Sierra Bettis
HWRS 482
March 29, 2021

Homework8_TheChallenge_Bettis

1. How does the capture zone evolve in time? Where does the early time capture zone get its water?

   Overtime the capture zone would get smaller. The capture zone initially gets its water from the groundwater.

2. Where does the 'infinite time' capture zone get its water?

   The infinite capture zone gets its water from groundwater recharge.

3. How does the extent of the capture zone change when layers are considered? Can you still define a 2D capture zone?

   The extent of the capture zone changes with layer because now the zone isn't as exact, and it varies by layer. The sand layers would have a larger capture zone at first and then shrink significantly compared to the clay layer where it stays relatively the same even when the water is drawn out.

4. How does the extent of the 'infinite time' capture zone change when layers are added? Explain any difference in the lateral extent of the capture zone along the left boundary.

   The infinite time capture zone changes with layers because of the different hydraulic conductivity values. From the left boundary the water would go to the high K layers instead of the low K.

**These are all guesses because I have no idea what the figures actually look like/how to produce them