**The Lab O'Evil**

**(also known as Lab 1)**

Download a copy of the data for this lab and unzip it on your local computer. Then make a copy of that folder, just so you have a nice, clean, copy to go back to once you mess things up.

I've provided 6 GIS layers. 5 of them have messed up coordinate systems and/or datums. The one that is correct is the Ellensburg North topo sheet.

Your goal is to get all 6 to properly overlay with no spatial errors. You'll need to use both the define projection and reproject commands at some point.

A few hints:

* remember, the first layer you open into an Pro window defines the coordinate system and datum from which the others try to reference. So, you will want to open each layer individually into its own window to see what you've got. Or at least your starting point.
* You will be doing a lot of opening windows and turning things on and off....
* And trying and trying and trying, and failing. And deleting what you did and grabbing a clean copy and trying again.
* You might want to spend a little quality time with the coordinates, datums, and projections ppt that will be uploaded by the start of the second week – as a bit of a review of something that is hugely important.

Fill out the below. Be sure to give the coordinate system, Datum, and units. And how you fixed it! Type it up, print it, and turn in to the mailboxy thing on my office door. 4 pts.

Have fun……

|  |  |  |  |
| --- | --- | --- | --- |
| **File** | **Original** | **What it should be** | **What you had to do to make it right.** |
| Quad Sheet | UTM  NAD83  meters | UTM  NAD83  meters | Absolutely nothing |
| Roads |  |  |  |
| Groundwater |  |  |  |
| Floodplains |  |  |  |
| TM-PAN |  |  |  |
| DEM |  |  |  |