The manuscript has been reviewed by two reviewers and myself, with responses to the reviewer comments submitted by the authors. Since the reviewers saw potential in the manuscript I will invite a revision, but the manuscript needs much additional work to fulfil its claims.

As a study on the entanglements of science and politics, the manuscript remains superficial. I suggest a much closer reading of Science and Technology Studies – a field that studies exactly what the authors wish to do – and Political Ecology. In particular, the following papers may serve as templates for how to write such a "story" (reviewed in Krueger et al., 2016): Alatout, 2013; 2014; Bouleau, 2014; Budds, 2009; Deroubaix, 2008; Fernandez, 2014; Forsyth, 2008; Mehta, 2010; Milman and Ray, 2011; Zimmerer, 2008.

As evidenced by these papers, the uncertainty frame the authors chose is sensible (despite some confusion discussed below), but the authors must be careful not to reduce the case to an epistemic problem. This was highlighted by Reviewer 2. He suggests analyzing the positions and work practices of those making choices in the production of hydrological knowledge in this politically charged situation. This is exactly what studies analyzing the entanglements of science and politics do (see for example Milman and Ray, 2011). In their response the authors note that they lack empirical material on these points. In this case the claims of the paper should be adjusted; as a study on the entanglements of science and politics it leaves too many questions unanswered. Analyzing the stakeholder reactions to the hydrological knowledge (model) produced (as also suggested by Reviewer 2) will go some way towards a reframing of the paper.

In discussing their empirical material, the authors recommend a participatory approach to knowledge production and water management. As noted by both reviewers, this recommendation lacks awareness of the shortcomings of participatory processes, especially in development contexts (e.g. Blaikie, 2006; Cooke and Kothari, 2001). The problem is that the authors don't have any empirical material on participation, they can only diagnose a lack of participation in their case and speculate about what this means for the dilemma at hand and how it might be resolved though more participation. This does not contribute sufficiently to the literature. What I would suggest is that the authors foreground the stakeholder perspective as part of the science/policy entanglement (as advised above based on Reviewer 2) and stay close to the empirical material rather than speculating about the success of hypothetical participatory processes.

Reviewer 1 made further helpful suggestions for improving the structure of the paper. As part of this the authors should include more details on the interviews conducted and the subsequent analysis of the empirical material (as also suggested by Reviewer 1). Including the interview guides for the semi-structured interviews in the Appendix and information on coding would seem especially important.

In addition, I had the following comments:

L71-77: The uncertainty frame is helpful but only as far as the role of uncertainty in science/policy relations is concerned, not as the root cause of the problem in the present case (compare Reviewer 2). There is also a misunderstanding of aleatory and epistemic uncertainty; aleatory is the one conceived of as irreducible. Scientific uncertainty does matter as it allows the same piece of evidence to be interpreted differently for different political ends (e.g. Milman and Ray, 2011). But the real challenge seems to be value disagreement (to speak with Funtowicz and Ravetz). It would seem more fruitful to analyze knowledge claims and ask how they are produced, what they leave out, what authority they enjoy and why and how they have political consequences.

L82: It would be naïve to think there could ever be a fair assessment of different kinds of knowledge (compare both reviewers).

L86: But why exactly does science have this authority and how exactly is it entangled with power?

L88: There is a lot more to say about bottom-up or participatory or transdisciplinary approaches; they are not just aiming at reducing epistemic uncertainty, and even if they did there is enough critical literature on the limits of achieving this aim.

L121: This is a limited reading of Krueger et al., 2016. The paper is not advocating non-expert knowledge per se, but argues for people who are not scientists to get involved with science for epistemic, political and ethical reasons. It bases this argument on a review of case studies of the entanglements of hydrological science and politics.

Fig3: The differences between the scenarios should be explained better.

Section 4: More should be made of the authors' own modelling study. Why was the scenario they created omitted in the official study? With what consequences?

L409-410: Epistemic uncertainties are (partly) about accuracy and precision.

L426: It is not readily evident form the empirical material that this is a case of an epistemic controversy. A general framing of science/politics entanglements will be better suited.

L434: Participation is not only about impact, but also about substance and ethics.

L434: Note the large body of literature on participation in a development context (e.g. Blaikie, 2006; Cooke and Kothari, 2001).

Section 6: Many of the claims made are not substantiated by empirical material; the authors should be careful to stick with the case material and not speculate beyond it (compare Reviewer 1).

L469: How exactly science and politics are entangled does not become clear from the case study.

L470-471: That the case is one of knowledge controversies remains equally unclear.

L473-475: Here the authors foreground the epistemic problem, which is only part of the story (compare Reviewer 2).

L493-494: This belief in the power of science and participation is unjustified, see basic texts like Pielke (2007).

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