



## **Flood Management Certification Program for Municipal Projects Funded by the Department of Transportation**

### **Reference Documents**

**MEMORANDUM OF UNDERSTANDING  
BETWEEN  
CONNECTICUT DEPARTMENT OF TRANSPORTATION  
AND  
CONNECTICUT DEPARTMENT OF ENVIRONMENTAL PROTECTION  
REGARDING FLOOD MANAGEMENT CERTIFICATIONS**

The Commissioner of the Department of Transportation (DOT), Joseph F. Marie, duly authorized under Connecticut General Statutes Section 13b-1, and the Commissioner of the Department of Environmental Protection (DEP), Gina McCarthy, duly authorized under Connecticut General Statutes Section 22a-6, hereby enter into this Memorandum of Understanding ("MOU") regarding Flood Management Certifications for Municipal Projects.

Pursuant to Connecticut General Statutes Sections 25-68b through 25-68h ("Flood Management Act"), any state agency proposing an activity within or affecting a floodplain must certify that the project meets certain requirements detailed in the Flood Management Act, the purpose of which is to ensure that the necessary development of floodplains in the state proceeds in a judicious manner and that such state activities are at a minimum consistent with the requirements of the National Flood Insurance Program.

As part of maintaining the state's transportation infrastructure, the DOT passes to municipalities federal funding or state funding for municipal activities, such as local bridge projects (hereinafter "Municipal Projects").

DEP agrees that DOT possesses the technical expertise and knowledge within the Hydraulics and Drainage Unit to thoroughly review and assess whether proposed activities in a floodplain are consistent with the statutory requirements of the Flood Management Act.

DEP agrees that DOT possesses the technical expertise and knowledge within the Environmental Planning Division to review various environmental aspects of the projects.

It is the best interest of the state of Connecticut and its municipalities to ensure that activities consistent with the Flood Management Act are certified under section 25-68d of the Connecticut General Statutes in the most expeditious manner possible.

Therefore, this MOU sets forth a streamlined approval process by which Municipal Projects that require a Flood Management Certification pursuant to the Flood Management Act and that meet the requirements detailed below shall be deemed approved under the Flood Management Act. Approval of a specific Municipal Project

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shall be effective upon completion of steps 1 through 4 under Section A of this MOU (hereinafter Steps or Step).

**A. Certification/Approval Procedure for Municipal Projects**

An application for a Flood Management Certification of a Municipal Project approved under this MOU shall be processed in the following manner:

1. The Chief Administrative Official of the municipality in which the proposed activity is taking place, and its consultant, shall first certify that the proposed activity has been designed in such a manner to satisfy all of the requirements of section 25-68d (b) of the Connecticut General Statutes and Sections 25-68h-1 through 25-68h-3 of the Regulations of Connecticut State Agencies (RCSA) and that the application information is complete, truthful and accurate. The municipality shall prepare and sign Attachment B, subsection B-1 entitled "Municipal Official Certification" of the "Statewide Flood Management Certification for Federally and State Funded Municipal Projects" form. The consultant or individual preparing the flood management application on behalf of the municipality shall prepare and sign Attachment B, subsection B-2 entitled "Town Consultant – Professional Certification." The consultant preparing the design plans and computations shall affix their Professional Engineer Connecticut license number and stamp to the form.
2. DOT's Hydraulic & Drainage Section shall review the technical documentation and design plans to verify that the proposed project is consistent with Section 25-68d (b) of the Connecticut General Statutes and RCSA Sections 25-68h-1 through 25-68h-3 by signing Attachment A, subsection A-2 of the "Statewide Flood Management Certification for Federally and State Funded Municipal Projects" form.
3. DOT's Environmental Planning Division shall review the endangered species and fisheries and erosion control aspects of the application and verify that the proposed activity described in this application is consistent with all applicable standards found in the 2004 Connecticut Stormwater Manual (and any amendments or updates), 2002 Erosion and Sedimentation Control Guidelines (and any amendments or updates), and that there has been proper coordination with the DEP Inland Fisheries Division (hereinafter DEP fisheries) and the Natural Diversity Database by signing Attachment A, subsection A-3 of the "Statewide Flood Management Certification for Federally and State Funded Municipal Projects" form.
4. Upon completion of steps 1-3, DOT's Transportation Engineering Administrator shall certify, relying on the certifications required in Steps 1 through 3 under this Section A, that the proposed activity is consistent with Section 25-68d (b) of the Connecticut General Statutes and RCSA Sections 25-68h-1 through 25-68h-3 by

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signing Attachment A, subsection A-1 of the “Statewide Flood Management Certification for Federally and State Funded Municipal Projects” form.

5. After certification by DOT’s Transportation Engineering Administrator, the Flood Management application is considered approved by DEP.
6. Upon completion of step 4, DOT shall notify the municipality in writing that the Flood Management Certification has been approved and inform the municipality in writing of the conditions contained in subsection E.

### **B. Eligible Programs/Projects**

The following programs, as may be amended, are eligible under this process:

- Local Roads Accident Reduction Program
- Federal Earmark Projects (Municipal)
- Surface Transportation Program – Urban Program
- State Special Act Grants (Municipal)
- Surface Transportation Program – Rural Minor / Major Collector Program
- Transportation Enhancement Program
- Small Town Economic Assistance Program
- State Local Bridge Program
- Federal Local Bridge Program
- Safe Routes to School Program

### **C. Ineligible Projects**

Municipal Projects not eligible under this process and thus requiring an application to DEP include:

1. Any project that requires an exemption from the Floodplain Management Regulations;
2. Any Municipal Project that requires an Inland Wetlands & Watercourses Stream Channel Encroachment Line or Water Diversion permit from the DEP; and
3. Any project or activity considered a significant impact as defined under RCSA Section 25-68h-1.

DEP, Inland Water Resources Division (IWRD) will process any application that is ineligible as defined under this Section C of the MOU in an expedited manner. To facilitate that effort, the process set forth in Section A of this MOU, through step 3, will be completed, and DOT shall transmit a memo of its evaluation of the Municipal Project to DEP, along with its identification of the statutory exception that must be obtained from the Commissioner of DEP. All attachments referenced in Section A, steps 1 through 3 must be filled out and submitted along with the appropriate state applications to ensure the expedited process occurs.

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### **D. Design Requirements and Standard Practices under this Memorandum of Understanding**

DOT through its certification shall assure that the proposed activity complies with the State of Connecticut Flood Management Statutes and Regulations (CGS Sections 25-68b through 25-68h) and the policies and practices of the Department of Environmental Protection **including but not limited** to the following:

All culverts and bridges are designed in accordance with methods and procedures defined in the DOT Drainage Manual as revised, DOT 816 as revised and the CT 2004 Stormwater Quality Manual as revised and meet the following requirements:

1. Culverts and bridges will be designed for flood frequencies and under clearances stipulated in the DOT Drainage Manual, except that on local roads and driveways with low traffic volumes and where alternate routes are available, lower design criteria are acceptable when:
  - Flood discharges may be allowed to cross over roads that are at or close to the floodplain grade.
  - Water surface elevations are not increased by more than one foot, and will not cause damage to upstream properties.
  - Provisions are made to barricade the road when overtopped.
  - The road or driveway is posted as being subject to flooding.
2. The location of new bridges and culverts minimize the relocation of the watercourses.
3. Rigid floors at new or replaced bridges and culverts are depressed below the normal streambed with one foot native streambed material on top in order to maintain fish passage, unless specific written approval is given prior by DEP Fisheries.
4. Solid parapet walls at bridges and culverts in the sag part of vertical curves are only to be used when such walls are deemed hydraulically acceptable by the DOT Hydraulics and Drainage Unit and if such walls do not cause an adverse impact.
5. Multiple small openings are discouraged.
6. Stormwater management systems shall be designed to incorporate primary treatment measures whenever possible.

### **E. Conditions**

DOT shall require, as a condition of passing federal or state funding to municipalities for Municipal Projects, that the municipality is required to construct and maintain the Municipal Project in accordance with the following conditions. However, should a

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municipality be found to have not so complied, the responsibility for enforcement shall solely be DEP's and no action shall be taken by DEP against DOT.

(1) Time of Year Restriction on In-water Construction

(A) Between September 30<sup>th</sup> and May 31<sup>st</sup> the municipality shall not place fill, excavate material, or conduct any other construction activity in any watercourse unless such activity is confined by a cofferdam or other device which isolates such activity from the watercourse, unless the DEP Inland Fisheries Division has given written authorization otherwise.

(B) The municipality shall not place fill, excavate material, or conduct any other activity in any watercourse stocked with fish by the commissioner or any other person, or in any tributary to such watercourse, from 12:01 a.m. on the Monday preceding the third Saturday in April through 12:00 midnight on the Sunday preceding the fourth Saturday in April.

(C) The municipality shall not place fill, excavate material or conduct any other construction activity in or adjacent to any watercourse, which activity may adversely affect anadromous fish, during the time period when anadromous fish are known or reasonably believed to be migrating in the watercourse.

(2) Pollution Prevention/Best Management Practices

The municipality shall not cause or allow the authorized activity, including any construction associated therewith, to result in pollution or other environmental damage and shall employ best management practices to prevent such damage. The municipality shall, in addition to employing any other best management practices necessary to prevent such damage, do the following:

(A) Controlling Erosion

The municipality shall install and maintain in optimal condition erosion and sedimentation controls to prevent erosion and discharge of material into any waters of the state, including wetlands, as a result of the authorized activity or any construction associated therewith. Such controls shall be installed and maintained in conformity with the *Connecticut Guidelines for Soil Erosion and Sediment Control*, as revised, published by the Connecticut Council on Soil and Water Conservation pursuant to Section 22a-328 of the General Statutes.

(B) Proper Disposal of Material

All material and solid waste generated during any construction associated with such activity shall be disposed of in accordance with applicable federal, state and local law.

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- (3) Storage of equipment / material within the floodplain should be avoided but if absolutely necessary the municipality will require the contractor to remove equipment and materials from the 100 year floodplain during periods when flood warnings have been issued or are anticipated by a responsible federal, state or local agency. It shall be the contractor's responsibility to be knowledgeable of such warnings when flooding is anticipated.
- (4) Work shall not be conducted in or adjacent to watercourses and reservoirs used as public drinking water supply sources without coordination with the water supply utility and Department of Public Health.
- (5) All temporary structures, cofferdams, and fill shall not impede the movement of flood flows and shall be removed at the completion of their use. The design of such temporary structures, cofferdams and fill shall be based on Chapter 18 of the DOT Drainage Manual, where applicable. Sheet piling that is cut 1 foot below existing grade shall be considered removed.
- (6) All fill shall be clean material, free of stumps, rubbish, hazardous, and toxic material.
- (7) Once work is initiated, it shall proceed rapidly and steadily until completed and stabilized in order to minimize use of temporary structures and to minimize soil erosion.

### **F. Other Requirements**

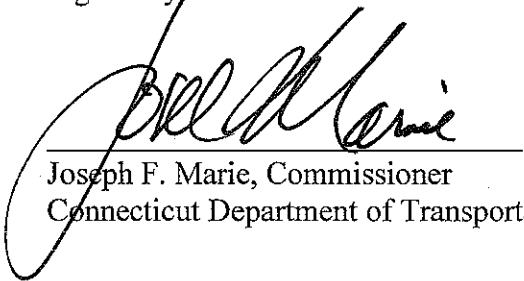
1. Annually, by January 30 of each year, the DOT shall submit a list of projects to the DEP which have been certified under this process for the preceding calendar year. Such list shall include project location information including town, location and a concise project description.
2. The background materials supporting the certification, including but not limited to plans, analyses and engineering calculations shall be retained electronically by the DOT for a period of five years following completion of construction.
3. DOT shall make all records pertaining to certifications covered by this MOU available to DEP for review upon request, provided DEP shall reimburse DOT for the cost of making any requested copies.

Either the DEP or DOT may terminate this Memorandum of Understanding. The Commissioner of the terminating party must provide notice of termination to the Commissioner of the other party in writing at least 30 days prior to the effective date of the termination.

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**IT IS MUTUALLY AGREED:**

Signed By:

  
\_\_\_\_\_  
Joseph F. Marie, Commissioner  
Connecticut Department of Transportation

3-18-09  
DATE

Signed By:

  
\_\_\_\_\_  
Gina McCarthy, Commissioner  
Connecticut Department of Environmental Protection

3/13/09  
DATE



**Statewide Flood Management Certification for  
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**Attachment A: DOT**

**A-1: Engineering Certification**

Name of Subject Facility and DOT Project Number:

Name of floodplain and watercourse:

I hereby certify, in reliance on the Municipal Official Certification, the Town Engineer / Consultant-Professional Certification, the DOT Hydraulics and Drainage Unit, and the DOT Environmental Planning reviews, that the above referenced project qualifies for the DEP Commissioner's approval pursuant to Section 25-68d of the General Statutes, and that the proposed activity described in this application is consistent with all applicable standards and criteria established in Sections 25-68d(b) of the General Statutes and Sections 25-68h-1 through 25-68h-3, inclusive, of the Regulations of Connecticut State Agencies.

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Signature of the Transportation Engineering Administrator  
Connecticut Department of Transportation  
Bureau of Engineering and Highway Operations

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Date

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Name of the Transportation Engineering Administrator (Print or Type)  
Connecticut Department of Transportation  
Bureau of Engineering and Highway Operations

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**Attachment A: DOT**

**A-2: Hydraulics and Drainage Unit Review**

Based on my review and reasonable investigation, including my inquiry of those individuals responsible for obtaining the information, the proposed activity described in this application is consistent with all applicable standards and criteria established in Sections 25-68d(b) of the General Statutes and Sections 25-68h-1 through 25-68h-3, inclusive, of the Regulations of Connecticut State Agencies.

\_\_\_\_\_  
Principal Engineer  
Hydraulics & Drainage Unit

\_\_\_\_\_  
Date

**A-3: Environmental Planning**

Based on my review and reasonable investigation, including my inquiry of those individuals responsible for obtaining the information, the proposed activity described in this application is consistent with all applicable standards found in the 2004 Connecticut Stormwater Manual, 2002 Erosion and Sedimentation Control Guidelines (as amended) and that there has been proper coordination with the Inland Fisheries Division and the Natural Diversity Database.

\_\_\_\_\_  
Supervising Transportation Planner  
Environmental Planning Division

\_\_\_\_\_  
Date

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**Attachment B: Municipality**

**B-1: Municipal Official Certification**

Name of Applicant / Municipality:

DOT Project #:

Description of Proposed Project:

1. The recipient of federal and/or state funding will be:

Name:

Mailing Address:

City/Town:

State:

Zip Code:

Phone:

ext.

Fax:

Based on my review and reasonable investigation, including my inquiry of those individuals responsible for preparing the information, the proposed activity described in this application is consistent with all applicable standards and criteria established in Sections 25-68d(b) of the General Statutes and Sections 25-68h-1 through 25-68h-3, inclusive, of the Regulations of Connecticut State Agencies.

I understand that a false statement made in the submitted information may, pursuant to Section 22a-6 of the General Statutes, be punishable as a criminal offense under Section 53a-157b of the General Statutes, and may also be punishable under Section 22a-438 of the General Statutes

**X**

\_\_\_\_\_  
Chief Elected Official  
First Selectman

\_\_\_\_\_  
Date

**X**

\_\_\_\_\_  
Chief Elected Official (Print or Type)  
First Selectman

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**Attachment B: Municipality**

**B-2: Town Engineer / Consultant - Professional Certification**

DOT Project #:

Description of Proposed Project:

Plan Dated and Revised Through:

Hydrologic & Hydraulic Study Dated:

I hereby certify that the prepared information and the proposed activity described in this application is consistent with all applicable standards and criteria established in Sections 25-68d(b) of the General Statutes and Sections 25-68h-1 through 25-68h-3, inclusive, of the Regulations of Connecticut State Agencies.

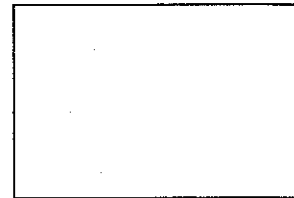
I understand that a false statement made in the submitted information may, pursuant to Section 22a-6 of the General Statutes, be punishable as a criminal offense under Section 53a-157b of the General Statutes, and may also be punishable under Section 22a-438 of the General Statutes

\_\_\_\_\_  
Signature of Professional Engineer

\_\_\_\_\_  
Date

\_\_\_\_\_  
Name of Professional Engineer (Print or Type)

\_\_\_\_\_  
P.E. Number



Affix P.E. Stamp Here

**Sec. 25-68b. Definitions.** As used in sections 25-68b to 25-68h, inclusive:

(1) "Activity" means any proposed state action in a floodplain or any proposed state action that impacts natural or man-made storm drainage facilities that are located on property that the commissioner determines to be controlled by the state;

(2) "Base flood" means that flood which has a one per cent chance of being equaled or exceeded in any year, as defined in regulations of the National Flood Insurance Program (44 CFR 59 et seq.) or that flood designated by the commissioner pursuant to section 25-68c. Any flood so designated by the commissioner shall have at least a one per cent chance of being equaled or exceeded in any year. Such flood may be designated as the A or V zones on maps published by the National Flood Insurance Program. The "base flood for a critical activity" means the flood that has at least a .2 per cent chance of being equaled or exceeded in any year. Such flood may be designated as the B zone on maps published for the National Flood Insurance Program;

(3) "Commissioner" means the Commissioner of Environmental Protection;

(4) "Critical activity" means any activity, including, but not limited to, the treatment, storage and disposal of hazardous waste and the siting of hospitals, housing for the elderly, schools or residences, in the .2 per cent floodplain in which the commissioner determines that a slight chance of flooding is too great;

(5) "Floodplain" means that area located within the real or theoretical limits of the base flood or base flood for a critical activity;

(6) "Flood-proofing" means any combination of structural or nonstructural additions, changes or adjustments which reduce or eliminate flood damage to real estate or improved real property, to water and sanitary facilities, and to structures and their contents;

(7) "Freeboard" means a safety factor, expressed in feet above a calculated flood level, that compensates for unknown factors contributing to flood heights greater than the calculated height, including, but not limited to, ice jams, debris accumulations, wave actions, obstructions of bridge openings and floodways, the effects of urbanization on the hydrology of a watershed, loss of flood storage due to development and sedimentation of a watercourse bed;

(8) "Proposed state action" means individual activities or a sequence of planned activities proposed to be undertaken by a state department, institution or agency, any state or federal grant or loan proposed to be used to fund a project that affects land use, or proposed transfer of real property belonging to the state.

**Sec. 25-68c. Powers and duties of commissioner.** The commissioner shall have the following powers and duties under sections 25-68b to 25-68h, inclusive:

(1) To coordinate, monitor and analyze the floodplain management activities of state and local agencies;

(2) To coordinate flood control projects within the state and be the sole initiator of a flood control project with a federal agency;

(3) To act as the primary contact for federal funds for floodplain management activities sponsored by the state;

(4) To regulate actions by state agencies affecting floodplains except conversion by The University of Connecticut of commercial or office structures to an educational structure;

(5) To regulate proposed state actions that impact natural or man-made storm drainage facilities located on property that the commissioner determines to be controlled by the state, including, but not limited to, programs that regulate flood flows within a floodplain and site development that increases peak runoff rates;

(6) To designate a repository for all flood data within the state;

(7) To assist municipalities and state agencies in the development of comprehensive floodplain management programs;

(8) To determine the number and location of state-owned structures and uses by the state in the floodplain and to identify measures to make such structures and uses less susceptible to flooding including flood-proofing or relocation;

(9) To mark or post the floodplains within lands owned, leased or regulated by state agencies in order to delineate past and probable flood heights and to enhance public awareness of flood hazards;

(10) To designate the base flood or base flood for a critical activity where no such base flood is designated by the National Flood Insurance Program. The commissioner may add a freeboard factor to any such designation;

(11) To require that any flood control project be designed to provide protection equal to or greater than the base flood.

**Sec. 25-68d. Certification of activity or critical activity within or affecting the floodplain. Exemption.** (a) No state agency shall undertake an activity or a critical activity within or affecting the floodplain without first obtaining an approval or approval with conditions from the commissioner of a certification submitted in accordance with subsection (b) of this section or exemption by the commissioner from such approval or approval with conditions in accordance with subsection (d) of this section.

(b) Any state agency proposing an activity or critical activity within or affecting the

floodplain shall submit to the commissioner information certifying that:

(1) The proposal will not obstruct flood flows or result in an adverse increase in flood elevations, significantly affect the storage or flood control value of the floodplains, cause an adverse increase in flood velocities, or an adverse flooding impact upon upstream, downstream or abutting properties, or pose a hazard to human life, health or property in the event of a base flood or base flood for a critical activity;

(2) The proposal complies with the provisions of the National Flood Insurance Program (44 CFR 59 et seq.), and any floodplain zoning requirements adopted by a municipality in the area of the proposal and the requirements for stream channel encroachment lines adopted pursuant to the provisions of section 22a-342;

(3) The agency has acquired, through public or private purchase or conveyance, easements and property in floodplains when the base flood or base flood for a critical activity is elevated above the increment authorized by the National Flood Insurance Program or the flood storage loss would cause adverse increases in such base flood flows;

(4) The proposal promotes long-term nonintensive floodplain uses and has utilities located to discourage floodplain development;

(5) The agency has considered and will use to the extent feasible flood-proofing techniques to protect new and existing structures and utility lines, will construct dikes, dams, channel alterations, seawalls, breakwaters or other structures only where there are no practical alternatives and will implement stormwater management practices in accordance with regulations adopted pursuant to section 25-68h; and

(6) The agency has flood forecasting and warning capabilities consistent with the system maintained by the National Weather Service and has a flood preparedness plan.

(c) The commissioner shall make a decision either approving, approving with conditions or rejecting a certification not later than ninety days after receipt of such certification, except that in the case of an exemption any decision shall be made ninety days after the close of the hearing. If a certification is rejected, the agency shall be entitled to a hearing in accordance with the provisions of sections 4-176e, 4-177, 4-177c and 4-180.

(d) Any state agency proposing an activity or critical activity within or affecting the floodplain may apply to the commissioner for exemption from the provisions of subsection (b) of this section. Such application shall include a statement of the reasons why such agency is unable to comply with said subsection and any other information the commissioner deems necessary. The commissioner, at least thirty days before approving, approving with conditions or denying any such application, shall publish once in a newspaper having a substantial circulation in the affected area notice of: (1) The name of the applicant; (2) the location and nature of the requested exemption; (3) the tentative decision on the application; and (4) additional information the commissioner deems

necessary to support the decision to approve, approve with conditions or deny the application. There shall be a comment period following the public notice during which period interested persons and municipalities may submit written comments. After the comment period, the commissioner shall make a final determination to either approve the application, approve the application with conditions or deny the application. The commissioner may hold a public hearing prior to approving, approving with conditions or denying any application if in the discretion of the commissioner the public interest will be best served thereby, and the commissioner shall hold a public hearing upon receipt of a petition signed by at least twenty-five persons. Notice of such hearing shall be published at least thirty days before the hearing in a newspaper having a substantial circulation in the area affected. The commissioner may approve or approve with conditions such exemption if the commissioner determines that (A) the agency has shown that the activity or critical activity is in the public interest, will not injure persons or damage property in the area of such activity or critical activity, complies with the provisions of the National Flood Insurance Program, and, in the case of a loan or grant, the recipient of the loan or grant has been informed that increased flood insurance premiums may result from the activity or critical activity, or (B) in the case of a flood control project, such project meets the criteria of subparagraph (A) of this subdivision and is more cost-effective to the state and municipalities than a project constructed to or above the base flood or base flood for a critical activity. Following approval for exemption for a flood control project, the commissioner shall provide notice of the hazards of a flood greater than the capacity of the project design to each member of the legislature whose district will be affected by the project and to the following agencies and officials in the area to be protected by the project: The planning and zoning commission, the inland wetlands agency, the director of civil defense, the conservation commission, the fire department, the police department, the chief elected official and each member of the legislative body, and the regional planning agency. Notice shall be given to the general public by publication in a newspaper of general circulation in each municipality in the area in which the project is to be located.

(e) The failure of any agency to comply with the provisions of this section or any regulations adopted pursuant to section 25-68c shall be grounds for revocation of the approval of the certification.

(f) The provisions of this section shall not apply to any proposal by the Department of Transportation for a project within a drainage basin of less than one square mile.

**Sec. 25-68e. Suspension.** The provisions of sections 25-68b to 25-68h, inclusive, and any regulations adopted thereunder may be suspended by the commissioner during any disaster emergency proclaimed by the Governor pursuant to section 28-9a or during an emergency declaration or major disaster declaration declared by the President of the United States under Public Law 93-288.

**Sec. 25-68f. Floodplain designation.** Where more than one flood zone has been designated for an area, the most stringent designation shall be used in fulfilling the provisions of sections 25-68b to 25-68h, inclusive.



**Sec. 25-68g. Immunity.** The state, any municipality or any officer or employee thereof shall not be liable for any damage resulting from reliance on any decision made pursuant to section 25-68d.

**Sec. 25-68h. Regulations.** The commissioner shall adopt regulations in accordance with the provisions of chapter 54 to implement the provisions of sections 25-68b to 25-68h, inclusive. Such regulations shall include, but not be limited to, (1) standards for stormwater management and flood flows and (2) procedures for certification or exemption of a proposal in accordance with section 25-68d.

This document contains the Connecticut regulations for Floodplain Management for State Agencies. This document was prepared by the State of Connecticut Department of Environmental Protection and is provided for the convenience of the reader. This is not the official version of the regulations. The official regulations are published by the State of Connecticut, Judicial Branch, Commission on Official Legal Publications in the Connecticut Law Journal. In the event there is inconsistency between this document and the regulations as published in the Connecticut Law Journal, the Connecticut Law Journal publication will serve as the official version.

## Flood Management Regulations for State Agencies

### Sec. 25-68h-1. Connecticut floodplain management regulations for state agencies

(a) Definitions.

(1) As used in Sections 25-68h-1, 25-68h-2 and 25-68h-3:

“Hurricane wave wash” means the effect of wave action in a coastal flood hazard zone.

“Significant impact” means any activity that would create:

- (A) A five percent increase in peak flow rates at any downstream point;
- (B) A twenty percent increase in flow velocities or a change that allows a stable condition to become unstable;
- (C) An activity that contributes to an unacceptable cumulative impact;
- (D) Any activity that causes flooding on developed property not currently subject to flooding;
- (E) An activity that could cause a downstream dam to become unsafe.

“Velocity waters” means the effect of moving water in a coastal flood hazard zone.

(2) As used in Sections 25-68h-1, 25-68h-2 and 25-68h-3, the definitions of the following terms shall be the same as the definitions in Section 25-68b of the General Statutes: activity; base flood; base flood for a critical activity; Commissioner; critical activity; floodplain; flood-proofing; freeboard.

(b) Program Certification. Not later than one year from the effective date of these regulations any state agencies responsible for a program regulating flood flows within a floodplain shall certify in writing to the Commissioner that all such program(s) within its jurisdiction are being implemented consistent with the criteria in Section 25-68h-1, 25-68h-2 and 25-68h-3 of these regulations. The agency shall specifically describe:

- (1) The procedures that will insure that prior to granting a permit or approval for any state activity subject to the regulatory jurisdiction of this program are in compliance with Section 25-68d of the General Statutes and these regulations.
- (2) The procedures that will insure that the review and approval of applications for activities subject to the regulatory jurisdiction of this program are generally consistent with Section 25-68d of the General Statutes and these regulations.

(c) Certification of State Agency Activities.

(1) Any state agency proposing or undertaking any activity within or affecting a floodplain shall, as early as possible, but in no event later than 90 days prior to the date of initiating the activity, certify to the Commissioner that the activity is consistent with all applicable standards and criteria in Section 25-68d of the General Statutes and Sections 25-68h-1 through 25-68h-3, inclusive, of these regulations. Certification shall be made on a form prescribed by the Commissioner and the level of detail of the certification shall be commensurate with the size, complexity and probable impact of the activity. Certification shall include, but not be limited to, a

description of the proposed activity, an affirmation that the activity is consistent with all applicable standards and criteria, and, where applicable, certifications from a registered architect or engineer. Any agency providing grants or loans for an activity shall also demonstrate its ability to guarantee that all requirements of Section 25-68d of the General Statutes and Section 25-68h-1 through 25-68h-3, inclusive, of these regulations will be complied with by the person or persons receiving the grant or loan. Unless requested by the Commissioner, the background materials supporting the certification, including but not limited to plans, analyses and engineering calculations, need not be submitted along with the certification. Such back ground materials shall be retained by the agency proposing or undertaking any activity and shall be available for inspection by the Commissioner for a period of five years following completion of construction. The certification shall be signed by the head of the agency or his or her designated agent.

- (2) Where two or more state agencies cooperate in proposing or undertaking an activity one agency may be designated to prepare the certification and to serve as a point of contact, however, the head of each agency shall sign the certification and each agency shall share the responsibility for the scope and content of the documents prepared pursuant to these regulations.
- (d) **Rendering a Decision.** The Commissioner shall make a decision either approving or rejecting a certification within ninety days of its receipt and shall notify the agency or agencies in writing of the decision. In the event that a certification is rejected, the Commissioner shall provide the reasons for the rejection and where possible suggestions for modifications or additional information which would make the certification acceptable. If a certification is rejected the agency or agencies having submitted it may request a hearing pursuant to Section 4-177 of the General Statutes.
- (e) **Revocation.** If the Commissioner determines after approving a certification for an activity, critical activity or program that the agency or agencies which submitted the certification failed to comply with the provisions of Section 25-68d of the General Statutes or these regulations, then the Commissioner may revoke approval of the certification. Such revocation shall be in writing and provide the reasons for the revocation and where possible suggestions for modifications or additional information which would make the certification acceptable.
- (f) **Exemption.** Any state agency or agencies proposing or undertaking an activity within or affecting the floodplain may apply to the Commissioner for exemption from the provisions of subsection (b) of Section 25-68d of the General Statutes and Sections 25-68h-1 through 25-68h-3, inclusive of these regulations in accordance with subsection (d) of Section 25-68d of the General Statutes.

(Effective April 30, 1987)

### **Sec. 25-68h-2. Floodplain management standards**

- (a) All state activities shall conform to the Federal Emergency Management Agency National Flood Insurance Program requirements, specifically Part 60 - Criteria For Land Management and Use, Subpart A Sections 60.3, 60.4 and 60.5.

(b) The following restrictions shall pertain to all new and substantially improved structures located within the floodplain.

- (1) Structures shall not be designed for human habitation unless elevated with the lowest floor one foot above the level of the base flood.
- (2) Structures and all stored materials which may result in damage to other structures, restriction of bridge openings or other narrow sections of the stream or river shall be anchored or restrained to prevent them from floating away.
- (3) Service facilities such as electrical and heating equipment shall be constructed at or above the elevation of the base flood or floodproofed with a passive system.
- (4) Structures located within a "coastal high hazard area" as defined in 44 CFR Part 59 shall be elevated on adequately anchored pilings or columns and securely anchored to such piles or columns such that the lowest portion of the structural members of the lowest floor (excluding the pilings or columns) is elevated to one foot above the base flood and certified by a registered professional engineer or architect that the structure is securely anchored to piling or columns in order to withstand velocity waters and hurricane wave wash.
- (5) No new structures shall be permitted on undeveloped coastal barrier beaches as designated by the Federal Emergency Management Agency (FEMA).
- (6) All water supply equipment shall be designed to prevent flood waters from entering and contaminating the system.
- (7) All sanitary sewer collection systems located in the floodplain must have watertight manhole covers and if equipped with vents, shall extend above the elevation of the base flood.

(c) The following restrictions shall pertain to all filling, dumping, construction, excavating, and other activities which change the topography within the floodplain.

- (1) No filling, dumping or construction or other activity shall be allowed which would increase the elevation of the base flood by more than one foot or adversely affect the hydraulic characteristics of the floodplain unless the proposed filling is fully compensated for by excavation in or contiguous to the filled area.
- (2) No filling, dumping, construction or excavation will be allowed if these changes will result in a concentration of the natural flow of water such as to cause or increase drainage, erosion or sediment problems.
- (3) Any fill placed in the floodplain shall not be greater than that which is necessary to achieve the intended purpose as demonstrated by a plan showing the uses to which the filled land will be put and the final dimensions of the proposed fill or other materials.

- (4) Such fill or other material shall be protected against erosion as discussed in the Connecticut Guidelines for Soil Erosion and Sediment Control (1985), as may be amended.
  - (5) Any activity within a floodway designated by FEMA which would result in an increase of the elevation of the base flood or ten year flood profile is prohibited.
  - (6) The placement of fill in areas of high velocity flow or at the outside edge of a migrating river bend is discouraged.
- (d) The following restrictions shall pertain to the storage of materials and equipment within the floodplain.
- (1) The storage of materials that are buoyant, hazardous, flammable, explosive, soluble, expansive radioactive or which could be injurious to human, animal or plant life is prohibited below the elevation of the base flood for a critical activity.
  - (2) Other material or equipment may be stored below the elevation of the base flood for a critical activity provided that such material or equipment is not subject to major damage by floods, and provided that such material or equipment is firmly anchored, restrained or enclosed to prevent it from floating away.

(Effective April 30, 1987)

### **Sec. 25-68h-3. Stormwater management standards**

- (a) On-site stormwater management.
  - (1) The stormwater management plans for state activities shall be prepared so as to minimize any adverse increases to the peak flow rate, the timing of runoff and the volume of runoff. Hydrology studies shall be conducted at a level of detail commensurate with the probable impact of the project.
    - (A) A complete runoff hydrograph evaluation is required for (i) Basin Stormwater Management Plans pursuant to Section 25-68h-3 (h), (ii) Stormwater management plans for project sites resulting in significant impacts, and (iii) other state activities and critical activities as determined by the Commissioner. Hydrograph evaluations shall be conducted for existing and anticipated land use conditions for storms with average return frequencies of 2, 10 and 100 years. Where appropriate, the hydrograph analysis shall include determination of runoff for each subwatershed and routing runoff through storage impoundments and floodplain storage areas. The timing sequence of the runoff must be fully developed.
    - (B) Where suitable records exist, hydrographs should be developed from historic gauged flood data. For other watercourses, the hydrographs shall be developed from deterministic rainfall-runoff techniques and compared with flood flows of similar gauged watersheds and an assessment made as to the need to calibrate the hydrograph based on this comparison.

- (2) Stormwater management plans for project sites shall be coordinated with Basin Stormwater Management Plans, where available.
- (b) Stormwater detention facilities. Facilities to temporarily store excess storm runoff shall be subject to the following requirements:
- (1) Any detention facility whose failure could cause significant damage or loss of life shall be regulated as a dam pursuant to Sections 22a-401 through 22a-409 of the General Statutes.
  - (2) All detention facilities serving a watershed larger than 10 acres in size shall be analyzed with hydrograph and storage routing techniques.
  - (3) The release rates from detention facilities shall be consistent with the Basin Stormwater Management Plan for the watershed in which it is located, or comply with items 4, 5 and 6 below if there is no Basin Stormwater Management Plan.
  - (4) The release rate shall consider the existing and proposed flow rates at the site and downstream channels or structures, and the timing of runoff from other sub watersheds within the basin for the base flood.
  - (5) The waters released from a detention facility shall not increase the peak flow rate at offsite downstream points unless they have adequate flow capacity for the base flood.
  - (6) Extended duration detention facility discharges directly into alluvial or eroding channels shall not exceed the bankfull capacity or the 2 year flood frequency flow, whichever is less, unless it is determined said channel will be stable.
  - (7) Section 8E of the "Connecticut Guidelines for Erosion and Sediment Control" (1985) as may be amended, shall be used as a guide to construction details and materials.
  - (8) An operation and maintenance schedule shall be prepared for every detention facility identifying responsibilities and items of routine maintenance, after use and emergency operations in the event of a flood.
- (c) Storm Drainage Systems. All subsurface storm drainage systems shall be designed in accordance with the methods and procedures defined in the Connecticut Department of Transportation Drainage Manual prepared by the Division of Design, Bureau of Highway, as may be amended and shall meet the following requirements:
- (1) Storm drainage systems for parking lots, driveways, and roads shall be designed for a ten year frequency storm without closing use of the facility.
  - (2) The design of storm drainage systems for depressed roads and driveways shall comply with the DOT Drainage Manual.
  - (3) Use of curbing shall be minimized in order to encourage overland dispersed flow through stable vegetated areas.

- (4) The hydrology and hydraulic design of catch basins, gutters, and storm drain pipes shall comply with the DOT Drainage Manual.
  - (5) Design computations shall be prepared on the appropriate forms contained in the DOT Drainage Manual.
  - (6) The foundation drains and floor drains of buildings connected into storm drainage systems shall be designed to prevent backflow for the 100 year frequency flood into the building.
  - (7) Surface runoff shall be directed through vegetated filter strips or grass swales wherever possible prior to storm drain inlets.
  - (8) The design of the storm drainage system should be coordinated with the soil erosion and sediment control plan.
  - (9) Storm drainage discharges shall be coordinated with the National Pollution Discharge Elimination System permit program administered by the Water Compliance Unit of DEP.
  - (10) Storm drainage systems discharging into watercourses tributary to public water supply reservoirs shall be in compliance with the Public Health Code.
  - (11) Storm drains shall be extended to a suitable discharge point into a watercourse or public drainage system, or to where drainage rights have been secured.
- (d) Open Channels. The analysis and design of open channels shall be consistent with the type of channel and its intended purpose. Channels shall be classified as local drainage channels or as watercourse channels, depending on use, and shall be classified as alluvial or non-alluvial based upon their geologic characteristics.
- (1) Type A open channels are local drainage channels with a primary purpose of conveying urban, parking lot and road runoff from small watersheds, frequently with intermittent flow and limited ecological value and are intended to convey their design flow within their banks. They shall be designed in accordance with Section 12.02, 12.03, and 12.04 of the DOT Drainage Manual and:
    - (A) Freeboard allowances shall be provided in proportion to the potential damages that could occur in the event of overtopping;
    - (B) The use of impervious linings is discouraged except for very high velocity flow and steep slopes;
  - (2) Type B open channels are natural perennial watercourses or man made channels planned to simulate a natural watercourse. They shall be designed in accordance with Section 12.05 of the DOT Drainage Manual and the following where appropriate:
    - (A) Shall have minimum flow capacity of a flood equal to at least 25 year frequency flood.



- (B) Shall have an inner channel to concentrate low flows with a capacity of a 2 year frequency flood.
  - (C) Shall have water surface profiles prepared for the 2, 25, and 100 year frequency floods.
  - (D) Shall consider the hydraulic capacity of floodplains.
  - (E) Shall have a sediment transport capacity similar to upstream and down stream channels.
  - (F) Shall be designed to minimize the use of artificial linings for flows in excess of the two year frequency flood.
  - (G) Shall encourage ecological productivity and variety.
  - (H) Shall be visually compatible with its surroundings.
  - (I) The alignment and slope shall be compatible with natural channels in similar site conditions.
  - (J) Variations in width, depth, invert evaluations, and side slopes are encouraged for aquatic and visual diversity.
  - (K) Straightening channels and decreasing their length is discouraged.
  - (L) The cross sections used to define the channel and floodplain geometry for water surface profile computations shall be located upstream and downstream of hydraulic structures, at changes in bed slope or cross section shape, and generally at intervals of not more than ten times the width of the 100 year floodplain.
  - (M) The friction coefficients used in the hydraulic analysis are to assume maximum seasonal vegetation conditions, and should be adjusted to the depth of flow.
- (3) Channel restoration plans shall be prepared for all open channel work. The plan shall help restore and/or create an aquatic habitats suitable for fisheries, while maintaining or improving water quality, recreation, aesthetics and flow capacity. Coordination with the Fisheries and Wildlife Units of DEP is recommended. The channel restoration plan shall include, as appropriate:
- (A) Avoidance of barriers to fish movement;
  - (B) Formation of pools and riffles;
  - (C) Provision for areas of sheltered flow with use of deflectors, boulders, low check dams;

- (D) Preservation of stream bank vegetation and establishment of new vegetation;
  - (E) Use of clean natural bed materials of a suitable size;
  - (F) Schedule work to minimize conflicts with spawning, stocking, and fishing seasons; and
  - (G) Removal of excess debris.
- (4) The design of rock riprap in channels with uniform flow shall be based upon the tractive force methods defined in both the DOT Drainage Manual and the Connecticut Guidelines for Erosion and Sediment Control.
- (5) The hydraulic analysis and modification of watercourses prone to ice jams or floods due to ice should be coordinated directly with the Department of Environmental Protection.
- (6) The watersurface profiles of open channels in coastal areas shall consider the potential combined occurrence of tides, storm surges, and peak runoff. The starting water elevation for the base flood in watersheds with time of concentrations of over 6 hours shall be the ten year frequency tidal surge level.
- (e) Culverts and Bridges. All drainage culverts and bridges shall be designed in accordance to the methods and procedures defined in the DOT Drainage Manual and shall meet the following requirements:
- (1) Culverts and bridges will be designed for flood frequencies and underclearances stipulated in the DOT Drainage Manual, except that on local (not state highways) roads and driveways with low traffic volumes and where alternate routes are available, lower design criteria is acceptable when:
    - (A) Flood discharges may be allowed to cross over roads that are at or close to the floodplain grade.
    - (B) Water surface elevations shall not be increased by more than one foot, nor allowed to cause damage to upstream properties.
    - (C) Provisions are made to barricade the road when overtopped.
    - (D) The road or driveway is posted as being subject to flooding.
  - (2) Bridges and culverts along stocked watercourses and watercourses which may support fish shall be designed to allow passage of fish as may be recommended by the Department of Environmental Protection Fisheries and Wildlife Units.
  - (3) The location of new bridges and culverts shall minimize the relocation of watercourses.

- (4) Where applicable, rigid structural floors at bridges and culverts should be depressed below the normal streambed, to allow an alluvial streambed to form over them, and shall anticipate if the streambed is degrading.
  - (5) The use of solid parapet walls at bridges and culverts located in the sag part of vertical curves is discouraged.
  - (6) Debris barriers shall be used upstream of structures prone to blockage by debris.
  - (7) The use of a single large culvert or bridge opening is preferred over use of multiple small openings.
  - (8) The under clearances and maximum headwaters stipulated in the DOT Drainage Manual may be waived when decreasing the headwater depth at existing structures could increase downstream peak flows.
- (f) Standard Conditions for Approval.
- (1) All construction work shall incorporate best management practices to minimize soil erosion and sedimentation and conform with the "Connecticut Guidelines for Soil Erosion and Sediment Control."
  - (2) All fill shall be clean, material free of stumps, rubbish, hazardous, and toxic material.
  - (3) Contractor shall remove equipment and materials from the floodplain during periods when flood warnings have been issued or are anticipated by a responsible federal, state or local agency. It shall be the contractor's responsibility to obtain such warnings when flooding is anticipated.
  - (4) Contractor shall notify the Commissioner seven days prior to starting work on-site.
  - (5) Once work is initiated, it shall proceed rapidly and steadily until completed and stabilized in order to minimize use of temporary structures and to minimize soil erosion.
  - (6) Work shall not be conducted in or adjacent to watercourses and reservoirs used as public drinking water supply sources without further coordination with the water supply utility and Department of Health Services.
  - (7) All temporary structures, cofferdams, and fill shall not impede the movement of flood flows and shall be removed at the completion of their use. The design of such temporary structure, cofferdams and fill shall be based on Chapter 18 of the DOT Drainage Manual, where applicable.
  - (8) The applicant or his agent shall permanently maintain the proposed facility.
- (g) Basin Stormwater Management Plans. Basin stormwater management plans shall be prepared at the scale of the subregional drainage basins as defined on the map entitled "Natural Drainage Basins of Connecticut" prepared by the Department of Environmental Protection dated 1981 or as amended. Basin stormwater management plans shall include:

- (1) Watershed identification, surficial geology, and land use.
- (2) Inventory of flood hazard areas as identified by Flood Insurance Studies or the Commissioner, plus historic floods and damages.
- (3) An evaluation of watercourses, including areas of limited flow capacity, bank or bed erosion, sediment deposition, water quality, principle water uses and users, recreation areas, morphology classification, and channel stability.
- (4) An inventory and evaluation of hydraulic structures, including culverts, bridges, dams and dikes with information on their flow capacity and physical condition.
- (5) An inventory of significant flood water storage areas, including principal impoundments, floodplains, and wetlands.
- (6) A runoff hydrograph analysis of the watershed for floods of an appropriate duration, including a 24 hour event, with average return frequencies of 2, 10 and 100 years for existing and future land uses.
- (7) The relationship between the computed peak flow rates and gauging station data, with modification or calibration of the hydrographs to obtain a reasonable fit where necessary.
- (8) Identification of the peak rate of runoff at various key points in the watershed, and the relative timing of the peak flow rates.
- (9) Identification of points in the watershed where hydraulic structures or watercourses are inadequate under existing or anticipated future conditions.
- (10) Recommendations on how the subwatersheds runoff can be managed to minimize any harmful downstream impacts.
- (11) Generalized recommendations for physical improvements for existing or anticipated future problem areas.
- (12) A copy of each Basin Stormwater Management Plan shall be filed with the DEP.
- (13) Stormwater management plans for Public Water Supply watersheds shall be coordinated with the Connecticut Department of Health Services and any affected water utility company.

(Effective April 30, 1987)

**Sec. 13a-94. Construction over or adjacent to streams.** (a) All structures to be built over, or structures or embankments to be built adjacent to, streams in connection with state highway projects shall conform (1) to the requirements of the Commissioner of Environmental Protection for sizes and location of waterways as determined by his policies for the establishment of river channel encroachment limits in accordance with sections 22a-342 to 22a-348, inclusive, (2) to any approved river corridor protection plan for a river corridor designated pursuant to section 25-205, and (3) any river corridor management plan approved pursuant to section 25-235.

(b) On any stream subject to flood control measures by the Commissioner of Environmental Protection over or adjacent to which such a highway may be constructed, the size of waterway for such bridges, structures or embankments shall be increased sufficiently beyond that required to comply with channel encroachment policies to avoid any reduction in the protection afforded by the flood control measures.

(c) Highway bridges in existence on June 21, 1961, crossing streams on which flood control projects are carried out shall be rebuilt or modified by the Commissioner of Transportation to meet the requirements of the flood control plan.

(d) In connection with highway improvement projects initiated by the commissioner, the entire cost of new or modified existing structures over, or structures or embankments adjacent to, streams designed to comply with river channel encroachment requirements as specified in subsection (a) of this section may be paid from regular highway construction appropriations, and any additional costs required to provide structures meeting the needs of flood control measures above that required to comply with river channel encroachment policies shall be paid from the other appropriations provided for such flood control purposes.

## SUBCHAPTER B—INSURANCE AND HAZARD MITIGATION

### PARTS 50–54 [RESERVED]

NATIONAL INSURANCE DEVELOPMENT  
PROGRAM

### PARTS 55–58 [RESERVED]

NATIONAL FLOOD INSURANCE PROGRAM

## PART 59—GENERAL PROVISIONS

### Subpart A—General

Sec.

- 59.1 Definitions.
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### Subpart B—Eligibility Requirements

- 59.21 Purpose of subpart.
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### Subpart C—Pilot Inspection Program

- 59.30 A pilot inspection procedure.

AUTHORITY: 42 U.S.C. 4001 *et seq.*; Reorganization Plan No. 3 of 1978, 43 FR 41943, 3 CFR, 1978 Comp., p. 329; E.O. 12127 of Mar. 31, 1979, 44 FR 19367, 3 CFR, 1979 Comp., p. 376.

### Subpart A—General

#### § 59.1 Definitions.

As used in this subchapter—

*Act* means the statutes authorizing the National Flood Insurance Program that are incorporated in 42 U.S.C. 4001–4128.

*Actuarial rates*—see *risk premium rates*.

*Administrator* means the Federal Insurance Administrator.

*Agency* means the Federal Emergency Management Agency, Washington DC.

*Alluvial fan flooding* means flooding occurring on the surface of an alluvial fan or similar landform which originates at the apex and is characterized by high-velocity flows; active processes of erosion, sediment transport, and deposition; and, unpredictable flow paths.

*Apex* means a point on an alluvial fan or similar landform below which the flow path of the major stream that formed the fan becomes unpredictable and alluvial fan flooding can occur.

*Applicant* means a community which indicates a desire to participate in the Program.

*Appurtenant structure* means a structure which is on the same parcel of property as the principal structure to be insured and the use of which is incidental to the use of the principal structure.

*Area of future-conditions flood hazard* means the land area that would be inundated by the 1-percent-annual-chance (100-year) flood based on future-conditions hydrology.

*Area of shallow flooding* means a designated AO, AH, AR/AO, AR/AH, or VO zone on a community's Flood Insurance Rate Map (FIRM) with a 1 percent or greater annual chance of flooding to an average depth of 1 to 3 feet where a clearly defined channel does not exist, where the path of flooding is unpredictable, and where velocity flow may be evident. Such flooding is characterized by ponding or sheet flow.

*Area of special flood-related erosion hazard* is the land within a community which is most likely to be subject to severe flood-related erosion losses. The area may be designated as Zone E on the Flood Hazard Boundary Map (FHBM). After the detailed evaluation of the special flood-related erosion hazard area in preparation for publication of the FIRM, Zone E may be further refined.

*Area of special flood hazard* is the land in the flood plain within a community subject to a 1 percent or greater chance of flooding in any given year. The area may be designated as Zone A on the FHBM. After detailed ratemaking has been completed in preparation for publication of the flood insurance rate map, Zone A usually is refined into Zones A, AO, AH, A1–30, AE, A99, AR, AR/A1–30, AR/AE, AR/AO, AR/AH, AR/A, VO, or V1–30, VE, or V. For purposes of these regulations, the term “special flood hazard area” is synonymous in

meaning with the phrase “area of special flood hazard”.

*Area of special mudslide (i.e., mudflow) hazard* is the land within a community most likely to be subject to severe mudslides (i.e., mudflows). The area may be designated as Zone M on the FHBM. After the detailed evaluation of the special mudslide (i.e., mudflow) hazard area in preparation for publication of the FIRM, Zone M may be further refined.

*Base flood* means the flood having a one percent chance of being equalled or exceeded in any given year.

*Basement* means any area of the building having its floor subgrade (below ground level) on all sides.

*Breakaway wall* means a wall that is not part of the structural support of the building and is intended through its design and construction to collapse under specific lateral loading forces, without causing damage to the elevated portion of the building or supporting foundation system.

*Building*—see *structure*.

*Chargeable rates* mean the rates established by the Administrator pursuant to section 1308 of the Act for first layer limits of flood insurance on existing structures.

*Chief Executive Officer* of the community (*CEO*) means the official of the community who is charged with the authority to implement and administer laws, ordinances and regulations for that community.

*Coastal high hazard area* means an area of special flood hazard extending from offshore to the inland limit of a primary frontal dune along an open coast and any other area subject to high velocity wave action from storms or seismic sources.

*Community* means any State or area or political subdivision thereof, or any Indian tribe or authorized tribal organization, or Alaska Native village or authorized native organization, which has authority to adopt and enforce flood plain management regulations for the areas within its jurisdiction.

*Contents coverage* is the insurance on personal property within an enclosed structure, including the cost of debris removal, and the reasonable cost of removal of contents to minimize damage. Personal property may be household

goods usual or incidental to residential occupancy, or merchandise, furniture, fixtures, machinery, equipment and supplies usual to other than residential occupancies.

*Criteria* means the comprehensive criteria for land management and use for flood-prone areas developed under 42 U.S.C. 4102 for the purposes set forth in part 60 of this subchapter.

*Critical feature* means an integral and readily identifiable part of a flood protection system, without which the flood protection provided by the entire system would be compromised.

*Curvilinear Line* means the border on either a FHBM or FIRM that delineates the special flood, mudslide (i.e., mudflow) and/or flood-related erosion hazard areas and consists of a curved or contour line that follows the topography.

*Deductible* means the fixed amount or percentage of any loss covered by insurance which is borne by the insured prior to the insurer’s liability.

*Developed area* means an area of a community that is:

(a) A primarily urbanized, built-up area that is a minimum of 20 contiguous acres, has basic urban infrastructure, including roads, utilities, communications, and public facilities, to sustain industrial, residential, and commercial activities, and

(1) Within which 75 percent or more of the parcels, tracts, or lots contain commercial, industrial, or residential structures or uses; or

(2) Is a single parcel, tract, or lot in which 75 percent of the area contains existing commercial or industrial structures or uses; or

(3) Is a subdivision developed at a density of at least two residential structures per acre within which 75 percent or more of the lots contain existing residential structures at the time the designation is adopted.

(b) Undeveloped parcels, tracts, or lots, the combination of which is less than 20 acres and contiguous on at least 3 sides to areas meeting the criteria of paragraph (a) at the time the designation is adopted.

(c) A subdivision that is a minimum of 20 contiguous acres that has obtained all necessary government approvals, provided that the actual

“start of construction” of structures has occurred on at least 10 percent of the lots or remaining lots of a subdivision or 10 percent of the maximum building coverage or remaining building coverage allowed for a single lot subdivision at the time the designation is adopted and construction of structures is underway. Residential subdivisions must meet the density criteria in paragraph (a)(3).

*Development* means any man-made change to improved or unimproved real estate, including but not limited to buildings or other structures, mining, dredging, filling, grading, paving, excavation or drilling operations or storage of equipment or materials.

*Director* means the Director of the Federal Emergency Management Agency.

*Eligible community* or *participating community* means a community for which the Administrator has authorized the sale of flood insurance under the National Flood Insurance Program.

*Elevated building* means, for insurance purposes, a nonbasement building which has its lowest elevated floor raised above ground level by foundation walls, shear walls, posts, piers, pilings, or columns.

*Emergency Flood Insurance Program* or *emergency program* means the Program as implemented on an emergency basis in accordance with section 1336 of the Act. It is intended as a program to provide a first layer amount of insurance on all insurable structures before the effective date of the initial FIRM.

*Erosion* means the process of the gradual wearing away of land masses. This peril is not per se covered under the Program.

*Exception* means a waiver from the provisions of part 60 of this subchapter directed to a community which relieves it from the requirements of a rule, regulation, order or other determination made or issued pursuant to the Act.

*Existing construction*, means for the purposes of determining rates, structures for which the “start of construction” commenced before the effective date of the FIRM or before January 1, 1975, for FIRMs effective before that date. “Existing construction” may also be referred to as “existing structures.”

*Existing manufactured home park or subdivision* means a manufactured home park or subdivision for which the construction of facilities for servicing the lots on which the manufactured homes are to be affixed (including, at a minimum, the installation of utilities, the construction of streets, and either final site grading or the pouring of concrete pads) is completed before the effective date of the floodplain management regulations adopted by a community.

*Existing structures* see *existing construction*.

*Expansion to an existing manufactured home park or subdivision* means the preparation of additional sites by the construction of facilities for servicing the lots on which the manufacturing homes are to be affixed (including the installation of utilities, the construction of streets, and either final site grading or the pouring of concrete pads).

*Federal agency* means any department, agency, corporation, or other entity or instrumentality of the executive branch of the Federal Government, and includes the Federal National Mortgage Association and the Federal Home Loan Mortgage Corporation.

*Federal instrumentality responsible for the supervision, approval, regulation, or insuring of banks, savings and loan associations, or similar institutions* means the Board of Governors of the Federal Reserve System, the Federal Deposit Insurance Corporation, the Comptroller of the Currency, the Federal Home Loan Bank Board, the Federal Savings and Loan Insurance Corporation, and the National Credit Union Administration.

*Financial assistance* means any form of loan, grant, guaranty, insurance, payment, rebate, subsidy, disaster assistance loan or grant, or any other form of direct or indirect Federal assistance, other than general or special revenue sharing or formula grants made to States.

*Financial assistance for acquisition or construction purposes* means any form of financial assistance which is intended in whole or in part for the acquisition, construction, reconstruction, repair, or improvement of any publicly or privately owned building or mobile home,



and for any machinery, equipment, fixtures, and furnishings contained or to be contained therein, and shall include the purchase or subsidization of mortgages or mortgage loans but shall exclude assistance pursuant to the Disaster Relief Act of 1974 other than assistance under such Act in connection with a flood. It includes only financial assistance insurable under the Standard Flood Insurance Policy.

*First-layer coverage* is the maximum amount of structural and contents insurance coverage available under the Emergency Program.

*Flood or Flooding* means:

(a) A general and temporary condition of partial or complete inundation of normally dry land areas from:

(1) The overflow of inland or tidal waters.

(2) The unusual and rapid accumulation or runoff of surface waters from any source.

(3) Mudslides (i.e., mudflows) which are proximately caused by flooding as defined in paragraph (a)(2) of this definition and are akin to a river of liquid and flowing mud on the surfaces of normally dry land areas, as when earth is carried by a current of water and deposited along the path of the current.

(b) The collapse or subsidence of land along the shore of a lake or other body of water as a result of erosion or undermining caused by waves or currents of water exceeding anticipated cyclical levels or suddenly caused by an unusually high water level in a natural body of water, accompanied by a severe storm, or by an unanticipated force of nature, such as flash flood or an abnormal tidal surge, or by some similarly unusual and unforeseeable event which results in flooding as defined in paragraph (a)(1) of this definition.

*Flood elevation determination* means a determination by the Administrator of the water surface elevations of the base flood, that is, the flood level that has a one percent or greater chance of occurrence in any given year.

*Flood elevation study* means an examination, evaluation and determination of flood hazards and, if appropriate, corresponding water surface elevations, or an examination, evaluation and determination of mudslide (i.e., mudflow) and/or flood-related erosion hazards.

*Flood Hazard Boundary Map (FHBM)* means an official map of a community, issued by the Administrator, where the boundaries of the flood, mudslide (i.e., mudflow) related erosion areas having special hazards have been designated as Zones A, M, and/or E.

*Flood insurance* means the insurance coverage provided under the Program.

*Flood Insurance Rate Map (FIRM)* means an official map of a community, on which the Administrator has delineated both the special hazard areas and the risk premium zones applicable to the community.

*Flood Insurance Study* see *flood elevation study*.

*Flood plain or flood-prone area* means any land area susceptible to being inundated by water from any source (see definition of “flooding”).

*Flood plain management* means the operation of an overall program of corrective and preventive measures for reducing flood damage, including but not limited to emergency preparedness plans, flood control works and flood plain management regulations.

*Flood plain management regulations* means zoning ordinances, subdivision regulations, building codes, health regulations, special purpose ordinances (such as a flood plain ordinance, grading ordinance and erosion control ordinance) and other applications of police power. The term describes such state or local regulations, in any combination thereof, which provide standards for the purpose of flood damage prevention and reduction.

*Flood protection system* means those physical structural works for which funds have been authorized, appropriated, and expended and which have been constructed specifically to modify flooding in order to reduce the extent of the area within a community subject to a “special flood hazard” and the extent of the depths of associated flooding. Such a system typically includes hurricane tidal barriers, dams, reservoirs, levees or dikes. These specialized flood modifying works are those constructed in conformance with sound engineering standards.

*Flood proofing* means any combination of structural and non-structural additions, changes, or adjustments to structures which reduce or eliminate

flood damage to real estate or improved real property, water and sanitary facilities, structures and their contents.

*Flood-related erosion* means the collapse or subsidence of land along the shore of a lake or other body of water as a result of undermining caused by waves or currents of water exceeding anticipated cyclical levels or suddenly caused by an unusually high water level in a natural body of water, accompanied by a severe storm, or by an unanticipated force of nature, such as a flash flood or an abnormal tidal surge, or by some similarly unusual and unforeseeable event which results in flooding.

*Flood-related erosion area* or *flood-related erosion prone area* means a land area adjoining the shore of a lake or other body of water, which due to the composition of the shoreline or bank and high water levels or wind-driven currents, is likely to suffer flood-related erosion damage.

*Flood-related erosion area management* means the operation of an overall program of corrective and preventive measures for reducing flood-related erosion damage, including but not limited to emergency preparedness plans, flood-related erosion control works, and flood plain management regulations.

*Floodway*—see *regulatory floodway*.

*Floodway encroachment lines* mean the lines marking the limits of floodways on Federal, State and local flood plain maps.

*Freeboard* means a factor of safety usually expressed in feet above a flood level for purposes of flood plain management. “Freeboard” tends to compensate for the many unknown factors that could contribute to flood heights greater than the height calculated for a selected size flood and floodway conditions, such as wave action, bridge openings, and the hydrological effect of urbanization of the watershed.

*Functionally dependent use* means a use which cannot perform its intended purpose unless it is located or carried out in close proximity to water. The term includes only docking facilities, port facilities that are necessary for the loading and unloading of cargo or passengers, and ship building and ship

repair facilities, but does not include long-term storage or related manufacturing facilities.

*Future-conditions flood hazard area*, or *future-conditions floodplain*—see *Area of future-conditions flood hazard*.

*Future-conditions hydrology* means the flood discharges associated with projected land-use conditions based on a community’s zoning maps and/or comprehensive land-use plans and without consideration of projected future construction of flood detention structures or projected future hydraulic modifications within a stream or other waterway, such as bridge and culvert construction, fill, and excavation.

*General Counsel* means the General Counsel of the Federal Emergency Management Agency.

*Highest adjacent grade* means the highest natural elevation of the ground surface prior to construction next to the proposed walls of a structure.

*Historic Structure* means any structure that is:

(a) Listed individually in the National Register of Historic Places (a listing maintained by the Department of Interior) or preliminarily determined by the Secretary of the Interior as meeting the requirements for individual listing on the National Register;

(b) Certified or preliminarily determined by the Secretary of the Interior as contributing to the historical significance of a registered historic district or a district preliminarily determined by the Secretary to qualify as a registered historic district;

(c) Individually listed on a state inventory of historic places in states with historic preservation programs which have been approved by the Secretary of the Interior; or

(d) Individually listed on a local inventory of historic places in communities with historic preservation programs that have been certified either:

(1) By an approved state program as determined by the Secretary of the Interior or

(2) Directly by the Secretary of the Interior in states without approved programs.

*Independent scientific body* means a non-Federal technical or scientific organization involved in the study of

land use planning, flood plain management, hydrology, geology, geography, or any other related field of study concerned with flooding.

*Insurance adjustment organization* means any organization or person engaged in the business of adjusting loss claims arising under the Standard Flood Insurance Policy.

*Insurance company or insurer* means any person or organization authorized to engage in the insurance business under the laws of any State.

*Levee* means a man-made structure, usually an earthen embankment, designed and constructed in accordance with sound engineering practices to contain, control, or divert the flow of water so as to provide protection from temporary flooding.

*Levee System* means a flood protection system which consists of a levee, or levees, and associated structures, such as closure and drainage devices, which are constructed and operated in accordance with sound engineering practices.

*Lowest Floor* means the lowest floor of the lowest enclosed area (including basement). An unfinished or flood resistant enclosure, usable solely for parking of vehicles, building access or storage in an area other than a basement area is not considered a building's lowest floor; *Provided*, that such enclosure is not built so as to render the structure in violation of the applicable non-elevation design requirements of § 60.3.

*Mangrove stand* means an assemblage of mangrove trees which are mostly low trees noted for a copious development of interlacing adventitious roots above the ground and which contain one or more of the following species: Black mangrove (*Avicennia Nitida*); red mangrove (*Rhizophora Mangle*); white mangrove (*Languncularia Racemosa*); and buttonwood (*Conocarpus Erecta*).

*Manufactured home* means a structure, transportable in one or more sections, which is built on a permanent chassis and is designed for use with or without a permanent foundation when attached to the required utilities. The term "manufactured home" does not include a "recreational vehicle".

*Manufactured home park or subdivision* means a parcel (or contiguous

parcels) of land divided into two or more manufactured home lots for rent or sale.

*Map* means the Flood Hazard Boundary Map (FHBM) or the Flood Insurance Rate Map (FIRM) for a community issued by the Agency.

*Mean sea level* means, for purposes of the National Flood Insurance Program, the National Geodetic Vertical Datum (NGVD) of 1929 or other datum, to which base flood elevations shown on a community's Flood Insurance Rate Map are referenced.

*Mudslide (i.e., mudflow)* describes a condition where there is a river, flow or inundation of liquid mud down a hillside usually as a result of a dual condition of loss of brush cover, and the subsequent accumulation of water on the ground preceded by a period of unusually heavy or sustained rain. A mudslide (i.e., mudflow) may occur as a distinct phenomenon while a landslide is in progress, and will be recognized as such by the Administrator only if the mudflow, and not the landslide, is the proximate cause of damage that occurs.

*Mudslide (i.e., mudflow) area management* means the operation of an overall program of corrective and preventive measures for reducing mudslide (i.e., mudflow) damage, including but not limited to emergency preparedness plans, mudslide control works, and flood plain management regulations.

*Mudslide (i.e., mudflow) prone area* means an area with land surfaces and slopes of unconsolidated material where the history, geology and climate indicate a potential for mudflow.

*New construction* means, for the purposes of determining insurance rates, structures for which the "start of construction" commenced on or after the effective date of an initial FIRM or after December 31, 1974, whichever is later, and includes any subsequent improvements to such structures. For floodplain management purposes, *new construction* means structures for which the *start of construction* commenced on or after the effective date of a floodplain management regulation adopted by a community and includes any subsequent improvements to such structures.

*New manufactured home park or subdivision* means a manufactured home park or subdivision for which the construction of facilities for servicing the lots on which the manufactured homes are to be affixed (including at a minimum, the installation of utilities, the construction of streets, and either final site grading or the pouring of concrete pads) is completed on or after the effective date of floodplain management regulations adopted by a community.

*100-year flood* see *base flood*.

*Participating community*, also known as an *eligible community*, means a community in which the Administrator has authorized the sale of flood insurance.

*Person* includes any individual or group of individuals, corporation, partnership, association, or any other entity, including State and local governments and agencies.

*Policy* means the Standard Flood Insurance Policy.

*Premium* means the total premium payable by the insured for the coverage or coverages provided under the policy. The calculation of the premium may be based upon either chargeable rates or risk premium rates, or a combination of both.

*Primary frontal dune* means a continuous or nearly continuous mound or ridge of sand with relatively steep seaward and landward slopes immediately landward and adjacent to the beach and subject to erosion and overtopping from high tides and waves during major coastal storms. The inland limit of the primary frontal dune occurs at the point where there is a distinct change from a relatively steep slope to a relatively mild slope.

*Principally above ground* means that at least 51 percent of the actual cash value of the structure, less land value, is above ground.

*Program* means the National Flood Insurance Program authorized by 42 U.S.C. 4001 through 4128.

*Program deficiency* means a defect in a community's flood plain management regulations or administrative procedures that impairs effective implementation of those flood plain management regulations or of the standards in §§ 60.3, 60.4, 60.5, or 60.6.

*Project cost* means the total financial cost of a flood protection system (in-

cluding design, land acquisition, construction, fees, overhead, and profits), unless the Federal Insurance Administrator determines a given "cost" not to be a part of such project cost.

*Recreational vehicle* means a vehicle which is:

(a) Built on a single chassis;

(b) 400 square feet or less when measured at the largest horizontal projection;

(c) Designed to be self-propelled or permanently towable by a light duty truck; and

(d) Designed primarily not for use as a permanent dwelling but as temporary living quarters for recreational, camping, travel, or seasonal use.

*Reference feature* is the receding edge of a bluff or eroding frontal dune, or if such a feature is not present, the normal high-water line or the seaward line of permanent vegetation if a high-water line cannot be identified.

*Regular Program* means the Program authorized by the Act under which risk premium rates are required for the first half of available coverage (also known as "first layer" coverage) for all new construction and substantial improvements started on or after the effective date of the FIRM, or after December 31, 1974, for FIRM's effective on or before that date. All buildings, the construction of which started before the effective date of the FIRM, or before January 1, 1975, for FIRMs effective before that date, are eligible for first layer coverage at either subsidized rates or risk premium rates, whichever are lower. Regardless of date of construction, risk premium rates are always required for the second layer coverage and such coverage is offered only after the Administrator has completed a risk study for the community.

*Regulatory floodway* means the channel of a river or other watercourse and the adjacent land areas that must be reserved in order to discharge the base flood without cumulatively increasing the water surface elevation more than a designated height.

*Remedy a violation* means to bring the structure or other development into compliance with State or local flood plain management regulations, or, if this is not possible, to reduce the impacts of its noncompliance. Ways that

impacts may be reduced include protecting the structure or other affected development from flood damages, implementing the enforcement provisions of the ordinance or otherwise deterring future similar violations, or reducing Federal financial exposure with regard to the structure or other development.

*Risk premium rates* mean those rates established by the Administrator pursuant to individual community studies and investigations which are undertaken to provide flood insurance in accordance with section 1307 of the Act and the accepted actuarial principles. “Risk premium rates” include provisions for operating costs and allowances.

*Riverine* means relating to, formed by, or resembling a river (including tributaries), stream, brook, etc.

*Sand dunes* mean naturally occurring accumulations of sand in ridges or mounds landward of the beach.

*Scientifically incorrect.* The methodology(ies) and/or assumptions which have been utilized are inappropriate for the physical processes being evaluated or are otherwise erroneous.

*Second layer coverage* means an additional limit of coverage equal to the amounts made available under the Emergency Program, and made available under the Regular Program.

*Servicing company* means a corporation, partnership, association, or any other organized entity which contracts with the Federal Insurance Administration to service insurance policies under the National Flood Insurance Program for a particular area.

*Sheet flow area*—see *area of shallow flooding*.

*60-year setback* means a distance equal to 60 times the average annual long term recession rate at a site, measured from the reference feature.

*Special flood hazard area*—see “area of special flood hazard”.

*Special hazard area* means an area having special flood, mudslide (i.e., mudflow), or flood-related erosion hazards, and shown on an FHBM or FIRM as Zone A, AO, A1-30, AE, AR, AR/A1-30, AR/AE, AR/AO, AR/AH, AR/A, A99, AH, VO, V1-30, VE, V, M, or E.

*Standard Flood Insurance Policy* means the flood insurance policy issued by the Federal Insurance Adminis-

trator, or an insurer pursuant to an arrangement with the Administrator pursuant to Federal statutes and regulations.

*Start of Construction* (for other than new construction or substantial improvements under the Coastal Barrier Resources Act (Pub. L. 97-348)), includes substantial improvement, and means the date the building permit was issued, provided the actual start of construction, repair, reconstruction, rehabilitation, addition placement, or other improvement was within 180 days of the permit date. The actual start means either the first placement of permanent construction of a structure on a site, such as the pouring of slab or footings, the installation of piles, the construction of columns, or any work beyond the stage of excavation; or the placement of a manufactured home on a foundation. Permanent construction does not include land preparation, such as clearing, grading and filling; nor does it include the installation of streets and/or walkways; nor does it include excavation for a basement, footings, piers, or foundations or the erection of temporary forms; nor does it include the installation on the property of accessory buildings, such as garages or sheds not occupied as dwelling units or not part of the main structure. For a substantial improvement, the actual start of construction means the first alteration of any wall, ceiling, floor, or other structural part of a building, whether or not that alteration affects the external dimensions of the building.

*State* means any State of the United States, the District of Columbia, Puerto Rico, the Virgin Islands, Guam, American Samoa, and the Commonwealth of the Northern Mariana Islands.

*State coordinating agency* means the agency of the state government, or other office designated by the Governor of the state or by state statute at the request of the Administrator to assist in the implementation of the National Flood Insurance Program in that state.

*Storm cellar* means a space below grade used to accommodate occupants of the structure and emergency supplies as a means of temporary shelter

against severe tornado or similar wind storm activity.

*Structure* means, for floodplain management purposes, a walled and roofed building, including a gas or liquid storage tank, that is principally above ground, as well as a manufactured home. *Structure*, for insurance purposes, means:

(1) A building with two or more outside rigid walls and a fully secured roof, that is affixed to a permanent site;

(2) A manufactured home (“a manufactured home,” also known as a mobile home, is a structure: built on a permanent chassis, transported to its site in one or more sections, and affixed to a permanent foundation); or

(3) A travel trailer without wheels, built on a chassis and affixed to a permanent foundation, that is regulated under the community’s floodplain management and building ordinances or laws.

For the latter purpose, “structure” does not mean a recreational vehicle or a park trailer or other similar vehicle, except as described in paragraph (3) of this definition, or a gas or liquid storage tank.

*Subsidized rates* mean the rates established by the Administrator involving in the aggregate a subsidization by the Federal Government.

*Substantial damage* means damage of any origin sustained by a structure whereby the cost of restoring the structure to its before damaged condition would equal or exceed 50 percent of the market value of the structure before the damage occurred.

*Substantial improvement* means any reconstruction, rehabilitation, addition, or other improvement of a structure, the cost of which equals or exceeds 50 percent of the market value of the structure before the “start of construction” of the improvement. This term includes structures which have incurred “substantial damage”, regardless of the actual repair work performed. The term does not, however, include either:

(1) Any project for improvement of a structure to correct existing violations of state or local health, sanitary, or safety code specifications which have been identified by the local code en-

forcement official and which are the minimum necessary to assure safe living conditions or

(2) Any alteration of a “historic structure”, provided that the alteration will not preclude the structure’s continued designation as a “historic structure”.

*30-year setback* means a distance equal to 30 times the average annual long term recession rate at a site, measured from the reference feature.

*Technically incorrect.* The methodology(ies) utilized has been erroneously applied due to mathematical or measurement error, changed physical conditions, or insufficient quantity or quality of input data.

*V Zone*—see “coastal high hazard area.”

*Variance* means a grant of relief by a community from the terms of a flood plain management regulation.

*Violation* means the failure of a structure or other development to be fully compliant with the community’s flood plain management regulations. A structure or other development without the elevation certificate, other certifications, or other evidence of compliance required in § 60.3(b)(5), (c)(4), (c)(10), (d)(3), (e)(2), (e)(4), or (e)(5) is presumed to be in violation until such time as that documentation is provided.

*Water surface elevation* means the height, in relation to the National Geodetic Vertical Datum (NGVD) of 1929, (or other datum, where specified) of floods of various magnitudes and frequencies in the flood plains of coastal or riverine areas.

*Zone of imminent collapse* means an area subject to erosion adjacent to the shoreline of an ocean, bay, or lake and within a distance equal to 10 feet plus 5 times the average annual long-term erosion rate for the site, measured from the reference feature.

[41 FR 46968, Oct. 26, 1976]

EDITORIAL NOTE: For FEDERAL REGISTER citations affecting § 59.1, see the List of CFR Sections Affected, which appears in the Finding Aids section of the printed volume and on GPO access.

### § 59.2 Description of program.

(a) The National Flood Insurance Act of 1968 was enacted by title XIII of the

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§ 60.3 (b), (c), (d), (e) or (f), in which to meet the requirements of the applicable paragraph. If a community has received a FHBM, but has not yet applied for Program eligibility, the community shall apply for eligibility directly under the standards set forth in § 60.3(b). Thereafter, the community will be given a period of six months from the date the Administrator provides the data set forth in § 60.3 (c), (d), (e) or (f) in which to meet the requirements of the applicable paragraph.

(b) A mudslide (i.e., mudflow)-prone community applying for flood insurance eligibility shall meet the standards of § 60.4(a) to become eligible. Thereafter, the community will be given a period of six months from the date the mudslide (i.e., mudflow) areas having special mudslide hazards are delineated in which to meet the requirements of § 60.4(b).

(c) A flood-related erosion-prone community applying for flood insurance eligibility shall meet the standards of § 60.5(a) to become eligible. Thereafter, the community will be given a period of six months from the date the flood-related erosion areas having special erosion hazards are delineated in which to meet the requirements of § 60.5(b).

(d) Communities identified in part 65 of this subchapter as containing more than one type of hazard (e.g., any combination of special flood, mudslide (i.e., mudflow), and flood-related erosion hazard areas) shall adopt flood plain management regulations for each type of hazard consistent with the requirements of §§ 60.3, 60.4 and 60.5.

(e) Local flood plain management regulations may be submitted to the State Coordinating Agency designated pursuant to § 60.25 for its advice and concurrence. The submission to the State shall clearly describe proposed enforcement procedures.

(f) The community official responsible for submitting annual or biennial reports to the Administrator pursuant to § 59.22(b)(2) of this subchapter shall also submit copies of each annual or biennial report to any State Coordinating Agency.

(g) A community shall assure that its comprehensive plan is consistent with

the flood plain management objectives of this part.

(h) The community shall adopt and enforce flood plain management regulations based on data provided by the Administrator. Without prior approval of the Administrator, the community shall not adopt and enforce flood plain management regulations based upon modified data reflecting natural or man-made physical changes.

[41 FR 46975, Oct. 26, 1976. Redesignated at 44 FR 31177, May 31, 1979, as amended at 48 FR 29318, June 24, 1983; 48 FR 44552, Sept. 29, 1983; 49 FR 4751, Feb. 8, 1984; 50 FR 36024, Sept. 4, 1985; 59 FR 53598, Oct. 25, 1994; 62 FR 55716, Oct. 27, 1997]

#### § 60.3 Flood plain management criteria for flood-prone areas.

The Administrator will provide the data upon which flood plain management regulations shall be based. If the Administrator has not provided sufficient data to furnish a basis for these regulations in a particular community, the community shall obtain, review and reasonably utilize data available from other Federal, State or other sources pending receipt of data from the Administrator. However, when special flood hazard area designations and water surface elevations have been furnished by the Administrator, they shall apply. The symbols defining such special flood hazard designations are set forth in § 64.3 of this subchapter. In all cases the minimum requirements governing the adequacy of the flood plain management regulations for flood-prone areas adopted by a particular community depend on the amount of technical data formally provided to the community by the Administrator. Minimum standards for communities are as follows:

(a) When the Administrator has not defined the special flood hazard areas within a community, has not provided water surface elevation data, and has not provided sufficient data to identify the floodway or coastal high hazard area, but the community has indicated the presence of such hazards by submitting an application to participate in the Program, the community shall:

(1) Require permits for all proposed construction or other development in

the community, including the placement of manufactured homes, so that it may determine whether such construction or other development is proposed within flood-prone areas;

(2) Review proposed development to assure that all necessary permits have been received from those governmental agencies from which approval is required by Federal or State law, including section 404 of the Federal Water Pollution Control Act Amendments of 1972, 33 U.S.C. 1334;

(3) Review all permit applications to determine whether proposed building sites will be reasonably safe from flooding. If a proposed building site is in a flood-prone area, all new construction and substantial improvements shall (i) be designed (or modified) and adequately anchored to prevent flotation, collapse, or lateral movement of the structure resulting from hydrodynamic and hydrostatic loads, including the effects of buoyancy, (ii) be constructed with materials resistant to flood damage, (iii) be constructed by methods and practices that minimize flood damages, and (iv) be constructed with electrical, heating, ventilation, plumbing, and air conditioning equipment and other service facilities that are designed and/or located so as to prevent water from entering or accumulating within the components during conditions of flooding.

(4) Review subdivision proposals and other proposed new development, including manufactured home parks or subdivisions, to determine whether such proposals will be reasonably safe from flooding. If a subdivision proposal or other proposed new development is in a flood-prone area, any such proposals shall be reviewed to assure that (i) all such proposals are consistent with the need to minimize flood damage within the flood-prone area, (ii) all public utilities and facilities, such as sewer, gas, electrical, and water systems are located and constructed to minimize or eliminate flood damage, and (iii) adequate drainage is provided to reduce exposure to flood hazards;

(5) Require within flood-prone areas new and replacement water supply systems to be designed to minimize or eliminate infiltration of flood waters into the systems; and

(6) Require within flood-prone areas (i) new and replacement sanitary sewage systems to be designed to minimize or eliminate infiltration of flood waters into the systems and discharges from the systems into flood waters and (ii) onsite waste disposal systems to be located to avoid impairment to them or contamination from them during flooding.

(b) When the Administrator has designated areas of special flood hazards (A zones) by the publication of a community's FHBM or FIRM, but has neither produced water surface elevation data nor identified a floodway or coastal high hazard area, the community shall:

(1) Require permits for all proposed construction and other developments including the placement of manufactured homes, within Zone A on the community's FHBM or FIRM;

(2) Require the application of the standards in paragraphs (a) (2), (3), (4), (5) and (6) of this section to development within Zone A on the community's FHBM or FIRM;

(3) Require that all new subdivision proposals and other proposed developments (including proposals for manufactured home parks and subdivisions) greater than 50 lots or 5 acres, whichever is the lesser, include within such proposals base flood elevation data;

(4) Obtain, review and reasonably utilize any base flood elevation and floodway data available from a Federal, State, or other source, including data developed pursuant to paragraph (b)(3) of this section, as criteria for requiring that new construction, substantial improvements, or other development in Zone A on the community's FHBM or FIRM meet the standards in paragraphs (c)(2), (c)(3), (c)(5), (c)(6), (c)(12), (c)(14), (d)(2) and (d)(3) of this section;

(5) Where base flood elevation data are utilized, within Zone A on the community's FHBM or FIRM:

(i) Obtain the elevation (in relation to mean sea level) of the lowest floor (including basement) of all new and substantially improved structures, and

(ii) Obtain, if the structure has been floodproofed in accordance with paragraph (c)(3)(ii) of this section, the elevation (in relation to mean sea level)



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to which the structure was floodproofed, and

(iii) Maintain a record of all such information with the official designated by the community under § 59.22 (a)(9)(iii);

(6) Notify, in riverine situations, adjacent communities and the State Coordinating Office prior to any alteration or relocation of a watercourse, and submit copies of such notifications to the Administrator;

(7) Assure that the flood carrying capacity within the altered or relocated portion of any watercourse is maintained;

(8) Require that all manufactured homes to be placed within Zone A on a community's FHBM or FIRM shall be installed using methods and practices which minimize flood damage. For the purposes of this requirement, manufactured homes must be elevated and anchored to resist flotation, collapse, or lateral movement. Methods of anchoring may include, but are not to be limited to, use of over-the-top or frame ties to ground anchors. This requirement is in addition to applicable State and local anchoring requirements for resisting wind forces.

(c) When the Administrator has provided a notice of final flood elevations for one or more special flood hazard areas on the community's FIRM and, if appropriate, has designated other special flood hazard areas without base flood elevations on the community's FIRM, but has not identified a regulatory floodway or coastal high hazard area, the community shall:

(1) Require the standards of paragraph (b) of this section within all A1-30 zones, AE zones, A zones, AH zones, and AO zones, on the community's FIRM;

(2) Require that all new construction and substantial improvements of residential structures within Zones A1-30, AE and AH zones on the community's FIRM have the lowest floor (including basement) elevated to or above the base flood level, unless the community is granted an exception by the Administrator for the allowance of basements in accordance with § 60.6 (b) or (c);

(3) Require that all new construction and substantial improvements of non-residential structures within Zones A1-

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30, AE and AH zones on the community's firm (i) have the lowest floor (including basement) elevated to or above the base flood level or, (ii) together with attendant utility and sanitary facilities, be designed so that below the base flood level the structure is watertight with walls substantially impermeable to the passage of water and with structural components having the capability of resisting hydrostatic and hydrodynamic loads and effects of buoyancy;

(4) Provide that where a non-residential structure is intended to be made watertight below the base flood level, (i) a registered professional engineer or architect shall develop and/or review structural design, specifications, and plans for the construction, and shall certify that the design and methods of construction are in accordance with accepted standards of practice for meeting the applicable provisions of paragraph (c)(3)(ii) or (c)(8)(ii) of this section, and (ii) a record of such certificates which includes the specific elevation (in relation to mean sea level) to which such structures are floodproofed shall be maintained with the official designated by the community under § 59.22(a)(9)(iii);

(5) Require, for all new construction and substantial improvements, that fully enclosed areas below the lowest floor that are usable solely for parking of vehicles, building access or storage in an area other than a basement and which are subject to flooding shall be designed to automatically equalize hydrostatic flood forces on exterior walls by allowing for the entry and exit of floodwaters. Designs for meeting this requirement must either be certified by a registered professional engineer or architect or meet or exceed the following minimum criteria: A minimum of two openings having a total net area of not less than one square inch for every square foot of enclosed area subject to flooding shall be provided. The bottom of all openings shall be no higher than one foot above grade. Openings may be equipped with screens, louvers, valves, or other coverings or devices provided that they permit the automatic entry and exit of floodwaters.

(6) Require that manufactured homes that are placed or substantially improved within Zones A1-30, AH, and AE on the community's FIRM on sites

(i) Outside of a manufactured home park or subdivision,

(ii) In a new manufactured home park or subdivision,

(iii) In an expansion to an existing manufactured home park or subdivision, or

(iv) In an existing manufactured home park or subdivision on which a manufactured home has incurred "substantial damage" as the result of a flood, be elevated on a permanent foundation such that the lowest floor of the manufactured home is elevated to or above the base flood elevation and be securely anchored to an adequately anchored foundation system to resist floatation collapse and lateral movement.

(7) Require within any AO zone on the community's FIRM that all new construction and substantial improvements of residential structures have the lowest floor (including basement) elevated above the highest adjacent grade at least as high as the depth number specified in feet on the community's FIRM (at least two feet if no depth number is specified);

(8) Require within any AO zone on the community's FIRM that all new construction and substantial improvements of nonresidential structures (i) have the lowest floor (including basement) elevated above the highest adjacent grade at least as high as the depth number specified in feet on the community's FIRM (at least two feet if no depth number is specified), or (ii) together with attendant utility and sanitary facilities be completely floodproofed to that level to meet the floodproofing standard specified in § 60.3(c)(3)(ii);

(9) Require within any A99 zones on a community's FIRM the standards of paragraphs (a)(1) through (a)(4)(i) and (b)(5) through (b)(9) of this section;

(10) Require until a regulatory floodway is designated, that no new construction, substantial improvements, or other development (including fill) shall be permitted within Zones A1-30 and AE on the community's FIRM, unless it is demonstrated that

the cumulative effect of the proposed development, when combined with all other existing and anticipated development, will not increase the water surface elevation of the base flood more than one foot at any point within the community.

(11) Require within Zones AH and AO, adequate drainage paths around structures on slopes, to guide floodwaters around and away from proposed structures.

(12) Require that manufactured homes to be placed or substantially improved on sites in an existing manufactured home park or subdivision within Zones A-1-30, AH, and AE on the community's FIRM that are not subject to the provisions of paragraph (c)(6) of this section be elevated so that either

(i) The lowest floor of the manufactured home is at or above the base flood elevation, or

(ii) The manufactured home chassis is supported by reinforced piers or other foundation elements of at least equivalent strength that are no less than 36 inches in height above grade and be securely anchored to an adequately anchored foundation system to resist floatation, collapse, and lateral movement.

(13) Notwithstanding any other provisions of § 60.3, a community may approve certain development in Zones A1-30, AE, and AH, on the community's FIRM which increase the water surface elevation of the base flood by more than one foot, provided that the community first applies for a conditional FIRM revision, fulfills the requirements for such a revision as established under the provisions of § 65.12, and receives the approval of the Administrator.

(14) Require that recreational vehicles placed on sites within Zones A1-30, AH, and AE on the community's FIRM either

(i) Be on the site for fewer than 180 consecutive days,

(ii) Be fully licensed and ready for highway use, or

(iii) Meet the permit requirements of paragraph (b)(1) of this section and the elevation and anchoring requirements for "manufactured homes" in paragraph (c)(6) of this section.

### § 60.3

### 44 CFR Ch. I (10–1–08 Edition)

A recreational vehicle is ready for highway use if it is on its wheels or jacking system, is attached to the site only by quick disconnect type utilities and security devices, and has no permanently attached additions.

(d) When the Administrator has provided a notice of final base flood elevations within Zones A1-30 and/or AE on the community's FIRM and, if appropriate, has designated AO zones, AH zones, A99 zones, and A zones on the community's FIRM, and has provided data from which the community shall designate its regulatory floodway, the community shall:

(1) Meet the requirements of paragraphs (c) (1) through (14) of this section;

(2) Select and adopt a regulatory floodway based on the principle that the area chosen for the regulatory floodway must be designed to carry the waters of the base flood, without increasing the water surface elevation of that flood more than one foot at any point;

(3) Prohibit encroachments, including fill, new construction, substantial improvements, and other development within the adopted regulatory floodway unless it has been demonstrated through hydrologic and hydraulic analyses performed in accordance with standard engineering practice that the proposed encroachment would not result in any increase in flood levels within the community during the occurrence of the base flood discharge;

(4) Notwithstanding any other provisions of § 60.3, a community may permit encroachments within the adopted regulatory floodway that would result in an increase in base flood elevations, provided that the community first applies for a conditional FIRM and floodway revision, fulfills the requirements for such revisions as established under the provisions of § 65.12, and receives the approval of the Administrator.

(e) When the Administrator has provided a notice of final base flood elevations within Zones A1-30 and/or AE on the community's FIRM and, if appropriate, has designated AH zones, AO zones, A99 zones, and A zones on the community's FIRM, and has identified

on the community's FIRM coastal high hazard areas by designating Zones V1-30, VE, and/or V, the community shall:

(1) Meet the requirements of paragraphs (c)(1) through (14) of this section;

(2) Within Zones V1-30, VE, and V on a community's FIRM, (i) obtain the elevation (in relation to mean sea level) of the bottom of the lowest structural member of the lowest floor (excluding pilings and columns) of all new and substantially improved structures, and whether or not such structures contain a basement, and (ii) maintain a record of all such information with the official designated by the community under § 59.22(a)(9)(iii);

(3) Provide that all new construction within Zones V1-30, VE, and V on the community's FIRM is located landward of the reach of mean high tide;

(4) Provide that all new construction and substantial improvements in Zones V1-30 and VE, and also Zone V if base flood elevation data is available, on the community's FIRM, are elevated on pilings and columns so that (i) the bottom of the lowest horizontal structural member of the lowest floor (excluding the pilings or columns) is elevated to or above the base flood level; and (ii) the pile or column foundation and structure attached thereto is anchored to resist flotation, collapse and lateral movement due to the effects of wind and water loads acting simultaneously on all building components. Water loading values used shall be those associated with the base flood. Wind loading values used shall be those required by applicable State or local building standards. A registered professional engineer or architect shall develop or review the structural design, specifications and plans for the construction, and shall certify that the design and methods of construction to be used are in accordance with accepted standards of practice for meeting the provisions of paragraphs (e)(4) (i) and (ii) of this section.

(5) Provide that all new construction and substantial improvements within Zones V1-30, VE, and V on the community's FIRM have the space below the lowest floor either free of obstruction or constructed with non-supporting breakaway walls, open wood lattice-

work, or insect screening intended to collapse under wind and water loads without causing collapse, displacement, or other structural damage to the elevated portion of the building or supporting foundation system. For the purposes of this section, a breakway wall shall have a design safe loading resistance of not less than 10 and no more than 20 pounds per square foot. Use of breakway walls which exceed a design safe loading resistance of 20 pounds per square foot (either by design or when so required by local or State codes) may be permitted only if a registered professional engineer or architect certifies that the designs proposed meet the following conditions:

(i) Breakaway wall collapse shall result from a water load less than that which would occur during the base flood; and,

(ii) The elevated portion of the building and supporting foundation system shall not be subject to collapse, displacement, or other structural damage due to the effects of wind and water loads acting simultaneously on all building components (structural and non-structural). Water loading values used shall be those associated with the base flood. Wind loading values used shall be those required by applicable State or local building standards.

Such enclosed space shall be useable solely for parking of vehicles, building access, or storage.

(6) Prohibit the use of fill for structural support of buildings within Zones V1-30, VE, and V on the community's FIRM;

(7) Prohibit man-made alteration of sand dunes and mangrove stands within Zones V1-30, VE, and V on the community's FIRM which would increase potential flood damage.

(8) Require that manufactured homes placed or substantially improved within Zones V1-30, V, and VE on the community's FIRM on sites

(i) Outside of a manufactured home park or subdivision,

(ii) In a new manufactured home park or subdivision,

(iii) In an expansion to an existing manufactured home park or subdivision, or

(iv) In an existing manufactured home park or subdivision on which a

manufactured home has incurred "substantial damage" as the result of a flood, meet the standards of paragraphs (e)(2) through (7) of this section and that manufactured homes placed or substantially improved on other sites in an existing manufactured home park or subdivision within Zones VI-30, V, and VE on the community's FIRM meet the requirements of paragraph (c)(12) of this section.

(9) Require that recreational vehicles placed on sites within Zones V1-30, V, and VE on the community's FIRM either

(i) Be on the site for fewer than 180 consecutive days,

(ii) Be fully licensed and ready for highway use, or

(iii) Meet the requirements in paragraphs (b)(1) and (e) (2) through (7) of this section.

A recreational vehicle is ready for highway use if it is on its wheels or jacking system, is attached to the site only by quick disconnect type utilities and security devices, and has no permanently attached additions.

(f) When the Administrator has provided a notice of final base flood elevations within Zones A1-30 or AE on the community's FIRM, and, if appropriate, has designated AH zones, AO zones, A99 zones, and A zones on the community's FIRM, and has identified flood protection restoration areas by designating Zones AR, AR/A1-30, AR/AE, AR/AH, AR/AO, or AR/A, the community shall:

(1) Meet the requirements of paragraphs (c)(1) through (14) and (d)(1) through (4) of this section.

(2) Adopt the official map or legal description of those areas within Zones AR, AR/A1-30, AR/AE, AR/AH, AR/A, or AR/AO that are designated developed areas as defined in §59.1 in accordance with the eligibility procedures under §65.14.

(3) For all new construction of structures in areas within Zone AR that are designated as developed areas and in other areas within Zone AR where the AR flood depth is 5 feet or less:

(i) Determine the lower of either the AR base flood elevation or the elevation that is 3 feet above highest adjacent grade; and

## § 60.4

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(ii) Using this elevation, require the standards of paragraphs (c)(1) through (14) of this section.

(4) For all new construction of structures in those areas within Zone AR that are not designated as developed areas where the AR flood depth is greater than 5 feet:

(i) Determine the AR base flood elevation; and

(ii) Using that elevation require the standards of paragraphs (c)(1) through (14) of this section.

(5) For all new construction of structures in areas within Zone AR/A1-30, AR/AE, AR/AH, AR/AO, and AR/A:

(i) Determine the applicable elevation for Zone AR from paragraphs (a)(3) and (4) of this section;

(ii) Determine the base flood elevation or flood depth for the underlying A1-30, AE, AH, AO and A Zone; and

(iii) Using the higher elevation from paragraphs (a)(5)(i) and (ii) of this section require the standards of paragraphs (c)(1) through (14) of this section.

(6) For all substantial improvements to existing construction within Zones AR/A1-30, AR/AE, AR/AH, AR/AO, and AR/A:

(i) Determine the A1-30 or AE, AH, AO, or A Zone base flood elevation; and

(ii) Using this elevation apply the requirements of paragraphs (c)(1) through (14) of this section.

(7) Notify the permit applicant that the area has been designated as an AR, AR/A1-30, AR/AE, AR/AH, AR/AO, or AR/A Zone and whether the structure will be elevated or protected to or above the AR base flood elevation.

[41 FR 46975, Oct. 26, 1976]

EDITORIAL NOTE: For FEDERAL REGISTER citations affecting § 60.3, see the List of CFR Sections Affected, which appears in the Finding Aids section of the printed volume and on GPO Access.

### **§ 60.4 Flood plain management criteria for mudslide (i.e., mudflow)-prone areas.**

The Administrator will provide the data upon which flood plain management regulations shall be based. If the Administrator has not provided sufficient data to furnish a basis for these regulations in a particular community,

the community shall obtain, review, and reasonably utilize data available from other Federal, State or other sources pending receipt of data from the Administrator. However, when special mudslide (i.e., mudflow) hazard area designations have been furnished by the Administrator, they shall apply. The symbols defining such special mudslide (i.e., mudflow) hazard designations are set forth in § 64.3 of this subchapter. In all cases, the minimum requirements for mudslide (i.e., mudflow)-prone areas adopted by a particular community depend on the amount of technical data provided to the community by the Administrator. Minimum standards for communities are as follows:

(a) When the Administrator has not yet identified any area within the community as an area having special mudslide (i.e., mudflow) hazards, but the community has indicated the presence of such hazards by submitting an application to participate in the Program, the community shall

(1) Require permits for all proposed construction or other development in the community so that it may determine whether development is proposed within mudslide (i.e., mudflow)-prone areas;

(2) Require review of each permit application to determine whether the proposed site and improvements will be reasonably safe from mudslides (i.e., mudflows). Factors to be considered in making such a determination should include but not be limited to (i) the type and quality of soils, (ii) any evidence of ground water or surface water problems, (iii) the depth and quality of any fill, (iv) the overall slope of the site, and (v) the weight that any proposed structure will impose on the slope;

(3) Require, if a proposed site and improvements are in a location that may have mudslide (i.e., mudflow) hazards, that (i) a site investigation and further review be made by persons qualified in geology and soils engineering, (ii) the proposed grading, excavations, new construction, and substantial improvements are adequately designed and protected against mudslide (i.e., mudflow)

damages, (iii) the proposed grading, excavations, new construction and substantial improvements do not aggravate the existing hazard by creating either on-site or off-site disturbances, and (iv) drainage, planting, watering, and maintenance be such as not to endanger slope stability.

(b) When the Administrator has delineated Zone M on the community's FIRM, the community shall:

(1) Meet the requirements of paragraph (a) of this section; and

(2) Adopt and enforce a grading ordinance or regulation in accordance with data supplied by the Administrator which (i) regulates the location of foundation systems and utility systems of new construction and substantial improvements, (ii) regulates the location, drainage and maintenance of all excavations, cuts and fills and planted slopes, (iii) provides special requirements for protective measures including but not necessarily limited to retaining walls, buttress fills, sub-drains, diverter terraces, benchings, etc., and (iv) requires engineering drawings and specifications to be submitted for all corrective measures, accompanied by supporting soils engineering and geology reports. Guidance may be obtained from the provisions of the 1973 edition and any subsequent edition of the Uniform Building Code, sections 7001 through 7006, and 7008 through 7015. The Uniform Building Code is published by the International Conference of Building Officials, 50 South Los Robles, Pasadena, California 91101.

[41 FR 46975, Oct. 26, 1976. Redesignated at 44 FR 31177, May 31, 1979, as amended at 48 FR 44552, Sept. 29, 1983; 49 FR 4751, Feb. 8, 1984]

**§ 60.5 Flood plain management criteria for flood-related erosion-prone areas.**

The Administrator will provide the data upon which flood plain management regulations for flood-related erosion-prone areas shall be based. If the Administrator has not provided sufficient data to furnish a basis for these regulations in a particular community, the community shall obtain, review, and reasonably utilize data available from other Federal, State or other sources, pending receipt of data from the Administrator. However, when spe-

cial flood-related erosion hazard area designations have been furnished by the Administrator they shall apply. The symbols defining such special flood-related erosion hazard designations are set forth in §64.3 of this subchapter. In all cases the minimum requirements governing the adequacy of the flood plain management regulations for flood-related erosion-prone areas adopted by a particular community depend on the amount of technical data provided to the community by the Administrator. Minimum standards for communities are as follows:

(a) When the Administrator has not yet identified any area within the community as having special flood-related erosion hazards, but the community has indicated the presence of such hazards by submitting an application to participate in the Program, the community shall

(1) Require the issuance of a permit for all proposed construction, or other development in the area of flood-related erosion hazard, as it is known to the community;

(2) Require review of each permit application to determine whether the proposed site alterations and improvements will be reasonably safe from flood-related erosion and will not cause flood-related erosion hazards or otherwise aggravate the existing flood-related erosion hazard; and

(3) If a proposed improvement is found to be in the path of flood-related erosion or to increase the erosion hazard, require the improvement to be relocated or adequate protective measures to be taken which will not aggravate the existing erosion hazard.

(b) When the Administrator has delineated Zone E on the community's FIRM, the community shall

(1) Meet the requirements of paragraph (a) of this section; and

(2) Require a setback for all new development from the ocean, lake, bay, riverfront or other body of water, to create a safety buffer consisting of a natural vegetative or contour strip. This buffer will be designated by the Administrator according to the flood-related erosion hazard and erosion rate, in conjunction with the anticipated "useful life" of structures, and

## § 60.6

## 44 CFR Ch. I (10–1–08 Edition)

depending upon the geologic, hydrologic, topographic and climatic characteristics of the community's land. The buffer may be used for suitable open space purposes, such as for agricultural, forestry, outdoor recreation and wildlife habitat areas, and for other activities using temporary and portable structures only.

[41 FR 46975, Oct. 26, 1976. Redesignated at 44 FR 31177, May 31, 1979, as amended at 48 FR 44552, Sept. 29, 1983; 49 FR 4751, Feb. 8, 1984]

### § 60.6 Variances and exceptions.

(a) The Administrator does not set forth absolute criteria for granting variances from the criteria set forth in §§ 60.3, 60.4, and 60.5. The issuance of a variance is for flood plain management purposes only. Insurance premium rates are determined by statute according to actuarial risk and will not be modified by the granting of a variance. The community, after examining the applicant's hardships, shall approve or disapprove a request. While the granting of variances generally is limited to a lot size less than one-half acre (as set forth in paragraph (a)(2) of this section), deviations from that limitation may occur. However, as the lot size increases beyond one-half acre, the technical justification required for issuing a variance increases. The Administrator may review a community's findings justifying the granting of variances, and if that review indicates a pattern inconsistent with the objectives of sound flood plain management, the Administrator may take appropriate action under § 59.24(b) of this subchapter. Variances may be issued for the repair or rehabilitation of historic structures upon a determination that the proposed repair or rehabilitation will not preclude the structure's continued designation as a historic structure and the variance is the minimum necessary to preserve the historic character and design of the structure. Procedures for the granting of variances by a community are as follows:

(1) Variances shall not be issued by a community within any designated regulatory floodway if any increase in flood levels during the base flood discharge would result;

(2) Variances may be issued by a community for new construction and substantial improvements to be erected on a lot of one-half acre or less in size contiguous to and surrounded by lots with existing structures constructed below the base flood level, in conformance with the procedures of paragraphs (a) (3), (4), (5) and (6) of this section;

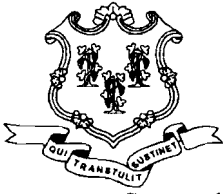
(3) Variances shall only be issued by a community upon (i) a showing of good and sufficient cause, (ii) a determination that failure to grant the variance would result in exceptional hardship to the applicant, and (iii) a determination that the granting of a variance will not result in increased flood heights, additional threats to public safety, extraordinary public expense, create nuisances, cause fraud on or victimization of the public, or conflict with existing local laws or ordinances;

(4) Variances shall only be issued upon a determination that the variance is the minimum necessary, considering the flood hazard, to afford relief;

(5) A community shall notify the applicant in writing over the signature of a community official that (i) the issuance of a variance to construct a structure below the base flood level will result in increased premium rates for flood insurance up to amounts as high as \$25 for \$100 of insurance coverage and (ii) such construction below the base flood level increases risks to life and property. Such notification shall be maintained with a record of all variance actions as required in paragraph (a)(6) of this section; and

(6) A community shall (i) maintain a record of all variance actions, including justification for their issuance, and (ii) report such variances issued in its annual or biennial report submitted to the Administrator.

(7) Variances may be issued by a community for new construction and substantial improvements and for other development necessary for the conduct of a functionally dependent use provided that (i) the criteria of paragraphs (a)(1) through (a)(4) of this section are met, and (ii) the structure or other development is protected by methods that minimize flood damages during the base flood and create no additional threats to public safety.



STATE OF CONNECTICUT  
DEPARTMENT OF ENVIRONMENTAL PROTECTION



September 27, 2004

RECEIVED

Department of Transportation  
2800 Berlin Turnpike  
Newington, CT 06131

OCT 07 2004

ENVIRONMENTAL PLANNING  
DIVISION

Attn: Edgar Hurle

Re: FM-2004-159, Statewide  
Flood Management DOT Minor Activities

Dear Mr. Hurle:

The Inland Water Resources Division of the Department of Environmental Protection has reviewed the flood management certification application package dated June 29, 2004, prepared for the Department of Transportation by Kimberly Lesay of the DOT. The certification document states that the proposed activity has been designed in compliance with the requirements of Section 13a-94 and Section 25-68b-h of the Connecticut General Statutes (CGS) and Section 25-68h-1 through 25-68h-3 of the Regulations of Connecticut State Agencies (RCSA).

There are eleven proposed activities which will occur throughout the state: 1) Minor Safety Improvements and Streetscape Projects; 2) Roadway Repaving, Maintenance & Underground Utilities; 3) Minor Stormwater Drainage Improvements; 4) Removal of Sediment from a Floodplain; 5) Wetland Creation or Enhancement; 6) Scour Repairs at Structures; 7) Guide Rail Installation; 8) Deck and Superstructure Replacements; 9) Minor Bridge Repairs; 10) Fisheries Enhancement; 11) Surveying and Testing. A description of each type of activity as well as construction details and a flood contingency plan are included for all activities. Proper erosion and sedimentation controls will be utilized in conjunction with Best Management Practices outlined in the DOT Form 815. Temporary Hydraulic Structures will be designed in accordance with guidelines outlined in the DOT Drainage Manual. There will be no adverse impacts caused by the proposed minor activities. Therefore, the certification submitted on July 12, 2004 is approved.

The certification approval was requested for ten years and therefore will expire on September 21, 2014. No revisions or alterations to the approved plans are allowed without first obtaining written approval from this Division of such alternations. If there are any questions, contact Sharon Yurasevecz of the Inland Water Resources Division at 860-424-3019.

Sincerely,

Denise Ruzicka  
Acting Director  
Inland Water Resources Division



## **Connecticut Department of Transportation Flood Management General Certification**

The Department of Transportation has been approved for minor activities within regulated floodplain areas across the state for a three-year period. The eleven approved activities are described in detail below:

### **1. Minor Safety Improvements and Streetscape Projects**

**Description:** Projects which include minor grading and minor safety improvements including but not limited to traffic signals, signs, sidewalks, landscaping and light poles. This item does not include fencing or sound barriers.

Landscape plantings will be in accordance with the most current version of the State of Connecticut Department of Transportation Standard Specifications for Roads, Bridges and Incidental Construction, as revised by the latest supplementals and also in accordance with the State of Connecticut Department of Environmental Protection's Non-Native Invasive plant Species Policy dated November 13, 1998. Obstructions such as poles, signs and plantings will be placed in the floodplain, but not in the floodway. Any grade changes will be limited to 2.0 feet maximum over the existing ground elevation and must further be limited to the outer 20% of the floodway fringe as depicted on the relevant FEMA Floodway map. The length of the encroachment as measured longitudinally along the stream corridor will not exceed 500 feet.

### **2. Roadway Repaving, Maintenance & Underground Utilities**

**Description:** Milling, repaving and associated regrading to roadsides. Also included are roadway patching and repairs to existing grade and work to the subgrade of the roadway such as utility work, underdrain and stormdrain installation, exclusive of storm drainage outfalls.

Construction under this category will allow up to a 4- inch increase in pavement height in a floodway fringe but no increase in pavement height in a floodway. This item will allow for the roadside to be graded to meet the new pavement grade. Also included are roadway patching and repairs to existing grade, and work to the subgrade of the roadway, such as utility work, underdrain and stormdrain installation when such work does not affect the elevation of the roadway within the regulated area.

### 3. **Minor Stormwater Drainage Improvements**

**Description:** Replacement with equivalent diameter pipe of drainage outfalls, replacement or placement of riprap splash pads or plunge pools set no higher than existing grade at existing outfalls

Placement of a flared end as a replacement for an endwall is acceptable provided the fill matches adjacent slope limits. The design of rip rap splash pads and plunge pools shall conform to the guidelines in the CTDOT Drainage Manual and/or FHWA Publication No – FHWA-RD-94-096, "Culvert Repair Practices Manual", Volumes 1 & 2, May 1995. Any change in outlet pipe size will necessitate an individual Flood Management Certification.

### 4. **Removal of Sediment from a Floodplain**

**Description:** Removal of sediment from a floodplain including pond and ditch cleaning.

Removal of fill also includes the cleaning of ponds when all other necessary Inland or Coastal wetland permits are approved. Sediment shall be disposed of in accordance with Best Management Practices as outlined in Section 1.10 of The State of Connecticut Department of Transportation Standard Specifications for Roads, Bridges and Incidental Construction, Form 814A or 815, as revised by the latest supplementals.

### 5. **Wetland Creation or Enhancement**

**Description:** Removal of material and placement of organic soils and wetland plantings.

This item shall include actions necessary for creating wetland mitigation sites, such as placement of organic soils and wetland plantings. Any placement of material for soil amendment shall be an amount less than or equal to the material which was removed from the floodplain.

### 6. **Scour Repairs at Structures**

**Description:** Scour repairs which bring the streambed back to original grade, as either depicted on original as-built plans or as determined in the field by the Engineer. *Note: Municipal projects which require no other State permit approvals do not qualify for the General Certification under this item.*

Fill will be placed to an appropriate level which is at an elevation no higher than the original grade at either bridge face or points beyond the influence of local or contraction scour. The placement of riprap or alternate counter-measures must be limited to local scour holes adjacent to the bridge substructure units, retaining walls, wingwalls or culvert termini.

#### **7. Guide Rail Installation**

**Description:** Installation, replacement or repair of guide rails including minor clearing and grubbing which may be necessary to place a new system and allow for its deflection and the use of appropriate materials under guiderail to prevent erosion.

Jersey type solid safety barriers may not be placed under this item.

#### **8. Deck and Superstructure Replacements**

**Description:** Replacement of the superstructure or deck of a structure where both the existing and proposed low chord elevation is above the floodway elevation. Temporary impacts for construction may include but are not limited to; scaffolding, ladders, sandbags, cofferdams and sedimentation control devices necessary to perform the work. This item includes necessary modifications to the substructure to accommodate the new superstructure if the modifications are above the floodway elevation.

No modifications below the floodway elevation are included in this item. No decrease in hydraulic capacity will occur as a result of any work under this item. Any temporary impact items will be able to be removed in a timely manner from the site in case of a flood warning, except for items designed under the CT DOT Drainage Manual as temporary structures, and will allow for the passage of fish, with minimal disturbance to the streambed.

#### **9. Minor Bridge Repairs**

**Description:** Repairs to bridges, culverts or pipes including such actions as repairs to spalling concrete, repointing, painting, replacement of wood on wooden bridges, or other maintenance activity which would not diminish the hydraulic capacity of the structure. Temporary impacts for construction may include but are not limited to: scaffolding, ladders, cofferdams, sandbags and sedimentation control devices necessary to perform the work.

## 10. Fisheries Enhancements

**Description:** Work in waterways to create or enhance fisheries habitat. Such work may include placement of boulders, riparian plantings, vortex rock weirs, log structures, wing deflectors, channel blocks, cover logs and rootwads, bank cribbing and other enhancements such as scour pool excavation and stream bank stabilization. This item includes any temporary impacts necessary for construction. This item may **not** be used for construction of fishways or fishladders.

All enhancements must be approved by the DOT Hydraulics and Drainage Section. Boulders or groupings of boulders placed will be no wider than 20% of the stream width and there will be no more than one boulder or boulder grouping per 300 square feet of channel. Boulders will be placed only downstream of any bridge structure. Riparian plantings will be conducted in accordance with the State of Connecticut Department of Environmental Protection's Non-Native Plant Species Policy dated November 13, 1998. Temporary floodplain impacts for construction necessary to perform the work shall be allowed

## 11. Surveying and Testing

**Description:** This item includes activities such as field survey, excavation of utility test pits, physical testing or the installation of monitoring devices to determine surface or subsurface engineering site data.

Conventional land survey activities will be accomplished in accordance with standard Department of Transportation practice. Minor manual clearing of brush or undergrowth will be allowed to establish lines of sight necessary for geodetic survey. Soil borings using mechanical drill rigs will be allowed provided that no fill is placed for access to the drilling site. The installation or use of temporary or permanent monitoring devices to record or provide real time data relative to bridges, culverts, streams or subsurface characteristics will be allowed providing that there is no resultant permanent reduction in hydraulic capacity at a waterway crossing site. Any devices shall be approved by the Hydraulics and Drainage Unit of DOT. The excavation of utility test pits using mechanical excavators is acceptable providing that there is no change in the final ground elevation at the test pit site.

The following practices shall be followed for **ALL** activities covered under this General Certification:

- ***Proper erosion and sedimentation controls will be utilized in conjunction with Best Management Practices as outlined in Section 1.10 of The State of Connecticut Department of Transportation Standard Specifications for Roads, Bridges and Incidental Construction, Form 814A or 815, as revised by the latest supplementals.***
- ***Any temporary facilities or equipment requiring work in, or placement in a waterway, must be able to be removed in a timely manner from the site in case of a flood warning, except for items designed as temporary structures, in accordance with the guidelines outlined in the CTDOT Drainage Manual for Temporary Hydraulic Structures.***
- ***Temporary facilities will allow for the passage of fish with minimal disturbance to the streambed.***
- ***Unconfined in-stream work must be limited to the period June 1 to September 30<sup>th</sup>.***

Projects will be screened through the Department's Hydraulics and Drainage Unit, using the memo attached. The Office of Environmental Planning and DEP will be provided with a copy of this memo for each project approved.

Project No.:

Description:

Town:

Date:

**m e m o r a n d u m**

**to:** Mr. Michael E. Masayda  
Trans. Principal Engineer  
Hydraulics and Drainage  
Bureau of Engineering and Highway Operations

**from:**

Please review this request for Flood Management General Certification and indicate your concurrence below.

**Certification** (to be completed by designer)

*I have read the Flood Management General Certification and the descriptions for the approved DOT minor activities. This project qualifies for the Flood Management General Certification under:*

- ( ) Minor Safety Improvements and Streetscape Projects
- ( ) Roadway Repaving, Maintenance & Underground Utilities
- ( ) Minor Stormwater Drainage Improvements
- ( ) Removal of Sediment from a Floodplain
- ( ) Wetland Creation or Enhancement
- ( ) Scour Repairs at Structures; (*Must acquire another State permit to be eligible*)
- ( ) Guide Rail Installation
- ( ) Deck and Superstructure Replacements
- ( ) Minor Bridge Repairs
- ( ) Fisheries Enhancements
- ( ) Surveying and Testing

*The following required documentation is attached in support of this certification:*

- Project description
- Location plan
- Description of Floodplain involvement and how project qualifies for general certification
- 8-1/2" by 11" excerpt copy of the FEMA Flood Insurance Rate Map (FIRM) and Floodway Boundary Map (if applicable)
- Design plans, (dated \_\_\_\_\_) with FEMA floodplain and floodway boundaries plotted, cross sections and profiles, as necessary, that clearly depict the floodplain involvement
- FEMA 100-year flood elevation plotted on elevation view (for structures)

Print Name

Title

Signature

Date

**Concurrence** (to be completed by Hydraulics and Drainage)

Based on the documentation submitted, I hereby concur that the project qualifies for Flood Management General Certification.

*If there are any changes to the proposed activities within the floodplain or floodway, the project must be re-submitted for review and approval.*

Signature

Date

STATE OF CONNECTICUT  
DEPARTMENT OF TRANSPORTATION

subject: Design Measures for  
Stormwater Permits  
Phase II

memorandum

date: June 16, 2003

to: Mr. Arthur W. Gruhn  
Chief Engineer  
Bureau of Engr. and Highway Oper.

from:  Edgar T. Hurlé  
Director of Env. Planning  
Bureau of Policy and Planning

The Department continues to coordinate activities with the Department of Environmental Protection (DEP) with respect to the General Permit for Stormwater discharge, as well as related issues. With the onset of NPDES Phase II, this coordination takes on added importance.

The following information is being provided to update and clarify previously established guidelines for the evaluation and treatment of stormwater systems and their discharges. This memo also outlines the criteria to be used if a DOT project requires DEP permits or approvals, including Inland Wetland, Section 401 Water Quality, Stream Channel Encroachment Lines, Coastal Area Management, Structures and Dredging or Tidal Wetlands.

The following are areas of concern that should be investigated for possible treatment measures. All drainage and appurtenant facilities should be designed in accordance with the procedures contained within the Department's Drainage Manual, and the application of engineering judgement in the use of these guidelines is advised.

- 1) *Any drainage system containing four to ten catches basins, which discharges within fifty feet of a regulated area. Note: The number of catch basins refers to the combined total of existing and proposed State maintained structures. The following items describe situations wherein catch basin inlets need not be included in the overall structure count:*
  - *Inlets on town maintained systems or within private developments adjoining State highways which connect to the State system as long as a distinct separation point (catch basin or manhole) exists or will be constructed at the junction of the two facilities. This will allow access for testing purposes should water quality issues arise at the discharge point of the State system.*
  - *Catch basins located in grassed areas 20 feet or more from the pavement edge.*
  - *Ancillary catch basins that are internal to the drainage area and contribute no additional runoff to the storm sewer system such as flanker basins, basins intended to improve intersection drainage or inlets placed on steep grades to increase interception.*

Consider a combination of the following treatment measures:

- a) Eliminate curbing, design for sheet flow and utilize natural vegetation to help filter particulates. On steep embankment slopes, erosion protection measures should be employed.

- b) Utilize oversized catch basins with four-foot deep sumps. It may be justified to provide six-foot sumps at the last two catch basins in the system if there are no conflicts with groundwater, ledge rock, rights-of-way or underground utilities. If end treatments such as hydrodynamic separators (gross particle separators) wet ponds or detention basins are constructed at the terminus of the drainage system, deep catch basin sumps can be eliminated. Additionally, sumps (any depth) should not be specified for any manholes or for catch basins on storm drainage systems which are 36 inches or greater in diameter.

At all locations where deep sumps are specified, the maximum depth of structure shall not exceed twelve feet as measured from the top-of-grate elevation.

- c) Utilize outlet protection such as riprap energy dissipators; scour holes, stone check dams erosion control matting and vegetative linings in outlet channels.
- 2) *Any drainage system containing ten or more catch basins which discharges within fifty feet of a regulated area. Note: Same criteria applies as in Item No. 1 above with respect to qualifying inlets.*

**Recommended treatment measures:**

- a) Outlet areas shall be designed so that an open channel with check dams, a sediment basin, or a combination of both is specified, these shall be designed to accommodate the peak runoff associated with the "first flush", known as Water Quality Flow (WQF). The last option is to specify a *Hydrodynamic Separator also known as a Gross Particle Separator*.

*Studies related to the efficiency of these chambers with respect to storm water treatment are ongoing. Pending the publication and review of specific performance data, the following guidelines shall be applied:*

- a) Hydrodynamic separators shall be designed to accommodate the peak runoff associated with the "first flush", known as the Water Quality Flow (WQF). The WQF shall be determined using the procedures outlined in Chapter 11, Appendix C of the Drainage Manual.
- b) Chambers shall be placed "off-line" and a bypass system shall be designed to convey the peak flow rate for the design storm.
- c) Hydrodynamic separators are best suited for the treatment of storm runoff from site drainage related to transportation facilities such as bus or train stations, maintenance garages, rest areas or commuter parking lots. Roadway applications should be limited primarily to urban areas.

The original version of Design Measures for Stormwater Permits dated February 5, 1998 is superseded with this memo. Please ensure that these criteria are addressed on all DOT projects, which require DEP review. This will meet the concerns of DEP, as identified in various meetings, and expedite the review and approval process.



If you or your staff have any questions on this matter, please contact Mr. Paul Corrente of my staff at 594-2932.

Bcc: Charles Evans, DEP  
Chris Stone, DEP

Paul Corrente /pnc

Cc: James H. Boice  
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**Applicant:** General Public in the State of Connecticut & lands located within the exterior boundaries of an Indian Reservation.

**Effective Date:** May 31, 2006  
**Expiration Date:** May 31, 2011

**DEPARTMENT OF THE ARMY  
PROGRAMMATIC GENERAL PERMIT  
STATE OF CONNECTICUT  
&  
Lands Located Within the Exterior  
Boundaries of an Indian Reservation<sup>1</sup>**

The New England District of the U.S. Army Corps of Engineers (Corps) hereby issues a Programmatic General Permit (PGP) to expedite review of minimal impact projects in coastal and inland waters and wetlands within the State of Connecticut and lands located within the exterior boundaries of an Indian reservation.

**I. GENERAL CRITERIA:**

Activities with minimal impacts are specified by the terms and conditions of this PGP and the attached Appendices A & B, Definition of Categories, qualify for authorization under either Category 1 or Category 2.

Category 1: Non-reporting. Projects are eligible without screening (provided other authorizations are obtained which this permit states are necessary for activities to be eligible for authorization under this category) and do not require notification to the Corps of Engineers.

Category 2: Screening/Reporting. These projects require the submittal of an application to the Corps followed by screening the proposal by the Corps, the U. S. Fish and Wildlife Service (U.S. FWS), the U. S. Environmental Protection Agency (EPA), the National Marine Fisheries Service (NMFS), and the Connecticut Department of Environmental Protection (DEP). Category 2 projects may not proceed until written notification in the form of a Corps PGP authorization letter is received.

This PGP does not affect the Individual Permit review process or activities exempt from Corps' jurisdiction.

**II. ACTIVITIES COVERED:**

Work and structures that are located in, or that affect, navigable waters of the United States (U.S.) (Corps regulates under Section 10 of the Rivers and Harbors Act of 1899) and the discharge of dredged or fill material into waters of the U.S. (Corps regulates under Section 404 of the Clean Water Act (CWA)).

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

### **III. PROCEDURES:**

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

For projects authorized pursuant to this PGP, when any of the following State or local approvals are also required, they must be obtained in order for this PGP authorization to be valid. Applicants are responsible for ensuring that all required permits and approvals have been applied for and obtained. (Refer to General Condition 1, Page 10)

- (1) Inland Wetlands and Watercourses Permit under the Inland Wetlands and Watercourses Act (Connecticut General Statutes (CGS) Sections 22a-36 to 22a-45(a), inclusive)
- (2) Water Diversion Permit under the Connecticut Water Diversion Policy Act (CGS Sections 22a-365 to 22a-378(a), inclusive)
- (3) Stream Channel Encroachment Lines Permit (CGS Sections 22a-342 to 22a-349(a), inclusive)
- (4) Dam Safety Construction Permit (CGS Sections 22a-401 to 22a-411, inclusive)
- (5) Structures, Dredging and Filling Permit (CGS Sections 22a-359 to 22a-363f, inclusive)
- (6) Tidal Wetlands Permit under the Tidal Wetlands Act (CGS Sections 22a-28 to 22a-35a inclusive)
- (7) Certificate of Permission (CGS Section 22a-363b)
- (8) Long Island Sound General Permits (CGS Sections 22a-28 to 22a-35 and Sections 22a-359 to 22a-363f inclusive)
- (9) Approvals for marine-based aquaculture activities required by Connecticut General Statutes Section 22-11h implemented by the CT Department of Agriculture (DOA) including individual in-water structures used for aquaculture, including, but not limited to, racks, cages, or bags, as well as buoys marking such structures.
- (10) Water Quality Certification (WQC) under Section 401 of the Federal CWA (33 USC Sec. 1341). Section 401(a)(1) of the Clean Water Act requires that applicants obtain a WQC or waiver from the state water pollution control agency (CT DEP) or EPA for Indian reservation lands to discharge dredged or fill materials into waters of the U.S.
- (11) Coastal Zone Management Consistency (CZM) Concurrence under Section 307 of the Federal CZM Act of 1972, as amended. Section 307(c) of the CZM of 1972, as amended, requires applicants to obtain a certification or waiver from CT DEP that the activity complies with the state's CZM program for activities affecting a state's Coastal Area.<sup>2</sup>

#### **B. Corps Authorizations:**

##### **CATEGORY 1 (Non-Reporting)**

##### **Eligibility Criteria**

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

- Are subject to Corps jurisdiction (See General Condition 2, Page 10),
- Meet the definition of Category 1 in Appendices A & B – Definition of Categories, and
- Meet the General Conditions of the PGP (see Pages 10-18).

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<sup>2</sup> The state's Coastal Area is statutorily defined as: all lands and waters within the municipalities of Greenwich, Stamford, Darien, Norwalk, Westport, Fairfield, Bridgeport, Stratford, Shelton, Milford, Borough of Woodmont, Orange, West Haven, New Haven, Hamden, North Haven, East Haven, Branford, Guilford, Madison, Clinton, Westbrook, Deep River, Chester, Essex, Borough of Fenwick, Old Saybrook, Lyme, Old Lyme, East Lyme, Waterford, New London, Montville, Norwich, Preston, Ledyard, Groton (city, Town and Long Point Borough), Mystic and Stonington (Town & Borough) [Section 22a-94(a) CGS].

Activities subject to Corps jurisdiction that are not regulated by the CT DEP (Office of Long Island Sound Programs/Inland Water Resources Division) or a Connecticut municipal inland wetlands agency, except for those located on lands within the exterior boundaries of an Indian reservation, will be subject to the Category 2 screening requirements of this PGP.

Projects not eligible under Category 1 of this PGP may be screened under Category 2 provided they meet the criteria as defined in Appendices A & B.

WQC – Inland: The Connecticut DEP has conditionally granted WQC for Category 1 activities in inland wetlands and waterways. They denied WQC for Category 1 activities that involve piping, boxing or other enclosing or covering of inland waters or waterways for other than a driveway or roadway crossing; projects with direct or secondary impacts to Special Wetlands, Threatened, Endangered or Special Concern Species, Significant Natural Communities identified by the CT Natural Diversity Database; projects with fill for a dam, dike, levee, water impounding or other water diversion structures; projects with activities regulated by CT DEP under Water Diversion Policy Act or Dam Construction; projects with fill placed within an established FEMA floodway or flood plain; projects with detention or retention of storm water in inland waters, waterways or wetlands; projects that channel or relocate inland waters or waterways; and projects occurring within a segment of a National Wild and Scenic River System or within 0.25 mile upstream or downstream of the main stem or tributaries of a National Wild and Scenic River System segment. CT DEP conditionally granted WQC for Category 2 activities in inland wetlands and waterways provided applicants obtain other required authorizations as listed on Page 2, Section A of this PGP. The U.S. EPA granted WQC for Category 1 activities located on land within the exterior boundaries of an Indian Reservation.

WQC – Coastal: The Connecticut DEP has conditionally granted WQC for Category 1 and Category 2 activities provided that applicants obtain the appropriate required OLISP permit. For Category 1 activities in tidal, coastal and navigable waters, the PGP is not valid until the CT DEP Office of Long Island Sound Programs (OLISP) authorization is granted. The OLISP conducts a substantial evaluation regarding consistency with state water quality standards on individual activities in tidal, coastal and navigable waters. As such, a WQC is inherent in OLISP authorizations 5 - 8 listed on Page 2, Section A of this PGP. A separate WQC application is not required for these OLISP authorized activities. **However, Federal agencies must apply directly to OLISP for a WQC.**

CZM: For Category 1 activities in the state's coastal area, this PGP is not valid until the state issues an Individual CZM Consistency Determination. The CT DEP authorizations for activities in the state's coastal area include a substantive evaluation by OLISP regarding consistency with the CZM program. As a result, a CZM consistency concurrence is inherent in the OLISP permit process for State authorizations 5 – 8 listed on Page 2, Section A of this PGP. Therefore, a separate application to the Corps is not required for these activities. However, this is not the case for State authorization 9, Page 2 (marine-based aquaculture projects) which are subject to the permitting authority of the CT DOA Bureau of Aquaculture. For these activities, DOA will forward the application to the Corps and the CT DEP for an Individual CZM Consistency Determination.

For those applicants that require only Coastal Zone Management Consistency Concurrence (see III. A. 11), **they must apply directly to OLISP for CZM consistency.** OLISP will then forward those applications, as appropriate, to the Corps of Engineers who will determine whether the proposed activity is eligible under the CT PGP program.

Project proponents seeking Category 1 authorizations must comply with this PGP's General Conditions (beginning on Page 10), 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 Connecticut Commission on Culture and Tourism and any appropriate Indian tribes is recommended when there is a high likelihood of the presence of resources of concern.

Although Category 1 projects are non-reporting, the Corps reserves the right to require screening under Category 2 or Individual Permit review (see General Condition 4, Discretionary Authority, Page 10) if there are concerns for the aquatic environment or any other factor of the public interest.

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

## **CATEGORY 2 (Reporting – Screening)**

### **Eligibility Criteria**

Activities in Connecticut and lands located within the exterior boundaries of an Indian reservation require written approval from the Corps if they:

- Are subject to Corps jurisdiction (See General Condition 2, Page 10),
- Meet the definition of Category 2 in Appendices A & B – Definition of Categories, and
- Meet the General Conditions of the PGP (see Pages 10 – 18).

For Category 2 projects, applicants must obtain written authorization from the Corps and any required State approvals as stated on Page 2. These projects will be reviewed during interagency screening/joint processing meetings (see Joint Processing/Interagency Screening Meeting Procedures on Page 7) to determine whether such activities may be eligible under this PGP. To be eligible, and subsequently authorized, an activity must result in minimal impacts to the aquatic environment as determined by the Corps based on comments from the review team and the criteria listed above. Mitigation may be required to compensate for unavoidable impacts to ensure net effects of a project are minimal.

**Enforcement cases.** See previous section.

### **Category 2 Application Procedures:**

#### **CT DEP, OLISP regulated activities**

For work affecting tidal wetlands and tidal, coastal or navigable waters pursuant to State authorities 5, 6, 7, 8, 10 and 11 listed on Page 2, Section A of this PGP, OLISP will forward copies of application packages and OLISP approvals to the Corps on a weekly basis. If a project meets Category 1, the Corps will forward a letter of eligibility to the applicant.

For projects involving dredging with open water disposal, applicants must send the required information listed above to the CT DEP, OLISP **and** the Corps. This information is necessary for

developing sampling plans and ultimately determining the suitability of the material to be dredged with respect to the requested disposal site. These projects will also be reviewed at the screening meeting.

The Corps, Federal resource agencies, and CT DEP will review State/Federal application packages, COPs and tentative determinations for activities eligible under Category 2 at monthly PGP Joint Processing/Interagency Screening Meetings.

### **Aquaculture activities regulated by the Department of Agriculture**

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

Applicants should apply directly to the Connecticut Department of Agriculture, Bureau of Aquaculture (DOA BA) using the attached Department of Army Application for Aquaculture form. The DOA BA will forward a copy of the aquaculture application package to the Corps, the State of Connecticut Department of Environmental Protection's (CT DEP) Boating Division, Marine Fisheries Division, Office of Long Island Sound Programs (OLISP), and CT DEP, Inland Water Resources Division (IWRD) for activities impacting inland waters.

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

**CT DEP, IWRD regulated Activities:** Work affecting inland waters/waterways and wetlands, waters of the United States.

A separate Corps application form (ENG Form 4345) is required for these activities. Applicants must submit 4 copies of the application, 8.5" x 11" drawings and one large-scale drawing, three copies of the functions and values assessment and wetland delineation documentation, one copy of the CT DEP addendum (attached), one copy of their Connecticut Commission on Culture and Tourism or THPO coordination (see Application Procedures for All Category 2 Activities, beginning on Page 6), and any proposed mitigation to the Corps (see Page 19 for Corps contact information).

To expedite the review process, applicants shall also submit the following directly to CT DEP Inland Water Resources Division: three copies each of the Corps application form, 8.5" x 11" drawings, large scale drawings; wetlands functions and values assessment, Federal wetlands delineation documentation (data sheets); CT DEP addendum and documentation of any proposed mitigation. Any application fee required by the State of Connecticut shall be submitted directly to the Connecticut DEP, Central Permit Processing Unit, 79 Elm Street, Hartford, Connecticut 06106-5127.

CT DEP, Inland Water Resources Division will review the activity for compliance with state water quality standards and CZM consistency with the state's coastal program (coastal area projects) that are not already being reviewed by OLISP under State authorizations 5, 6, 7, 8, 10 and 11 listed on Page 2, Section A of this PGP.

The CT DEP, Inland Water Resources Division has 60 days from receipt of a complete application to make a determination on their WQC.

## **Application Procedures For All Category 2 Activities**

The Corps must review and approve in writing all Category 2 activities. The Corps will determine if an application:

- (a) requires additional information (see “information typically required” below);
- (b) is appropriate for screening with the Federal resource agencies (See Joint Processing/Interagency Screening Meeting Procedures on the following page);
- (c) is ineligible under the terms and/or conditions of this PGP; or
- (d) will require Individual Permit review, regardless of whether the terms and conditions of this PGP are met, based on concerns for the aquatic environment or any other factor of the public interest (see General Condition 4, Discretionary Authority).

If open water disposal of dredged material is proposed, the Corps will make a suitability determination, fully coordinated with the Federal resource agencies, before evaluating a project at a joint processing meeting.

To ensure compliance with the conditions of this PGP, consultation with the Corps and outside experts is required. This includes consultation with the Connecticut Historic Preservation Commission and the appropriate Native American Indian tribes to ensure compliance with General Condition 7. Also, note the review thresholds under Category 2 apply to single and complete projects only (see General Condition 5). Therefore, applicants shall submit a copy of their application materials to the Connecticut Commission on Culture and Tourism, Historic Preservation and Museum Division (all of CT), and for projects east of the Thames River to the Rhode Island border and inland to Montville and Ledyard, to the Mashantucket Pequot and the Mohegan Tribal Historic Preservation Officers (THPO) to be reviewed for the presence of historic, archaeological or tribal resources in the permit area that the proposed work may affect. See Page 19 for addresses.

Application packages submitted to the Corps shall include information to indicate that this coordination has been done (a copy of the applicant’s cover letter to the Connecticut Commission on Culture and Tourism and tribes, a statement of having sent their application materials to the appropriate agency, or a copy of the response letters when applicable.) The Corps will be notified by the appropriate agency if there are State concerns that the proposed work will have an effect on historic resources.

### **Information Typically Required**

Please see [www.nae.usace.army.mil](http://www.nae.usace.army.mil) for a more comprehensive checklist. Select “Regulatory/Permitting,” “Forms” and then “Application and Plan Guideline Checklist.” In some instances all of the following information may not be required. Check with the Corps office for project-specific requirements.

- (a) purpose of project;
- (b) 8½”x 11” locus map and plan views of the entire property, including property lines, and project limits with existing and proposed conditions; site latitude and longitude, in decimal degrees;
- (c) typical cross-section views of all wetland and waterway fill areas and wetland replication areas;
- (d) legible, reproducible plans. Show mean low water (MLW), mean high water (MHW) and high tide line (HTL) elevations whenever in navigable waters;
- (e) clearly state the datum used in the each plan in either the title block or notes. Do not use local datum;

- (f) wetland delineation for the site, Corps wetland delineation data sheets (see web site), and calculations of waterway and wetland impact areas (see General Condition 2);
- (g) delineation of submerged aquatic vegetation, e.g., eel grass beds, in tidal waters;
- (h) 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 ordinary high water in inland waters and below the high tide line in coastal waters;
- (i) limits of any Federal Navigation Project in the vicinity and State Plane Coordinates for the limits of the proposed work closest to the Federal Navigation Project;
- (j) on-site alternatives analysis. Please contact Corps for guidance;
- (k) identify and describe potential impacts to Essential Fish Habitat. See General Condition 11 and contact Corps for guidance;
- (l) photographs of wetland/waterway to be impacted.

**Additional information required for dredging projects:** (This must be submitted directly to Corps)

- (a) 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... Results of sediment testing, including physical (e.g., grain-size analysis), chemical and biological testing.
- (b) the area in square feet and volume of material, in cubic yards, to be dredged below mean low water;
- (c) existing and proposed water depths including datum basis;
- (d) type of dredging equipment to be used;
- (e) nature of material (e.g., silty sand);
- (f) any existing sediment grain size and bulk sediment chemistry data for the proposed or any nearby projects;
- (g) 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);
- (h) shellfish survey;
- (i) identify and describe potential impacts to Essential Fish Habitat (see General Condition 11);
- (j) delineation of submerged aquatic vegetation (e.g., eelgrass beds);
- (k) alternatives to open water disposal, if applicable.

**NOTE:** It is important that applicants supplement the Corps application form with appropriate and adequate drawings. You may refer to the Corps "Guide for Permit Applicants" for a complete description of sample drawing requirements. (This guide is on our website: [www.nae.usace.army.mil](http://www.nae.usace.army.mil), "Regulatory/Permitting," "Publications".) **Failure to submit a complete application with appropriate information could result in processing delays and/or administrative closure of the file.**

**Category 2 PGP Joint Processing/Interagency Screening Meeting Procedures:**

The Corps will review only complete applications for Category 2 projects requiring Corps approval at PGP Interagency Screening Meetings (or "joint processing" meetings) with the interagency review team [Federal resource agencies (FWS, EPA and NMFS) and CT DEP] to determine whether such activities may be authorized under this PGP. The CT DEP will comment on lands located within the exterior boundaries of an Indian reservation only when they have jurisdiction under Federal law. The screening meetings are held either at the Corps offices or other agreed upon locations on a monthly basis, or coordinated as necessary, to provide applicants with a timely response.



At the screening meeting, the interagency review team will determine if Category 2 applications:

- (1) are eligible under the PGP as proposed,
- (2) are ineligible under the terms and/or conditions of this PGP,
- (3) require additional information,
- (4) will require project modification, mitigation or other special conditions to minimize impacts and protect the aquatic environment to be eligible for this PGP, or
- (5) require Individual Permit review irrespective of whether the terms and conditions of this PGP are met, based on concerns for the aquatic environment or any other public interest factor (see General Condition 4 on Discretionary Authority).

Federal resource agency comments to the Corps must be made within 10 working days of the screening meeting. If Federal Resource Agency comments raise a concern whereby the Corps will require an Individual Permit, these comments must be confirmed in writing by the Branch Chief or Field Supervisor, within 10 working days of the initial response. These comments must clearly identify and reflect a concern related to the aquatic environment within their area of expertise; state the species or resources that could be impacted by the activities, and describe the impacts that either individually or cumulatively will be more than minimal. All comments raised by any one of the agencies will be coordinated with the applicant in a timely manner.

If the applicant is unable to resolve the concerns raised, the Corps, independently or at the request of either the CT DEP or one of the Federal Resource Agencies, will require an Individual Permit for the activities. The applicant will be notified of this in writing, and provided information about submitting the necessary application materials.

If the activity is determined through the federal/state screening to be eligible for authorization under the PGP, then a Corps PGP authorization letter will be sent directly to the applicant. If the activity is determined not eligible, then the Corps will contact the applicant to discuss the concerns raised. In either case, the Corps will notify the applicant, in writing, within 45 days of the federal/state screening meeting.

***Category 2 projects may not proceed until written notification is received from the Corps. This written approval will be in the form of a Corps PGP authorization letter sent directly to the applicant.***

### **Emergency Situations Procedures**

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

### **Notification Procedures for Emergency Situations:**

Any project proponent may request emergency authorization from the Corps; however, the Corps will determine if a project qualifies for these emergency situation procedures. When an application for Category 2 work is received that the Corps determines is an “emergency” as defined above, the Corps will email a copy of the plans and Determination of Eligibility to the EPA, F&WS, NMFS and the CT DEP. These agencies have 16 business hours to notify the Corps if they have any comments on authorization of the project under the PGP. If no response is received within 16 business hours, the Corps will proceed with a decision on the application. If the resource agencies have comments on the

proposal, they will have 16 business hours to put their comments in writing. If written comments from these agencies are not received within 16 business hours, the Corps will proceed with a decision on the application.

If a reviewing agency requests that an Individual Permit be required for a project or requests modifications to the project based on concerns within their area(s) of expertise, the Corps will notify the applicant within one business day of receipt of that request that the project as proposed does not qualify for authorization under this PGP and the emergency Individual Permit procedures may be followed. In any event, the Corps will notify the applicant within 16 business hours of commencement of the screening process as to whether the project may proceed under this PGP.

#### **Minerals Management Service (MMS) Review**

Projects with construction of solid fill structures or discharge of fill that may extend beyond the coastline or the baseline from which the territorial sea is measured (i.e., mean low water), must be coordinated with MMS, Outer Continental Shelf (OCS) Survey Group, pursuant to the Submerged Lands Act (43 USC. Section 13011315, 33 CFR 320.4(f)). The Corps will forward project information to MMS for their review. The MMS will coordinate their determination with the Department of the Interior (DOI) Solicitor's Office. The DOI will have 15 calendar days from the date MMS is in receipt of the project information to determine if the baseline will be affected. No notification within the 15-day review period will constitute a "no effect" determination.

Otherwise, the solicitor's notification to the Corps may be spoken but must be followed with a written confirmation within 10 business days from the date of the spoken notification. This procedure will be eliminated if the State of Connecticut provides a written waiver of interest in any increase in submerged lands caused by a change in the baseline resulting from solid fill structures or fills authorized under this PGP.

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

Work that is not eligible under Category 2 as defined in Appendices A & B– Definition of Categories, or that does not meet the terms and conditions of this PGP, will require the submission of an application for an Individual Permit to the Corps (see 33 CFR Part 325.1). The screening procedures outlined for Category 2 projects will only serve to delay project review in such cases. The applicant should submit the appropriate application materials (including the Corps application form) at the earliest possible date. General information and application forms can be obtained at our web site or by calling us. Individual water quality certification and coastal zone management consistency concurrence are required, when applicable, from the State of Connecticut before Corps permit issuance. The Federal resource agencies' comments are due within 10 working days after the Public Notice's expiration date, unless the Corps receives and approves a written request for a time extension within ten working days after the notice's expiration.

## V. PROGRAMMATIC GENERAL PERMIT CONDITIONS:

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

### **General Requirements**

- 1. Other Permits.** Authorization under this general permit does not obviate the need to obtain other Federal, state, or local authorizations required by law.
- 2. Federal Jurisdictional Boundaries.** Applicability of this PGP shall be evaluated with reference to Federal jurisdictional boundaries. Applicants are responsible for ensuring that the boundaries used satisfy the Federal criteria defined at 33 CFR 328-329. These sections prescribe the policy, practice and procedures to be used in determining the extent of jurisdiction of the Corps of Engineers concerning “waters of the United States” and “navigable waters of the United States.” Wetland boundaries shall be delineated in accordance with the January 1987 Corps of Engineers Wetlands Delineation Manual, located at <http://www.saj.usace.army.mil/permit/documents/87manual.pdf>. The U.S. Fish and Wildlife Service publishes the National List of Plant Species that Occur in Wetlands, located at <http://www.nwi.fws.gov>. The Natural Resources Conservation Service (NRCS) publishes the current hydric soil definition, criteria and lists, located at <http://www.statlab.iastate.edu/soils/hydric>.
- 3. Minimal Effects.** Projects authorized by this general permit shall have minimal individual and cumulative adverse environmental impacts as determined by the Corps.
- 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 PGP that warrants greater review. Whenever the Corps notifies an applicant that an Individual Permit may be required, authorization under this PGP is voided and no work may be conducted until the Corps Individual Permit is obtained or until the Corps notifies the applicant that further review has demonstrated that the work may proceed under this PGP.
- 5. Single and Complete Projects.** This PGP shall not be used for piecemeal work and shall be applied to single and complete projects. All components of a single project shall be treated together as constituting one single and complete project and/or all planned phases of a multi-phased project, unless the Corps determines that a component has independent utility. (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.) For linear projects, such as transportation projects, power lines or pipelines with multiple crossings, the “single and complete project” (i.e., single and complete crossing) will apply to each crossing of a separate water of the U.S. (i.e., single waterbody) at that location and may be reviewed for eligibility under this PGP. However, individual channels in a braided stream or river, or individual arms of a large, irregularly-shaped wetland or lake, etc., are not separate waterbodies. If the total

impacts (sum of all crossings) exceed 5,000 s.f., the project will require a Category 2 review. This PGP shall not be used for any activity that is part of an overall project for which an Individual Permit is required, unless the Corps determines the activity has independent utility. NOTE: CT DEP will make their own determination of single and complete projects.

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

### **National Concerns**

**7. Historic Properties.** Any activity authorized by this PGP 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 Connecticut Commission on Culture and Tourism, Historic Preservation and Museum Division, the National Register of Historic Places and the Tribal Historic Preservation Officer (THPO) of both the Mashantucket Pequot Tribe and the Mohegan Tribe. See Page 19 for historic properties contacts. Project proponents shall apply to the Corps for all projects that would otherwise qualify for Category 1 if there is the potential for an effect on a historic property within the permit area. These projects may be eligible under Category 2. Historic properties are those that are either listed or eligible for listing in the National Register of Historic Places. If the permittee, during construction of work authorized herein, encounters a previously unidentified archaeological or other cultural resource within the area subject to Department of the Army jurisdiction that might be eligible for listing in the National Register of Historic Places, he/she shall immediately notify the District Engineer.

**8. National Lands.** Activities authorized by this general permit shall not impinge upon the value of any National Wildlife Refuge, National Forest, or any other area administered by the U.S. FWS, U.S. Forest Service, or National Park Service.

**9. Endangered Species.** No activity authorized under this PGP may affect a threatened or endangered species or a species proposed for such designation, as identified under the Federal Endangered Species Act (ESA), or which is likely to destroy or adversely modify the critical habitat of such species, or which would result in a “take” of any threatened or endangered species of fish or wildlife, or which would result in any other violation of Section 9 of the ESA protecting threatened or endangered species of plants. Applicants shall notify the Corps if any listed species or critical habitat is in the vicinity of the project and shall not begin work until notified by the DE that the requirements of the ESA have been satisfied and that the activity is authorized. Information on the location of threatened and

endangered species and their critical habitat can be obtained from the U.S. FWS and the NMFS (See Page 19 for addresses).

**10. Essential Fish Habitat.** As part of the PGP screening process, the Corps will coordinate with the NMFS in accordance with the 1996 amendments to the Magnuson-Stevens Fishery Conservation and Management Act (MSA) 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 and growth to maturity.” All species managed under the MSA have had EFH designations. There are 61 species with EFH in the coastal waters of southern New England. Applicants may be required to describe and identify potential impacts to EFH. For instance, in Connecticut, this act protects Atlantic salmon (*Salmo salar*) habitat. Any work in the mainstem or tributary streams of the Connecticut River watershed that are being managed for Atlantic salmon may **NOT** be eligible for authorization under Category 1 of this PGP because the activity requires screening for potential impacts to designated EFH. Conservation recommendations regarding the protection of EFH for species managed under the MSA made by NMFS will normally be included as special conditions to any permit issued by the Corps. Information on the location of EFH can be obtained from NMFS. The NMFS has established a web site at [www.nero.nmfs.gov/RO/DOC/appguide1.html](http://www.nero.nmfs.gov/RO/DOC/appguide1.html).

**11. Wild and Scenic Rivers.** Any activity that occurs in a component of, or within 0.25 miles up or downstream of the main stem or tributaries of a river segment of the National Wild and Scenic River System, must be reviewed by the Corps under the procedures of Category 2 of this PGP regardless if it meets the Category 1 size of impact thresholds. This condition applies to both designated Wild and Scenic Rivers and rivers designated by Congress as study rivers for possible inclusion while such rivers are in an official study status. The Corps will consult with the National Park Service (NPS) with regard to potential impacts of the proposed activity 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 the NPS has made a determination that the proposed activity is appropriate for authorization under the PGP (with respect to wild and scenic river issues), this determination should be furnished to the Corps with submission of the application. (See NPS address on Page 19.) The National Wild and Scenic River System segment for Connecticut as of this date includes the Farmington River as follows: the 14-mile segment of the West Branch and main stem extending from immediately below the Goodwin Dam and Hydroelectric Project in Hartland Connecticut, to the downstream end of the New Hartford-Canton, Connecticut, town line and the Shepaug River. The Housatonic River and the Eight Mile River have been designated as Study Rivers.

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

**13. Navigation.** (a) There shall be no unreasonable interference with navigation by the existence or use of the activity authorized herein, and no attempt shall be made by the permittee to prevent the full and free use by the public of all navigable waters at or adjacent to the activity authorized herein. (b) The permittee understands and agrees that, if future operations by the U.S. require the removal, relocation, or other alteration of the structure or work herein authorized, or if, in the opinion of the Secretary of the Army or his authorized representative, said structure or work shall cause unreasonable obstruction to

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

**14. Federal Liability.** In issuing this 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 non-permitted 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 non-permitted 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.

#### **Minimization and Mitigation of Environmental Impacts**

**15. Minimization.** Discharges of dredged or fill material into waters of the U.S., including wetlands, shall be avoided and minimized to the maximum extent practicable. Permittees may only fill those jurisdictional wetlands that the Corps authorizes to be filled and impact those wetlands that the Corps authorizes as secondary impacts. Mitigation for impacts to those wetlands may be required on a case-by-case basis. For coastal structures such as piers and docks, the height above the marsh at all points should be equal to or exceed the width of the deck. The height shall be measured from the marsh substrate to the bottom of the longitudinal support beam. This will help ensure sunlight reaches the area beneath the structure.

**16. Heavy Equipment in Wetlands.** Heavy equipment other than fixed equipment (drill rigs, fixed cranes, etc.) working within wetlands shall not be stored, maintained or repaired in wetlands, unless it is less environmentally damaging to do so. Heavy equipment operation within wetlands shall be minimized, and shall either have low ground pressure (<3 psi), or shall not be located directly on wetland soils and vegetation. Equipment shall be placed on swamp or timber mats that are adequate to support the equipment in such a way as to minimize disturbance of wetland soil and vegetation. (See **General Condition 17** below.) Other support structures that are less impacting and are capable of safely supporting equipment may be used with written Corps authorization. Similarly, not using mats during frozen, dry or other conditions may be allowed with written Corps authorization. An adequate supply of spill containment equipment shall be maintained on site.

Note: “Swamp mats” is a generic term used to describe structures that distribute equipment weight to prevent wetland damage while facilitating passage and providing work platforms for workers and equipment. They are comprised of sheets or mats made from a variety of materials in various sizes, and they include large timbers bolted or cabled together (timber mats). Corduroy roads, which are not considered to be swamp mats, are cut trees and/or saplings with the crowns and branches removed, and the trunks lined up next to one another.

**17. Temporary Fill.** Fill placed into waters of the U.S. (including wetlands) totaling greater than or equal to 5,000 square feet in total area (i.e., the sum of permanent and temporary fill areas) exceeds the Category 1 threshold and may not be discharged without written authorization from the Corps. When temporary fill is used (e.g., access roads, swamp mats, cofferdams), it shall be stabilized and maintained during construction in such a way as to prevent its eroding into portions of waters of the U.S. where it is not authorized. Swamp or timber mats (see 16 above) are considered as temporary fill when they are removed immediately upon work completion. The area must be restored in accordance with **General Condition 18** below.

- Unconfined temporary fill authorized for discharge into flowing water (rivers and streams) shall consist only of clean stone.
- Temporary fill authorized for discharge into wetlands shall be placed on geotextile fabric laid on the pre-construction wetland grade. (Swamp and timber mats are excluded from this requirement.)
- Temporary fill shall be removed as soon as it is no longer needed, and it shall be disposed of at an upland site and suitably contained to prevent its subsequent erosion into waters of the U.S.
- Waters of the U.S. where temporary fill was discharged shall be restored (see Condition 18).
- If temporary fill is staged and then returned to its original location, e.g., sewer projects through wetlands, the original location shall be restored.
- No temporary work shall drain a water of the U.S. by providing a conduit for water on or below the surface.

### **18. Restoration of Inland Wetland Areas.**

- Upon completion of construction, all disturbed wetland areas (the disturbance of these areas must be authorized) shall be stabilized with a wetland seed mix containing only plant species native to New England.
- The introduction or spread of invasive plant species in disturbed areas shall be controlled.
- In areas of authorized temporary disturbance, if trees are cut they shall be cut at ground level and not uprooted in order to prevent disruption to the wetland soil structure and to allow stump sprouts to revegetate the work area, unless otherwise authorized.
- Wetland areas where permanent disturbance is not authorized shall be restored to their original condition and elevation, which under no circumstances shall be higher than the pre-construction elevation. Original condition means careful protection and/or removal of existing soil and vegetation, and replacement back to the original location such that the original soil layering and vegetation schemes are approximately the same, unless otherwise authorized.

**19. Coastal Bank Stabilization.** Projects involving construction or reconstruction/maintenance of bank stabilization structures within Corps jurisdiction should be designed to minimize environmental effects, effects to neighboring properties, scour, etc. to the maximum extent practicable. For example, vertical bulkheads should only be used in situations where reflected wave energy can be tolerated. This generally eliminates bodies of water where the reflected wave energy may interfere with or impact on harbors, marinas, or other developed shore areas. A revetment is sloped and is typically employed to absorb the direct impact of waves more effectively than a vertical seawall. It typically has a less adverse effect on the beach in front of it, abutting properties and wildlife. For more information on this topic, go to the Corps Coastal Engineering Manual (supersedes the Shore Protection Manual), located at <http://chl.erdc.usace.army.mil>. Select “Products/ Services,” “Publications.” Part 5, Chapter 7-8, a (2) c is particularly relevant.

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

## **21. Waterway Crossings.**

- (a) All temporary and permanent crossings of waterbodies shall be suitably culverted, bridged, or otherwise designed to withstand and to prevent the restriction of high flows, and to maintain existing low flows, and so as not to obstruct the movement of aquatic life indigenous to the waterbody beyond the actual duration of construction.
- (b) Open bottom arches, bridge spans or embedded culverts are generally preferred over traditional culverts and are required for Category 1/non-reporting projects. However, site constraints (e.g., placing footings) may make use of an open bottom arch, bridge span or embedded culverts impractical, and in these cases well-designed culverts may actually perform better. Project proponents shall consult with the Corps if an open bottom arch, bridge span or embedded culvert is impractical.
- (c) No projects involving open trench excavation in flowing waters are allowed in Category 1. However, open trench excavation projects may qualify for Category 1 provided they utilize management techniques such as temporary flume pipes, culverts, cofferdams, etc. and maintain normal flows within the stream boundary's confines so the work does not occur in flowing waters. Projects utilizing these management techniques must meet the other Category 1 requirements and all of this PGP's terms and conditions. If not, they will require review under the Category 2 screening procedures.
- (d) Temporary bridges, culverts, or cofferdams shall be used for equipment access across streams. (**Note:** areas of fill and/or cofferdams must be included in total waterway/wetlands impacts to determine applicability of this PGP).
- (e) Projects using slip lining (retrofitting an existing culvert by inserting a smaller diameter pipe), plastic pipes, and High Density Polyethylene Pipes (HDPP) are not allowed as non-reporting Category 1 activities, either as new work or maintenance activities.
- (f) For projects that otherwise meet the terms of Category 1, unconfined in stream construction work shall be conducted during the low flow period July 1 through September 30 in any year except in instances where a specific written exception has been issued by the Connecticut Department of Environmental Protection. All other projects shall be screened pursuant to Category 2, regardless of the waterway and wetland fill and/or impact area.
- (g) All temporary fill must be removed as soon as it is no longer needed and all disturbed areas must be returned to their pre-construction conditions

**22. Discharge of Pollutants.** All activities involving any discharge of pollutants into waters of the U.S. authorized under this PGP shall be consistent with applicable water quality standards, effluent limitations, standards of performance, prohibitions, and pretreatment standards and management practices established pursuant to the CWA (33 U.S.C. 1251), and applicable state and local laws. If applicable water quality standards, limitations, etc., are revised or modified during the term of this permit, the authorized work shall be modified to conform with these standards within 6 months of the effective date of such revision or modification, or within a longer period of time deemed reasonable by the District Engineer in consultation with the Regional Administrator of the EPA. Applicants may presume that state water quality standards are met with issuance of the Section 401 WQC (Applicable only to the Section 404 activity).

**23. Spawning Areas.** Discharges of dredged or fill material, and/or suspended sediment-producing activities in fish and shellfish spawning or nursery areas and amphibian and waterfowl breeding areas shall be avoided. During all times of year, impacts to these areas shall be avoided to the maximum extent practicable.



**24. Storage of Seasonal Structures.** Coastal structures, such as pier sections and floats, that are removed from the waterway for a portion of the year (often referred to as seasonal structures) shall be stored in an upland location, located above 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.

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

**26. Protection of Vernal Pools.** Impacts to uplands in proximity (within 500 feet) to the vernal pools referenced in Appendices A & B - Definitions of Categories, shall be minimized to the maximum extent possible.

### **Procedural Conditions**

**27. Inspections.** The permittee shall allow the District Engineer or his authorized representative(s) to make periodic inspections at any time deemed necessary in order to ensure that the work is being performed in accordance with the terms and conditions of this permit. The District Engineer may also require post-construction engineering drawings for completed work, and post-dredging survey drawings for any dredging work.

**28. Work Start Notification Form and Compliance Certification.** Every permittee who receives a written Category 1 or 2 PGP authorization from the Corps must submit a 1) Work Start Notification Form (WSNF) two weeks before work commencement, and 2) signed Compliance Certification Form (CCF) within one month following the completion of the authorized work and any required mitigation (but not mitigation monitoring, which requires separate submittals). The Corps will forward the blank WSNF and CCF with the authorization letter. The CCF will include: (a) a statement that the authorized work was done in accordance with the Corps authorization, including any general or specific conditions; (b) a statement that any required mitigation was completed in accordance with the permit conditions; and (c) the signature of the permittee certifying the completion of the work and mitigation.

**29. Maintenance.** The permittee shall maintain the activity authorized by this PGP in good condition and in conformance with the terms and conditions of this permit. This does not include maintenance of dredging projects. Maintenance dredging is subject to the review thresholds in the List of Categories sheets (attached) and/or any conditions included in a written Corps authorization. Maintenance dredging includes only those areas and depths previously authorized and dredged. Some maintenance activities may not be subject to regulation under Section 404 in accordance with 33 CFR 323.4(a) (2). Information on mosquito ditching and maintenance is provided at [www.nae.usace.army.mil](http://www.nae.usace.army.mil). Go to "Regulatory/Permitting," and then "Other."

**30. Property Rights.** This permit 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 permit may either be modified, suspended, or revoked in whole or in part pursuant to the policies and procedures of 33 CFR 325.7; and any such action shall not be the basis for any claim for damages against the United States.

**32. Restoration.** The permittee, upon receipt of a notice of revocation of authorization under this permit, 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 impose other special conditions on a project authorized pursuant to this general permit that are determined necessary to minimize adverse environmental effects or based on any other factor of the public interest. These may be based on concerns from CT DEP or Federal resource agency. Failure to comply with all conditions of the authorization, including special conditions, will constitute a permit violation and may subject the permittee to criminal, civil, or administrative penalties or restoration.

**34. False or Incomplete Information.** If the Corps makes a determination regarding the eligibility of a project under this permit, and subsequently discovers that it has relied on false, incomplete, or inaccurate information provided by the permittee, the permit will 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 general permit, unless such abandonment is merely the transfer of property to a third party, he/she may be required to restore the area to the satisfaction of the DE.

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


#### **Duration of Authorization/Grandfathering:**

**37. Duration of Authorization.** This PGP expires five years from the effective date listed at the top of Page 1. Activities authorized under Category 1 of this PGP that have commenced (i.e., are under construction) or are under contract to commence in reliance upon this authorization will remain authorized provided the activity is completed within twelve months of the date of this PGP's expiration date. Activities authorized under Category 2 of this PGP will remain authorized in accordance with the project-specific date that the Corps provides to the permittee in the PGP authorization letter, unless: (a) the PGP is either modified or revoked, or (b) discretionary authority has been exercised on a case-by-case basis to modify, suspend, or revoke the authorization in accordance with 33 CFR 325.2(e)(2). The permittee must be able to document to the Corps satisfaction that the project was under construction or contract by the appropriate date. Activities completed under the Category 1 or Category 2 authorizations of this PGP will continue to be authorized by this PGP after its expiration date.

Activities authorized under Category 2 of this PGP (or by an Individual Permit) for the transport of dredged or fill material for the purpose of disposing of it in open waters will specify a completion date for the disposal not to exceed three years from the date of authorization.

**38. Previously Authorized Activities:**

- (a) Activities completed under the authorizations of past PGPs that were in effect at the time the activity was completed will continue to be authorized by those PGPs.
- (b) Projects that have received written verification or approval from the Corps, based on applications made to the Corps prior to issuance of this PGP, regional general permits, or letters of permission shall remain authorized as specified in each authorization.
- (c) Activities authorized pursuant to 33 CFR Part 330.3 (“Activities occurring before certain dates”) are not affected by this PGP.

  
\_\_\_\_\_  
DISTRICT ENGINEER

5/31/00  
DATE

## **VI. CONTACTS FOR CT PROGRAMMATIC GENERAL PERMIT:**

### **1. FEDERAL**

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

New England District, Regulatory Division  
696 Virginia Road  
Concord, Massachusetts 01742-2751  
(800) 343-4789 or (978) 318-8335  
(978) 318-8303 - fax

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

North Atlantic Region  
15 State Street  
Boston, Massachusetts 02109  
(617) 223-5203

#### ***Federal Endangered Species:***

U.S. Fish and Wildlife Service  
P.O. Box 307  
Charlestown, Rhode Island 02813  
(401) 364-9124

#### ***Federal Endangered Species & EFH***

National Marine Fisheries Service  
Habitat Division  
212 Rogers Avenue  
Milford, Connecticut 06460  
(203) 882-6504

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

Bureau of Aquaculture  
P. O. Box 97  
190 Rogers Avenue  
Milford, Connecticut 06460

Regional EFH Coordinator  
National Marine Fisheries Service  
One Blackburn Drive  
Gloucester, MA 01930  
Phone: (978) 281-9102  
(978) 281-9301 - fax

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

#### ***CT Department of Environmental Protection***

##### **Bureau of Water Management**

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

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

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

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

### **3. HISTORIC PROPERTIES**

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

Mashantucket Pequot Tribal Historic Pres. Officer  
Ms. Theresa Hayward-Bell, THPO  
Mashantucket Pequot Museum & Research Center  
110 Pequot Trail  
Mashantucket, Connecticut 06339

Mohegan Tribe Cultural Department  
5 Crow Hill Road  
Uncasville, Connecticut 06382

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

Connecticut Commission on Culture and Tourism  
Historic Preservation & Museum Division  
59 South Prospect Street  
Hartford, Connecticut 06106  
(860) 424-3005

#### **4. ORGANIZATIONAL WEBSITES**

Army Corps of Engineers	<a href="http://www.nae.usace.army.mil">www.nae.usace.army.mil</a> (click “Regulatory/Permitting”)
Corps of Engineers Headquarters	<a href="http://www.usace.army.mil">www.usace.army.mil</a> (click “Services for the Public”)
Environmental Protection Agency	<a href="http://www.epa.gov/owow/wetlands/">http://www.epa.gov/owow/wetlands/</a>
National Marine Fisheries Service	<a href="http://www.nmfs.noaa.gov">www.nmfs.noaa.gov</a>
U.S. Fish and Wildlife Service	<a href="http://www.fws.gov">www.fws.gov</a>
National Park Service	<a href="http://www.nps.gov/rivers/index.html">www.nps.gov/rivers/index.html</a>

## APPENDIX A

### U. S. ARMY CORPS OF ENGINEERS, NEW ENGLAND DISTRICT PROGRAMMATIC GENERAL PERMIT STATE OF CONNECTICUT

#### CATEGORIES FOR WORK IN WATERS OF THE U.S. <sup>(1)(2)</sup>

#### 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, and excluding Section 10 Navigable Waters of the U.S. <sup>(2)</sup> 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 PGP, 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 Tidal, Coastal and Navigable Waters section. (See Appendix B.)

Activities must be conducted consistent with the 2002 Connecticut Guidelines for Soil Erosion and Sediment Control (DEP Bulletin 34) and the 2004 Connecticut Stormwater Quality Manual.

See the last page of this matrix for footnote definitions.

CATEGORY 1

Unconfined in-stream work, including construction, installation or removal of cofferdam structures or placement of fill, is limited to the period July 1 through September 30 **except in instances where a specific written exception has been issued by the CT DEP.**

1. A. NEW FILL/ EXCAVATION DISCHARGES WITHIN WATERS OF THE U.S.<sup>(1)</sup>

Less than 5,000 SF of Inland Waters, Waterway and/or Wetland Fill and Secondary Impacts. Fill impacts include all temporary and permanent fill and excavation discharges resulting from a single and complete project, see #5 of General Requirements. Secondary impacts include but are not limited to impacts to inland waters, waterways or wetlands drained, dredged, flooded, cleared or degraded resulting from a single and complete project. (See 40 CFR 230.11 (g) and (h))

**Activities Eligible for Authorization under Category 1:**

**Utility Line Right-of-Way Crossings.** These must be constructed as follows:

- when trenching, the uppermost 12 inches of the trench is backfilled to the original grade with native soil or streambed material, as appropriate, of the same nature, type and characteristics as the adjacent soil or streambed material, and
- the right-of-way is managed to prevent the introduction, establishment, or spread of plant species determined by the CT Invasive Plants Council to be invasive or potentially invasive.  
[http://invasives.eeb.uconn.edu/ipane/ipanespecies/current\\_inv.htm](http://invasives.eeb.uconn.edu/ipane/ipanespecies/current_inv.htm)

**Driveway/Roadway Crossings.** The following are required for driveway/roadway crossings constructed on brooks, streams, rivers and their tributaries. These provisions do not apply to crossings of drainage ditches or waters with no definable channel.

- **Driveway crossings using a bridge or open-bottom structure must:**
  - span at least 1.2 times the watercourse bank full width,
  - have an openness ratio<sup>(7)</sup> equal to or greater than 0.25 meters, and
  - allow for continuous flow of the 50-year frequency storm flows
- **Roadway crossings using a bridge or open-bottom structure must:**
  - follow the above 3 requirements for driveway crossings, and
  - have a riparian bank on one or both sides for wildlife passage.
- **Driveway or Roadway crossings using a culvert provided:**
  - the tributary watershed to the culvert is ≤ 1.0 sq. mile (640 acres),
  - the culvert gradient (slope) is no steeper than the streambed gradient immediately upstream or downstream of the culvert,
  - for a crossing constructed using a single box or pipe arch culvert, the inverts are set ≥ 12 inches below the streambed elevation,
  - for a crossing constructed using multiple box or pipe arch culverts, the inverts of one of the boxes or pipe arch culverts are set ≥ 12 inches below the elevation of the streambed,
  - for a crossing constructed using a pipe culvert, the inverts are set such that ≥ 25% of the pipe or 12", whichever is less, is set below the streambed elevation,
  - the culvert is backfilled with natural substrate material matching upstream and downstream streambed substrate,
  - the structure does not otherwise impede the passage of fish and other aquatic organisms, and
  - the structure allows for continuous flow of the 50-year frequency storm flows

**Projects including any of the following Activities are NOT ELIGIBLE for AUTHORIZATION under Category 1:**

Piping, boxing, enclosing or covering of inland waters or waterway for other than a driveway or roadway crossing.

Projects with direct or secondary impact(s) to:

- Special Wetlands<sup>(5)</sup> ( Work within 500 feet of vernal pools shall be minimized.)
- Threatened, Endangered, or Special Concern Species<sup>(6)</sup>  
[www.ct.gov/dep/endangeredspecies](http://www.ct.gov/dep/endangeredspecies)
- Significant Natural Communities<sup>(6)</sup> identified by the CT Natural Diversity Database <http://www.dep.state.ct.us/>

**Projects with a dam, dike, levee, water impounding, water diversion structure or other activities** regulated by the CT DEP under CT General Statutes Sections 22a-368 (Water Diversion Policy Act) or 22a-403 (Dam Construction).

Projects with fill placed within a FEMA established floodway.  
<http://msc.fema.gov/webapp/wcs/stores/servlet/FemaWelcomeView?storeId=10001&catalogId=10001&langId=-1>

Projects with fill placed within a FEMA established floodplain that would adversely affect the hydraulic characteristics of the floodplain.<sup>(8)</sup>

Projects with detention or retention of storm water in inland waters, waterways or wetlands including:

- roadway or driveway crossing that by design or default function to provide storm water detention or
- retention in inland waters, waterway or wetland, or construction of storm water detention or retention basin in inland waters, waterway or wetland.

Projects occurring in a segment of a National Wild and Scenic River System or within 0.25 mile upstream or downstream of the main stem or tributaries of a National Wild and Scenic River System segment. <http://www.nps.gov/rivers/>

**NOTE:** In instances where it is determined that it is not practicable to construct a roadway or driveway crossing consistent with the standards, the crossing may be authorized as a Category 1 project provided that the crossing is constructed in a manner that minimizes impediments to fish and aquatic life passage to the greatest extent practicable. A mere showing of expense will not necessarily determine that compliance with the standards is not practicable. Plans and documentation are to be submitted to the Corps and CT DEP for consideration and written authorization must be issued prior to the commencement of construction.

**1. B. STREAM BANK STABILIZATION PROJECTS WITHIN WATERS OF THE U. S.<sup>(1)</sup>**

**Activities Eligible for Authorization under Category 1:**

**Stream Bank Stabilization** ≤ 200 feet in length with:

- an average of 1 cubic yard of fill or less per linear foot below ordinary high water
- no fill within the streambed beyond the toe of slope of the stream bank, and
- work limited to July 1 through September 30.

**NOTE:** Length is defined as the sum of the lengths of bank stabilization work along each bank of an inland water or waterway.

**Projects including any of the following Activities Are NOT ELIGIBLE for AUTHORIZATION under Category 1:**

Project with direct or secondary impacts to:

- Special Wetlands <sup>(5)</sup> ( Work within 500 feet of vernal pools shall be minimized)
- Threatened, Endangered, or Special Concern Species <sup>(6)</sup>
- Significant Natural Communities <sup>(6)</sup> identified by the CT Natural Diversity Database

Channeling or relocating inland waters or waterway.

Project with fill placed within any wetland, streambed, or FEMA established floodway.

<http://msc.fema.gov/webapp/wcs/stores/servlet/FemaWelcomeView?storeId=10001&catalogId=10001&langId=-1>

Projects occurring in a segment of a National Wild and Scenic River System or within 0.25 mile upstream or downstream of the main stem or tributaries of a National Wild and Scenic River System segment. <http://www.nps.gov/rivers/>



## 1. C. REPAIR AND MAINTENANCE WORK WITHIN WATERS OF THE U. S.<sup>(1)</sup>

Total impacts (direct and secondary) not to exceed 5,000 square feet – (See 1.A. for definition)

### **Activities Eligible for Authorization under Category 1:**

**Repair or maintenance of existing, currently serviceable, authorized fills,** provided:

- No change in use.
- Conditions of the original authorization apply. However, minor deviations in fill design allowed.

**Replacement of existing DRIVEWAY crossings using a bridge or open-bottom structure** must:

- Span at least 1.2 times the watercourse bank full width,
- Have an openness ratio <sup>(7)</sup> equal to or greater than 0.25 meters,
- Allow for continuous flow of the 50-year frequency storm flows
- Not result in a change in the normal surface elevation of the upstream waters, waterway or wetland.

**Replacement of existing ROADWAY crossing using a bridge or open-bottom structure** must:

- Follow the above 4 requirements for driveway crossings, and
- Have a riparian bank on one or both sides for wildlife passage,

**Replacement of an existing Driveway or Roadway crossing constructed using a culvert,** provided:

- the tributary watershed to the culvert is  $\leq 1.0$  square mile (640 acres),
- the culvert gradient (slope) is no steeper than the streambed gradient immediately upstream or downstream of the culvert,
- for a crossing constructed using a single box or pipe arch culvert, the inverts are set  $\geq 12$  inches below the elevation of the streambed,
- for a crossing constructed using multiple box or pipe arch culverts, the inverts of one of the boxes or pipe arch culverts are set  $\geq 12$  inches below the elevation of the streambed,
- for a crossing constructed using a pipe culvert, the inverts are set such that  $\geq 25\%$  of the pipe or 12", whichever is less, is set below the elevation of the streambed,
- the culvert is backfilled with natural substrate material matching upstream and downstream streambed substrate,
- the structure does not otherwise impede the passage of fish and other aquatic organisms, and
- the structure allows for continuous flow of the 50-year frequency storm flows

**Replacement of a Utility Line within an Existing Right-of-Way Crossing,** provided:

- no horizontal expansion or impacts beyond previously cleared areas,
- no open trench excavation w/in flowing waters w/out management techniques as stated in Special Condition 21 (c)
- when trenching, the uppermost 12 inches of the trench is backfilled with native soil or streambed material, as appropriate, of the same nature, type and characteristics as the adjacent soil or streambed material,
- the CT Natural Diversity Database confirms in writing that there are no known endangered, threatened or special concern species that would be adversely impacted, and
- the right-of-way is managed to prevent the introduction, establishment, or spread of plant species determined by the CT Invasive Plants Council to be invasive or potentially invasive.

[http://invasives.eeb.uconn.edu/ipane/ctcouncil/CT\\_Invasive\\_Plant\\_List.htm](http://invasives.eeb.uconn.edu/ipane/ctcouncil/CT_Invasive_Plant_List.htm)

**Projects including any of the following Activities are NOT ELIGIBLE for AUTHORIZATION under Category 1:**

Projects with direct or secondary impacts to:

- Special Wetlands <sup>(5)</sup> (Work within 500 feet. of vernal pools shall be minimized)
- Threatened, Endangered, or Special Concern Species <sup>(6)</sup> [www.ct.gov/dep/endangeredspecies](http://www.ct.gov/dep/endangeredspecies)
- Significant Natural Communities <sup>(6)</sup> identified by the CT Natural Diversity Database <http://www.dep.state.ct.us/>

Projects with fill placed within a FEMA established floodway.

<http://msc.fema.gov/webapp/wcs/stores/servlet/FemaWelcomeView?storeId=10001&catalogId=10001&langId=-1>

Projects with fill placed within a FEMA established floodplain that would adversely affect the hydraulic characteristics of the floodplain.<sup>(8)</sup>

Projects occurring in a segment of a National Wild and Scenic River System or within 0.25 mile upstream or downstream of the main stem or tributaries of a National Wild and Scenic River System segment. <http://www.nps.gov/rivers/>

**NOTE:** In instances where it is determined that it is not practicable to construct a roadway or driveway crossing consistent with the standards, the crossing may be authorized as a category 1 project provided that the crossing is constructed in a manner that minimizes impediments to fish and aquatic life passage to the greatest extent practicable. A mere showing of expense will not necessarily determine that compliance with the standards is not practicable. Documentation and plans are to be submitted to the Army Corps and CT DEP for consideration and written authorization must be issued prior to the commencement of construction.

**NOTE:** Replacement of utility line projects with impacts solely within wetlands greater than 5,000 square feet may be eligible for Category 1 authorization provided the standards are met. Replacement of utility line projects involving stream crossings with impacts over 5,000 s.f. must be screened under Category II.

**CATEGORY 2 (Screening)**

Time of year restrictions on activities will be determined case-by-case.

Unconfined in-stream work, including construction, installation or removal of cofferdam structures or placement of fill, is limited to the period July 1 - Sept. 30, unless otherwise specifically authorized in the written approval of coverage issued by the Corps of Engineers.

**2. A. NEW FILL/ EXCAVATION DISCHARGES WITHIN WATERS OF THE U. S.<sup>(4)</sup> 5,000 sq. ft. to 1 acre Inland Waters, Waterway and/or Wetland Fill and Secondary Impacts. Fill impacts include all temporary and permanent fill and excavation discharges resulting from a single and complete project. Secondary impacts include, but are not limited to impacts to inland waters, waterways or wetlands drained, dredged, flooded, cleared or degraded resulting from a single and complete project. (See 40 CFR 230.11 (g) and (h))**

**Activities Eligible for Authorization under Category 2:**

**Utility Line Right-of-Way Crossing** provided the construction adheres to the following standard:

- when trenching, the uppermost 12 inches of the trench is backfilled with native soil or streambed material, as appropriate, consistent with the adjacent soil or streambed material, and
- the right-of-way is managed to prevent the introduction, establishment, or spread of plant species determined by the Connecticut Invasive Plants Council to be invasive or potentially invasive.

[http://invasives.eeb.uconn.edu/ipane/ctcouncil/CT\\_Invasive\\_Plant\\_List.htm](http://invasives.eeb.uconn.edu/ipane/ctcouncil/CT_Invasive_Plant_List.htm)

**The following provisions apply to Driveway/Roadway Crossings constructed on brooks, streams, rivers and their tributaries. These provisions do not apply to crossings of drainage ditches or waters with no definable channel.**

**Roadway or Driveway Crossing Constructed using a Bridge or Open-bottom Structure** that:

- allows for the continuous flow of the 50-year frequency storm flows
- spans at least 1.2 times the watercourse bank full width, and
- has an openness ratio<sup>(7)</sup> greater than or equal to 0.25 meters.

**Roadway or Driveway Crossing Constructed using a Culvert** provided that:

- the use of a bridge or open-bottom structure is determined to be not practicable,
- for a crossing constructed with a single box or pipe arch culvert, the inverts are set at least 12 inches below the elevation of the natural streambed,
- for a crossing constructed with multiple box or pipe arch culverts, the inverts of one of the boxes or pipe arch culverts are set at least 12 inches below the elevation of the natural streambed,
- for a crossing constructed with a pipe culvert, the inverts are set such that at least 25% of the pipe, or 12", whichever is less, is set below the elevation of the natural stream bed,
- the culvert is backfilled with natural substrate material matching upstream and downstream substrate,
- the structure allows for continuous flow of the 50-year frequency storm flows
- there is no practicable alternative location for the crossing that would have less environmental impacts.

**Projects with any of the following Activities are NOT ELIGIBLE for AUTHORIZATION under Category II - Individual Permit Required.**

Piping, boxing, or other enclosing or covering of inland waters or waterway for other than a driveway or roadway crossing.

Projects with fill placed within a FEMA established floodway.

<http://msc.fema.gov/webapp/wcs/stores/servlet/FemaWelcomeView?storeId=10001&catalogId=10001&langId=-1>

Projects with fill placed within a FEMA established floodplain that would adversely affect the hydraulic characteristics of the floodplain.<sup>(8)</sup>

Detention or retention of storm water in inland waters, waterway or wetland including:

- roadway or driveway crossings that by design or default function to provide storm water detention or retention in inland waters, waterway or wetland, or
- construction of storm water detention or retention basins in inland waters, waterway or wetland.

**NOTE:** In instances where it is determined by the agencies that it is not practicable to construct a roadway or driveway crossing consistent with the standards, the crossing may be authorized as a Category 2 project provided that the crossing is constructed in a manner that minimizes impediments to fish and aquatic life passage to the greatest extent practicable. A mere showing of expense will not necessarily determine that compliance with the standards is not practicable. Documentation should be submitted with the Category 2 application package.

**NOTE:** Work and/or construction within 250 feet of vernal pools may require Individual Permit review and will be decided on a case-by-case basis.

**2. B. BANK STABILIZATION PROJECT WITHIN WATERS OF THE U. S.<sup>(1)</sup>**

**Activities Eligible for Authorization under Category 2:**

**Stream Bank Stabilization Exceeding 200 ft. in length** provided there is less than an average of 1 cubic yard of fill per linear foot below ordinary high water.

**NOTE:** Length is defined as the sum of the lengths of bank stabilization work along each bank of an inland water or waterway.

**Projects/Activities NOT ELIGIBLE for AUTHORIZATION under Category 2 - Individual Permit Required.**

Channeling or relocating inland waters or waterway.

Projects with fill placed within a FEMA established floodway.

<http://msc.fema.gov/webapp/wcs/stores/servlet/FemaWelcomeView?storeId=10001&catalogId=10001&langId=-1>

Projects with fill placed within a FEMA established floodplain that would adversely affect the hydraulic characteristics of the floodplain.<sup>(8)</sup>

**2. C. REPAIR & MAINTENANCE WORK WITHIN WATERS OF THE U. S.<sup>(1)</sup>**

**Activities Eligible for Authorization under Category 2:**

**Replacement of Non-Serviceable Fills, or Repair or Maintenance of Serviceable Fills** with horizontal expansion of up to 1 acre, or change in use.

**NOTE:** The 1 acre impact limitation applies to all activities below.

**Replacement of an Existing Roadway or Driveway Culvert Crossing** provided that:

- the existing culvert is replaced using a box or pipe arch culvert,
- the invert elevation is set at least 12 inches below the elevation of the natural streambed,
- the culvert is backfilled with natural substrate material matching upstream and downstream substrates,
- the culvert has an openness ratio<sup>(7)</sup> equal to or greater than 0.25 meters
- the structure does not impede the passage of fish and other aquatic organisms,
- the structure does not result in a change in the normal surface elevation of the upstream waters, waterway or wetland, and
- the structure allows for continuous flow of the 50-year frequency storm flows

**Discharge of fill in conjunction with the Excavation of an Existing Pond/Lake** provided that:

- there is no horizontal expansion of the pond,
- excavation is limited to restoring the pond basin to its original contours through the removal of accumulated material,
- excavated material is disposed outside of inland waters, waterways, wetlands and floodplains,
- the area being dredged is physically isolated from adjoining areas of flowing water,
- best management practices are employed to avoid creating erosion, sedimentation or water quality degradation during excavation and during any period of dewatering and refilling,
- adequate littoral zones are maintained to provide habitat suitable for supporting fish and other aquatic life, and
- during the period of refilling, downstream flow is maintained consistent with the stream flow standards established by the State of Connecticut DEP, as amended.

**NOTE:** Existing pond/lake excavation projects with impacts exceeding 1 acre are eligible for Category 2 authorization provided the above standards are met.

**Projects with any of the following Activities are NOT ELIGIBLE for AUTHORIZATION under Category 2 - Individual Permit Required.**

Project with fill placed within a FEMA established floodway.

<http://msc.fema.gov/webapp/wcs/stores/servlet/FemaWelcomeView?storeId=10001&catalogId=10001&langId=-1>

Project with fill placed within a FEMA established floodplain that would adversely affect the hydraulic characteristics of the floodplain.<sup>(8)</sup>

**NOTE:** In instances where it is determined by the agencies that it is not practicable to construct a roadway or driveway crossing consistent with the standards, the crossing may be authorized as a category 2 project provided that the crossing is constructed in a manner that minimizes impediments to fish and aquatic life passage to the greatest extent practicable. A mere showing of expense will not necessarily determine that compliance with the standards is not practicable. Documentation should be submitted with the Category 2 application package.

**2. D. WETLAND OR STREAM RESTORATION PROJECTS WITHIN WATERS OF THE U. S.<sup>(1)</sup>**

**Activities Eligible for Authorization: under Category 2**

**Inland Water, Waterway, Wetland or Stream Restoration Project** sponsored or administered by a federal or state environmental agency provided that impacts to aquatic resources are minimal and there is a planning review component to the project that includes representation on a screening committee from all involved federal and state agencies.

**NOTE:** Such restoration projects with any amount of impact may be screened for eligibility under Category 2. The Corps, in consultation with State and Federal agencies, must determine that net adverse effects are minimal.

**2 E. MISCELLANEOUS PROJECTS WITHIN WATERS OF THE U. S.<sup>(1)</sup>**

**Activities Eligible for Authorization under Category 2**

Less than one acre of Inland Waters, Waterway and/or Wetland Fill, and Secondary Impacts that are not defined under any of the previous categories.

**Fill impacts include all temporary and permanent fill and excavation discharges result from a single and complete project. Secondary impacts include but are not limited to impacts to inland waters, waterways or wetlands drained, flooded, cleared or degraded resulting from a single and complete project. (See 40 CFR 230.11 (g) and (h))**

**Project with any of the following Activities are NOT ELIGIBLE for Authorization under Category 2 - Individual Permit Required:**

Project with fill placed within a FEMA established floodway.  
<http://msc.fema.gov/webapp/wcs/stores/servlet/FemaWelcomeView?storeId=10001&catalogId=10001&langId=-1>

Project with fill placed within a FEMA established floodplain that would adversely affect the hydraulic characteristics of the floodplain.<sup>(8)</sup>

Detention or retention of storm water in inland waters, waterway or wetland

## DEFINITIONS

- (1) **Waters of the U. S.:** Inland rivers, streams, brooks, lakes, ponds and wetlands. [Refer to Title 33 CFR 328 and Section 1362 Federal Clean Water Act]
- (2) **Navigable Waters:** Waters that are subject to the ebb and flow of the tide, and Federally designated navigable waters which in Connecticut includes the Connecticut River to the Massachusetts state line. [Refer to Title 33 CFR Part 329 and Section 1362 Federal Clean Water Act]
- (3) **Connecticut Department of Environmental Protection and Connecticut Municipal Inland Wetlands Agency Authorizations:**
- Inland Wetlands and Watercourses Act, CGS Sections 22a-36 through 22a-45(a)
  - Connecticut Water Diversion Policy Act, CGS 22a-365 through 22a-378a
  - Stream Channel Encroachment Lines, CGS 22a-342 through 22a-349(a)
  - Dam Construction, CGS 22a-401 through 22a-411
  - Aquaculture Operations: The Connecticut Department of Agriculture has exclusive authority for granting or denying permits under the above regulatory programs for aquaculture operations.
- (4) **Special Aquatic Sites:** Include wetlands (inland and salt marsh), mud flats, vegetated shallows (permanently inundated areas that support rooted aquatic vegetation such as eel grass, celery grass, and tape grass), coral reefs, and riffle and pool complexes. [Refer to 40 CFR Part 230 Subpart E]
- (5) **Special Wetlands:** Include vernal pools, bogs, fens, cedar swamps, spruce swamps, calcareous seepage swamps, and wetlands which provide habitat for threatened or endangered species or species of special concern as designated by the State of Connecticut Natural Diversity Database. The following definitions for bogs, calcareous seepage wetlands, cedar swamps, fens, spruce swamps, and vernal pools apply for the purposes of this PGP:
- Bog:** a peat accumulating wetland dominated by sphagnum moss. Typical plant species include sphagnum moss, leatherleaf, black spruce, pitcher plant and sundew.
- Calcareous Seepage Swamp:** a forested wetland characterized by the discharge of groundwater with a chemistry influenced by the underlying limestone geology.
- Cedar Swamp:** a forested wetland characterized by the presence of Northern White Cedar or Atlantic White Cedar.
- Fen:** a peat accumulating wetland dominated by sedges and/or ericaceous shrubs. Typical plant species include low sedges, ericaceous shrubs, sphagnum and other mosses.
- Spruce Swamp:** a forested wetland characterized by the presence of Red or Black Spruce.
- Vernal Pool:** an often temporary body of water occurring in a shallow depression of natural or human origin that fills during spring rains and snow melt and typically dries up during summer months. Vernal pools support populations of species specially adapted to reproducing in these habitats. Such species may include wood frogs, mole salamanders (*Ambystoma* sp.), fairy shrimp, fingernail clams, and other amphibians, reptiles and invertebrates. Vernal pools lack breeding populations of fish. **(NOTE: The Corps will determine on a case-by-case basis which vernal pools are within their jurisdiction. All vernal pools are subject to the jurisdiction of the Connecticut Department of Environmental Protection under Connecticut Water Quality Standards.)**
- (6) **Threatened, Endangered or Special Concern Species; Significant Natural Communities:** Species listed by CT DEP pursuant to Chapter 495 of the Connecticut General Statute as threatened or endangered species or species of special concern. Known locations of threatened and endangered species and species of special concern, and significant natural communities are identified on maps entitled "State and Federal Listed Species and Significant Natural Communities", as amended. These maps are available at city or town clerk offices and in the CT DEP File Room located on the store level of 79 Elm Street, Hartford. [www.ct.gov/dep/endangeredspecies](http://www.ct.gov/dep/endangeredspecies)
- (7) **Openness Ratio:** The cross-sectional area (in square meters) of the opening of a structure divided by the length (measured in meters) of the structure. For a box culvert, openness ratio = (height x width)/length (measured in meters). The imbedded portion of the culvert is not included in the cross-sectional area used for calculating the openness ratio.
- (8) **Adverse Affect to Hydraulic Characteristics:** An adverse affect to hydraulic characteristics includes an increase in flood water surface elevation, an increase in flood flow velocity or a restriction of flood flow conveyance in a manner that would impact upstream, downstream or adjacent property.

## **APPENDIX B**

### **U.S. ARMY CORPS OF ENGINEERS, NEW ENGLAND DISTRICT PROGRAMMATIC GENERAL PERMIT STATE OF CONNECTICUT**

#### **CATEGORIES FOR WORK IN WATERS OF THE U.S.<sup>(2)</sup>**

##### **TIDAL, COASTAL AND NAVIGABLE WATERS (INCLUDING ALL OF THE CONNECTICUT RIVER)**

**Navigable Waters:** Waters that are subject to the ebb and flow of the tide, and Federally designated navigable river which in Connecticut includes the Connecticut River to the Massachusetts state line. [Refer to Title 33 CFR Part 329 and Section 1362 Federal Clean Water Act.] 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 river (Connecticut River). For the purposes of this PGP, fill placed in the area between the mean high water (MHW) and the high tide line (HTL), and in the bordering and contiguous wetlands<sup>1</sup> to tidal waters are also reviewed in this Navigable Waters section.

See the last page of this matrix for footnote definitions.

**CATEGORY 1**

**1. A. REPAIR AND MAINTENANCE WORK**

**Activities Eligible for Authorization:**

Repair and/or maintenance of existing currently serviceable grandfathered or authorized fills and structures with **no** expansion or change in use.

Grandfather dates include structures installed before 1968 and fill placed before 1975 for Corps purposes and structures and fill placed before 1980 for CT DEP purposes.

**Projects That Include Any Of The Following Activities Are NOT Eligible for Authorization Under Category 1:**

Project with impacts to Special Aquatic Sites <sup>(3)</sup>

Projects occurring in the main stem of Connecticut River (See General Condition 10)

**1. B. DREDGING**

**Activities Eligible for Authorization:**

Maintenance dredging with:

- contained upland disposal
- proper siltation controls used to prevent runback into the waterway or wetland
- work occurring between October 1 through January 15

**Projects That Include Any Of The Following Activities Are NOT Eligible for Authorization Under Category 1:**

Projects occurring within Special Aquatic Sites <sup>(3)</sup>

Projects occurring in the main stem of the Connecticut River (See General Condition 10)

**1. C. MOORINGS**

**Activities Eligible for Authorization:**

Private, non-commercial, non-rental single boat moorings not associated with any boating facility <sup>(4)</sup>.

Moorings must have harbormaster approval.

**Projects That Include Any Of The Following Activities Are NOT Eligible for Authorization Under Category 1:**

Moorings located in Federal Navigation Project (channel, anchorage or turning basin).

Moorings that interfere with navigation.

Projects occurring in the main stem of the Connecticut River (See General Condition 10)

**CATEGORY 1 (Continued)**

**1. D. PILE-SUPPORTED STRUCTURES**

**Activities Eligible for Authorization:**

Reconfiguration of existing authorized structures provided those structures do not extend beyond the existing perimeter of the facility.

Construction of private residential structures with a length limit of 40 feet beyond mean high water and to a depth of -4 feet mean low water and a width limit of 4 feet..

Osprey platforms and perch poles that meet CT General Permit LIS-GP-004.

**Projects That Include Any Of The Following Activities Are NOT Eligible for Authorization Under Category 1:**

No additional slips or expansion allowed for reconfiguration of existing authorized structures.

Structures within 25' of the riparian boundary, unless prior approval of abutting property owner(s)

No floats/structures shall be located over submerged aquatic vegetation or over tidal wetlands.

No floats shall sit on the substrate during any tide.

Projects occurring in the main stem of the Connecticut River (See General Condition 10)

**1. E. BRIDGE WORK**

**Activities Eligible for Authorization:**

Discharges of dredged or fill material incidental to the construction of bridges across navigable waters of the United States, including cofferdams, abutments, foundation seals, piers, and temporary construction and access fills are authorized by this General Permit provided the U.S. Coast Guard authorizes such discharges as part of the bridge permit.

**Projects That Include Any Of The Following Activities Are NOT Eligible for Authorization Under Category 1:**

No causeways or approach fills are included in this category.

Projects occurring in the main stem of the Connecticut River (See General Condition 10)

Projects occurring in special aquatic sites<sup>(3)</sup>



CATEGORY 1 (Continued)

1. F. MISCELLANEOUS

**Activities Eligible for Authorization:**

Temporary buoys, markers, floats, etc. for recreational use during specific events, provided they are removed within 30 days of their use.

Coast Guard approved Aids to Navigation.

Oil spill clean up.

Scientific measurement devices and survey activities, such as exploratory drilling, surveying, samplings.

**Projects That Include Any Of The Following Activities Are NOT Eligible for Authorization Under Category 1:**

No floats/structures shall be located over submerged aquatic vegetation or over tidal wetlands.

Scientific measurement devices do not include oil/gas exploration and fills for roads/construction pads.

Projects occurring in a component of, or within 0.25 mile up or downstream of the main stem of tributaries of a river segment of, the National Wild and Scenic River System. <http://www.nps.gov/rivers/>

Projects occurring in the main stem of the Connecticut River. (See General Condition 10)

**CATEGORY 2 (SCREENING)**

**2. A. FILL/EXCAVATION**

**Activities Eligible for Authorization:**

Up to 1 acre waterway/wetland fill and/or excavation including secondary impacts (e.g. areas that are drained, flooded, cleared, excavated or degraded.)

The one-acre limit does not apply to Integrated Marsh Management (including open marsh management) or wetland restoration projects, provided that impacts to the aquatic resources are minimal and there is a preplanning component to the project that includes review, representation and approval from all federal and state agencies on the screening committee.

Includes temporary and permanent fill.

Beach nourishment with compatible grain size.

**Projects That Include Any Of The Following Activities Or Elements Are NOT Eligible for Authorization under Category 2 and will require an Individual Permit**

Greater than 1 acre waterway fill and secondary impacts that are not considered proactive restoration projects.

No permanent fill and/or excavation in special aquatic sites<sup>(3)</sup>.

**2.B. REPAIR AND MAINTENANCE WORK**

**Activities Eligible for Authorization:**

Repair of any non-serviceable structures or fills, or repair/maintenance of serviceable structures or fills with expansion up to one acre or change in use.

**Projects That Include Any Of The Following Activities Or Elements Are NOT Eligible for Authorization under Category 2 and will require an Individual Permit**

Replacement of non-serviceable structures or fills.

Repair and maintenance of serviceable fills greater than one acre.

**2.C. DREDGING**

**Activities Eligible for Authorization:**

Maintenance, new, or improvement dredging with disposal at upland, open water, confined aquatic disposal cells, or beach nourishment, provided material to be dredged is determined suitable by the Corps for disposal.

**Projects That Include Any Of The Following Activities Or Elements Are NOT Eligible for Authorization under Category 2 and will require an Individual Permit:**

Federal proponents disposing of dredged material in open water.

Dredging of >25,000 cubic yards of material with open water disposal.

Dredging in or affecting special aquatic sites <sup>(3)</sup>.

**CATEGORY 2 (Continued)**

**2. E. MOORINGS**

**Activities Eligible for Authorization:**

All commercial moorings in all locations and any moorings that do not have harbor master approval and that are located in a Federal Navigation Project.

**Projects That Include Any Of The Following Activities Or Elements Are NOT Eligible for Authorization under Category 2 and will require an Individual Permit:**

Any mooring that interferes with navigation.

**2.F. PILE-SUPPORTED STRUCTURES**

**Activities Eligible for Authorization:**

Piers and floats for navigational access to the waterway that are not eligible under Category 1.

New structures within an existing boating facility, provided those structures do not extend beyond the existing perimeter of the facility.

**Projects That Include Any Of The Following Activities Or Elements Are NOT Eligible for Authorization under Category 2 and will require an Individual Permit:**

Structures/piers/floats that extend, or with docked/moored vessels, that extend within horizontal limits of a Federal navigation project.

Structures/piers/floats within a previously unauthorized boating facility. <sup>(4)</sup>

**2.G. AQUACULTURE PROJECTS**

**Activities Eligible for Authorization:**

All on-bottom shellfish rearing devices and all off-bottom suspended systems (including longlines, lantern nets, rafts, and associated work floats) for the culture of shellfish or seaweed.

Installation of intake and discharge structure for land-based hatchery with once-through circulation system.

All must be marked and maintained in conformance w/ 33 CFR 64, and receive U.S. Coast Guard permission for Aids to Navigation.

**Projects That Include Any Of The Following Activities Or Elements Are NOT Eligible for Authorization under Category 2 and will require an Individual Permit:**

No impacts to special aquatic sites<sup>(3)</sup>.

CATEGORY 2 (Continued)

2.H.BRIDGE WORK

**Activities Eligible for Authorization:**

Causeways and approach fills associated with discharges of dredged or fill material incidental to the construction of bridges across navigable waters of the United States.

**Projects That Include Any Of The Following Activities Or Elements Are NOT Eligible for Authorization under Category 2 and will require an Individual Permit:**

EIS projects required by the Corps.

2. I.MISCELLANEOUS

**Activities Eligible for Authorization:**

Structures/work in or affecting tidal/navigable waters that are not defined under any of the previous headings. Includes, but not limited to: utility lines, aerial transmission lines, pipelines, outfalls, boat ramps, submarine cables.

**Projects That Include Any Of The Following Activities Or Elements Are NOT Eligible for Authorization under Category 2 and will require an Individual Permit:**

EIS projects required by the Corps.

Activities within the horizontal limits of Corps Federal Navigation Projects, or with docked or moored vessels that extend within those limits.

## Definitions

(1) **Navigable Waters:** Waters that are subject to the ebb and flow of the tide, and Federally designated navigable rivers, which in Connecticut includes the Connecticut River to the Massachusetts state line. [Refer to Title 33 CFR Part 329 and Section 1362 Federal Clean Water Act.] 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 river (Connecticut River). For the purposes of this PGP, 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 also reviewed in this Navigable Waters section.

(2) **Connecticut DEP, Office of Long Island Sound Programs Authorizations:**

- Structures, Dredging and Filling Permit (CGS Sections 22a-359 through 22a-363f)
- Tidal Wetlands Permit under the Tidal Wetlands Act (CGS Sections 22-a through 22a-35a)
- Certificate of Permission (CGS Section 22a-363b)
- Long Island Sound General Permits (CGS Sections 22a-28 to 22a-35 and Sections 22a-359 to 22a-363f inclusive)
- Approvals for marine based aquaculture activities required by CGS Section 22-11h implemented by the CT Department of Agriculture (DOA) including individual in-water structures used for aquaculture, including, but not limited to, racks, cages or bags, as well as buoys marking such structures.
- Coastal Zone Management Consistency (CZM) Concurrence under Section 307 of the Federal Coastal Zone Management Act of 1972, as amended.

(3) **Special Aquatic Sites:** Include wetlands (inland and salt marsh), mud flats, vegetated shallows (permanently inundated areas that support rooted aquatic vegetation such as eel grass, celery grass and tape grass), coral reefs, and riffle and pool complexes. [Refer to 40 CFR Part 230 Subpart E]

(4) **Boating Facilities:** Facilities that provide, rent, or sell mooring space, such as marinas, yacht clubs, boat yards, town facilities, dockominiums, etc.

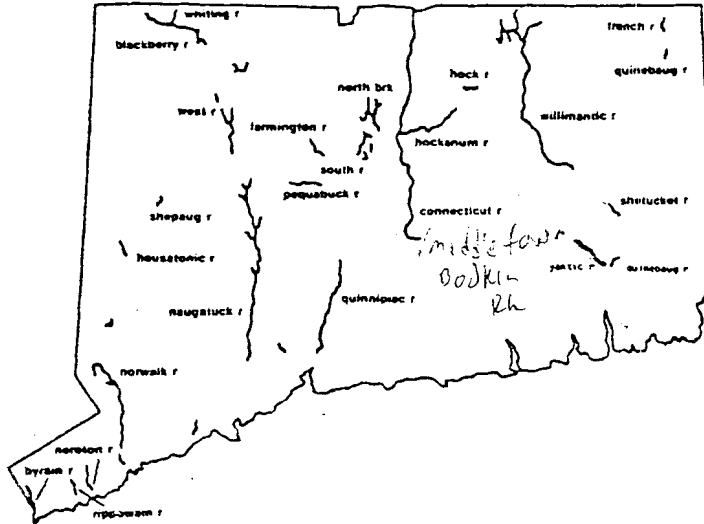


STATE OF CONNECTICUT  
DEPARTMENT OF ENVIRONMENTAL PROTECTION



# STREAM CHANNEL ENCROACHMENT LINES

a listing of regulated areas in CT.



the DEP water resources unit

Phone: 566-7280

165 Capitol Avenue • Hartford, Connecticut 06106

*An Equal Opportunity Employer*

## A BRIEF INTRODUCTION TO THE STREAM CHANNEL ENCROACHMENT LINE PROGRAM

Connecticut's rivers and their floodplains have been abused. They have been filled, constricted and developed through ignorance and disregard for the natural occurrence of flood events.

In 1955 Connecticut received a strong reminder of the dangers in unwise land use when tremendous flooding wreaked havoc on over-developed floodplain areas throughout the state.

The Connecticut Stream Channel Encroachment Line Program emerged from this disaster as a nonstructural element in the State's ongoing efforts to reduce the loss of life and property from flooding events.

270 miles of the State's most flood prone rivers are now regulated under this program. This program is administered to assure that floodplain development is compatible both structurally and hydraulically with the flood flows expected in the rivers. Permits to develop within these areas are granted only if it can be clearly demonstrated that no increase in flood hazard or other adverse consequences will result upon completion of the development.

The actual encroachment lines delineate the limits of State authority. In general, they roughly outline the limits of the riverine floodplain. However, certain backwater areas which flood, but don't contribute significantly to the conveyance of the flood flows in many cases were omitted from regulation.

The omission of backwater areas is one of the major differences between the State Encroachment Line Program and The Federal Flood Insurance Program. Other differences include the following: 1) The Flood Insurance Program is locally administered (under Federal guidelines) and includes every town and very nearly every river in the State; 2) The Federal Flood Insurance Program has developed the "floodway" concept. The floodway being the most critical area required for the conveyance of flood flows. The State Stream Channel Encroachment Line Program is older than the Flood Insurance Program and includes only segments of highly flood prone major rivers. State encroachment lines usually encompass the outer floodplain limit as well as the critical floodway in the river.

The following is a compendium of regulated areas. Any questions regarding the State Stream Channel Encroachment Line Program should be directed to the Department of Environmental Protection Water Resources Unit at 566-7280.

RIVERS REGULATED BY THE  
STREAM CHANNEL ENCROACHMENT LINE PROGRAM

Town: Ansonia  
River: Naugatuck                      Established: November 18, 1957

Extent: between the Derby-Ansonia town line and the Ansonia-Seymour town line in the City of Ansonia

Town: Avon  
River: Farmington

SEE FARMINGTON

Town: Beacon Falls  
River: Naugatuck                      Established: February 17, 1958

Extent: between the Seymour-Beacon Falls town line and a point 1,000 feet upstream from the Connecticut State Highway Department Garage in the Town of Beacon Falls

Town: Bloomfield  
River: Beaman's Brook                      Established: September 20, 1965

Extent: between the confluence with Wash Brook and the Blue Hills and Wintonbury Reservoirs

Town: Bloomfield  
River: Tumbledown Brook                      Established: October 18, 1965

Extent: in the Towns of Bloomfield and West Hartford between the confluence with Wash Brook and Cold Spring Reservoir

Town: Bloomfield  
River: Wash Brook                      Established: October 18, 1965

Extent: between a point about 200 feet upstream from the Bloomfield Avenue Bridge next northerly from Cottage Grove Road and the dam at Bloomfield Reservoir in the Town of Bloomfield

Town: Bloomfield  
River: North Branch Park River  
Wash Brook                      Established: September 20, 1965

Extent: in the Towns of Hartford, West Hartford and Bloomfield between Albany Avenue in Hartford and a point about 200 feet upstream from the Bloomfield Avenue Bridge next northerly from Cottage Grove Road in Bloomfield



Town: Bozrah  
River: Yantic

Established: December 30, 1982

Extent: from the Bozrah-Norwich town line in both these towns  
upstream to Reservoir Road in Lebanon

Town: Bridgeport, Fairfield  
River: Rooster River, Section I

Established: March 7, 1960

Extent: between the railroad bridge immediately downstream from  
State Street Extension and King's Highway in the City of  
Bridgeport and the Town of Fairfield

Town: Bridgeport, Fairfield  
River: Rooster River, Section II

Established: June 1, 1966

Extent: between the railroad bridge below State Street Extension  
and a point about 900 feet downstream from Brewster Street  
in Fairfield and Bridgeport

Town: Bristol  
River: Pequabuck

Established: November 2, 1959

Extent: between Middle Street and Jacobs Street in the City of Bristol

Town: Bristol/Plainville  
River: Pequabuck

Established: May 17, 1971

Extent: between the Railroad Bridge downstream of North Washington  
Street in Plainville and the dam at Middle Street in Bristol

Town: Columbia, Coventry, Lebanon, Mansfield, Windham  
River: Willimantic and Shetucket

Established: February 22, 1972

Extent: between Plains Road in Windham and the Tolland and Willington  
town lines

Town: Coventry  
River: Willimantic River

SEE COLUMBIA

Town: Cromwell  
River: Connecticut

Established: May 1, 1963

Extent: between the Rocky Hill town line and the Middletown town line

Town: Cromwell (Alteration)  
River: Connecticut                      Established: June 15, 1964

Extent: Altered encroachment lines along the Connecticut River in the Town of Cromwell between a point (P-49) 2,000 feet northerly from Wall Street and a point (CP-3) 4,000 feet southerly from South Street

Town: Danbury  
River: Still                              Established: December 17, 1962

Extent: between a point 120 feet downstream from the Cross Street Bridge and the Triangle Street Bridge

Town: Darien  
River: Noroton River

SEE STAMFORD

Town: Derby  
River: Naugatuck

No Finding & Order

Town: East Hartford  
River: Connecticut                      Established: September 20, 1965

Extent: between the South Windsor town line and the Glastonbury town line

Town: East Hartford  
River: Hockanum                        Established: August 3, 1972

Extent: between the Connecticut River and the East Hartford-Manchester town line

Town: East Windsor  
River: Connecticut                      Established: January 18, 1965

Extent: between the Enfield town line and South Windsor town line

Town: Ellington  
River: Willimantic South

SEE TOLLAND

Town: Ellington  
River: Willimantic North  
SEE STAFFORD

Town: Enfield  
River: Connecticut                      Established: September 16, 1963  
Extent: from Massachusetts to E. Windsor in the town of Enfield

Town: Fairfield  
River: Rooster  
SEE BRIDGEPORT, SECTION I & II, PAGE 2

Town: Farmington, Avon  
River: Farmington                      Established: April 21, 1958  
Extent: between the railroad bridge in Unionville and the remains  
of the Connecticut Power Co. Dam above Unionville in the  
Towns of Farmington and Avon

Town: Franklin  
River: Yantic  
SEE NORWICH

Town: Glastonbury  
River: Connecticut                      Established: October 18, 1965  
Extent: between the East Hartford town line and the Portland town line

Town: Greenwich  
River: Byram                              Established: July 14, 1970  
Extent: between West Putnam Avenue and the Merritt Parkway

Town: Hartford  
River: Connecticut                      Established: July 15, 1963  
Extent: between the Wethersfield town line and the Windsor town line

Town: Hartford  
River: North Branch Park  
SEE BLOOMFIELD

Town: Harwinton  
River: Naugatuck  
SEE TORRINGTON

Town: Lebanon  
River: Willimantic  
SEE COLUMBIA

Town: Lebanon  
River: Yantic

SEE BOZRAH

Town: Litchfield  
River: Naugatuck

SEE TORRINGTON

Town: Manchester, Vernon  
River: Hockanum

Established: September 23, 1971

Extent: between the East Hartford town line and Kelly Road in Vernon

Town: Mansfield  
River: Willimantic

SEE COLUMBIA

Town: Middletown  
River: Connecticut

Established: May 1, 1963

Extent: between the Cromwell town line and Bodkin Rock at the Narrows

Town: Naugatuck (Borough of)  
River: Naugatuck

Established: March 3, 1958

Extent: between Cotton Hollow Brook and the Naugatuck/Waterbury town line in the Borough of Naugatuck

Town: Naugatuck  
River: Hop Brook

Established: March 1, 1971

Extent: between mouth and the flood control dam

Town: New Britain, Newington  
River: South Branch Park River Watershed: Piper Brook; Bass Brook;  
Batterson Park Pond Brook; Sandy Brook

Established: April 9, 1969

Extent: along Piper Brook from Main Street, Newington, upstream to the New Britain and Newington town line, along Bass Brook from its confluence with Piper Brook upstream to lower pond in Stanley Park, along Batterson Park Pond Brook from its confluence with Bass Brook upstream to Batterson Park Pond and along Sandy Brook from its confluence with Bass Brook upstream to Stanley Street, New Britain in Newington, New Britain, and Farmington



Town: Norwalk (Section II)  
River: Norwalk

Established: May 24, 1957

Extent: between a point opposite the end of Forest Street and  
New Canaan Avenue, and between the dam at Flock Process  
Company and Grist Mill Pond

Town: Norwich, Sprague  
River: Shetucket (North)

Established: November 7, 1960

Extent: between the dam at Occum and the dam at Baltic in the  
City of Norwich and the Town of Sprague

Town: Norwich  
River: Shetucket (South)

Established: March 12, 1962

Extent: between the Norwich Harbor and the Greenville Dam in  
the City of Norwich

Town: Norwich/Franklin  
River: Yantic River (Lower)

Established: December 7, 1981

Extent: between the Falls Mill Dam No. 2 in Norwich upstream to  
the Bozrah and Norwich town line in the Towns of Norwich  
and Franklin

Town: Norwich  
River: Yantic River (Upper)

Established: December 30, 1982

SEE BOZRAH

Town: Plainville  
River: Pequabuck

SEE BRISTOL

Town: Plymouth  
River: Hancock Brook

Established: March 1, 1971

Extent: from Waterbury town line to flood control dam

Town: Portland  
River: Connecticut

Established: May 21, 1965

Extent: between the Glastonbury town line and Bodkin Rock in the  
town of Portland

Town: Portland (Alteration)  
River: Connecticut                                      Established: November 8, 1965  
  
Extent: altering encroachment lines along the Connecticut River  
         between the Main Street Bridge and the Railroad Bridge in  
         the Town of Portland

Town: Putnam  
River: Quinebaug    Established: September 8, 1958  
  
Extent: between the railroad bridge in Putnam and a point 2,500 feet  
         upstream from Providence Street in the City of Putnam

Town: Redding  
River: Norwalk  
  
SEE RIDGEFIELD

Town: Ridgefield, Redding                              Established: February 18, 1969  
River: Norwalk, Ridgefield Brook, Cooper Pond Brook  
  
Extent: along the Norwalk River from the Wilton-Weston town line  
         to Ridgefield Brook, along Ridgefield Brook from Norwalk  
         River to the proposed dam at Great Swamp, and along Cooper  
         Pond Brook from Norwalk River to the proposed dam at Candee's  
         Pond in Ridgefield, Redding and Wilton

Town: Rocky Hill  
River: Connecticut                                      Established: May 1, 1963  
  
Extent: along the Connecticut River from Wethersfield to Cromwell  
         in the Town of Rocky Hill

Town: Seymour  
River: Naugatuck    Established: September 8, 1958  
  
Extent: between the Ansonia-Seymour town line and the Seymour-  
         Beacon Falls town line in the Town of Seymour

Town: South Windsor  
River: Connecticut                                      Established: September 21, 1964  
  
Extent: along the Connecticut River in the Town of South  
         Windsor between the East Windsor town line and the  
         East Hartford town line

Town: Sprague  
River: Shetucket River North

SEE NORWICH

Town: Stafford  
River: Furnace Brook, Middle River, Shenipset Reservoir Brook, Edson Brook,  
Bradway Reservoir Brook, Ellis Brook, Crystal Lake Brook, Pomeroy Brook

Established: June 21, 1971

Extent: along Furnace Brook between the Willimantic River and  
Staffordville Reservoir; along the Middle River between  
Edson Brook and the Ellithorpe Dam; along Shenipset Reservoir  
Brook between Edson Brook and the Shenipset Dam; along Edson  
Brook between Cooper Lake Road and Ellis Brook; along Bradway  
Reservoir Brook between Edson Brook and Bradway Dam; along  
Ellis Brook between Edson Brook and Ellis Dam; along Crystal  
Lake Brook between Edson Brook and Pomeroy Brook; and along  
Pomeroy Brook between Crystal Lake Brook and Pomeroy Dams  
in the town of Stafford

Town: Stafford, Ellington, Willington  
River: Middle and Willimantic; Edson Brook

Established: October 21, 1968

Extent: along the Willimantic River, Middle River and Edson  
Brook in the Towns of Stafford, Ellington and Willington

Town: Stamford, Darien  
River: Noroton - Part I

Established: April 12, 1960

Extent: between Holly Pond and a point 600 feet upstream from the  
Connecticut Turnpike; and between Lenox Avenue and a point  
200 feet upstream from Glenbrook (Middlesex) Road; and  
between a point 200 feet upstream from Poplar Street,  
Stamford and Camp Avenue in the Town of Darien and City of  
Stamford

Town: Stamford, Darien  
River: Noroton - Part II

Established: January 3, 1963

Extent: along the Noroton River, Glenbrook Road to Lake Drive and  
Brookside Drive to Lenox Avenue in the City of Stamford  
and Town of Darien

Town: Stamford  
River: Rippowam

Established: October 8, 1962

Extent: between Pulaski Street and the dam at Stillwater Pond in  
the City of Stamford



Town: Suffield  
River: Connecticut                      Established: October 8, 1962

Extent: between Windsor Locks-Suffield town line and the  
Connecticut-Massachusetts state line

Town: Thomaston, Watertown              Established: February 11, 1971  
River: Branch Brook, Northfield Brook, Naugatuck River

Extent: along the Branch Brook and Northfield Brook between  
the flood control dams and the Naugatuck River in  
Thomaston and Watertown, Connecticut

Town: Thomaston, Watertown  
River: Naugatuck                      Established: October 2, 1961

Extent: between the Waterbury-Thomaston town line and the  
Thomaston Dam in the Towns of Thomaston and Watertown

Town: Thompson  
River: French                      Established: March 7, 1960

Extent: between Sunset Hill Brook and Cluett Peabody Dam in the  
Town of Thompson

Town: Tolland, Willington, Ellington  
River: Willimantic                      Established: March 29, 1972

Extent: in Tolland, Willington and Ellington from the Mansfield  
and Coventry town line to the dam site in Ellington  
and Willington

Town: Torrington, Harwinton  
River: Naugatuck - I (Main Stem)              Established: March 8, 1957

Extent: between the Torrington Sewage Treatment Plant and East  
Albert Street

Town: Torrington                      Established: January 5, 1959  
River: Naugatuck - II (City Center to confluence E. Br. & W. Br.)

Extent: along the West Branch of the Naugatuck River between East  
Albert Street and a point 2500 feet upstream from the  
Wolcott Avenue Bridge; and  
along the East Branch of the Naugatuck River between its  
confluence with the West Branch at East Albert Street and  
the Hartford Electric Light Co. Dam 800 feet upstream from  
the Wall Street Bridge; and  
modifying channel lines already established by Order of the  
Flood Control & Water Policy Comm., dated 3/8/57 between East  
Albert St. bridge & a pt. 200' d/s in the City of Torrington.

Town: Torrington  
River: Naugatuck - III (West Branch)      Established: July 21, 1969

Extent: along West Branch Naugatuck River from a point 2400 feet downstream of the Migeon Avenue bridge to the Stillwater Pond Dam and from the upper end of Stillwater Pond to a point 400 feet south of the Hall Meadow Pond Dam in the Town of Torrington

Town: Torrington, Litchfield, Harwinton      Established: March 6, 1970  
River: Naugatuck - IV (East Branch & Main Stem, South of I)

Extent: along East Branch Naugatuck River in Torrington from the confluence of the East Branch and Troy Brook upstream to the East Branch Flood Control Dam and along the Naugatuck River in Torrington, Litchfield and Harwinton between the Torrington Sewage Treatment Plant to a point about 8500' downstream of the Plant.

Town: Vernon  
River: Hockanum (South)

SEE MANCHESTER

Town: Vernon (Rockville)  
River: Hockanum      Established: October 3, 1960

Extent: between a point 170 feet downstream from Connecticut Route 83 and a point 100 feet upstream from East Main Street in the City of Rockville and the Town of Vernon

Town: Wallingford  
River: Quinnipiac      Established: September 22, 1967

Extent: between the Meriden-Wallingford town line and the Wallingford-North Haven town line in Wallingford

Town: Washington  
River: Shepaug      Established: February 9, 1961

Extent: between a point 0.5 miles downstream from the school at Washington Depot and the Route 47 bridge adjoining Blackville Road in the Town of Washington

Town: Waterbury  
River: Hancock Brook, Naugatuck River      Established: March 1, 1971

Extent: along Hancock Brook in Waterbury and Plymouth between the mouth and the flood control dam;

revising the location of lines along the Naugatuck River in Waterbury between West Main Street and the railroad bridge near Steele Brook

Town: Waterbury  
River: Naugatuck (South)      Established: December 9, 1957

Extent: between the Naugatuck-Waterbury town line and a point about 400 feet upstream from West Main Street Bridge in the City of Waterbury

Town: Waterbury (North), Watertown  
River: Naugatuck      Established: March 7, 1960

Extent: between West Main Street in Waterbury and the Waterbury-Thomaston town line in the City of Waterbury and the Town of Watertown

Town: Waterbury, Watertown  
River: Steele Brook      Established: August 29, 1968

Extent: along Steele Brook between its confluence with the Naugatuck-River and the Route 6 bridge in the City of Waterbury and the Town of Watertown

Town: Watertown  
River: Naugatuck River

SEE WATERBURY AND THOMASTON

Town: Watertown  
River: Steele Brook

SEE WATERBURY

Town: West Hartford      Established: March 10, 1969  
River: South Branch Park River - Part I: Trout Brook, Rockledge Brook

Extent: along Trout Brook from South Quaker Lane upstream to Park Road and from 102 Montclair Drive upstream to property of American School for the Deaf and along Rockledge Brook from Beechwood Road upstream to a point 1800 feet upstream from Huckleberry Lane in West Hartford

Town: West Hartford                      Established: March 26, 1969  
River: South Branch Park River - Part II: Trout Brook, Hart Meadow Brook,  
Water Supply Brook

Extent: along Trout Brook from property of the American School for  
the Deaf upstream to Burnt Hill Reservoir and along Hart  
Meadow Brook from Trout Brook upstream to Bugbee Reservoir  
and along Water Supply Brook from Trout Brook upstream to  
a point 600 feet upstream from Sunset Farms Road in the  
Town of West Hartford

Town: Weston  
River: Norwalk

SEE WILTON NORTH

Town: Wethersfield  
River: Connecticut                      Established: June 5, 1961

Extent: between the Hartford and Rocky Hill town lines in the Town  
of Wethersfield

Town: Willington  
River: Willimantic (North)

SEE STAFFORD

Town: Willington  
River: Willimantic (South)

SEE TOLLAND

Town: Wilton (North)  
River: Norwalk, Comstock Brook                      Established: February 27, 1969

Extent: along the Norwalk River from Wilton center to Redding  
town line and along Comstock Brook from its confluence  
with Norwalk River to the proposed Comstock Flood Control  
Reservoir in the Towns of Wilton and Weston

Town: Wilton (South)  
River: Norwalk                              Established: October 18, 1965

Extent: between Kent Road and Route 33 bridges

Town: Windham  
River: Willimantic River

SEE COVENTRY

Town: Windham  
River: Shetucket

SEE COVENTRY

Town: Windsor  
River: Connecticut                      Established: September 16, 1963

Extent: between the Hartford-Windsor Town line and the Windsor-Windsor Locks town line

Town: Windsor Locks  
River: Connecticut                      Established: October 2, 1961

Extent: between the Suffield-Windsor Locks town line and the Windsor Locks-Windsor town line in the Town of Windsor Locks

Town: Winchester  
River: Highland Lake Stream              Established: June 26, 1968

Extent: along the Highland Lake Stream from Highland Lake Dam to the Mad River

Town: Winchester  
River: Still and Mad                      Established: January 6, 1958

Extent: along the Still River between Wallens Street and its confluence with the Mad River and along the Mad River between its confluence with the Still River and a point about 200 feet upstream from the Hudson Wire Co. Plant in the City of Winsted, Town of Winchester