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# CLEARscapes



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

## Outreach

### The Geospatial Training Program (GTP)

Working at Local, State, National and Cyberspace Levels

CLEAR's Geospatial Training Program (GTP) is actually much more than its name implies, working on a wide range of projects involving geospatial analysis and tool development, as well as developing and delivering training. All of this is primarily done by CLEAR's Cary Chadwick and Emily Wilson, who not only do their own projects but also provide ongoing support to CLEAR's other programs. As we like to say, the line outside their office is long. Here are some things that GTP is doing.

One of GTP's core functions is to develop and run training programs on geographic information systems (GIS), global positioning systems (GPS), and, increasingly, a wide range of technologies that can be described as "web mapping" techniques. The audience for these classes, which are frequently sold out, includes private sector professionals, academics, agency staff, nonprofit organization members, and of course CLEAR's main audience of community staff and commissioners. The GTP Training Schedule page is one of the most frequently accessed parts of the CLEAR website.

In collaboration with CLEAR's National NEMO Network, the GTP is also providing national training to members of the USDA National Water Program, a network that includes researchers, extension professionals,



GTP's Cary Chadwick leads the Pictures, Points & Places: An Introduction to GPS class.

and other people at Land Grant and Sea Grant universities across the country. GTP conducts training sessions on online mapping techniques at the annual water program national conference and at specially scheduled regional workshops. To date, the team has been to South Carolina, California, Hawaii, Maine, West Virginia, Rhode Island, Massachusetts, and New Hampshire.

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### The NEW Community & Natural Resource Planning Program

CLEAR would like to welcome the Community and Natural Resource Planning (CNP) Program to its family of partners. This new organization evolved out of the Green Valley Institute (GVI) which conducted land use education and outreach in the 35 towns of The Last Green Valley National Heritage Corridor since 1999. CNP will expand GVI's mission—improving the knowledge base from which land use and natural resource decisions are made—to reach a larger audience. The new format and collaborations will address community and natural resource planning issues throughout the entire state of Connecticut.

In partnership with the Connecticut Environmental Review Team and the Eastern Connecticut Resource Conservation and Development Area, CNP is conducting a series of land use workshops this year. In the fall of 2011, CNP conducted two series of four workshops each in conjunction with the Central CT Regional Planning Agency and the CT River Estuary Regional Planning Agency. This spring CNP will present two additional workshop series in conjunction with the Northwestern CT Council of Governments, the Litchfield Hills Council of Elected Officials and the Southeastern CT Council of Governments.

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**Connecticut Conference**  
**ON NATURAL RESOURCES**  
*Many Resources, One Environment*

**March 12th**  
**2012**

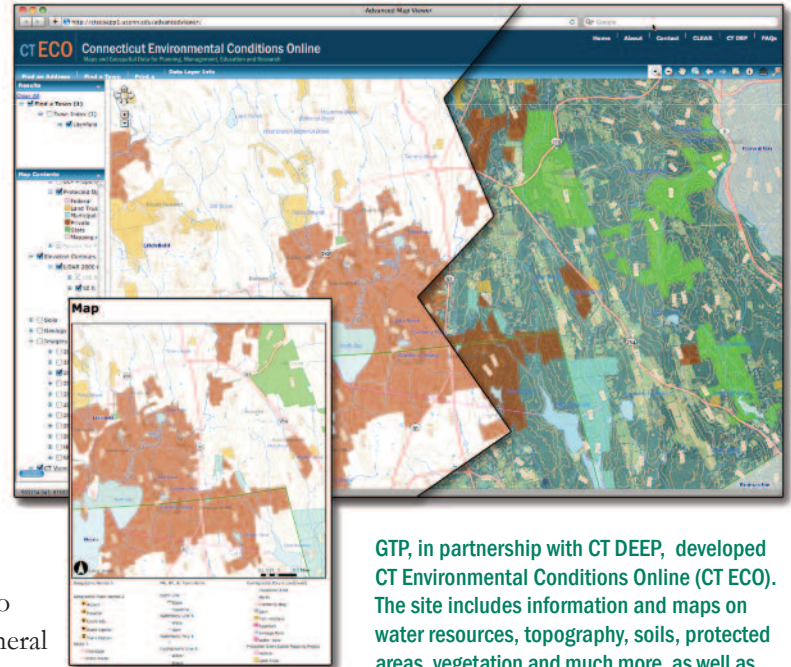
Details on the web  
[www.ccnr.uconn.edu](http://www.ccnr.uconn.edu)

# Geospatial Training Program

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On the tool development front, GTP has increasingly moved to online mapping tools. These tools, as opposed to desktop tools that require specialized expertise, are typically accessible to users at all levels of geospatial expertise. While there have been web tools on the CLEAR site for some time, including NEMO's Online Community Resource Inventory and the Connecticut's Changing Landscape site, the culmination of this work to date has been the creation of Connecticut Environmental Conditions Online, or "CT ECO." CT ECO was developed as a full partnership with the CT Department of Energy and Environmental Protection (CT DEEP). CT ECO uses advanced web mapping technology to provide local, state and federal agencies, and the general public with convenient access to the most up-to-date and complete natural resource information available statewide. Included is information and maps on water resources, topography, soils, protected areas, vegetation and much more, as well as the latest statewide high resolution aerial photos. CT ECO is at: [www.cteco.uconn.edu](http://www.cteco.uconn.edu).

As noted, GTP also conducts analysis and mapping in support of CLEAR's other programs. GTP, for instance, analyzes the land cover data produced by the Connecticut's



GTP, in partnership with CT DEEP, developed CT Environmental Conditions Online (CT ECO). The site includes information and maps on water resources, topography, soils, protected areas, vegetation and much more, as well as the latest statewide high resolution aerial pho-

tos. (Images, above) CT ECO's Advanced Map Viewer shows an area of Litchfield displaying multiple layers including protected open space, elevation and waterbodies. Maps can be viewed both with and without aerial imagery. (Image inset) Users can print customized map layouts.

Changing Landscape project, and creates the statistics, maps and websites needed to get that information out to the public. Occasionally, GTP will do an analysis at the town or watershed level, funding and time permitting. For instance, GTP and NEMO collaborated with the Connecticut Office of Policy and Management and the Central Naugatuck Region Council of Governments on a study of the planning technique known as a "buildout analysis." That study was focused primarily on a regional analyses and its implications for feasibility of conducting a statewide buildout (see [nemo.uconn.edu/publications/about\\_buildouts.pdf](http://nemo.uconn.edu/publications/about_buildouts.pdf)). In contrast, a more recent project with the Town of Kent was conducted to provide information to the town as it develops revisions to its Plan of Conservation and Development. This project was taken on due to Kent's unusual soils-based zoning, and also broke new technological ground in that the data on building locations used in the analysis was provided by local volunteers via Google Earth.

GTP is not only its own program, but in many ways the glue that holds the many CLEAR programs together.

For more information, contact Cary Chadwick at [cary.chadwick@uconn.edu](mailto:cary.chadwick@uconn.edu), or visit: [clear.uconn.edu/geospatial](http://clear.uconn.edu/geospatial). ●

## GTP Spring 2012 Training Schedule

The new GTP Spring 2012 training schedule has just been announced. Visit [clear.uconn.edu/geospatial/training.htm](http://clear.uconn.edu/geospatial/training.htm) for more details and registration or contact Cary Chadwick.

- **April 18-20** - Intro to GIS: Geospatial Technologies at Work
- **April 25** - Intro to ModelBuilder: Creating and Using Geospatial Models
- **May 1-2** - Intro to Python Scripting: Developing Custom Geoprocessing Tools
- **June 14-15** - Intro to GPS: Pictures, Points & Places
- **June 20-22** - Intro to GIS: Geospatial Technologies at Work

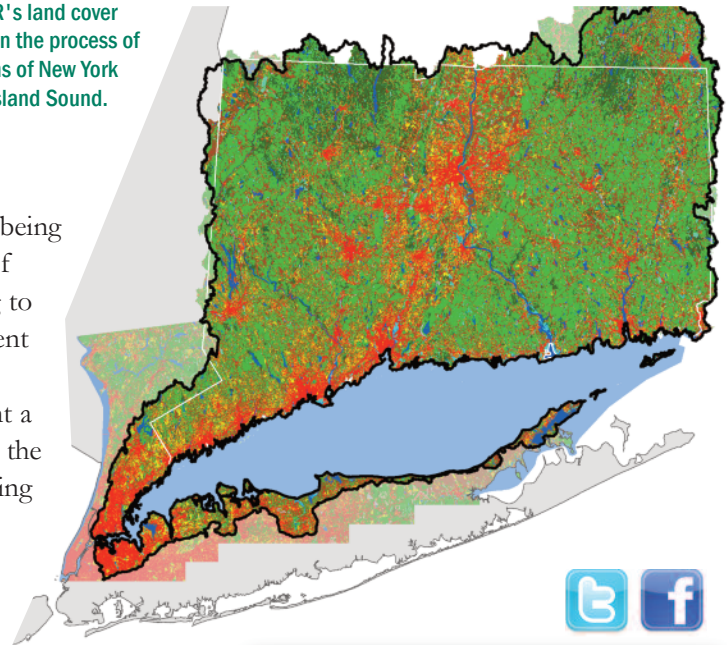


# Program Updates

► **CLEAR's Land Use Academy (LUA)** held its first-ever **Advanced Training** on November 5, 2011. Attendance was at capacity, attracting 85 land use commissioners and professional planners from 36 towns for the day long training held on the Central Connecticut State University campus in New Britain. LUA Director Bruce Hyde developed the program in response to feedback from attendees of the Academy's Basic Training sessions, and after soliciting input from both town planners and planning and zoning commissioners. The Academy is a partnership with the Connecticut Bar Association (CBA), and the Advanced Training featured four talks from prominent CBA land use attorneys on topics like *Bias and Conflicts*, *Conditions and Modification*, and *Running a Meeting*. Based on the success of the November session, another **Advanced Training is scheduled for March 31, 2012**. Details for the upcoming training and the agenda and copies of the talks from November can be found at: [clear.uconn.edu/luu/advanced](http://clear.uconn.edu/luu/advanced). (the next **Basic Training is scheduled for April 21, 2012**. Details on the website [clear.uconn.edu/luu](http://clear.uconn.edu/luu))

► **The Land Use Academy** is also working on two projects recently funded by the U.S. Department of Housing and Urban Development. The projects focus on **transit oriented development (TOD)**, **value capture and affordable housing** in communities along the New Haven-Hartford-Springfield rail corridor. For both projects, one led by the Connecticut Department of Economic Development (DECD) and the other by the Capitol Region Council of Governments (CROG), LUA will be developing educational programs on Affordable Housing.

(Map, right) CLEAR's land cover change project is in the process of adding the portions of New York draining to Long Island Sound.



In addition, research is being conducted on the use of tax increment financing to promote the development of affordable housing. These projects represent a new topical strength for the LUA, and involve working with new partners like DECD, CROG, and the Partnership for Strong Communities program.

For more information contact: **Bruce Hyde, 860-345-5229, [bruce.hyde@uconn.edu](mailto:bruce.hyde@uconn.edu)**.

► **The Connecticut's Changing Landscape (CCL)** project is in the midst of expanding its geographic range and extending the time period covered by the study. The project is funded by the federal/state Long Island Sound Study, which uses CCL land cover change data to help track Long Island Sound conditions and trends. CLEAR is in the final stages of **adding the portions of New York** (see image, above) that drain to the Sound (which includes most of Westchester County and the northern shore of Long Island) to the CCL database for the 1985 – 2006 period. Maps and information for the newly expanded study area will be made available this spring on the web using cutting-edge internet mapping technology. Basic land cover, impervious cover, and riparian (streamside) cover change will all be included. Following quickly on the heels of the NY addition will be an **update of the CCL using 2010 imagery**, thus creating a nationally unique database charting 25 years (1985-2010) of change.

For more information contact: **CLEAR, 860-345-4511, [clear@uconn.edu](mailto:clear@uconn.edu)**. ●

## Websites & Webinars

### 2012 CLEAR Webinar Series

The 2012 CLEAR Webinar Series is getting underway. This year's topics cover a wide range, from the latest web mapping technology to low impact development to climate change adaptation, and even community food security! As always, our webinars are only one hour long and free of charge. First on the schedule are:

- **February 28** - An Introduction to "Buildout" Analyses
- **March 13** - LID in Connecticut: a Virtual Tour of Where It's Working
- **May 8** - ArcGIS.com: A User-Friendly Tool for Creating Maps Online

Visit the CLEAR website to register and for the full 2012 schedule, [clear.uconn.edu](http://clear.uconn.edu) (see **Events & Information**).

### CLEAR is Blogging!

We hope our blog will be useful in keeping you up-to-date on our latest research projects, training classes, workshops, webinars, publications, and anything else we feel like talking about! Check out our new blog at [clear.uconn.edu/blog](http://clear.uconn.edu/blog).

## Outreach Continued...



## The NEW Community & Natural Resource Planning Program continued from page 1

Each RPA conducted a brief online survey to assess the educational needs of the land use decision-makers in their region. As a result, the fall workshop series addressed the following issues:

- Development Alternatives
- Economics of Land Use
- Growth and Community Character
- Building Sustainable Communities
- Low Impact Development

Other CLEAR partner organizations, including CT NEMO, are participating by providing expertise on low impact development and other topics of interest.

CNP's staff includes Susan Westa, Associate Extension Educator who specializes in land use planning and policy and Paula Stahl, Assistant Extension Educator, licensed Landscape Architect and community finance specialist. They bring together a wealth of information and experience addressing a wide range of issues from community planning and design to economic development. Other CNP staff and organizational partnerships provide expertise in natural resource protection. Holly Drinkuth, CNP Natural Resource Program Coordinator also serves as the Director of Education and Outreach Programs for The Nature Conservancy in Connecticut, focusing on the benefits of healthy natural systems for communities. She currently works with CLEAR's Extension Forestry Program to provide information and support to Connecticut woodland owners, managers and community land use decision makers. CNP's work

program will continue to evolve over the next year as it works with different communities and identifies educational needs of land use decision-makers throughout the state.

For more information contact: Susan Westa, 860-774-9600, [susan.westa@uconn.edu](mailto:susan.westa@uconn.edu). ●

## New CLEAR Publications

CLEAR came out with a number of publications recently that may be worth a look:

- CLEAR published *Land Cover Change in the Riparian Corridors of Connecticut* in the Fall 2011 issue of Watershed Science Bulletin. This paper looks at statewide development trends in these critical streamside areas, and discusses the implications for watershed health and local land use controls. Copies cannot be posted on the web until Sept. 2012, but we can send individual PDF copies.

Email Chet Arnold at [chester.arnold@uconn.edu](mailto:chester.arnold@uconn.edu).

- CLEAR's Community and Natural Resource Planning program (see article, page 1) published *Green Valley Connections: A Guide to Linking Regional Greenways, Blueways and Wildlife Corridors*. This guide is a hands-on manual that describes the benefits of, and processes involved with, building "green infrastructure" at the town and regional level. While the manual uses examples from towns in Northeastern Connecticut, the process guidance, including the step-by-step workbook



that comprises the second half of the book, is relevant to any community.

The guide is online at [clear.uconn.edu/publications/GVConnections.pdf](http://clear.uconn.edu/publications/GVConnections.pdf). Printed copies may be available, for more information contact Paula Stahl at [paula.stahl@uconn.edu](mailto:paula.stahl@uconn.edu).

- CLEAR's NEMO program has published *Responding to an Impervious Cover-Based TMDL: A Brief Step-By-Step Guide*, a new booklet providing guidance for communities faced with impervious surface-related regulations. The booklet is based largely on NEMO's recent experience with the Eagleville Brook Impervious Cover Total Maximum Daily Load (IC-TMDL) project, a partnership of CLEAR, CT DEEP, the University of Connecticut, and the Town of Mansfield. Impervious cover-based regulations are likely to be an increasing trend in the future, and the process outlined in the booklet can be of use to any town concerned about protecting its water resources from stormwater runoff.

The booklet can be downloaded at: [clear.uconn.edu/projects/TMDL/library/IC-TMDL-Guide\\_final.pdf](http://clear.uconn.edu/projects/TMDL/library/IC-TMDL-Guide_final.pdf). ●

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