

# Introduction to CT ECO

January 2016

Web Resource:

<http://clear.uconn.edu/geospatial/workshops/ForTeachers.htm>

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## Explore CT ECO

CT ECO is a partnership between the CT Department of Energy and Environmental Protection (CT DEEP) and the University of Connecticut Center for Land Use Education and Research (UConn CLEAR). It is a website with the goal of sharing Connecticut's environmental and natural resource information with the general public. CT ECO's mission is to encourage, support, and promote informed land use and development decisions in Connecticut.

Open a web browser and go <http://cteco.uconn.edu>. Take a minute to explore the home page. CT ECO provides a variety of ways to see the same map information with increasing levels of sophistication from pdf maps to map services. This exercise will guide you through some of the main sections of CT ECO.

## Map Catalog

The Map Catalog is a collection of pdf maps produced by CT DEEP. Most maps are created for towns, but a few are available by quad or for the whole state. All of the maps include explanation, a legend, scale bars, data sources and more.

- From the **Maps** heading, click on **Map Catalog**.
- Choose your **Town** in the drop-down menu.
- Click on and explore several of the pdf maps available for your town.

## Thematic Map Viewers


These are the easiest viewers to use on CT ECO. At this time, there are two thematic viewers – the **Simple Map Viewer** and the **Aerial Photo Viewer**. More thematic viewers are in the works.

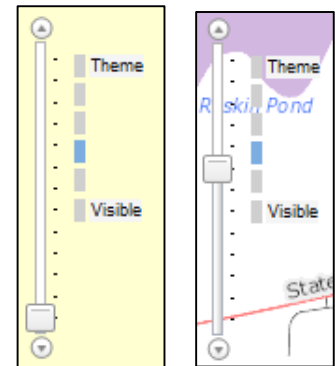
- From the **Maps** heading, click on **Thematic Map Viewers**.
- Click on the Simple Map Viewer **GO to Viewer** button to open the **Simple Map Viewer**.
- Notice some simple map tools along the top including **pan** (the hand), **zoom in**, **zoom out**, **zoom to full extent of CT**, etc. Along the left side, there are categories of maps or “**themes**.”
- Under **Choose a Map Theme** on the left side of the screen, locate a theme that interests you and click on the **round radio button** next to it. Then click the **Refresh Map** button at the

**Open Space**

bottom of the layer list.  [Protected Open Space Mapping Project](#)

**Refresh Map**

- Did anything happen? If not, it's probably because you aren't zoomed in enough. The **Theme Visible Bar** (shown right) is critical. You can only see the map when the square  is aligned with the gray or blue rectangles of the **Theme Visible Bar**. **Zoom in** (click that top upward pointing arrow) until this is the case.
- Explore the **Simple Map Viewer**. Some things to try:



# Introduction to CT ECO

January 2016

- Move around the map to different places.
- Zoom in and zoom out.
- Change the base map to an aerial image.
- Explore the different map themes.

The **Aerial Imagery Viewer** is similar to the **Simple Map Viewer** except that it is loaded with, you guessed it, aerial imagery!

- Go back to the Thematic Map Viewers page of CT ECO and find the **Aerial Imagery Viewer**. Click the **Go to Viewer** button.
- The left side is a long list of imagery datasets available for Connecticut. Click on the button next to one of them and then hit **Refresh Map**.
- Explore the imagery datasets. Some things to try:
  - Move around the map to different places.
  - Zoom in and Zoom out.
  - Hide the Base Map.
  - Explore different imagery datasets including:
    - true color, infrared and black and white,
    - different years and
    - different seasons (leaf off vs leaf on).

## Data and Resource Guides

CT ECO contains a wealth of information about the maps in the form of Resource Guides and Data Guides. A **Resource Guide** is a comprehensive explanation of the natural resource itself. The **Data Guides** are slightly more data-focused, but both are written to be understandable (brilliant idea!).

- Go back to the CT ECO website (exit the viewer).
- From the **Guides** dropdown menu, click **Resource Guides**. Explore a couple of **Resource Guides** to see what they contain.
- Try visiting the **Data Guides** on the **Guides** drop-down menu. Explore a couple of **Data Guides** to see what they contain.

## Advanced Map Viewers

The Advanced Map Viewers contain more options and tools than the Thematic Map Viewers. Currently there are two Advanced Viewers – the original **Advanced Map Viewer** and the **Connecticut Coastal Hazards Viewer**. These will be upgraded to a different format in the future.

- From the Maps dropdown menu click on **Advanced Map Viewers** and then click the **GO to Viewer** button next to the Advanced Map Viewer (the top one).

# Introduction to CT ECO

January 2016

The **Advanced Map Viewer** contains GIS tools along the top right, location tools along the top left and a very long list of Map Contents along the left. Layers are turned on and off with check boxes. There are two important (and kind of tricky) concepts in the Advanced Map Viewer when it comes to turning on and off layers.

1. Many layers are **Scale Dependent**. This means they won't draw unless you are zoomed in far enough. A layer is grayed out

Protected Open Space Mapping Project if you are not zoomed in enough for it to draw. After zooming in to its scale, the same layer name will change to black and you are then able to check it on.

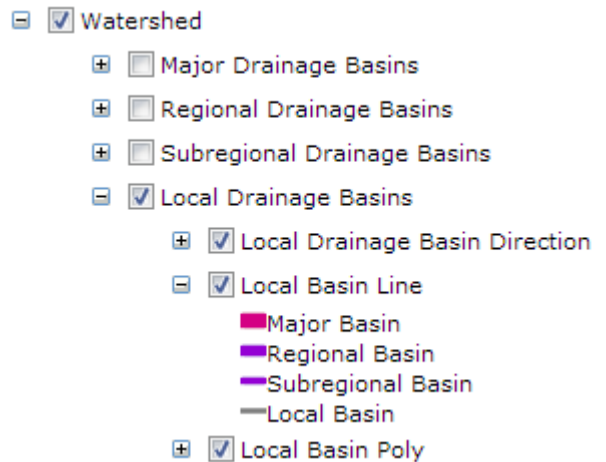
1997 Municipal and Private Open Space

2. Layers are in **Groups**. Both the Group **AND** Layer must be checked on for the layer to draw.

In the graphic to the right, notice that

**Watershed** group is checked along with the

**Local Drainage Basins** sub-group and then three **layers** themselves (direction, line and poly).



- Zoom in to your area of interest.
- In the **Map Contents Window**, check **ON** a Group (such as Habitat, Watershed, Open Space or Soils).
- **Expand** the group using the and check on a layer or layers of interest. Continue click until the layer is fully expanded and the symbols are visible (like the colored basin lines above).
- Continue exploring the data in the Advanced Map Viewer.

## Map Services

Map Services are a means of accessing GIS data over the Internet in the form of a dynamic map. This is an advanced section of the CT ECO website meant for GIS software users interested in using map services from CT ECO with their own GIS software and data. However, the introduction of ArcGIS online to the GIS scene has created new utility for map services. ArcGIS Online is a way to make maps using an interface provided by Esri. ArcGIS Online is designed to connect to map services as a way to add data to your maps.

- Visit the **Map Services** page on CT ECO to see a long list of available map series and the data layers they contain. You may want to use these in the ArcGIS Online exercise.

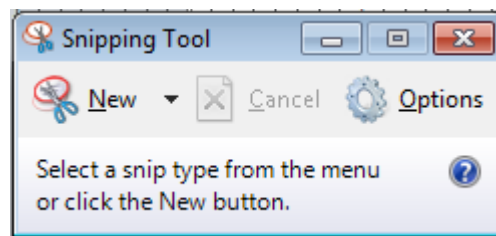
## Appendix: How to Create a Screen Shot



### Windows 7 and Vista

Windows 7 and Windows Vista both have a nifty new Snipping Tool. To access it go to

- **Start Menu > All Programs > Accessories > Snipping Tool.**

- Click **New** and **draw a box** around what you want to “take a picture of” on your screen.
- When you release your mouse, your capture will show.



- Use the icons to **Save**  or **Copy**  your image. If you save, you can choose the file format.

### Other Windows (XP, etc.)

To capture a picture of the entire screen, hit the **Print Screen** button. This copies the image to the clipboard so you then **paste** it into a document, such as Powerpoint or Word.

To capture only the active window (the one on top), hold down the **Alt** key while pressing **Print Screen**. Again, this copies the image to the clipboard so you then **paste** it into a document, such as Powerpoint or Word.

### On a Mac

The following screen capture shortcuts print and output images on desktop in the format of .PNG (Portable Network Graphics).

- **Command + Shift + 3** – Prints the entire screen, everything inside your monitor screen.
- **Command + Shift + 4** – Prints the screen according to user selection. By using the following shortcut, your cursor will turned into a cross-hair and allows you to select the area you want to capture.
- **Command + Shift + 4 then Space** – By holding down **Command + Shift + 4**, your cursor will turn to a **cross-hair**. Then hit the space bar once it will turn to a **camera icon**. This allows you to capture any opened windows, regardless of active or hiding behind.

If you want your screen capture to be kept in clipboard so you can paste them in image editing tools (eg. Photoshop) instead of output as .PNG, just include **Control** while using the shortcut.

- **Control + Command + Shift + 3** – Captures entire screen, hold image in clipboard.
- **Control + Command + Shift + 4** – Captures screen according to user selection, hold image in clipboard.