

Interactive comment on “Isolating the impacts of land use and climate change on streamflow” by I. Chawla and P. P. Mujumdar

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The authors conducted an interesting sensitivity analysis for a rather large basin with complex hydrology driven by multiple factors. I think the paper will serve the readers better by presenting following data for the research basin. A simple testing of the model does not offer much insights and contribute much to our understanding the individual effects of land use or climate on hydrology.

Has the hydrology changed over the period 1970-2011? Has climate changed? It is unclear from the writeup to me. If the hydrology has changed (I assume so given the large change is LU), can the VIC model explained it based on your study. The authors could provide a quantitative assessment the contribution of climate or LU to

C272

the observed flow change.

Modeling the future is useful for water resource planners, but modeling the past may give more confidence of the modeling tool.

In addition, I was puzzled why the hydrologic response to forests change have two signs in Table 4.

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