LaRosa Partnership Program GIS Guide

Creating a basic map of your sites.

Create an Excel Sheet:

1. Create an Excel sheet with the names of your sites and the coordinates for each site.
2. Sort the sites in alphabetical order. This can be done by highlighting all the information (site name and coordinates), right-clicking on the highlighted data, and choose "Sort" then "Sort A to Z."
3. Make sure your columns have headings for longitude and latitude.

	A	B	C	D	E
1	Site	Latitude	Longitude		
2	Bailey10	44.26203	-72.58692		
3	BIKEBR	44.26013	-72.58123		
4	CUMMINGS1	44.27157	-72.57064		
5	GallHill	44.24209	-72.53673		
6	GRANITE	44.2518	-72.57064		
7	Gunner10	44.20388	-72.50954		
8	I-89	44.25711	-72.6014		
9	JBFIREST	44.10745	-72.43428		

BEFORE loading data into ArcMap, be sure of the following things:

1. Make sure you have made a file connection to the location of your Excel sheet on your computer. You can do this by clicking the "Catalog" button (roughly located under the "Windows" and "Help" menus with a small yellow file cabinet icon) and then in the window that opens click the folder with the plus sign, or "Connect to Folder" button. Then you just need to find the correct folder with the Excel sheet.
2. Consider loading a basemap or Vermont/County/Town/Watershed outlines.
3. Basemap: Click on the arrow next to the "Add Data" icon to see the drop-down menu (located under the "Selection" menu). Click "Add Basemap" and choose from the options. Adding a basemap can help orient your data.
4. Outlines: Under "Add Basemap" click on "Add Data from ArcGIS Online." Search whichever outlines you would like to add.
   - **TIP**: When adding outlines on top of a basemap, you can turn it into just an outline by double-clicking the color icon under the name of the outline and choosing "Hollow."
   - Some useful data located in ArcGIC Online: "Vermont Outline" "VT Data – County Boundaries" "Watershed Planning Basins"

Loading data into ArcMap:

1. Within ArcMap, choose "File" then go to "Add data" and click "Add XY Data…"
2. Browse your files for the Excel sheet from above.
3. Latitude and longitude should fill in automatically because of your column headers, but if they don't then make sure longitude is in the X field and latitude is the Y field.
4. Change the coordinate system by choosing "Edit" near the bottom of the Add XY Data window. Find the correct coordinate system by following the path Geographic Coordinate Systems > World > WGS 1984.
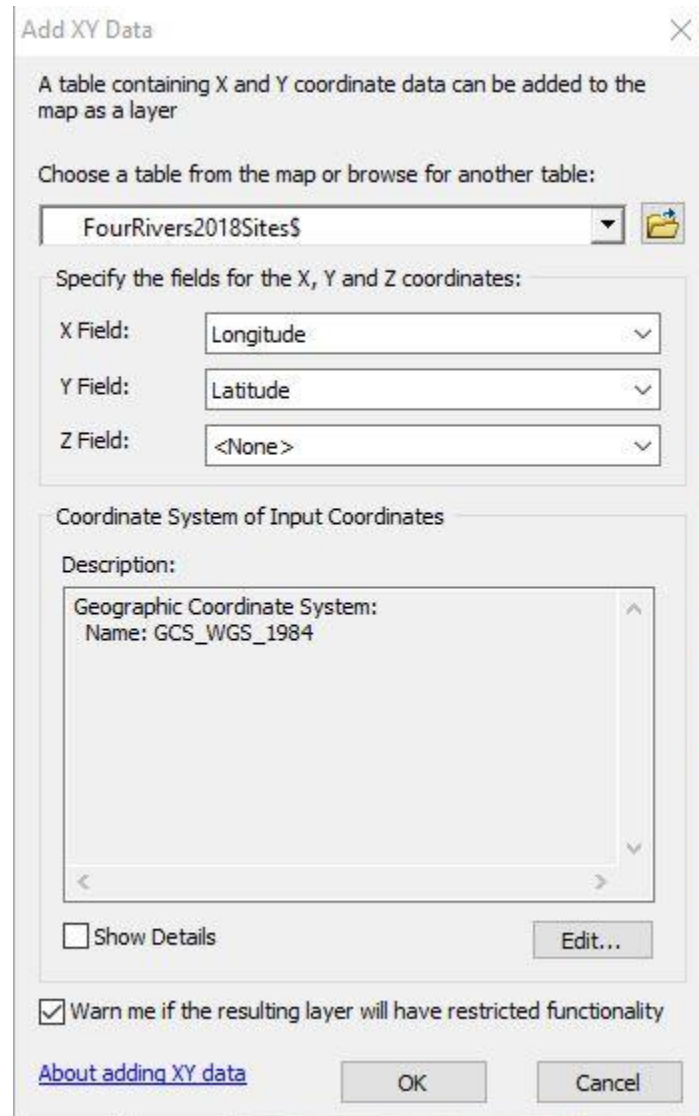
5. Click OK, then OK again to the warning that pops up.

Converting to a shapefile:

In order to make editing your data in ArcMap easier, it is best to convert the information into a shapefile.

1. Right click on the name of the Excel sheet you just imported.
2. Go to "Data" and click "Export Data."
3. Make sure "this layer's source data" is selected.
4. Browse your files to find the location where you want to save the shapefile and give the shapefile a name. Make sure "Save as type" says Shapefile.
5. Click OK, then Yes to add data to map.
6. You can uncheck the "events" that were the Excel sheet so only the shapefile shows up on your map.

Finishing the map:

1. Click on "View" at the top of your screen, then click "Layout View." You can zoom in or out and adjust the map within the frame the map is in.
2. Click "Insert" on the top of your screen to add features like a title, legend, scale, north arrow, or text.
3. Once you are satisfied, click "File" then "Export Map" to save the map as a JPEG, PNG, etc. onto your computer.

Now you have a basic site map! This map can be upgraded to include water quality parameters and other interesting features. Look for separate guides to learn how to do this.