

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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This paper handled a very interesting research issue, tesed and analyzed many quatitative cases elaborately, and summarized the simulation results very concisely with some reasonable physical explanations. Reviewer only raises one major and a couple of minor comments.

< Major Comment >

The impact of LU on streamflow seems surprisingly small, ranging from 0 to 7% in Table 6 in spite of authors' explanation from the bottom of page 2220 to the top of page 2221. One possible reason for this samll impact may be because the measure (Q_climate/LU) is based on the total amount of streamflow. It seems that LU affects the peak discharge

C600

and timing rather than the total volume. Therefore, if authors had investigated smaller time scales, there might have been a larger impact on the peakflow charateristics. Since the simulation ran on a daily basis, the smaller time scale examination may be possible. Even a monthly time-step examination (like the hydrograph analysis in page 2215) may reveal more meaningful findings.

< Minor Comment >

- L20 P2220: Is Q_climate/LU correctly defined?

- L25 P2220: "... the analysis is Sect. 3.3.1 ..." -> "... the analysis in Sect. 3.3.1 ..."

Interactive comment on Hydrol. Earth Syst. Sci. Discuss., 12, 2201, 2015.