

Starlivia Kaska

HWRS 482

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February 19, 2022

### HW5 Figures

Challenge 1.

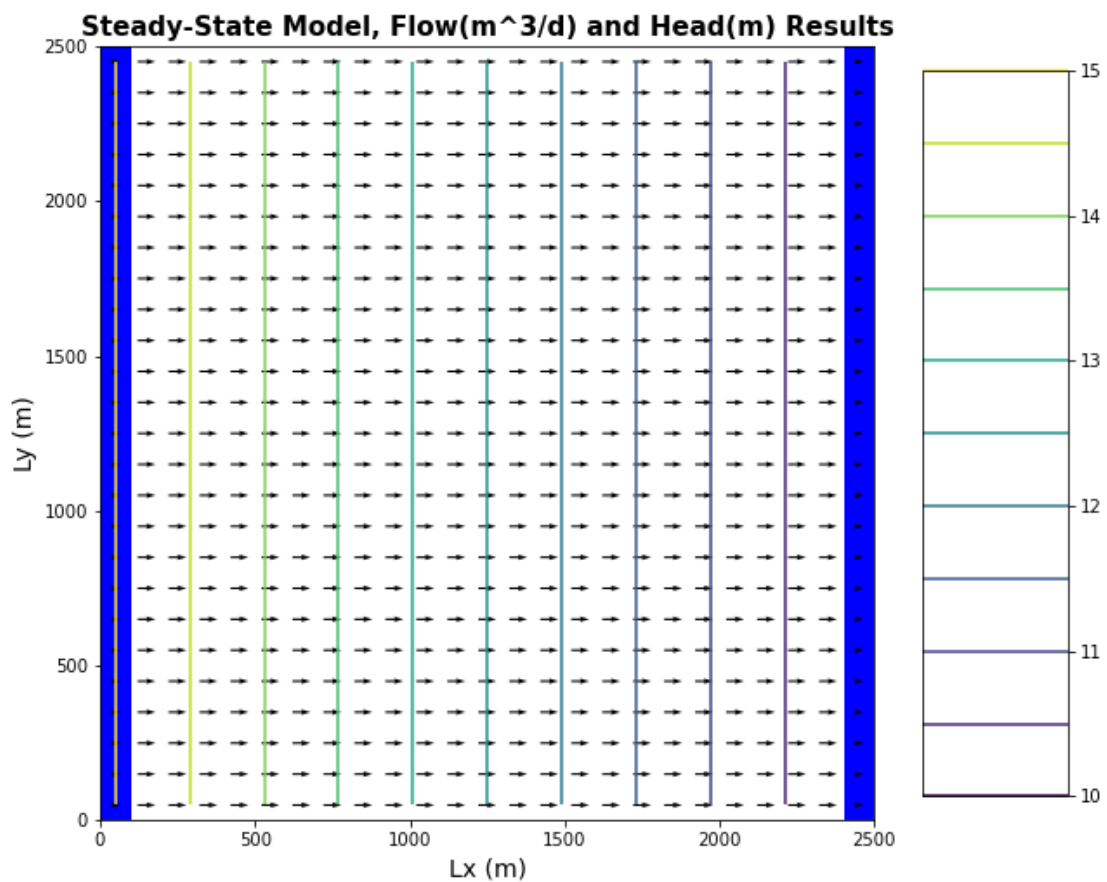


Figure 1. This figure show the flow vectors for a confined system with a head boundary of 15m on the left and 10m on the right.

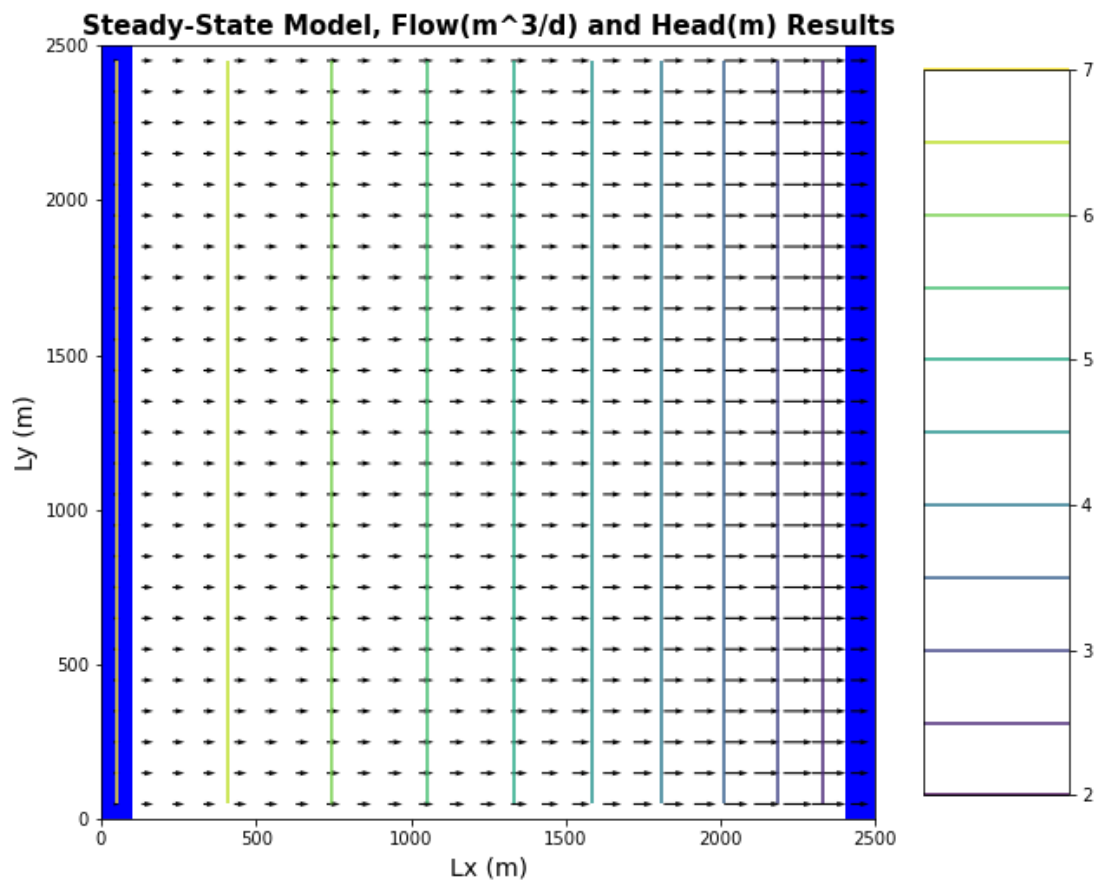


Figure 2. This figure shows the flow patterns for an unconfined system where the head boundary was 7m for the left and 2m for the right.

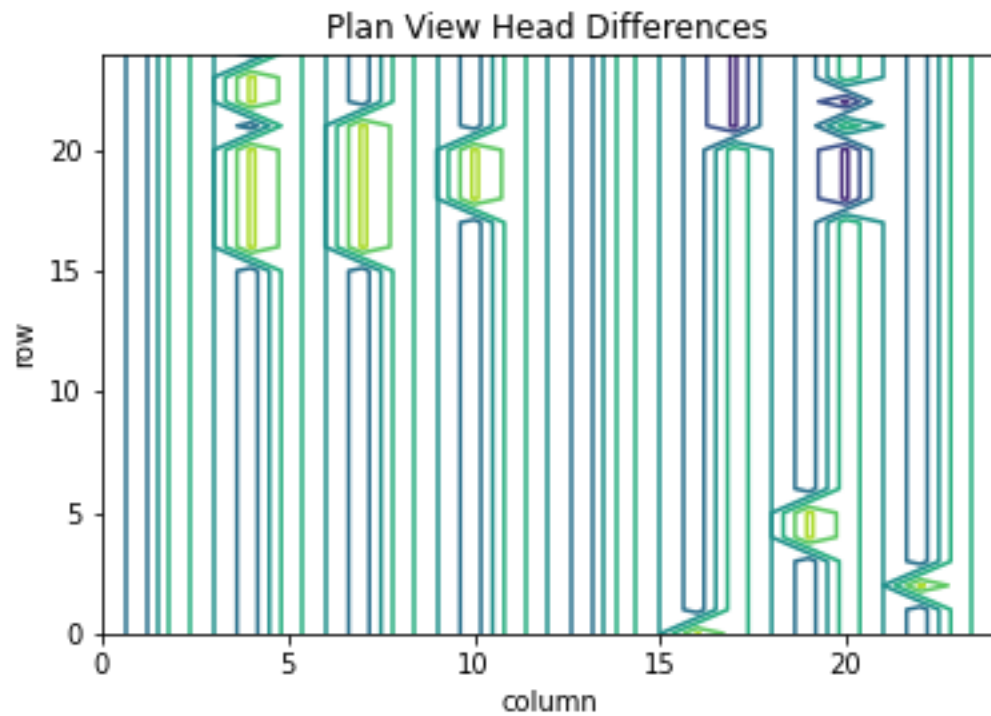


Figure 3. This figure shows the head difference contours for a confined system. The head boundaries were 15m for the left and 10m for the right.

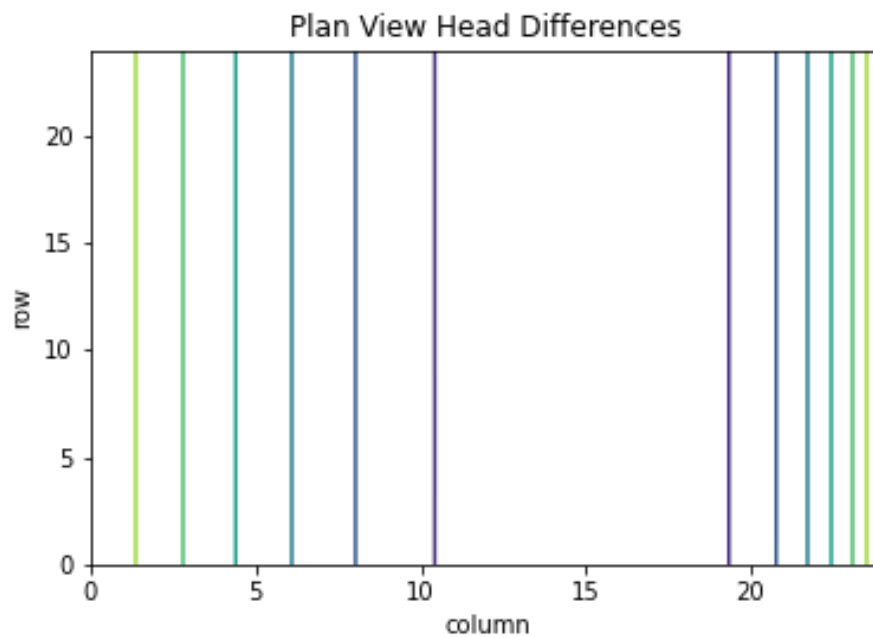
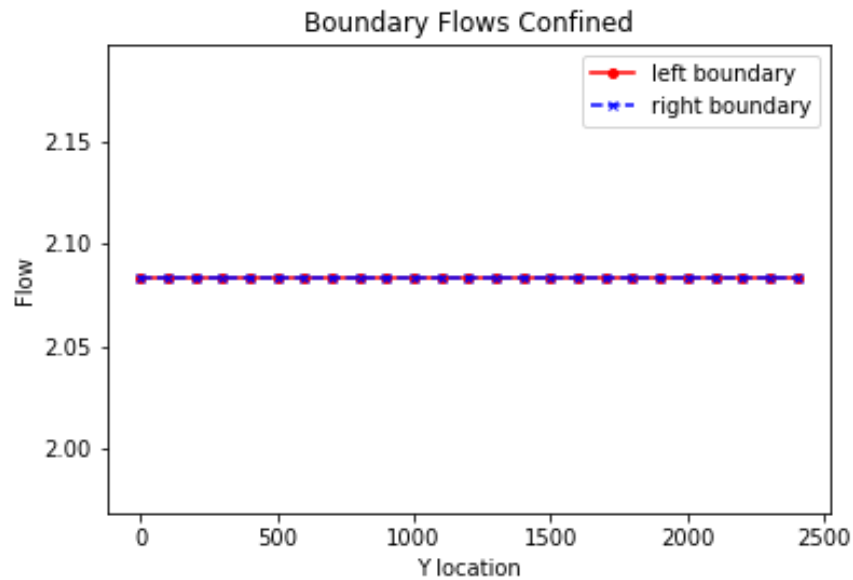


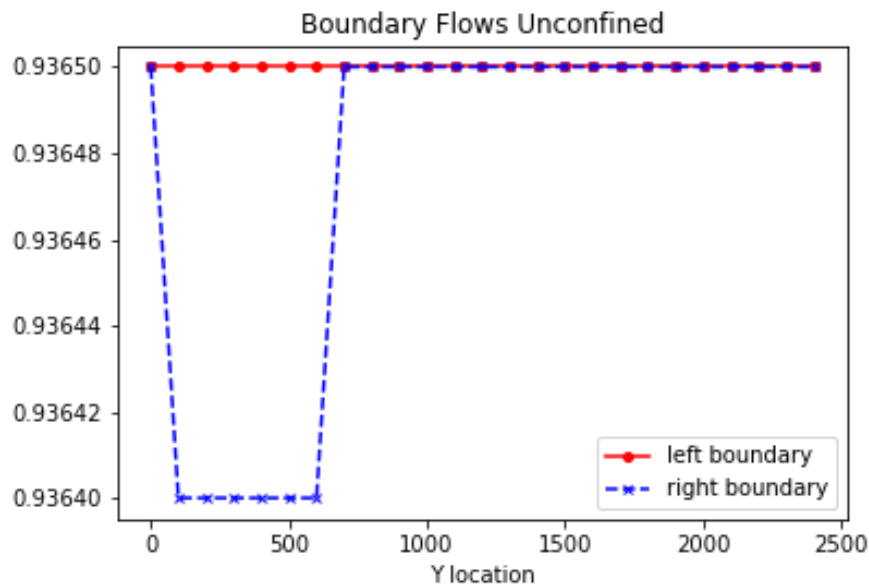
Figure 4. This figure shows the head difference contours for an unconfined system. The head boundaries were 7m for the left and 2m for the right.

## Challenge 2.



Left flux = 52.08 Right Flux = 52.08 Difference = 0.00

Figure 5. This plot shows the left and right boundary flows for a confined system with no well pumping or recharge.



Left flux = 23.4125 Right flux = 23.411 Difference = - 0.00598

Figure 6. This plot shows the left and right boundary flows for an unconfined system with no well and no recharge.

Challenge 3.

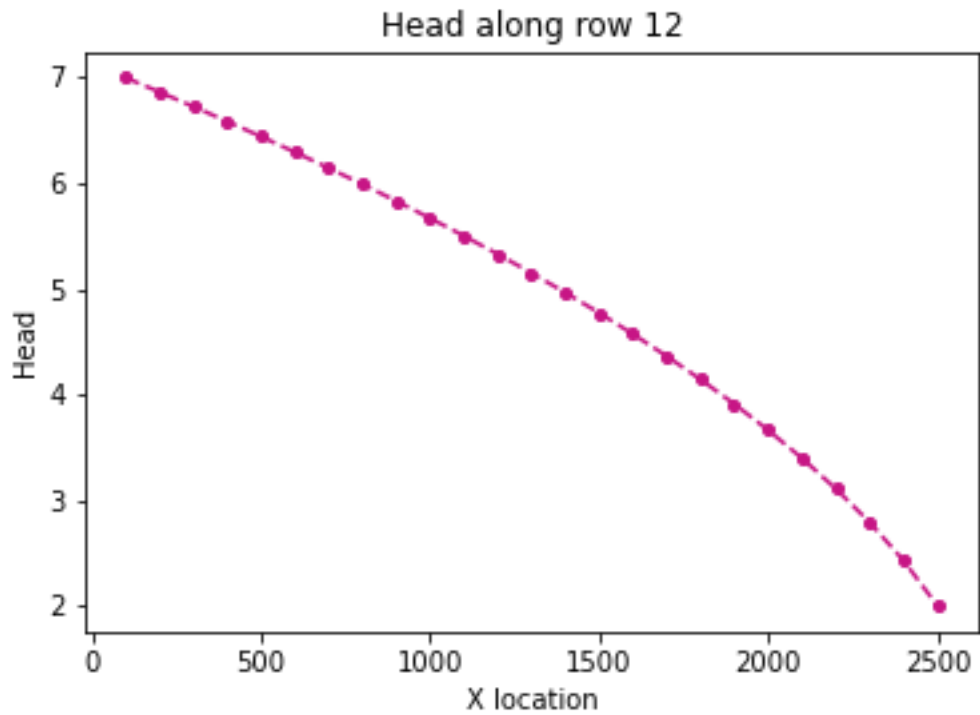


Figure 7. This plot shows the head through a transect in row 12. Showing the effects of recharge on entire land surface and the head gradient was 0.002 m/m.

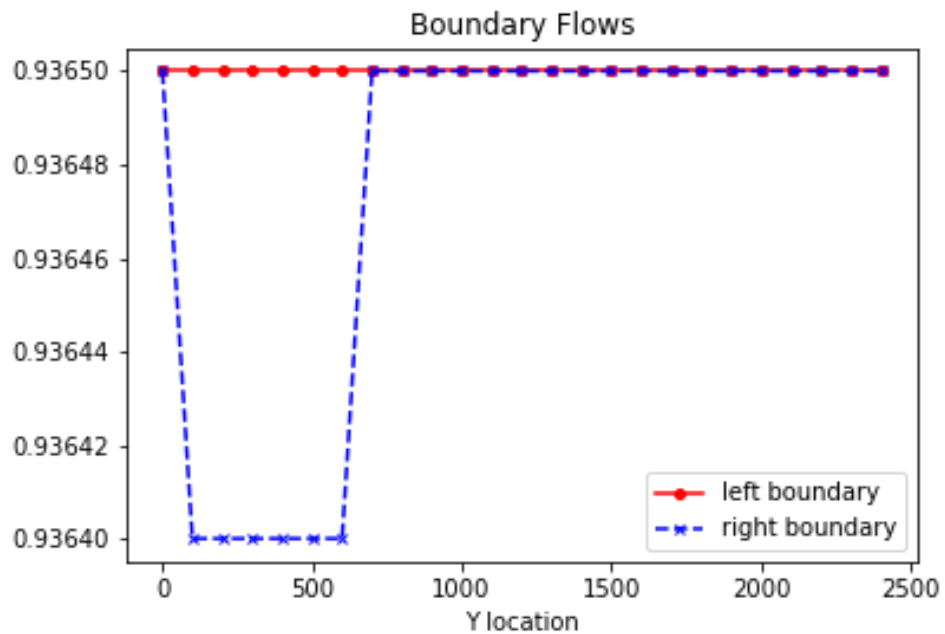


Figure 8. This plot shows the left and right boundary flows for an unconfined system with a left head boundary of 7m and a right of 2m.

Challenge 4.

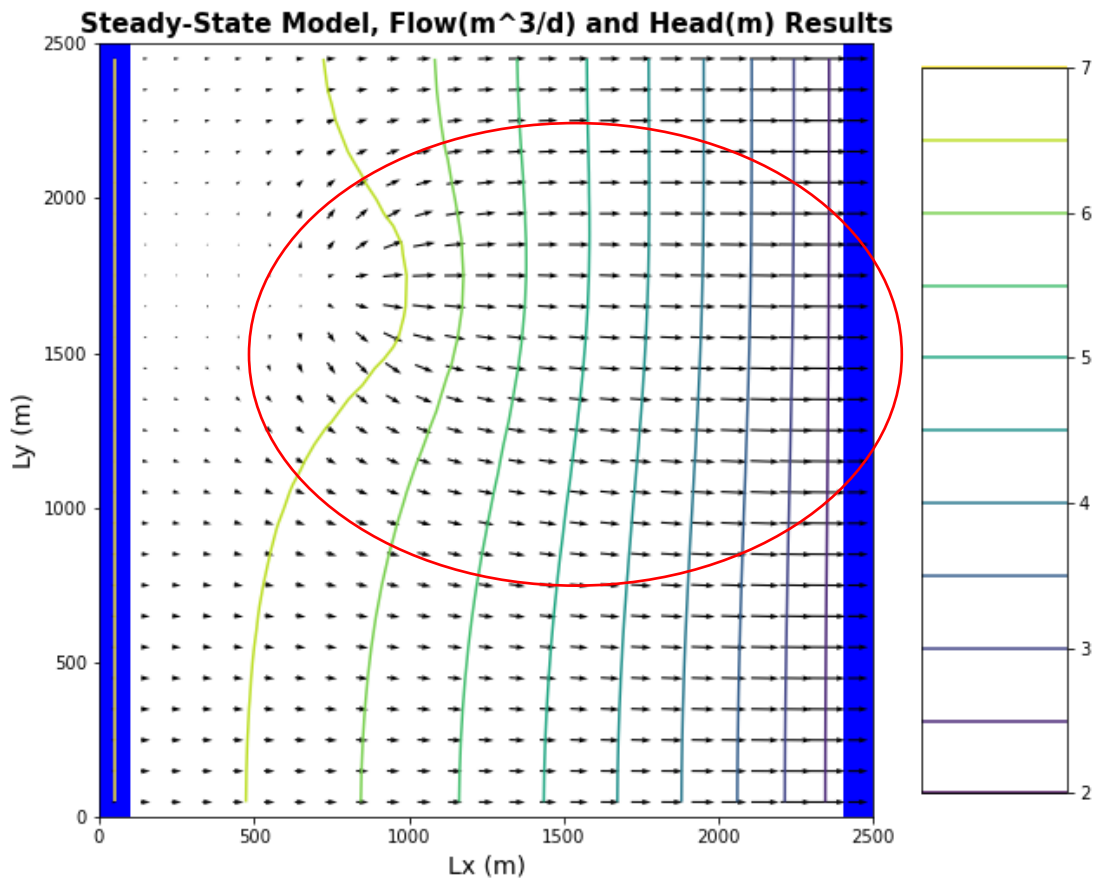


Figure 9. This figure shows the flow patterns of an unconfined system with a left head boundary of 7m and a right head boundary of 2m. The red circle indicates a potential contamination zone.

Challenge 5.

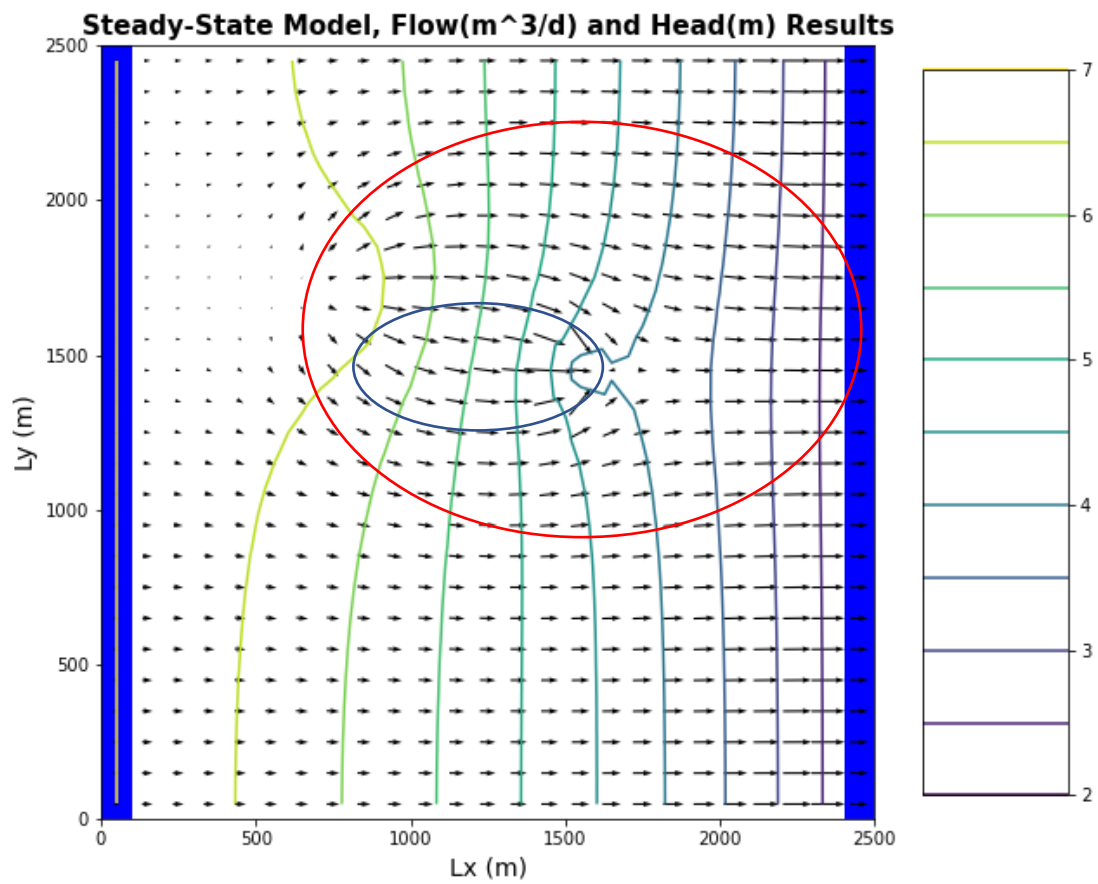


Figure 10. This figure shows the flow pattern of an unconfined system with a left head boundary of 7m and a right head boundary of 2m. There is a well and recharge in this system. The blue circle indicates a capture zone, and the red circle indicates a contamination zone.

