

Response to request for technical corrections by the editors and reviewers. My replies are shown below each comment in blue.

Elco Luijendijk, 3 November 2021

Comments to the author:

Dear Elco,

I'm delighted to inform you that your paper has been accepted for final publication subject to a couple of minor technical corrections that should be very easy to change. Its probably best this is done at this stage instead of at the proof reading stage. I would like to take this opportunity to thank you for your work on this paper - and to apologise for the short delay at this final stage.

All the best

Tom Coulthard

Comments to the author:

Dear Elco,

thanks for submitting a revised version of your manuscript and apologies for the delay. Stefan Hergarten has now reviewed your manuscript and recommends accepting the manuscript subject to some technical correction. I follow and fully support this recommendation. All in all, the concerns by the reviewers have been addressed and the paper has improved considerably.

Stefan Hergarten comment pertains to the unit of the transport coefficient, and I have only a few minor issues which can be surely easily addressed.

L 512: Usually, DEMs with x and y coordinates and only one value of z for each coordinate are called 2.5D as they are not fully 3D. I am not sure whether 2.5D is the right term here.

Reply: I agree that the term 2.5D is a bit confusing and have replaced this with 2D in the manuscript.

Fig. 12. Is the depicted run time of 1 million years correct here? Just wondering, because you have decreased the run time compared to the previous version of the manuscript by a factor of 10.

Reply: The runtime is still correct, for this particular model run i thought it was good to show a long runtime to double check if the system is really in steady-state. This was also requested by one of the reviewers previously. I have added a sentence to clarify this: "Note

that for Figure 12 the model runtime was extended to 1 million years to show the evolution of the landscape and stream network over a long timespan.”

Thanks again for submitting to ESURF!

Best regards, Wolfgang

Reviewer 1:

Suggestions for revision or reasons for rejection (will be published if the paper is accepted for final publication)

Please re-check the units in Table 1. I think the sediment transport coefficient should get a unit here, and the unit of the hillslope diffusivity should probably m^2a^{-1} instead of a^{-1} .

Reply: Thanks for spotting these errors, i have corrected them in the new version of the manuscript.

Additional changes:

Please note that in addition to these changes I had accidentally overwritten Figure 15 so that it was equal to Figure 17 in the last version of the manuscript. I have corrected this and have reinserted the original version of Figure 15.