

1. Research topic:

Applicability of MIKE SHE model to identify suitable zones for artificial groundwater recharge in Kelani river basin, Sri Lanka.

2. Objectives

- Investigating the applicability of MIKE SHE model for the Kelani River basin using locally available field data and public domain data.
- Investigating the effect of artificial recharge in the study area.

3. Study area



Figure 1 : Study area in Kelani Basin

4. Problem encountered

a) Geological model for MIKE SHE

I have 24 borehole details and their coordinates within the study area. I categorized lithological layers into three major groups analyzing borehole details.

- Medium sand
- Sandy clay
- Course sand

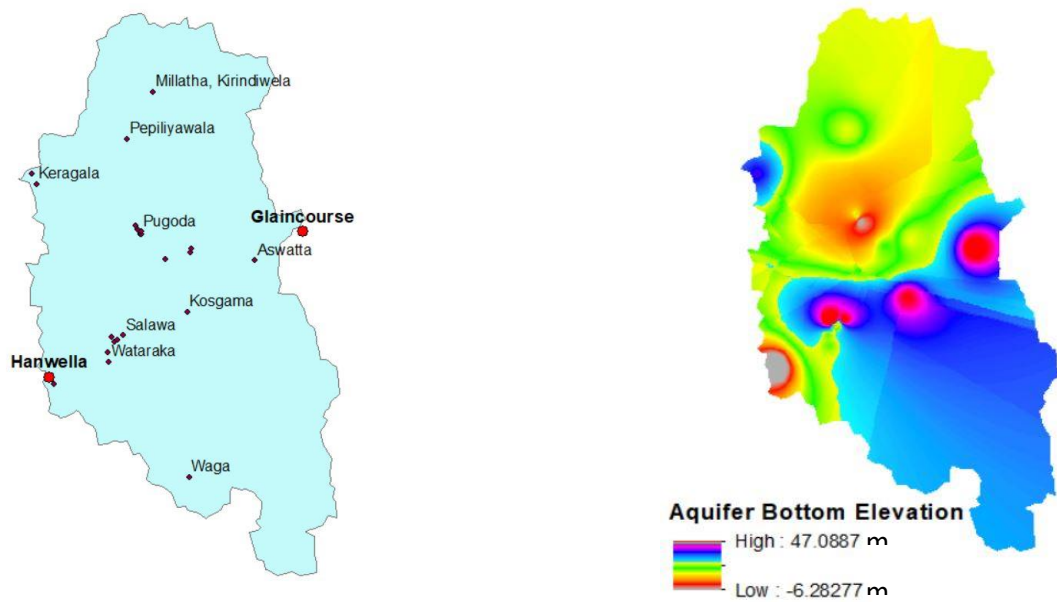


Figure 2 : Maps prepared using Borehole details

Aquifer bottom level is considered as bedrock surface. It is generated in ARC map using bore details.

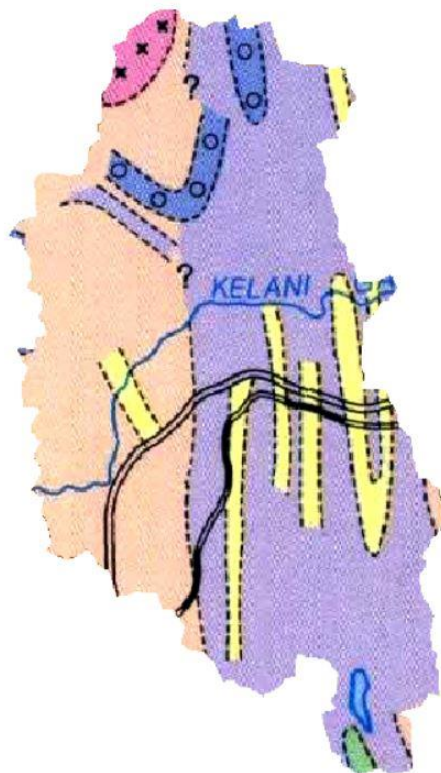


Figure 3 : Georeferenced geological map in study area

[illegible]

Figure 4 : Geological map of Sri Lanka

b) Two aquifers in same plane.

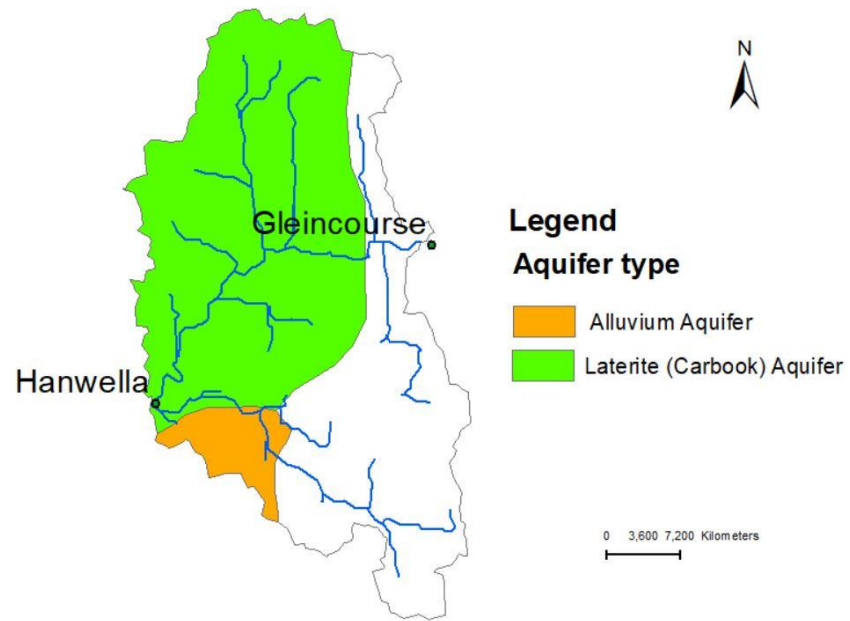


Figure 5 : Aquifer configuration

There are isolated aquifers in white color area.