

Interactive comment on “Spatiotemporal response of the water cycle to land use conversions in a typical hilly-gully basin on the Loess Plateau, China” by Linjing Qiu et al.

Anonymous Referee #2

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General Comment: This manuscript investigated the response of main hydrological components to land use change and basin management policy in the loess region of China. It is interesting to see the spatial distribution of hydrological responses at the unit (HRU) level and the quantitative assessment of the roles of different land use types in basin hydrology. In particular, it is attractive to interpret the mechanism of the streamflow decrease associated with vegetation restoration on the Loess Plateau and thus may have a broad readership. Overall, the article was well organized, well written, and easy to follow. All figures and tables are of high quality and informative. What I would suggest is give more discussion on the reason why the different land use types show different hydrological characteristics (e.g., soil water and ET) in this region. That

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would help reader better understand the findings from the article.

Specific comments: P2 L6: Use “sloping cropland” here to guarantee the consistence, because you use “sloping land” in the whole manuscript. P7 L26 Add “of” between “trend” and “surface runoff”. P7 L29 Replace “because of the decreased area of cropland” by “because of its decreased area”. P8 L1 Replace “decreasing” by “decrease”. P9 L1-12 the response of soil water in woodland are well discussed, how about in cropland and grassland and try to explain more. P9 L14 Rephrase the sentence and clearly state what are the main forms of land use change in the Yanhe basin. P9 L20 Where are the locations of 26 watersheds? P18: “Ratio” should be changed to “Percentage” in Table 3.

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