

Review of “Assessing the response of groundwater quantity and travel time distribution to 1.5, 2 and 3 degrees global warming in a mesoscale central German basin” by Jung et al. (2020)

The objective of this manuscript is to assess the impacts of climate change on groundwater level and travel time distribution using numerical modelling. In the modelling framework, a distributed groundwater flow model OpenGeoSys (OGS) is driven by recharge simulated by mesoscale Hydrologic Model (mHM). Using this model, the authors estimate the response of groundwater level and travel time to different level of warming due to climate change in a Central German basin.

This is the second round of review of this manuscript. I went through the reviewer comments from the previous round. I believe that the authors have done a good job addressing the relevant issues.

In general, the manuscript is well-written, organised, and reads well. I feel that the manuscript could be accepted for publication after a few updates that I would like to suggest:

- 1) Table 2: Please provide the full name of the geologic units e.g., Middle Keuper (km).
- 2) Figure 3: Please provide the legend for the coloured markers in the plot.
- 3) Section 5.1 and 5.2: Section 5.1 provides the impacts of warming on recharge. Subsequently, Section 5.2 provides the resulting change in groundwater level. In Section 5.1, please provide a short discussion on the reasons of the changes in recharge simulated by mHM for different RCPs. Is it increased precipitation estimated by the GCMs in the study are over the simulation period? Similarly, in Section 5.2, please provide a clearer connection between the changes in groundwater level and simulated recharge for different RCPs.
- 4) Figure 5a: Groundwater level (m). m above what (reference level)? MSL? Please mention that in the figure.