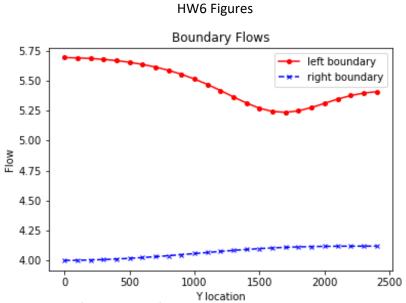
Starlivia Kaska

**HWRS 482** 

Dr. Laura Condon

February 28, 2022



Y location
Figure 1. This graph plots the flow in the left and right boundaries when our well is turned off, extinction depth is 3m, and recharge happening towards the left center of our domain.

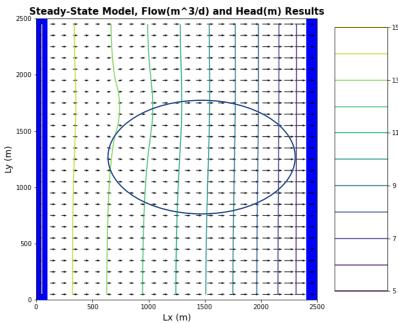


Figure 2. This plot shows the flow vectors and head contours for our system. This plot is produced when our well is turned off, extinction depth is 3m, and recharge happening towards the left center of our domain. The circle indicates area that would be affected by contamination.

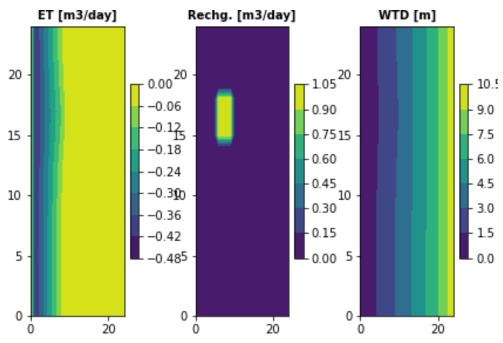


Figure 3. This plot shows ET, recharge, and water table depth of our system when our well is turned off, extinction depth is 3m, and recharge happening towards the left center of our domain.

Inflow is 136.65 L<sup>3</sup>/T, outflow is 101.67 L<sup>3</sup>/T, there was a loss of 34.97 L<sup>3</sup>/T in the system.

After changing the extinction depth to 5 our Inflow was 155.48  $L^3/T$ , outflow was 92.73  $L^3/T$ , and there was a loss of 62.74  $L^3/T$  in the system.

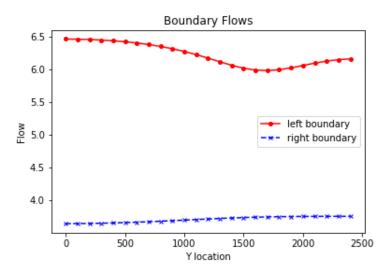


Figure 4. This graph plots the flow in the left and right boundaries when our well is turned off, extinction depth is 5m, and recharge happening towards the left center of our domain.

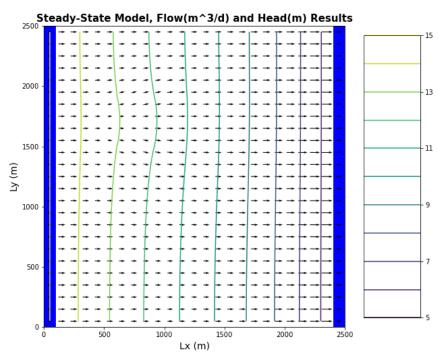


Figure 5. This plot shows the flow vectors and head contours for our system. This plot is produced when our well is turned off, extinction depth is 5m, and recharge happening towards the left center of our domain.

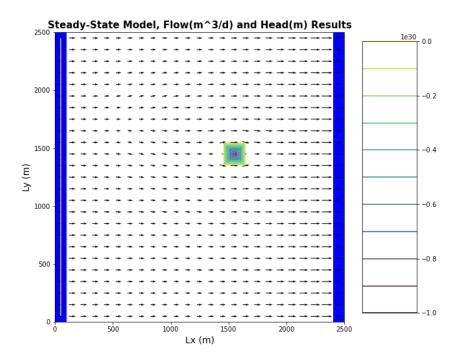


Figure 6. This plot shows the flow vectors and head contours of our system. This plot is produced when our well is turned on, extinction depth is 5m, and recharge is happening in the left center of our domain.

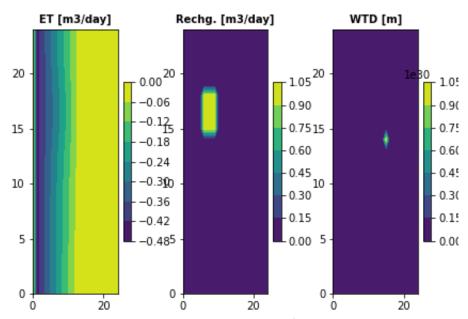


Figure 7. This plot shows ET, recharge, and water table depth of our system when our well is turned on, extinction depth is 5m, and recharge is happening towards the left center of our domain.

Incoming flow after turning on the well was 155.17  $L^3/T$ , outflow was 92.11  $L^3/T$ , and there was a loss of 63.06  $L^3/T$  in the system.