**Lab 2, Geog 417**

You are working as the GIS technician for the Metropolis of Thorp, WA. A Seattle business (Widget Inc) is considering relocating to the area – it’s close enough to Seattle to be near the corporate offices, but there is land available at reasonable prices (compared to Seattle) for some production facilities.

Because roads crisscross the area at a reasonable density, the primary variable they are interested in when considering a property is that the slope be less than 5 degrees. Your task will be to create a binary map which shows acceptable areas.

Your boss directs you to the city GIS database. In it you find a dem (grab the thorp.zip file from the class folder in the lab, unzip, open the Pro aprx file). You will see a DEM. Run slope on this (use the spatial analyst tool, always!) and then reclassify such that areas less than 5 degree slopes have a value of 1 and all steeper areas have a value of 2. Do this!

You then turn this map in to your boss, who provides it to the company. They overlay this on a real estate map and choose a property. They purchase it and send a construction company out to start surveying, etc.

The surveyors notice that the site has some steep areas – too many, in fact. And wisely lets Widget Inc. know before carrying on.

In the way of the world, s\*&% rolls downhill. The company decides to move on to Ellensburg and leave Thorp as a financial backwater. You are fired.

What happened? You are mystified and want to blame ESRI. Which is often a good call, but this time they didn’t cause the problem.

Now for the lab question: Why was the map you created wrong? I’ll give you a head start to figuring it out – grab the thorp2.zip file, download, etc. That DEM is absolutely correct.

**Deliverables:**

A word document uploaded to canvas which explains

1. Exactly why was the original dataset wrong.
2. What should you have done to ensure that this sort of thing doesn’t happen in the first place?