

CEE3430 Engineering Hydrology

Homework 11. Groundwater and Test Recap

Date: 4/13/11

Due: 4/20/11

Learning Objectives.

- Be able to quantify the flow of groundwater and evaluate the impacts of well pumping on groundwater levels
- Be able to quantify and calculate aquifer properties from groundwater information

1. Redo questions from Test 2 for which you scored less than or equal to 16/20.
2. Bedient 8.1
3. Bedient 8.2
4. Bedient 8.3
5. Bedient 8.4
6. In a well that fully penetrates a confined aquifer, the equilibrium drawdown is 30 ft measured at a radius $r=100$ ft from the well, which pumps at a rate of 20 gpm. The aquifer is 100 ft thick and has hydraulic conductivity $K=20$ ft/day. What is the steady state drawdown at the well ($r=0.5$ ft) for this aquifer?