

## ***Interactive comment on “Responses of natural runoff to recent climatic changes in the Yellow River basin, China” by Y. Tang et al.***

### **Anonymous Referee #2**

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Using the SWAT model and an elasticity method, the authors presented how the runoff responded to the variation of the climate over the YRB in China. The results that precipitation and other climate variables have different impact on the runoff over different periods are interesting. The manuscript is well written in most part, while English needs to be improved. I recommend publishing this manuscript after minor revisions by including the following comments and questions.

Specific Comments:

1) P.4490, lines 4-6, I am not sure I understood this sentence. 2) P.4490, line 16, in fact precipitation is also a climate variable. Also in Lines 23-24 in P.4500. 3) P.4493, lines 14-15, I suppose that the study area be semi-arid to semi-humid regions 4) P.4493,

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line 20, As the naturalized streamflow, is key part of information, more detail is needed for that variable on data source and processing approach 5) P.4494, and some other places, be cautious when using climate change, as this manuscript is in fact more about climate variability instead of climate change. 6) P.4495, the albedo. Should this be different for different vegetation cover, as 0.23 is a hypothetical choice? 7) Regarding the use of the elasticity method, I suggest to plot the estimate of monthly or yearly runoff by the Budyko-type curve against the observation, which is similar to Fig.3 before doing those attributions. 8) Equations 6 and 7, as the NS efficiency is related to the R2 and you used one of them anyway, I suggest just present one of them. 9) P.4498, line 7, is in line with

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