

## ***Interactive comment on “Recent human impacts and change in dynamics and morphology of ephemeral rivers” by J. A. Ortega et al.***

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The topic discussed in this paper represents one of the major challenges for the Earth Science community: the role of human activities in shaping the surface morphology, thus affecting earth surface processes. In the last few years, the human-Earth interaction has been object of a progressively intense discussion (Zalasiewicz et al., 2011; Whol, 2013). The scientific community is debating the fact that that we are living in the Anthropocene, where human activities may leave a significant signature on the Earth, by altering its morphology and ecosystems. The recognition and the analysis of such signature represent a real challenge to better understand the evolution of our Planet. The present paper follows this line of research. Having said that, the two reviewers

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highlighted several critical issues that are present in the proposed analysis. These are mainly related to the lack of quantitative analysis, novelty in the results achieved, lack of information about the flood frequency, and details on humans alteration that affected the study area. The authors provided detailed responses, that will help in improving the revised version of the work. The reviewers are encouraged to enlarge the debate at this stage, in order to offer to the readers a wider discussion.

From my side I suggest to improve the literature review in the introduction according to these points:

- better focus the topic, that is in line with the “Anthropocene debate”.
- enlarge the references related to similar studies and published in the last few years.

The authors should also provide few more sentences on the comparison of the proposed methodology (and its limits), with other approaches available. HEC-RAS is not the only solution proposed in literature for such kind of analysis.

### References

Wohl, E., 2013. Wilderness is dead: Whither critical zone studies and geomorphology in the Anthropocene?, *Anthropocene*, ISSN 2213-3054. DOI:10.1016/j.ancene.2013.03.001.

Zalasiewicz, J., Williams, M., Haywood, A., Ellis, M., 2011. The Anthropocene: a new epoch of geological time? *Philosophical Transactions of the Royal Society A* 369, 835-841. DOI:10.1098/rsta.2010.0339.

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