

Interactive comment on “Theory of the generalized chloride mass balance method for recharge estimation in groundwater basins characterised by point and diffuse recharge” by N. Somaratne and K. R. J. Smettem

Anonymous Referee #2

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Authors Somaratne and Smettem attempt to provide a generally valid chloride mass balance method to estimate groundwater recharge in karstic environments. The method proposed in this paper will lead to higher estimates of groundwater recharge (as is evidenced by the first few abstract lines), thereby to a larger amount of potentially extractable groundwater. While I do see value in providing a generally valid chloride mass balance method, I recommend rejection of the manuscript in its present form for two reasons (the second having more weight than the first):

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1. I fully agree with the authors' statement (response to Referee 1) that HESSD is a platform for scientific interaction and discussion and should exclusively be used as such. On the other hand, given the senior author's affiliation, there is the possibility for conflicts of interest to exist. Possible commercial interests and scientific spirit must absolutely be separate. In a possibly re-submitted revised form of the manuscript, the authors could clarify and state that commercial interests do not exist.
2. The authors base this work on three internal reports that did most probably not undergo a high-standard review by international peers, and particularly on one manuscript (Somaratne et al. 2013) that is currently (as of Feb-07 2014) subject to discussion at HESSD. All six reviewers of Somaratne et al. 2013 have unanimously recommended rejection of Somaratne et al. 2013 for scientific reasons. It is, in my opinion, unwise to keep putting manuscripts on HESSD while their base is not yet consolidated. My feeling is that I would first close one construction site before opening another. Scientific journals do usually not accept manuscripts containing references to unaccepted submitted other manuscripts.

Even if the authors may not agree with reason 1 (and even if conflicts of interest do not even exist for that matter), reason 2 is sufficient not to accept the manuscript. I warmly encourage the authors to work on Somaratne et al. 2013, and to not submit work based on unconsolidated science.

Interactive comment on Hydrol. Earth Syst. Sci. Discuss., 11, 307, 2014.