

Interactive comment on “Numerical understanding
of regional scale water table behavior in the
Guadalupe Valley aquifer, Baja California, Mexico”
by J. R. Campos-Gaytan and T. Kretzschmar

Anonymous Referee #2

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General Comments

In general, simplified steady-state numerical studies of groundwater flow systems can be insightful and useful to gain a better understanding of the governing processes and relevant key parameters.

To this end, the manuscript outlines a valid approach in studying regional groundwater flow systems in the Guadalupe Valley Aquifer.

However, with regard to this specific manuscript the reviewer believes that the paper may benefit from addressing the specific comments outlined below.

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Specific Comments

The reviewer would like to draw the authors' attention to certain aspects of the manuscript which may benefit from an additional review and clarification:

- * A clearer and more structured distinction between the review of available information regarding geological/geographical and hydrogeological setting and the chosen model approach (e.g. additional detail regarding the discretization of boundary and initial conditions)
- * A more detailed reasoning as to why in particular 1983 data was chosen to represent aquifer steady-state conditions
- * More detail on how precipitation data was processed (e.g. correction/ weighing applied for station elevation / representative areas)
- * The location of precipitation stations may be indicated on the map figure
- * More detailed reasoning for locations of no-flow boundaries and mountain front recharge areas
- * Some additional information as to why aquifer transmissivity data was not used but rather literature values
- * More detail on model calibration process and range of applied parameters
- * Some results of sensitivity studies with regard to model parameters and results of model validation run
- * A more thorough discussion of the specific model results

Technical comments:

The reviewer would recommend that the manuscript be reviewed with regard to the general use of written English (general vocabulary/style).

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