

***Interactive comment on “Comment on “Origin of water in the Badain Jaran Desert, China: new insight from isotopes” by Wu et al. (2017)” by L. Zhan et al.***

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Thanks for your corrections on your original paper as mentioned in the reply. We believe our comment paper and the public discussions can lead to better understanding of the groundwater origin in the Badain Jaran Desert for all interested readers. Although the exact recharge area needs to be further verified, we share the opinion that the groundwater in the desert is mainly recharged by modern precipitation. Based on the analysis presented in our comment paper, we still hold the hypothesis that the modern precipitation on the Qilian Mountains is more likely to be the main source of the groundwater and lake water in the BJD. Whether a preferential recharge from the

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extremely scant local winter precipitation (as you suggested) maintaining the abundant groundwater in the BJD could happen needs to be verified.

We have carefully considered your suggestions as well as the comments of two referees and will make revisions accordingly. With regards to your first suggestion, we can add more results of Qilian sourced water (some rivers) as shown in your paper and make related discussions. Your second suggestion will be considered together with the referees' suggestions. We are going to add more descriptions of the hydrogeological conditions and discussions on the recharge and discharge processes of groundwater.

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