

Interactive comment on “Drought in a human-modified world: reframing drought definitions, understanding and analysis approaches” by A. F. Van Loon et al.

Anonymous Referee #2

Received and published: 3 August 2016

This review paper discusses drought in the Anthropocene and identifies a number of important research gaps along with tools and techniques to start tackling these research questions. I really enjoyed reading the paper and agree with many of the points that were raised. I think the other two reviewers have highlighted several important points to be addressed so I just have a few comments to add.

Specific Comments

Section 3.2. P9 L 30. I agree that one of the key limiting factors is availability of data and metadata on human modifiers. However, even if this data is available there are still many questions on how to incorporate these processes into hydrological models. For example, how do we incorporate groundwater abstractions into current lumped or

C1

semi-distributed hydrological models (often used for prediction of drought)? While the acquisition of data on human modifiers is important, this needs to be in conjunction with developing models (both catchment, regional and global scale models) that can make use of this data.

Section 3.3. This section was not as clear as the others in how we can move research forward in this area (e.g. how could we use impact information better? P 11, L 17). I would add a sentence or two to better clarify exactly what is needed to address the research gaps you highlighted at the beginning of section 3.3.

Section 3.5. I agree with Marc that you should use a different word to ‘norm’.

Figure 4. I found Figure 4 and Table 1 quite confusing and not overly useful in helping me to understand the text – can you merge the two together to make a figure that is more easily understandable?

Figure 6a. Should there be a y-axis on this plot?

Interactive comment on Hydrol. Earth Syst. Sci. Discuss., doi:10.5194/hess-2016-251, 2016.

C2