# CRGIS Map Tools

A basic map screen can be seen below. This is the screen you will see when you build a map from either the main screen (AOI) or Ask ReGIS. At any time during your visit, you can go to Ask ReGIS by clicking the Ask ReGIS button in the upper left hand corner without ending your mapping session. In this tutorial we will look at the tools available on the map page, the legend, the spatial search functions, and the information that you can view for each map layer.
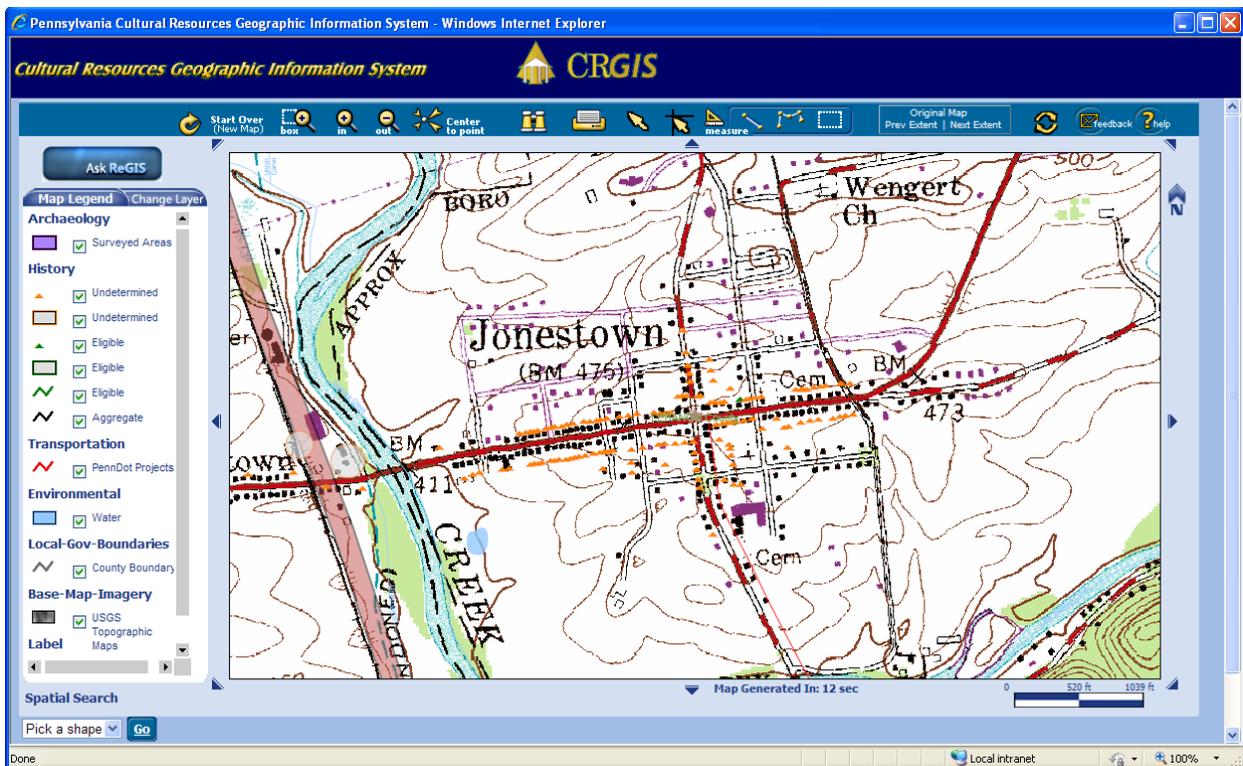
When the initial map is drawing, a spinning version of the CRGIS logo will appear on your screen. The time it took to create the map will appear at the bottom of the screen. Maps with larger areas, more layers, or denser concentrations of resources will take longer to build. We recommend limiting the layers you request if you are selecting a large area, such as an entire county. Turning on the roads and the water, but not the topographic maps, will give you a good approximation of a road map and will load more quickly than with the topo map. After the initial map is drawn, and when panning, zooming, adding/removing layers, and refreshing, an oscillating blue status bar will appear on the right side to indicate that the map is being processed.

A scale bar measured in feet is located in the lower right hand corner and a North arrow can be seen on the upper right side.

Map Legend
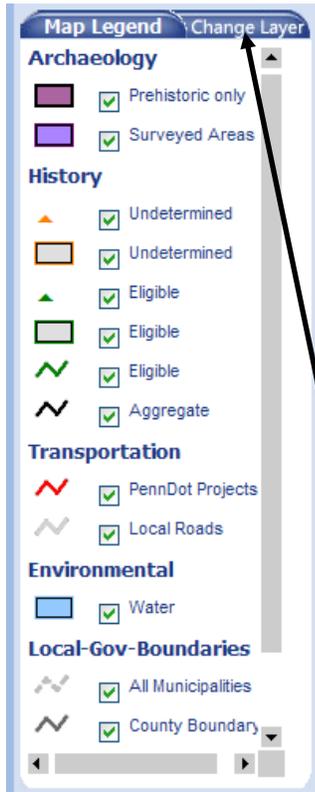
The map legend appears to the left of any map you build. The legend indicates the layers you currently have selected for your map. You can make these selected layers visible or not using the checkboxes. Unchecking a box will remove that layer from the map, and checking it will add the layer. The data for that layer is not removed and you can toggle them on an off without rebuilding the map.

Layers appear on the map in the order they appear on the legend. It may be possible that a resource you want to select to view information (see below) is under another layer. You may need to toggle off the upper layers to make your resource accessible.

You can also add layers that do not appear. When you click on the **Change Layer** button, the Set Default Layers window will open in a pop-up. You can choose the layers you desire, then hit Save to add or remove those layers to your map. This does constitute drawing a new map and will re-set your map version options. For more information on the Set Default Layers window, see Tutorial #1: Login and Begin.

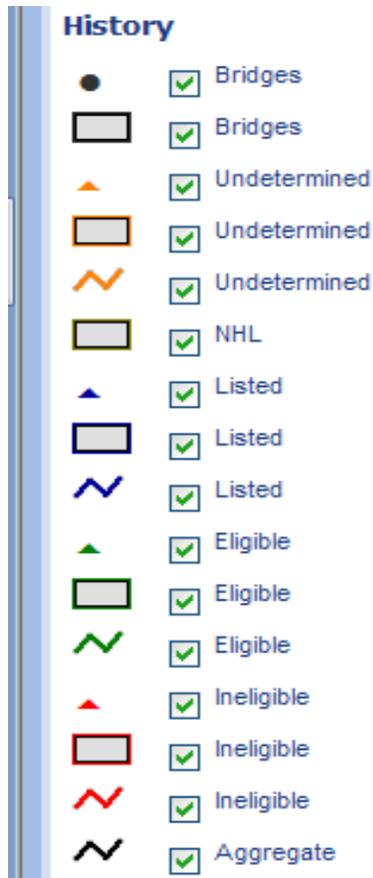## Map Display of Archaeological and Historic Resources

The **Archaeological Sites** on the legend and the map are color coded to indicate the general time period of the site: prehistoric, historic, or a combination of both time periods. **These sites are visible only to registered archaeological users**.

Surveyed Areas are the only archaeological resource type visible on the maps for Planner and Public users. These represent areas where professional survey has been conducted to verify the presence or absence of archaeological sites.

Hovering your cursor over an archaeological site on the map will generate a map tag that tells you the site number. Hovering over a survey area will generate a map tag that tells you the Environmental Review file number (ER No.) for the report for that survey.

History

●	☑	Bridges
▭	☑	Bridges
▲	☑	Undetermined
▭	☑	Undetermined
∿	☑	Undetermined
▭	☑	NHL
▲	☑	Listed
▭	☑	Listed
∿	☑	Listed
▲	☑	Eligible
▭	☑	Eligible
∿	☑	Eligible
▲	☑	Ineligible
▭	☑	Ineligible
∿	☑	Ineligible
∿	☑	Aggregate

The map and legend displays for **Historic Resources** are divided by both eligibility for the National Register of Historic Places and map geometry type (ex: points, polygons, and lines). The National Register status is indicated by the color and the type by the symbol. So, very small historic properties, or ones for which we have only center points, not boundaries, are represented by colored triangles. Large properties and districts are represented by grey polygons with borders in the appropriate colors to indicate National Register status. All bridges, regardless of their National Register status, are represented by either black dots or polygons with black borders. Points and polygons can be toggled on and off separately.

In addition, linear resources are also separated out so they can be toggled on and off separately from the points and polygons. They are actually depicted as thin polygons with borders indicating National Register status, but at many zoom levels they will appear as solid colored lines.
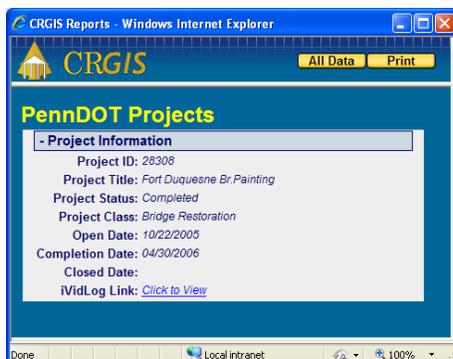
Among the linear resources, you will see the category "Aggregate." These are only digital files. They represent the historic routes of various railroads. For more information on this resource type, see our FAQs in the Help section of the BHP CRGIS webpage.

Hovering your cursor over an individual historic resource will generate a map tag that tells you the BHP file number for the resource (Key No.), the historic name of the property, if it has one, and the National Register status.

Clicking on any BHP resource will open a detail report for that resource. For examples of these reports, see Tutorial #4: Resource Reports.

Other Legend Entries

All other legend entries represent various base level data that can help place the historic properties and archaeological sites in context. Features in every layer have map tags that will identify them when they are the top layer. As noted above, you may need to toggle off higher layers before the data in a particular layer is available.

CRGIS Reports - Windows Internet Explorer

CRGIS   All Data | Print

PennDOT Projects
- Project Information
Project ID: *28308*
Project Title: *Fort Duquesne Br.Painting*
Project Status: *Completed*
Project Class: *Bridge Restoration*
Open Date: *10/22/2005*
Completion Date: *04/30/2006*
Closed Date:
iVidLog Link: *Click to View*
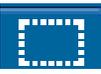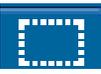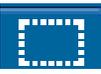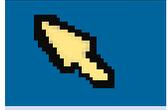
Done   Local intranet   100%

Among these other legend entries, only soils and PennDOT projects will have detail reports. The PennDOT project details include a link to the VideoLog website where you can view and virtually drive the referenced road section.
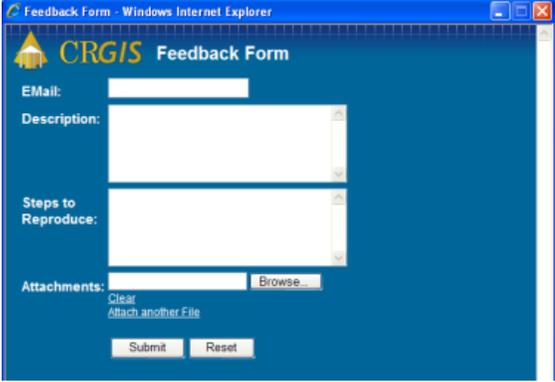
Basic map function tools

The tool bar across the top holds most of the basic map function tools and we will examine it from left to right below.

Start Over (New Map)	Click here to return to the AOI and begin a new search.
box	Select this tool to zoom to an area on the map that you define. The Zoom Box tool allows greater control for zooming in. Click the tool, then click the mouse button on the map to begin at the upper-left hand corner. Drag the cursor to form a box around your intended target. Then click again to close the box and zoom into an area.
in	Select this tool to **zoom in** a predetermined percentage. Crosshairs will appear on the map. Click and release at the point you want to be the center of your zoomed map.
out	Select this tool to **zoom out** a predetermined percentage. Crosshairs will appear on the map. Click and release at the point you want to be the center of your zoomed map.
Center to point	Select this tool to **re-position** your map at the same zoom level. Crosshairs will appear on the map. Click and release at the point you want to be the new center of your map.
	This tool takes you to an **overview** map that shows where you are located within the state. You can move to another part of the state by selecting and dragging the box on the overview.
	This tool takes you to a **print** preview window where you can enter a title for your map and print it. See our Printing Tutorial for more details: http://www.portal.state.pa.us/portal/server.pt/document/822740/crgis_printing_pdf

	This tool will **cancel a map action**, such as a feature defined by a spatial search or point location defined by the lat/long tool.
	Select this tool to determine the **latitude and longitude** of a point on the map. Crosshairs will appear on the map. Position them over the point you want to define and click. An X will appear on the map. Hover your cursor over the X to see the lat/long of the point.
	To use the measuring tools, select the appropriate one inside the raised box.

	The Linear Measure tool measures the distance between two points on the map. Click the tool, then draw one point on the map by clicking on that spot. Next, move the cursor to the end point and click again. The measurement information then pops up, showing the distance in meters, feet, and miles.
	The Cumulative Line tool is similar to the Linear Measure tool, but it measures between several points. Click the tool to begin. You must draw multiple points to make a line. Click at each turning point. Double click to end the line. The distance is provided in meters, feet and miles.
	The Area Measure tool calculates the area within a given polygon. It requires at least three points to make a polygon. Click once for each vertex, then double-click to finish the shape. A pop-up box will appear with area and perimeter information.

Original Map / Prev Extent | Next Extent	These tools allow you to return to a previous map extent after panning or zooming without rebuilding the map. Each time you zoom in, zoom out, or pan a map, CRGIS stores a version of the map. You can return to the initial map created by your search by selecting Original Map. You can move back and forth through all map versions by selecting Previous or Next Extents. All versions are deleted when a new map is drawn. Adding or deleting layers using the Change Layer tool creates a new map.
	This tool refreshes the current map.

	This tool opens a form that allows you send feedback to the CRGIS team. You can report problems, add data, or ask questions. Attachments are allowed.	
	This tool returns you to the BHP CRGIS webpage where you can view this and other tutorials.	

The other basic function not included in the bar is **panning**.

Use the eight arrows located at the corners and center of each side to pan in the indicated direction.

Spatial Search

The spatial search tool is found in the lower left corner under the legend. This tool allows you to select an area and then generate a list of resources found within that area. The specific results that you see will vary with your level of access. Both Planners and Archaeologists will see the list of archaeological sites within their selected area, but the public user will not.

You have many choices for the shape of the area to define. You can draw a polygon or a two point line or select an individual point. The report for the polygon will include any resources within the polygon, the line report will include any resources that are intersected by that line, and the point will give you the nearest of each resource type. In general, the polygon is the most useful.

You can also choose to generate a report for a specific congressional or legislative district. These reports will return all resources within the boundaries of the selected district.

Once you have selected the shape you can enter in a buffer zone to be added to your shape. This buffer can be measured in meters, feet, or miles. A buffer can be added to any shape, but buffered points and lines act like polygons and return the data from inside the buffered area.

To perform the search, set all of your parameters, then click GO and cross hairs will appear on the map. Draw your desired search area on the map. Click once for each corner of your shape and double click to finish drawing.

After a spatial query is performed, the Spatial Summary report box will pop up. You can see the number of each resource type in the search area. Historic sites, Historic Survey Reports, archaeological sites, and archaeological survey reports include resources that were within the selected area. Unmapped historic sites include all historic resources that are unmapped within the township(s) of the selected area. Historic Survey Reports include all Historic Structures studies performed within the searched municipality. Archaeological Sites by Watershed is a summary of sites within the watershed(s) of the selected area.
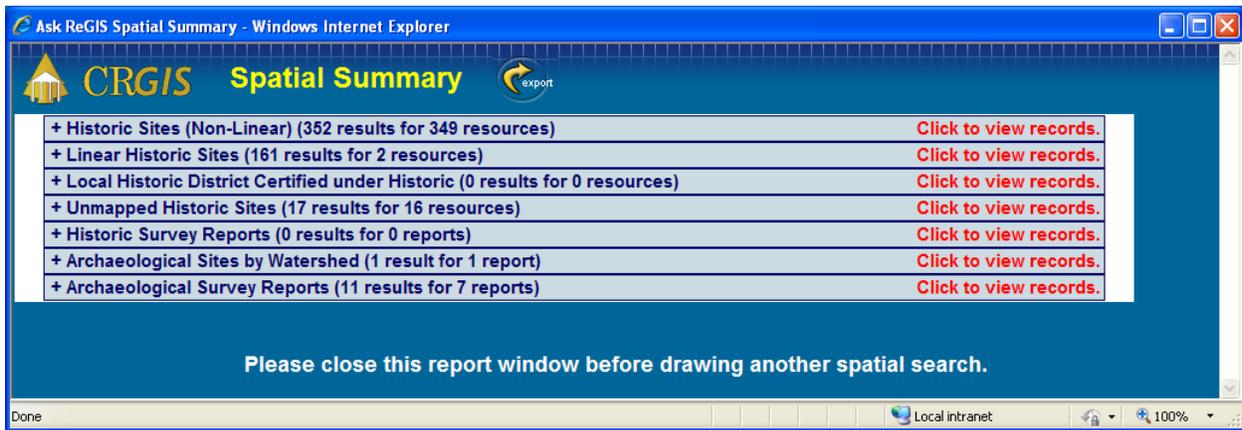
You can view the specific resources in each category by clicking on the header row and opening the list.
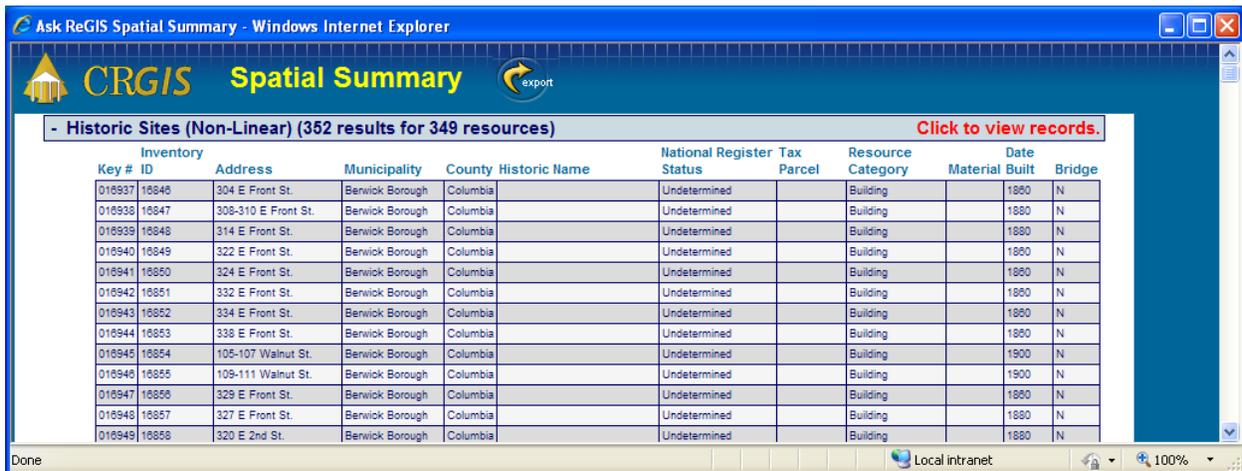

To view the individual records, click on the report name to expand the window. You can view the details report for any resource on the list by clicking on its row.

 You can export the results using the **Export button.** The expanded Results table is saved as a .csv file (This can be opened as a Microsoft Excel spreadsheet).

Close the window to clear the search.

Meanwhile, the map window will refresh and show the Spatial Summary Polygon (orange).
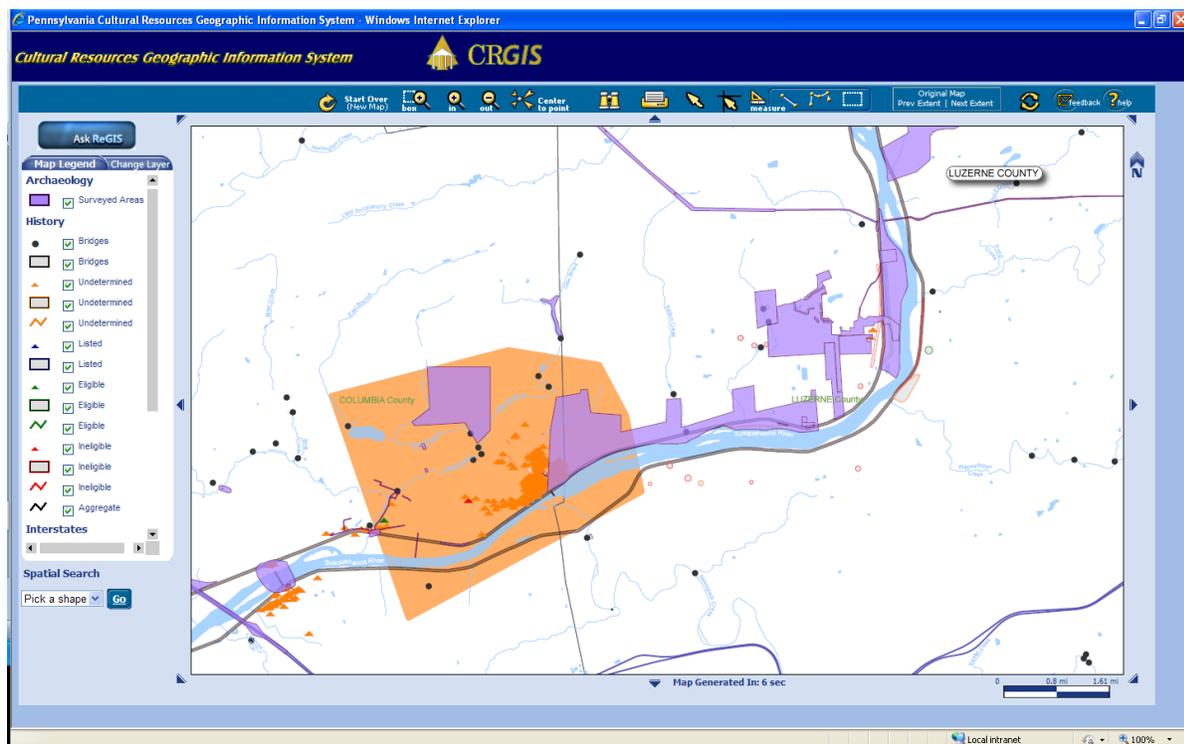
 You can clear the search polygon using the **cancel map action** tool at the top of the map.

This concludes the Map Tools Tutorial.