

**Homework #3: Radiation & Soils**

- 1) Energy Balance: It turns out that the Freeman Ranch near Austin Texas has active measurements of the surface energy budget. Find this dataset on Hydrodesktop and make plots of Latent Heat Flux, Sensible Heat Flux, Soil Heat Flux, and net Radiation for March 2, 2007. Write a few sentences about the diurnal cycle you see, and hypothesize as to why these patterns appear.
- 2) Soil Moisture: For the same location, make plots of soil moisture and precipitation for February-May 2007. What do you think these patterns mean, and what kinds of processes do you see?

Turn in the plot(s), your writing, and any other supporting material (i.e. maps) you use.