Beginning your Sharable Data Collection with Fundamental Base Layers

This exercise provides an opportunity to practice and demonstrate your understanding on the foundation skills of handling GIS data, map layers and map documents. These essential skills are covered in this week's tutorial, Organizing Geographic Data for Re-Use and Collecting GIS Data and Metadata. The task this week is to create a compact set of data, and metadata, representing the basic administrative, transportation and hydrographic context of an area of interest. Your new project archive includes an arcmap document that incorporates the official symbolization (layer properties) that MassGIS publishes with each data set. All of this will be packaged with the necessary data in a **compact** zip file that can be easily backed up and opened to re-create your map on any computer regardless of where it is un-zipped. You will re-use this data-set for the next several exercises.

Checklist:

_____ Choose an area of approximately 2 x 2 Kilometers, anywhere in Massachusetts that you might want to study for the next 5 assignments. We will call this your Area of Interest or AOI. You will clip out an area of data in a 20km by 20km area surrounding your AOI.

We will be looking at Demographics, Land Use, Terrain, and history. Hopefully this is a place where you can imagine changes taking place regarding any of the above. The changes may be driven by external forces or interventions that you might consider. You may want to use Oliver to explore some of these things. You will be free to change your mind about this location at any time during the term

_____ Make sure that you understand the ways that ArcMap Layers relate to shape files from Part 1 of Collecting GIS Data and Metadata. Then of Follow the very detailed instructions in Collecting GIS Data and Metadata, Part 2 to extract data for each of the seven statewide data layers, apply the MassGIS symbolization to them to create an independent, compact collection of data, map document layers and metadata for your area of interest and the surrounding context.

_____ Practice looking at the Attribute Table and the Symbology properties for each of your data-sets.

Links to the current massGIS metadata pages for each layer can be found on the next page.

_____ Create a single PDF page that includes a screenshot of **one** of your clipped layers that is properly symbolized. Also include a screenshot of the Symbology properties of that layer. The caption of this page should discuss the attribute that is being used to assign a symbol to each feature, and the way that the labels relate to the values for that attribute. Include a long citation for the one layer that you are discussing This page should be saved as a PDF and put into the Documentation folder within your collection. Click here for example of this page.

_____ Be sure to follow the steps in the tutorial for making sure that your map document uses the MassGIS symbology, and uses relative path references so that the project opens without problems even if your project is moved. This is tricky: consult instructions.   Clean up your map document and your data collection so that it includes just the essential files and metadata for rendering each of your clioped layers with massGIS symbology. If your map document has Drawing Errors, fix them.

_____ Remove the state-wide data layers from your new streamlined project archive and right-click the folder and choose **Send To > Compressed Zipped Folder**. Rename your zip file, appending a character string representing today's date eg: **firstinitial.lastname_your_aoi_20170908.zip** and upload it to the Assignment 2 Drop Box on the course web site. Click here to download an example of my finished project archive.

_____ To upload to the drop-box, your compilation can't be more than 100 megabytes If your zipped project is more than 25mb, then you probably have not deleted the state-side source folder, as instructed above.

Links to the current metadata for each layer.

- [Protected and Recreational Open Space](#)
- [MassDOT Roads](#)
- [MassGIS Data: MBTA Rapid Transit](#)
- [Trains (and MBTA Commuter Rail)](#)
- [MassDEP Hydrography (1:25,000)](#)
- [Community Boundaries (Cities and Towns)](#)

This is a view of **your_aoi_Compilation.mxd** after you have properly extracted your data and re-linked your layers.