

## ***Interactive comment on “Representing hydrodynamically-important blocking features in coastal or riverine lidar topography” by B. R. Hodges***

**B.R. Hodges**

hodges@mail.utexas.edu

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I would like to thank Reviewer 2 for the thoughtful consideration and effort they have put forward. I plan to incorporate fixes addressing all of these comments in the next revision, with one exception.

Reviewer 2 states that “. . .the impact of the blocking algorithm on hydrodynamic simulations is a fundamental requirement of the new technique and cannot be left to future studies in a world where we don’t publish null results”. I respectfully disagree. The hydrodynamics is a motivation for the work, rather than a requirement for the work. The

C450

results of the method are what is presented in the paper, which visibly shows results for how the features are represented on the coarser grid. If we are to take the Reviewer’s viewpoint, then it would be impossible to present any geophysical landscape modeling without also providing flow models to understand how the hydrodynamics is affected. I do not believe that other geophysical processing techniques for river channels have been held to such a standard in NHESD or any other journal. I do understand why the reviewer is looking for this information, indeed, we are working on just such an analysis for a future paper. However, there are a wide range of issues when you apply a hydrodynamic model, which would easily double the paper length if included here, and would take the focus off the relatively simple technique that has been developed. In addressing model sensitivity issues raised by Reviewer 3, I think that some of the concerns of Reviewer 2 will be addressed as we will give better insight into the capabilities and limitations of the method.

Again, I thank the reviewer for their time and effort expended and I plan to address all the other comments in the next revision.

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C451