

# Getting Started with GRANITView

March 2017

The GRANITView web mapping application provides access to key NH GRANIT data layers along with a suite of tools to navigate and interact with those data layers. The layers are grouped into a series of functional categories, including:

- Administrative and Political Boundaries
- Cultural Society and Demographic
- Environment and Conservation
- Geological and Geophysical
- Inland Water Resources
- Location and Geodetic Networks
- Transportation Networks
- Utilities and Communications
- Elevation
- Base Maps/Aerial Imagery
- Label Features

Each category contains numerous data layers that can be displayed and queried by the user. A number of the layers are maintained by GRANIT, while others are developed and maintained by our state partners and provided to GRANIT for archiving and hosting.

For more information about GRANIT, please see [www.granit.unh.edu](http://www.granit.unh.edu)

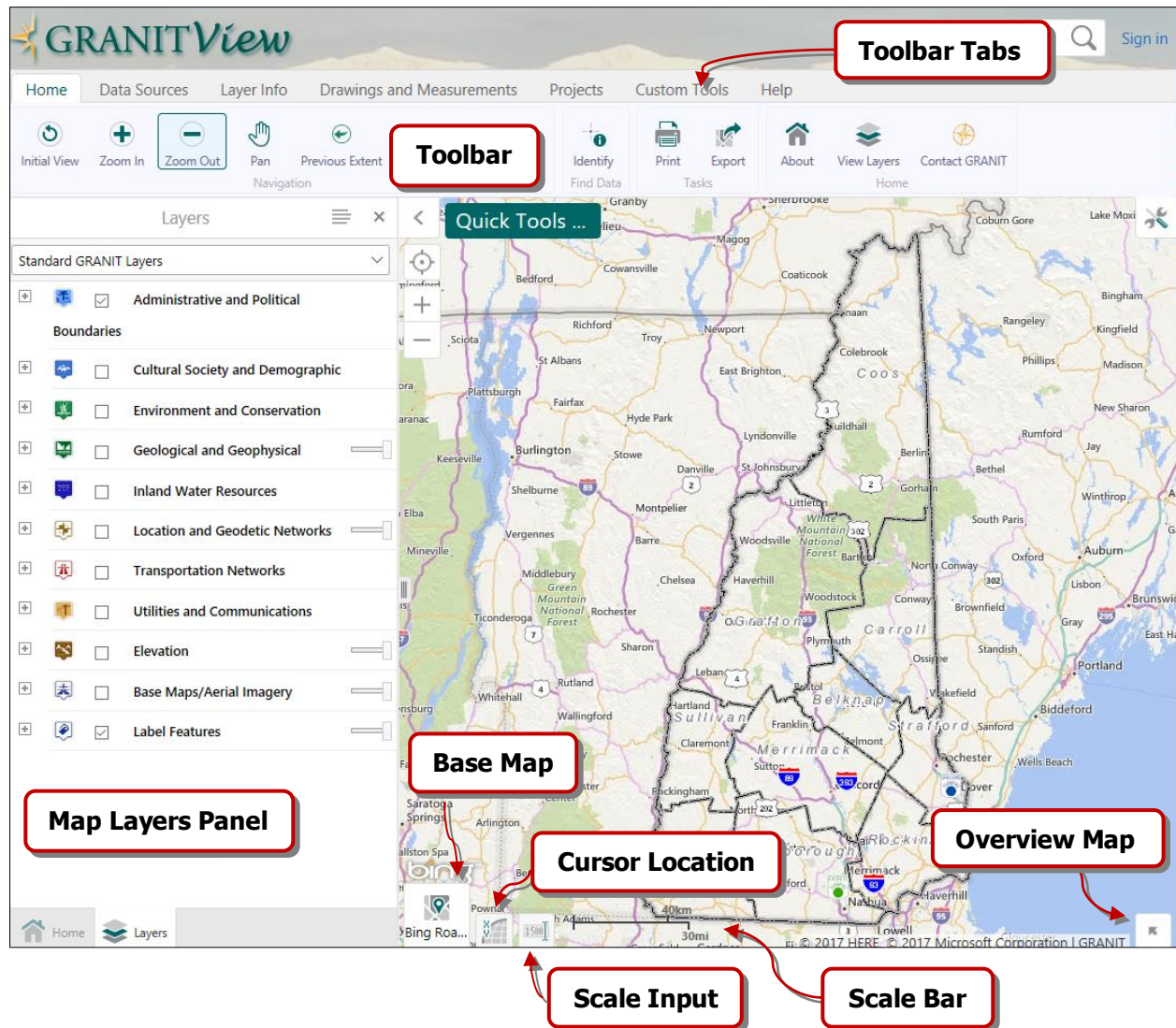
This document is intended to help you get started using GRANITView. We encourage you to explore the data sets and toolbars to discover all of the functionality available through the site.

*GRANITView was developed by the Earth Systems Research Center,  
Institute for the Study of Earth, Oceans, and Space, University of  
New Hampshire.*

## Initial View

Upon loading GRANITView, you will see a page displaying a web map and a "Welcome to GRANITView" screen. To begin working with the web map, open the Table of Contents by clicking the Layers tab below the welcome text.

- Map Layers Panel – contains the data layers available for display in the main map. To view and manipulate data layers, click the "View Layers" button in the toolbar, or the "Layers" tab at the bottom of the Map Layers Panel
- Main Map Area – displays the data layers that are turned on in the Layers Panel
- Toolbar – contains tools to interact with the map and data

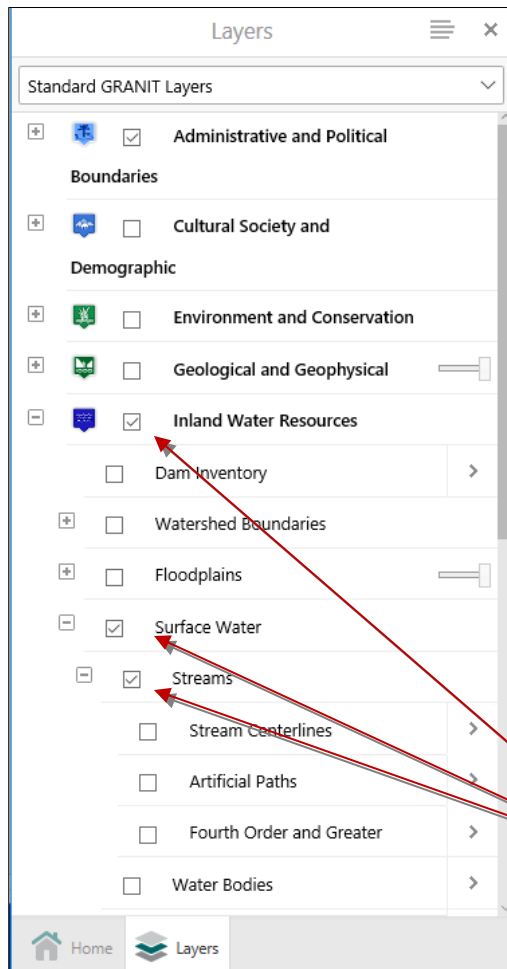


- Base Map – allows the user to select a Base Map
- Cursor Location – shows the current coordinates of the cursor in a coordinate system selected by the user
- Scale Input – allows the user to quickly zoom to a desired map scale
- Scale Bar – shows the current map scale
- Overview Map – shows the extent of the current map relative to the surrounding region

The elements listed above are closed by default when you first access GRANITView. Click on each icon/label to open. For the overview map, click on the small arrow in the lower right corner of the viewer.

## Map Layers Panel

The **Map Layers Panel** is a listing of the data layers available within the Viewer. The Panel is accessible by clicking the **Layers** tab in the bottom left corner of the Viewer or by clicking the “**Quick Tools...**” button and choosing “Change visible map layers”.

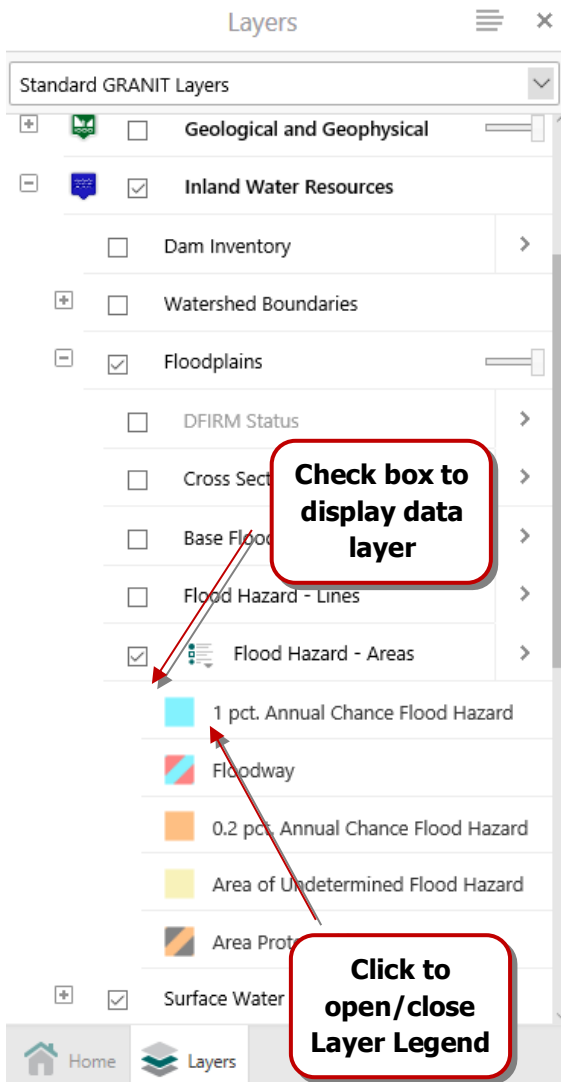


Data layers are grouped into functional categories that are presented in a folder-like structure. Click the “+” symbol next to a folder to reveal the list of layers it contains.

Note that the individual data layers within each folder are grayed out initially, indicating that they are inactive and unavailable to display/query. Activate the layers by clicking the checkbox next to the folder name.

In some cases, there are multiple levels of folders. All folder levels associated with an individual data layer must be checked to see and activate the layer. The Inland Water Resources folder, the Surface Water subfolder, and the Streams subfolder are checked in the graphic on the left, making the 3 layers in the Streams subfolder (Streams Centerlines, Artificial Paths, Fourth Order and Greater Streams) available for display.

**Click all  
folders/subfolders  
to view available  
data layers**



Data layers are typically displayed in the map by clicking the checkbox next to the layer name in the Map Layers Panel.

When a data layer is turned on for display, its legend is available to display in the Map Layers Panel. To display or collapse the legend, click the legend icon to the left of the layer name.

Data layers are drawn on the map in reverse order to the Map Layer Panel. In other words, layers at the top of the list are drawn on top of layers at the bottom of the list. This may or may not affect the visibility of your data, depending on the data type (i.e. points or polygons) or density of the data (i.e. aerial photography which covers an entire area). To adjust the transparency of a layer to reveal data underneath, see the Layer Actions instructions below.

Another factor which may impact the visibility of data is the map scale. For some complex data layers, scale dependencies are set to control the scale at which features become visible on the map. This prevents layers with many features from slowing down the viewer at very small map scales. Data layers for which scale dependencies are set will initially appear in gray font in the Map Layers Panel; the font will change to black once the user has zoomed in to a scale large enough for the features to be drawn.

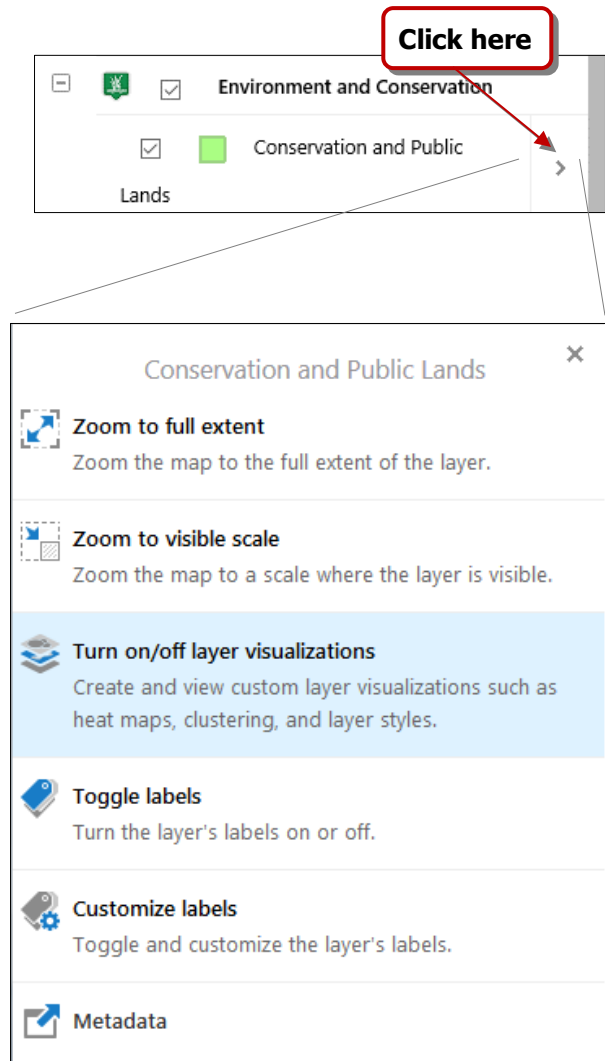
Additional Layer Actions are available by clicking the arrow to the right of the layer name.

Available Layer Actions will vary between datasets, but commonly include “Zoom to...” and Labeling options and Metadata.

The symbology (color, transparency, etc.) used to draw map features can be changed by selecting “Turn on/off layer visualizations”, if this option is available for the data layer in question.

Labels may be specified using “Customize labels”, and then quickly turned on and off using “Toggle labels.”

Clicking the link to Metadata will open a new browser or browser tab, depending on your web browser settings.



In order to change the way a data layer is drawn, click "Turn on/off layer visualizations" and select "Custom Layer Style" from the drop-down menu.

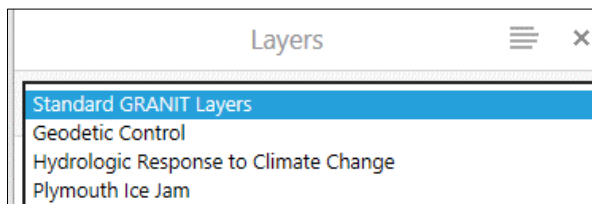
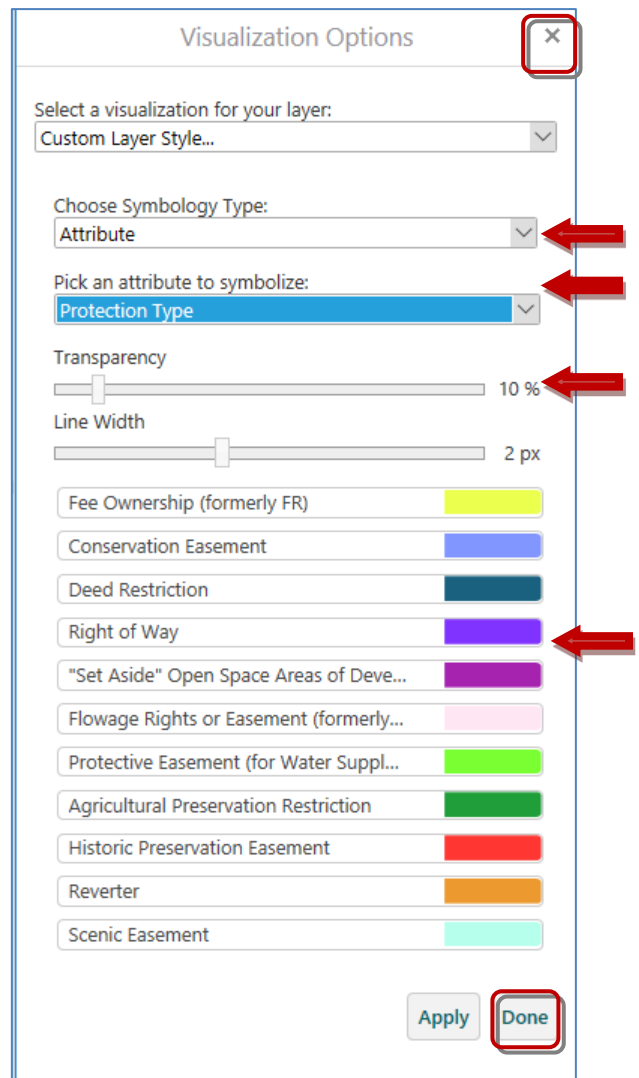
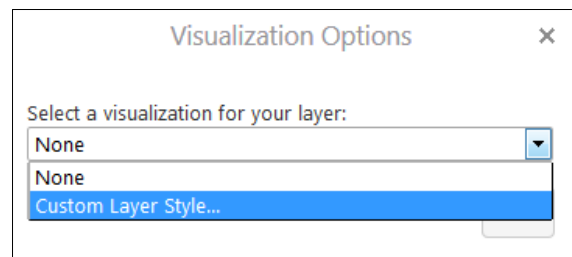
You may choose to symbolize the layer by attributes by clicking "Choose Symbology Type" and selecting "Attribute".

Then select the desired attribute from the "Pick an attribute to symbolize" drop-down menu.

Adjusting the transparency of the layer allows underlying data layers in the map to become visible through the transparent layer. This may be useful if you wish to show overlapping datasets in your map or to display imagery underneath your map features.

To change the color associated with any individual category (e.g. in this case, any Protection Type), click on the color patch beside the label to open a color-selector.

When you have finished selecting your Visualization Options, click Done, then click the "x" in the top right corner of the Layer Actions panel in order to return to the Map Layer Panel.

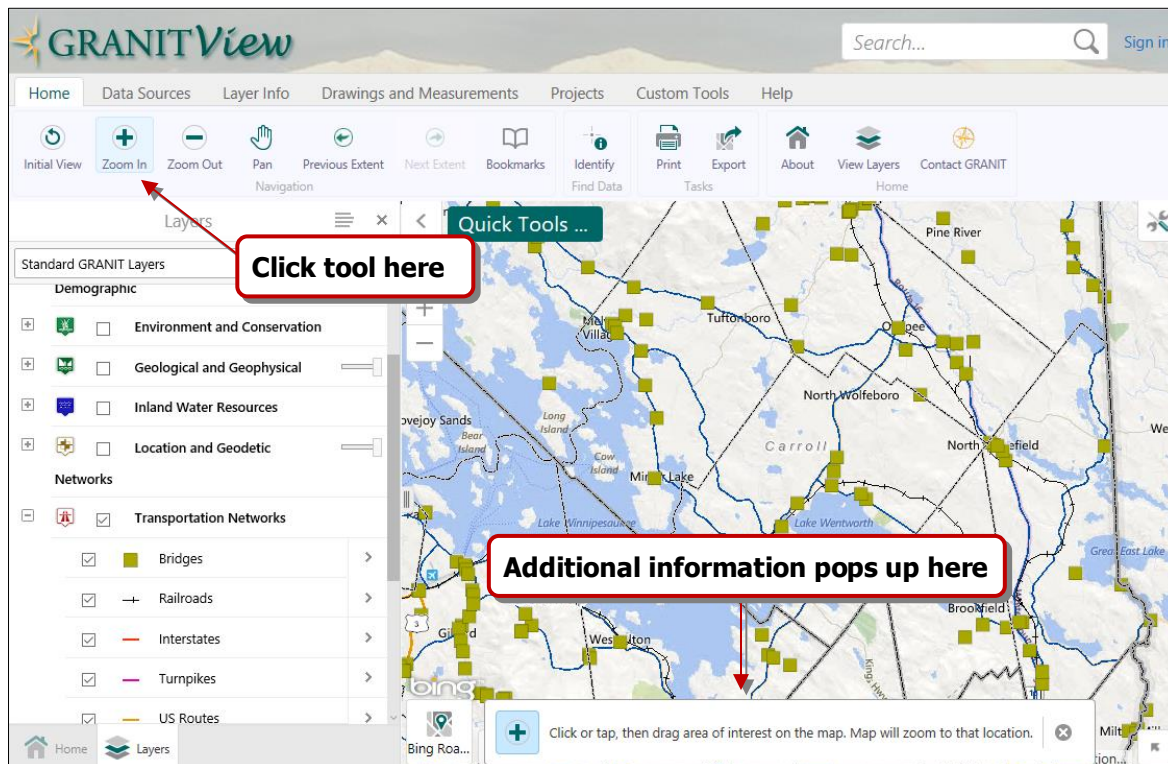


Selected data layers have been grouped into **Layer Themes** in order to allow users quick access to a more specific list of layers that may be of interest. To choose a Layer Theme, click the drop-down menu at the top of the Map Layers Panel.

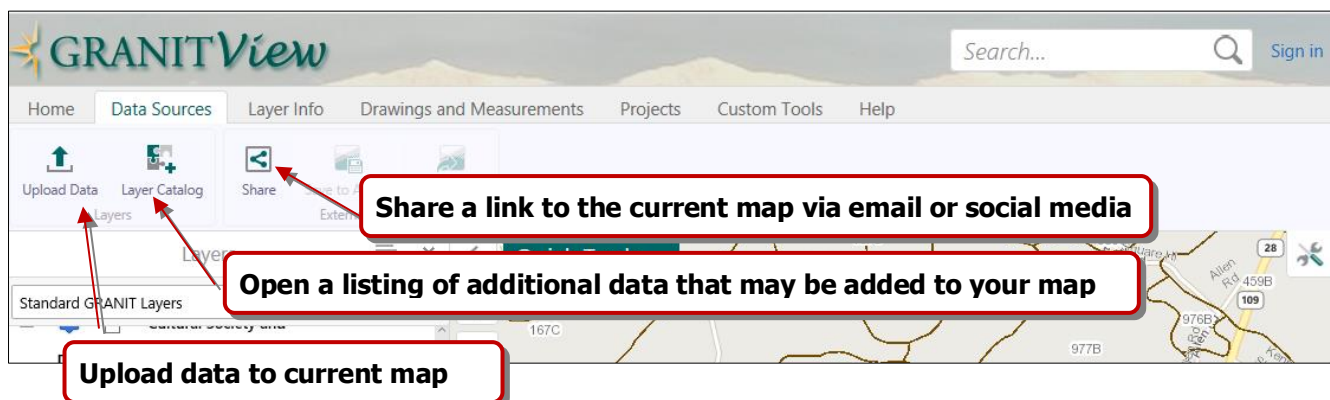


## Toolbars

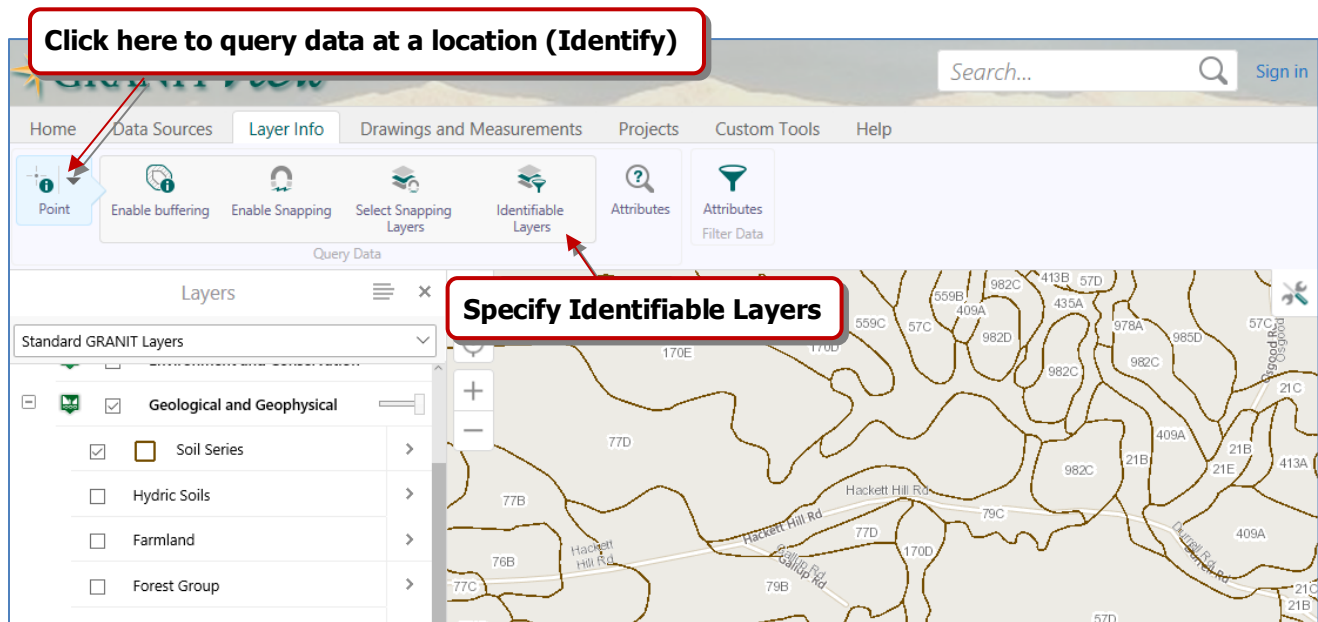
GRANITView has several toolbars which are arranged in groups or “tabs”. When you first open the viewer, the **Home** tab is selected. This tab contains several commonly used tools, including basic navigation (Zoom/Pan), Bookmarks, the Identify tool (used to display additional information about a feature; a more complete version of this tool is available in the Layer Info tab), View Layers, Print, and Export (used to export a map as an image file). When certain tools are selected, a small window of additional instructions will appear in the Map Area. For example, when the user clicks the “Zoom In” tool, a pop-up window appears as shown below.



The **Data Sources** tab allows you to upload your own data to the current map. Note that it is recommended that data uploads be limited in size to not more than 20 MB. The Layer Catalog tool provides access to additional data sets and/or web mapping services that may be of interest to users but are not included in the default Table of Contents. The Share tool allows users to share a link to their map on social media. Note: The shareable link opens GRANITView when clicked; it does not send a pdf or image file to the recipient.



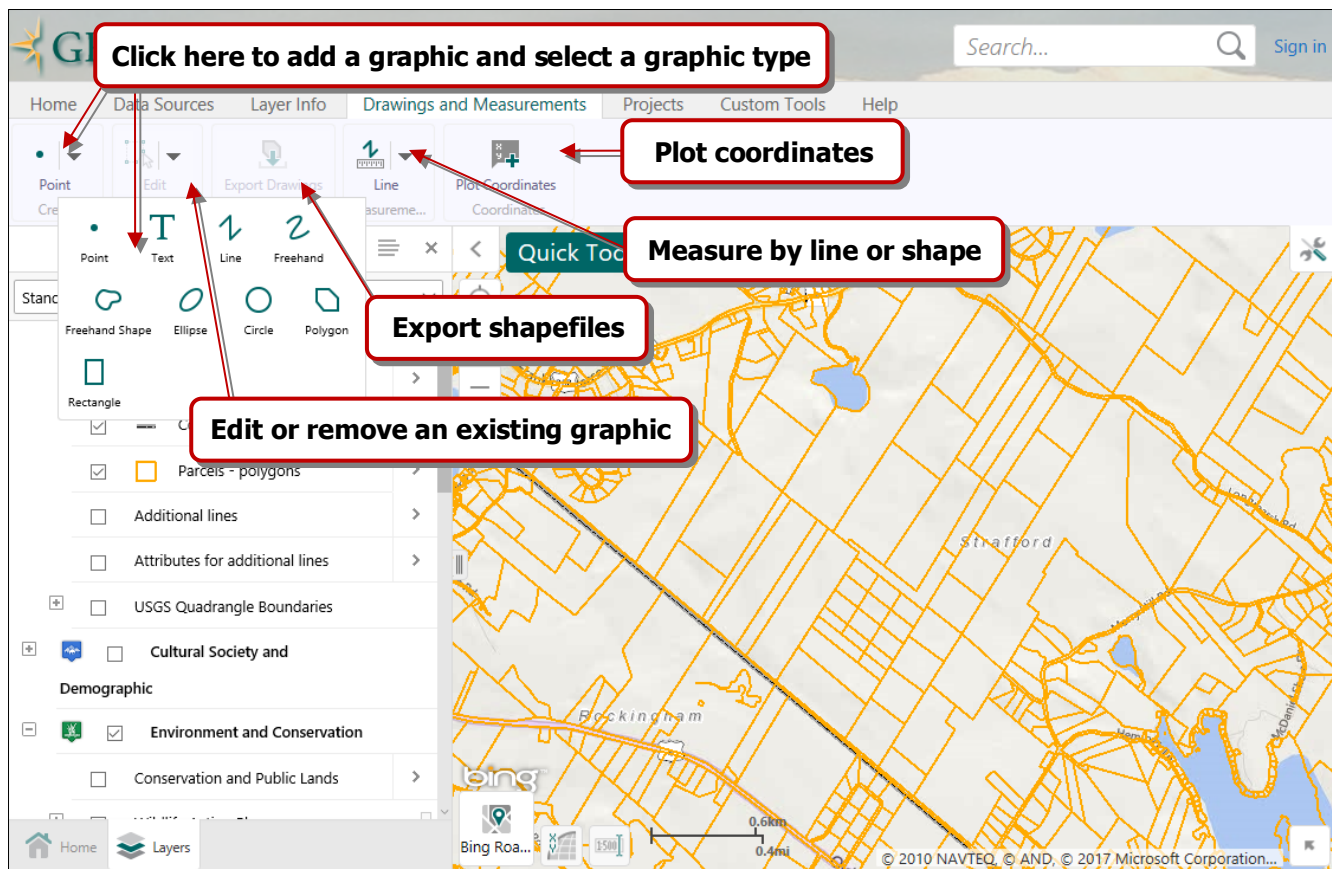
The **Layer Info** tab contains tools that allow the user to query and filter the data layers and features in the map. To query information about a location or feature on the map, click the **Identify** tool as shown below. Only results from layers that are visible in the map (i.e. layers turned on in the Map Layers Panel) will be shown. The user may choose to identify data at single point or within an area by clicking the drop-down options. Query results can be restricted to specific layers by clicking the Identifiable Layers button and checking the boxes next to the desired layers. (Note that the Identifiable Layers button becomes visible only after selecting from the Identify drop-down menu.)



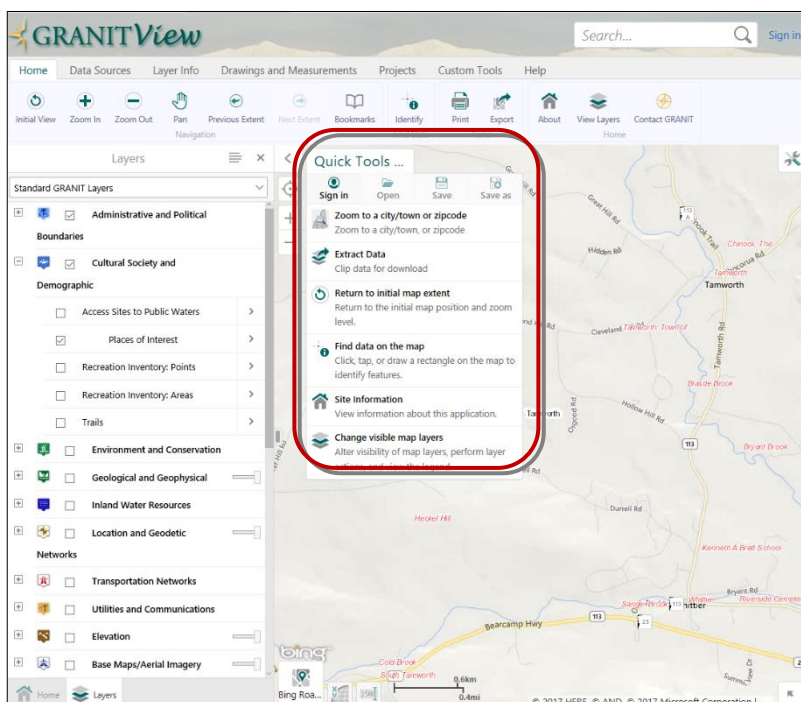
Data may also be queried and filtered by attributes using buttons in the Layer Info tab. Note that these tools can return results for layers that are not visible in the map.

The **Drawings and Measurements** tab allows the user to add and edit graphics, export graphics as shapefiles, take measurements within the map, and plot coordinates.





## Additional Menus



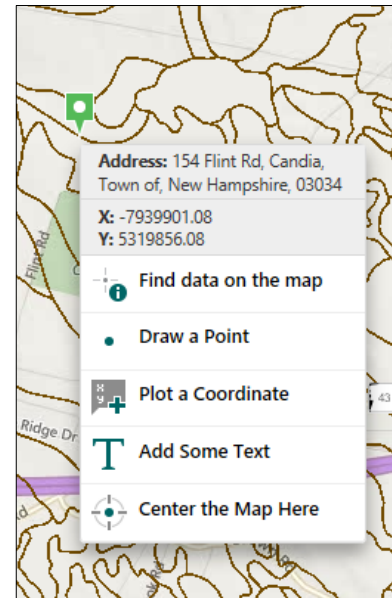
In addition to the toolbar, the **Quick Tools ...** menu in the main map area provides the user with quick access to a selection of tools and actions.

The **"Zoom to a city/town or zipcode"** tool opens a window in which the user can enter a city/town name and/or zip code. Clicking the "Search" button will zoom the map to the selected geography.

**"Change visible map layers"** allows the user to access the data layers if the Map Layers Panel is closed.

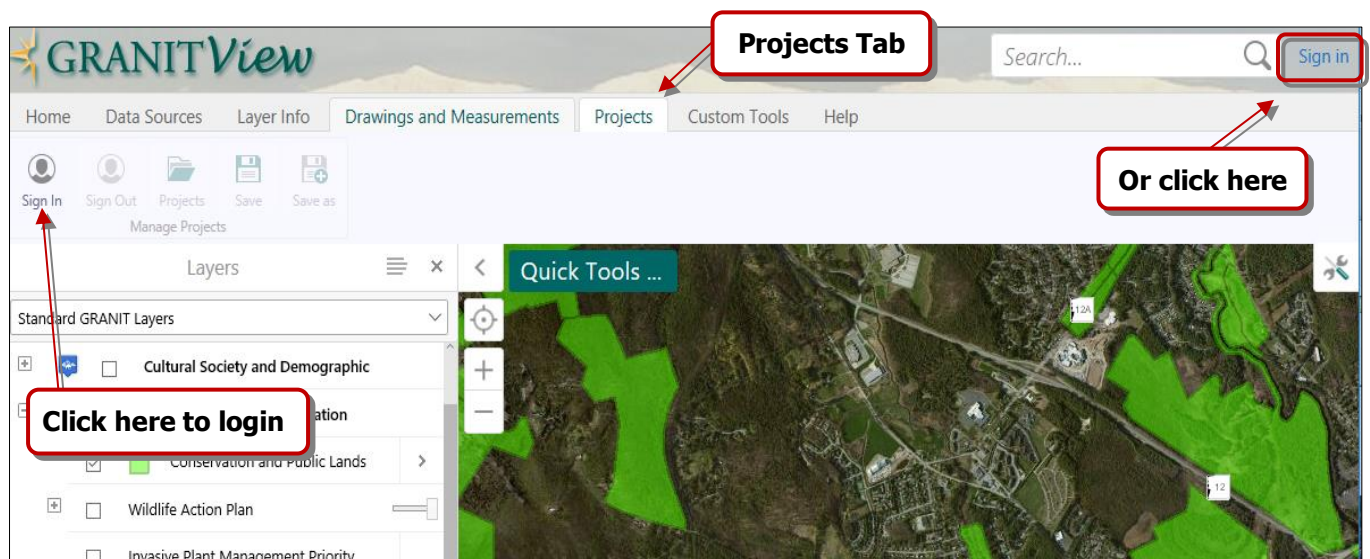
Your right mouse button can be used to display the address and the coordinates of any point on the map.

Right-click anywhere in the Map Area to display the menu shown at right.



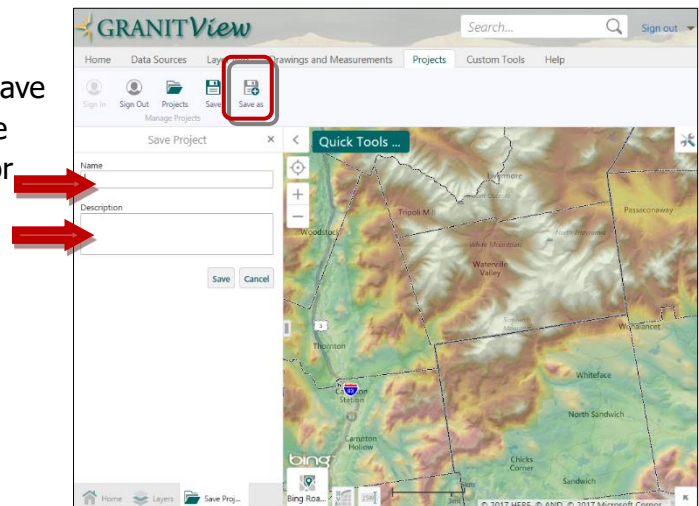
## Projects

If you wish to save your current work in GRANITView and return to it at another time, you may save your map as a Project. By saving a Project, you can preserve features of your map including the map extent, layer settings (such as symbology and transparency), any measurements, graphics, or text that were added, external data (i.e. shapefiles) added to the map, etc. You can also share Projects so that others can view and edit the map.

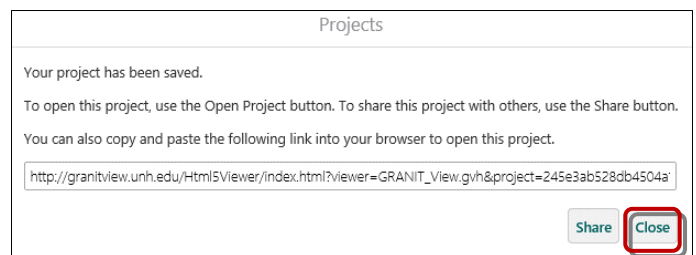


In order to save a Project, you will need to log into GRANITView using ArcGIS Online credentials. (For more information about ESRI Accounts, visit <https://accounts.esri.com/> ) Note that signing into ArcGIS Online will restart your GRANITView session, so be sure to do this before you begin working with the site tools.

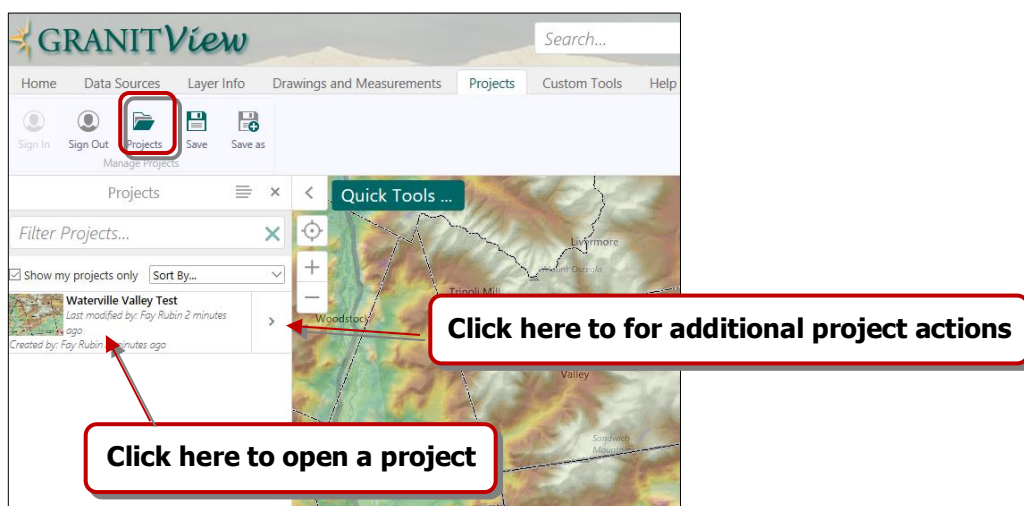
Once you have signed in to ArcGIS Online, you may save your project by clicking the **Save** button. In the Save Project dialog box, enter a Name and a Description for your project so that you can return to it later.



When you click Save, a pop-up box will appear, as shown. Click Close to return to your map.



Click the **Projects** button to access a list of all your saved projects. Click the name of a project in order to load it in the Map Area. Click the arrow to the right of a project name in order to share or delete a project, or to edit its Name and Description.

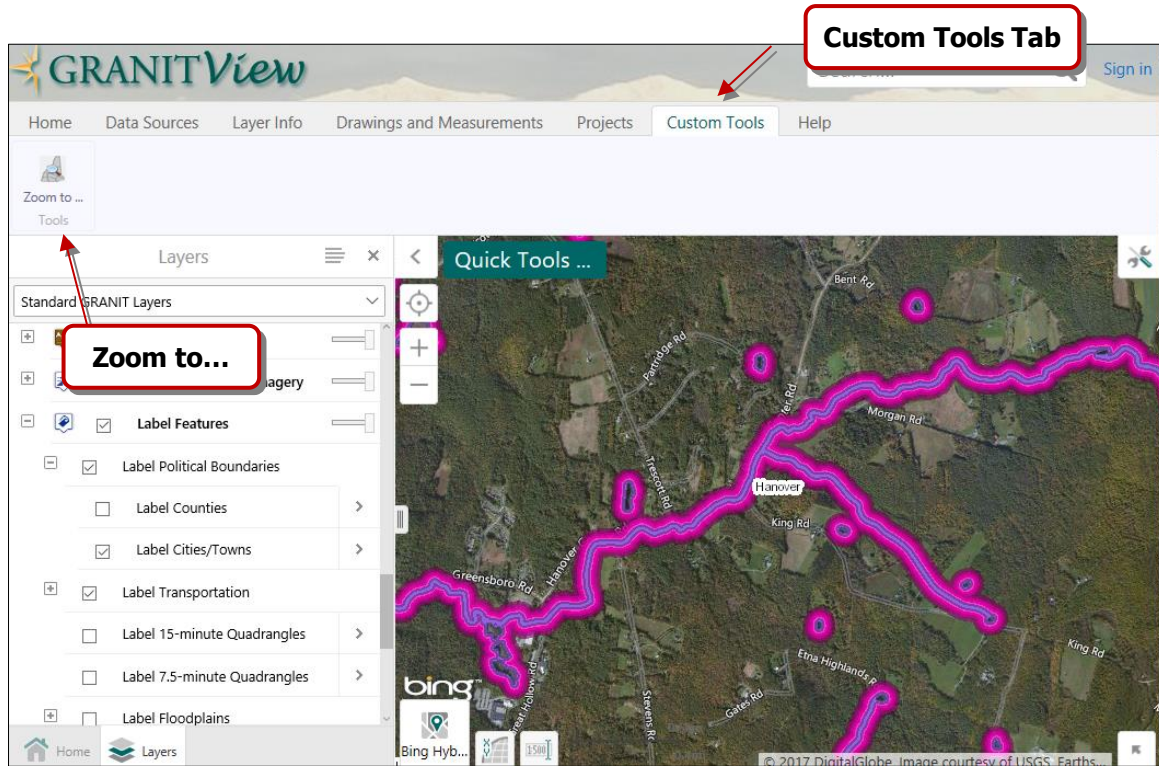


When you are finished with your ArcGIS Online session, be sure to Sign Out.



## Custom Tools

The **Custom Tools** tab in the Viewer provides quick access to additional tools that have been developed for GRANITView. The **Zoom to...** tool allows the user to enter a City/Town or street address to zoom to in the Map Area. This same tool can be accessed through the **Quick Tools ...** menu, as described previously. More tools may appear on this and other tabs as GRANITView continues to be developed.

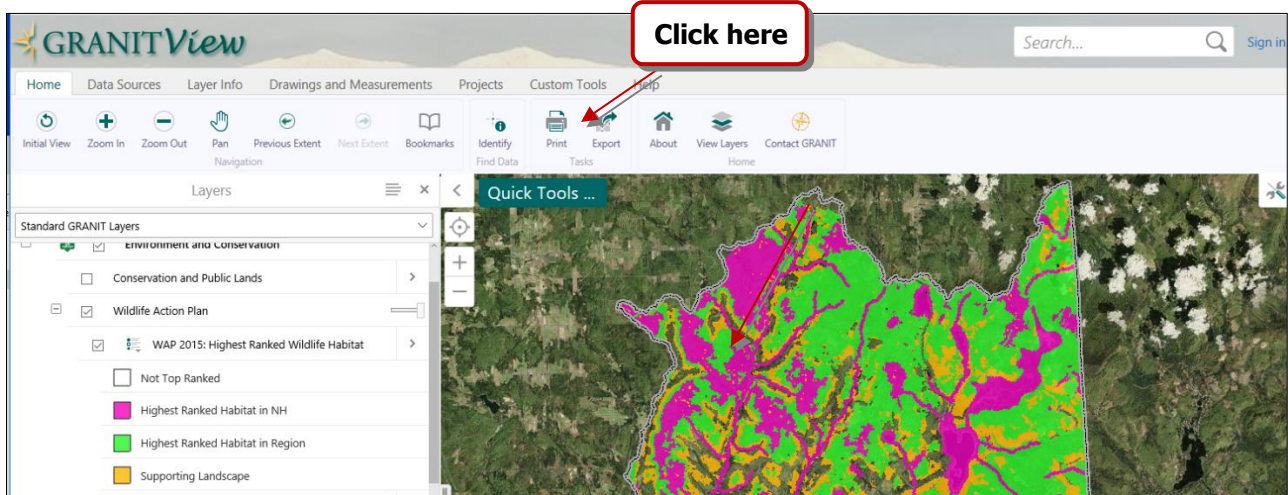


## Search

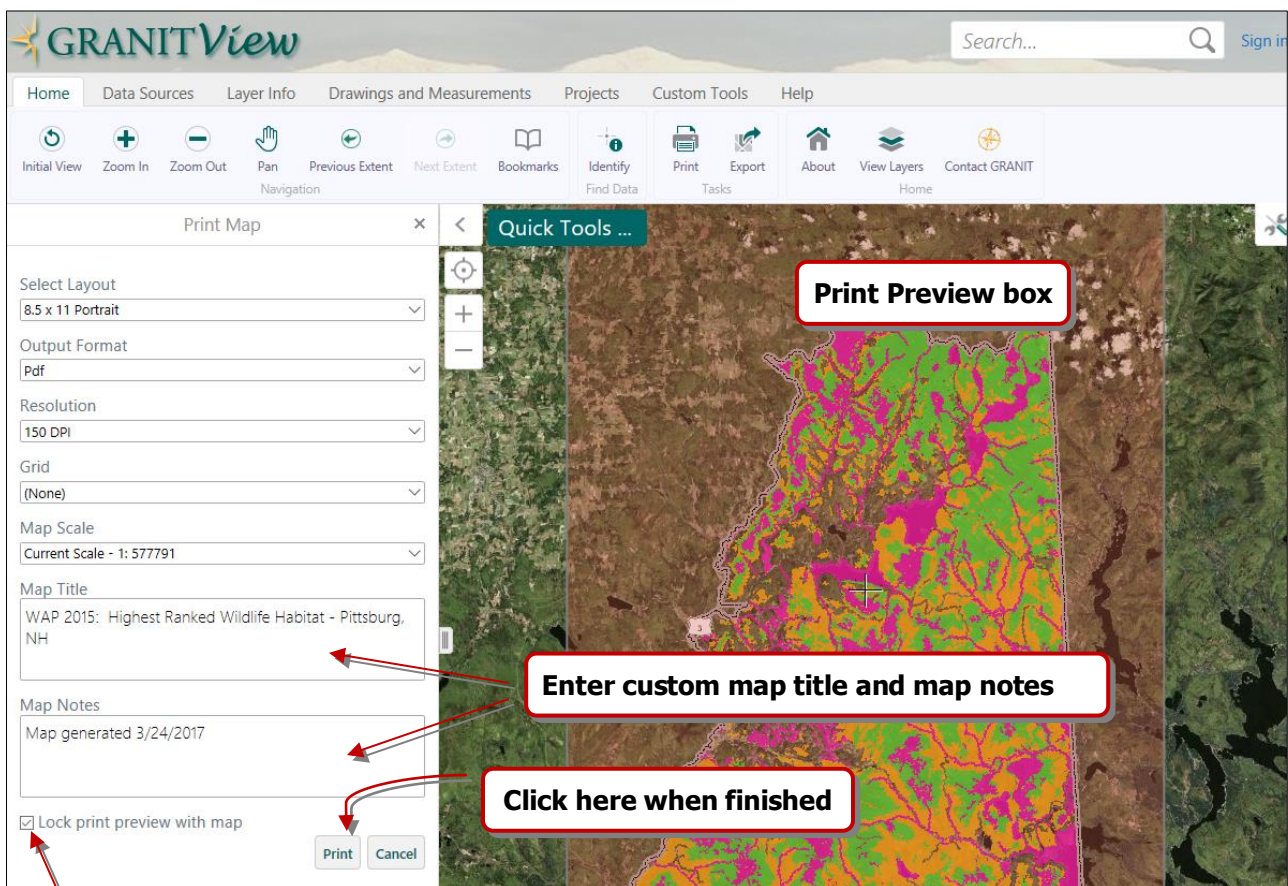
The **Search** box, located in the upper right corner of GRANITView, allows the user to find attributes of searchable data layers by entering keywords or addresses. (Note that only a subset of data layers have attributes that are set to be searchable. For users interested in exploring data attributes, best results will be achieved using the Query tool.) When searching for an address, use the street address format, including the state abbreviation (such as 8 College Rd, Durham, NH). The results of the search will be displayed as a list in the Map Layers Panel area. Clicking on a record in this list will zoom the map to the location of that point or feature.

## Printing Your Map

Prints of the current map view can be produced using the **Print** button located on the **Home** tab of the toolbar. Clicking on the tool will open the Print Map interface, where the user can select layout, output format, etc., as well as enter a Map Title and desired Notes.



A transparent Print Preview box will appear in the Map Area. The map can be re-centered under this box by unchecking the box next to "Lock Print Preview with map".



**Unselect to move map under Print Preview box**



When the map is ready to print, click "Print" at the lower right corner of the Print Map interface. GRANITView will produce a pdf file to be saved to your computer and printed at your convenience. When this file is ready, a dialog box will appear, directing you to click "Open File". This will open a preview of your finished map in a new web browser tab or window. The finished printable map includes the Title, Legend, Scale, North Arrow, and Notes, and a Locator Map to identify your map in its regional context.

