**Interactive comment on** “On the assimilation of environmental tracer observations for model-based decision support” **by** Matthew J. Knowling et al.

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This is another excellent paper from this group. To me, it sits right between academic and applied hydrology. The group has such advanced modeling skills, that they have immediate credibility when they point out limitations based on model-based interpretations. In this paper, they carry their analysis through to the ‘value’ of data for decision support. They make a great case that data, even if it inherently carries important information, can be misleading if it is viewed through the lens of an imperfect model. Of course, they are all imperfect models. This is really important work and I feel that HESS is just the right target audience. I hope that it inspires continued careful examination of
the interaction of data and models for decision support.

Well done Knowling et al!

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