The authors have satisfactorily addressed my substantive comments. The manuscript however needs extensive copyediting prior to publication, as there are numerous word and syntax choices that make parts of this work difficult to read and render the authors' valuable scientific contribution less clear to the prospective audience than it can be. As an illustration, here is the abstract marked up.

abstr Groundwater is the world's largest accessible source of fresh water. It plays a vital role in satisfying basic needs for drinking water, agriculture and industrial activities. During times of drought, groundwater sustains baseflow to rivers and wetlands, thereby supporting ecosystems. Most global scale hydrological models (GHMs) do not include a groundwater flow component, mainly due to lack of geohydrological data at the global scale. For the simulation of lateral flow and groundwater head dynamics, a realistic physical representation of the groundwater system is needed, especially for GHMs that run at finer resolutions. In this study we present a global scale groundwater model (run at 6' resolution) using MODFLOW to construct an equilibrium water table at its natural state as the result of long-term climatic forcing. The used aquifer schematization and properties are based on available global datasets of lithology and transmissivities combined with the estimated aquifer thickness of an upper, unconfined aquifer. This model is forced with outputs from the land-surface model PCR-GLOBWB, specifically with net recharge and surface water levels. A sensitivity analysis, in which the model was run with various parameter settings, showed that variation in saturated conductivity causes most ofhas the largest impact on the groundwater levels varia- tionssimulated. Validation with observed groundwater heads showed that groundwater heads and depths are reasonably well simulated for many regions of the world, especially for sedimentary basins ($R^2$ = 0.95). The simulated regional scale groundwater patterns and flow paths demonstrate the relevance of taking lateral groundwater flow into account in GHMs. IThe resulting inter-basin groundwater flows can be a significant part of a basin's water budget and helps to sustain river baseflows, especiallyexplicitly during times of droughts. Also, water availability of larger aquifer systems can be positively affected by additional recharge from inter-basin groundwater flows.