

Interactive comment on “The sensitivity of landscape evolution models to spatial and temporal rainfall resolution” by T. J. Coulthard and C. J. Skinner

G. Govers (Editor)

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Received and published: 28 April 2016

Dear authors,

My apologies that it took a while to post this which is due to a misunderstanding. I think you have received two insightful reviews of the manuscript that you submitted. In my view the paper can be published in Esurf if these remarks (and the ones suggested by Declan Valters) are accounted for in a revised version.

The main comment of ref. 1 relates to the potential interaction of soil properties and resolution. I most certainly agree with the fact that this is a valid point that should be dealt with in a revised manuscript. However, it is in my view not necessary to carry out

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a large number of additional simulations to investigate this as this would be a different research topic altogether. I do think though that you should discuss this issue (and its potential implications) in a revised version of the MS. You already addressed the issue along those lines in an author comment that can form the basis for the rewriting of this part of the MS

Reviewer #2 has concerns with the way you deal with increased temporal rainfall resolution. As erosion is indeed a non-linear function of discharge/rainfall intensity non-linear effects are indeed to be expected. Reading your MS I do feel these remarks are important but may partially be caused by a misunderstanding of the procedure you used and of the aims of your study, which focuses on spatial patterns rather than total erosion amounts. Please clarify this in a revised manuscript: I am sure that this will also be of great help to other researchers who want to better understand your research.

Kind regards,

Gerard Govers, Associate Editor

Interactive comment on Earth Surf. Dynam. Discuss., doi:10.5194/esurf-2016-2, 2016.

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