

FNR 65

Lab 04 Cartography

Name: _____ Date: _____

You are challenged today to produce two map products for two different clients. Use your newly formed knowledge of cartographic excellence to guide your decision making process during this lab.

The task, should you choose to accept it, is to produce a map for each client that suits their needs, their audience, and their unique purposes. You will interview your client to determine what their goals are and you will do your best to create a map product that will satisfy them sufficiently that they will offer you a bonus.

Part I. Client: California Department of Transportation (10 pts)

Cal Trans has hired your firm to produce a map product for the region of HWY 101 between Arcata and Eureka. This portion of the highway is vulnerable to sea-level rise during the next few centuries. Cal Trans has been asked by the California Coastal Commission to prepare some documentation that will help the Coastal Commission visualize which parts of the highway are most at risk.

The existing highest of high tides is approximated by the 2.5 meter elevation contour. In many cases, levees prevent tidal inundation in regions that would normally be flooded during high tides. The levees are designed based on the elevation of the highest tides. As sea-level rises in the future, the elevation of these tides will also rise. Cal Trans wants to show the Coastal Commission where the 3, 3.5, 4, and 4.5 meter elevation contours are, in relation to their highway. Prepare a letter sized map that shows all five elevation contours, overlain upon RGB imagery. Use colors and or line symbols to distinguish the different elevation contours. Label a number of geographic and infrastructure features (e.g. Humboldt Bay, HWY 101, Arcata, etc.). Export the map as a pdf and email it to your client (professor).

Part II. Client: Humboldt County (10 pts)

The Humboldt County Planning Department has hired your firm to produce a map to be used by the planning commission and the Humboldt County Supervisors. They need the map so that they can discuss an issue before them regarding development along active fault zones. The state of California requires that all active faults be mapped so that development adjacent to these faults can be regulated and restricted. The Alquist Priolo Law was written into law shortly after the 1971 Sylmar earthquake. The earthquake had ruptured a previously unmapped fault. There was a hospital that was built across this fault and the building was damaged when the fault ruptured through the building. Due to the fatalities that were a result of that earthquake, buildings cannot now be built across an active fault.

The county would like to know which parcels are within an active fault zone as mapped by the state. The county needs to know how the parcels are classified in terms of their land use type (e.g. agriculture, church, city, commercial, grazing/timber, timber, residential, open space/parks, public, school). The county is providing you with the data for this map and simply wants you to compose a map that shows the land use type and that shows where the active faults and fault zones are in relation to these parcels, overlain upon RGB imagery. Label a number of geographic and infrastructure features (e.g. Humboldt Bay, HWY 101, CR, etc.). Compose this map, export as a pdf, and email it to your client (professor). The data, should you want to obtain them yourself, originally came from this website:

<http://humboldt.gov/276/GIS-Data-Download>