FINAL INSTRUMENT

for the

AUDUBON CONNECTICUT IN-LIEU FEE PROGRAM

Sponsored by

NATIONAL AUDUBON SOCIETY, INC.

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Introduction and Need

Pursuant to authority granted by the Clean Water Act ("CWA") Section 404 and the Rivers and Harbors Act Section 10, the conduct of regulated activities within waters of the United States requires a permit or permits from the United States Army Corps of Engineers ("Corps"). The Corps requires that aquatic resource functions and services lost due to the effects of any regulated activity be replaced through compensatory mitigation, after addressing avoidance and minimization of impacts. This In Lieu Fee Program Instrument ("Instrument") establishes the circumstances and manner in which National Audubon Society, Inc., a charitable organization exempt from taxation under Section 501(c)(3) of the United States Internal Revenue Code, through its Connecticut program, Audubon Connecticut ("NAS" or "Audubon CT"), will sponsor an In-Lieu Fee ("ILF") program in the State of Connecticut (the "Audubon CT ILF" program). The Audubon CT ILF program will provide a compensatory mitigation option for permit applicants (each, a "Permittee") under permit programs administered by the Corps.

Most permittee-responsible compensatory wetland and/or stream mitigation projects are small and the environmental benefits of such are often limited in scope and scale. Studies have shown that many mitigation sites in southern New England have a high failure rate primarily because they fail to meet performance standards (Minkin and Ladd, 2003). Also, mitigation plans often have significant information gaps regarding compensation goals, planning considerations, design features and monitoring data. (Wilkinson and Thomas, 2005; Minkin and Ladd, 2003; Kusler and Kentula, 1990.) Mitigation failure rates can often be addressed by developing a mitigation program that incorporates landscape and watershed planning, well-defined project goals and success criteria, baseline data, proven site selection criteria and restoration techniques, effective monitoring and management plans, and oversight by individuals with wetland and/or stream expertise.

Federal regulations recognize that ILF programs may be an environmentally preferable option over permittee-responsible (i.e., permittee-conducted) mitigation based on several factors. ILF projects target larger, more ecologically valuable parcels that are prioritized within a landscape or watershed. ILF programs consistently include thorough scientific analysis, planning, implementation and monitoring for each project. The structure of an ILF program facilitates up-front site selection and mitigation plan development, and provides greater scientific expertise and financial assurances that translate to a reduction in loss of aquatic resource function and reduction in project success uncertainty (33 CFR Part 332, hereinafter the "Mitigation Rule").

Audubon CT will work with the Corps, through its District Engineer for the Corps' New England District ("District Engineer"), as appropriate to assure that

the Corps' requirements for aquatic resource compensation are met. The Corps will coordinate with an Interagency Review Team ("IRT") on the establishment and management of the Audubon CT ILF program. The IRT will also take part in the final review and selection of compensatory projects. The IRT will be comprised of representatives invited by the Corps from other federal, state, tribal and municipal resource agencies which may include, without limitation, the U.S. Environmental Protection Agency, U.S. Fish and Wildlife Service, National Marine Fisheries Service, and Connecticut Department of Energy and Environmental Protection ("CT DEEP"). The Corps may invite additional agencies to serve on the IRT for individual mitigation projects.

1.0 Establishment and Operations

This Instrument describes the program structure and operating procedures by which Audubon CT ILF projects in Connecticut will be proposed, implemented and maintained. This Instrument is a living document that will be reviewed on an annual basis and updated as necessary through amendments to comply with the most current ILF guidance, rules and regulations.

An applicant for a Corps permit may elect to pay a compensation fee into the Audubon CT ILF program in place of other forms of compensatory mitigation for the applicant's proposed project (a "Development Project"). In order to receive mitigation credit from the Corps for paying a compensation fee, the applicant must receive the approval of the Corps and comply with all applicable laws, regulations and policies concerning avoidance, minimization, and compensation of adverse project impacts to protected natural resources. The applicant may also elect to conduct other appropriate and practicable mitigation if it complies with all Corps laws, rules, regulations and policies.

The Corps shall, at its sole discretion but in coordination with applicable permit review resource agencies, determine whether payment of an ILF is appropriate for Development Project impacts to affected natural resources.

If the Corps determines that payment of an ILF constitutes appropriate compensatory mitigation, in whole or in part, for the adverse impacts of a Development Project, the Corps shall determine the amount of fee to be paid, and require that it be paid to the Audubon CT ILF program prior to the start of construction of the Development Project. All compensatory fees shall be made payable to "National Audubon Society, Inc." NAS shall deposit all ILF contributions it collects pursuant to the Audubon CT ILF program into the ILF Program Account (see Section 4.3 below), less the allowable administrative fee described in Section 4.3.1 below. NAS shall play no role in any Corps regulatory

decision determining the nature and extent of any required compensatory mitigation or determining the appropriateness of any specific ILF payment. Audubon CT shall use the ILF Program Account to fund mitigation projects based on a competitive award or grant approach. This approach is more fully described in Section 6.0 below.

2.0 Goals and Objectives

The goals and objectives of the Audubon CT ILF program are as follows:

a) Provide an alternative to permittee-responsible compensatory mitigation that will effectively replace functions and values of aquatic resources lost through permitted impacts;

b) Substantially increase the extent and quality of restoration, enhancement, creation and preservation of natural resources over that which is typically achieved by permittee-responsible mitigation for activities that impact on wetlands, significant wildlife habitats and other waters of the State of Connecticut, which include waters of the United States;

c) Reduce the extent of cumulative adverse impacts to aquatic resources that are protected by the regulatory framework of the Clean Water Act;

d) Provide applicants of permits from the Corps greater flexibility in compensating for adverse impacts to protected natural resources; and

e) Achieve ecological success on a watershed basis by directing Audubon CT ILF funds to natural resource types and functions that are appropriate to the geographic service area, and by integrating Audubon CT ILF projects with other conservation activities whenever possible.

Additional information about these goals and objective can be found in Section 5 of Appendix A.

3.0 ILF Program Service Areas

The major river drainage basins within the territorial limits of the State of Connecticut and as defined by the CT DEEP (1982) will form the boundaries of the service areas for the Audubon CT ILF program. See Figure A1 and Appendix A, Section 1.

4.0 Accounting Procedures

Audubon CT shall establish and maintain a system for tracking the production of credits, credit transactions, and financial transactions between Audubon CT and Permittees, each of which is described below in this Section 4.0. In all cases, credit production, credit transactions, and final transactions will be tracked on a programmatic basis (i.e., the number of available credits for the entire program by service area) and separately for each individual project.

4.1 Method for Determining Project-Specific Credits and Fees and Initial Fee Schedule

4.1.1 Method for Determining Project-Specific Credits

Credits are generated when mitigation projects are accomplished by the Audubon CT ILF program through restoration, enhancement, creation and/or preservation. The *New England District Mitigation Guidance* document, effective January 1, 2011, or any such successor guidance (the "Corps' Credit Determination Guidance") is used as a guide for determining credits. The Corps' Mitigation Guidance currently recommends a ratio of acres to be mitigated to acres impacted (depending on the compensatory mitigation strategy implemented), as described further in Table 1 below. This table is also used to determine credits generated by third party sponsors of ILF programs and mitigation banks.

For example, an Audubon CT ILF project removes fill from 2 acres of emergent marsh, restoring it to pre-fill conditions, and preserves an additional 30 acres of a forested wetland/upland complex. Pursuant to Table 1 below, the restoration project would provide 1 emergent wetland credit (using the 2:1 ratio for restoration of emergent wetlands) and the preservation project would provide 2 forested wetland credits (using the 15:1 ratio for preservation).

Table 1 – Guidelines for Compensation Mitigation Ratios for Direct Permanent Impacts *(Source: Corps' Mitigation Guidance, 2010)*

Resource	Restoration (acres re-established : acres impacted)	Creation (acres established : acres impacted)	Enhancement (acres rehabilitated : acres impacted)	Preservation (acres protected and managed : acres impacted)
Emergent wetlands	2:1	2:1 to 3:1	3:1 to 10:1	15:1
Scrub-shrub Wetlands	2:1	2:1 to 3:1	3:1 to 10:1	15:1
Forested Wetlands	2:1 to 3:1	3:1 to 4:1	5:1 to 10:1	15:1
Open Water	1:1	1:1	Project specific	Project specific

Resource	Restoration (acres re-established : acres impacted)	Creation (acres established : acres impacted)	Enhancement (acres rehabilitated : acres impacted)	Preservation (acres protected and managed : acres impacted)
Submerged Aquatic Veg.	5:1	Project specific	Project specific	N/A
Streams (l. F.)	2:1	N/A	3:1 to 5:1	10:1 to 15:1
Mudflats	2:1 to 3:1	2:1 to 3:1	Project specific	Project specific
Uplands	10:1	N/A	Project specific	15:1

4.1.2 Method for Determining Fees for Credits and Initial Fee Schedule

The fees for each credit sold by the Audubon CT ILF program will be determined at least annually by Audubon CT based on an analysis of costs (using a full cost accounting basis). The initial fee schedule showing credit costs and fees for each service area is described in Appendix C. The initial analysis of credit costs includes (and future analyses of credit costs shall include but not be limited to), a consideration of the following costs for each service area within the boundaries of the Audubon CT ILF program: land acquisition; project planning and design; construction; plant materials; labor; legal fees; remediation or adaptive management activities; program administration; contingency costs appropriate to the stage of the project planning, including uncertainties in construction and real estate expenses; the resources necessary for long-term management and protection of the mitigation project; and financial assurances (including contingency costs) that are expected to be necessary to ensure successful long-term management and protection of the mitigation projects.

4.2 Advance Credits

4.2.1 Generation of Advance Credits

Upon approval of this Instrument, Audubon CT shall be permitted to sell advance credits for each service area in the amount described in Table 2. Advance credits function much like a loan, and must be replenished with released credits, as described in Section 4.2.2 below. The number of advance credits available for each service area is based on the impacts permitted within each service area over the past three year period, using acres or linear feet as a surrogate for credits and rounding up to a whole number for wetlands and linear feet for streams and rivers. (A list of those impacts by service area is available upon request.) For service areas where little impact has occurred over the past three years, a minimum of ten (10) advance wetland credits and 5,000 advance stream credits per service area will be available to ensure sufficient funding to initiate projects in those service

areas. Note that stream impacts tend to be small so all service areas will have the minimum of 5,000 advance stream credits.

Table 2 – Recommended Advance Credits by Service Area *(source of impact records: Corps*)

Service Area	Advance Wetland Credits	Advance Stream Credits
Southwest Coast	10	5,000
Housatonic/Hudson	10	5,000
South Central Coast	19	5,000
Connecticut River	17	5,000
Thames River	53	5,000
Southeast Coast/Pawcatuck	18	5,000
TOTAL	127	30,000

If, by the end of the third year after the first advance credit is purchased by a permittee, the Corps determines that Audubon CT is failing to provide compensatory mitigation, or if a service area does not have a suitable site that can be implemented with the accrued funds, the District Engineer may extend this time frame or may direct the funds to alternative service areas or alternative compensatory mitigation projects. Additional information regarding failure to fulfill the terms of the Instrument is discussed in Section 11 below.

4.2.2 Replenishing Advance Credits with Released Credits

The Mitigation Plan (as defined and subject to the approvals described in Section 6.2 below) for each Audubon CT ILF project will describe a schedule for certain milestones (i.e., implemention of restoration, creation, enhancement, and/or preservation). As such milestones are met, credits are earned (i.e., generated) and are "released" to replenish the inventory of advance credits that have already been sold within a project service area. At a minimum, credits will not be released until Audubon CT has obtained the Corps' approval of the Mitigation Plan for the site, achieved the applicable milestones in the credit release schedule as described in such Mitigation Plan, and the credit releases have been approved by the District Engineer.

Once Audubon CT has sold all of its advance credits in any service area, no more advance credits may be sold in that service area until credits have been generated and released. Once released credits have replaced any previously sold advance credits, an equal number of advance credits may be made available for sale again at the discretion of the District Engineer, in consultation with the IRT. In the event released credits eventually exceed the number of expended advance credits, such released credits become regular credits, available to be sold to compensate for Development Projects but not required to be replenished.

4.3 ILF Program Account

Upon Corps approval of the ILF Instrument and before any fees are accepted, Audubon CT will establish an ILF program account ("Program Account"). This Section describes Audubon CT's operation of the Program Account, which will track credit production, credit transactions and final transactions. See Section 7.3 below for the Program Account reporting requirements.

The Program Account will be an interest-bearing account held at a financial institution that is a member of the Federal Deposit Insurance Corporation, and maintained separately from the National Audubon and Audubon CT general operating budget. Any interest accruing in the Program Account will be used to provide compensatory mitigation for impacts to aquatic resources. The Program Account will track funds by service area. Any funds received from other entities and for other purposes (i.e., donations, grants) will be kept in a separate account. The terms and conditions of this Instrument shall apply only to the Program Account, and not to any such separate account.

The Corps has the authority to audit the Program Account records at any time, during Audubon CT regular business hours and upon reasonable prior written notice.

4.3.1 Direct and Administrative Costs

Funds paid into the Program Account will only be used for the direct replacement and management of aquatic resources by the Audubon CT ILF program (i.e, selection, design, acquisition, implementation, monitoring and management of Audubon CT ILF projects, hereinafter "Direct Costs") and payment of Audubon CT's Administrative Costs (described below in this Section 4.3.1). Direct Costs may include, without limitation, the preparation and implementation of Mitigation Plans, securing permits for conducting mitigation activities; activities related to the restoration, enhancement, creation, and/or preservation of aquatic resources and their buffers, maintenance and monitoring of mitigation sites, including, but not limited to, the fulfillment of any reporting obligations; the purchase of credits from mitigation banks (only as a last resort); direct acquisition activities, such as appraisals, surveys, title insurance, and legal fees; and salaries of staff directly involved in the replacement of aquatic resources by the Audubon CT ILF program, including benefits and overhead, as well as consultant costs and expenses, directly related to all such activities. In no event will Direct Costs include costs for education, research and outreach, or for implementation of best management practices for wetlands.

Twenty percent (20%) of the fees paid into the Program Account will be allocated to Audubon CT for administrative costs (i.e., not directly related to the replacement and management of aquatic resources by the Audubon CT ILF program, hereinafter "Administrative Costs"). Three years from the effective date

of this Instrument, Audubon CT and the Corps together may review this agreed-upon percentage in light of the costs for Audubon CT. Administrative Costs may include, without limitation, bank charges associated with the establishment and operation of the ILF program; day-to-day management expenses of the Audubon CT ILF program such as bookkeeping, mailings, printing, office supplies and computer hardware and software; costs related to the solicitation of Letters of Intent (as defined in Section 6.2 below); and salaries of staff involved in administrative activities of the Audubon CT ILF program, including benefits and overhead, as well as consultant costs and expenses for administrative activities.

4.3.2 Financial and Credit Accounting

Audubon CT shall establish and maintain an annual report ledger that tracks the production of released credits for each individual Audubon CT ILF project.

With respect to income, Audubon CT shall track all fees and other income received, the source of the income (e.g., permitted impact, donation, grant, penalty fee, etc.) and any interest earned by the Program Account. The ledgers shall also include a list of all permits secured by paying a compensation fee to the Audubon CT ILF, including the appropriate permit number, the service area and town in which the specific authorized impacts are located, the amount (acreage or linear feet) of authorized impacts, the aquatic resource type impacted by Cowardin class or stream classification, if applicable, the amount of compensatory mitigation required, the amount paid to the Audubon CT ILF for each authorized impact, and the date the Audubon CT ILF received the funds from the permittee.

Regarding expenses, Audubon CT shall establish and maintain a report ledger for the Audubon CT ILF program to track all program expenditures and the nature of the expenditure (i.e., costs of land acquisition, planning, construction, monitoring, maintenance, contingencies, adaptive management, administration, and administrative fee expenditures). The Audubon CT ILF program will also track funds obligated or committed, but not yet disbursed.

The ledger shall also include, for each Audubon CT ILF project, the permit number(s) for which the Audubon CT ILF project is being used to offset the Corps' compensatory mitigation requirement, the service area in which the project is located, the amount of compensation being provided by method (i.e., restoration, establishment, enhancement or preservation), the aquatic resource type(s) represented by Cowardin class, the amount of compensatory mitigation being provided (acres and/or linear feet).

The ledger shall also include a balance of advance credits and released credits for each service area.

5.0 Legal Responsibility for Compensatory Mitigation

Audubon CT shall assume all responsibility for satisfying the mitigation requirements of the Corps permit for which fees have been accepted (i.e., the implementation, performance, and long-term management of the compensatory mitigation project(s) approved pursuant to this Instrument and subsequent mitigation plans). The transfer of responsibility is established by: 1) the approval of this Instrument by both the Corps and Audubon CT (effective on the last signature date); 2) receipt by the District Engineer of a Credit Transaction Notice (as defined in Section 7.2) ; and 3) the transfer of fees from the Permittee to Audubon CT. Audubon CT may use grantees, subcontractors and agents in the performance of its obligations as described herein, provided Audubon CT shall nevertheless remain responsible for all such obligations. See Section 6 below for a description of the project selection process and Appendix A for description of the compensatory planning framework.

6.0 Project Selection

6.1 Project Advisory Committee

Audubon CT shall establish and maintain a Project Advisory Committee (the "PAC") for the purpose of evaluating and recommending specific preservation, restoration, enhancement and creation projects to the Audubon CT ILF program. The PAC shall have at least six and no more than nine members. Membership on the PAC shall be divided into two classes: Permanent Members and Rotating Members (together, the "PAC Members"). Six seats on the PAC shall be allocated to the following Permanent Members:

1. a member of the Board of Audubon CT (to be appointed by the Chair of the Audubon CT Board);
2. the Audubon CT Director of Bird Conservation (or his/her designee as may be appointed by the Audubon CT Executive Director); and
3. one representative each from the following governmental agencies (which representative shall be appointed by the respective agency):

    a. Connecticut Department of Energy and Environmental Protection;
    b. United States Army Corps of Engineers;
    c. United States Fish and Wildlife Service; and
    d. United States Environmental Protection Agency.

Three seats on the PAC shall be allocated to Rotating Members, who shall be non-governmental conservation organizations or institutions of higher education located in Connecticut, including, without limitation:

1. Connecticut Association of Wetland Scientists;
2. Connecticut Audubon Society;
3. The Nature Conservancy;
4. Trout Unlimited;
5. University of Connecticut.

Rotating Members shall be appointed by the Audubon CT Executive Director and shall each serve staggered three-year terms.

The PAC Chair shall be the Audubon CT Board representative. The PAC may elect one or more Vice-Chairs. The administrative needs and functions of the PAC may be served by a consultant hired by Audubon CT for such purposes.

The PAC shall meet no less than once a year, as determined by the PAC Chair, to review proposals and to formulate recommendations on them. Notice of any PAC meeting shall be given at least ten (10) days in advance, in person, by telephone, mail, or email sent to each PAC Member. The PAC Members in attendance at any PAC meeting shall be a quorum. A majority vote of the PAC members in attendance at a meeting shall constitute an act of the PAC. The PAC shall adopt its own bylaws, to be approved by a majority of PAC Members. The PAC shall determine its own order of business and shall provide for keeping a record of its proceedings. The record of the PAC meetings shall be a public record maintained at the offices of Audubon CT and available for reasonable inspection during regular business hours at the request of the Corps.

6.2 Project Selection Process

Audubon CT shall lead the process of soliciting letters of intent (each, a "Letter of Intent," attached as Appendix B) for projects to be considered for funding by the Audubon CT ILF program. All Letters of Intent shall come through Audubon CT for consideration by Audubon CT and the Corps. If a Letter of Intent is received by any other party, it shall be forwarded to Aububon CT. Audubon CT will ensure each Letter of Intent is satisfactorily complete (see Appendix B) and satisfies the goals and objectives of the Audubon CT ILF program (see Section 5 of Appendix A) before submitting such Letter of Intent to the Corps for its approval. When submitting Letters of Intent to the Corps, Audubon CT will include a summary and map for each such Letter of Intent. Projects determined to meet the goals and objectives of the program will be invited by Audubon CT to submit a full project proposal ("Mitigation Plan").

Mitigation Plans will contain at a minimum the information required by Section 332.8(j)(1) of the Mitigation Rule and a description of how the project meets the evaluation criteria for Mitigation Plans (see Section 6 of Appendix A). Audubon CT will distribute Mitigation Plans to the PAC for its review (according to procedures that the PAC shall determine), and recommendations on prioritization (using the criteria described in Section 6 of Appendix A) and funding allocations. The PAC will deliver its recommendations to Audubon CT for Audubon CT's approval.

Projects acceptable to Audubon CT will be forwarded to the Corps. The Corps will coordinate project review with the IRT. Final approval of Mitigation Plans by the Corps will be documented in a letter from the Corps to Audubon CT. Notwithstanding final approval of any project described in a Mitigation Plan, Audubon CT's commitment to fund any such project shall be subject to the applicant's satisfactory completion of the funding conditions described in a funding agreement between the applicant and Audubon CT, including, without limitation, real property due diligence and legal documents.

After receipt of the Corps final approval letter for a Mitigation Plan, Audubon CT will send all project applicants a letter notifying them of their project's approval or rejection. If the latter, a brief explanation will be included.

Any agency or entity represented on the PAC that requests funding from the Audubon CT ILF for undertaking its project shall recuse itself from the PAC's deliberation on, ranking of, and voting on the project, but may appear before the PAC to explain and describe the project or answer the questions of the PAC and/or Audubon CT. A PAC member must disclose any potential conflict of interest in a proposed project or any adjacent properties affected by a proposed project. If a conflict of interest is found to exist, the interested PAC member will refrain from voting on the proposed project.

7.0 Reporting Protocols

Audubon CT shall report to the Corps and IRT the following information:

- project monitoring reports as described in Section 7.1 below, on a schedule and for a period as defined by the project-specific Mitigation Plan;
- credit transaction notifications as described in Section 7.2 below;
- annual report of the Program Account summarizing financial and credit activity as described in Section 7.3 below;

- financial assurances and long term funding report as described in Section 7.4 below; and
- the five-year status and trends report described in Section 10 of Appendix A.

7.1 Monitoring Reports

Monitoring reports shall be submitted for all Audubon CT ILF projects, and each report shall describe compliance with project-specific performance standards. Monitoring reports shall follow the Corps' guidance described in *New England District Mitigation Guidance (2010)*, or any such Corps successor guidance. The contents of these reports and dates of submission shall be more fully described in the Mitigation Plans that will be submitted for each Audubon CT ILF project.

Monitoring reports shall be submitted to the District Engineer in paper or electronic format. The details of the report shall be project-specific and identify specific parameters for monitoring, including a project overview, specific permit requirements, a summary of mitigation goals, the standards of success to achieve mitigation goals and/or measures needed to attain those standards, an assessment of how well the site is meeting these performance standards, before and after photographs, and any charts or figures which can facilitate displaying this information. The reports shall also describe needed remedial actions, visual estimates of plant cover, presence of invasive species, wildlife using the area and comment on plant health and vigor. The District Engineer shall make the reports available to the IRT.

The length of the monitoring period shall be specified in the Mitigation Plan for each Audubon CT ILF mitigation project.

7.2 Credit Transaction Notice

Each time Audubon CT accepts a fee from a permittee in exchange for advance or released credits, Audubon CT shall notify the District Engineer of the credit transaction within fifteen (15) days of receipt (the "Credit Transaction Notice"). The Credit Transaction Notice shall substantially be in the form of Appendix D, and shall (i) report the permit number and indicate the number and resource type of credits that have been secured by the Permittee from Audubon CT, and (ii) inform the District Engineer that Audubon CT has legally accepted the responsibility for providing the required compensatory mitigation.

7.3 Annual Report of Program Account

Audubon CT will submit to the District Engineer and IRT by December 31 of each year an annual report of the Program Account (the "Program Account Annual Report") that describes the Audubon CT ILF Program transactions occurring in each preceding NAS fiscal year period (July 1 to June 30.) The

Program Account Annual Report will be made publicly available as part of the Corps annual report. Such Program Account Annual Report shall include the following information:

Ledger for Financial Program Accounting:

- All income received and interest earned by the Program Account for the Audubon CT ILF as a whole and by service area;
- A list of all Permittee permits (by service area) secured by paying a mitigation fee to the Audubon CT ILF, describing:

  - The Corps permit number (and/or state permit number);
  - The service area for which the authorized impacts are located;
  - The amount of authorized impacts;
  - The amount of required compensatory mitigation;
  - The amount paid to the Audubon CT ILF;
  - The date funds were received from the Permittee;
- A description of the Audubon CT ILF expenditures from the Program Account (i.e., the cost of land acquisition, planning, construction, monitoring, maintenance, contingencies, adaptive management, and administration) for the Audubon CT ILF as a whole and by service area.

Ledger for Credit Accounting:

- The balance of advance credits and released credits at the end of the report period for the Audubon CT ILF program as a whole and by service area;
- The permitted impacts for each resource type;
- All additions and subtractions of credits; and
- Other changes in credit availability (e.g., additional credits released, credit sales suspended, etc.)

7.4 Financial Assurances and Long Term Funding Report

Audubon CT shall submit an annual report on the financial assurances and long-term management funding (the "FA/LTMF Annual Report") to the District Engineer and the IRT. Said report shall be delivered to the District Engineer on or before December 31 of each year and shall provide information for the preceding NAS fiscal year period (July 1 through June 30). The FA/LTMF Annual Report may include a summary of any changes to the financial assurances during the reporting year, provided any such summary shall not alter the obligation to provide the required thirty (30) days notice prior to the termination or revocation of any financial assurance.

The FA/LTMF Annual Report shall include:

- beginning and ending balances of the individual project accounts providing funds for the financial assurances and long-term management;
- deposits into and any withdrawals from the individual project accounts providing funds for financial assurance and long-term management; and
- information on the amount of required financial assurance and the status of those assurances, including their potential expiration for each individual project.

Audubon CT shall give the Corps a copy of each financial assurance instrument it obtains and shall give the Corps and IRT thirty (30) days advance written notice if any required financial assurances will be terminated or revoked. In addition, in the event any financial assurance requires the participation of a bonding company or financial institution, Audubon CT will make a good faith effort to include in the instrument for such financial assurance an obligation that the bonding company or financial institution provide the Corps with at least thirty (30) days notice prior to the termination or revocation of such financial assurance. Financial assurance instruments must designate the Corps as the obligee.

8.0 Compensation Planning Framework

The Compensation Planning Framework ("CPF") shall guide the selection and implementation of specific Audubon CT ILF aquatic resource restoration (re-establishment), enhancement (rehabilitation), creation (establishment), and/or preservation projects. The framework is a watershed-based plan to support aquatic resource restoration with ten critical elements. The CPF is discussed in detail in Appendix A and includes the following elements:

Element 1: The geologic service area(s), including watershed-based rationale for delineation of each service area;

Element 2: A description of the threats to aquatic resources in the service area(s), including how the Audubon CT ILF program will help offset impacts resulting from those threats;

Element 3: An analysis of current aquatic resource loss in the service area(s);

Element 4: An analysis of current aquatic resource conditions in the service area(s), supported by field documentation;

Element 5: A statement of aquatic resource goals and objectives for each service area, including a description of the general amounts, types and locations of aquatic resources the program will seek to provide;

Element 6: A prioritization strategy for selecting and implementing compensatory mitigation activities;

Element 7: An example of how any preservation objectives identified above satisfy the criteria for use of preservation;

Element 8: A description of any public and private stakeholder involvement in the plan development and implementation, including coordination with federal, state, tribal, and local aquatic resource management and regulatory authorities;

Element 9: A description of the long term protection and management strategies for activities conducted by Audubon CT;

Element 10: A strategy for periodic evaluation and reporting on Audubon CT's progress in achieving the goals and objectives of the Audubon CT ILF program, including a process for revising the CPF as necessary; and

Element 11: A protocol for monitoring completed projects to achieve project success criteria.

The CPF provides a mechanism by which the District Engineer may request additional information to ensure effective compensation planning.

9.0 Transfer of Long-term Management Responsibilities

Upon approval by the District Engineer, Audubon CT may transfer long-term management responsibility for any Audubon CT ILF project to a conservation land stewardship entity such as a public agency, municipality, or non-governmental organization (including, but not limited to, a land trust, watershed association or other such conservation organization). Such transfers will include conservation easements or deed restrictions and/or other provisions to outline restrictions in perpetuity. This will be further described in the Mitigation Plan for each project. Transfer of long-term stewardship responsibility shall not occur until after performance standards specified in a project-specific Mitigation Plan have been achieved. Once long-term management has been transferred to a land stewardship entity, such party shall be responsible for meeting any and all long-term management responsibilities outlined in the project Mitigation Plan, and Audubon CT shall have no further obligation or liability with respect to the project. Until such time as long-term management responsibility is transferred to another party, Audubon CT shall be responsible for the long-term management of the mitigation project. Deeds and easements for property restored, enhanced, created or preserved (as the case may be) by the Audubon CT ILF program shall provide that, if the property is subject to any future government condemnation or other taking, the compensation received as a result of such condemnation or other

taking must be used for alternative mitigation to accomplish the property's conservation goals.

10.0 Financial Arrangements for Long Term Management

If Audubon CT chooses to transfer the responsibility of long-term management to a long-term steward, Audubon CT must first obtain approval from the Corps. The Corps shall have the option of being a signatory to any contract or other arrangement assigning the rights and delegating the responsibilities to the long-term steward.

If long-term stewardship responsibilities are transferred to another land steward entity, then Audubon CT shall also transfer the long-term management funds or otherwise arrange for disbursements of such funds to the land steward entity.

11.0 Default and Closure Provisions

11.1 Default

Should the Corps determine that Audubon CT is in material default of any provision of this Instrument or an approved Mitigation Plan, the Corps shall provide Audubon CT with written notice of such material default. If Audubon CT fails to remedy such default within ninety (90) days after receipt of such notice (or if such default cannot reasonably be cured within such ninety (90) day period, upon Audubon CT's failure to commence and diligently pursue remediation of such default), the Corps may, upon written notice to Audubon CT, declare Audubon CT in breach and take appropriate action, including but not limited to, suspending credit sales, adaptive management, decreasing available credits, directing of funds to alternative locations, taking enforcement actions, calling bonds or any other financial assurance(s) in place, or terminating this Instrument as provided in Section 11.2 below.

11.2 Termination (Closure)

The Corps or Audubon CT may terminate this Instrument by giving ninety (90) days written notice to the other party. Prior to termination, Audubon CT shall deliver to the Corps an accounting of funds held in the Audubon CT ILF Program Account (defined in Section 4.3) which shall provide for ongoing expenses of approved projects. Upon termination, after payment of all outstanding obligations, any remaining amounts in the Program Account shall be paid to

entities as specified by the Corps. In the event of termination of the Instrument: (i) Audubon CT shall cancel as many outstanding obligations as possible, but Audubon CT shall be entitled to payment for all non-cancelable costs incurred through the date of termination, and (ii) Audubon CT shall be responsible for fulfilling any remaining mitigation obligations, unless the obligation is specifically transferred to another entity as agreed upon by the Corps and Audubon CT.

11.3 Force Majeure

Audubon CT will not be liable, and nothing herein shall constitute a default or breach, for any delay, damage or failure to comply with the terms of this Instrument or any project-specific Mitigation Plan attributed to circumstance beyond Audubon CT's reasonable control which materially adversely affects its ability to perform, including, but not limited to, natural catastrophes such as earthquake, fire, flood, storm, drought, disease or infestation; war or civil disturbance; strike or labor dispute; or condemnation or other taking by a governmental body. Audubon CT will coordinate any force majeure occurrence with the Corps and IRT, as appropriate.

12.0 Miscellaneous

12.1 Amendment / IRT Participation

With the exception of Appendices B through E inclusive, this Instrument shall only be amended or modified with the written approval of all signatory parties and in compliance with the Mitigation Rule. Changes to Appendices B through E inclusive require approval by the Corps, which it will coordinate with the IRT. Any IRT signatory member may terminate their participation upon written notification to all signatory parties without invalidating this Instrument. Participation of the IRT member seeking termination will end 90 days after written notification. The Corps will coordinate any proposed amendments with the IRT.

12.2 Notice

Any notice required or permitted hereunder shall be deemed to have been given when any of the following occur: (i) when notice is delivered by hand, or (ii) three (3) days have passed following the date deposited in the United States Mail, Postage Prepaid, by Registered or Certified Mail, Return Receipt Requested, and a copy of the return receipt with date is available upon request or (iii) when notice is sent by Federal Express or similar Next Day Nationwide Delivery System, addressed as follows (or addressed in such other manner as the party being notified shall have requested by written notice to the other party):

All written correspondence between Audubon CT and the Corps, including financial and operational reports, shall be addressed to the Corps and Audubon CT at:

If to the Corps:

U.S. Army Corps of Engineers
Regulatory Division
696 Virginia Road
Concord, MA 01742-2751
Attention: Chief, Policy Analysis and Technical Support Branch

If to Audubon CT:

Audubon Connecticut
613 Riversville Road
Greenwich, CT 06831
Attention: Executive Director

With a copy to:
National Audubon Society, Inc.
225 Varick Street, 7th Floor
New York, NY 10014
Attention: Chief Financial Officer

13.0 Other Documents

Annual Report(s), monitoring reports, and similar documents may be e-mailed to the New England District Corps of Engineers ILF Program Manager who will acknowledge receipt for Audubon CT's records.

14.0 Signature Page

IN WITNESS WHEREOF, the parties hereto have executed this In-Lieu Fee Program Instrument this 21st day of August, 2013.

National Audubon Society, Inc.:

By Francis A. Grant-Suttie Date: August 21, 2013.
Francis Grant-Suttie
Vice President, Atlantic Flyway

Audubon Connecticut:

By _____ Date: AUGUST 21, 2013
Patrick Comins
Director of Bird Conservation

U.S. Army Corps of Engineers, New England District:

By _____ Date: 21 Aug 2013
Charles P. Samaris, District Engineer
United States Army Corps of Engineers

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Appendix A Compensation Planning Framework

The eleven elements of the Compensation Planning Framework (CPF) required by the Mitigation Rule (as defined in the Introduction to the Instrument) are discussed below.

1. ILF Program Service Areas [332.8(c)(2)(i)] (element 1)

The major river drainage basins as determined by CT DEEP (1982) will form the limits of the service areas for the Audubon CT ILF program, except for (See Figure A1) two small basins along the eastern Connecticut shore. The Southeast Coast Major Basin and the Pawcatuck Major Basin, are lumped together because of their small size and the impracticality of keeping them as separate service areas. The Housatonic River watershed includes portions of the Hudson River drainage basin, and a small portion of northwest Greenwich lies within the Hudson River drainage basin and is included in the Southwest Coast service area. These six (6) major river drainage basins are congruent with the CT DEEP's basin planning efforts and other conservation strategies in Connecticut including, but not limited to, Connecticut's Comprehensive Wildlife Conservation Strategy (CT DEEP 2005) and Connecticut Climate Preparedness Plan, prepared by the Governor's Steering Committee (2010).

The six major service areas in Connecticut for the Audubon CT ILF program will be:

1. Southwest Coast Major Basin
2. Housatonic Major Basin / Hudson Major Basin
3. South Central Coast Major River Basin
4. Connecticut Major Basin
5. Thames Major Basin
6. Southeast Coast Major Basin and the Connecticut portion of the Pawcatuck Major Basin.

2. Threats to Aquatic Resources in Connecticut [332.8(c)(2)(ii)] (element 2)

Threats to aquatic resources include anthropomorphic (human influenced) activities that have resulted or continue to result in impacts (stresses) to aquatic ecosystems. Stresses result in the loss, degradation or impairment of ecosystem functions and values. A description of threats to aquatic resources in Connecticut is located on the web-site of CT DEEP (http://www.ct.gov/deep/cwp/view.asp?a=2719&q=325618&deepNav_GID=1654). Those threats include habitat loss and fragmentation resulting from urbanization of the watersheds from residential and commercial development and associated roadway construction. Historic development of Connecticut's coastline has

resulted in the loss of tidal wetlands and impacts to estuarine environments. Residential and commercial development and concomitant railway and roadway construction has eliminated coastal resources and/or the tidal exchange between open water and estuarine habits. The transitions from estuarine to inland ecosystems/habitats have also been adversely impacted by development. Disturbed land forms also provide a means of colonization by alien and invasive plant species, which displace native plants and reduce habitat value.

a) Habitat Loss and Fragmentation

Incompatible residential, commercial and road development are the most significant causes of habitat loss and fragmentation in CT (DEEP 2005). Urbanization and development, especially along the coast and in the major river valleys in CT, have resulted in degradation of habitat including the destruction of inland and coastal wetlands, the hardening and erosion of stream/river banks and shorelines, and the removal and/or alteration of vegetative cover. In rural areas, the historic conversion of forest to agriculture has also reduced the amount of inland wetlands and other habitats caused by changes in quantity and quality of water flow (both surface and subsurface), cutting or removal of vegetation, alteration of existing topography, and soil erosion. The loss of habitat connectivity is one important effect of road construction and usage (Forman et al., 2003). When habitats are no longer connected, the movement of wildlife may be impaired or limited, and the potential loss of access to key habitats for survival (as well as direct mortality from collision with motor vehicles) may be increased.

The degradation and loss of habitat can be described in terms of decreases in, or elimination of, populations of plants and animals. DEEP (2005) identified 475 animal species in CT of greatest conservation need. They include 27 species of mammals, 148 bird species, 30 reptile and amphibian species, 74 fish species and 196 invertebrate species. Twelve (12) key habitats and forty-three (43) sub-habitats have been identified by DEEP. Aquatic and terrestrial habitats are included. Primary habitat threats include habitat loss, degradation, and fragmentation from development, changes in land use, and competition from non-native species. Additional threats include a lack of information on the species and their habitats, insufficient resources to maintain or enhance wildlife habitat, and public indifference.

Connecticut's Twelve Key Habitats of Greatest Conservation Need, identified by DEEP (2005), are:

1. Upland Forest. (In regard to the Audubon CT ILF Program, upland forests are important buffers to vernal wetlands and other aquatic habitats.)

2. Upland Woodlands and Shrub. (As with upland forests, upland woodlands and shrub habitats are important buffers to aquatic habitats.)
3. Upland Herbaceous. (As above.)
4. Forested Inland Wetland
5. Shrub Inland Wetland
6. Herbaceous Inland Wetland
7. Sparsely Vegetated Inland Wetland
8. Tidal Wetland
9. Freshwater Aquatic
10. Estuarine Aquatic
11. Unique and Man-made. (Certain unique and man-made habitats (e.g., terraced pans) may provide important buffers for aquatic habitats.)
12. Intensively Managed. (Grasslands are an example of intensively managed areas that may be important buffers to aquatic resources and thus may be of potential relevance to the Audubon CT ILF program.)

CT DEEP has compiled maps of habitats (see Natural Diversity Data Base http://www.ct.gov/deep/cwp/view.asp?A=2702&Q=323464) that support endangered, threatened or State-species of special concern. The distribution of those species by proposed service area is summarized in Table 3 below. Note, all federally listed species are automatically included on the state lists.

Table 3 - CT DEEP Distribution of Endangered, Threatened and of State-species of Special Concern

Watershed Service Area	Number of known locations for state-listed endangered, threatened or species of special concern
Southwest Coast	99
Housatonic/Hudson	349
Connecticut River	333
South Central Coast	170
Southeast Coast/Pawcatuck	62
Thames River	262

b) Altered hydrologic regimes (water withdrawal, dams, etc.)

Stormwater from areas of impervious surfaces, including rooftops, roads and other paved surfaces, and poorly designed culverts and other drainage structures have resulted in alteration of floodwater flows. Loss of flood storage potential caused by draining or filling of wetlands has resulted in

alterations of flood zones and riparian areas. Damming of rivers to produce electricity and extraction of surface or groundwater water for human use can alter natural stream flow patterns and threaten the sustainability of natural populations of fish and other aquatic life. Poorly planned development, destruction of wetlands, and, in some cases, a lack of dam maintenance, can increase the potential for severe flooding and the destruction of property and loss of life that can be associated with those events. Alteration to stream flows can lead to changes in downstream flow volumes, increases in water temperatures, and changes to the nutrient status of the water. All of these changes can alter the support capacity of aquatic habitat and the relationship between aquatic and terrestrial habitats.

Since European settlement, the construction of dams on rivers and other watercourses for commercial mills, to generate hydroelectric power, or impound water to create lakes and water-supply reservoirs, has resulted in the interruption of anadromous fish migrations across the state.

c) Nutrient enrichment and pollution

According to the CT DEEP, the quality and quantity of the State's waters is a reflection of human use and, in some cases, misuse of water resources. The CT DEEP maintains a list of Impaired Waterways pursuant to Section 303(d) of the CWA (see http://www.ct.gov/dep/cwp/view.asp?a=2719&q=325610&depNAV_GID=1654 . The waters listed therein have failed to meet their swimmable and fishable status and require additional attention. Many water resources are used to dilute and assimilate wastes generated as a result of human activities. Rain washes contaminants out of the atmosphere and off the land surface into rivers and streams. EPA identifies non-point source pollutants from agriculture and construction as two primary sources of sediment and associated nutrients that negatively impact water quality and degrade benthic habitats. CT DEEP has established TMDL (Total Maximum Daily Load) criteria for a number of fresh and saline surface waters. These criteria include designated limits for bacteria, nutrients and other pollutants. The two limiting nutrients in aquatic systems are nitrogen and phosphorous. In freshwater systems, phosphorus is the limiting nutrient, while in saline waters, nitrogen is the limiting nutrient. Limiting nutrient means that there must be a larger quantity of one of these pollutants in the respective aquatic environment before an algal bloom or excessive aquatic weed growth can take place. Principal sources of these nutrients in agricultural environments include fertilizer, animal waste, and failing septic systems. Sources in urbanized watersheds include failing or improperly operating municipal sewage treatment plants or septic system leaching systems, and fertilizers.

Atmospheric deposition is also a source of nitrogen and phosphorus and oxides of sulfur and nitrogen.

d) Invasive species/pests and pathogens

Alteration of water chemistry and/or of physical habitat (aquatic or upland) may facilitate invasion and colonization by alien and aggressive plant species. Landscaping with non-native or invasive species, or the intentional or unintentional release of invasive plant and animal species, has impacted aquatic and terrestrial habitats in Connecticut. Examples of invasive plants include: Autumn and Russian olive (*Elaeagnus umbellata and E. angustifolia)*, mile-a-minute vine (*Persicaria perfoliata*), kudzu (*Pueraria montana var. lobata*), Japanese knotweed (*Fallopia japonica*), purple loosestrife (*Lythrum salicaria*), Japanese barberry (*Berberis thunbergii*), winged euonymus (*Euonymus alatus*), and Eurasian water milfoil (*Myriophyllum spicatum*). One of the most common invasive plants of disturbed freshwater and low salinity habitats is the common reed *Phragmites australis*. Plant pathogens (fungus) can also be unintentionally introduced, e.g., chestnut blight, which resulted in the loss of one of the most important and numerous forest trees in the Northeast, the American chestnut. Examples of invasive fish species include the Asian snakehead fish and Asian (black, silver and big head) carp. These species will displace native fish populations due to their aggressive nature and competition for food consumed by native species.

e) Climate Change and Sea Level Rise

Changes in precipitation quantity, intensity, frequency and temporal distribution will impact surface water flow and temperatures. Intense storms that exceed stream-channel capacity may cause serious bank and shoreline erosion and cause serious sedimentation of aquatic benthic environments or altered deposition patterns. Salinity ranges of estuarine habits may also be affected, influencing plant colonization and fisheries habitat. CT DEEP has provided guidance to applicants proposing projects involving tidal wetlands restoration to assume a sea level rise of approximately six (6) inches over the next 10 to 50 years. Increases in precipitation and associated runoff will also impact the ability of municipal sewage treatment plants that are fed by combined sewers. Increased flows of combined sewage and stormwater may result in more frequent discharge of incompletely-treated human waste before being discharged to rivers and eventually Long Island Sound. This can result in increased nutrient and pathogen loading, causing beach closures due to bacteria and expansion of the anoxic areas in the Sound.

The Governor's Steering Committee on Climate Change prepared a report on *Climatic Change Impacts on Connecticut Natural Resources (2010)*. Its

Natural Resource Work Group stated: "The degree of impact will vary among habitats and species." In reference to Connecticut's *Comprehensive Wildlife Conservation Strategy (CT DEP, 2005)* the Working Group identified eighteen (18) different terrestrial and aquatic habitats at risk. The habitats include: Cold Water Streams, Tidal Marsh, Open Water Marine, Beaches and Dunes, Freshwater Wetlands, Offshore Islands, Major Rivers and Forested Swamps. An increase in temperature was identified as the dominant driver for both terrestrial and aquatic habitat types, such as Upland Forest Complexes and Cold Water Streams. Changes in precipitation patterns will impact aquatic habitats including freshwater wetlands, bogs and fens. A rise in sea level will impact coastal habitats including tidal marsh, beach and dunes (Governor's Steering Committee, 2010).

3. Analysis of Historic Aquatic Resource Losses [332.8(2)(iii)] (element 3)

Since 1990, more than 3,600 acres of inland wetland have been disturbed by human activities regulated under the Connecticut Inland Wetlands and Watercourses Act (CEQ). This averages 180 acres of inland wetlands disturbed annually over that period. The amounts disturbed in 2008 and 2009 were 103 acres and 118 acres respectively. The amount of tidal wetland disturbed by permitted development was approximately 1 acre in each of those years (CEQ), which is a testament to the effectiveness of tidal wetland regulatory programs. However, a review of the 1836 coastal survey prepared by the United States Coast Guard reveals that the destruction of tidal wetlands in Connecticut, especially west of New Haven, has been substantial. Some municipalities in Fairfield County have lost as much as 90% of the tidal wetlands formerly present, and most of this loss is related to filling or dredging for private and public purposes. The statewide wetlands reporting form data has not been used to distinguish between habitat types or service area in Connecticut due to insufficient time and resources needed to catalog and verify available data.

Figure A4 depicts the location of permitted impacts that are associated with the Corps permit programs from 1986 through 2011 and are plotted by service area.

4. Current Aquatic Resource Conditions [332.8(2)(iv)] (element 4)

The Integrated Water Quality Report (CT DEEP 2011) provides a current assessment of current aquatic resource conditions in Connecticut. Further expected impacts to aquatic resource conditions, i.e., sea level rise, drought and flood cycles and other effects of global climate change, are described in the Connecticut Climate Preparedness Plan (Governor's Steering Committee 2010). and are also set forth in the Northeast Climate Impacts Assessment (NECIA) (Union of Concerned Scientists 2007).

NECIA indicates a warming of 0.5 degrees F per decade since 1970. Winter temperatures increased at a rate of 1.3 degrees F per decade since 1970. Other climate changes observed across the region include more frequent days of temperatures over 90 degrees F; a longer growing season; less snow and more rain over winter periods; reduced snow pack and increased snow density; earlier breakup of winter ice on streams and lakes; earlier spring snow melt leading to earlier peak river flows; and. rising sea-surface temperatures and sea levels.

The Connecticut Climate Preparedness Plan (Governor's Steering Committee 2010) identified natural resources at risk from climate change across all service areas. These resources include cold water streams, tidal marsh, open water marine, beaches and dunes, freshwater wetlands, offshore islands, major rivers, and forested swamps. Changes to these habitats include: i) the conversion of rare habitats (e.g., cold water to warm water streams, tidal marsh and offshore islands to submerged lands), ii) loss and/or replacement of critical species dependent on select habitats, and iii) increased susceptibility of habitats to other ongoing threats (e.g., fragmentation due to development and establishment of invasive species).

The Connecticut Integrated Water Quality Report (2011) identified stream and surface water bodies that do not meet water quality standards. While municipal-owned wastewater treatment plants are identified as the primary point source of pollutants (nutrients, bacteria), nonpoint source pollutants associated with stormwater runoff play a major role in degrading water quality and preventing surface water bodies from attaining the designated use goals. All water bodies that fail to fully support one or more of the designated uses (e.g., habitat for fish, other aquatic life and wildlife, and recreation) are placed on the Impaired Water List. These impaired water bodies are monitored for physical, chemical and biological parameters and may have a total maximum daily load (TMDL) for pollutants assigned to them. CT DEEP conducts a reassessment of the list every two years at which time current conditions within service areas are expected to be updated.

The introduction and spread of invasive plant and animal species are a direct threat to the ecological health of aquatic habitats. The Connecticut Invasive Species Management Group and the New Haven Agricultural Experimental Station monitor the spread of invasive aquatic plant species across all service areas. Examples of invasive plants impacting aquatic habitat and recreational use of surface water bodies include colonization of lakes and ponds with Eurasian water milfoil and water chestnut.

The Long Island Sound Watershed Initiative (Natural Resources Conservation Service 2011), identifies Long Island Sound as an estuary of distinction. Its 17,814 square mile watershed encompasses portions of four states: Vermont, New Hampshire, Massachusetts and Connecticut. Water quality in the Sound and in the coastal estuaries is linked to water quality and other conditions in all five service

areas in Connecticut. Ninety percent (90%) of the freshwater entering Long Island Sound drains from three major rivers in Connecticut: the Connecticut, Housatonic and Thames.

Activities within the watershed directly impact water quality and habitats in the estuaries and the Sound. Existing resource concerns and problems include habitat impacts and declining populations of endangered, threatened and special concern species. Water quality concerns include increases in nutrient and sediment discharges and bacteria contamination. Noxious and invasive plant species are also cited. The LIS Watershed Initiative identifies a series of problems currently impacting the resources. These include:

- Non-point source pollution contributing to hypoxia from nitrogen loading, toxic contamination and pathogen contamination;
- Habitat loss from development and degradation from urban, suburban and agricultural runoff;
- Increased sediment loading;
- Forest fragmentation;
- Invasive species colonization (terrestrial and aquatic);
- Loss of prime farm land; and
- Barriers to fish movement and migration

The LIS Watershed Initiative establishes goals to improve the water quality of the Sound through restoration and management activities along the major river systems and the coast, to among other things improve habitat and natural filtration to enhance water quality. Such efforts will also help to maintain hydrologic and ecological functions associated with both upland and aquatic systems.

5. Aquatic Resource Goals and Objectives [332.8(c)(2)(v)] (element 5)

The goals and objectives described in Section 2 of the ILF Instrument will be achieved, to the extent practicable and feasible, as follows (note: preservation of one type of habitat does not justify or offset the loss of a different type of habitat):

1. Support projects that result in the protection of headwater streams and wetlands that have high natural resource value, protect a drinking water supply, and/or repairs an impaired waterbody and buffers thereof.
2. Support projects that reduce habitat fragmentation.
3. Support projects that control and/or remove invasive species where appropriate and practicable.
4. Support projects that include upland buffers to aquatic resources, including but not limited to dunes, beach strands, and upslope “advancement zones” adjacent to tidal wetlands.

5. Support projects that increase the areal distribution and quality of tidal and inland aquatic resources through restoration, enhancement, creation and protection of the aquatic habitats lost as a result of permitted impacts within a specific service area.
6. Integrate Audubon CT ILF projects with other conservation activities whenever possible in order to promote habitat connectivity.
7. Support projects that include habitats that support federal and state-listed endangered and threatened species.
8. Support projects that include at-risk habitats identified in Appendix D of the CT Climate Preparedness Plan (Governor's Steering Committee 2010):
    - Cold water streams and associated riparian zones
    - Tidal marsh
    - Open water marine
    - Beaches and dunes
    - Herbaceous freshwater wetlands
    - Offshore islands that contain tidal marsh, protective buffers including dunes and beach strands, and other protected aquatic resources
    - Intertidal flats and shores
    - Major rivers and associated riparian zones
    - Forested swamps
    - Subtidal aquatic beds

5.1 Goals and Objectives By Service Area

a) Southwest Coast

The Southwest Coast service area contains densely developed urban land along the I-95 corridor. Interior regions of the area are typified by moderate to low density residential development. Coastal and inland aquatic resources have been impacted by both commercial and residential development. Waterways have been historically altered for power generation, impacting fisheries movement. Wetlands and riparian zones have been impacted from roadway construction and urban sprawl. Water quality impacts have resulted from both point and nonpoint source discharges resulting in accelerated siltation and accelerated eutrophication of water bodies. Current impacts to inland wetlands and waterways have been diminished with the adoption of Inland Wetlands and Watercourses regulations.

Conservation Objectives:

- Acquire land and conservation easements to provide upslope "advancement zones" adjacent to tidal marshes.
- Pursue wetland restoration and enhancement opportunities (with upland buffers) in sustainable landscape settings.
- Encourage preservation projects, particularly for rare species, vernal pools, headwater streams (1st and 2nd order) and their associated critical terrestrial habitats.
- Restore the movement of anadromous fisheries to the upper reaches of the watercourses via fish ladders, by-passes or dam removal.

b) South Central Coast

This region is similar in land use to the Southwest. Large urban environments with high density commercial and residential development along the coast grade into moderate to low density (suburban) residential development.

Conservation Objectives:

- Acquire land and conservation easements to provide upslope "advancement zones" adjacent to tidal marshes.
- Pursue wetland restoration and enhancement opportunities (with upland buffers) in sustainable landscape settings.
- Encourage preservation projects, particularly for rare species, vernal pools, headwater streams (1st and 2nd order) and their associated critical terrestrial habitats to ensure that the region's extensive aquatic resources remain intact and functional into the future.

c) Housatonic River

This area ranges from high density residential and commercial development at the mouth of the Housatonic River in Stratford and Milford and around the cities of Danbury, Watertown and Torrington. The Housatonic River and its larger tributaries have seen the historic alteration of river flows for the production of hydroelectric power. Development between the major roadways (Routes 7, 8 and I-84) is typified by low density residential development and agricultural land use. Cultural eutrophication of surface waters is evident on both small and larger water bodies and streams.

The upper reaches of the service area are rural in nature supporting large undisturbed tracts of secondary hardwood forests and open meadow habitat. Tributaries along the Housatonic River provide cold water and headwater stream habitats. Habitats supporting endangered, threatened

and state-species of special concern are prominent from the mouth of the Housatonic River, and the southwestern and northwest portions of the service area.

Conservation Objectives:

- Acquire land and conservation easements in riparian areas adjacent to coldwater streams.
- Encourage habitat connectivity and protection, particularly for areas on the Wildlife Action Plan, rare species, vernal pools, headwater streams (1st and 2nd order) and their associated critical terrestrial habitats.
- Pursue opportunities to restore priority resource types, as well as opportunities to restore marginal or non-productive agricultural land in sustainable landscape settings.

d) Connecticut River

The central Connecticut valley is typified by urban core areas in the Hartford and New Haven region, surrounded by moderate density residential and commercial urban periphery. These areas are flanked by suburban development. The area supports an extensive number of endangered, threatened and state-species of special concern and critical habitats.

Conservation Objectives:

- Acquire land and conservation easements in riparian areas adjacent to coldwater streams.
- Encourage habitat connectivity and protection, particularly for rare communities and species, high value vernal pools, headwater streams (1st and 2nd order) and their associated critical terrestrial habitats.
- Pursue wetland restoration and enhancement opportunities (with upland buffers) in sustainable landscape settings.

e) Southeast Coast/Pawcatuck Rivers

This service area is dominated by low density rural development. The area supports a number of habitats supporting endangered, threatened and state-species of special concern.

Conservation Objectives:

- Encourage habitat protection, particularly for rare communities and species, high value vernal pools, headwater streams (1st and 2nd order) and their associated critical terrestrial habitats.

- Pursue wetland restoration and enhancement opportunities (with upland buffers) in sustainable landscape settings.
- Restore the movement of fisheries at key locations via fish ladders, by-passes or dam removal.

f) Thames River

This service area is also dominated by low density rural development. The area supports a number of habitats supporting endangered threatened and state- species of special concern.

Conservation Objectives:

- Acquire land and conservation easements in riparian areas adjacent to coldwater streams.
- Promote wetland protection, particularly for rare communities and species, high value vernal pools, headwater streams (1st and 2nd order) and their associated critical terrestrial habitats.
- Pursue wetland restoration and enhancement opportunities (with upland buffers) in sustainable landscape settings.

6. Prioritization Strategy for Project Selection and Implementation [332.8(c)(2)(vi)] (element 6)

The Audubon CT ILF program compensatory mitigation projects are selected using a competitive award approach. After a reasonable amount of funds have been collected from the sale of advanced credits, public agencies (at the federal, state and local levels), non-profit conservation organizations and private individuals will be invited to submit a Letter of Intent for eligible restoration, enhancement, creation and preservation projects in one or more service areas in Connecticut. A Letter of Intent is summary in nature and is designed to provide sufficient information to determine whether a proposed project meets the goals of the Audubon CT ILF program. Instructions for what is required for this Letter of Intent are included in Appendix B. Mitigation Plans (i.e., full proposals) are evaluated on a 100-point scale by the Project Advisory Committee using the prioritization criteria outlined below. These criteria can be modified upon the approval of Audubon CT and the Corps.

Criteria used to rank proposals

Potential to Meet Audubon CT ILF Program Goals (30%). The proposal meets the core program requirement to restore, enhance, preserve or create aquatic resources and that all project sites must be conserved in perpetuity by appropriate easement or other legal mechanism. Considerations include:

a) The sustainability of the proposed mitigative actions (restoration, enhancement, preservation, creation) and the acreage proposed for each or any of these. To fully meet this criterion, projects cannot be preservation-only.

b) The resource types to be restored, enhance, preserved or created and the degree to which the proposed project replaces the functional benefits of impacted resources in the service area based on a functional assessment of the project.

c) Proximity of the proposed project to impacts within the same service area.

d) For preservation projects, the type and likelihood of the threat of degradation to the site over the next twenty years.

e) Inclusion of upland areas sufficient to protect, buffer, or support identified aquatic resources and ecological connectivity to other conservation areas or undeveloped large blocks of habitat.

f) Current and proposed condition of the property, and "functional lift" provided by the project (e.g., proposed change in habitat quality, contribution to functioning biological systems, water quality, level of degradation, etc.)

g) Other specific conservation objectives developed for the major watershed basin within which the project exists.

Landscape Context (20%). The proposal meets the core program requirement to consider the location of a potential project relative to statewide focus areas for land conservation or habitat preservation identified by a state agency, other regional or municipal plans, or Audubon CT.

a) Presence within or adjacent to habitat areas of statewide conservation significance or other natural resource priority areas.

b) Presence within or adjacent to public or private conservation lands that maintain and preserve habitat connectivity.

c) Presence of natural resources of significant value and/or rarity within the project site boundaries.

Project Readiness/Feasibility (20%). The proposal meets the core program requirement to demonstrate project readiness and likelihood of success, where success is defined by the ability of the project to meet Audubon CT ILF Program goals and objectives in a reasonable time period. Considerations include:

a) Documentation of landowner willingness to participate in the proposed project, including conveying a conservation easement or fee title, with conservation covenants, to the property (for projects not on public or private conservation lands).

b) Level of project urgency (e.g., area of rapid development or on-going site degradation, other available funding with limited timing, option to purchase set to expire, etc.)

c) Degree to which the proposal demonstrates understanding of resource conservation issues and needs.

d) Soundness of the technical approach of the conceptual plan presented in the proposal.

e) Initial progress (e.g., planning, fundraising, contracting, site design, etc.)

f) Likelihood that the project will meet proposed schedule and/or required deadlines.

g) Likelihood that the proposed actions will achieve the anticipated ecological benefits and results.

h) Completeness and feasibility of long-term stewardship and monitoring plan, including endowment.

i) Potential for adverse impacts (such as flooding or habitat loss) associated with the project.

j) Conformance with any applicable Corps and state mitigation policy, guidance and permitting requirements, including appropriate financial assurances for any construction activity.

Project Sponsor Capacity (15%). The proposal meets the core program requirement to provide for long-term management and/or stewardship by a responsible state or federal resource agency, municipality, or conservation organization. Considerations include:

a) Presence of qualified, capable conservation entity willing to sponsor and/or maintain the project.

b) Level of support and involvement of other relevant agencies, organizations and local community.

c) Degree to which the project sponsor, and any associated partners, demonstrate the financial, administrative and technical capacity to undertake and successfully complete the project.

d) Adequacy of long-term stewardship to ensure the project is sustainable over time and a funding mechanism for the associated costs (e.g., endowment or trust).

e) Legal and financial standing of the project sponsor.

f) Quality and completeness of proposal materials.

Cost Effectiveness (10%). The proposal meets the core program requirement that a project uses its funds efficiently given the condition, location and relative appraised value of property(ies). Considerations include:

a) Clarity and detail of budget submitted.

b) Sufficiency of funds available in the applicable service area (major watershed basin).

c) Availability and source of matching funds necessary to complete the project.

Other benefits (5%). The Application assesses the potential for the project to support economic activity, job creation, recreational access, scenic enhancements or other contributions to the environmental quality of the area where the project is located.

7. Explanation of How Preservation Satisfies Criteria for use of Preservation [332.8(2)(vii)] (element 7)

The Audubon CT ILF program watershed approach to selecting aquatic resources compensation projects is designed to include the preservation and long-term viability of critical habitats, ecological processes and biological diversity.

The Mitigation Rule allows for preservation-only projects to mitigate the loss of aquatic resources from past impacts. Preservation-only projects must meet the following criteria:

- The resource to be preserved provides important physical, chemical or biological functions for the watershed;
- The resource to be preserved contributes significantly to the ecological sustainability of the watershed. In determining the contribution of those resources to the ecological sustainability of the watershed, the District Engineer must use appropriate quantitative assessment tools, where available;
- Preservation is determined by the District Engineer to be appropriate and practicable;
- The resource is under threat of destruction or adverse modification; and
- The preserved site will be permanently protected through an appropriate legal instrument.

Projects with restoration, creation, and/or enhancement should include preservation of these areas plus appropriate buffers.

Non-aquatic resources, such as riparian areas and upland buffers, may be used for generating credits when they are essential to maintaining the ecological viability of the adjoining aquatic resources. In addition, credits may only be awarded to projects to be carried out on public lands if such projects are based solely on aquatic resource functions provided by the compensatory mitigation project, over and above those provided by public programs already planned or in place.

8. Public-Private Stakeholder Involvement [332.8(c)(2)(viii)] (element 8)

As the program sponsor, Audubon CT will optimize compensatory mitigation efforts under its ILF program by working closely with interested agencies, other organizations (including conservation and community groups, etc.) and private entities. In addition, Audubon CT will continue to work closely with other conservation entities, public and private organizations, agencies and landowners to identify habitat and aquatic mitigation opportunities and develop mitigation plans and methods for inclusion in the Audubon CT ILF instrument following IRT review and Corps approval. Audubon CT has sought input on its ILF program, reporting and evaluation forms and has reviewed suggested projects from Regional Planning Agencies, local Inland Wetland and Watercourse Agencies and members of the Connecticut Association of Wetland Scientists. Audubon CT has also asked the CT DEEP for a list of potential restoration, preservation, establishment (creation) or enhancement projects.

The pool of organizations from which projects may be proposed may include, but is not limited to:

a) U.S. Fish and Wildlife Service
b) U.S. Forest Service
c) Natural Resources Conservation Service
d) Connecticut Association of Wetland Scientists (CAWS)
e) Connecticut Department of Environmental Protection (CTDEEP)
f) Connecticut Office of Policy and Management
g) Municipal Inland Wetland and Watercourses Agencies/Conservation Commissions
h) Connecticut Audubon Society
i) Connecticut Forest and Park Association
j) Ducks Unlimited
k) Land trusts
l) Partners In Flight
m) Regional planning agencies
n) The Nature Conservancy
o) Trout Unlimited
p) Trust for Public Land
q) Watershed organizations

9. Long-Term Management [332.8(2)(ix)] (element 9)

The Audubon CT ILF program shall be responsible for developing and implementing a long-term protection and management plan for each mitigation project of the Audubon CT ILF. On publicly-owned land, long-term protection

and management may be provided through facility management plans or integrated natural resource plans. On privately-owned land, including land held by NAS or other conservation organizations, real estate instruments shall be recorded to guarantee protection. Audubon CT will ensure that protection mechanisms are in place prior to requesting the release of credits. Draft conservation easements or equivalent protection mechanisms will be submitted to the Project Advisory Committee for review and then to Audubon CT and the Corps for approval.

Audubon CT ILF projects will be designed, to the maximum extent practicable, to require low intensity long-term management effort once performance standards have been achieved. Audubon CT shall be responsible for maintaining or ensuring the maintenance of Audubon CT ILF project sites as specified in the Mitigation Plan specific to each project to ensure long-term viability of project sites as functional habitat and aquatic resources. Audubon CT shall retain responsibility unless and until the long-term management responsibility is formally transferred to a long-term manager as approved by the Corps. The long-term management plan developed for each Audubon CT ILF project will include a description of anticipated long-term management needs with annual cost estimates for such needs and an identified funding mechanism that will be used to meet those needs (such as non-wasting endowments, trusts, contractual arrangements with future responsible parties, or other appropriate instruments.) The long-term steward shall sign off on the long-term management plan following review and approval of the plan by Audubon CT and the Corps in coordination with the IRT.

The final conservation easement or equivalent mechanism for long-term protection and management shall be submitted to the Corps (who may in turn seek the advice and guidance of the IRT) for approval prior to the final release of mitigation project credits. Upon achieving its performance standards and approved transfer of the project for long-term protection and management, Audubon CT will request that the Corps issue a written "closure certification."

10. Program Evaluation and Reporting Protocol [332.8(2)(x)] (element 10)

Every five years, Audubon CT, with assistance from the Corps, will produce a status and trends report summarizing the previous five years. The document will examine the goals for each service area and discuss how well the projects assisted with promoting those goals. Every ten years or as funds allow, Audubon CT and others will reexamine and update the Compensation Planning Framework, including working with a broad range of stakeholders.

11. Monitoring of Completed Projects [332.8(2)(xi)] (element 11)

Methods for assessing habitat and aquatic resource functions pre- and post-project implementation will be coordinated with ongoing efforts by Audubon CT, the CT DEEP and other entities in Connecticut. This will allow Audubon CT to dovetail its ILF program with ongoing inventory and monitoring efforts.

Audubon CT or its authorized contractor or grantee will monitor its completed ILF projects until success criteria are achieved in accordance with the approved Mitigation Plan for each project. An approved standard mitigation monitoring protocol will be used to provide consistency in methods and measurements among habitat types. The frequency and duration of monitoring and specific monitoring requirements will be defined in each individual Mitigation Plan. In general, monitoring reports will include plans, maps and photographs to illustrate site conditions, plus a narrative summarizing conditions, monitoring results as compared to performance standards, and recommendations for contingency or adaptive management if needed. The monitoring duration designated in a Mitigation Plan may be extended by the Corps if performance standards have not been met. The Corps District Engineer may also reduce or waive monitoring requirements upon determination that performance standards have been achieved. *New England District Mitigation Guidance* in place at the time of project review will be used to review each proposed project.

Appendix B Letter of Intent for Mitigation Projects/ Instructions

Application Date:

1. **Project Title:**
2. **Project Sponsor (***name, organization, address, phone, email***):**
3. **Project Location (***town, county, address, service area, watershed, and attach map or coordinates***):**
4. **Project Description (***brief overview of project context, goals and readiness***):**
5. **Preliminary Estimated Project Cost:**
   a. Total Project Cost:
   b. Fund Request:
   c. Other Funding Sources:
6. **Priority of Project Site:**

☐ Within or adjacent to an Audubon Priority Focus Area - (*focus area name*) (see www.ct.audubon.org/ILF for locations):

☐ Within or adjacent to existing public or private conservation lands (*site name & owner*):

☐ Within or adjacent to other natural resource priority areas (*e.g., identified in regional or municipal plan, land trust strategic plan, etc.*) (*Area name & brief description*):

☐ Contains natural resources of significant value and/ or rarity (*habitats, species*):

7.

	Type of Mitigation	**Project Acres**	**Resource Type:**
☐	Enhancement and restoration (w/ preservation)	_____	_____
☐	Restoration (w/ preservation)	_____	_____
☐	Enhancement (w/ preservation)	_____	_____
☐	Creation (w/ preservation)	_____	_____
☐	Preservation of uplands serving as buffer to aquatic resources *(in addition to preservation of restored, enhanced areas)*	_____	_____
☐	Preservation Only	_____	_____

Total Project Acreage :

8. **Long-term Management.** Identify a proposed long-term manager and provide a brief overview of a long-term management plan for the project.

Instructions for Completing the Letter of Intent Summary Form

1. Project Title: Create a name for the proposed project (*What aquatic resource is the project related to?)*

2. Project Sponsor: List the individual coordinating the project, the sponsoring organization responsible for completing the proposed project, and all relevant contact information.

3. Project Location: Provide the town, county and street address, latitude and longitude of the property. If Map and Lot number are also available, please provide. Note that **a map of the proposed site is required**. Please submit a USGS Topographic Map, or equivalent, showing entire boundary of proposed project, legal access, and adjacency of other public and private conservation lands or provide coordinates.

4. Project Description: Please provide a brief (400 words or less) description of the proposed project. Describe the current condition of the proposed project site (e.g., degradation on site, adjacent land uses, etc.) and the changes that will result from proposed conservation activities. Give careful consideration to the Audubon CT ILF project selection/ranking criteria to ensure the project is consistent with the goals and objectives of the Audubon CT ILF program. Also include a brief description of the project readiness (e.g., how soon can it begin, how long will it take to complete, etc.) and list any other active project partners (particularly if another entity will assume long-term management responsibility for the property).

5. Preliminary Estimated Project Cost:

a. **Total Project Cost**: Should include all projected costs for land acquisition, project design, construction, management, short-term monitoring and long-term stewardship.

b. **Fund Request**: Specify the amount of funding requested from the Audubon CT ILF program.

c. **Other Funding Sources**: List amounts and sources for any other known or likely funds that will be used to complete the project. While matching funds are not required, project cost effectiveness will be evaluated during full proposal review.

6. Type of Compensatory Mitigation, Acreage and Resource Type:

Types of Compensatory Mitigation:

Preservation:	removal of a threat to, or prevention of the decline of a resource through appropriate legal and physical mechanisms such as land purchase or conservation easement.
Restoration:	return a former aquatic resource to a formerly existing functionality.
Enhancement:	manipulation of an existing aquatic resource to heighten or improve degraded or lost functions.
Upland buffer:	any non-wetland habitats that protect, buffer, or support identified resource functions and ecological connectivity on the property.
Creation:	the establishment of an aquatic resource where it had not existed previously (this is generally the least desireable form of compensatory mitigation).

Resource Types:

Identify which of the following Resources Types apply to the proposed project ("NWI" refers to the National Inventory of Wetlands, which is described below):

- Freshwater Wetland, forested (NWI code: PFO)
- Freshwater wetland, scrub-shrub (NWI code: PSS)
- Coastal wetland, Marine subtidal (NWI code: M1)
- Coastal wetland, Marine intertidal (NWI code: M2)
- Coastal wetland, Estuarine subtidal (NWI code: E1)
- Coastal wetland, Estuarine intertidal (NWI code: E2)
- River, stream or brook
- Great Pond
- Significant wildlife habitat, vernal pool
- Significant wildlife habitat, vernal pool critical terrestrial habitat
- Significant wildlife habitat, Inland Waterfowl and Wading Bird Habitat
- Significant wildlife habitat, Tidal Waterfowl and Wading Bird Habitat
- Significant wildlife habitat, Shorebird Feeding & Staging Areas

7. Sources of additional information to assist preparation of LOI

See www.ct.audubon.org/ILF for additional information to assistcompletion of a Letter of Intent, including the CT ILF Aquatic Resource Goals and Objectives, Compensatory Mitigation Objectives by service area, and other relevant instructions and information.

For more information about wildlife and habitat management, contact Connecticut Dept. of Energy & Environmental Protection (DEEP) or go to: http://www.ct.gov/dep/cwp/view.asp?a=2723&q=325728&depNav_GID=1655&depNav

For more information about Landowners Incentive Program (LIP): Helping Private Landowners Protect Rare Animals, Plants, and Plant Communities, contact LIP or go to: http://www.ct.gov/dep/cwp/view.asp?a=2723&q=325734&depNav_GID=1655

For more information about Open Space, contact Connecticut Department of Energy & Environmental Protection (DEEP) or go to: http://www.ct.gov/dep/cwp/view.asp?a=2706&q=323838&depNav_GID=1641&depNav|

Connecticut Department of Energy & Environmental Protection (DEEP) has GIS online maps of Natural Diversity Database (NDDB): http://www.ct.gov/dep/cwp/view.asp?a=2702&q=323464&depNav_GID=1628

Information about Endangered or Threatened Species can be found at: http://www.ct.gov/dep/cwp/view.asp?a=2702&q=323486&depNav_GID=1628&depNav

A Fact sheet about Endangered Species in Connecticut can be found: http://www.ct.gov/dep/cwp/view.asp?a=2702&q=323468&depNav_GID=1628&depNav

National Inventory of Wetlands (NWI) website provides locations of some federally mapped wetlands: http://www.fws.gov/wetlands/Data/Mapper.html

Connecticut DEEP has GIS online maps of wetland data: http://www.ct.gov/dep/cwp/view.asp?a=2698&q=322898

8. Long-term Management. Provide a brief narrative that identifies a proposed long-term manager and briefly describe a plan for the long-term management of the project.

Appendix C - Credit Cost by Service Area

Service Area	Notes	Credit Cost Per Square Foot
Housatonic River		$7.56
Southwest Coastal		9.12
Southcentral Coastal		7.45
Connecticut River		10.11
Thames River	South of I-95*	10.80
	North of I-95*	7.97
Southeast Coastal		7.97

* Due to variation of costs of mitigation projects within the Thames River watershed service area

Appendix D - Sample Notification of Sale of Credits Letter

Date

Department of the Army
New England District, Corps of Engineers
Regulatory Division
Attn: Chief, Policy Analysis and Technical Support Branch
696 Virginia Road
Concord, MA 01742-2751

Subject: Statement of Sale for (number of Credits) Wetland Mitigation Credits from the (service area/project name) to (Permittee' s Name)

Dear NAME:

National Audubon Society, through its Connecticut program, Audubon Connecticut, and the Army Corps of Engineers have established an In-Lieu Fee program in Connecticut, pursuant to an ILF Instrument between the Corps and Audubon.

This letter confirms the sale of (number of credits) credits of (Resource Type A) and (number of credits) credits of (Resource Type B). These credits are being used as compensatory mitigation for (number of acres) acres of impact to (Resource Type A) and (Number of Acres) acres of impact to (Resource Type B) in the (name of service area) as authorized by Corps permit (Corps Permit number).

By selling credits to the above Permittee, Audubon is the party responsible for fulfilling the mitigation aspect of the permit(s) listed above.

Yours truly,

_____
for Audubon Connecticut

Appendix E - Curriculum Vitae of Key Personnel

THOMAS R. BAPTIST is Senior Scientist of National Audubon Society. He received a M.S. degree in Environmental Science from the University of New Haven in 1998 and a B.S. degree in Biology in 1978 from the University of Connecticut. Tom began his career with National Audubon Society in 1997 and is responsible for planning and implementing Audubon's Atlantic Flyway priority projects. Prior to working for Audubon, he was Conservation Director for the Town of Greenwich, Connecticut, from 1978-1997. Tom served on the Greenwich Inland Wetlands and Watercourses Agency from 1997 to 2009 and chaired the Agency from 2002 to 2009. Tom has extensive experience in wetland science, conservation, restoration and regulation, and has had direct regulatory control of more than 1,500 development sites in Connecticut since 1978. He also led numerous successful restoration projects, including the establishment of tidal flow at a twenty acre coastal pond, creation of a ten acre tidal marsh, and construction of a fish-way connecting a ninety acre freshwater impoundment to tidal waters. Other activities include Founding Member and past President of the Connecticut Ornithological Association, and a Founding Member of the Land Conservation Coalition of Connecticut. He co-founded the Mianus River Watershed Council and served on its board from 1986 to 1997, formed to protect the drinking water supply for 130,000 Connecticut and New York residents. Tom received National Audubon Society's Charles Callison Award in 2006 for his leadership in advancing Audubon's mission. He received from the Garden Club of America its Conservation Award in 1996, one of ten presented nationally that year, for environmental leadership. He was named the Connecticut Conservation Administrator of the Year in 1993 for conservation and legislative achievements. Tom co-authored *Connecticut Birds*, published in 1990 by University Press of New England, Hanover, New Hampshire, a comprehensive description of the status and distribution of all avian species occurring in Connecticut—the first compilation on the subject since 1913.

ALEXANDRA BRESLIN is Audubon Connecticut Director of Governmental Affairs and holds both an M.S. and a B.A. from Yale University, the latter magna cum laude with Distinction in the Major is responsible for legislative activities in Hartford and Washington D.C. that affect birds, other wildlife and their habitats. She brings more than 20 years of experience in politics, conservation, and community organizing to projects that range from strengthening the Connecticut Inland Wetlands Act, creating a State Wildlife Conservation License Plate, establishing a State Invasive Plants Council, and protecting open space, watershed, and farmland, to establishing the federal Long Island Sound Stewardship Act to better protect coastal areas and securing support for specific state and local coastal conservation projects through the federal Coastal and Estuarine Land Conservation Program, Land and Water Conservation Fund and American Recovery and Reinvestment Act. Prior to Audubon, Ms. Breslin

directed outreach at Connecticut Fund for the Environment on successful campaigns to protect 18,000 acres of endangered watershed lands, address threats to Long Island Sound habitats from energy transmission lines, and improve Connecticut Environmental Policy Act review of state-funded projects. Ms. Breslin resides in Bethany, Connecticut where she has served on the Inland Wetlands Commission since 1994, currently as Vice Chair, regulating local projects affecting wetlands and watercourses. She also serves as her town's representative to the South Central Connecticut Regional Water Authority's Representative Policy Board and as a member of the Land Use Committee helping to oversee management of the Authority's 26,000 acres of watershed land.

PATRICK M. COMINS is Audubon Connecticut Director of Bird Conservation. He has a B.S. degree in biology from Trinity College and has worked in the bird conservation arena for the last 15 years. Patrick began his career with the Connecticut Audubon Society doing bird surveys on the coast at the McKinney NWR and then worked for the US Fish and Wildlife Service as a biological technician at the Refuge. He has been with Audubon Connecticut as the Director of Bird Conservation for Connecticut since 2000, overseeing Connecticut's Important Bird Areas and other bird conservation program. He is the principal author of Protecting Connecticut's Grassland Heritage and currently President of the Connecticut Ornithological Association and was the 2007 recipient of their Mabel Osgood Wright Award for outstanding lifetime contributions to ornithology in Connecticut. He has written several articles on bird conservation and identification for the Connecticut Warbler and is a founding member of the Connecticut Forestlands Council and current chair of the Connecticut Forest Ecosystem Health Committee, as well as Chairman of the Executive Committee of the Friends of the Silvio O. Conte National Fish and Wildlife Refuge. He has worked with the Conte Refuge and other partners to preserve thousands of acres of habitat in the Connecticut River Watershed and played a key role in the protection of the former Goss Property in Guilford, the Guilford Sluice Property, key additions to the Barn Island Wildlife Management Area in Stonington and the former Griswold Airport property in Madison, a portfolio of land conservation projects that easily exceeds $40,000,000 since 2004. In addition to his land protection experience, he consults with the USFWS habitat restoration project for the barrier beach at Long Beach West in Stratford, as well led the restoration of the Cove Island Park Wildlife Sanctuary in Stamford and early successional habitat management activities at Northwest Park in Windsor.

MICHELLE FRANKEL is Audubon CT Deputy Director of Development and Conservation Biologist. She has a Ph.D. in Behavioral Ecology and a M.S. degree in Biology from Boston University, and a B.A. in Biology *summa cum laude* from Yeshiva University. She also received a post doctorate fellowship at Tel Aviv University. Michelle worked for the Wetlands Institute in Stone Harbor New Jersey and published her research on predator-prey relationships in southern

New Jersey salt marsh habitats, focusing on the predatory pressure by herons and egrets on fish abundance and distribution. Michelle has extensive experience in analyzing avian responses to wide range of landscape and habitat variables, including anthropogenic impacts and micro-habitat variables. As principal investigator and researcher, she applied research results to make management recommendations to municipal level regulatory agencies, a federal parks commission, and private landowners. She is proficient at GIS and other geo-spatial analysis tools to examine species-specific requirements and anthropogenic impacts on wildlife. She has experience coordinating citizen science and large-scale studies of wildlife populations. She received a Together Green Conservation Leaders Fellowship and grant funds and training to better engage and develop diverse audiences in direct conservation action, focusing on improving urban habitats to benefit people and wildlife.

LESLIE MACLISE-KANE is Director of the Audubon Center at Bent of the River in Southbury, Connecticut, where she is responsible for the management of a 700 acre sanctuary and education facility. She has a M.S. degree in landscape architecture from the University of Massachusetts, a B.A. degree in anthropology and a B.A. degree in geography from Mount Holyoke College. She is a certified AICP planner and is a licensed tree warden. From 2000 to 2008, she was Environmental Planner, Inland Wetlands Administrator, Tree Warden and GIS Administrator for the Town of Guilford, Connecticut. In this capacity, she gained extensive experience in the regulation, protection and restoration of inland and tidal wetlands. She supervised all wetland regulatory programs of the municipality, including oversight of a $5 million bond for land acquisition, and numerous inland and tidal wetland restoration projects. She has had direct regulatory control of more than 1,000 development sites in Connecticut since 2000. From 1997 to 2000, she was Tidelands Watershed Coordinator and Director of Connecticut River Projects for the University of Connecticut Cooperative Extension System. She is presently Chair of the Connecticut Urban Forest Council, and is a member of the Connecticut Tree Wardens Board of Directors.

Appendix F - Representative List of Sponsor's Conservation/Restoration Projects

Ford Pond Phragmites Control Project, Sharon, Connecticut, 2010. Received Landowner Incentive Program grant from the CT DEP to eliminate Phragmites through cycled Glyphosate application and mowing.

Karse Brook, Sharon, Connecticut, 2010. Completed the planning and regulatory reviews to install pond levelers to support beaver use and control water level for nesting waterfowl and other marsh fauna in a two-mile reach of Karse Brook. Work to begin in 2011. In addition, initiated Phragmites control measures and management of shrub habitat to reduce loss by adjacent canopy invasion.

Calcareous Wetland Management, Sharon and Salisbury, Connecticut, 2010. Bio-assay completed and control of invasive plants is ongoing in this rare wetland type.

In-Stream Riparian Improvements, Pomperaug River, Southbury, 2010. Received a DEP Statewide Ecosystem Management and Habitat Restoration Grant to enhance aquatic habitat along a one mile reach of the Pomperaug River.

Riparian Corridor Enhancement Project, Audubon Center at Bent of the River, Southbury, 2008. WHIP grants – applied for and oversaw grants from federal agency to remove invasive species and plant native shrubs to improve habitat and reduce stream bank erosion on Pomperaug River.

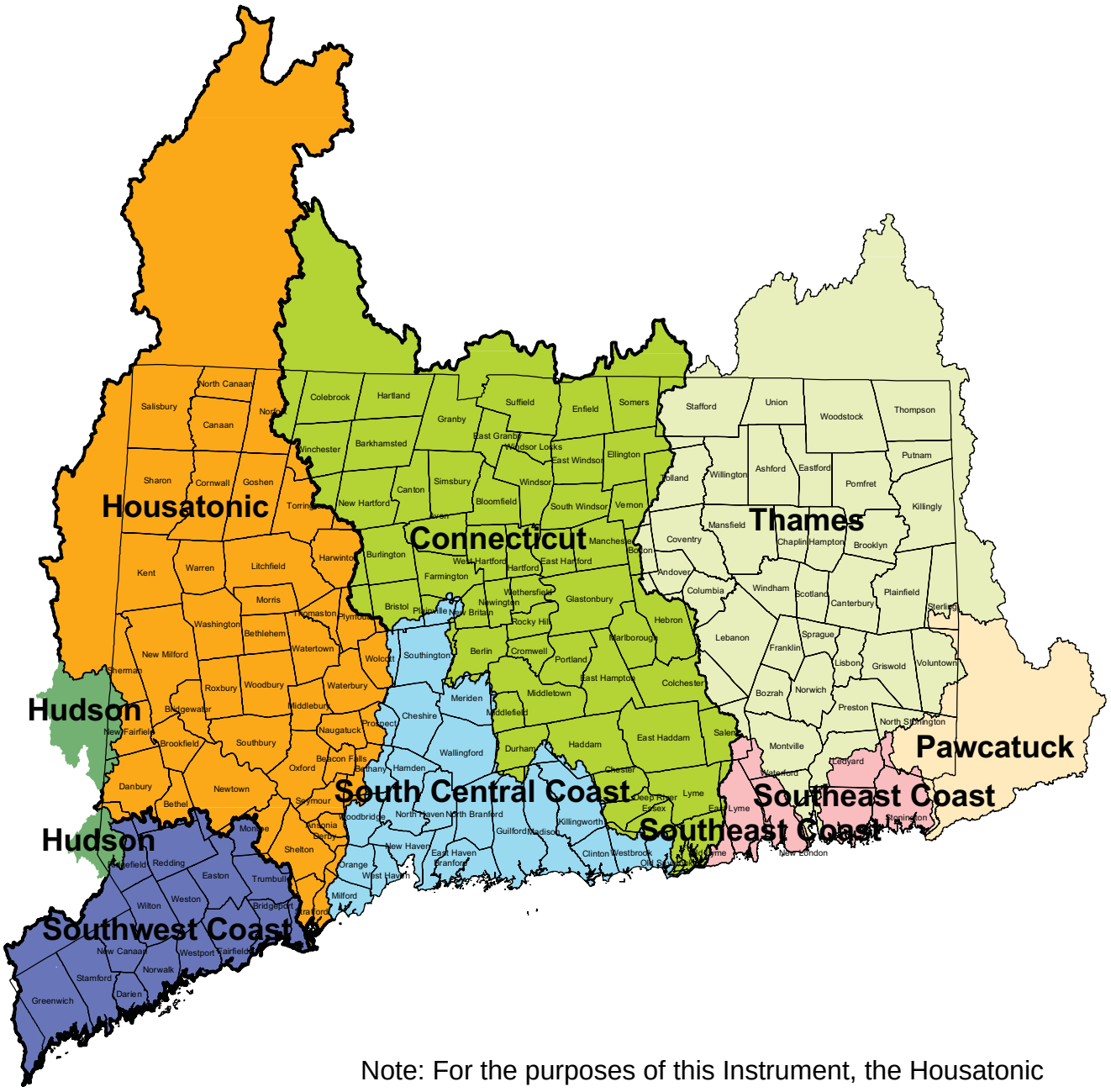
Phragmites Control and small boat storage and launch, Jacob's Beach, Guilford, 2007. Responsible for permitting and oversight of installation.

Coastal Salt Marsh Subsidence Study, 2003 – 2006. Assisted NRCS scientists as local coordinator for extensive study of saltmarsh subsidence in coastal Long Island Sound.

Wetland Habitat Enhancement Project, Audubon Center at Bent of the River, Southbury, 2003. WHIP grant work included invasive herbaceous and woody plant control and wetland habitat establishment.

END

A1 - Service Areas



Note: For the purposes of this Instrument, the Housatonic Service Area includes the Connecticut portion of the Hudson Basin, and the Southeast Coast Service Area includes the Connecticut portion of the Pawcatuck Basin.

Legend

- Town Boundary

Service Areas

- Connecticut
- Housatonic
- Hudson
- Pawcatuck
- South Central Coast
- Southeast Coast
- Southwest Coast
- Thames

1 inch = 90,743 feet

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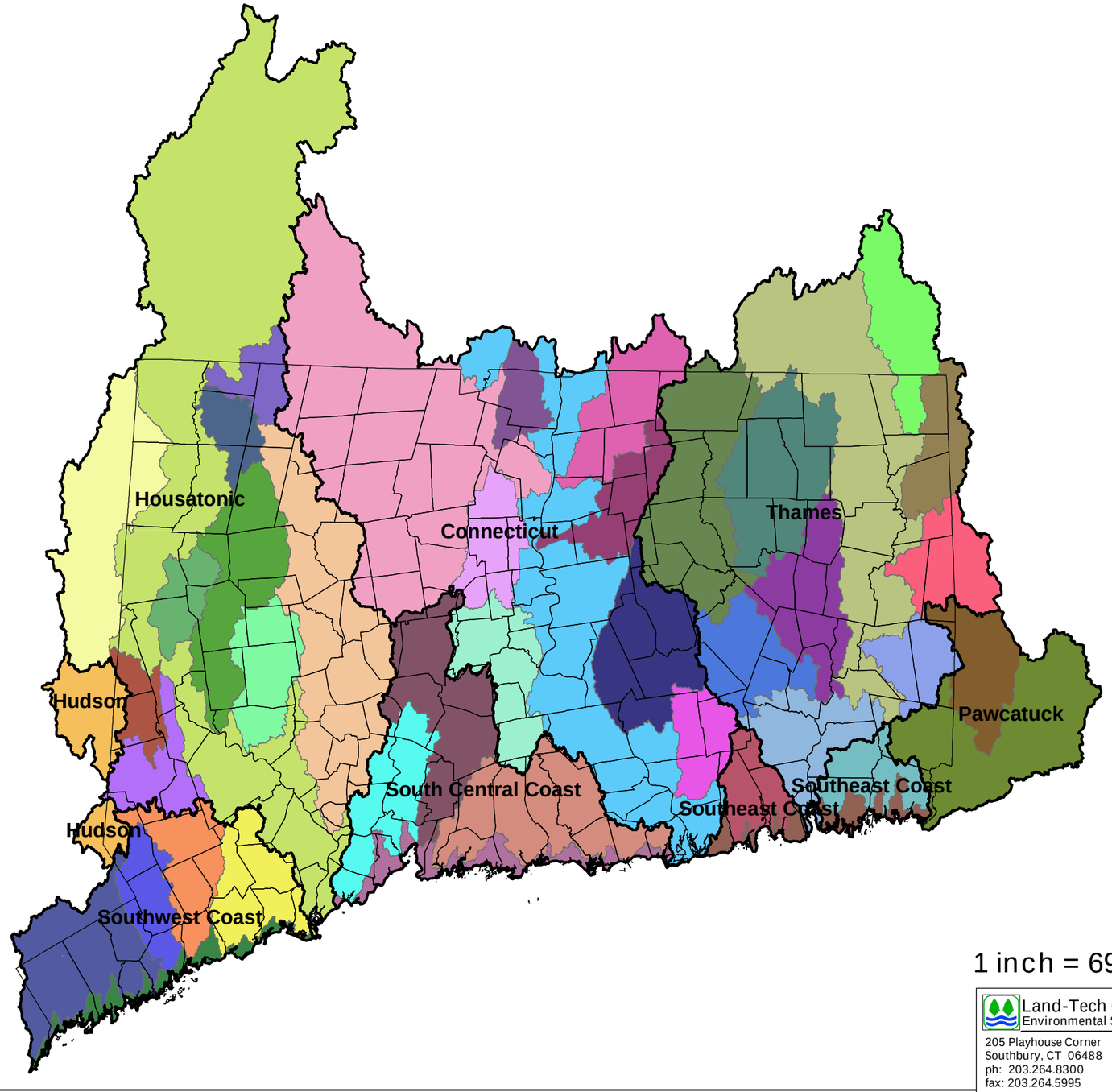
A2 - Service Areas and Regional Basins

Legend

- Town Boundary
- Service Areas

Regional Basins

- Aspetuck
- Blackberry
- Candlewood
- Connecticut Main Stem
- Croton
- Eightmile
- Farmington
- Fivemile
- French
- Hockanum
- Hollenbeck
- Housatonic Main Stem
- Mattabesset
- Moosup
- Natchaug
- Naugatuck
- Norwalk
- Pachaug
- Park
- Pawcatuck Main Stem
- Pomperaug
- Quinebaug
- Quinnipiac
- Salmon
- Saugatuck
- Scantic
- Shepaug
- Shetucket
- South Central Eastern Complex
- South Central Shoreline
- South Central Western Complex
- Southeast Eastern Complex
- Southeast Shoreline
- Southeast Western Complex
- Southwest Eastern
- Southwest Shoreline
- Southwest Western Complex
- Still
- Stony Brook
- Tenmile
- Thames Main Stem
- Willimantic
- Wood
- Yantic



1 inch = 69,089 feet

Land-Tech Consultants, Inc
Environmental Scientists and Engineers

205 Playhouse Corner
Southbury, CT 06488
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fax: 203.264.5995

31 Franklin Street
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ph: 203.454.2110
fax: 203.454.4971

www.landtechconsult.com

N
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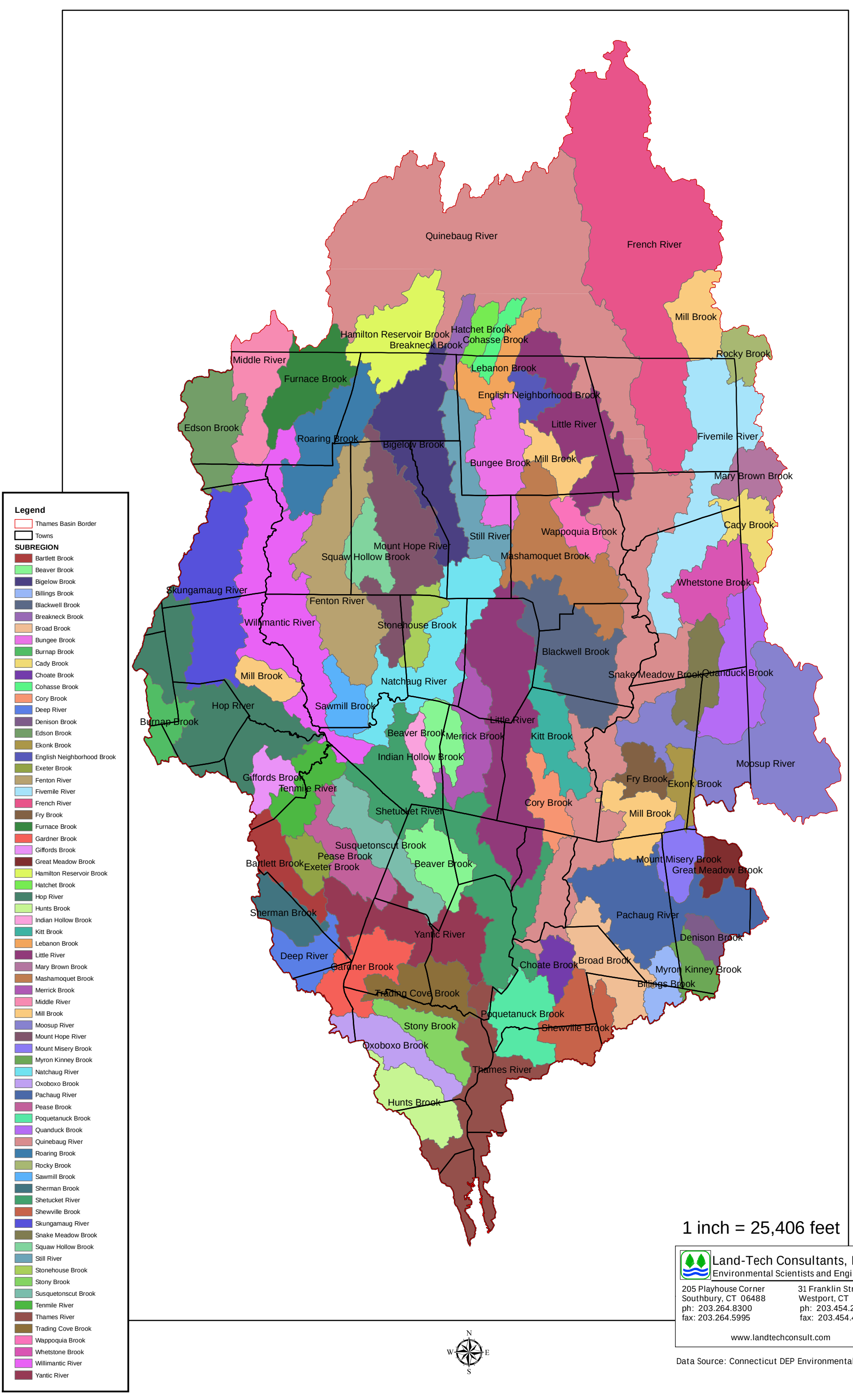
A3.1 - Thames Service Area



Legend

- Thames Basin Border
- Towns

SUBREGION

- Bartlett Brook
- Beaver Brook
- Bigelow Brook
- Billings Brook
- Blackwell Brook
- Breakneck Brook
- Broad Brook
- Bungee Brook
- Burnap Brook
- Cady Brook
- Choate Brook
- Cohasse Brook
- Cory Brook
- Deep River
- Denison Brook
- Edson Brook
- Ekonk Brook
- English Neighborhood Brook
- Exeter Brook
- Fenton River
- Fivemile River
- French River
- Fry Brook
- Furnace Brook
- Gardner Brook
- Giffords Brook
- Great Meadow Brook
- Hamilton Reservoir Brook
- Hatchet Brook
- Hop River
- Hunts Brook
- Indian Hollow Brook
- Kitt Brook
- Lebanon Brook
- Little River
- Mary Brown Brook
- Mashamoquet Brook
- Merrick Brook
- Middle River
- Mill Brook
- Moosup River
- Mount Hope River
- Mount Misery Brook
- Myron Kinney Brook
- Natchaug River
- Oxoboxo Brook
- Pachaug River
- Pease Brook
- Poquetanuck Brook
- Quanduck Brook
- Quinebaug River
- Roaring Brook
- Rocky Brook
- Sawmill Brook
- Sherman Brook
- Shetucket River
- Shewville Brook
- Skungamaug River
- Snake Meadow Brook
- Squaw Hollow Brook
- Still River
- Stonehouse Brook
- Stony Brook
- Susquetonscut Brook
- Tenmile River
- Thames River
- Trading Cove Brook
- Wappoquia Brook
- Whetstone Brook
- Willimantic River
- Yantic River

1 inch = 25,406 feet

Land-Tech Consultants, Inc
Environmental Scientists and Engineers

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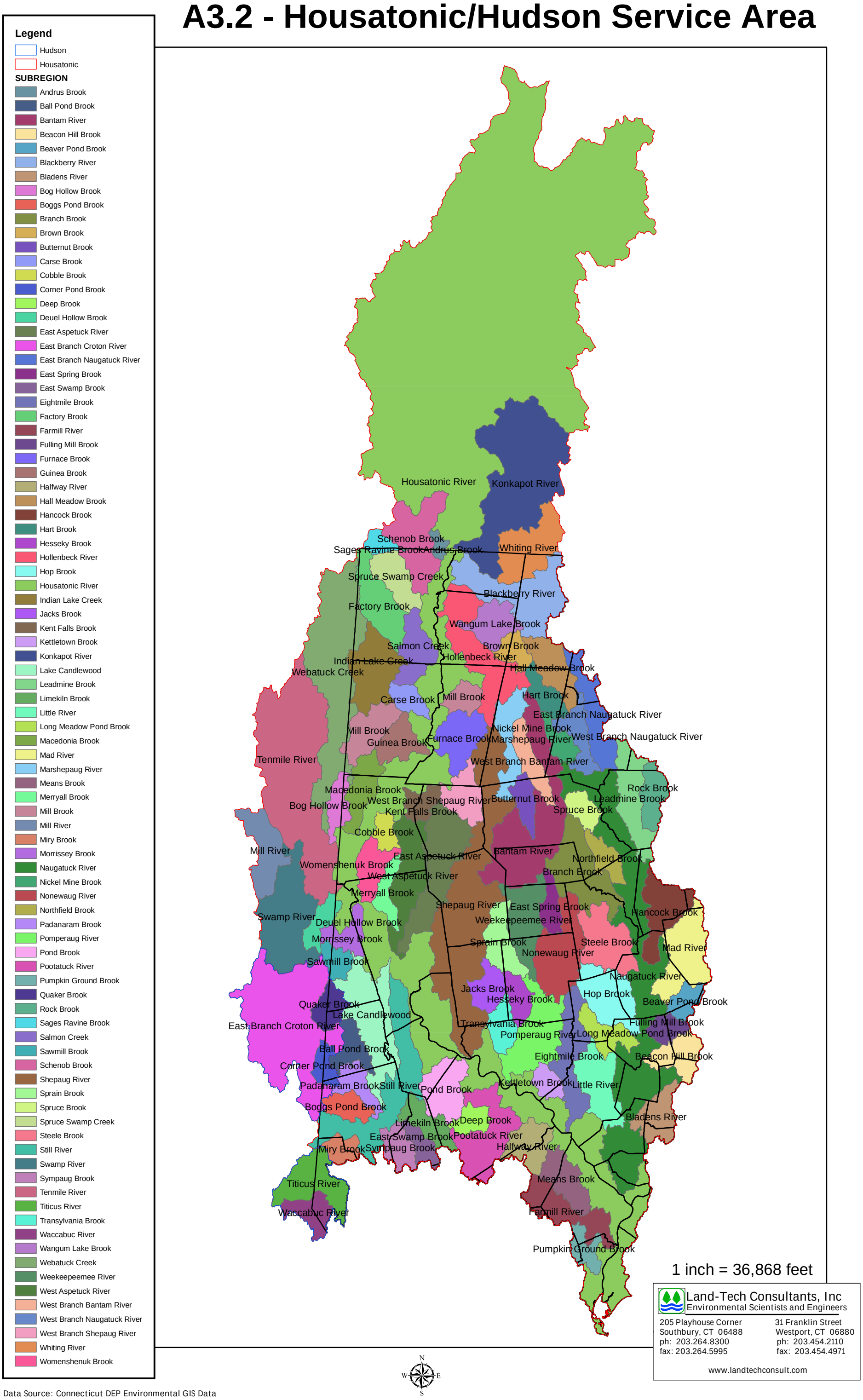
Data Source: Connecticut DEP Environmental GIS Data

A3.2 - Housatonic/Hudson Service Area



Data Source: Connecticut DEP Environmental GIS Data

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A3.3 - Southwest Coast Service Area

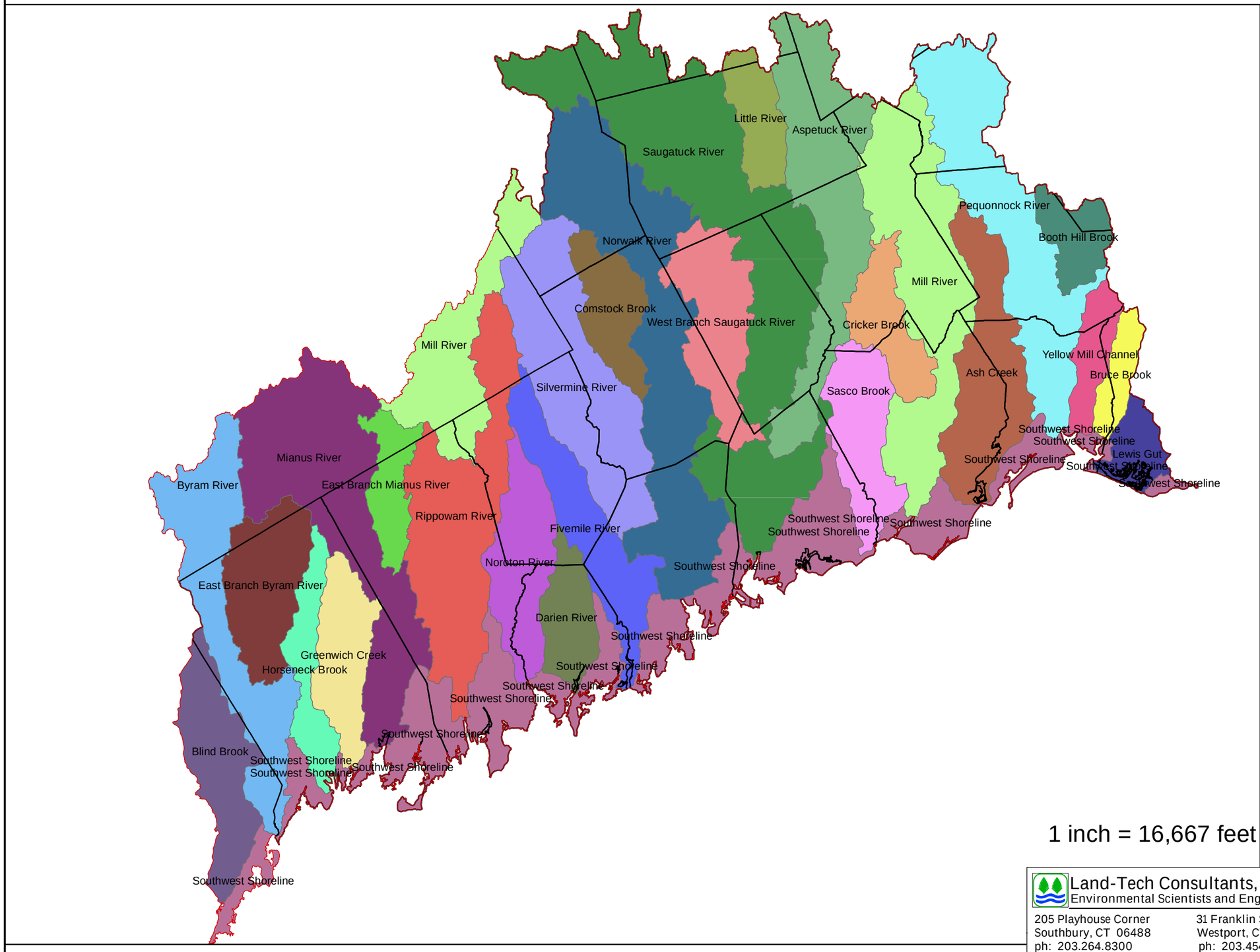
Legend

- Southwest Coast Basin
- Town

SUBREGIONAL

- Ash Creek
- Aspetuck River
- Blind Brook
- Booth Hill Brook
- Bruce Brook
- Byram River
- Comstock Brook
- Cricker Brook
- Darien River
- East Branch Byram River
- East Branch Mianus River
- Fivemile River
- Greenwich Creek
- Horseneck Brook
- Lewis Gut
- Little River
- Mianus River
- Mill River
- Noroton River
- Norwalk River
- Pequonnock River
- Rippowam River
- Sasco Brook
- Saugatuck River
- Silvermine River
- Southwest Shoreline
- West Branch Saugatuck River
- Yellow Mill Channel

Data Source: Connecticut DEP Environmental GIS Data



1 inch = 16,667 feet

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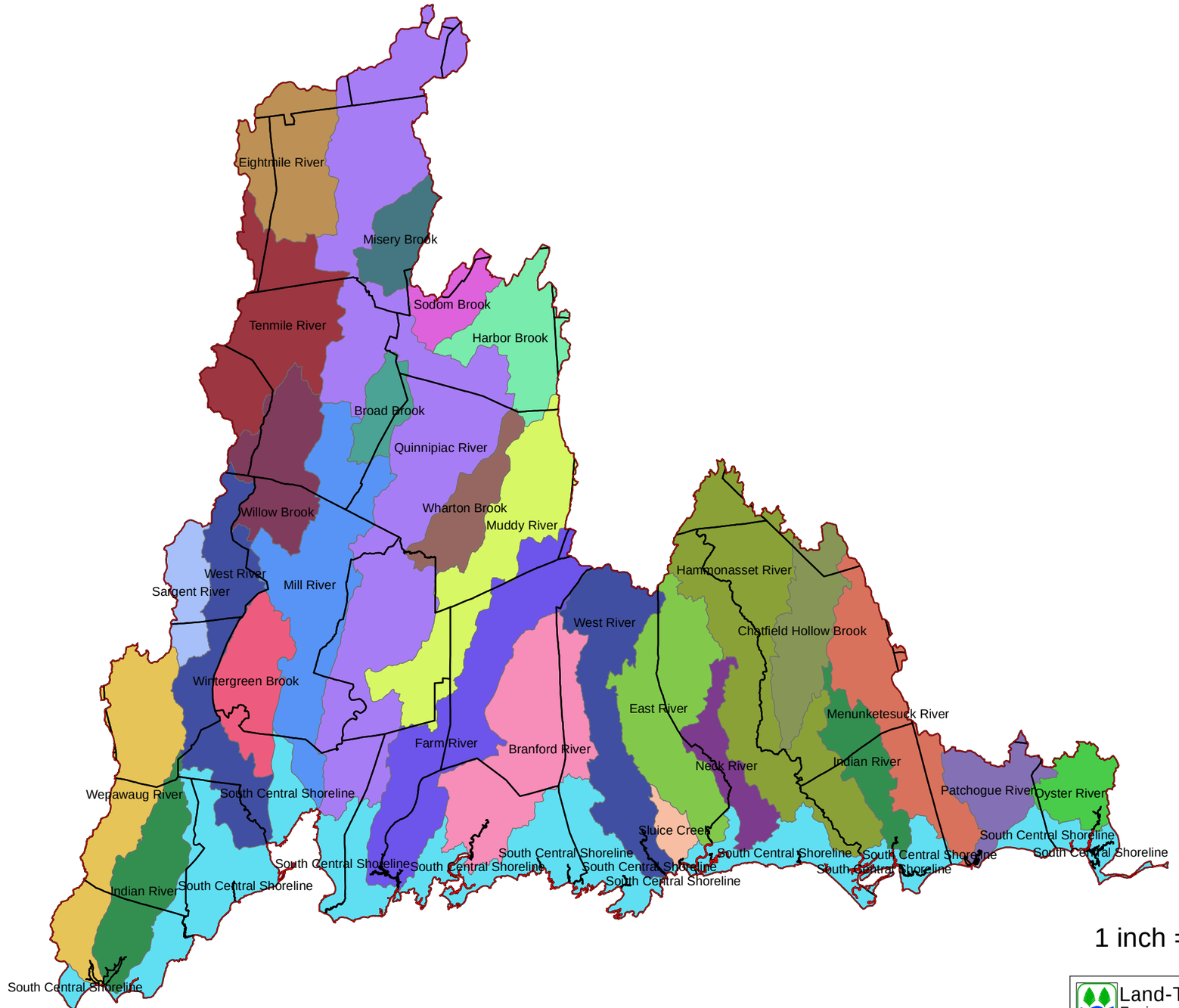
A3.4 - South Central Coast Service Area

Legend

- South Central Coast Basin
- Town

Subregional Basins

- Branford River
- Broad Brook
- Chatfield Hollow Brook
- East River
- Eightmile River
- Farm River
- Hammonasset River
- Harbor Brook
- Indian River
- Menunketesuck River
- Mill River
- Misery Brook
- Muddy River
- Neck River
- Oyster River
- Patchogue River
- Quinnipiac River
- Sargent River
- Sluice Creek
- Sodom Brook
- South Central Shoreline
- Tenmile River
- Wepawaug River
- West River
- Wharton Brook
- Willow Brook
- Wintergreen Brook



1 inch = 20,833 feet

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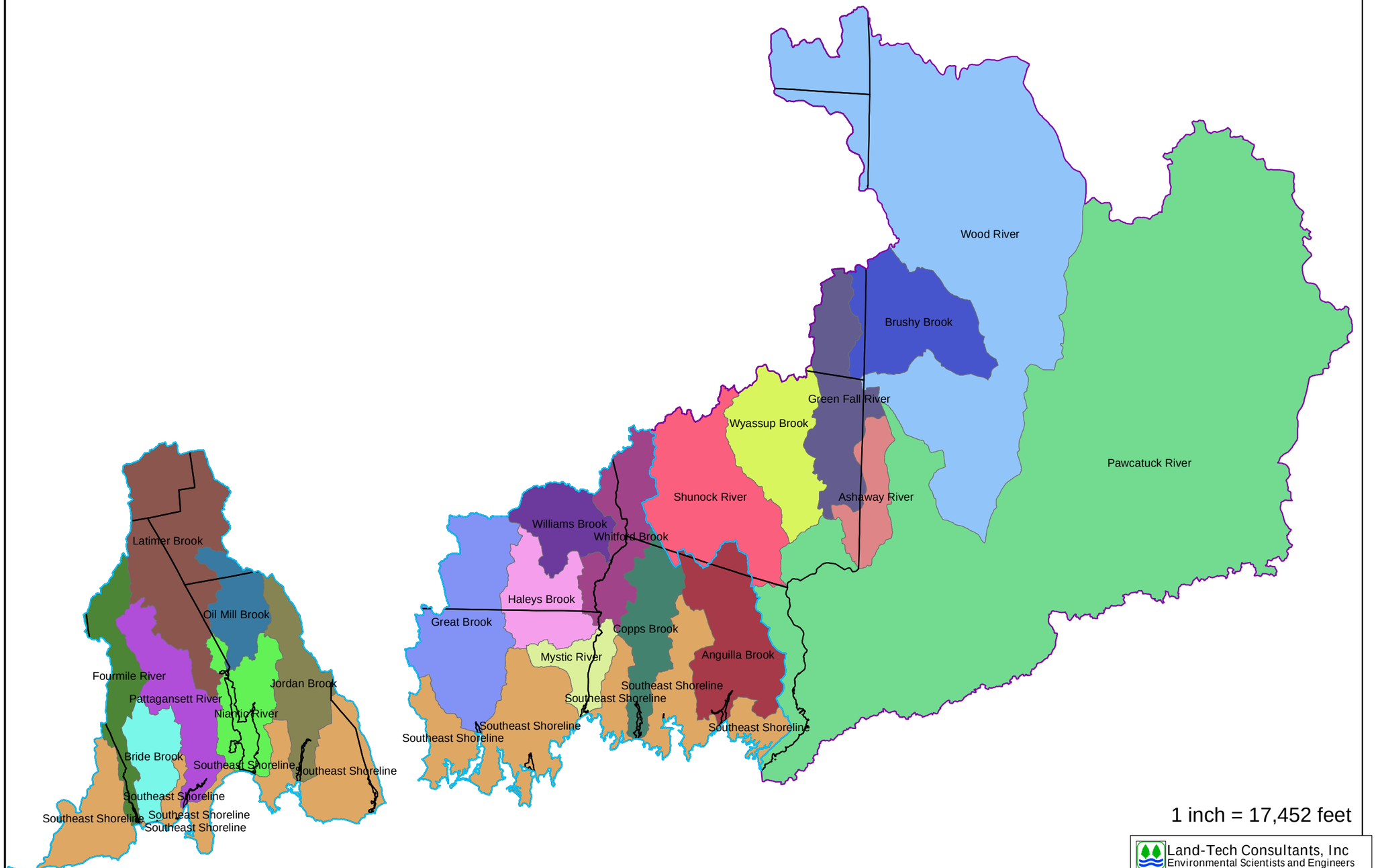
Data Source: Connecticut DEP Environmental GIS Data

A3.5 - Southeast Coast / Pawcatuck Service Area

Legend

- Southeast Coast Basin
- Pawcatuck Basin
- Town
- Anguilla Brook
- Ashaway River
- Bride Brook
- Brushy Brook
- Copps Brook
- Fourmile River
- Great Brook
- Green Fall River
- Haleys Brook
- Jordan Brook
- Latimer Brook
- Mystic River
- Niantic River
- Oil Mill Brook
- Pattagansett River
- Pawcatuck River
- Shunock River
- Southeast Shoreline
- Whitford Brook
- Williams Brook
- Wood River
- Wyassup Brook

Data Source: University of Connecticut: CLEAR



1 inch = 17,452 feet

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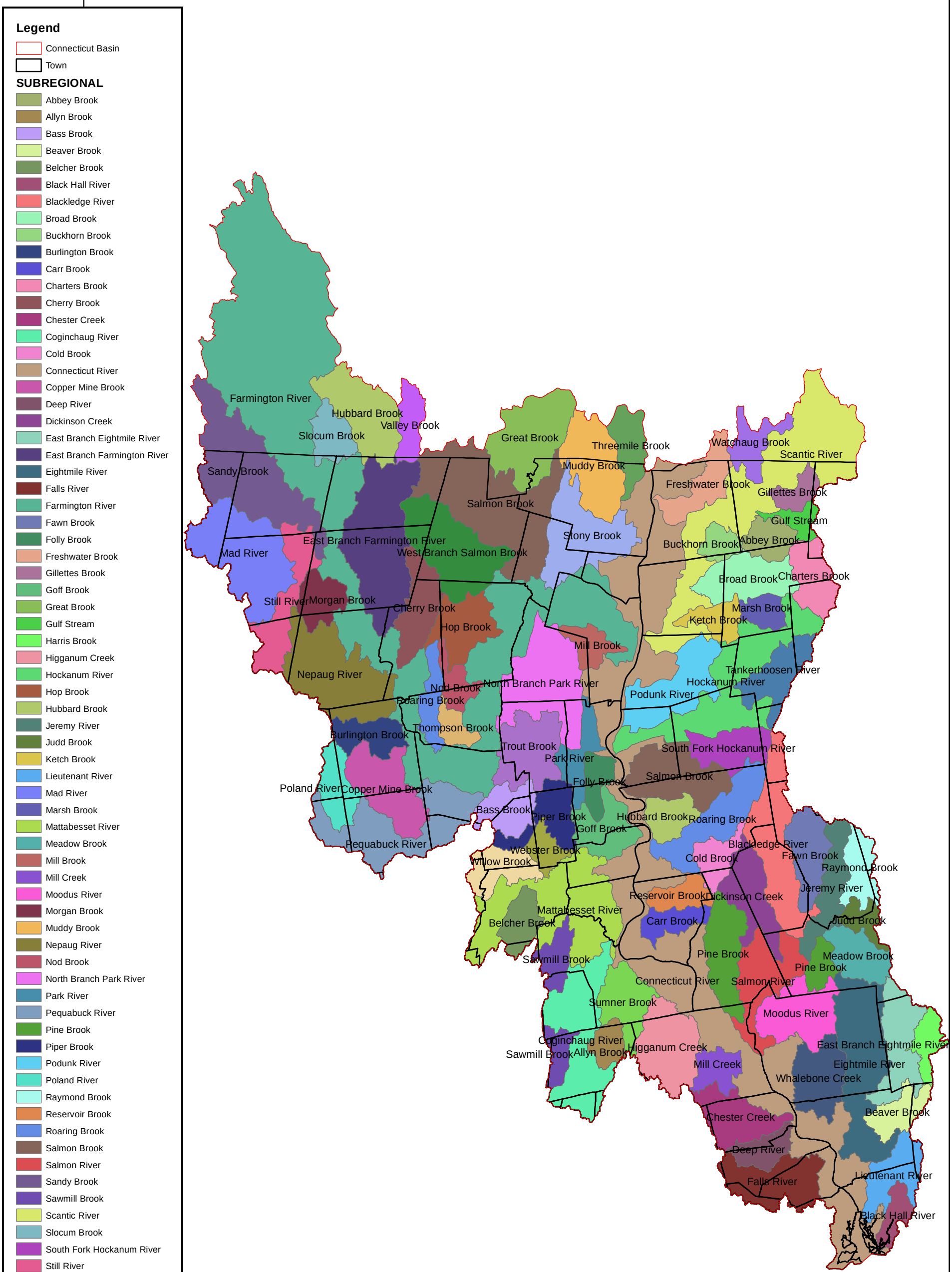
A3.6 - Connecticut River Service Area



1 inch = 33,221 feet

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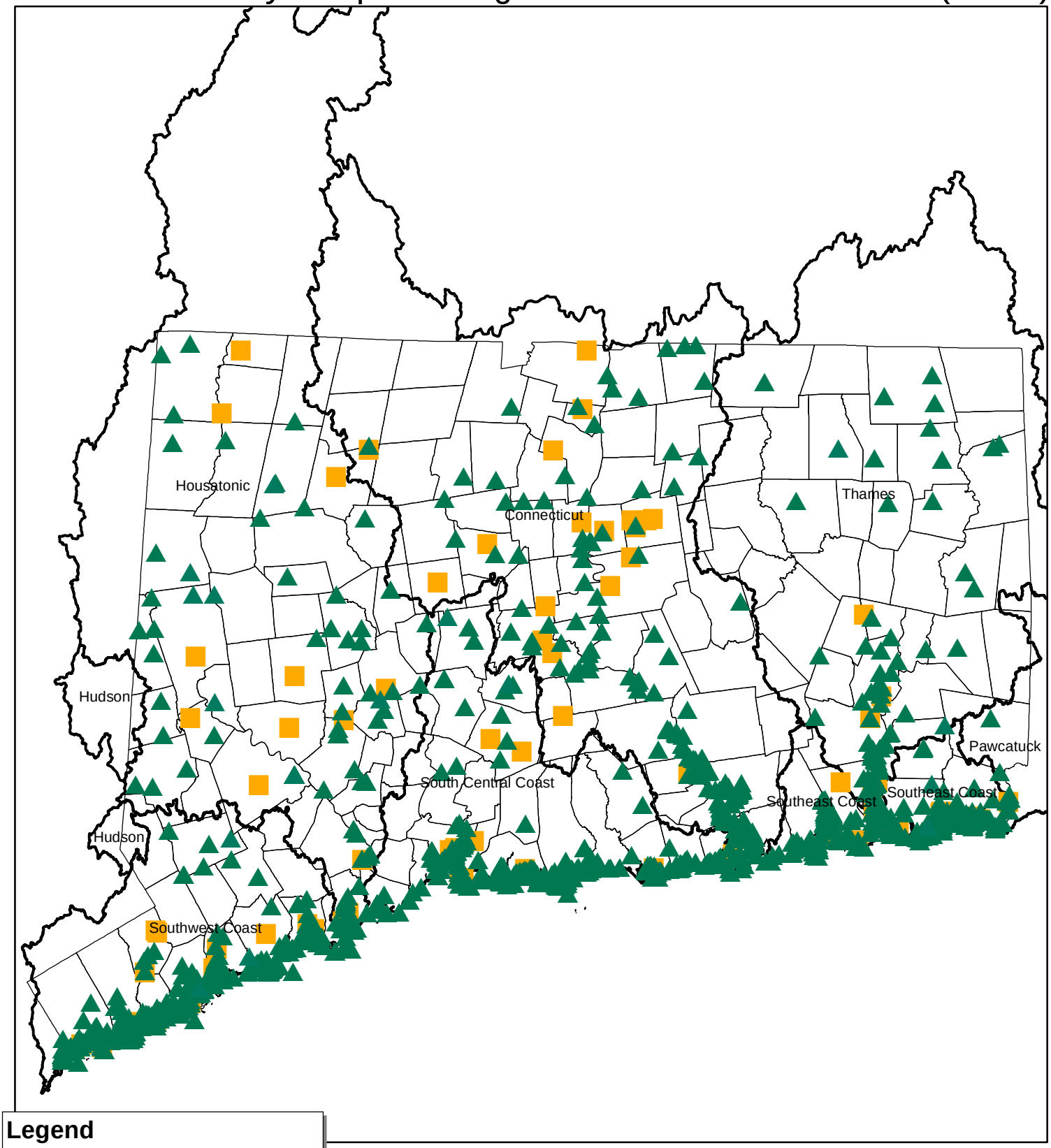
Data Source: Connecticut DEP Environmental GIS Data

A4 - U.S. Army Corps of Engineers Permit Locations (2011)



Legend

- Service Areas
- Town Boundary

1986 to 2011

Permit Type

- Standard (Individual) Permits
- General Permits

1 inch = 71,145 feet

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Data Source: Army Corps

A5 - Locations of Key Habitats for Birds and other Wildlife in CT

N
W E
S

Legend

- Service Areas
- Town Boundary
- Critical Habitat_July2009
- Grassland Sites
- Secondary Forest Sites
- Wetlands/Non-estuarine Sites
- Shrubland Sites
- Estuarine Sites
- Manchester Powerline
- Millstone Powerlines
- RIVERS
- Key urban suburban Sites
- grassland polygons merged
- Major Forests
- Secondary Forests
- Wetland/Non-estarine Boundaries
- Shrubland Boundaries
- Estuaries Sites Boundaries
- Bolton Range/Cockaponset

Housatonic
Connecticut
Thames
Hudson
South Central Coast
Southeast Coast
Pawcatuck
Hudson
Southwest Coast

Data Source: Audubon Connecticut, CTDEEP GIS Data

1 inch = 47,078 feet

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