Getting Started with the NH Coastal Viewer
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The NH Coastal Viewer contains a comprehensive user interface with many tools and functions. This document summarizes some of the basic site functionality, and is intended to help you get started using the Viewer. For a complete description of each tool and function, please refer to the Online Help accessible from the toolbar. *(NOTE: the Online Help is maintained externally. While it describes the majority of the site functionality, it also includes descriptions of some tools and functions that are not currently implemented in the NH Coastal Viewer.)*

**Initial View**

Upon loading the NH Coastal Viewer, the user is presented with a page displaying a web map and its associated components, as illustrated in the figure below.

- **Table of Contents (TOC)** – contains the data layers available for display in the main map
- **Main Map Area** – displays the data layers that are turned on in the TOC
- **Toolbar** – contains tools to interact with the map, the data, and the overall website
• Toolbar Tabs – contains categories into which the tools are organized
• Map Scale Bar – presents a scale bar for the current map scale
• Cursor Location – shows the current coordinates in various lat/long or coordinate systems options
• Overview Map – shows the extent of the current map relative to the surrounding region (Closed by default. Click the small arrow in the lower right corner of the viewer to open.)

**Table of Contents**

The Table of Contents (TOC, or map layer list) is a listing of data layers available within the Viewer. The layers are grouped into functional categories that are presented in a folder-like structure. Containers or “folders” in the TOC use a bold font, while the individual data layers are named with a normal font weight. Click the “+” symbol next to a category or folder name to reveal the list of layers it contains. To see a listing of the entire TOC, click the “View Complete Layer List” button in either the Home tab or the “I Want To…” dropdown menu.

Data layers are made visible in the main map by clicking the checkbox next to the layer name. **Keep in mind that it is necessary to check each checkbox in the hierarchy above the layer of interest for it to display.** The following figure presents an example of this concept. As shown, the “Operational Layers”, “Biology and Ecology”, and “Shellfish Resources” folders are all checked in order to display the “Current Shellfish Beds” data layer.

When a data layer is turned on for display, its legend becomes visible in the TOC. To close the legend, click the legend icon to the left of the layer name. Another way to show the legend is to click the Legend button at the lower left of the TOC.

Data layers are drawn on the map in reverse order from the TOC – from bottom to top. In other words, layers at the top of the hierarchy overwrite or draw on top of layers below. This may or may not affect the layer visibility, depending on the data type (e.g. points on polygons) or density of the data (e.g. aerial photography which may cover the entire area).

A further point to consider is the scale at which the data are viewed. For some complex layers such as land use, scale dependencies are set...
that control the scale at which the features become visible on the map. These are set to prevent data layers with many features from drawing at very small scales and slowing down the Viewer. Data layers with scale dependencies set appear initially in gray font in the TOC, and change to black once the user has zoomed into a scale large enough for the features to draw. See for example the National Wetland Inventory layer in the figure above, which is set to draw only at scales of 1:100,000 or greater.

An important feature of the TOC is a popup window that displays additional information for each data layer (see figure below). This feature is accessed by clicking the layer name itself. Common items in the popup include Symbolization, the Transparency slider, Metadata link, and Related Documents link(s), although not all will be included for all layers. The color/symbology used to draw map features can be changed by the user by clicking in the Symbolization box, when present. The Transparency slider allows the user to change the opacity of layer - a useful feature for revealing layers that draw underneath a particular data layer. Clicking links to Metadata or Related Document(s) will open these web pages in a new browser or browser tab, depending upon the user’s settings.

Another feature of the TOC is the concept of “Layer Themes”. Layer Themes categorize data sets into like groups, making the TOC more focused on specific classes of data. To access a specific Layer Theme, click the down arrow as shown in the figure below.
Another way to focus on a specific data layer in the TOC is via the “Filter” button located at the lower right of the pane. By clicking and entering text that identifies data layers of interest, the TOC is reduced to layers that match the text filter. In the figure below, only layers containing “SLR” are displayed in the TOC. Keep in mind that the filter only acts on layer names, and not on group or folder names.
Toolbars

The NH Coastal Viewer has several Toolbars that are arranged in groups or “tabs”. When first opened, the “Home” tab is visible. This tab contains several commonly used tools, including basic navigation tools (zoom/pan), the identify tool (to learn more about a particular map features), the print tool, and the export tool. The tab also contains a series of buttons that link to other site documents. Once selected by clicking, the navigation and identify tools remain active until a different tool is selected. The other buttons operate via a single click, and take the user to a different interface or webpage. The following image shows the toolbar tabs and the Home toolbar along with the available tools and buttons.

The “Data Sources” tab includes tools and buttons that allow the user to arrange layers and to add external data sources (including shapefiles and map services) to the Viewer. There are also buttons that open either Google or Bing maps for the region currently being viewed. The image below shows an example of the Data Sources toolbar. (For detailed tool descriptions, see Use the Viewer> Add and Export Map Data section of the Online Help.)
The "Find" tab opens a toolbar containing numerous tools and procedures that allow the user to query and filter the data layers and generate subsets of features. The find data tools are used to interact with data layers by clicking (individual points) or drawing geometry (lines or polygons) on the map to select which visible features (i.e. checked in the TOC) will be queried. It is possible to restrict the query results to specific visible data layers via checking those data layers in the "Results for..." dropdown menu. Similar to the Find Data tools, "Map Tips" also provide information about features and operates in a similar way as the Point tool. A single click will list basic information about the feature that was identified. When zoomed to a small scale, this tool will often return several features. The "Display for..." drop-down menu limits the results to those layers whose check boxes are ticked. To turn off the map tips tool, uncheck the box in the Map Tips section.

The "Filter", "Query", and "Advanced Query", provides interfaces to build simple or complex queries that limit the layer features to those that match the query. (For detailed tool descriptions, see Use the Viewer>Find Information section of the Online Help.)

The "Drawing" tab is next in the progression of toolbars. This toolbar provides access to tools that draw shapes on the map. The shapes include points, lines, and polygons among others, and can be symbolized to a limited extent. Once added, the shapes can also be edited. In addition, the shape objects can be exported to shapefile features. The figure below shows an example of the toolbar. (For detailed tool descriptions, see Use the Viewer>Draw on the Map section of the Online Help.)
The "Analysis" tab contains tools and controls that govern measurements and units of measure available on the map. Measurements can be made using various units such as feet, miles, meters, and kilometers for distance and feet², acres, meters², and hectares (among others) for area. This toolbar also provides the means to find coordinates on the map in various coordinate systems. (For detailed tool descriptions, see the Use the Viewer> Measure Distance and Area on the Map and Use the Viewer> Work with Coordinates sections of the Online Help.)
Along with the toolbars, there is a drop-down menu named “I Want To…” which provides quick access to specific tools found in the main toolbar.

The menu also provides access to a specialized tool named “Zoom to street address, city/town, or zipcode”. This tool opens a window where the user can enter a street address and city/town (or zipcode), a single city/town entry, or a single zipcode, click the “Search” button, and zoom to the selected geography. The figure below shows an example of the Zoom to street address, city/town, or zipcode interface.
About Printing

Prints of the current map view can be produced using the “Print” button located on the Home tab of the toolbar or select the “Create a printable map” option in the “I Want To...” drop-down menu. When clicked, a print interface opens where the user can set several options including layout size, output format, resolution, graticules, scale, title, and notes. Once the Print button is clicked, the map is generated and a popup indicates that the document is ready. Note that in order to view the printed map, popup blockers must be set to accept popup windows from the site.
The “Preview Extent” button shows the extent of the print area on the map at the printed scale. The user can pan the map beneath the extent rectangle to reposition the print. To remove the extent rectangle, click the “Print Extent” button again.

Save and Open Projects

Another feature available in the NH Coastal Viewer is the ability to save and open projects. By saving a map project, several map characteristics are saved to a file and can be re-called later when re-opening the project. These characteristics include: the zoom setting (or map extent), the layer settings (e.g. layer visibility and transparency), any measurements or markups that were added to the map, external data added to the map (e.g. a shapefile), the current layer theme, and bookmarks. A map project can be saved to either the UNH server or to the user’s desktop by clicking the icon (or the associated down-arrow to select a specific project type) at the upper left corner of the viewer. Project files saved to the UNH server will be visible by all users of the NH Coastal Viewer. To open a saved project, click the icon. (See the Online Help section, Use the Viewer>Use Projects>Save and Open Projects for a detailed description of the different types of projects that can be saved, opened, and shared.)

All Layers

The “All Layers” drop-down menu in the upper right corner of the main map area provides access to the base layers that are available in the map. Once clicked, the menu presents a list of background
layers which can be turned on or off. Unlike some other online map viewers, the menu does not automatically switch base maps when a different layer is clicked. The user needs to uncheck the check box to turn layers off, if desired. It is also possible to change Themes while the All Layers menu is open. The “More Map Layers” button opens the TOC, if that panel is currently closed.

Search

The viewer contains a “Search” box which allows the user to find attributes for visible layers or run individual geocoding. It is used by adding keywords or addresses, depending on what is being searched. When looking for an address, use the street address format, including the state abbreviation, “NH”. An example address search may look something like, 8 College Rd, Durham, NH. The results will be displayed in the left viewer pane where a new tab will be presented at the bottom of the page. The results of the search can be Refined to remove unwanted features, Zoomed by clicking the icon, Selected by clicking the icon, or Exported to a shapefile. An additional feature is exposed by clicking the drop-down arrow at the right side of the Search box. This drop-down menu allows the user to limit the search to geocode results or map services.
Time Slider

The “Time Slider” tool functions when a time-aware layer in the TOC is turned on. The slider allows the user to step through a progression of points in time for a particular layer. (At this time, the Temporal Eelgrass layer is the only time-aware data set.) The time series can be stepped through automatically, or through the user’s control by clicking to move to the next date. See the figure below for some basic functions of the Time Slider. (For a detailed description of the slider options, see the *Use the Viewer* > *Work with Time* section of the Online Help.)
General Tips

The map area can be maximized by closing the Toolbar and TOC. The figure below shows each button to accomplish these results.

- Click arrow to close or open the TOC
- Click icon to close or open the toolbar