























## [+] Using the ArcIMS Toolbar

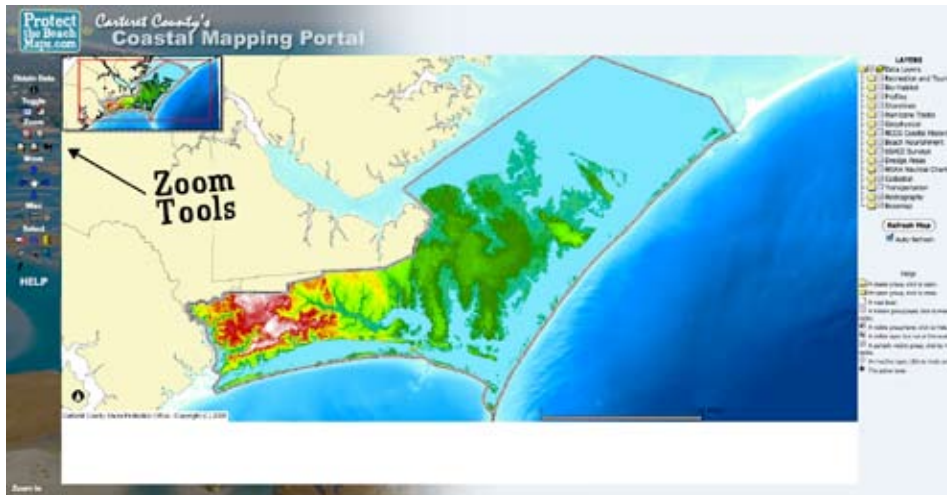
Here is a quick run down of the tools and their functions.

-  **get info** Displays information for the feature that you clicked.
-  **toggle legend** Switches back and forth between a legend with symbology and a layer list with active layer and visibility options.
-  **toggle overview** Adds or removes the overview map from the left top corner of the map display area.
-  **zoom in** Zooms in to the area of the map that you click or drag a box around.
-  **zoom out** Zooms out from the area of the map that you click or drag a box around.
-  **fit in window** Zooms to the full extent of the map.
-  **fit active layer in window** Zooms to the full extent of the active layer.
-  **view at previous zoom** Zooms to the previous extent.
-  **pan** Pans the display in the direction that you drag the mouse pointer.
-  **pan north, south, east, or west** Pans the map in one direction.
-  **measure** Measures distances on the map.
-  **set units** Sets the units for the Measure tool.
-  **print** Send current map to the printer
-  **search** Searches for features based on a query expression.
-  **find** Finds map features with an attribute value matching a string that you type.
-  **buffer** Selects the features of one layer that are within the specified buffer distance of selected features of another layer.
-  **clear selection** This tool clear your existing selection
-  **select by rectangle** Selects the group of features contained by or in contact with a rectangle you draw on the map.
-  **select by polygon** Selects the group of features contained by or in contact with a polygon you draw on the map.
-  **hyperlink** Links you to other websites

The data layers (usually displayed in a list on the right side of the page) can be made visible/invisible by checking and un-checking the boxes next to the data layer in the list, and Refreshing the map. If a data layer is a point, polygon, or polyline data set, it can be queried for attributes with the Identify Tool (see toolbar description, above) if the "Active" radio button (circle) next to the data layer is selected.

## [+] Navigating to Desired Locations (Zoom In/Out)

The image below shows the initial extent of the Shore Protection Office ArcIMS® viewer. This is a large-scale representation of the county and shows information such as the county boundary, county topography and major hydrology of the region. The Zoom In/Out button locations are on the left hand side of the viewer under the Zoom heading.



Use of the Zoom In/Out utilities is very simple. The user is required only to draw a box containing the desired area of study. A left click on the Zoom In tool activates the utility. Suppose we wanted to look at information associated with Bogue Banks, North Carolina. Simply click and hold the left mouse button, drag a box of desired size around the Bogue Banks area, and release the left mouse button.

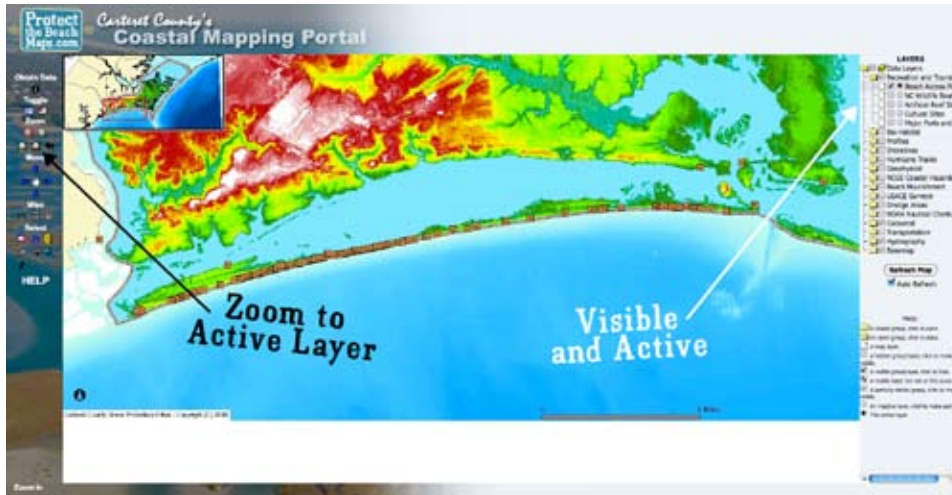


The Zoom Out tool is utilized the same way. A click and hold on the left mouse button, drag a box for the viewer to center on, and release the left mouse button. The user may also return to the previous extent/view by left clicking on the Back to Last Extent button, also located under the Zoom heading on the left hand side of the viewer.

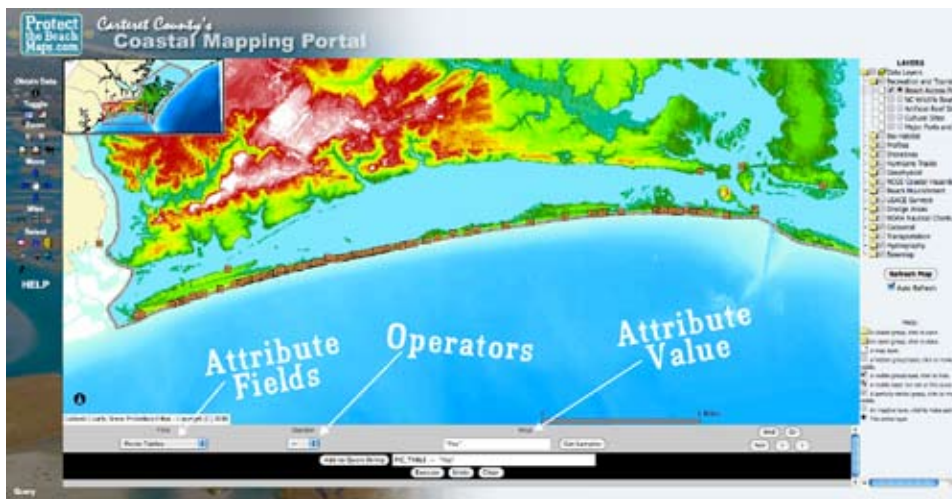
## [+] Exploring the Data within the Database (Searching & Querying)

Carteret County's Coastal Mapping Portal contains a vast amount of data and information describing many different areas of interest. This part of the tutorial will provide you a foundation in "mining" for data and information pertinent to you the end user.

Let's jump right in with an example. Suppose we were vacationing in the area and wanted to know which beach access locations have picnic tables. We begin by making the Beach Access Points layer visible and active. Then zoom to the active layer.



Now, we turn on the Search tool. Notice that Searching involves attribute fields, operators and attribute values. It is necessary to know a little about the information associated with a data layer in order to construct detailed queries. When Searching, the user must build an expression, add it to the Search string, and then execute the Search.



The Search string for this example would read as follows:

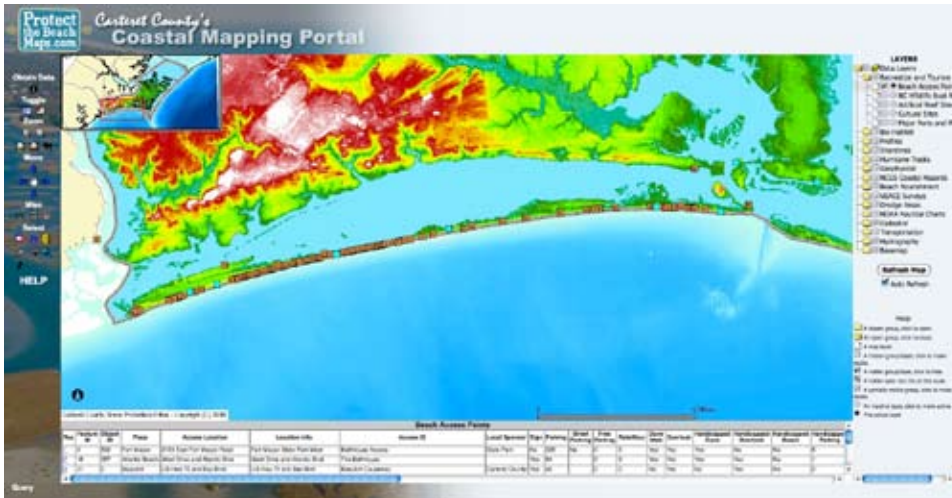
**Picnic Tables = "Yes"**

Picnic Tables is the attribute field, = is the operator, and “Yes” is the attribute value that we are looking for. Now we add it to the Search string and execute the Search. The results of the Search are returned by the IMS and show the beach access locations with picnic tables as highlighted points. All of the information associated with those beach access locations is also provided in the bottom frame of the viewer.

The Search string for beach access locations with picnic tables and restrooms would read as follows:

**Picnic Tables = “Yes” AND Restrooms = “Yes”**

Note here that the first expression must be built and added to the Search string, then you must click on the AND icon, finally you build the second expression and add it to the Search string. The final step is executing the Search.

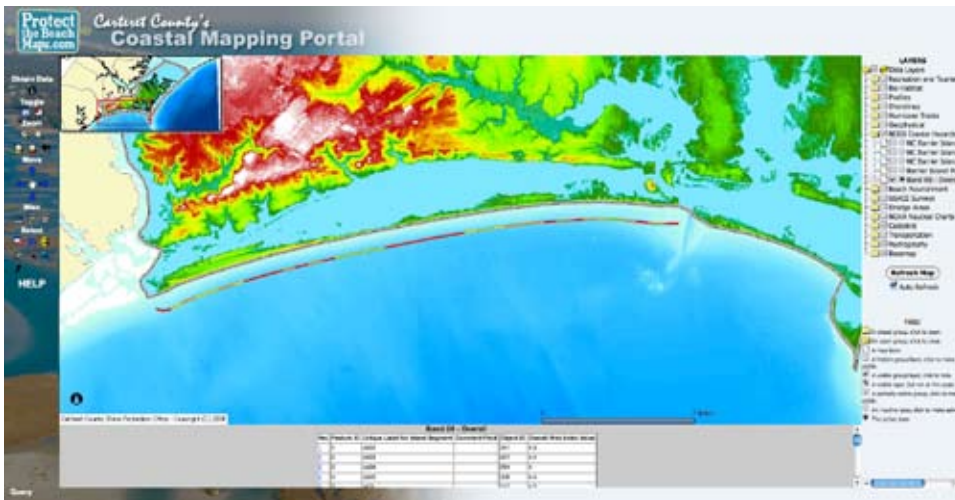


Let's do another example. Suppose we wanted to know which stretches of beach along Carteret County's coast received an overall risk index value of 4.0 or greater in the North Carolina Geological Survey's Coastal Hazards Report. We begin by selecting the folder icon for the NCGS Coastal Hazards data group to expand it's data options. In the Band 08 – Overall layer select the square button to make that data visible and then select the radio button to make it active. Then zoom to the active layer.

Next, select the Search tool to activate it. Then in the Field pull-down menu select “Overall Risk Index Value.” In the Operator pull-down menu select “>=.” In the Sample Values pull-down select the number 4. Click the button Add to Query String to build the following Search string:

**Overall Risk Index Value >= 4**

The next step is to click Execute to begin the data Search. The results of the Search are returned by the IMS and show the stretches of beach with overall risk index values of 4.0 or greater as highlighted polygons. All of the information associated with those polygons is also provided in the bottom frame of the viewer.



## [+] Frequently Asked Questions

### [+] The GIS Viewer won't open in my browser when I select it.

The GIS Viewer utilizes pop-up windows in some cases. You should disable popup blocking software while using this viewer.

If a map service fails to display in your browser, try quitting the browser completely and restarting, or just empty the browser cache:

**Internet Explorer** Tools: Internet Options: General: Browsing History: Delete: Delete All

**Safari** Safari menu: Empty Cache

**Firefox** Tools: Options: Privacy: Cache: Clear Cache Now

### [+] How do I turn off popup blocking in my browser?

#### Internet Explorer:

1. Open Internet Explorer.
2. On the Tools menu, point to Pop-up Blocker, and then click Pop-up Blocker Settings.
3. In the Address of Web site to allow box, type the address (or URL) of the Viewer Web site (<http://www.protectthebeachmaps.com/website/SPO/viewer.htm>) and then click Add.

#### Firefox:

1. Open Firefox.
2. In preferences click on the Content tab.
3. The top item in the Content tab is a check-box for block pop up windows. To the right is a button labeled Exceptions. Click that button.
4. Type <http://www.protectthebeachmaps.com/website/SPO/viewer.htm> and then click Enable.

### [+] I use a Macintosh. What browsers should I use with the Carteret County's IMS Site?

The dynamic maps on this site are generated using ArcIMS, an Internet map server developed by ESRI. ArcIMS works well with recent versions of the Mozilla Firefox browser in Macintosh operating systems.