration required.

### Restoration

- Special precautions should be taken to promptly stabilize areas of disturbed soil located near wetlands and streams. Matted areas within wetlands shall be restored to their original condition and elevation. This may involve natural revegetation from existing root and seed stock of native plant species. Conditions may warrant planting and the broadcast of a wetland seed mix over the matted area to supplement the existing seed and rootstock. Seed mixes and vegetation shall contain only plant species native to New England. The use of mulch in wetlands shall consist of weed-free mulch to mitigate the risk of the spread of invasive plant species.

## Example Mat Diagrams -

Best Management Practices Manual for Utility Maintenance  
 In and Adjacent to Wetlands and Waterbodies in New Hampshire  
 Interim January 2010.



- NOTE:
1. TO BE INSTALLED IF NECESSARY TO PREVENT RUTTING TO ACCESS STRUCTURES.
  2. THIS DETAIL SHOWS TYPICAL DIMENSIONS. SOME CONTRACTORS SWAMP MATS ARE DIMENSIONALLY DIFFERENT FROM WHAT IS SHOWN HERE.
  3. DEPENDENT ON SITE CONDITIONS, MULTIPLE LAYERS OF SWAMP MATS MAY BE INSTALLED.

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