Getting Started with the NH Coastal Viewer
June 2021, v1

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.

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.
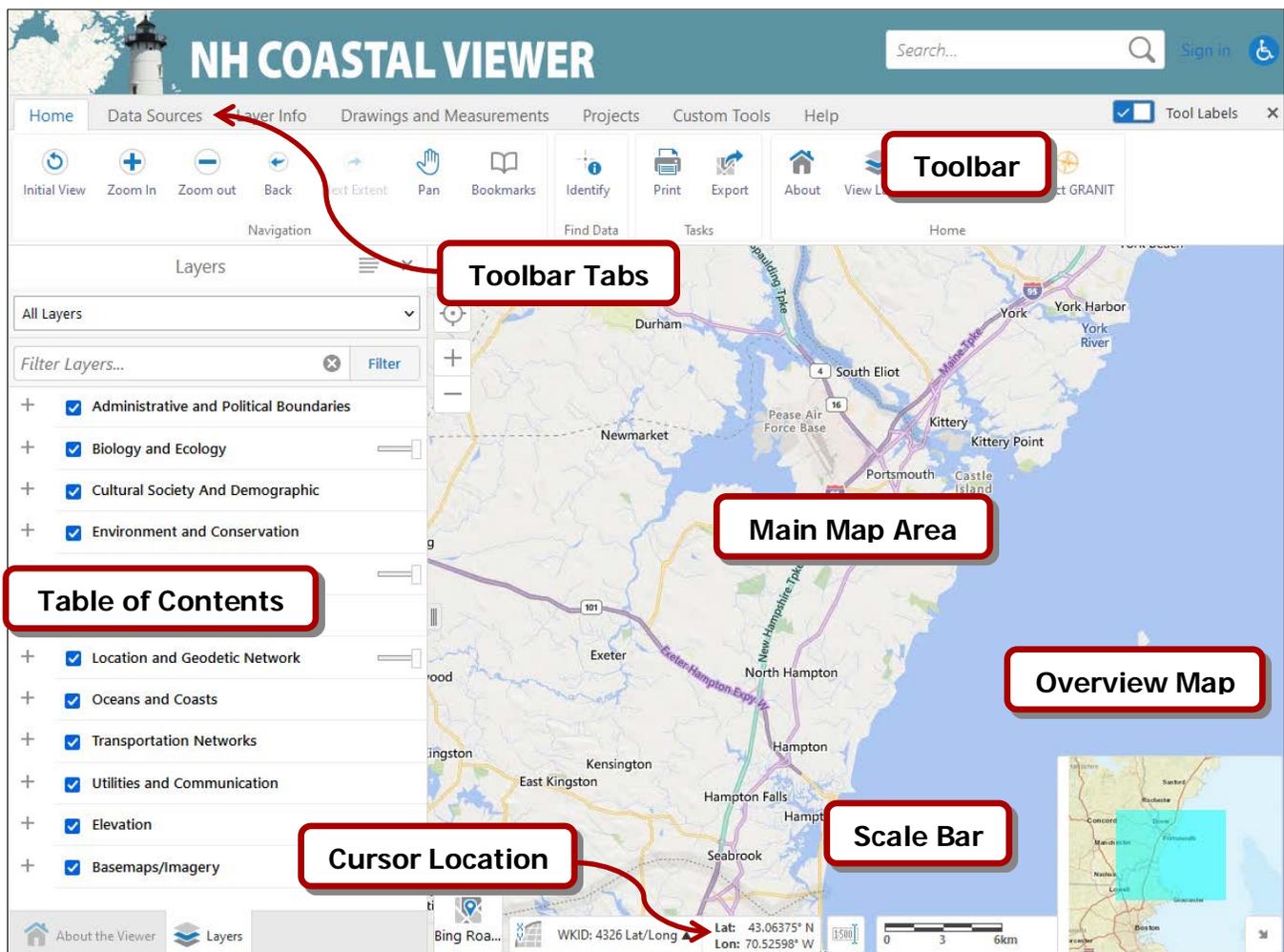
- Table of Contents (TOC) – contains the data layers available for display in the main map
- Main Map Area – displays the data layers that are turned on in the TOC
- Toolbar – contains tools to interact with the map, the data, and the overall website
- Toolbar Tabs – contains categories into which the tools are organized
- 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 are indicated by way of "+" and "-" icons. Click the "+" icon next to a category or folder name to reveal the list of layers it contains. Likewise, click the "-" icon to close the folder. To see a listing of the entire TOC, click the "**Full 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 check box in the hierarchy above the layer of interest for it to display. The following figure presents an example of this concept. As shown, the "Biology and Ecology", and "Shellfish" folders are all checked in order to display the "Shellfish Water Classification" 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.

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 NWIPlus, 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 initially appear in italic gray font in the TOC, and change to black once the user has zoomed into a scale large enough for the features to draw.

Click to open/close Layer Legend

An important feature of the TOC is the additional information panel for each data layer (see figure below). This feature is accessed by clicking the ">" icon to the right of the layer name. Common items in the panel include symbolization, label settings, the 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 the "**Turn on/off layer visualization**", when present. Clicking the **Metadata** or **Related Document(s)** icon(s) will open these web pages in a new browser or browser tab, depending upon the user's settings.

Navigation
Shellfish Aquaculture ✕
Zoom to full extent Zoom the map to the full extent of the layer.
Zoom to visible scale Zoom the map to a scale where the layer is visible.
Turn on/off layer visualizations Create and view custom layer visualizations such as heat maps, clustering, and layer styles.
Toggle labels Turn the layer's labels on or off.
Customize labels Toggle and customize the layer's labels.
Metadata

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.
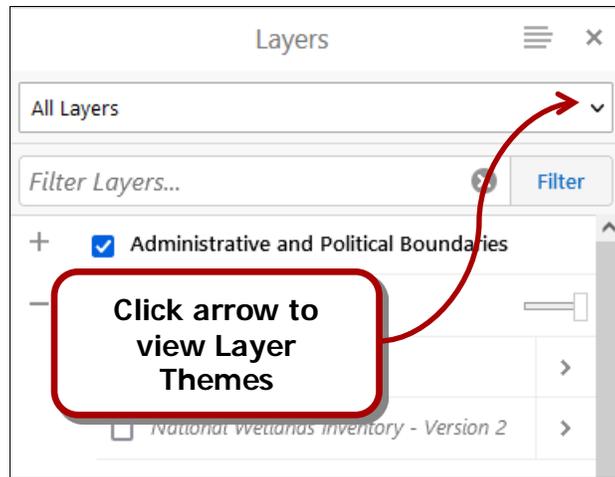
Another way to focus on a specific data layer in the TOC is via the "**Filter**" button located below the Layer Themes drop-down control. By clicking and entering text that identifies data layers of interest, the TOC is reduced to layers that match the text filter. In the figure below, only layers containing "SLR" are displayed in the TOC. Keep in mind that the filter only acts on layer names, and not on group or folder names.
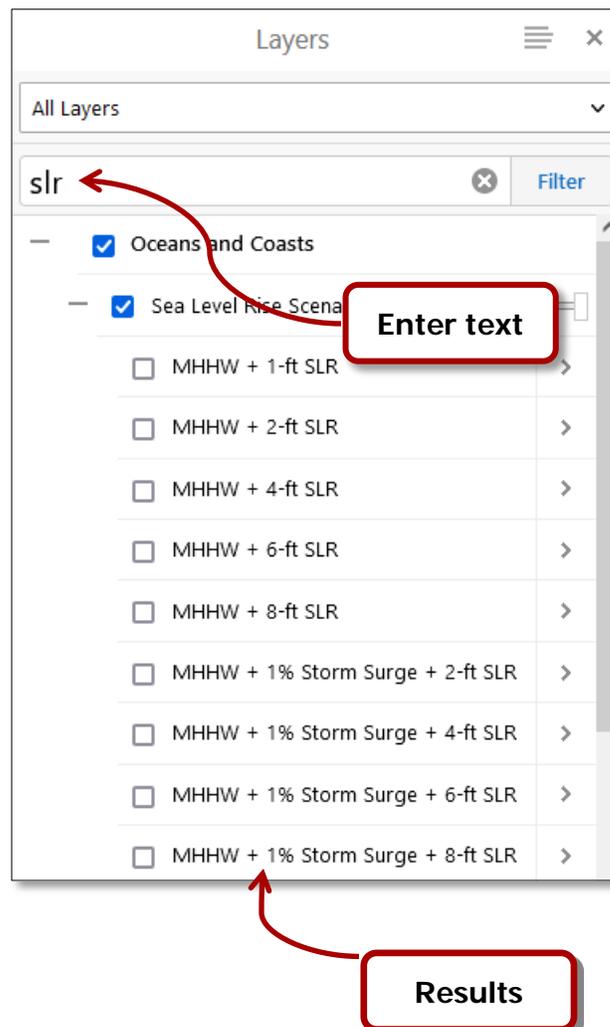
Toolbars

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.
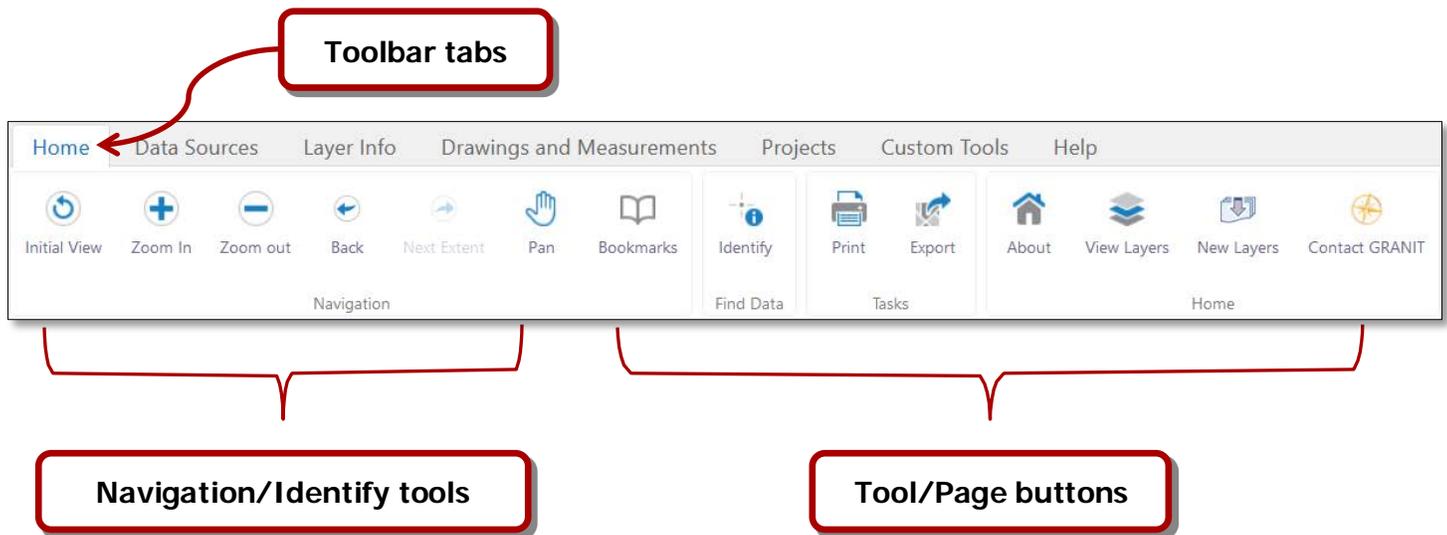
The "**Data Sources**" tab includes tools and buttons that allow the user to arrange layers and to add external data sources (including shapefiles and map services) to the Viewer.
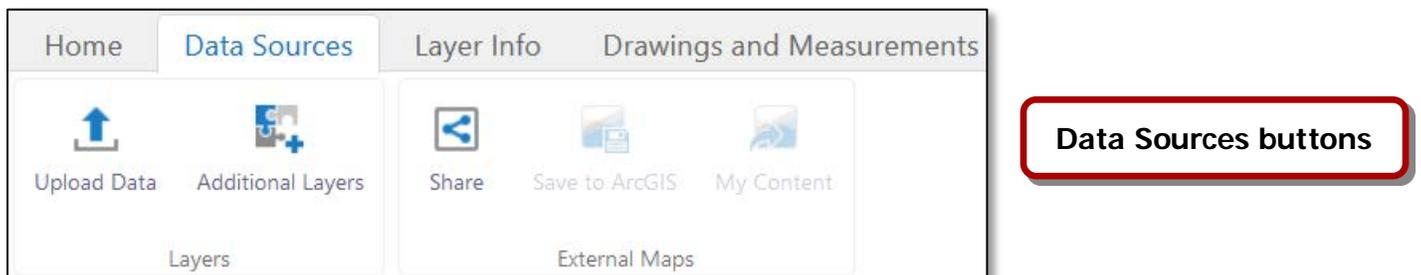
The "**Layer Info**" tab opens a toolbar containing several tools and procedures that allow the user to query and filter the data layers. The **Layer Info** tools are used to interact with data layers by clicking (individual points) or drawing geometry (lines or polygons) on the map to select which visible features (i.e. checked in the TOC) will be queried. Similar to the **Find Data** tools (located in the "**Home**" tab), "Map Tips" also provides 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. The "**Query Data**" and "**Filter Data**" provides interfaces to build simple or complex queries that limit the layer features to those that match the query.
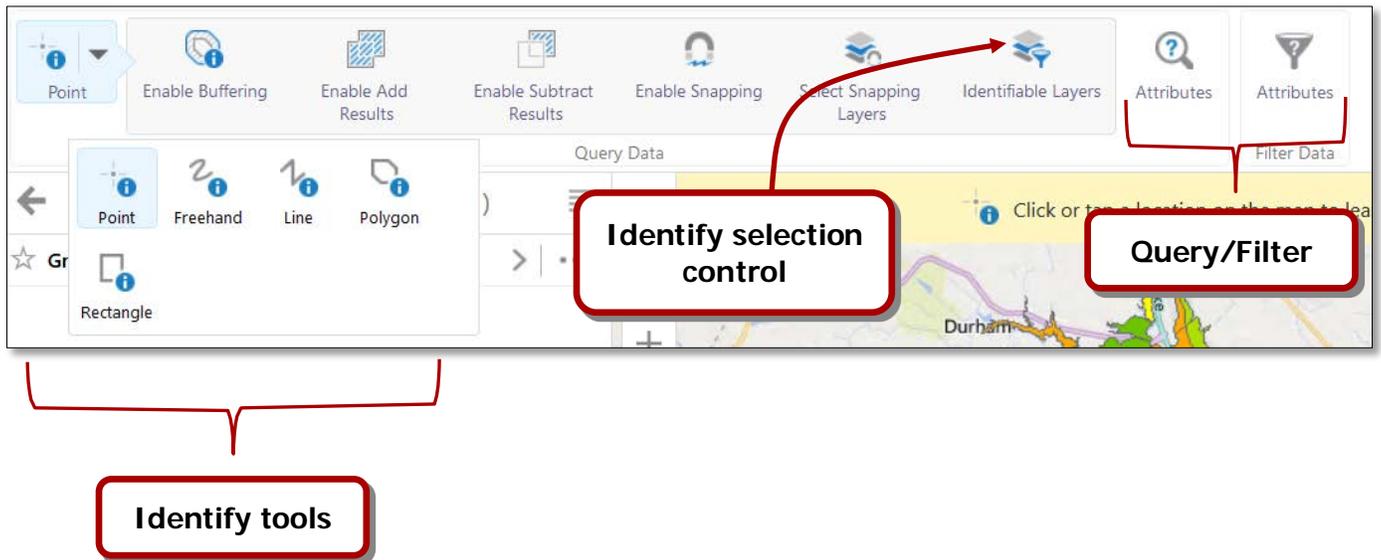
The "**Drawing and Measurements**" tab is next in the progression of toolbars. This toolbar provides access to tools that draw shapes and make measurements on the map. The shapes include points, lines, and polygons among others. The measurements include distance, area, and locations. Once added, the shapes and measurements can also be edited. In addition, the shape objects can be exported to shapefile features. The figure below shows an example of the toolbar.
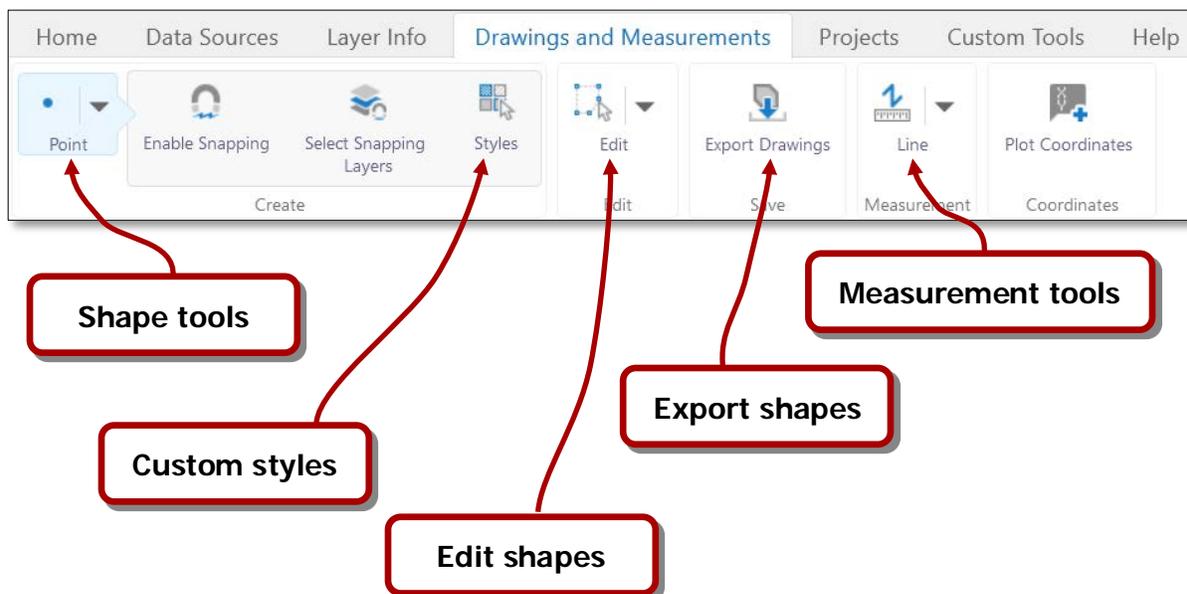
When expanded, the **Measurement** control contains tools that govern measurements and units of measure available on the map. Measurements can be made using various units such as feet, miles, meters, and kilometers for distance and feet^2, acres, meters^2, and hectares (among others) for area. This toolbar also provides the means to find coordinates on the map in various coordinate systems.
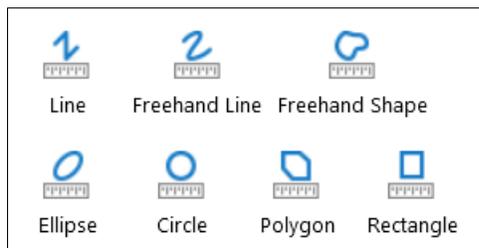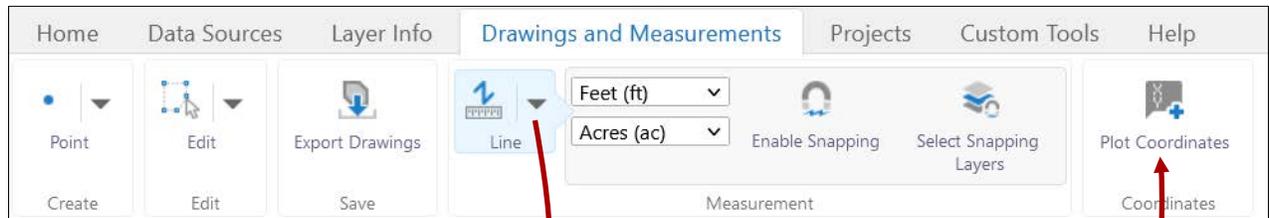
Measurement options

Find coordinates on the map
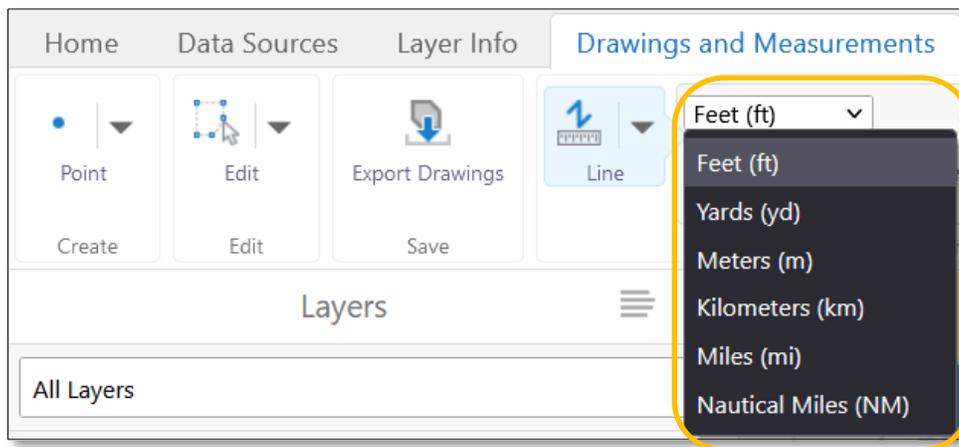
Measurement unit options

Change coordinate units

Clicked coordinate on map

Plot coordinate on map

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 "I want to …" menu

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.

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 the print panel changes to indicate that the document is ready. Also note that there are asynchronous layout options for maps that require longer durations to generate. When using these options, users are notified via email once the printed map is ready.
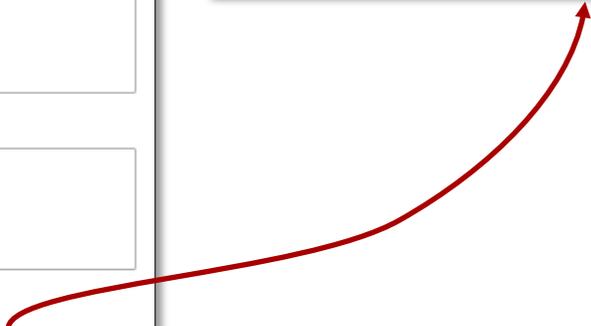
Save and Open Projects

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 by clicking the 💾 icon located in the **"I Want To …"** menu, or from the Projects tab of the main toolbar. To open a saved project, click the 📂 icon. To save projects, users will need either a personal or organizational ArcGIS Online account. Instructions for setting up a free, public AGO account can be found here (select "Create a public account").
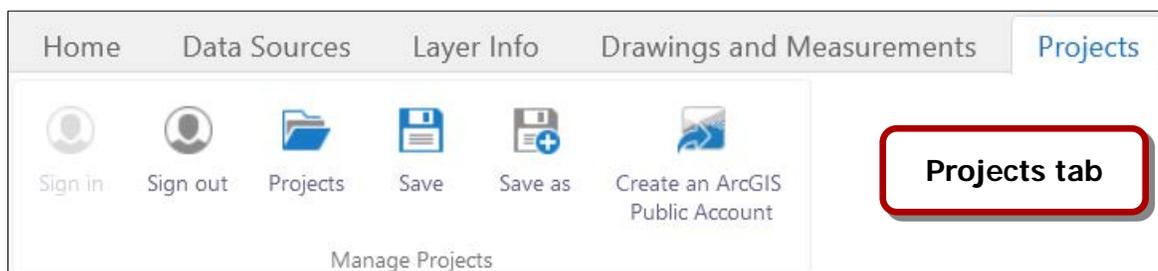
The **Base Maps** icon provides access to the base layers that are available in the map. Once clicked, the menu presents a list of background layers which can be selected. The image below shows an example of the **Base Map** control with the "Bing Aerial chosen.
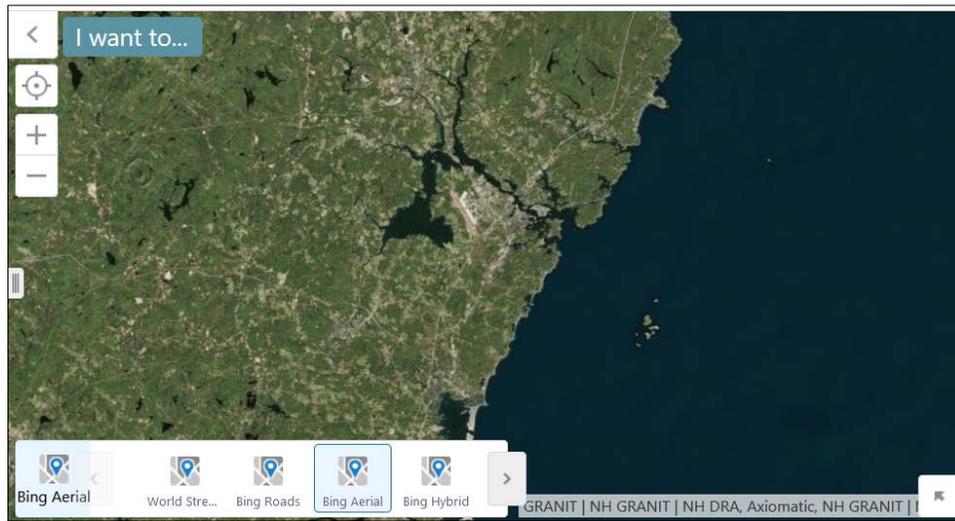
Base Map control

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. An example address search may look something like, 8 College Rd, Durham. 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, zoomed, selected, exported to a shapefile, etc. by clicking the panel ☰ and results ⋯ action menus.

General Tips

The map area can be maximized by closing the toolbar and TOC and turning off the tool text. The figures below show examples of each button used to accomplish these results.