Project GIS 3

Due Date: March 22

Purpose

In this project, you will enhance your analytic and ArcMap skills. You will analyze some data using ArcMap and your new understanding of statistics. By using tools described in Chapter 3 of your text, you will create a new map that you will add to a short document. The document is a report for Prof. Wantcash of your analysis of the data, complete with the map(s), tables, and any statistics that you generate/compute.

Problem

Professor Wantcash is an expert in tracking pollution. He is also adept at getting lucrative NSF grants from the government. His next study area already has much data, but he needs to be sure that the information is accurate. He has hired you to analyze the data to determine if it is accurate or if there are any problems.

Data

The data you will use comes from the text CD-ROM. Under `Spatial_Analyst_Data` find the folder `Hydrology_Data_SA`. You will use all of the files in that folder except `fishnet72` and `msl`.

Specifics

- Finish Project 3-6 in your text. You do not have to hand in anything, but you will need some of these items later in this project.
- Using ArcMap tools and your knowledge of statistics, analyze the data sets. Questions you should ask yourself include, but are not limited to:
  - Are all of the elevations reasonably accurate?
  - Are all of the spot heights (elevations determined by field measurement) reasonable?
  - Does the data yield a normal curve? Why or why not?
  - What is the elevation of the pollution points?
- Write a 3-4 page report that summarizes your analysis of the data area. You must give sound statistical evidence in your report. The report should also include a detailed map of the area that is enhanced with custom features, including your own notes, markings, etc. that make it easy for a non-GIS expert to understand. Any data tables/statistics necessary to bolster your argument should also be included. However, there is no need to include *huge* tables of data.
- Your report should be well-written, spell-checked, and well-formatted, using Word or other word processing software. Name your report *yourLastName*`GIS3.docx`.
- Save all of your maps in a file called *yourLastName*`GIS3.mxd`.

Submitting

Email your completed map and your Word document to me at `mgousie@wheatonma.edu` before midnight on the due date. Hand in a printed copy of the Word document in class on Friday, March 23. Include a signed Honor Code statement on this copy. No need to make a color printout; this is why you are sending an electronic copy.