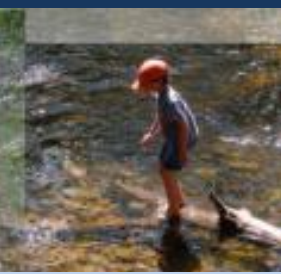




Connecticut Department of Energy and Environmental Protection



Connecticut Department of
**ENERGY &
ENVIRONMENTAL
PROTECTION**

Connecticut Public Engagement Overview

5/30/2018

Walter Tokarz, ENV ANALYST II, CT DEEP

Data Management Training, Shepherdstown, WV



Connecticut Department of Energy and Environmental Protection

TMDL VISIONS Public Engagement

- Release DRAFT Priorities for public comment (December 2015)
- Conduct information session
- Watershed Fair idea
 - Build partnerships
 - Learn of Watershed Projects



Integrated Water Resource Management (IWRM) Vision

Connecticut has taken this updated approach and used it as the basis to improve our process for restoring and protecting Connecticut's waters through our Integrated Water Resource Management efforts. Through Integrated Water Resource Management CT DEEP is trying to work more effectively towards restoring and protecting our waters through developing partnerships and looking for flexible and efficient approaches to linking our environmental data and goals with partner's actions that support restoring or protecting our resources. More information can be found in the [Integrated Water Resource Management Fact Sheet](#).



The updated approach is based on six key elements which EPA identifies as: Prioritization, Assessment, Protection, Alternatives, Engagement and Integration. It allows states to identify areas for plan development based on state-specific concerns and provides sufficient time to develop plans using flexible approaches within regulatory authority.

Key Elements of EPA's Vision for Integrated Water Quality Management



Connecticut Department of Energy and Environmental Protection

TMDL Group Initial Comment Process

Public Comment Period: May 27-June 30, 2016

- Written or email comments accepted
- Provide input on selection of waters for initial plan development
- DEEP will review and may revise list of waters for plan development based on public comment
- Final list will be provided to EPA



Web Page, Report & Story Map

<http://www.ct.gov/deep/iwrm>

Integrated Water Resource Management (IWRM) Taking Action to Restore and Protect Water Quality

Integrated Water Resource Management Taking Action to Restore and Protect Water Quality

An Integrated Approach

Connecticut is taking a new approach to restoring water quality in our rivers, streams, lakes, local harbors, and Long Island Sound. This enhanced approach, called **Integrated Water Resource Management**, will help focus state resources through a comprehensive review of information and by building on local partnerships to protect and restore water quality.



Figure 1. Healthy forest stream

Blueprint for Improved Waters

Under the federal Clean Water Act, Connecticut creates pollution reduction plans called Total Maximum Daily Loads (TMDLs) to restore and protect water quality. A TMDL can be thought of as a **water pollution budget or diet**. A TMDL is a type of water quality action plan. Waterbodies with poor water quality are over their budget and pollutants must be reduced to meet acceptable **water quality standards**. For waterbodies with good water quality, setting a budget maintains this good water quality. The long term goal for all waterbodies is to meet water quality standards for safe human use and a healthy aquatic environment.

Developing water quality action plans is not a new activity, however, the US

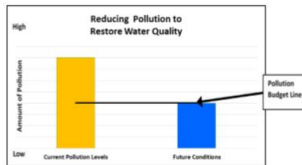


Figure 2. Poor water quality budget

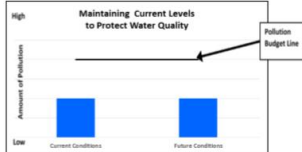


Figure 3. Good water quality budget



Connecticut's Integrated Water Resource Management

Surface waters such as rivers, streams, lakes, and wetlands are fundamental to a resilient and healthy state and Long Island Sound, an important resource for residents, businesses and for fish and wildlife in Connecticut. Through Integrated Water Resource Management, the Connecticut Department of Energy and Environmental Protection (DEEP) is leading a comprehensive plan and strategy to improve water quality and restore water quality. DEEP is currently working to identify water and wetlands for action plan development during the next five-year period (2022).

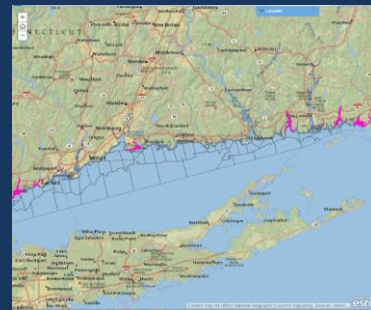
This item was prepared to help you understand and explore the data that DEEP is considering for action plan development.

How to Use This Story Map

- Move the slider to the right.
- Click on the map to view the data for the selected area.
- Click on the legend to view the data for the selected area.
- Click on the map to view the data for the selected area.

Why TMDLs Matter: Action Plan for Connecticut's Waterbodies

As a result of this plan, we are taking action to protect our water quality and restore our waterbodies.



Connecticut's Integrated Water Resource Management

Coastal Embayments Considered for Action Plan Development

In addition to a draft list of inland waterbodies and wetlands, Connecticut DEEP is also preparing a draft list of coastal embayments to be included in the action plan. This draft list of waterbodies was developed based on the most significant water quality issues identified in the most recent water quality assessment reports. Additionally, the Bureau of Hydrography has indicated that some of the waterbodies are likely to be included in the action plan.

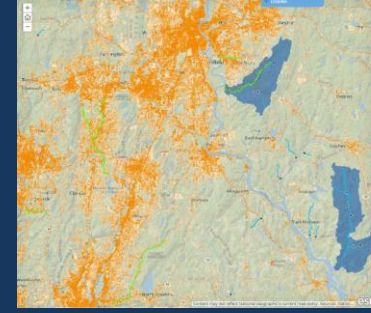
For more information about these areas, visit a related resource:

The Big Picture: Draft List of Waterbodies for Action Plan Development

This is a draft list of waterbodies that are being considered for inclusion in the action plan. The list is based on the most significant water quality issues identified in the most recent water quality assessment reports.

Why TMDLs Matter: Action Plan for Connecticut's Waterbodies

As a result of this plan, we are taking action to protect our water quality and restore our waterbodies.



Connecticut's Integrated Water Resource Management

Protect What's Good: Waterbodies Selected for Protection

This draft list of Connecticut waterbodies also includes areas that currently have good water quality. The objective for these areas is to develop action plans that support maintaining and protecting the good water quality that is currently there in the watershed.

How to Use This Story Map

- Move the slider to the right.
- Click on the map to view the data for the selected area.
- Click on the legend to view the data for the selected area.
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Why TMDLs Matter: Action Plan for Connecticut's Waterbodies

As a result of this plan, we are taking action to protect our water quality and restore our waterbodies.

Connecticut's Integrated Water Resource Management

Example Indicators

Ecological Category	Stressor Category	Social Category
# dams with fishways	Number of road crossings	Stream miles of trout stocking
% of watershed as protected open space	% of agriculture land in the watershed	% watershed in a municipal stormwater permit area
Miles of free flowing stream	# of potential release remediation sites	# of known recreation areas
# of sampling stations with sensitive aquatic insects	% impervious cover >12% in a watershed	# impaired segments with TMDLs
% Natural Diversity Data Base areas	# of toxic discharge permits	% drinking water source area
	Phosphorus yield	% Environmental Justice Areas
	Nitrogen yield	

How Did Connecticut DEEP Identify Waters for Action Plan Development?

In July 2020, Connecticut DEEP used data from the most recent water quality assessment reports to identify waterbodies that are in need of protection. The DEEP also used the data from the most recent water quality assessment reports to identify waterbodies that are in need of protection. The DEEP also used the data from the most recent water quality assessment reports to identify waterbodies that are in need of protection.



Visually communicating Protection

- Online GIS Interactive Web “Story Map”

A story map



Connecticut's Watershed Prioritization Efforts

No issues detected

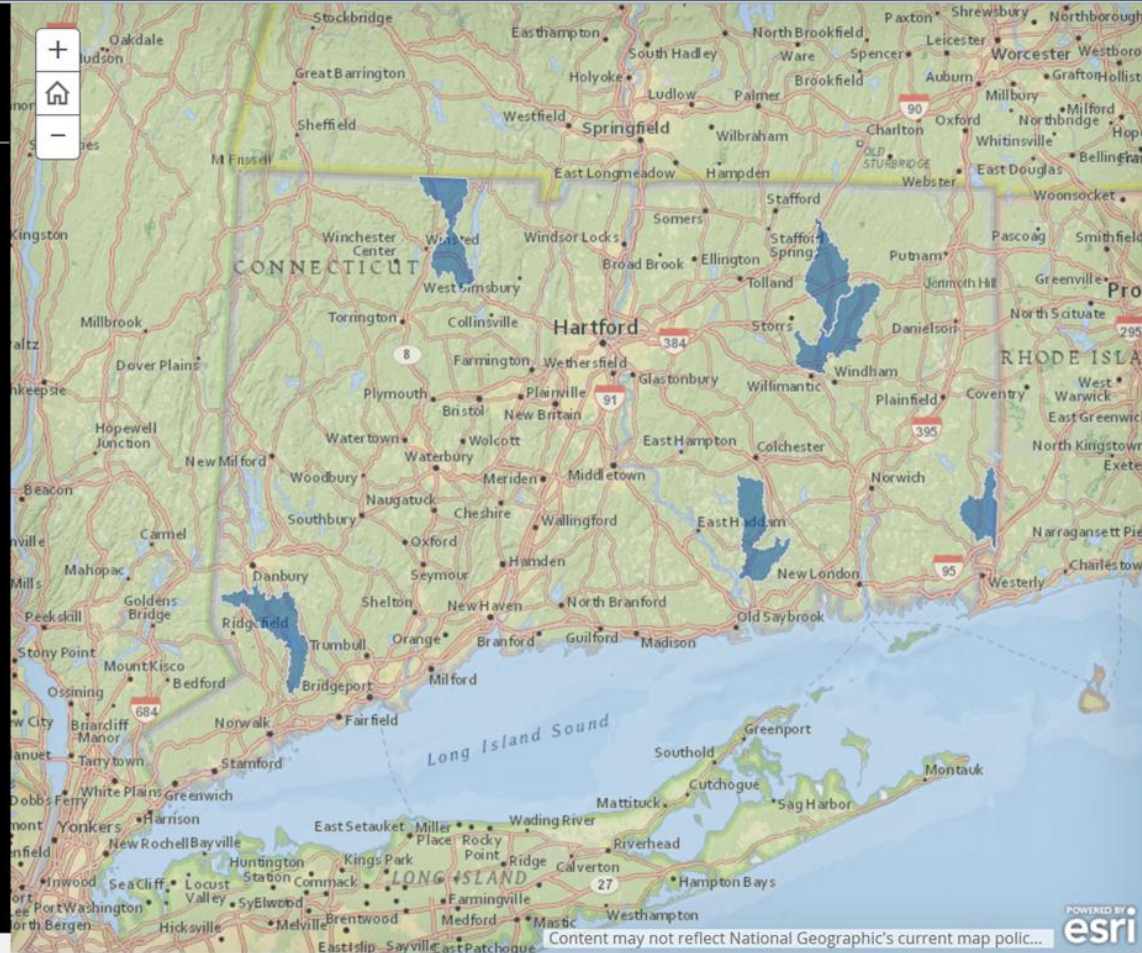
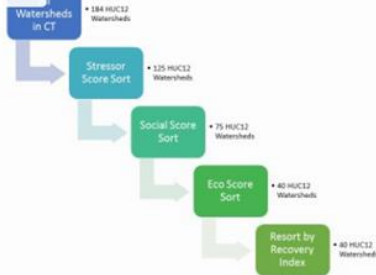
Watersheds Selected for Protection

This list of HUC12 watersheds focuses on areas that currently have healthy water quality and natural resources. The objective for these areas is to maintain and protect the high water quality that is currently found in the watershed. This group of watersheds tend to feature low development conditions and impervious cover percentages.

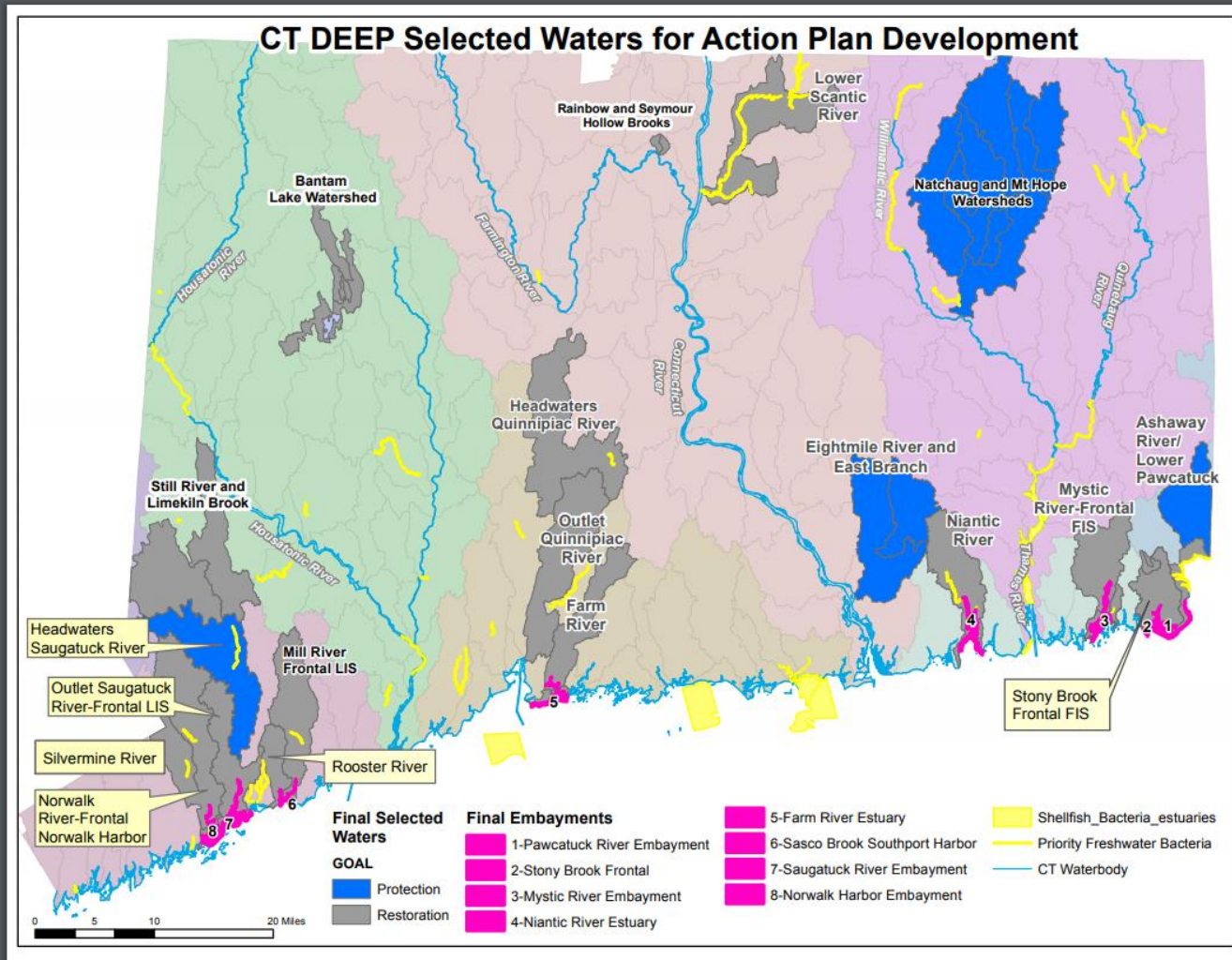
[Zoom in to view examples of social /ecological indicators and HUC12s selected for protection.](#)

Watersheds Selected for Protection

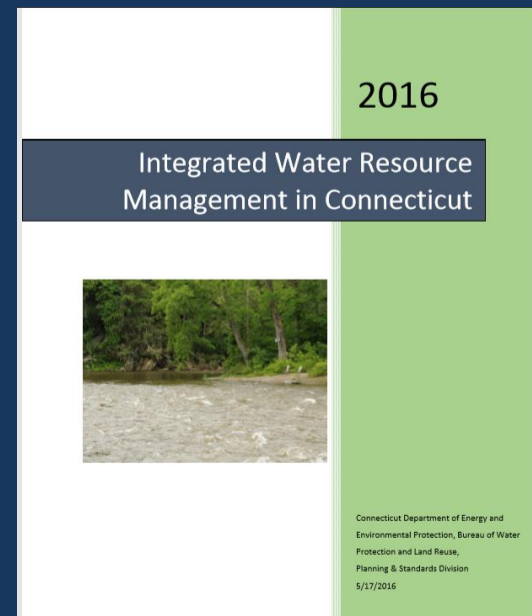
Method of Using Protection Rankings from Recovery Potential Screening Tool



Final Action Plan Map



- DEMO
- Finding the CT DEEP IWRM process:
 - CTDEEP website
 - Search “TMDL”
 - New IWRM
 - » The Report
 - ALSO other links at bottom



UConn CLEAR

UConn CLEAR

UConn UNIVERSITY OF CONNECTICUT

COLLEGE OF AGRICULTURE, HEALTH AND NATURAL RESOURCES

Center for Land Use Education & Research

Center for Land Use Education and Research

The UConn Center for Land Use Education and Research (CLEAR) provides information, education and assistance to land use decision makers, in support of balancing growth and natural resource protection.

New & Upcoming

Publications

CLEARscapes - Winter 2018 Edition

Next Webinar - May 15th

Land Use Training

Land Use Academy Website | Contact Bruce Hyde

Basic Legal Issues

- May 10, 2018, Fairfield, CT

Fundamentals of Reading Plans

- May 21, 2018, Fairfield, CT
- May 31, 2018, Mansfield, CT

Geospatial Training

Geospatial Training Website | Contact Cary Chadwick

- **Intro GIS**, May 16-18
- **Intro to Python Scripting**, June 6-7

CLEAR Blog

Using GIS to Find Birdwatching Hotspots



Connecticut Department of Energy and Environmental Protection

CLEAR - Water

The screenshot shows a web browser window with the URL <https://clear.uconn.edu/water.htm>. The page features a dark blue navigation bar with links for Home, Water, Land & Climate, Mapping, STEM, Media, About Us, and Contact. The main content area is titled "Water - the NEMO Program" and includes a brief description of the NEMO program. Below this, there are four project cards, each with a title, a short description, a "LEARN MORE" button, and a representative image.

Water - the NEMO Program

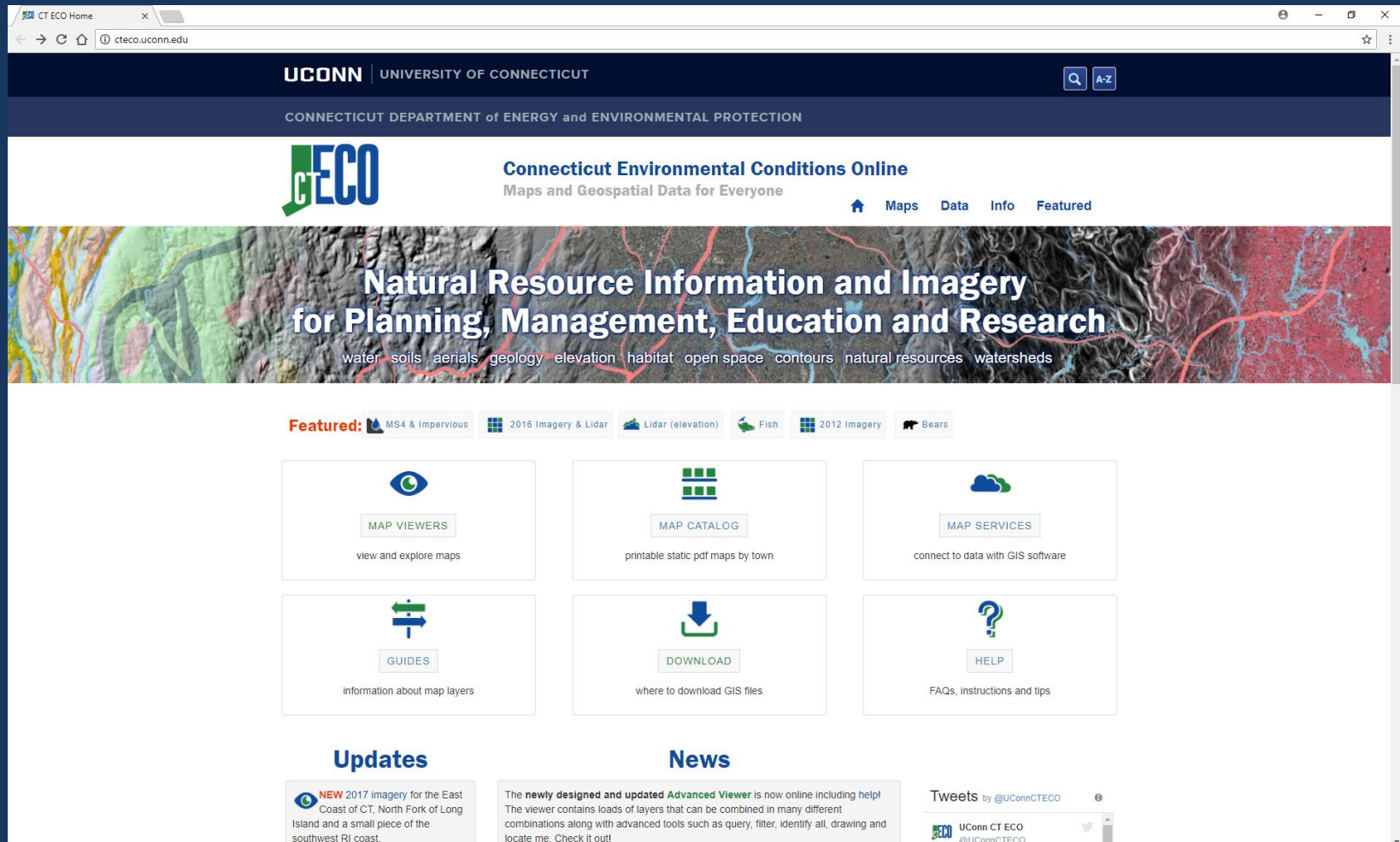
CLEAR's **NEMO (Nonpoint Education for Municipal Officials)** program has been working with communities to protect water quality through better land use since 1991. The program has been adapted in states around the country forming a now informal network of like-minded programs - the **National NEMO Network**.

Current Projects & Tools

- MS4 Support**
NEMO, with funding from CT DEEP, is providing multi-faceted support to communities and institutions to help them comply with the state's municipal stormwater regulation.
[LEARN MORE](#)
- Rain Gardens**
NEMO provides trainings, a website, and the multi-state **Rain Garden mobile app** to demonstrate how to properly site, size, design, and install a stormwater filtering rain garden with plant, sizing, and soils data specific to over 20 states.
[LEARN MORE](#)
- National LID Map**
This interactive map showcases examples of water friendly green infrastructure/low impact development practices around the country.
[LEARN MORE](#)
- State of LID Story Map**
This story map highlights the level of acceptance of LID in local land use regulations and serves as a database of sample regulations.
[LEARN MORE](#)



CT ECO Home Page



The screenshot shows the CT ECO Home Page in a web browser. The browser's address bar displays "cteco.uconn.edu". The page header includes the UConn logo and the text "UNIVERSITY OF CONNECTICUT". Below this, it identifies the "CONNECTICUT DEPARTMENT of ENERGY and ENVIRONMENTAL PROTECTION". The main header features the "CT ECO" logo and the title "Connecticut Environmental Conditions Online" with the subtitle "Maps and Geospatial Data for Everyone". Navigation links for "Home", "Maps", "Data", "Info", and "Featured" are present. A large banner image shows a topographic map with the text "Natural Resource Information and Imagery for Planning, Management, Education and Research" and a list of categories: "water", "soils", "aerials", "geology", "elevation", "habitat", "open space", "contours", "natural resources", and "watersheds". A "Featured" section lists several map types: "MS4 & Impervious", "2016 Imagery & Lidar", "Lidar (elevation)", "Fish", "2012 Imagery", and "Bears". Below this are six service tiles: "MAP VIEWERS" (view and explore maps), "MAP CATALOG" (printable static pdf maps by town), "MAP SERVICES" (connect to data with GIS software), "GUIDES" (information about map layers), "DOWNLOAD" (where to download GIS files), and "HELP" (FAQs, instructions and tips). The "Updates" section highlights "NEW 2017 Imagery for the East Coast of CT, North Fork of Long Island and a small piece of the southwest RI coast." The "News" section mentions the "newly designed and updated Advanced Viewer" is now online. A "Tweets" section shows a tweet from @UConnCTECO.



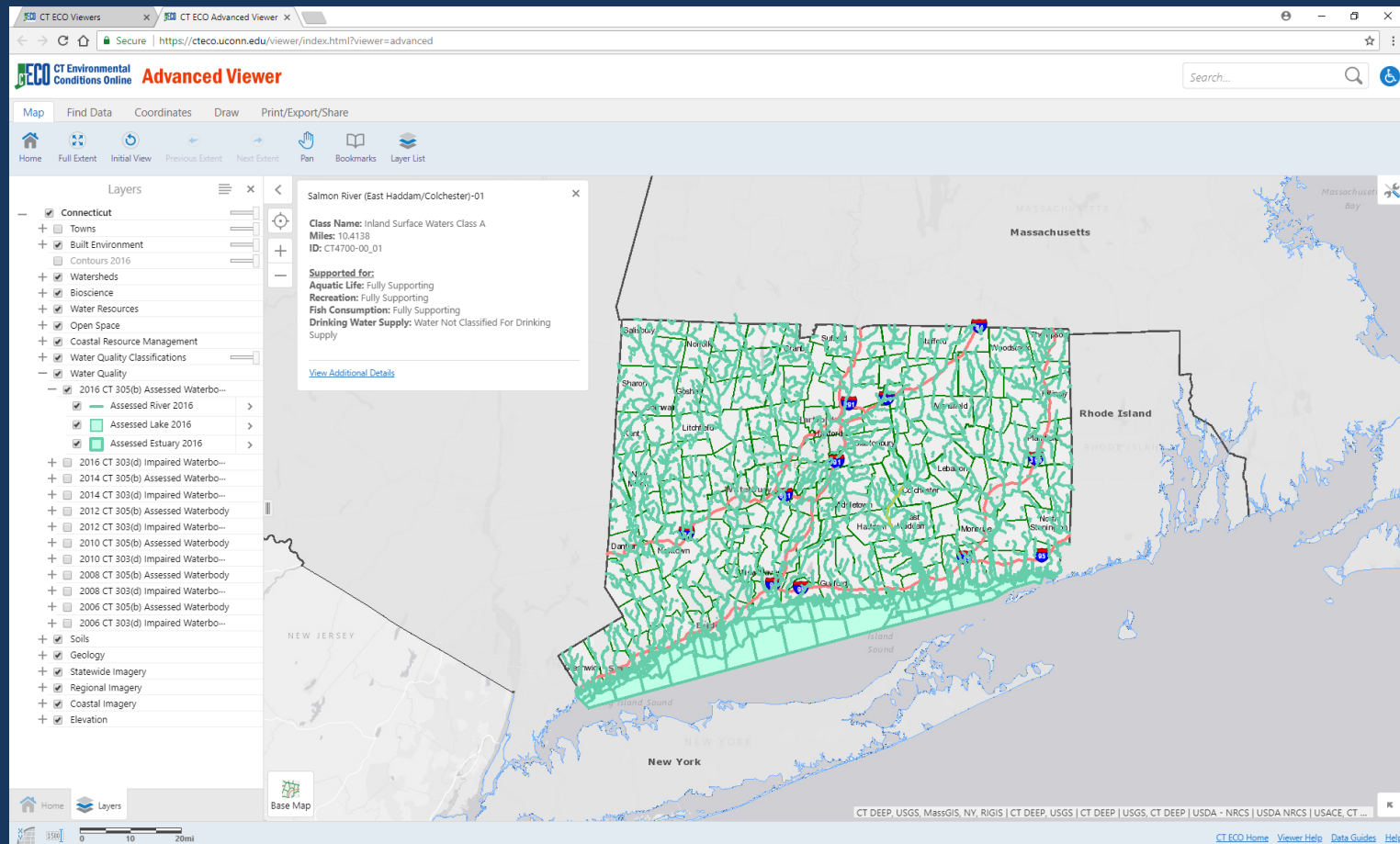
Connecticut Department of Energy and Environmental Protection

Map Viewers for Everyone

The screenshot shows a web browser window with the URL cteco.uconn.edu/viewers/index.htm. The page header includes the UCONN logo and the text "UNIVERSITY OF CONNECTICUT" and "CONNECTICUT DEPARTMENT of ENERGY and ENVIRONMENTAL PROTECTION". The main content area features the "CT ECO" logo and the title "Connecticut Environmental Conditions Online" with the subtitle "Maps and Geospatial Data for Everyone". A navigation menu includes "Home", "Maps", "Data", "Info", and "Featured". The "Viewers" section is highlighted, listing four types of map viewers: "Simple Map Viewer", "The Advanced Map Viewer", "Aerial Imagery Viewer", and "CT 2016 Imagery Viewer". Each viewer has a brief description and "GO TO VIEWER" and "VIEWER HELP" buttons. On the right side, there are four small thumbnail images showing different map viewer interfaces.

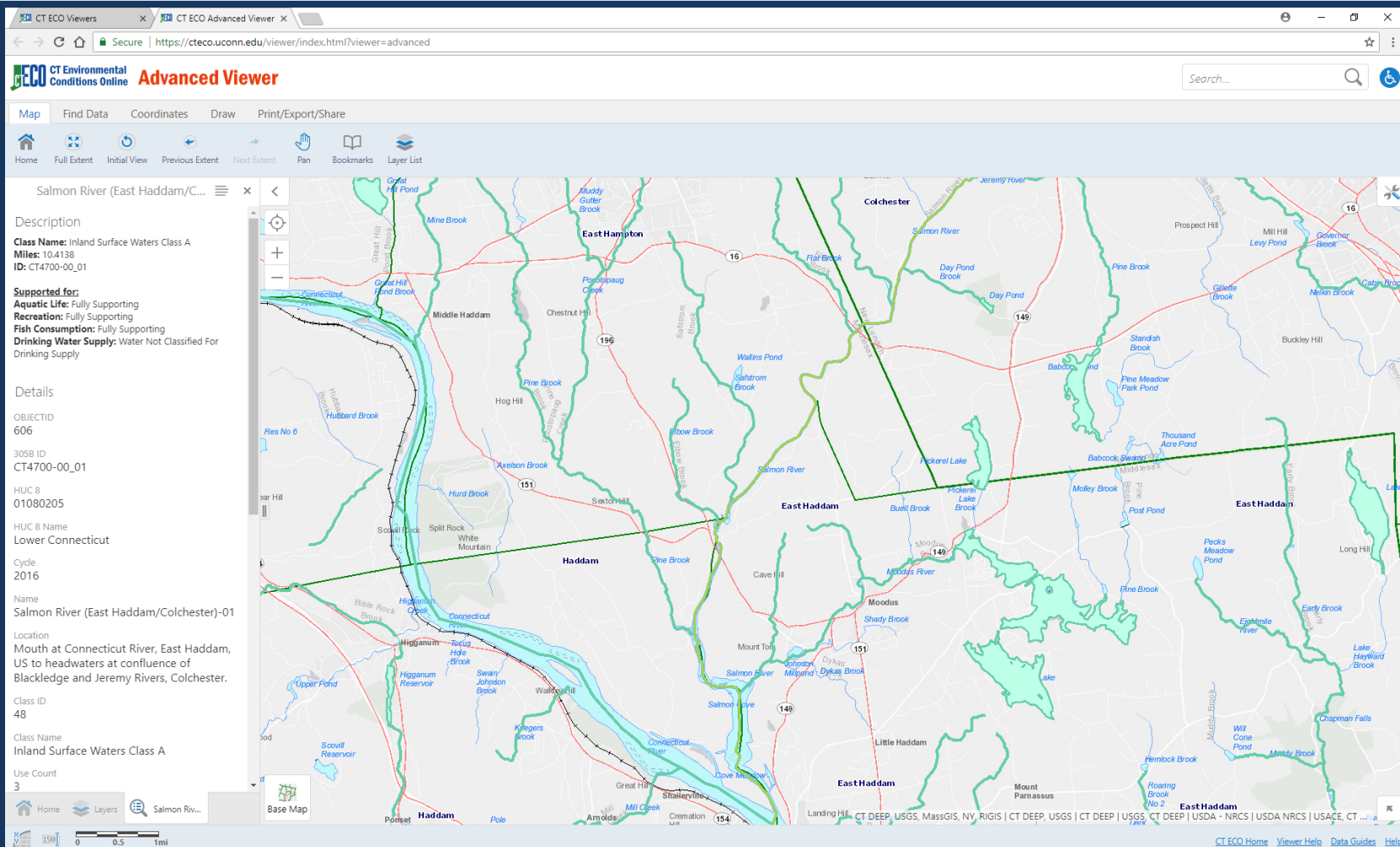


Overview of CT Assessment Units



Connecticut Department of Energy and Environmental Protection

WQ Assessment – Salmon River



Connecticut Department of Energy and Environmental Protection

Questions?

Walter Tokarz
ENV ANALYST II
CT DEEP



Connecticut Department of Energy and Environmental Protection