

ES341 Fundamentals of GIS

In-Class Exercise – Determine and Define the Projection of an Unknown Spatial Data File

You are a GIS technician in search of geologic information associated with Newberry Volcano in central Oregon. After an internet search, you have located some GIS data for Newberry, but no metadata is provided by the information source. Your task is to:

- (1) Download the dataset from the web site (see “Newberry Geology Data” link on class web site)
 - a. Unzip and save to your H:\folder
 - b. Examine the layers, and list what data are available:
 - i. _____
 - ii. _____
 - iii. _____
- (2) Using your class resources and known reference standards, determine which projection the Newberry data are in.
- (3) Using ArcToolbox in ArcCatalog, define the projection for the Newberry data files (once you have determined their projection)
 - a. Print out a copy of the *.prj files once you’ve created them, include in your portfolio.
- (4) Using ArcToolbox in ArcCatalog, reproject the Newberry data files into the Oregon Custom Lambert projection (Lambert Conic, NAD_1983, feet-international).
 - a. Print out a copy of the new Custom Lambert *.prj files once you’ve created them, include in your portfolio.
- (5) Once you’ve reprojected the data into custom lamber, use ArcCatalog to create a standard metadata file (*.xml) for each of the map coverages (use the “FGDC Classic” format). Enter other user information and as details as you know. Print out the metadata *.xml file, include in your portfolio.
- (6) In map layout, create a print map of all of the Newberry data layers with Title, name, neatline, north arrow, legend, scale, etc. Include results in your portfolio.