Application #: NAE-2009-1217 Applicant: General Public in the Commonwealth of Massachusetts

DEPARTMENT OF THE ARMY GENERAL PERMIT COMMONWEALTH OF MASSACHUSETTS

Effective Date: January 21, 2010

Expiration Date: January 21, 2015

The New England District of the U.S. Army Corps of Engineers (Corps) hereby issues this General Permit (GP) for activities in waters of the United States (U.S.) that have minimal individual and cumulative adverse effects on the aquatic environment within the Commonwealth of Massachusetts.

I. GENERAL CRITERIA:

In order for activities to qualify for this GP, they must meet the GP's terms and eligibility criteria (Pages 1 - 4), general conditions (GC) (Pages 5 - 14), and Appendix A - Definition of Categories.

Under this GP, projects may qualify for the following:

- <u>Category 1</u>: No application required. (Submittal of the Category 1 Form at Appendix C is required.)
- <u>Category 2</u>: Application required.

If you determine that your project is eligible for Category 1 no application to the Corps is required. However, you must submit the Category 1 Form (Appendix C) to the Corps.

If your project is ineligible for Category 1, it may qualify for Category 2 or an Individual Permit and you must submit an application (see Page 3). The thresholds for categories 1 and 2 are defined in Appendix A. This GP does not affect the Corps Individual Permit review process or activities exempt from Corps regulation.

II. ACTIVITIES COVERED:

- Work and structures that are located in, under or over any navigable water of the U.S.¹; that affect the course, location, condition, or capacity of such waters; or the excavating from or depositing of material in such 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.S², which is regulated by the Corps under Section 404 of the Clean Water Act (CWA).³
- The transportation of dredged material for the purpose of disposal in the ocean (regulated by the Corps under Section 103 of the Marine Protection, Research and Sanctuaries Act).

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Defined at 33 CFR 329

² Defined at 33 CFR 328

³ When there is a regulated discharge of dredged or fill material into waters of the U.S., the Corps will also consider secondary impacts, which are defined at Appendix A, Endnote/Definition 2.

III. APPROVAL PROCESS

1. State and Local Approvals

Applicants are responsible for applying for and obtaining any of the required State or local approvals (see GC 1, Page 5). Federal and state jurisdictions may differ in some instances. State permits may be required for specific projects regardless of the general permit category.

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

- **Final Order of Conditions** under the Massachusetts Wetlands Protection Act (WPA) (MGL c. 131 Section 40) must be obtained for activities subject to jurisdiction as defined in 310 CMR 10.02.
- Waterways license or permit under MGL c. 91, from the Massachusetts Department of Environmental Protection (MassDEP) must be obtained for activities subject to its jurisdiction, defined in 310 CMR 9.05.
- Water Quality Certification (WQC) is required for work in Corps jurisdiction involving a discharge of dredged or fill materials to waters of the U.S., including wetlands. Some projects require an individual WQC issued by the MassDEP under Section 401 of the Clean Water Act and 314 CMR 9.00, before work can proceed (see Appendix B for 401 WQC requirements).
- Coastal Zone Management (CZM): Any project that qualifies for Category 1 of this GP has been determined to be consistent with the Massachusetts CZM plan and does not require any additional CZM review. For Category 2 work in or affecting the coastal zone, the Corps will coordinate review with the Office of CZM and then notify applicants if an Individual CZM concurrence is required.

2. Corps Authorizations

The two GP review categories are listed below.

a. CATEGORY 1 (No application)

Eligibility Criteria

Activities in Massachusetts that:

- are subject to Corps jurisdiction (see GC 2, Page 5),
- meet the terms of this GP (Pages 1 4),
- meet all GCs of this GP (Pages 5 14), and
- meet the definition of Category 1 in Appendix A Definition of Categories,

may proceed without application to the Corps provided the Category 1 Form (Appendix C) is submitted to the Corps before starting the work authorized by this GP.

Project proponents seeking Category 1 authorizations must comply with this GP's general conditions (starting on Page 5) 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 Historical Preservation Officer (SHPO)/Massachusetts Historical Commission (MHC), the Massachusetts Board of Underwater Archaeological Resources (BUAR) and the four Native American tribes is required to ensure compliance with General Condition 7 (e.g., when there is a high likelihood of the presence of resources of concern). See Appendix E for contact information and geographic areas of concern.

Work that is not subject to the Commonwealth's Wetland Protection Act but is subject to Corps jurisdiction, is eligible for Corps Category 1 authorization under this GP. Although an Order of Conditions is not required if the work is not subject to the WPA, this GP's review thresholds and requirements concerning WQC and CZM consistency apply. Such projects could include activities that are exempt from the WPA or activities in federal wetlands that are not included in the WPA.

b. CATEGORY 2 (Reporting – Requiring Review)

Eligibility Criteria

Activities in Massachusetts that:

- are subject to Corps jurisdiction, (see GC 2, Page 5),
- meet the terms of this GP (Pages 1 4),
- meet all GCs of this GP (Pages 5 14), and
- meet the definition of Category 2 in Appendix A Definition of Categories

require written approval from the Corps. The Corps will coordinate review of all Category 2 activities with federal and state agencies, as appropriate, to ensure that the GP results in no more than a minimal impact to the aquatic environment. To be eligible and subsequently authorized, an activity must result in no more than minimal impacts to the aquatic environment as determined by the Corps in coordination with the interagency review team and the criteria listed above. This may require project modifications involving avoidance, minimization, or compensatory mitigation for unavoidable impacts to ensure the net effects of a project are minimal.

3. Applying for a Permit

All applicants for Category 2 projects must:

- a. Apply as appropriate to the:
 - i. MassDEP or conservation commission for authorization under Section 401 or Chapter 91.
- ii. Corps (and MassDEP or conservation commission as appropriate) for emergency situations. Proponents are encouraged to call the Corps (see Appendix E) promptly.
- iii. Corps for projects not requiring MassDEP review using the Corps application form¹. For projects requiring both MassDEP and Corps review, the Corps will obtain copies of applications from the DEP regional offices at our interagency meetings. Attaching the Information Required Checklist (Appendix D) with the required information to all applications will help ensure the application is complete. Applicants have the option of sending duplicate copies of applications directly to the Corps.
- b. Submit the SHPO/MHC's "Project Notification Form" (follow "Guidance for Completing MHC's Project Notification Form")¹, a USGS locus map with the project boundaries clearly located, and scaled existing and proposed project plans to the SHPO/MHC, BUAR, and the four Native American tribes when applicable (see Appendix E, pages 1 and 2 for contact information and geographic areas of interest) to be reviewed for the presence of historic, archaeological, or tribal resources in the permit area that the proposed work may affect. All applications to the Corps or DEP shall confirm this has been done, when applicable, by submitting a copy of the applicant's cover letter to the SHPO/MHC, BUAR and the tribes, or a copy of their response letters.

¹ See Appendix F for form information.

4. Review Procedures

The Corps will coordinate review of all Category 2 activities with federal and state agencies, as appropriate, to ensure that the work will result in no more than a minimal impact to the aquatic environment. Applicants are responsible for applying for the appropriate state and local approvals listed on Page 2.

Massachusetts Office of Coastal Zone Management (CZM) Screening Procedures: The CZM has issued consistency for projects meeting Category 1 of the GP and no further coordination with CZM is required for those projects. The Corps will coordinate Category 2 projects that involve work in or affecting the coastal zone with CZM. The CZM will make a determination within 10 business days of coordination that (1) CZM consistency may be waived; (2) CZM consistency may be waived provided CZM and the Corps agree to special conditions in the Corps authorization to protect the land or water uses or natural resources of the coastal zone; or (3) an individual CZM consistency concurrence will be required for the project. If CZM waives/issues consistency [(1) or (2) above], the Corps will attempt to include that determination in the Corps authorization letter. If CZM requires an individual CZM consistency concurrence [(3) above], the Corps may issue a conditional letter, which will notify the applicant that the federal authorization is not valid until CZM consistency concurrence is issued or waived by CZM.

Emergency 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." The Corps will work with all applicable agencies to expedite authorization in emergency situations.

Individual Permit Procedures: Proponents of work that is defined in the Individual Permit category of Appendix A - Definition of Categories, or that does not meet the terms and general conditions of this GP, should submit an application and the appropriate application materials (including the Corps application form) to the Corps (see 33 CFR 325.1) at the earliest possible date in order to expedite the Individual Permit review process. General information and application forms can be obtained at our website or by calling us (see Appendix E). Individual WQC and CZM consistency concurrence are required when applicable from the Commonwealth of Massachusetts before Corps permit issuance. The Corps encourages applicants to concurrently apply for a Corps Individual Permit and state permits.

5. Approval Process

Applicants for Category 2 activities may not proceed with work in Corps jurisdiction until written authorization is received from the Corps. Applicants are responsible for obtaining all applicable approvals listed on Page 2 from the appropriate state and local agencies before commencing work in Corps jurisdiction.

IV. GP GENERAL CONDITIONS:

The following general conditions apply to all Category 1 and Category 2 activities authorized under this GP unless otherwise specified.

- **1. Other Permits.** Authorization under this GP does not obviate the need to obtain other federal, state, or local authorizations required by law.
- **2. Federal Jurisdictional Boundaries.** Applicability of this GP shall be evaluated with reference to federal jurisdictional boundaries. Applicants are responsible for ensuring that the boundaries used satisfy the federal criteria defined at 33 CFR 328-329. Wetland boundaries shall be delineated in accordance with the January 1987 Corps of Engineers Wetlands Delineation Manual and applicable regional supplements. See Appendix F.

3. Minimal Direct, Secondary and Cumulative Impacts.

- (a) Projects authorized by this GP shall have no more than minimal direct, secondary and cumulative adverse environmental impacts. Applicants should provide information on secondary and cumulative impacts (see Appendix D). Mitigation may be required to offset unavoidable impacts (see GC 15) and to ensure that they are no more than minimal.
- (b) Secondary impacts to waterway and/or wetland areas, (e.g., areas drained, flooded, cleared, excavated or fragmented) shall be added to the total fill area when determining whether the project qualifies for Category 1 or 2. Direct, secondary and cumulative impacts are defined at Appendix A, Endnote 2
- Unless specifically authorized, no work shall drain a water of the U.S. by providing a conduit for water on or below the surface.
- Site clearing, grading and construction activities in the upland habitat surrounding vernal pools ("vernal pool management areas") are secondary impacts. See GC 15.
- **4. 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 environmental impacts that are more than minimal or if there is a special resource or concern associated with a particular project that is not already covered by the remaining conditions of the GP that warrants greater review. Whenever the Corps notifies an applicant that an Individual Permit is required, the project is not authorized under this GP and no work may be conducted until an Individual Permit is obtained or until the Corps notifies the applicant that further review has demonstrated that the work may proceed under this GP.

5. Single and Complete Projects.

(a) This GP shall not be used to piecemeal work and shall be applied to single and complete projects¹. When determining the review category in Appendix A (Category 1, 2) for a single and complete project, proponents must include any permanent historic fill placed since August 1993 that is associated with that project and all currently proposed temporary and permanent impact areas.

(b) A single and complete project must have independent utility¹.

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¹ Single and Complete Project and Independent Utility are defined at Appendix F.

- (c) Unless the Corps determines the activity has independent utility:
- i. This GP shall not be used for any activity that is part of an overall project for which an Individual Permit is required,
- ii. All components of a single project and/or all planned phases of a multi-phased project shall be treated together as constituting one single and complete project.
- (d) 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 Category 2 activity, then the entire linear project shall be reviewed as one project under Category 2.
- **6. Permit On-Site.** For Category 2 projects, the permittee shall ensure that a copy of this GP and the accompanying authorization letter are at the work site (and the project office) authorized by this GP whenever work is being performed, and that all personnel with operation control of the site ensure that all appropriate personnel performing work are fully aware of its terms and conditions. The entire permit authorization shall be made a part of any and all contracts and sub-contracts for work that affects areas of Corps jurisdiction at the site of the work authorized by this GP. This shall be achieved by including the entire permit authorization in the specifications for work. The term "entire permit authorization" means this GP and the authorization letter (including its drawings, plans, appendices and other attachments) and also includes permit modifications. If the authorization letter is issued after the construction specifications, but before receipt of bids or quotes, the entire permit authorization shall be included as an addendum to the specifications. If the authorization letter is issued after receipt of bids or quotes, the entire permit authorization shall be included in the contract or sub-contract. Although the permittee may assign various aspects of the work to different contractors or sub-contractors, all contractors and subcontractors shall be obligated by contract to comply with all environmental protection provisions contained within the entire GP authorization, and no contract or sub-contract shall require or allow unauthorized work in areas of Corps jurisdiction.
- **7. Historic Properties.** Any activity authorized by this GP shall comply with Section 106 of the National Historic Preservation Act. Information on the location and existence of historic resources can be obtained from the MHC/SHPO, BUAR, the National Register of Historic Places, and the four Native American tribes listed in Appendix E, which contains contact information and geographic areas of interest for each tribe and the BUAR. Project proponents shall apply to the Corps or DEP (as required on Page 3) for all projects that would otherwise qualify for Category 1 if there is the potential for an effect on a historic property within the permit area or any known historic property that may occur outside the permit area. Historic properties include those that are eligible for inclusion, but not necessarily listed on the National Register. If the permittee, during construction of work authorized herein, encounters a previously unidentified archaeological or other cultural resource within the area subject to Corps jurisdiction that might be eligible for listing in the National Register of Historic Places, he/she shall stop work and immediately notify the Corps (see Appendix E for contact information).
- **8. National Lands.** Any of the following work is not eligible as a Category 1 project:
 (a) Activities that impinge upon the value of any National Wildlife Refuge, National Forest, National Marine Sanctuary (e.g., Stellwagen Bank) or any area administered by the National Park Service (e.g., Cape Cod National Seashore), U.S. Fish and Wildlife Service (USFWS) or U.S. Forest Service.
 (b) Work on Corps properties and Corps-controlled easements (Appendix A, Endnote 8).

- (c) Any proposed temporary or permanent modification or use of a federal project (including but not limited to a levee, dike, floodwall, channel, sea wall, bulkhead, jetty, wharf, pier, or other work built 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 operation and maintenance is not eligible for Category 1 and requires review and approval by the Corps pursuant to 33 USC 408.
- **9. Wild and Scenic Rivers.** Any activity that occurs in the designated main stem of, within 0.25 miles up or downstream of the designated main stem of, or in tributaries within 0.25 miles of the designated main stem of a National Wild and Scenic River, or that has the potential to alter flows within a river within the National Wild and Scenic River System is not eligible for Category 1, regardless of the size of the impacts. This condition applies to both designated Wild and Scenic Rivers and rivers officially designated by Congress as study rivers for possible inclusion while such rivers are in official study status. See Appendix G for a list of rivers and procedures.

10. Federal Endangered Species.

- (a) No activity may be authorized under this GP (Category 1 or 2) which would:
 - i. Be "likely to adversely affect" a threatened or endangered species, a proposed species, designated or proposed critical habitat (all herein referred to as "listed species or habitat") as identified under the federal Endangered Species Act (ESA),
 - ii. Result in a "take" of any federally-listed threatened or endangered species of fish or wildlife, or
 - iii. Result in any other violation of Section 9 of the ESA protecting threatened or endangered species of plants.
- (b) No activity may be authorized under Category 1 if a listed species or critical habitat is present in the action area. Project proponents must check the USFWS and National Marine Fisheries Service (NMFS) websites provided at Appendix F.
- (c) Proponents must submit an application if any of the activities in (a) or (b) may occur and provide information on federally-listed species or habitat (see Appendix F) to allow the Corps to conduct any required consultation under Section 7 of the ESA.
- 11. Essential Fish Habitat. Any work in streams in the Connecticut and Merrimack River watersheds that are stocked with Atlantic salmon (see Appendix H) may be authorized under Category 1 of this GP provided the work¹ will NOT be conducted during the time of year restrictions stated in the Massachusetts Division of Marine Fisheries (MA DMF) document specified in GC 24(b) and Appendix F. This is to protect upstream adult migration, downstream smolt emigration and fall migration. Category 2 authorization letters from the Corps may require permittees to follow any NMFS conservation recommendations.
- **12. Federal Navigation Project.** Any structure or work that extends closer to the horizontal limits of any Corps Federal Navigation Project (see Appendix I) than a distance of three times the project's authorized depth shall be subject to removal at the owner's expense prior to any future Corps dredging or the performance of periodic hydrographic surveys.

13. Navigation.

(a) There shall be no unreasonable interference with navigation by the existence or use of the activity authorized herein, and no attempt shall be made by the permittee to prevent the full and free use by the

¹ Exploratory drilling and borings for bridges are not subject to time of year restrictions.

public of all navigable waters at or adjacent to the activity authorized herein.

- (b) The permittee understands and agrees that, if future U.S. operations require the removal, relocation, or other alteration of the structure or work herein authorized, or if, in the opinion of the Secretary of the Army or his authorized representative, said structure or work shall cause unreasonable obstruction to the free navigation of the navigable waters, the permittee will be required, upon due notice from the Corps, to remove, relocate, or alter the structural work or obstructions caused thereby, without expense to the U.S. No claim shall be made against the U.S. on account of any such removal or alteration.
- **14. Federal Liability.** In issuing this 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. Avoidance, Minimization and Compensatory Mitigation.

- (a) Discharges of dredged or fill material into waters of the U.S., including wetlands, shall be avoided and minimized to the maximum extent practicable. Compensatory mitigation of unavoidable direct and indirect impacts may be required on a case-by-case basis (see Appendix F).
- (b) For authorizations under this GP, the project proponent must minimize upland impacts in the surrounding "vernal pool management areas" for all VPs on, and known VPs surrounding, the project site, to the greatest extent practicable. See GC 3, page 1 of Appendix A for thresholds, Endnote 5 of Appendix A for definitions, and Appendix F for impact minimization.
- **16. Heavy Equipment in Wetlands.** Operating heavy equipment other than fixed equipment (drill rigs, fixed cranes, etc.) within wetlands shall be minimized, and such equipment shall not be stored, maintained or repaired in wetlands, to the maximum extent practicable. Where construction requires heavy equipment operation in wetlands, the equipment shall either have low ground pressure (typically <3 psi), or it shall be placed on swamp/construction/timber mats (herein referred to as "construction mats" and defined at Appendix A, Endnote 3) 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 (see GC 17 below). An adequate supply of spill containment equipment shall be maintained on site.

17. Temporary Fill.

Temporary fill that qualifies for Cat 1 (e.g., less than 5,000 square feet of combined temporary and permanent fill associated with the single and complete project), or is authorized in writing under Cat 2, shall adhere to the following:

- (a) All temporary fill shall be stabilized to prevent its eroding into portions of waters of the U.S., including wetlands, where it is not authorized.
- (b) Unconfined temporary fill authorized for discharge into waters of the U.S., including wetlands, shall consist of material that minimizes impacts to water quality (e.g. sandbags, clean gravel and/or stone).
- (c) Temporary fill authorized for discharge into wetlands should be placed on geotextile fabric or other material (e.g., straw) laid on the pre-construction wetland grade where practicable to minimize impacts.

- (d) Temporary fill shall be removed as soon as it is no longer needed, disposed of at an upland site, and suitably contained to prevent its subsequent erosion into waters of the U.S., including wetlands. To qualify for Category 1, temporary fill placed during the:
 - i. growing season must be removed before the beginning of the next growing season.
- ii. non-growing season may remain throughout the following growing season, but must be removed before the beginning of the next growing season.
- (e) Waters of the U.S., including wetlands, where temporary fill was discharged shall be restored (see GC 18).
- (f) Appropriate measures must be taken to maintain normal downstream flows and minimize flooding to the maximum extent practicable, when temporary structures, work, and discharges, including cofferdams, are necessary for construction activities, access fills, or dewatering of construction sites. Temporary fills must be placed in a manner that will not be eroded by expected high flows (GC 19-21).
- (g) Construction mats and corduroy roads (see GC 16) are considered as temporary fill when they are removed immediately upon work completion. The areas must be restored (see GC 18).

18. Work Site Restoration.

- (a) 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.
- (b) Upon completion of construction, all disturbed wetland areas (the disturbance of these areas must be authorized) shall be properly stabilized. Any seed mix shall contain only plant species native to New England and shall not contain any species listed in the "Invasive and Other Unacceptable Plant Species" Appendix in the "New England District Compensatory Mitigation Guidance" (see Appendix F). This list may be updated periodically.
- (c) In areas of authorized temporary disturbance, if trees are cut they shall be cut at ground level and not uprooted in order to prevent disruption to the wetland soil structure and to allow stump sprouts to revegetate the work area, unless otherwise authorized.

19. Sedimentation and Erosion Control.

- (a) Adequate sedimentation and erosion control management measures, practices and devices, such as phased construction, vegetated filter strips, geotextile silt fences, hay bales or other devices, shall be installed and properly maintained to reduce erosion and retain sediment on-site during and after construction. They shall be capable of preventing erosion, of collecting sediment, suspended and floating materials, and of filtering fine sediment.
- (b) These temporary devices shall be removed upon completion of work and the disturbed areas shall be stabilized. The sediment collected by these devices shall be removed and placed at an upland location, in a manner that will prevent its later erosion into a waterway or wetland.
- (c) All exposed soil and other fills shall be permanently stabilized at the earliest practicable date (GC 18).

20. Bank Stabilization.

- (a) Projects involving construction or reconstruction/maintenance of bank stabilization structures within Corps jurisdiction must be designed to minimize environmental effects, effects to neighboring properties, scour, etc. to the maximum extent practicable.
- (b) Project proponents must stabilize the bank considering this sequential minimization process: avoidance of aquatic resource impacts, diversion of overland flow, vegetative stabilization, stone-sloped surfaces, and walls/bulkheads. Vertical walls/bulkheads shall only be used in situations where reflected wave energy can be tolerated. Refer to Appendix F.

(c) Inland Water bank stabilization activities necessary for erosion prevention must meet all of the following criteria to qualify for Category 1: (i) No material is placed in excess of the minimum needed for erosion protection; (ii) The activity is no more than 100 feet in length along the bank; (iii) The activity will not exceed an average of one cubic yard per running foot placed along the bank below the plane of the ordinary high water mark; (iv) No structures angled steeper than 3H:1V and only rough-faced stone or fiber roll revetments allowed. (v) The activity does not involve discharges of dredged or fill material into special aquatic sites; (vi) No material is of the type, or is placed in any location, or in any manner, to impair surface water flow into or out of any water of the United States; (vii) No material is placed in a manner that will be eroded by normal or expected high flows (properly anchored trees and treetops may be used in low energy areas); and, (viii) The activity is not a stream channelization activity.

21. Stream Crossings and Work.

- (a) All temporary and permanent crossings¹ of rivers, streams, brooks, etc. (hereon referred to as "streams") shall be suitably culverted, bridged, or otherwise designed to i) withstand and prevent the restriction of high flows, and ii) not obstruct the movement of or not 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, beyond the actual duration of construction unless the activity's primary purpose is to impound water.
- (b) Any work that temporarily or permanently impacts upstream or downstream flood conditions or permanently impacts wetlands must be reviewed under Cat. 2. The "Massachusetts Dam Removal and the Wetland Regulations" may be used as a reference (see Appendix F).

[Note: (c)-(l) below only apply to Inland Waters and Wetlands (see Appendix A, Page 1 for definition).] (c) For new stream crossings to qualify for Category 1:

- i. These shall be designed and constructed² to conform to the General Standards contained in the version of the "Massachusetts River and Stream Crossing Standards" on our website (see Appendix F).
- ii. These shall be at least 5-feet wide at ground level to ensure that General Standard 3 is met for small streams.
- iii. Spans³ are required to avoid or cause minimal disruption to the streambed. Footings and abutments shall be landward of 1.2 times bankfull width (see General Standard 3 in (c) above). To the greatest extent practicable, work in the stream shall be minimized, and design and construction shall allow the streambed's natural structure and integrity to remain intact. Any fill or excavation of the streambed below bankfull width other than footings, support pilings, and work specified in 21(h), 21(i), 21(l)ii and 21(l)iii, requires Category 2 review and, unless demonstrated otherwise, stream simulation as necessary to restore or establish substrate and banks in the span structure and work area to match the characteristics of the substrate and banks in the natural stream channel.²
- (d) For replacement stream crossings:
- i. These should be designed and constructed² to conform to the General Standards contained in the version of the "Massachusetts River and Stream Crossing Standards" on our website (see Appendix F). This is recommended to ensure compliance with GC 21(a) and GC 21(b) above.
 - ii. Compliance with General Standards 2 and 4 is required to qualify for Category 1.
- iii. Replacement crossings on the following high-quality stream segments are not eligible for Category 1: NHESP Living Water Cores, NHESP BioMap cores, ACECs, Anadromous Fish Runs, and Cold Water Fisheries. These are shown at:

www.streamcontinuity.org/assessing crossing structures/prioritzing streams.htm

¹ This GP does not apply to constructed drainage systems designed primarily for the conveyance of storm water or irrigation. ² See Appendix F for design and construction methodology.

³ For purposes of this GP, spans are bridges, 3-sided box culverts, open-bottom culverts or arches that span the stream with footings landward of bankfull width.

- (e) Culvert extensions do not qualify for Category 1 and must be reviewed by the Corps.
- (f) For new stream crossings not eligible for Category 1, and for replacement crossings, applicants should use the least intrusive and environmentally damaging method to construct new and replacement stream crossings following this sequential minimization process: 1) Spans with no stream impacts,
- 2) Spans with stream impacts, and 3) Embedded culverts with stream simulation or low-slope design.
- (g) The permittee shall maintain the work authorized herein in good condition and in conformance with the terms and general conditions of this permit to facilitate aquatic life passage as stated in GC 21a. Culverts that develop "hanging" inlets or outlets, result in bed washout, or a stream that doesn't match the characteristics of the substrate in the natural stream channel such as mobility, slope, stability, confinement will require maintenance or repair to comply with this GC.
- (h) Paragraphs (b) (g) above do not apply to:
 - i. Temporary spans³. Temporary spans shall be removed within 180 days.
- ii. Temporary stream crossings that aren't spans (typically culverts). To qualify for Category 1, these must be designed in accordance with 1-6 below. Category 2 projects should follow 2-6 below:
- 1. Installed outside of the time of year (TOY) restrictions specified in GC 21(m) below and must be removed before the beginning of the TOY restriction of that same season. Those that will remain into the TOY restriction will require Category 2 review.
- 2. Placed on geotextile fabric or other material where practicable to ensure restoration to the original grade. Soil may not be used to construct or stabilize these structures and rock must be large enough to allow for easy removal without disrupting the streambed.
- 3. Designed and maintained to withstand and pass high flows. Water height should be no higher than the top of the culvert's inlet. A minimum culvert diameter of two feet is required to pass debris. Culverts must be aligned to prevent bank erosion or streambed scour.
 - 4. Equipped with energy dissipating devices installed downstream if necessary to prevent scour.
 - 5. Designed and maintained to prevent soil from entering the waterbody.
- 6. Removed upon the completion of work. Impacts to the streambed or banks requires restoration to their original condition using stream simulation methods.²
- (i) Temporary stream crossings (see h above) or cofferdams shall be used for equipment access across streams (see Appendix F). Note: Areas of fill and/or cofferdams must be included in total waterway/ wetlands impacts to determine the review category in Appendix A.
- (j) Maintenance and replacements of stream crossings. An existing stream crossing must be authorized and in compliance with all conditions of its authorization(s) to qualify for maintenance not subject to regulation. See Appendix A, Endnote 15.
- (k) Projects using slip lining (retrofitting an existing culvert by inserting a smaller diameter pipe), plastic pipes and High Density Polyethylene (HDPE) pipes do not qualify for Category 1, either as new work or maintenance activities.
- (l) For Category 1 work: i) No open trench excavation in flowing waters. ii) Management techniques such as temporary flume pipes, culverts, cofferdams, etc. must be used to maintain normal flows within the stream boundary's confines. iii) Water diversions may be used immediately up and downstream of the work footprint. See Appendix A, Endnote 4.
- (m)For projects that otherwise meet the terms of Category 1, in-stream construction work shall not be conducted during the time of year (TOY) restrictions specified in the MA DMF document referenced in GC 24. For streams not indicated in this document, work may not be conducted from October 1 to June 30. Projects proposed during these TOY restrictions are ineligible for Category 1, regardless of the waterway and wetland fill and/or impact area.

22. Wetland Crossings.

(a) All temporary and permanent crossings of wetlands shall be suitably culverted, bridged, or otherwise designed to: i) Withstand and prevent the restriction of high flows, ii) Not obstruct the movement of or

- not substantially disrupt the necessary life-cycle movements of those species of aquatic life indigenous to the wetland, including those species that normally migrate through the area, beyond the actual duration of construction unless the activity's primary purpose is to impound water.
- (b) To qualify for Category 1, new and replacement wetland crossings that are permanent shall be culverted, spanned or bridged in such a manner as to preserve hydraulic and ecological connectivity, at its present level, between the wetlands on either side of the road. To meet this requirement, we recommend that culverts, spans or bridges be placed at least every 50 feet with an opening at least 2 feet high and 3 feet wide at ground level. Closed bottom culverts shall be embedded at least 6 inches with a natural bottom. In addition, see Appendix F for MassDEP's standards.
- (c) In the case of non-compliance, the permittee shall take necessary measures to correct wetland damage due to lack of hydraulic connectivity.
- (d) Any work that permanently impacts flooding, wetlands on either side of the wetland crossing, or wetland drainage from the upgradient side of the wetland crossing does not qualify for Category 1.

23. Discharge of Pollutants.

- (a) All activities involving any discharge of pollutants into waters of the U.S., including wetlands, authorized under this GP shall be consistent with MassDEP's Surface Water Quality Standards and Surface Water Discharge Permit Program Regulations (314 CMR 3.00 and 4.00) and the Wetlands Protection Act (310 CMR 10.00), including Stormwater Management Standards, applicable water quality standards, effluent limitations, standards of performance, prohibitions, and pretreatment standards and management practices established pursuant to the CWA (33 USC 1251), and other applicable state and local laws. If applicable water quality standards, limitations, etc. are revised or modified during the term of this GP, the authorized work shall be modified to conform with these standards within six months of the effective date of such revision or modification, or within a longer period of time deemed reasonable by the Corps in consultation with EPA. Issuance of the WQC confirms that that State water quality standards are met.
- (b) All projects authorized by this GP shall be designed, constructed and operated to minimize or eliminate the discharge of pollutants.
- (c) All activities involving any discharge of pollutants into waters of the U.S., including wetlands, authorized under this GP must comply with Section 402 [33 U.S.C. 1342] of the Clean Water Act (CWA) and the requirements of the National Pollutant Discharge Elimination System (40 CFR 122).

24. Spawning, Breeding and Migratory Areas.

- (a) Activities and impacts such as excavations, discharges of dredged or fill material, and/or suspended sediment producing activities, in 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) To qualify for Category 1, inland and navigable water (e.g., ocean waters, rivers, streams, brooks, embayments, etc.) construction work may not be conducted during the time-of-year restrictions for any *present* species specified in the MA DMF document provided at Appendix F. The TOY restriction for any inland stream not specified in the MA DMF document is October 1 to June 30 (see GC 21(m)).
- **25. 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.

26. 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 maintains as much as practicable, and minimizes any adverse impacts on, existing fish, wildlife, and natural environmental functions and values.

27. Invasive Species.

- (a) The introduction, spread, or the increased risk of invasion of invasive plant or animal species on the project site, into new or disturbed areas, or areas adjacent to the project site caused by the site work is prohibited. See Appendix F.
- (b) Unless otherwise directed by the Corps, all applications for Category 2 inland projects proposing fill in Corps jurisdiction shall include an Invasive Species Control Plan (ISCP). See Appendix F.
- **28. 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 these inspections, the permittee shall complete and return to the Corps:
- For Category 1 projects, the Category 1 Form (Appendix C).
- For Category 2 projects, the 1) Work-Start Notification Form and 2) Compliance Certification Form. Both are provided with each Category 2 authorization letter.
- **29. Maintenance.** (a) The permittee shall maintain the work authorized herein in good condition and in conformance with the terms and General Conditions of this permit. (b) This does not include maintenance of dredging projects. Maintenance dredging is subject to the review thresholds in Appendix A and/or any special conditions included in a written Corps authorization. Maintenance dredging includes only those areas and depths previously authorized by the Corps and dredged. (c) For inland mosquito ditching and maintenance information, see www.nae.usace.army.mil, "Regulatory/Permitting," and then "Useful Links and Documents."
- **30. Property Rights.** This GP does not convey any property rights, either in real estate or material, or any exclusive privileges, nor does it authorize any injury to property or invasion of rights or any infringement of federal, state or local laws or regulations.
- **31. Modification, Suspension, and Revocation.** This GP or any work authorized under Category 1 or 2 may be either modified, suspended, or revoked in whole or in part pursuant to the policies and procedures of 33 CFR 325.7. Any such action shall not be the basis for any claim for damages against the United States.
- **32. Restoration Directive.** The permittee, upon receipt of a notice of revocation of authorization under this GP, shall restore the wetland or waterway to its former conditions, without expense to the United States and as directed by the Secretary of the Army or his authorized representative. If the permittee fails to comply with such a directive, the Secretary or his designee may restore the wetland or waterway to its former condition, by contract or otherwise, and recover the cost from the permittee.
- **33. Special Conditions.** The Corps may independently, or at the request of the federal resource agencies, impose other special conditions on a project authorized pursuant to this GP that are determined necessary to minimize adverse navigational and/or environmental effects or based on any other factor of the public interest. Failure to comply with all conditions of the authorization, including special

conditions, constitutes a permit violation and may subject the permittee to criminal, civil or administrative penalties, and/or restoration.

- **34. False or Incomplete Information.** If the Corps makes a determination regarding the eligibility of a project under this GP and subsequently discovers that it has relied on false, incomplete, or inaccurate information provided by the permittee, the GP authorization shall not be valid and the U.S. Government may institute appropriate legal proceedings.
- **35. Abandonment.** If the permittee decides to abandon the activity authorized under this GP, unless such abandonment is merely the transfer of property to a third party, he/she may be required to restore the area to the satisfaction of the Corps.
- **36. Enforcement Cases.** This GP does not apply to any existing or proposed activity in Corps jurisdiction associated with an on-going Corps or EPA enforcement action, until such time as the enforcement action is resolved or the Corps and/or EPA as appropriate determines that the activity may proceed independently without compromising the enforcement action.
- 37. Transfer of GP Verifications. If the permittee sells the property associated with a GP verification, the permittee may transfer the GP verification to the new owner by submitting a letter to the Corps (see Appendix E for address) to validate the transfer. A copy of the GP verification must be attached to the letter and the letter must contain the following statement and signature: "When the structures or work authorized by this GP are still in existence at the time the property is transferred, the terms and conditions of this GP, including any special conditions, will continue to be binding on the new owner(s) of the property. To validate the transfer of this GP and the associated liabilities associated with compliance with its terms and conditions, have the transferee sign and date below."
- **38. Duration of Authorization.** This GP expires on January 20, 2015. Activities authorized under this GP that have commenced (i.e., are under construction) or are under contract to commence before this GP expires will have until January 20, 2016 to complete the activity under the terms and conditions of the current GP.

39. Previously Authorized Activities.

- (a) Projects that have received written authorization from the Corps and that were completed under the previous PGPs, nationwide permits, regional general permits or letters of permission, shall remain authorized as specified in each authorization letter.
- (b) Activities authorized pursuant to 33 CFR 330.3 ("Activities occurring before certain dates") are not affected by this GP.

or district engineer

APPENDIX A: DEFINITION OF CATEGORIES

I. INLAND WATERS AND WETLANDS

Inland Waters and Wetlands: Waters that are regulated under Section 404 of the Clean Water Act, including rivers, streams, lakes, ponds and wetlands, excluding Section 10 Navigable Waters of the U.S. The jurisdictional limits are the ordinary high water (OHW) mark in the absence of adjacent wetlands, beyond the OHW mark to the limit of adjacent wetlands when adjacent wetlands are present, and the wetland limit when only wetlands are present. For the purposes of this GP, fill placed in the area between the mean high water (MHW) and the high tide line (HTL), and in the bordering and contiguous wetlands to tidal waters are reviewed in the Navigable Waters section (see Appendix A, Page 4).

Projects not meeting Category 1 require an application for review as a Category 2 or Individual Permit project.

All Category 1 and 2 projects must comply with all of this GP's applicable terms (Pages 1-4) and general conditions (Pages 5-14).

(a) NEW FILL/ EXCAVATION DISCHARGES

(You must reference (b) – (e) below for other thresholds that may be relevant to your project.)

1. <5,000 SF inland waterway and/or wetland fill and associated secondary impacts² (e.g., areas drained, flooded, fragmented, mechanically cleared or excavated). Fill area includes all temporary and permanent fill, and regulated discharges associated with excavation. Construction mats and corduroy roads³ are considered as fill. (See General Condition (GC) 17.)

Provided:

CATEGORY 1

- In-water work limited to the TOY windows specified in GC 24.
- Historic fill + proposed impact area <5000 SF, and subdivision fill complies with GC 5, Single and Complete Projects.
- No work in SAS⁶ other than wetlands.
- 2. Construction mats³ necessary to conduct activities that are authorized or not subject to regulation (see Endnote 15). Authorized construction mats must be in place for <3 months, removed immediately upon work completion, and the wetlands must be restored (see GC 18).
- 3. The following work is excluded from Cat 1 for all vernal pools (VPs) on, or known VPs surrounding, the project site (see GCs 3&15): a. Any work within a VP depression⁵.
- b. Any work, including roads and driveways, in the VP envelope⁵.
- c. Any work that individually or cumulatively impacts >25% of the VP critical terrestrial habitat⁵.
- * See Appendix D for VP delineation requirements.
- * See Appendix F, 5(c) for VP mitigation documents.
- * 3b and 3c don't apply to temporary impacts associated with construction mats in previously disturbed areas of existing utility project (e.g., transmission lines, gas pipelines) or linear transportation project (e.g., roads, highways, railways, trails, airport runways and taxiways) right-of-ways provided there is a Vegetation Management Plan that avoids, minimizes and mitigates impacts to aquatic resources.

CATEGORY 2

5,000 SF to 1 acre inland waterway and/or wetland fill and associated secondary impacts (e.g., areas drained, flooded, fragmented, mechanically cleared or excavated). Fill area includes all temporary and permanent fill, and regulated discharges associated with excavation. Construction mats and corduroy roads³ are considered as fill. (See GC 17.)

Specific activities with impacts \geq 5,000 SF required to affect the containment, stabilization, or removal of hazardous or toxic waste materials performed, ordered, or sponsored by a government agency or Licensed Site Professional with established legal or regulatory authority. Wetlands must typically be restored in place at the same elevation to qualify.

The discharge of accumulated bottom sediment from or through a dam into downstream waters.

Temporary structures, work, and discharges ≥5000 SF necessary for construction activities or access fills or dewatering of construction sites, provided that the associated primary activity is authorized by the Corps or not subject to Corps regulation. GCs 16-19 are particularly relevant.

	CATEGORY 1	CATEGORY 2
(b) BANK STABILIZATION PROJECTS (Rivers, streams, brooks & inland waterbodies such as lakes, ponds, etc.)	 Inland bank stabilization <100 FT long and <1 CY of fill per linear foot below OHW. Provided: Work complies with the GCs (GC 20-21 in particular), including: No structures angled steeper than 3H:1V and only rough-faced stone or fiber roll revetments allowed. No open trench excavation in flowing waters. Proper management techniques and water diversions are required (see GC 21(1)). Work doesn't occur during the time of year (TOY) restrictions for any <i>present</i> species in streams specified in the MA DMF document referenced in GC 24. The TOY restriction for any streams not specified in the MA DMF document is October 1 to June 30 (see GC 21(m)). No work in vernal pools⁵ or SAS⁶. 	Work not qualifying for Category 1.
(c) RIVER/ STREAM/BROOK WORK & CROSSINGS and WETLAND CROSSINGS	River, stream and brook work and crossings: • Must comply with the GCs (GC 21 in particular), including: • Conforming to General Standards (see GC 21(c)). • No open trench excavation in flowing waters. Proper water diversions and management techniques are required (see GC 21(1)). • No slip lining (see GC 21(k)). • Work doesn't occur during the time of year (TOY) restrictions for any <i>present</i> species in streams specified in the MA DMF document referenced in GC 24. The TOY restriction for any streams not specified in the MA DMF document is October 1 to June 30 (see GC 21(m)). • No work in riffles and pools ⁶ . • No stream relocations. Wetland crossings must comply with the particularly relevant GC 22,	Work not qualifying for Category 1.
(d) REPAIR, REPLACEMENT & MAINTENANCE OF AUTHORIZED FILLS.	Repair/maintenance of currently-serviceable, authorized fills with no expansion or change in use. • Conditions of the original authorization apply. • Minor deviations in fill design allowed ¹¹ .	Repair/maintenance of currently serviceable authorized fills, or replacement of non-serviceable authorized fills, <1 acre, including expansion or a change in use. Replacement of non-serviceable authorized fills, including expansion or a change in use, totaling <1 acre.

	CATEGORY 1	CATEGORY 2
(e) MISC.	Oil spill clean-up fill done in accordance with the Massachusetts Contingency Plan 310 CMR 40.0000 or under state emergency certification 310 CMR 10.06. SAS ⁶ must typically be restored in place at the same elevation. Scientific measurement devices whose purpose is to measure and record scientific data, such as staff gages, water recording devices, water quality testing and improvement devices, and similar structures. Structures may not restrict movement of aquatic organisms.	Aquatic habitat restoration, establishment, and enhancement of wetlands and riparian areas and the restoration and enhancement of streams and other open waters with impacts of any area ≥5,000 SF, provided those activities result in net increase in overall aquatic resource functions and services. ⁹ Projects where an EIS is required by the Corps are not eligible for Category 2.
	Survey activities, such as core sampling, seismic exploratory operations, plugging of seismic shot holes and other exploratory-type bore holes, exploratory trenching, soil surveys, sampling, and historic resources surveys (but not recovery). Exploratory trenches must be restored in accordance with GC 19. The construction of temporary pads is authorized provided the discharge doesn't exceed 25 CY. This doesn't authorize permanent structures or the drilling and the discharge of excavated material from test wells for oil and gas exploration (the plugging of such wells is authorized).	
	Any work not commenced nor completed that was authorized in a written letter from the Corps under the PGP in effect between December 18, 2006 and January 20, 2010. The terms and general conditions of this GP apply along with any special conditions in the written authorization.	

II. NAVIGABLE WATERS	Navigable Waters of the U.S.: Waters that are subject to the ebb and flow of the tide and federally designated navigable rivers (the Merrimack River, Connecticut River, and Charles River to the Watertown Dam in Massachusetts) (Section 10 Rivers and Harbors Act of 1899). The jurisdictional limits are the mean high water (MHW) line in tidal waters and the ordinary high water (OHW) mark in non-tidal portions of the federally designated navigable rivers. For the purposes of this GP, fill placed in the area between MHW and the high tide line (HTL), and in the bordering and contiguous wetlands ¹ to tidal waters are also reviewed in this Navigable Waters section. Projects not meeting Category 1 require an application for review as a Category 2 or Individual Permit project. All Category 1 and 2 projects must comply with all of this GP's applicable terms (Pages 1 – 4) and general conditions (Pages 5 – 14).				
	CATEGORY 1	CATEGORY 2			
(a) FILL	 No provisions for new or previously unauthorized fills in Category 1, other than: Fills authorized under the MA Chapter 91 Amnesty program. (e.g., seawalls or bulkheads). 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 authorizes such discharges as part of the bridge permit or appropriate approval. Causeways and approach fills are not included in this category and require Category 2 or Individual Permit authorization. 	<1 acre waterway fill and secondary waterway impacts (e.g., areas drained, flooded, fragmented or mechanically cleared). Fill area includes all temporary and permanent waterway fills. Temporary fill and/or excavation <1 acre in SAS ⁶ . No permanent fill or excavation in SAS ⁶ .			
(b) REPAIR AND MAINTENANCE WORK	Repair, replacement in kind or maintenance of: Existing, currently serviceable, authorized fills and structures. Amnesty-approved fills and structures: Provided: No expansion or change in use. Must be rebuilt in same footprint, however minor deviations in structure design allowed allowed.	Repair/maintenance of currently serviceable authorized fills, or replacement of non-serviceable authorized fills, <1 acre, including expansion or a change in use. 13 Repair/maintenance 13 of currently serviceable authorized structures w/expansion where the structure (existing + expansion) qualifies for Cat 2 [see (e) below]. Replacement of non-serviceable, authorized structures where the structure (existing + expansion, if any) qualifies for Cat 2 [see (e) below].			

	CATEGORY 1	CATEGORY 2
(c) DREDGING/ EXCAVATION AND ASSOCIATED DISPOSAL	 Maintenance dredging¹⁴ for navigational purposes <1,000 CY with upland disposal. Includes return water from upland contained disposal area. Provided: Proper siltation controls are used. No impacts to SAS⁶. No dredging in intertidal areas. No dredging in Areas of Critical Environmental Concern (ACEC's). The MA Secretary of Environmental Affairs designates ACECs and lists them: www.mass.gov/dem/programs/acec/. Work doesn't occur during the time of year (TOY) restrictions for any present species in waters specified in the MA DMF document referenced in GC 24. 	 Maintenance dredging ¹⁴ ≥1,000 CY, new dredging <25,000 CY, or projects not meeting Category 1. Provided: No impacts to SAS⁶. Disposal includes: 1. upland; 2. beach nourishment of any area provided dredging's primary purpose is navigation or sand is from an upland source and Corps, in consultation w/federal and state agencies, determines the net adverse effects are not more than minimal; or 3. open water & confined aquatic disposal, if Corps, in consultation with federal and state agencies, finds the material suitable. Includes return water from upland contained disposal areas.
(d) MOORINGS	Private, non-commercial, non-rental, single-boat moorings authorized under MGL Chapter 91 Section 10A. Provided: Not associated with any boating facility ¹⁰ , including those in a Federal Anchorage ¹¹ . Not located within the buffer zone of the horizontal limits of a Federal Channel ¹¹ . No interference with navigation. Not located in vegetated shallows ¹² . Not located in SAS ⁶ (excluding vegetated shallows) unless conservation/eco-friendly moorings are used, which shall prevent the chain/rope from resting or dragging on the bottom substrate at all tides, and utilize a helical anchor where practicable.	Moorings that don't meet the terms of Category 1 and don't require an Individual Permit. Moorings associated with a boating facility ¹⁰ . Moorings located such that they, and/or vessels docked or moored at them, are within the buffer zone of the horizontal limits of a Federal Channel ¹¹ . (See Appendix I.) Moorings and/or their moored vessels within the horizontal limits of a Federal Channel ¹¹ (see Appendix I) are not eligible for Category 2 and require an Individual Permit. Any work in the area of the Cape Cod Canal ¹⁴ located west of the vertical lift railroad bridge as noted in Endnote 14 and Appendix J is not eligible for Category 2 and requires an Individual Permit.

	CATEGORY 1	CATEGORY 2
(e) PILE- SUPPORTED STRUCTURES AND FLOATS	Private, bottom-anchored floats <400 SF. Private, pile-supported structures that aren't boating facilities for navigational access to the waterway <400 SF with attached floats totaling	Private structures or floats that aren't associated with a new or previously unauthorized boating facility ¹⁰ and that don't meet the terms in Cat. 1.
ANDFLOATS	≤200 SF.	Modifications or expansions to existing, authorized boating facilities ¹⁰ .
	 Provided (for all of the above): Floats supported at least 2.5' above the substrate during all tides. Pile-supported structures & floats are not positioned over vegetated shallows¹² and moored vessels are not positioned over SAS⁶. No structure located within 25' of any vegetated shallows¹². 	Pile-supported structures or floats and/or vessels docked or moored at them within the buffer zone of the horizontal limits of a Corps FNP ¹¹ .
	 Pile-supported structures: ≤4' wide and at least a 1:1 height:width ratio¹³, pilings spaced ≥20x the diameter of the piling, cross or transverse bracing higher than MHW, 	Pile-supported structures or floats located such that they and/or vessels docked or moored at them are within the horizontal limits of a Corps FNP ¹¹ are not eligible for Category 2 and require an Individual Permit.
	 o planks spaced ≥ ¾ inch to permit light penetration (alternate spacing acceptable if in accordance with "Plank Spacing" on Page 17 of DEP's "A Guide to Permitting Small, Pile-Supported Docks and Piers."). (See Appendix F.) Ch. 91 license issued. 	Any work in the area of the Cape Cod Canal ¹⁴ located west of the vertical lift railroad bridge as noted in Appendix J and Endnote 14 is not eligible for Category 2 and requires an Individual Permit.
	 Not associated with a boating facility¹⁰. Not located within the buffer zone of the horizontal limits of an FNP¹¹. No structure extends across >25% of the waterway width at MLW. 	Establishment of a marina reconfiguration zone is not eligible for Category 2 and requires an Individual Permit.
(f) MISCELLANEOUS	Piers /structures licensed by Ch. 91 through the Amnesty program. Temporary buoys, markers, floats, and similar structures for recreational use during specific events, provided they are removed with 30 days after use is discontinued. The placement of aids to navigation and regulatory markers which are approved by and installed in accordance with the requirements of the U.S.	Structures or work in or affecting tidal or navigable waters that are not defined under any of the previous headings listed above. Includes, but is not limited to, utility lines, aerial transmission lines, pipelines, outfalls, boat ramps, bridges, tunnels and horizontal directional drilling activities seaward of the MHW line.
	Coast Guard. (See 33 CFR 66, Chapter I, C.) Oil spill clean-up structures and fill done in accordance with the Massachusetts Contingency Plan 310 CMR 40.0000 or under state emergency certification 310 CMR 10.06. SAS ⁶ must typically be restored in place at the same elevation.	Shellfish aquaculture facilities in compliance with the Aquaculture Guidelines (see Appendix K). Aquatic habitat restoration, establishment, and enhancement
	F 30 3 30 30 30 30 30 30 30 30 30 30 30 30 30	of tidal wetlands and riparian areas provided those activities are proactive and result in net increases in aquatic resource functions and services. ⁹

	CATEGORY 1	CATEGORY 2
(f) MISCELLANEOUS (continued)	Fish and wildlife harvesting, enhancement, and attraction devices and activities such as pound nets, crab traps, crab dredging, eel pots, lobster traps, and clam and oyster digging, and small fish attraction devices such as open water fish concentrators (sea kites, etc.). This does not authorize artificial reefs or impoundments and semi-impoundments of waters of the U.S. for the culture or holding of motile species such as lobster, or the use of covered oyster trays or clam racks. No activity in SAS and no hazard to navigation.	Specific activities with impacts of any area required to affect the containment, stabilization, or removal of hazardous or toxic waste materials that are performed, ordered, or sponsored by a government agency or Licensed Site Professional with established legal or regulatory authority. Wetlands must typically be restored in place at the same elevation to qualify.
	Test plots <100 SF for the planting of wetland species native to the area. No grading, no plant growing devices and no interference with navigation. Temporary structures must be removed within 60 days	Projects where an EIS is required by the Corps are not eligible for Category 2.
	Scientific measurement devices whose purpose is to measure and record scientific data, such as staff gages, tide gages, water recording devices, water quality testing and improvement devices, and similar structures. Structures may not restrict movement of aquatic organisms.	
	Survey activities, such as core sampling, seismic exploratory operations, plugging of seismic shot holes, and other exploratory-type bore holes, exploratory trenching, soil surveys, sampling, and historic resources surveys (but not recovery). This does not authorize fill or work in SAS, permanent structures or the drilling and the discharge of excavated material from test wells for oil and gas exploration (the plugging of such wells is authorized).	
	Any work not commenced nor completed that was authorized in a written letter from the Corps under the PGP in effect between December 18, 2006 and January 20, 2010. The terms and general conditions of this GP apply along with any special conditions in the written authorization. This does not allow continued disposal of dredged material at the Massachusetts Bay Disposal Site.	

Endnotes/Definitions

¹Bordering and Contiguous Wetlands: A bordering wetland is immediately next to its adjacent waterbody and may lie at, or below, the ordinary highwater mark (MHW in navigable waters) of that waterbody and is directly influenced by its hydrologic regime. Contiguous wetlands extend landward from their adjacent waterbody to a point where a natural or manmade discontinuity exists. Contiguous wetlands include bordering wetlands as well as wetlands that are situated immediately above the ordinary highwater mark and above the normal hydrologic influence of their adjacent waterbody. Note, with respect to the federally designated navigable rivers, the wetlands bordering and contiguous to the tidally influenced portions of those rivers are reviewed under "II. Navigable Waters".

² Direct, Secondary, and Cumulative Impacts/Effects:

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

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) fluctuating water levels in all impoundment and downstream associated with the operation of a dam, b) septic tank leaching and surface runoff from residential or commercial developments on fill, and c) leachate and runoff from a sanitary landfill located in waters of the U.S. Put another way, secondary effects are those impacts outside the footprint of the fill that arise from and are associated with the discharge of dredged or fill material, including the operation of an activity or facility associated with the discharge. Examples may include habitat fragmentation; interruption of travel corridors for wildlife (for example, for amphibians that migrate to and from seasonal or vernal pools used as breeding habitat); hydrologic regime changes; and impacts from operation and maintenance activities for constructed facilities; such as noise/lighting, storm water runoff, and road kill of wetland dependent wildlife. Using the directions contained in the guidelines, we consider the circumstances of a proposed discharge and the project of which it is a part to evaluate the scope, extent, severity, and permanence of direct, secondary, and cumulative adverse effects upon the aquatic ecosystem.

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

³ Construction Mats: Constructions, swamp and timber mats (herein referred to as "construction mats") are generic terms used to describe structures that distribute equipment weight to prevent wetland damage while facilitating passage and providing work platforms for workers and equipment. They are comprised of sheets or mats made from a variety of materials in various sizes. A timber mat consists of large timbers bolted or cabled together. Corduroy roads, which are not considered to be construction mats, are cut trees and/or saplings with the crowns and branches removed, and the trunks lined up next to one another. Corduroy roads are typically installed as permanent structures. Like construction mats, they are considered as fill whether they're installed temporarily or permanently.

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

Vernal Pools (VP): For the purposes of this PGP, these are 1) Certified VPs and Potential VPs as defined by the Massachusetts Natural Heritage and Endangered Species Program (NHESP), and 2) depressions that meet the Certification Criteria in NHESP's "Guidelines for the Certification of Vernal Pool Habitat" at www.mass.gov/dfwele/dfw/nhesp/nhesp.htm under "Vernal Pools." The Corps may determine during a Category 2 review that a waterbody should not be regulated as a VP based on available evidence. The Corps VP management areas are the: Vernal Pool Depression, Vernal Pool Envelope (area within 100 FT of the VP Depression's edge) and Critical Terrestrial Habitat (area within 100-750 FT of the VP Depression's edge). When there is no distinct and clear topographic break at the edge of a VP Depression, the maximum observed or recorded extent of flooding represents the ecological boundary of the VP Depression.

⁶ **Special Aquatic Sites (SAS):** Includes wetlands and saltmarsh, mudflats, riffles and pools, vegetated shallows, coral reefs, and sanctuaries and refuges which consist of areas designated under state and federal laws or local ordinances to be managed principally for the preservation and use of fish and wildlife resources. Note: All SAS⁶ within the project area shall be delineated on the plans for Category 2 and IP applications.

⁷In-Lieu Fee or Mitigation Bank Documents: See www.nae.usace.army.mil/reg and then "Mitigation."

⁸Corps Properties & Easements: Contact the Corps, Real Estate Division (978) 318-8585 to initiate reviews about both Corps holdings and permit requirements.

⁹Aquatic Habitat Restoration, Establishment and Enhancement: The Corps will decide if a project qualifies and must determine in consultation with federal and state agencies that the net effects are beneficial. The Corps may refer to Nationwide Permit 27 published in the 3/12/07 Federal Register. Activities authorized here may include, but are not limited to: the removal of accumulated sediments; the installation, removal, and maintenance of small water control structures, dikes,

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and berms; the installation of current deflectors; the enhancement, restoration, or establishment of riffle and pool stream structure; the placement of in-stream habitat structures; modifications of the stream bed and/or banks to restore or establish stream meanders; the backfilling of artificial channels and drainage ditches; the removal of existing drainage structures; the construction of small nesting islands in inland waters; the construction of open water areas; the construction of native shellfish species habitat over unvegetated bottom for the purpose of habitat protection or restoration in tidal waters; shellfish seeding; activities needed to reestablish vegetation, including plowing or discing for seed bed preparation and the planting of appropriate wetland species; mechanized land clearing to remove non-native invasive, exotic, or nuisance vegetation; and other related activities. Only native plant species should be planted at the site.

¹⁰ **Boating Facilities:** Facilities that provide for a fee, rent, or sell mooring space, such as marinas, yacht clubs, boat clubs, boat yards, town facilities, dockominiums, etc.

¹¹ Federal Navigation Projects (FNPs): FNPs are comprised of Federal Channels and Federal Anchorages. See Appendix I for their location and contact the Corps for more information. "Horizontal Limits" is the outer edge of an FNP. "Buffer Zone" is equal to three times the authorized depth of that channel.

¹² **Vegetated Shallows:** Subtidal areas that support rooted aquatic vegetation such as eelgrass and widgeon grass (Rupiamaritima). (Doesn't include salt marsh.) ¹³ **Height: Width Ratio:** The height of structures shall at all points be equal to or exceed the width of the deck. For the purpose of this definition, height shall be measured from the marsh substrate to the bottom of the longitudinal support beam.

¹⁴ Cape Cod Canal: The Individual Permit area begins approximately 1,000 feet west of the Cape Cod Canal vertical lift railroad bridge and continues westerly approximately 3,000 feet along the center line of the channel to the end of the area (NOAA Reference Chart 13236). See Appendix J.

¹⁵ Maintenance: In accordance with 33 CFR 323.4(a)(2), any discharge of dredged or fill material that may result from any of the following activities is not prohibited by or otherwise subject to regulation under Section 404 of the CWA: "Maintenance, including emergency reconstruction of recently damaged parts, of currently serviceable structures such as dikes, dams, levees, groins, riprap, breakwaters, causeways, bridge abutments or approaches, and trans-portation structures. Maintenance does not include any modification that changes the character, scope, or size of the original fill design." (This could include replacement work if it meets this definition, and stream crossings typically must be an exact replica crossing in the same footprint to qualify.) Otherwise, the following work is regulated and subject to the Category 1 or 2 thresholds in Appendix A above: The repair, rehabilitation, or replacement of any previously authorized, currently serviceable structure or fill, or of any currently serviceable structure or fill authorized by 33 CFR 330.3 – "Activities occurring before certain dates," provided that the structure or fill is not to be put to uses differing from those uses specified or contemplated for it in the original permit or the most recently authorized modification. Minor deviations in the structure's configuration or filled area, including those due to changes in materials, construction techniques, or current construction codes or safety standards that are necessary to make the repair, rehabilitation, or replacement are authorized. Currently serviceable means useable as is or with some maintenance, but not so degraded as to essentially require reconstruction. Only structures or fills that were previously authorized and are in compliance with the terms and condition of the original authorization can be maintained as a non-regulated activity under 33 CFR 323.4(a)(2), or in accordance with the Category 1 or 2 thresholds in Appendix A. Note: The state's maintenance provisions may differ from the

Appendix B: 401 Water Quality Certification

For work in Corps jurisdiction involving a discharge to waters of the U.S., including wetlands, an Individual 401 WQC must be obtained from or waived by the Massachusetts DEP before work can proceed as authorized by this GP for the following circumstances (pursuant to MGL c. 21 Sections 26 - 53 and regulations at 314 CMR 9.00). The following are excerpted from the MassDEP regulations at 314 CMR 9.04: Activities Requiring an Application, and require an Individual 401 WQC application:

- (1) *More than 5000 SF*. Any activity in an area subject to 310 CMR 10.00 which is also subject to 33 USC 1251, et seq. and will result in the loss of more than 5000 SF cumulatively of bordering and isolated vegetated wetlands and land under water.
- (2) Outstanding Resource Waters. Dredging in, or any activity resulting in any discharge of dredged or fill material to any Outstanding Resource Water.
- (3) Real Estate Subdivision Any discharge of dredged or fill material associated with the creation of a real estate subdivision, unless there is a valid, unexpired Final Order of Conditions, followed by a Certificate of Compliance, and a recorded deed restriction providing notice to subsequent purchasers limiting the amount of fill for the single and complete project to less than 5000 square feet cumulatively of bordering and/or isolated vegetated wetlands and land under water and the discharge is not to an Outstanding Resource Water. Real estate subdivisions include divisions where approval is required and where approval is not required under the Subdivision Control Law, MGL. c. 41, §81K through 81GG. Discharges of dredged or fill material to create the real estate subdivision include but are not limited to discharges resulting from the construction of roads, drainage, sidewalks, sewer systems, buildings, septic systems, wells, and accessory structures.
- (4) Activities Exempt under MGL. c. 131, §40. Any activity not subject to MGL. c. 131, §40 and which is subject to 33 USC 1251, et seq. and will result in any discharge of dredged or fill material to bordering vegetated wetlands or land under water.
- (5) Routine Maintenance. Routine maintenance of existing channels, such as mosquito control projects or road drainage maintenance, that will result in the annual loss of more than 5000 square feet cumulatively of bordering and isolated vegetated wetland and land under water will be evaluated under the criteria of 314 CMR 9.06. A single application may be submitted and a single certification may be issued for repeated routine maintenance activities on an annual or multi-year basis not to exceed five years.
- (6) More than 5000 sq. ft. of Isolated Vegetated Wetlands. Any activity in an area not subject to jurisdiction of MGL. c. 131, §40 but which is subject to 33 U.S.C.1251, et seq. (i.e., isolated vegetated wetlands) which will result in the loss of more than 5000 square feet cumulatively of bordering and isolated vegetated wetlands and land under water.
- (7) Rare and Endangered Species Habitat in Isolated Vegetated Wetlands. Any activity resulting in the discharge of dredged or fill material to an isolated vegetated wetland that has been identified as habitat for rare and endangered species.
- (8) Salt Marsh. Any activity resulting in the discharge of dredged or fill material in any salt marsh.
- (9) *Individual 404 Permit*. Any activity that is subject to an Individual Permit under Section 404 of the Clean Water Act by the Corps of Engineers.
- (10) Agricultural Limited Project. Agricultural work, not exempt under MGL. c. 131, §40, referenced in and

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performed in accordance with 310 CMR 10.53(5). Provided the activity does not result in any discharge of dredged or fill material to an Outstanding Resource Water, such work will be presumed to meet the criteria of 314 CMR 9.06 where a comparable alternatives analysis is performed or approved by the Natural Resources Conservation Service and included in the Notice of Intent.

- (11) Discretionary Authority. Any activity where the Department invokes discretionary authority to require an application based on cumulative effects of multiphased activities, cumulative effects of dredging, or from the discharge of dredged or fill material to bordering or isolated vegetated wetlands or land under water, or other impacts that may jeopardize water quality. The Department will issue a written notice of and statement of reasons for its determination to invoke this discretionary authority not later than ten business days after its receipt of an Order of Conditions.
- (12) *Dredging Greater than 100 c.y.* Any dredging or dredged material disposal of more than 100 cubic yards not meeting the requirements of 314 CMR 9.03(3).
- (13) Any activity not listed in 314 CMR 9.03 or 314 CMR 9.04 is an activity requiring an application subject to the requirements of 314 CMR 9.05 and 9.06 through 9.13 as applicable..



Appendix C: Category 1 Form

(for all Inland and Navigable Water Projects in Massachusetts)

Submit this **before** work commences to the following address. Call (978) 318-8335 with any questions.

Chief, Permits & Enforcement Branch (MA)

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

Permittee:						
Permittee Address:						
City, State & Zip Code:						
Phone(s) and Email:						
Work Locations/Address:						
City, State & Zip Code:						
Latitude/Longitude coordinates:						
Waterway name:						
Work will be done under the following A. I. Inland Waters and wetlands: a. II. Navigable Waters: a	Appendix b	A categ	ories ((circle a	ıll that	
Area of wetland impact: Area of waterway impact: Area of compensatory mitigation provid	SF					
Will American Recovery and Reinvestm	ent Act ((ARRA)	funds	be used	l for a	ny of this project?
Contractor:						
Contractor Address:						
City, State & Zip Code:						
Phone(s) and Email:						
Proposed Work Dates: Start:				Fin	ish: _	
Your signature below, as permittee, indiand conditions of Category 1 of this Mass					to co	mply with the terms, eligibility criteria,
Permittee Signature:				Da	te:	



Appendix D: Information Required Checklist

(Category 2 & Individual Projects)

All applicants for Category 2 and Individual Projects must submit this checklist with their application to the MassDEP or Corps (see Page 3) and include at least the following information. Project applications will be considered complete upon 1) the Corps receipt of the necessary information in this checklist and 2) the MassDEP site inspection. For a more comprehensive checklist, see www.nae.usace.army.mil/reg, "Forms" and then "Application and Plan Guideline Checklist." Check with our office for project-specific requirements.

Αj	pplicant: Date:
A	ddress:
Ci	ty, State & Zip Code:
	<u>ll Projects:</u>
	MassDEP 401 WQC or Chapter 91 application forms (see Page 3, III.3) or Corps application form as appropriate
	Indicate that the MHC PNF was submitted to the appropriate groups listed in III.3.c on Page 3.
	Purpose of the project.
	Legible, reproducible black and white (no color) plans no larger than 11"x17" with bar scale. Provide locus map
	and plan views of the entire property.
	Typical cross-section views of all wetland and waterway fill areas and wetland replication areas.
	On each plan, show the following for the project when applicable:
	Vertical datum and the NAVD 1988 equivalent with the vertical units as U.S. feet. Don't use local datum;
	Horizontal state plane coordinates in U.S. survey feet based on the [insert state grid system] for the [insert state]
	[insert zone] NAD 83.
	Show project limits with existing and proposed conditions.
	Volume, type, and source of fill material to be discharged into waters and wetlands, including the area(s) (in
	square feet or acres) of fill in wetlands, below the ordinary high water in inland waters and below the high tide
	line in coastal waters.
	Photographs of wetland/waterway to be impacted.
	Volume, type, and source of fill material to be discharged into waters and wetlands, including the area(s) (in
	square feet or acres) of fill in wetlands, below the ordinary high water in inland waters and below the high tide
	line in coastal waters.
	Provide information on secondary and cumulative effects associated with the project. See GC 3.
	Provide information on any federal or state authorized work, wetland/waterway fill, or conservation restrictions
	or easements associated with the project. See GC 5.
	The name(s) of federal endangered and threatened "listed species or habitat" present in the action area (see GC
	10 and Appendix F).
	The Corps will review alternatives analysis submitted to the DEP for WQC review. Include any additional
	information compiled on alternatives. See GC 15.
	A statement describing how the mitigation requirement will be satisfied. As an alternative, the prospective
	permittee may submit a conceptual or detailed mitigation plan.

In	land Waters
	Delineation of all waters of the United States on the project site, including special aquatic sites and vernal pools. Use federal delineation methods and include Corps wetland delineation data sheets (see GC 2, and Appendix A -
	Endnotes 5 and 6).
	Invasive Species Control Plan (see GC 27).
St	ream Crossings (see the design and construction manual referenced in Appendix F).
(1) Plans showing the following information:
	Structure location including inlet and outlet inverts located with x, y, z coordinates or equivalent and taken from the long profile.
	Extension of channel excavation and filling.
	Road locations, edges, centerline, geometric description of curvature, widths, and curve widening, p-line or x, y, z coordinates.
	Channel work identified including bank erosion control features, grade control, and channel linings.
	Estimated drainage area at the crossing location.
(2) Streambed details, with figures, which show the following:
	The distance from the top of the right bank to the top of the left bank.
	Average stream approach channel slope and percent gradient within the crossing, measured using a clinometer, hand level or other survey equipment.
	A shaped streambed in the structure, usually sloping downward toward the center to form a low-water channel.
	Approximate elevations, spacing, diameters, and locations of rocks for steps, bankline, and other channel rocks for roughness.
	Details for sediment retention structures, if any, within embedded structures.
	A visual estimate of dominant channel materials upstream, downstream, and if applicable, within the existing crossing.
	The streambed simulation materials and its extent, depth and length within the crossing.
	Pebble count upstream, downstream, and if applicable, within the existing crossing.
	Channel information for the design reference reach including bank full width, bankfull depth, entrenchment ratio, sinuosity, flood prone width, a long profile that is 7-10 bankfull widths long with grade controls, pools and gradients shown, an appropriate reference reach cross section with channel details, reference reach pebble count, including a narrative explaining why the cross section is considered representative.
(3) Existing crossing metrics on the plan, including:
	Existing riparian zone, including the extent and type of existing vegetation surrounding or in the stream bank.
	Existing crossing type and dimensions, including material, length, and dimensions.
	Existing tailwater control, including its location and materials, and pool configuration.
(4) The dewatering system as follows:
	Estimates of the maximum flow anticipated during construction, including any summer storm estimates;
	Location, height, and width of the diversion dam.
	Sump locations, including estimate of necessary flow and sump capacity.
	Backwater prevention method.
	Sediment treatment plan with methods, release point, and extent.
-) Structural details of the crossing, including the following:
	Structural section, gauge or thickness, and material, minimum and maximum cover limits;

	backfill zones;
	Structural excavation quantity and total excavation estimate.
	Footing depth and width for spans (bottomless arches, open-bottom culverts, bridges, etc.
,) Impact Analysis:
Ш	Crossing impact assessment to wildlife and fisheries and aquatic organisms (pre- and post design) including
	direct and secondary impacts.
	Replacements: an analysis of current crossing compatibility, stability of upstream and downstream channel and bank, recent scour events, systems analysis on hydrology, ecological stability and sediment loading.
	bank, recent scour events, systems analysis on nythology, ecological stability and seament loading.
W	aters subject to the ebb and flow of the tide
	On each plan show the vertical datum and the NAVD 1988 equivalent with the vertical units as U.S. feet. Don't use local datum. In coastal waters this may be mean higher high water (MHHW), mean high water (MHW), mean low water (MLW), mean low lower water (MLLW) or other tidal datum with the vertical units as U.S. feet.
	MLLW and MHHW are preferred. Provide the correction factor detailing how the vertical datum (e.g., MLLW)
	was derived using the latest National Tidal Datum Epoch for that area, typically 1983-2001.
	Show the high tide line (HTL) elevations when fill is involved Limits of any Federal Navigation Project in the vicinity of the project area and horizontal State Plane Coordinates
	in U.S. survey feet for the limits of the proposed work closest to the Federal Navigation Project;
	Delineation of all waters of the United States on the project site, including special aquatic sites and vegetated
	shallows (e.g., eelgrass beds). Use federal delineation methods and include Corps wetland delineation data sheets (See GC 2, and Appendix A - Endnotes 5 and 6).
	Identify and describe potential impacts to Essential Fish Habitat (see General Condition 11).
	ruentity and describe potential impacts to Essential Fish Habitat (see General Condition 11).
<u>In</u>	formation typically required for dredging projects:
	Sediment testing, including physical (e.g., grain-size analysis), chemical and biological testing. For projects
	proposing open water disposal, applicants are encouraged to contact the Corps as early as possible regarding
	sampling and testing protocols. Sampling and testing of sediments without such contact should not occur and if
	done, would be at the applicant's risk. The area in square feet and volume of material to be dredged below mean high water.
	Existing and proposed water depths.
	Type of dredging equipment to be used.
	Nature of material (e.g., silty sand).
	Any existing sediment grain size and bulk sediment chemistry data for the proposed or any nearby projects.
	Information on the location and nature of municipal or industrial discharges and occurrence of any contaminant
	spills in or near the project area.
	Location of the disposal site (include locus sheet).
	Identify and describe potential impacts to Essential Fish Habitat (see General Condition 11).
Ш	Delineation of submerged aquatic vegetation (e.g., eelgrass beds).

Appendix E: Contacts and Tribal Areas of Interest

1. FEDERAL

U.S. Army Corps of Engineers Regulatory Division 696 Virginia Road Concord, Massachusetts 01742-2751 (978) 318-8335, (800) 362-4367 (MA) (800) 343-4789 (ME, VT, NH, RI, CT)

Federal Endangered Species and Essential Fish Habitat:

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

Wild and Scenic Rivers:

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

Federal Endangered Species:

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

Bridge Permits

Commander (obr)
First Coast Guard District
One South Street - Battery Bldg
New York, NY 10004
(212) 668-7021

2. STATE OF MASSACHUSETTS

Department of Environmental Protection (DEP):

DEP Division of Wetlands and Waterways One Winter Street Boston, Massachusetts 02108 (617) 292-5695

DEP Regional Offices:

DEP-Western Regions Wetlands Protection Program 436 Dwight Street Springfield, Massachusetts 01103 (413) 784-1100

DEP-Central Region Wetlands Protection Program 627 Main Street Worcester, Massachusetts 01608 (508) 792-7650

Massachusetts Office of Coastal Zone Management (CZM)

Coastal Zone Management 251 Causeway Street, Suite 800 Boston, Massachusetts 02114 (617) 626-1200 DEP-Southeast Region Wetlands Protection Program 20 Riverside Drive, Route 105 Lakeville, Massachusetts 02347 (508) 946-2800

DEP-Northeast Region Wetlands Protection Program 205B Lowell Street Wilmington, Massachusetts 01887 (978) 694-3200

Massachusetts Board of Underwater Archaeological Resources (BUAR)

251 Causeway Street, Suite 800
Boston, Massachusetts 02114
(617) 626-1141, (617) 626-1240 (fax)
victor.mastone@state.ma.us

<u>Area of concern</u>: All Massachusetts lakes, ponds, and rivers
and coastal waters

3. HISTORIC PROPERTIES:

State Historic Preservation Officer (SHPO) Massachusetts Historical Commission (MHC)

The Massachusetts Archives Bldg.

220 Morrissey Boulevard Boston, Massachusetts 02125

(617) 727-8470 (617) 727-5128 (fax)

Area of concern: All of Massachusetts

Mashpee Wampanoag Tribe

Tribal Historic Preservation Authority

P.O. Box 1048

Mashpee, Massachusetts 02649

(508) 419-6017, x601, cgreen@mwtribe.com

Area of concern: Plymouth, Barnstable & Bristol Counties Area of concern: West of Connecticut River

Massachusetts Board of Underwater Archaeological

Wampanoag Tribal Historic Preservation Officer

Wampanoag Tribe of Gay Head (Aquinnah)

Area of concern: All of Massachusetts

Tribal Historic Preservation Officer

c/o Stockbridge-Munsee Community

20 Black Brook Road

Aguinnah, MA 02535

(508) 645-3233 (fax)

Bowler, Wisconsin 54416

(508) 645-9265

P.O. Box 70

(715) 793-3970

Resources (BUAR) (see previous page)

Narragansett Tribal Historic Preservation Officer P.O. Box 350

Wyoming, Rhode Island 02898

(401) 539-1190 (phone), (401) 862-9158 (cell), (401) 539-4217 (fax), nithpoculturalinfo@cox.net

Area of concern: Boston and its surrounding neighborhoods; Lynn; Newton; these cities and towns in Plymouth County (Carver, Duxbury, Hingham, Kingston, Marshfield, Middleborough, Plymouth, Plympton, Scituate); these cities and towns in Norfolk County (Milton, Quincy, Braintree, Randolph, Canton, Sharon and Foxborough); and the cities and towns west of Worcester (which are those including and west of Ashburnham, Westminster, Princeton, Holden, Paxton, Leicester, Oxford and Webster).

4. ORGANIZATIONAL WEBSITES:

Army Corps of Engineers

Environmental Protection Agency National Marine Fisheries Service U.S. Fish and Wildlife Service

National Park Service

Federal Emergency Management Agency

MA Executive Office of Environmental Affairs

MA Department of Environmental Protection

MassDEP, Division of Wetlands MassDEP, Division of Waterways MA Division of Marine Fisheries MA Div. of Fisheries & Wildlife MA Endangered Species Program MA Coastal Zone Management

MassGIS

MA Historical Commission

MA Board of Underwater Archaeological Resources www.mass.gov/czm/buar/index.htm

Mashpee Wampanoag Tribe

Narragansett Tribe

Stockbridge-Munsee Tribe

Wampanoag Tribe of Gayhead (Aquinnah)

www.nae.usace.army.mil/reg www.epa.gov/owow/wetlands/

www.nmfs.noaa.gov

www.fws.gov

www.nps.gov/rivers/index.html

www.fema.gov

www.state.ma.us/envir

www.state.ma.us/dep (access the four regional offices)

www.state.ma.us/dep/brp/ww/rpwwhome.htm www.state.ma.us/dep/brp/waterway/waterway.htm

www.state.ma.us/dfwele/dmf/

www.state.ma.us/dfwele/dfw/dfw toc.htm www.state.ma.us/dfwele/dfw/nhesp/heritage.htm

www.state.ma.us/czm

www.state.ma.us/mgis/massgis.htm

www.state.ma.us/sec/mhc

http://mashpeewampanoagtribe.com

www.narragansetttribe.com

www.mohican.com

www.wampanoagtribe.net

Appendix F: Additional References

1. Applying for a Permit, Page 3.

- (a) These forms are available at www.nae.usace.army.mil/reg:
 - For the Corps application form, go to "Forms" and then "Application for Department of the Army Permit."
 - For the SHPO/MHC PNF form and guidance, go to "Programmatic General Permits" and then "Massachusetts."
- (b) For the MassDEP's application forms, go directly to www.mass.gov/dep/water/approvals/wwforms.htm

2. GC 2: Federal Jurisdictional Boundaries.

- (a) Corps Wetlands Delineation Manual, regional supplements, and Corps Wetland Delineation Data Sheets: www.nae.usace.army.mil/reg and then "Wetlands and Jurisdictional Limits."
- (b) The USFWS publishes the 1988 National List of Plant Species that Occur in Wetlands (www.nwi.fws.gov). The Natural Resources Conservation Service (NRCS) publishes the current hydric soil definition, criteria and lists: http://soils.usda.gov/use/hydric. For the Field Indicators for Identifying Hydric Soils in N.E., see www.neiwpcc.org/hydricsoils.asp.

3. GC 5:

Single and complete project means the total project proposed or accomplished by one owner/developer or partnership or other association of owners/developers. For example, if construction of a residential development affects several different areas of a headwater or isolated water, or several different headwaters or isolated waters, the cumulative total of all filled areas should be the basis for deciding whether or not the project will be covered by Category 1 or 2.

The *Independent utility* test is used to determine what constitutes a single and complete project in the Corps regulatory program. A project is considered to have independent utility if it would be constructed absent the construction of other projects in the project area. Portions of a 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.

4. GC 10: Threatened and Endangered Species.

- (a) The following USFWS and NMFS sites must be referenced to ensure that listed species or critical habitat are not present in the action area (GC 10(b)) or to provide information on federally-listed species or habitat (GC 10(c)): www.fws.gov/newengland/EndangeredSpec-Consultation_Project_Review.htm and www.nero.noaa.gov/prot_res/esp/ListE&Tspec.pdf.
- (b) The Endangered Species Act Consultation Handbook Procedures for Conducting Section 7 Consultations and Conferences," 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]."

5. GC 15: Avoidance, Minimization and Compensatory Mitigation.

- (a) See Corps website (www.nae.usace.army.mil/reg) under "Mitigation" to view the April 10, 2008 "Final Compensatory Mitigation Rule" (33 CFR 332) and related documents. The Q&A document states: "In order to reduce risk and uncertainty and help ensure that the required compensation is provided, the rule establishes a preference hierarchy for mitigation options. The most preferred option is mitigation bank credits, which are usually in place before the activity is permitted. In-lieu fee program credits are second in the preference hierarchy, because they may involve larger, more ecologically valuable compensatory mitigation projects as compared to permittee-responsible mitigation. Permittee-responsible mitigation is the third option, with three possible circumstances: (1) conducted under a watershed approach, (2) on-site and in kind, and (3) off-site/out-of-kind.
- (b) In-Lieu fee may be used as compensatory mitigation to protect, benefit and improve marine fish habitat in Massachusetts. See the Massachusetts In-Lieu Fee Mitigation Program Fact Sheet at www.nae.usace.army.mil/reg and then "Mitigation."

- (c) Information on minimizing impacts within the vernal pool terrestrial habitat can be found in:
- i. <u>Best Development Practices</u>: <u>Conserving pool-breeding amphibians in residential and commercial development in the northeastern U.S.</u>, Calhoun and Klemens, 2002. Chapter III, Management Goals and Recommendations, pages 15 26, is particularly relevant. (Available for purchase at www.maineaudubon.org/resource/index.shtml and on Corps website*.)
- ii. <u>Science and Conservation of Vernal Pools in Northeastern North America</u>, Calhoun and deMaynadier, 2008. Chapter 12, Conservation Recommendations section, page 241, is particularly relevant. (Available for purchase via the internet. Chapter 12 is available on Corps website*.)
- * www.nae.usace.army.mil/reg/index.htm under "Useful Links and Documents."
- **6. GCs 18 and 27: Invasive Species.** Information on preparing an ISCP and what are considered as "invasive species," is provided in the "New England District Compensatory Mitigation Guidance" at www.nae.usace.army.mil/reg under "Mitigation." The June 2009 "Corps of Engineers Invasive Species Policy" is under "Invasive Species" and provides policy, goals and objectives.
- **7. GC 20: Bank Stabilization.** 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. See the Corps Coastal Engineering Manual EM 1110-2-1100 at www.nae.usace.army.mil under "Useful Links and Documents" for design and construction guidance.

8. GC 21: Stream Crossings and Work.

- (a) The version of the "Massachusetts River and Stream Crossing Standards" that must be used to comply with this GP is provided on our website (www.nae.usace.army.mil/reg) under "Stream and River Continuity."
- (b) Projects should be designed and constructed to ensure long-term success using the most recent manual located at www.nae.usace.army.mil/reg under "Stream and River Continuity," currently "Stream Simulation: An Ecological Approach to Providing Passage for Aquatic Organisms at Road-Stream Crossings, by the U.S. Forest Service." Section 5.3.3 is of particular importance. Sections 7.5.2.3 Construction Methods and 8.2.11 Stream-Simulation Bed Material Placement both show important steps in the project construction.
- (c) The Massachusetts Dam Removal and the Wetland Regulations guidance may be used to evaluate the positive and negative impacts of culvert replacement, including the loss of upstream wetlands which may be offset by the overall benefits of the river restoration. See www.nae.usace.army.mil/reg and then "Stream and River Continuity." (d) GC 21(i): The Skidder Bridge Fact Sheet at www.nae.usace.army.mil/reg under "Stream and River Continuity" may be a useful temporary span construction method.
- **9. GC 22: Wetland Crossings.** The MassDEP's crossing standards are at 310 CMR 10.53(3)(e).
- **10. GC 24: Spawning, Breeding and Migratory Areas.** The MA DMF "Marine Fisheries Time of Year (TOY) Restrictions for Coastal Alteration Projects" document is located at www.nae.usace.army.mil/reg, under "State General Permits," and then under "Massachusetts."
- **11. GC 29: Maintenance.** River restoration projects that are designed to accommodate the natural dynamic tendencies of the fluvial system are maintained in accordance with the project's design objectives (Category 1) or the Corps authorization letter (Category 2). These projects are generally designed to support and implement channel assessment and management practices that recognize a stream's natural dynamic tendencies.
- **12. Appendix A.** The DEP's "A Guide to Permitting Small, Pile-Supported Docks and Piers" is located at www.mass.gov/dep/water/resources/smaldock.pdf

Appendix G: Wild and Scenic Rivers

The Corps will consult with the National Park Service (NPS) with regard to potential impacts of the proposed work on the resource values of the wild and scenic river. The culmination of this coordination will be a determination by the NPS and the Corps that the work: (1) may proceed as proposed; (2) may proceed with recommended conditions; or (3) could pose a direct and adverse effect on the resource values of the river and an Individual Permit is required. If preapplication consultation between the applicant and the NPS has occurred whereby NPS has made a determination that the proposed project is appropriate for authorization under this GP (with respect to Wild and Scenic River issues), this determination should be furnished to the Corps with submission of the application.

National Wild and Scenic Rivers System segments for Massachusetts as of April 2009 include:

Sudbury/Assabet/Concord Rivers: the Sudbury from the Danforth Street bridge in Framingham downstream to the confluence with the Assabet, the Assabet from 1,000 feet below the Damon Mill Dam downstream to the confluence with the Sudbury, and the Concord from the confluence of the Sudbury and Assabet downstream to the Route 3 bridge in Billerica.

Westfield River: Shaker Mill Brook from Brooker Hill Road in Becket to its headwaters. The Upper East Branch from the Windsor/Cummington town line to its confluence; Upper East Branch Tributaries including Drowned Land Brook, Center Brook and Windsor Jambs Brook. Headwater tributaries of the West Branch, including Shaker Mill Brook from Brooker Hill Road in Becket to its confluence with the West Branch; Depot Brook; Savery Brook; Watson Brook; and Center Pond Brook from Center Pond to its confluence with the West Branch. The Lower Middle Branch, East Branch, and Main Stem in the Town of Huntington (3.2 miles) and the Upper East Branch from its confluence with Sykes Brook to its confluence with the West Branch.

Taunton River: From the confluence of the Town River and Matfield River in Bridgewater downstream to Mt. Hope Bay at the Rte 195 bridge in Fall River.

Appendix H: Essential Fish Habitat (EFH)

As part of the application review process, the Corps will coordinate with NMFS in accordance with the 1996 amendments to the Magnuson-Stevens Fishery and Conservation Management Act to protect and conserve the habitat of marine, estuarine and anadromous finfish, mollusks, and crustaceans. This habitat is termed "Essential Fish Habitat" (EFH), and is broadly defined to include "those waters and substrate necessary to fish for spawning, breeding, feeding, or growth to maturity." For additional EFH information and/or locations, contact NMFS (see Appendix E), or go to www.nmfs.noaa.gov (50 CFR 600) or www.nero.nmfs.gov/RO/DOC/appguide1.html.

The following streams are stocked with Atlantic salmon (*Salmo salar*). Note that the mainstems of the Connecticut and Merrimack Rivers are navigable waters of the U.S. and any fill in them must be reviewed under Category 2. Any questions on locations should be directed to the Corps.

Connecticut River Watershed

Agawam: Westfield River

Ashfield: Bear River, South River to Baptist Corner Road

Athol: Millers River

Becket: Depot Brook, Shaker Mill Brook, Walker Brook to Spark Brook, West Branch Westfield River,

Yokum Brook to Rudd Pond Brook

Bernardston: Fall River

Blandford: Wigwam Brook Buckland: Deerfield River

Charlemont: Chickley River, Cold River, Deerfield to Pelham Brook, North River, Pelham Brook

Chester: Middle Branch Westfield River, Walker Brook, West Branch Westfield River Chesterfield: Child's Brook West Branch, Dead Branch, Tower Brook, Westfield River North River, East Branch North River, West Branch North River, Green River

Conway: Bear River, Deerfield River, Poland Brook, South River

Cummington: Bartlett Brook, Child's Brook West Branch, Meadow Brook, North Branch Swift River to Stage

Road, Swift River, Westfield Brook, Westfield River

Deerfield: Deerfield River

Easthampton: Manhan River to North Branch Manhan River, North Branch Manhan River

Erving: Millers River
Florida: Cold River
Gill: Fall River
Goshen: Swift River

Greenfield: Allen Brook, Deerfield River, Fall River, Green River

Hatfield: Mill River to West Brook, West Brook

Hawley: Chickley River to King Brook, Mill Brook to Gorge Hill Road

Huntington: Dead Branch to Westfield River, Little River, Middle Branch Westfield River

Pond Brook to Searle Road, Roaring Brook to Mica Mill Road, West Branch Westfield River,

Westfield River

Leverett: Sawmill River Leyden: Green River

Middlefield: Factory Brook, Middle Branch Westfield River to Tuttle Brook, West Branch Westfield River

Montague: Millers River, Sawmill River Montgomery: Westfield River, Roaring Brook Northampton: North Branch Manhan River

Orange: Millers River

Plainfield: Bartlett Brook to Prospect Street, Meadow Brook to Gloyd Street

Rome: Pelham Brook to Rice Brook

Royalston: Millers River to Birch Hill Dam

Russell: Bradley Brook, Potash Brook, Stage Brook, Westfield River Savoy: Cold River to Black Brook, Westfield River to Griffin Hill Road

Shelburne: Allen Brook, Deerfield River, North River

Shutesbury: Sawmill River

Southampton: North Branch Manhan River

Southwick: Munn Brook

Washington: Depot Brook to Frost Road

Wendell: Millers River

Westfield: Little River to Munn Brook, Moose Meadow Brook to Mass Turnpike, Munn Brook, Westfield River

Westhampton: Dead Branch, North Branch Manhan River to Northwest Road

West Springfield: Westfield River

Whately: West Brook to Haydenville Road

Windsor: Westfield Brook to East Windsor Road, Westfield River

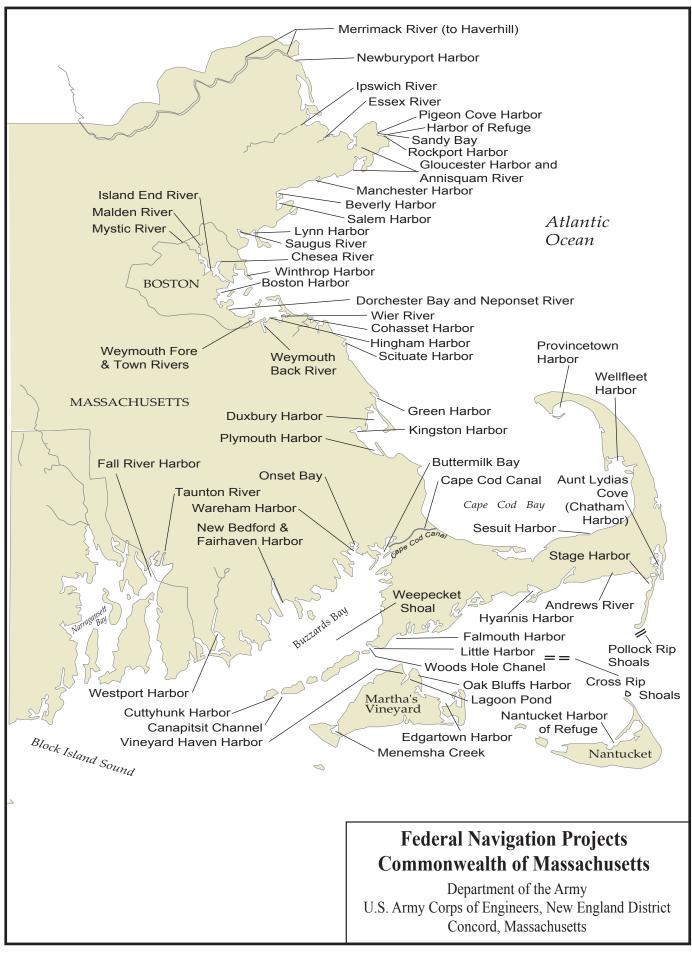
Worthington: Bronson Brook, Child's Brook West Branch, Little River to Goss Hill Road, Middle Branch

Westfield River to Tuttle Brook

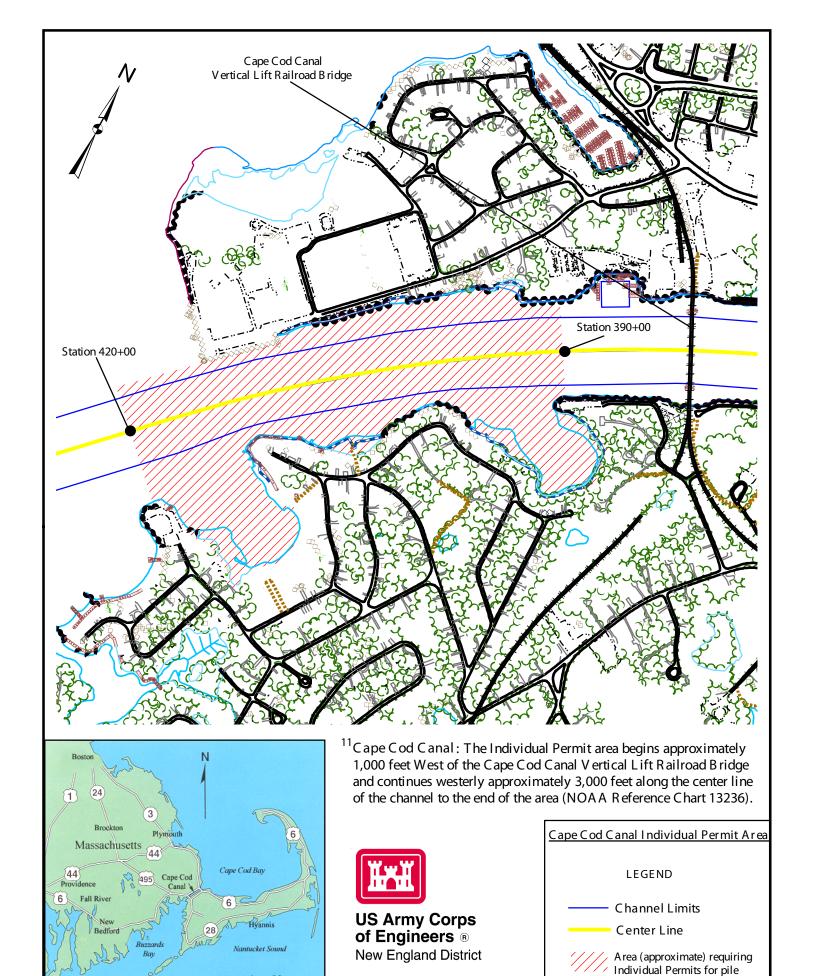
Merrimack River Watershed

Pepperell: Nissitissit River to Nashua River, Nashua River from Nissitissit River to

New Hampshire border



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Map printed on January 30, 2003

supported structures and floats from Stations 390+00

to 420+00.

Location Map

Appendix K: Aquaculture Guidelines

NOTE: The following guidelines are excerpted from the Corps Aquaculture Letter of Permission dated September 1, 1991, with some modern clarifications.

Shellfish Aquacultural Facilities are used for bottom and/or suspended culturing and harvesting of bivalve mollusks in the inter-tidal and immediate sub-tidal area of navigable waters. Activities covered include: deployment and maintenance of buoys, rafts, trays, lines, and other equipment associated with the activity; discharge of minor quantities of fill material (i.e. as mineral growth medium) and work, including seed placement, transplanting, temporary wet storage, and harvesting. Activity must be found to have minimal impacts on navigation and the environment and must meet the following specific criteria:

- 1. The area authorized for this activity shall not exceed 10 acres, except where the permittee is a duly authorized municipality, for which the maximum size shall be 25 acres.
- 2. The area and any elevated structures within it are marked in conformance with 33 CFR 64, and the permittee has contacted the U.S. Coast Guard, *First District*, Aids to Navigation Branch (617) 223-8347, to coordinate the proper buoy markings for the activity. Buoys shall be deployed and maintained as appropriate.
- 3. Rafts and other floating equipment may be allowed to the extent that they cover no more than 10% of the project area, or 20,000 square feet, whichever is greater. An area shall be considered to be covered with floating equipment if normal navigation through the area is precluded. Projects which are in-place and authorized by the municipality (and MA Division of Marine Fisheries if applicable) by 1 September 1991 which have areas containing floating equipment exceeding the aforementioned limits may be authorized if they meet the remaining criteria. All rafts shall be securely anchored to the bottom, and all "lines" shall be attached to fixed mooring points at both ends.
- 4. Any fill material imported to the project from off site (this is limited to mineral growth medium used in culture trays) shall be clean and of comparable grain size to the native substrate.
- 5. No activity shall occur within a distance of 25 feet from beds of eelgrass, widgeongrass, or saltmarsh, nor shall such vegetation be damaged or removed.
- 6. An activity shall be deemed not applicable under this GP if it can be shown that the activity, including any vehicular access, will have more than minimal 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 migratory bird nesting, feeding or resting activities (see 50 CFR 10.13).
- 7. An activity shall be deemed not applicable under this GP if it can be shown that the activity, including any vehicular access, will have more than minimal negative impacts on existing or naturally occurring beds or population of shellfish, marine worms or other invertebrates that could be used by humans, other mammals, birds, reptiles, or predatory fish.
- 8. No activity nor vehicular access to an activity shall occur in such a way as to negatively impact coastal or freshwater wetlands, or any endangered or threatened species on either the federal or Massachusetts species list.
- 9. Aquaculture applicants do not need to notify the SHPO/MHC as stated in the application procedures on Page 3 of this document since these projects are unlikely to affect historic or archaeological resources. However the BUAR and four tribes do require notification.

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