Hydrol. Earth Syst. Sci. Discuss., 10, C6682–C6683, 2013
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Hydrology and Earth System Sciences
Discussions

Interactive comment on "Bayesian networks for environmental flow decision making and an application in the Yellow River estuary, China" *by* A. P. Pang and T. Sun

Anonymous Referee #1

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The authors developed a new method to identify the water requirements for ecosystem by considering trade-offs between socioeconomic and ecological water demands. The Bayesian theory was employed to study the uncertainty under different water utilization scenarios. The outcome is very interesting for taking the incorporation of environmental, economic, and social factors into assessments. The study is of high importance and the former systemic research is few. The developed model is very helpful for other researchers in this field. I would recommend its publication in Hydrology and Earth System Sciences after minor revision. (1) Page 4 line 12-15, please check the sentence. It is kind of reduplicate; You have already said this in the Abstract. (2) How

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did the ecosystem water requirements be calculated, in this case the requirements of freshwater inflows into the Yellow River Estuary, should be detailed. The citation of a previous work by one of the co-authors (Sun et al. 2008) is not enough as the initial e-flows are the key component of the agricultural water shortage analysis. (3) Page 4 line 20, please check “70% of natural water resources are diverted. . ..” Check this, because “natural water resource” is different from the concept of “freshwater withdrawals from rivers and groundwater” and “global storage capacity”. (4) Page 6 line 1: What is “water-saving coefficient”? Is it different from “water use efficient”?

Interactive comment on Hydrol. Earth Syst. Sci. Discuss., 10, 14873, 2013.