

CLEARSCAPES

A Newsletter of the Center for Land Use Education and Research at the University of Connecticut

Spring 2010

Tools

CLEAR and CT DEP Launch New Website with Digital Maps and Data on Connecticut's Environment and Natural Resources

CLEAR and the Connecticut Department of Environmental Protection (CT DEP) have jointly produced a new website, **Connecticut Environmental Conditions Online (CT ECO)**, that includes a variety of online maps and tools for viewing

Connecticut's environmental and natural resource information.

The new CT ECO website includes an extensive catalog of environmental and natural resource information for Connecticut, and several sets of high resolution imagery, the most recent from 2008. CT ECO uses advanced software that combines

internet and geographic information system (GIS) technology. A previous website collaboration between the University of Connecticut (UConn) and CT DEP, the Community Resource Inventory Online, provides basic natural resource maps for every town in the state, with an emphasis

on basic land use planning. CT ECO builds upon this approach, providing many additional data layers suitable for a variety of uses, including new soils data layers from USDA NRCS, and new open space and habitat data layers from CT DEP.

CT ECO is the latest and most sophisticated of CLEAR's efforts to provide web-based tools for local land use decision makers that allow access to the information at many different levels of technical sophistication.

UConn and CT DEP will be conducting webinars throughout 2010 to demonstrate

the workings of the site and some of its many uses. In addition, brief video tutorials will be posted on the site this spring.

A visual tour of the CT ECO website appears on page 2 of this newsletter. ●

cteco.uconn.edu



CT ECO provides a variety of tools for sharing natural resources and environmental information. The CT ECO's home page is shown above. Access the site online at cteco.uconn.edu.

Research

TMDL Project

The **first impervious cover TMDL (total maximum daily load) water regulation in the country** is being implemented in the Eagleville Brook watershed in Mansfield, which includes much of the University of Connecticut (UConn) main campus. The response of the University and the town will focus on reducing the amount and impacts of stormwater runoff from impervious surfaces, which magnify, concentrate and channel pollutants into the brook. Project partners include CLEAR, CT DEP, the Town of Mansfield, the UConn Office of Environmental Policy, the Center for Watershed Protection and Horsley-Witten Group.

The field assessment portion of the project is almost complete. However, there has already been considerable

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Porous asphalt parking lot on the UConn campus, during a rain storm. Note the runoff on the conventional asphalt in the foreground. Photo by C. Bellucci, CT DEP.

Tools - CT ECO Website

Research - TMDL, Riparian Corridors, Agricultural Soils

Outreach - Positions Available, Land Use Academy Update

In This Issue

New & Noteworthy @ CLEAR

Read about recent projects, awards, websites and other updates.

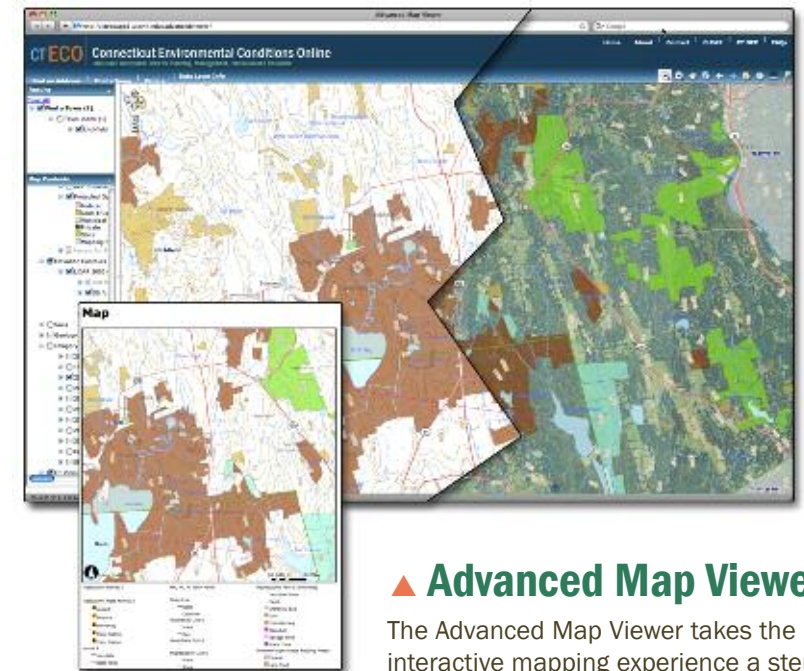
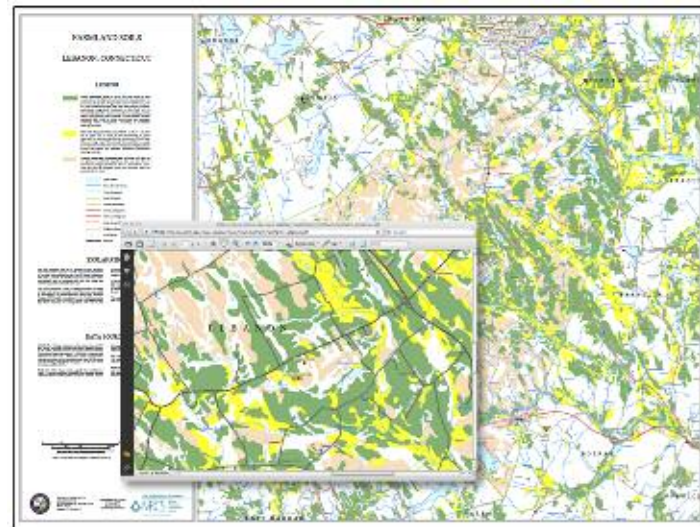
Connecticut Environmental Conditions Online

cteco.uconn.edu

Website Tour, the Basics

► Map Catalog

The Map Catalog provides individual town maps in “portable document file” (PDF) format for major resource layers including soils, wetland soils, protected open space, aquifer protection areas and more. These files can be downloaded and printed from a user’s printer or plotter. (Images, right) Town of Lebanon displaying Farmland Soils data layer. (Image inset) The PDF file allows users to turn on and off a variety of layers as well as zoom and pan to different geographic extents.



► Advanced Map Viewer

The Advanced Map Viewer takes the interactive mapping experience a step further by including additional data layers and tools. Unlike the simple viewer, the advanced viewer allows a user to display and interact with multiple layers at once. Users can also print customized map layouts within the viewer (image inset). (Images, above) Area of Litchfield displaying multiple layers including protected open space, elevation and waterbodies. Maps can be viewed both with and without aerial imagery.

▼ Reference Guides

The website offers online reference guides that contain comprehensive explanations of all of the natural resource and environmental datasets available on CT ECO. The Data Guides and Resource Guides help users determine appropriate uses of the data and provide access to complete GIS metadata records.



▲ Simple Map Viewer

The Simple Map Viewer is an easy-to-use interactive map viewer that allows users to view a single map theme, such as soils, protected open space or critical habitats areas overlaid on various dates of aerial imagery. The viewer allows users to interact with the map themes on a level above what is available in the Map Catalog. In addition, users can create ready-to-print map layouts within the viewer (image inset). (Images above) The Old Saybrook area displaying critical habitat areas, the most recent data layer to be added to CT ECO. Maps can be viewed both with and without aerial imagery.

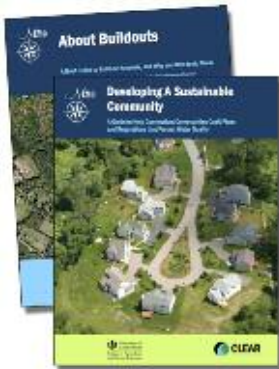
► Map Services

Map Services allow users of desktop geographic information system (GIS) software to connect directly to the environmental and natural resource data on CT ECO. This allows a user to overlay CT ECO data with their own geospatial data within their desktop GIS.

New & Noteworthy @ CLEAR

► CLEAR's research team has just received a grant to use remotely-sensed data to **track the health of Connecticut's lakes**. Satellite-derived data will be used to track lake water clarity, which has long been used by the scientific community as a key indicator of lake quality. The results will provide a cost-effective way to assess the state's historical record of water clarity, identify change in water clarity in Connecticut lakes, and provide a methodology for continued assessment into the future. The grant is from the Connecticut Institute of Water Resources, part of a national network of 54 state water institutes that promote federal/state partnerships in water resources research and information transfer.

► CLEAR's CT NEMO Program has produced a new publication on low impact development, **Developing a Sustainable Community**, that provides step-by-step guidelines for community leaders interested in implementing practices that help to reduce the impact of development on water resources. The booklet goes over 14 separate recommended site planning and design practices, each with real-life examples, illustrations, and most important, specific information



NEMO's new publication, *Developing a Sustainable Community*.

on which plans, regulations and procedures need to be changed to implement them. The booklet is featured on the CT NEMO website (Publications section) right next to another recent NEMO *tour de force*, the **About Buildouts** booklet featured in CLEARScapes Issue #1. View both booklets at nemo.uconn.edu/tools/publications.htm

► **The National NEMO Network is holding its seventh national meeting**, NEMO U7, in Portland, Maine this coming September. The Network is comprised of 32 programs in 30 states, all focused on educating local land use officials about the connections between land use and natural resource protection. Network programs are patterned after, and coordinated by, CLEAR's CT NEMO program.

► The **CLEAR website** has averaged over **4800 unique visitors per month** for the past three years. Some of the most popular sites: the CT NEMO Program, the Community Resource Inventory (CRI) Online tool, and the Connecticut's Changing Landscape (CCL) research project. The "Your Town" section of CCL, where one can get maps and charts for any town in the state, attracts over 1200 unique visitors per month. ●

New Online CLEAR Calendar

Workshops, Webinars and More at clear.uconn.edu

The CLEAR homepage has a useful new feature—a CLEAR-wide training Calendar. The calendar includes dates and details on all upcoming CLEAR trainings, workshops and webinars from CT NEMO, National NEMO, Geospatial Training, Forestry, Land Use Academy and GVI. So whether you are interested in GIS trainings or basic training for land use commissioners, the CLEAR Calendar is a great place to discover learning opportunities.

Research continued...

progress on the ground (literally). UConn's new twin pervious parking lots—one of porous asphalt and one of porous concrete—both allow rainfall to infiltrate directly into the ground through their surfaces, rather than generate runoff (see photos).

Coming This Spring!

► Riparian Corridors Project

This spring CLEAR will be completing its statewide assessment of land cover and



land cover change within **Connecticut's riparian (streamside) corridors**. Riparian areas are known to be important contributors to the health, stability and habitat value of waterways. CLEAR's previous study of coastal riparian areas has been expanded statewide and updated/upgraded with our new Connecticut's Changing Landscape project land cover data from 1985 – 2006. Preliminary statewide results have been completed and shared with key stakeholders, but the full-blown study and website, complete with town and watershed maps, will be completed this spring.

► Prime Agricultural Soils

CLEAR will be completing another statewide assessment based on Changing

Landscape data—this one investigating **land cover and land cover change over areas of the state having prime or important agricultural soils**, as designated by USDA/NRCS. What's happening to these areas, and are the changes taking place over these soils different than what is happening, on average, for the entire state? Look for a new website and announcement early this spring. ●

Porous concrete parking lot on the UConn campus, during construction (top) and completed (bottom). Inset shows closeup of lot surface.



Outreach

► **John Rozum**, Land Use Planning Educator and longtime CLEAR principal, left the Center at the end of 2009 to return to his West Coast roots. In his 10 years at CLEAR John was the first to head the National NEMO Network, and oversaw that effort during its most frantic growth period. Having conquered, John moved on to head the CT NEMO Program and led that program for many years, in addition to being a major contributor to the Land Use Academy. John's absence is keenly felt on many levels. His replacement(s) are currently being sought (see below).

► **Land Use Academy Update** - To channel Hartford's own Mark Twain, reports of the death of CLEAR's Land Use Academy, our basic training for new and continuing land use commissioners, are greatly exaggerated. While it's true that the Academy lost its state funding last year to the state budget axe, we are hanging in there with a reduced schedule of one training this spring (May) and hope to have at least one more this fall. We are in the process of hiring a Land Use Educator (see below) to help put the Academy back on its feet, and to determine what can be done given the fiscal realities. Check out the Academy website at clear.uconn.edu/lu for updated Academy information. ●

Positions Available

► **CLEAR is in the process of filling two of the positions that it lost through retirement and resignation over the past year.**

We are looking for a **water resources educator** to lead the CT NEMO Program, which works with communities on water resource protection and related land use issues; and a **land use educator** to lead the Land Use Academy and related programs. Both positions are 12-month faculty appointments in the Department of Extension, dependent on grant funds for annual renewal.

Visit clear.uconn.edu (Highlights column) for more information. ●



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