Some important points for Chapters 6 and 7

The following is a list of points that you should pay particular attention to studying. This is not a complete list of things that will be covered on the test, so be prepared to answer questions that this list doesn't cover. By in large, however, if you have a good understanding on the definitions, facts, concepts and processes below, you will do well on the test.

I. Water Resources (Chapter 7)

- The hydrologic cycle (Fig 7-1) ocean vs. land
- The soil-moisture environment (Fig 7-2, Fig 7-8) relationship between soil texture and water availability, wilting point
- Soil-water budget (P, E, R) (Fig. 7-2, 7-9) meaning of PET, AET, deficit, soil moisture recharge, runoff. Relationship of each component.
- Factors affecting E (temperature, humidity, wind)
- Thornthwaite's method for estimating E (assumptions and limitations)
- Sample water budget for U.S. locations (Fig. 7-10 & Figure shown in class) Be able to sketch water budget for each location!!!
- Problems of groundwater mining: cone of depression. Relationship between the depth of freshwater and the height of the water table

II. Global Patterns of Climate (Chapter 6)

- Types of climate classifications (genetic vs. empirical)
- Climate components - latitude, atmospheric circulation
- Major names of climates in the west coasts (be able to locate and name each climate zone!)
- Typical climates: location, global circulation, water balance, vegetation
  Be able to match typical vegetation with each climate zone!
- Global climate change (meaning, implications)
- Climate variability and its hydrologic impacts on PNW
  - ENSO, PDO (causes, consequences) be able to associate each phenomena with changes in wind speed, ocean temperature and climate (Focus study Fig. 2)