

# CT Wetland In Lieu Fee (ILF) Grant Program

Anthony Zemba

Senior Environmental Analyst  
Senior Ecologist / Soil Scientist



# ILF Definition

**Permittee pays a fee to a 3rd party rather than conduct on-site project-specific mitigation.**

The fee paid to the **ILF Program Sponsor** = expected cost of replacing the wetland functions lost or degraded as a result of the permittee's project-related impact(s).



Photo credit: Anthony Zemba

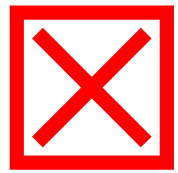


# CT ILF Program Sponsor = Audubon CT

Audubon CT is the sponsor of CT's ILF Program for aquatic resource compensatory mitigation required by the Army Corps authorizations.



Audubon CT (= the CT Office of the National Audubon Society)



Connecticut Audubon Society



# 2008 Corps/EPA 'New Rule' Hierarchy

1. Mitigation Bank
2. In-Lieu-Fee Program
3. Permittee Responsible

Hierarchy guides decision-making preference. Corps project manager makes final decision based on ecological and other considerations



Photo credit: Anthony Zemba

# Mitigation Banking Definition

## A wetlands mitigation bank

- a wetland that has been created, restored, enhanced, or preserved, ahead of and unrelated to a specific development project.
- It is then set aside to compensate for future wetland impacts associated with other development activities

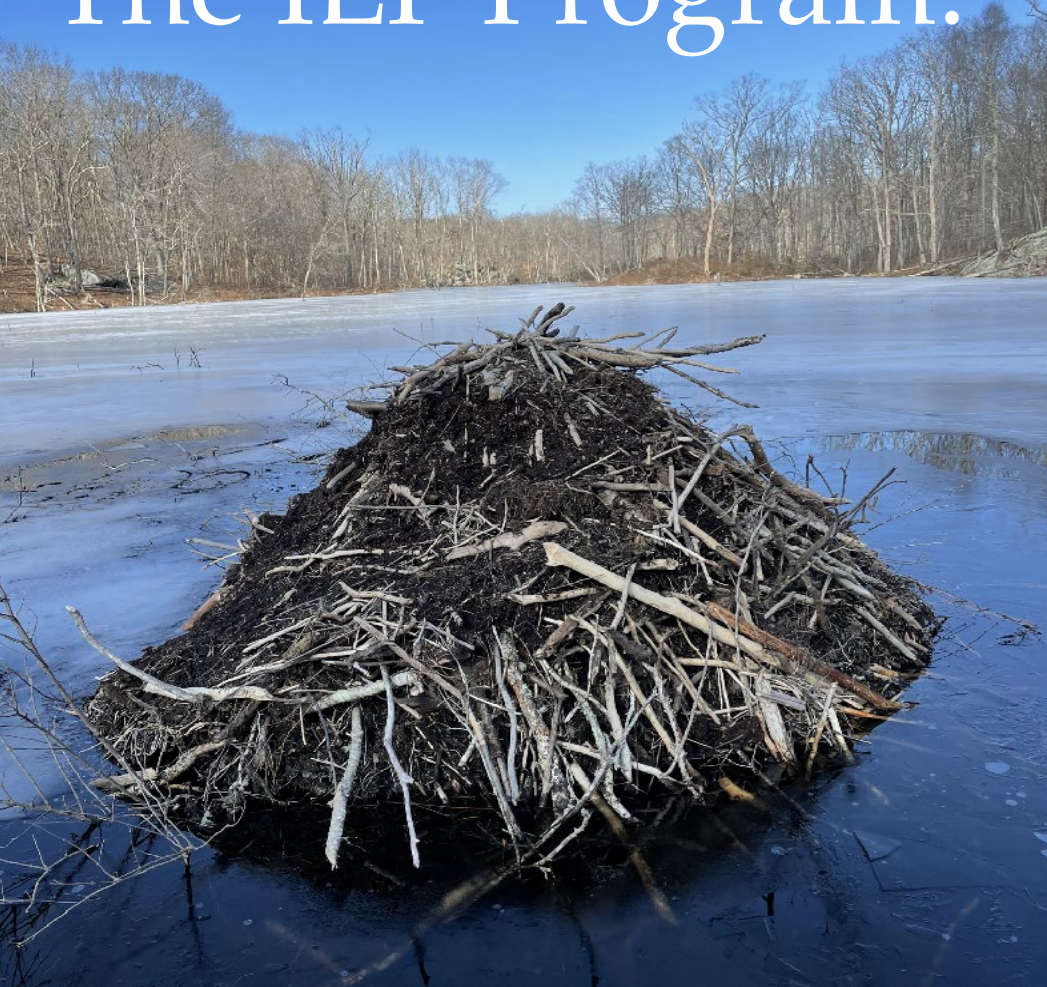
**Not an option in every state!**

**Not an option in CT**



Photo credit: Anthony Zemba

# The ILF Program:



## An alternative to permittee-responsible wetland mitigation in CT

- **Sale of credits** generates funds
- The money is used to create, enhance, protect additional wetland acreage
- Successful completion of the grant-funded projects then **releases the credits**

Photo credit: Anthony Zemba

# Addressing Wetland Impacts under Section 404(b)(1) of the Federal Clean Water Act

## Avoidance !!

- Alternative Site
- Alternative Design

## Minimization!

- Reduced Footprint
- Alternative Design

Mitigation.



Photo credit: Anthony Zemba

# Credit Costs Per Square Foot for Each Service Area

## Estuarine & Palustrine Systems =

wetlands

Service Area	Notes	Credit Cost Per Square Foot <sup>1</sup>
Housatonic River		\$ 7.56
Southwest Coastal		\$ 11.97
South-central Coastal		\$ 9.89
Connecticut River		\$10.11
Thames River	South of I-95	\$10.80
	North of I-95	\$ 7.97
Southeast Coastal		\$ 9.46

## Riverine Systems =

watercourses or “stream credits”

Service Area	Credit Cost*
Housatonic River	\$ 210.00
Southwest Coastal	\$ 311.00
South-central Coastal	\$ 311.00
Connecticut River	\$ 213.00
Thames River	\$ 209.00
Southeast Coastal	\$ 301.00

# ILF Grant Process Overview

- A **Cooperating Entity (CE)** identifies a project in a “service area”
- CE submits **Letter of Intent (LOI)**
- If eligible, CE asked to submit a **Full Application & draft Mitigation Plan**
- Applications reviewed by a **Project Advisory Committee (PAC)**
- PAC scores projects; best projects are recommended to an **Interagency Review Team (IRT)**
- IRT makes decision on who is funded



Photo credit: Anthony Zemba

# Projects Eligible for ILF Funding

- Wetland **Creation**
- Wetland **Restoration**
- Wetland **Enhancement**, and
- Wetland **Preservation\***

(\*but only if the preservation project includes one or more of the above)



Photo credit: Anthony Zemba

# Definitions

Creation – Constructing wetlands where wetlands have not previously existed

Restoration (Re-establishment) – “The manipulation of the physical, chemical, or biological characteristics of a site with the goal of *returning natural/ historic functions to a former aquatic resource*”.

Enhancement – “The manipulation of the physical, chemical, or biological characteristics of an aquatic resource to *heighten, intensify, or improve a specific aquatic resource function(s)*”

Preservation – “The removal of a threat to, or preventing the decline of, aquatic resources by an action in or near those aquatic resources”.

# Who is Eligible?

- Municipalities
- Non-profit Organizations
- Non-governmental Organizations
- Universities
- State of Connecticut



Photo credit: Anthony Zemba

# How Are Projects Evaluated?

## The PAC uses a 100 - point scoring system:

1. Potential to meet the service area Goals - (30%)
2. Landscape Ecology Context - (20%)
3. Project Readiness/Feasibility - (20%)
4. Project Sponsor Capacity - (15%)
5. Cost Effectiveness - (10%)
6. Other Benefits - (5%)



Photo credit: Anthony Zemba



If approved, the CE then...

- Enters into a **Project Agreement** with Audubon
- Provides **legal documents** to Audubon
- Secures a **land protection instrument**
- Finalizes mitigation and management plans
- Designs & implements project *within one year or* **as soon as possible** then...
- Monitors the site pursuant to Corps **mitigation guidelines**



# Summary of ILF Program 2016–2025

- **\$7.6 million** awarded to date
- **240 acres** of wetlands created, restored, enhanced or preserved
- **1,085 acres** of total land protected
- Over **28,000 linear feet** of riverine habitat enhanced
- **27 State-listed Species** (including 3 federally listed spp.) confirmed on ILF sites
- Habitat for **98 CT Greatest Conservation Need** species protected
- **7 CT Critical Habitats** are purported to occur on the various ILF-acquired lands

# What Makes for a Successful Project?



Photo credit: Anthony Zemba

- Meets goals & objectives of the Service Area
- Creates, restores, enhances and protects the most wetland acreage
- “Shovel Ready”
- Connects adjacent existing preserves
- Contains rare habitats, rare species or both



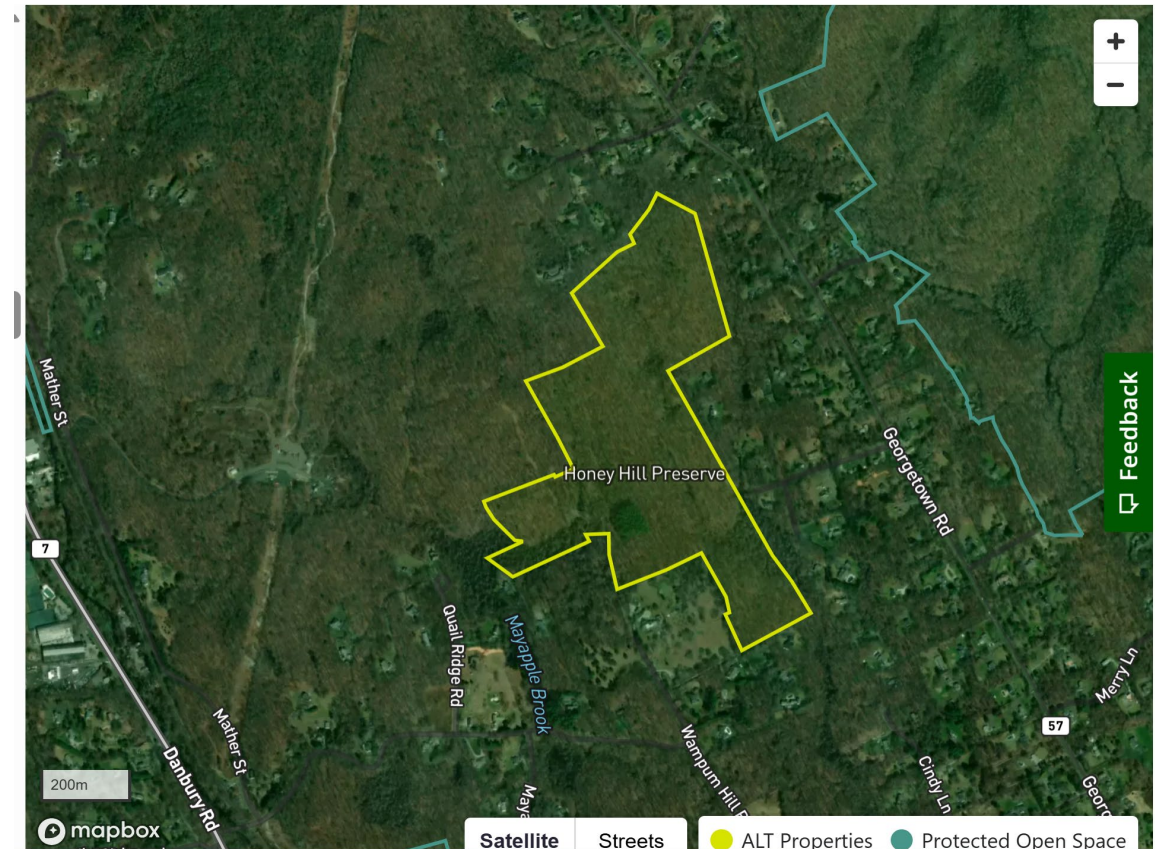
# Aspetuck Land Trust (ALT) – Weston / Wilton Forest Block Project

ILF Projects added to the existing forest  
block adjacent to the Honey Hill  
Preserve (81 acres)

---

2017 — Bargain Sale from Belknap Trust  
added 38 acres

2021 — Purchase of Fromson / Strassler  
Property added 85 acres





*Thermal pool treatment on the Salmon Kill, Salisbury, CT*

Photo source: Trout Unlimited



# Salmon Kill Creek Restoration

- **Restored degraded stream reaches** that were adversely impacted by agricultural land use
- Addressed **ongoing bank erosion**
- **Restored streamside vegetation** to shade stream corridor and stabilize banks
- **Added in-stream habitat attributes** to sustain coldwater fishery
- **Stream Reach is now protected** by livestock fencing and a conservation easement



# Dolan Pond Fishway

- Second to **last barrier** to be crossed in a series of seven barriers along the Falls River
- Allows passage of diadromous fish to their **spawning habitats**
- The last barrier preventing river herring from reaching **10-acre upstream breeding habitat** removed



*Centerbrook Architects Fishway on the Falls River, Essex*



# Stratford Point Marsh Restoration

- Restored Saltmarsh originally lost due to excavation as a remedial measure to remove lead shot from the intertidal zone
- One component of a multi-faceted habitat restoration plan
- Restored Saltmarsh serves to attenuate wave energy and prevent further erosion of the adjacent upland habitats



Sacred Heart  
UNIVERSITY

# Jarvis Creek Restoration

Branford, CT

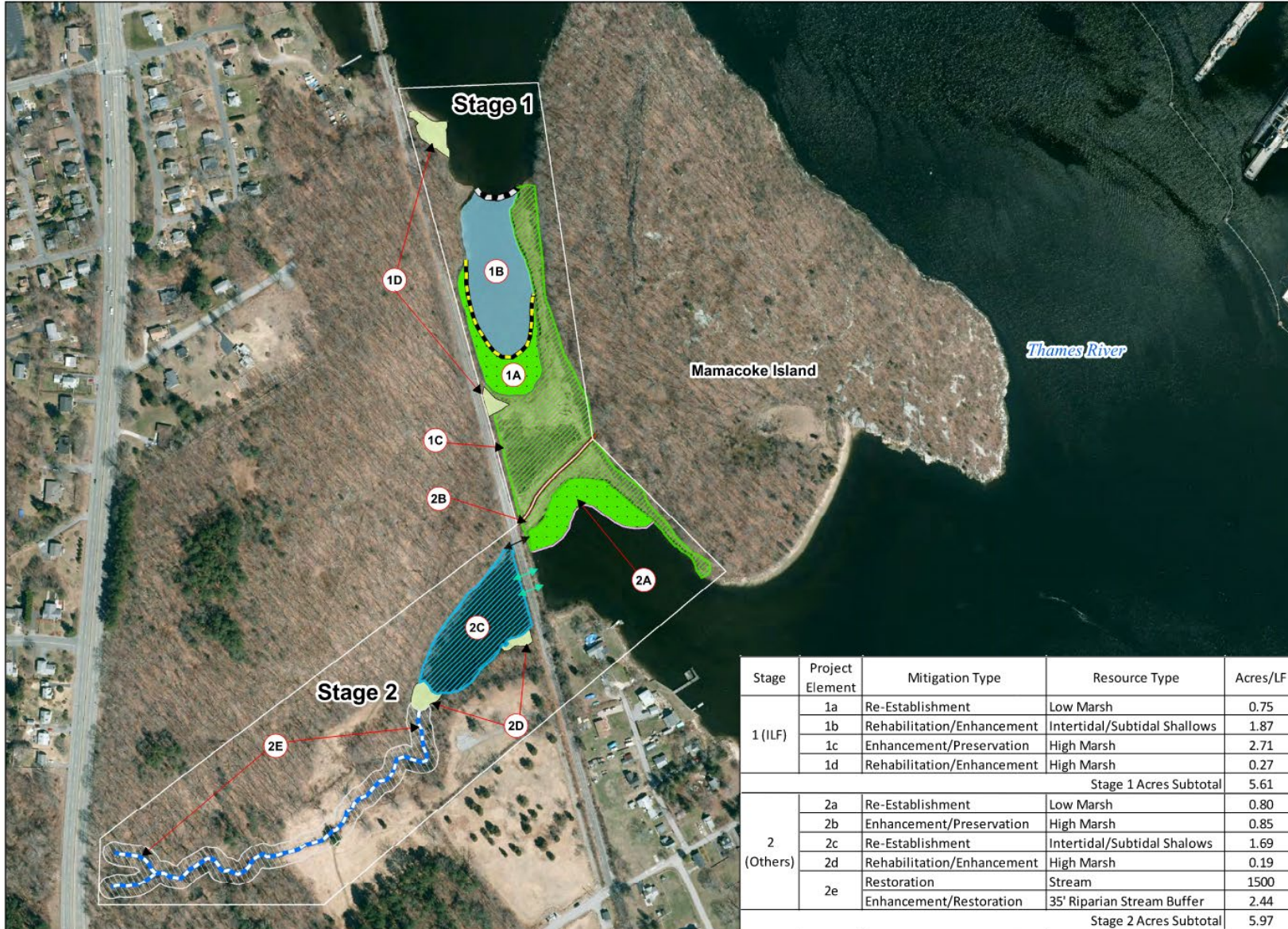


BRANFORD LAND TRUST



- Restoration Project
- Involves removal of a fill material berm that historically prevented the limits of flood tide inundation
- Allows for landward migration of salt marsh communities

# Mamacoke Island Restoration



Stage	Project Element	Mitigation Type	Resource Type	Acres/LF
1 (ILF)	1a	Re-Establishment	Low Marsh	0.75
	1b	Rehabilitation/Enhancement	Intertidal/Subtidal Shallows	1.87
	1c	Enhancement/Preservation	High Marsh	2.71
	1d	Rehabilitation/Enhancement	High Marsh	0.27
Stage 1 Acres Subtotal				5.61
2 (Others)	2a	Re-Establishment	Low Marsh	0.80
	2b	Enhancement/Preservation	High Marsh	0.85
	2c	Re-Establishment	Intertidal/Subtidal Shallows	1.69
	2d	Rehabilitation/Enhancement	High Marsh	0.19
	2e	Restoration	Stream	1500
Stage 2 Acres Subtotal				5.97



**GreenVest LLC\***  
 35A Kennedy Road  
 Tranquility, NJ 07879  
 732.902.6644 (p)



**Mamacoke Island Aquatic Habitat Restoration Project**

**Overall Mitigation Plan**  
 Connecticut College  
 Mamacoke Island  
 Town of Waterford, CT

- Legend**
- Stream Restoration
  - 35' Riparian Stream Buffer
  - Goliath Reefballs
  - Bio-sill
  - Sill
  - Intertidal Subtidal Shallows Rehabilitation/Enhancement
  - Low Marsh
  - Proposed Equalizer Culvert
  - Existing Culvert
  - Intertidal/Subtidal Shallows Re-Establishment
  - Phragmites Removal/ Intertidal Marsh Rehabilitation
  - High Marsh Enhancement/Preservation

# What's Required of a Cooperating Entity?

- Property Owner Permission
- Requisite Permits
- Environmental Due Diligence
- Property Boundary Survey
- Land Protection Instrument
- Recent Appraisal
- Mitigation Plan & Requisite Monitoring
- Long Term Management Plan



Photo credit: Anthony Zemba

# Preservation Projects in Connecticut

- Lukaszec Property Acquisition – Thompson
- Zemko Property Acquisition – Salem
- Stoeke Property Acquisition – Hartland
- Bosco A and Bosco B Property Acquisitions – Hartland
- Belknap Addition to the Honey Hill Preserve – Weston
- Grobe Property Acquisition – Bethany
- Simpson Property Acquisition – Bethany
- Danforth Property Acquisition – Colebrook
- Fromson/Strassler Property Acquisition – Weston
- Bloomingfield Farm Conservation Easement – Sherman
- Fenn Road Acquisition – Cheshire
- Alba Pavan Preserve Acquisition – Manchester
- Ayer's Point Property Acquisition – Old Saybrook

# Restoration & Enhancement Projects in Connecticut

- Indian River Culvert Removal – Orange
- Stratford Point Saltmarsh Restoration – Stratford
- Salmon Kill Creek Restoration – Salisbury
- Dolan Pond Fishway – Centerbrook
- Harrison Property Stewardship & Habitat Enhancement – North Branford
- Sheets Family Forest Preserve Stewardship & Habitat Enhancement – North Stonington
- Norwalk River Restoration and Enhancement – Wilton
- Jepp Brook Preserve Acquisition & Enhancement – Hamden
- Jarvis Creek Restoration – Branford
- Mamacoke Marsh Stabilization & Restoration – Waterford
- Ripley Field Wetland Creation & Restoration – Litchfield
- Farm River Wetlands Restoration and Enhancement – Branford, CT

# Funds Available for 2026\*

Service Area	Funds Available
Connecticut River	\$1,007, 890
Housatonic River	0
South-Central Coast	\$325,893
Southeast Coast	\$382,212
Southwest Coast	\$78,603
Thames River	\$524,853



Photo credit: Anthony Zemba

\* As of February 4, 2026

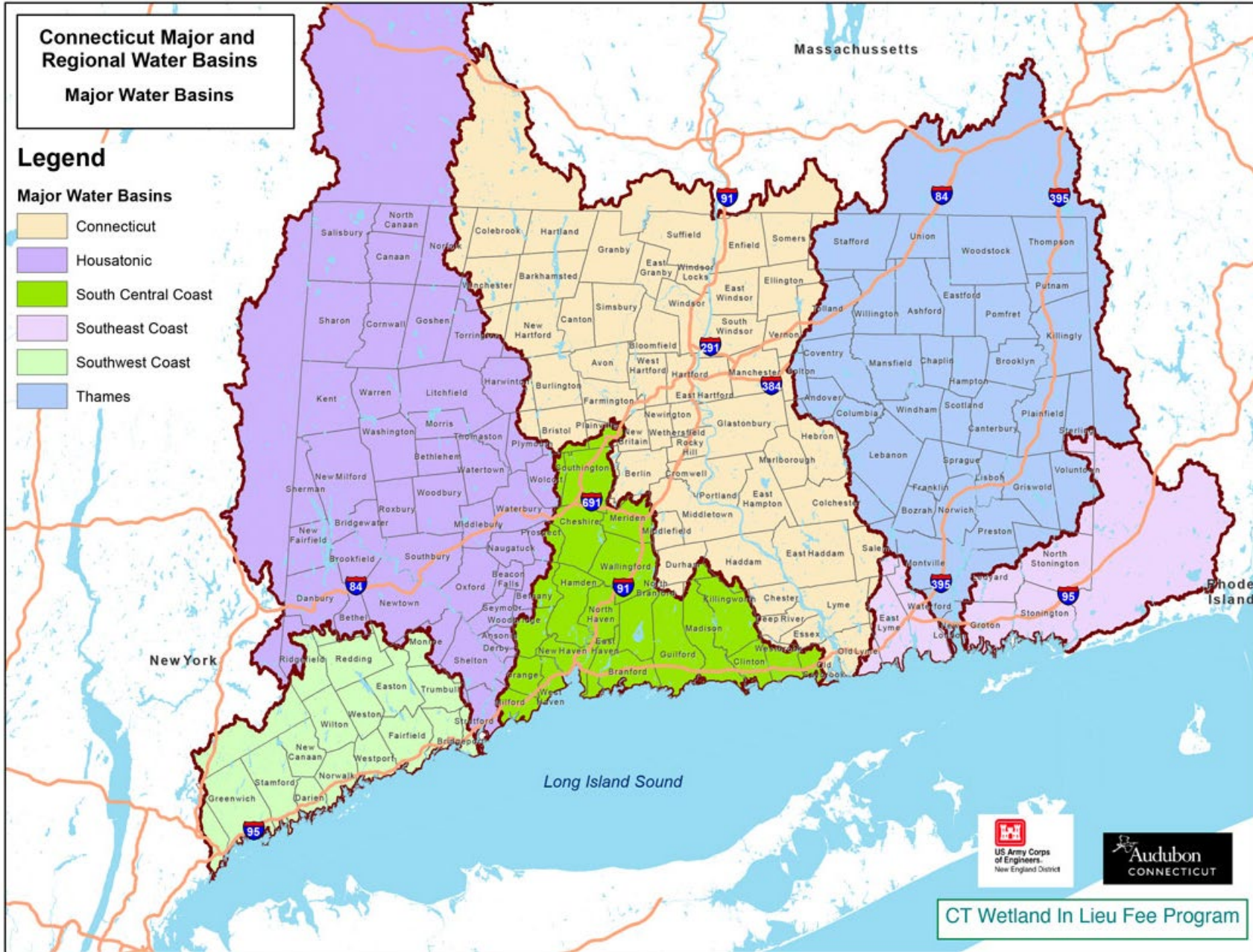
# Connecticut Major and Regional Water Basins

## Major Water Basins

### Legend

#### Major Water Basins

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



# ILF Service Areas

CT Wetland In Lieu Fee Program



# Tentative Annual ILF Schedule



Milestone	Tentative Time Period
Request for Letters of Intent (LOI) released	April 3 <sup>rd</sup> , 2026
<b>LOI submission to Audubon deadline</b>	<b>May 8<sup>th</sup></b>
Site visits conducted	June 8 <sup>th</sup> – 18 <sup>th</sup>
<b>Deadline for invited parties to submit full proposals</b>	<b>August 28<sup>th</sup></b>
PAC reviews and ranks projects	September 7-18 <sup>th</sup>
PAC Rankings & Recommendations Sent to IRT	October 9 <sup>th</sup>
IRT selects finalists	October 23 <sup>rd</sup>
Project Agreements finalized	Late December

Photo credit: Anthony Zemba

# An Appeal to CAWS Members: Please Share your Wetland Project Restoration Costs with the ILF Program !!!

A **BIG** Thank You to those that have shared costs in the past:





# Find Out More...

## **Visit:**

<http://ct.audubon.org/conservation/in-lieu-fee-program>

## **Contact:**

### **Anthony Zemba**

Senior Ecologist / Soil Scientist  
CT Wetland ILF Grant Program  
Coordinator

203-454-2110 x 190

[azemba@landtechconsult.com](mailto:azemba@landtechconsult.com)

Zemko Sawmill Preserve – Salem, CT

Photo Credit: Anthony Zemba