

## ***Interactive comment on “Hydrological connectivity from glaciers to rivers in the Qinghai-Tibet Plateau: roles of suprapermafrost and subpermafrost groundwater” by Rui Ma et al.***

### **Anonymous Referee #2**

Received and published: 30 March 2017

The authors studied the role of permafrost in controlling groundwater flow and the hydrological connections between glaciers in high mountain and river in the low plain with hydraulic head, temperature, geochemical, and isotopic data. The paper is generally well written, and should be of very interest to the research community. My detailed comments are as below: 1. Legend of Fig.12 should be explained clearly, such as the status of runoff (groundwater, surface water) should be depicted. 2. The resolution and framework of Fig. 10 should be improved. 3. The conclusions need to be improved, the author should tell the most important conclusion by the simple statement at this part. 4. Page 11, the value of  $\delta^{2}\text{H}$  and  $\delta^{18}\text{O}$  indicate that suprapermafrost groundwater had experienced strong evaporation, but the hydrogeochemistry also

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suggest the suprapermafrost groundwater has rapid flow. It should be explained more clearly. 5. The English of the whole manuscript need to be improved.

Please also note the supplement to this comment:

<http://www.hydrol-earth-syst-sci-discuss.net/hess-2017-7/hess-2017-7-RC2-supplement.pdf>

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Interactive comment on Hydrol. Earth Syst. Sci. Discuss., doi:10.5194/hess-2017-7, 2017.

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