

Interactive comment on “Alluvial cover controlling the width, slope and sinuosity of bedrock channels” by Jens Martin Turowski

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Dear reviewers, dear editor, dear interested readers,

Thanks to all who have read the manuscript and provided comments. Here, I want to briefly address the main review comments. A detailed rebuttal letter will be supplied with the revised paper.

Both reviewers requested additional figures to illustrate the model concepts. I do agree that this will be helpful for the reader and have prepared three additional figures (see also attached pdf).

First, a figure to illustrate the relationship between channel width and the sideward deflection length scale, both in transient adjustment and in steady state (Fig. 1).

Second, a figure illustrating the potential for sideward deflection at various points in the cross section (Fig. 2).

Third, a figure illustrating the thalweg and gravel path in a meandering channel (Fig. 3).

Please also note the supplement to this comment:

<https://www.earth-surf-dynam-discuss.net/esurf-2017-46/esurf-2017-46-AC1-supplement.pdf>

Interactive comment on Earth Surf. Dynam. Discuss., <https://doi.org/10.5194/esurf-2017-46>, 2017.

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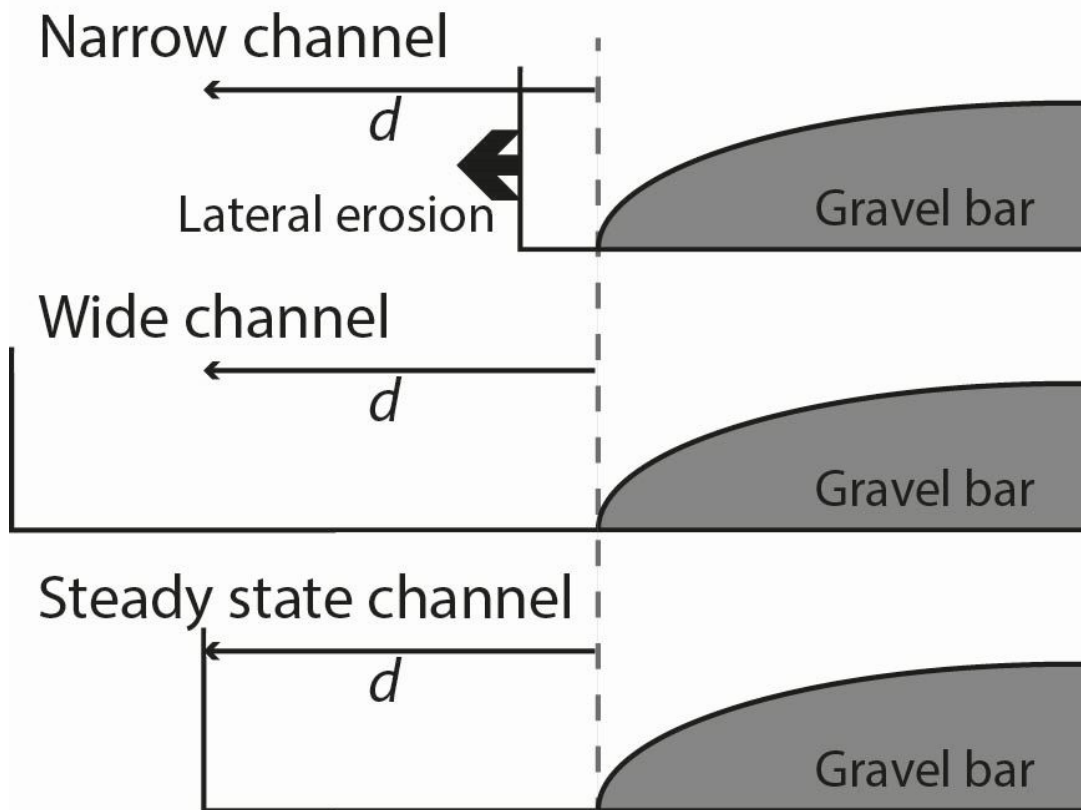


Fig. 1. Interaction of sideward deflection length and channel width.

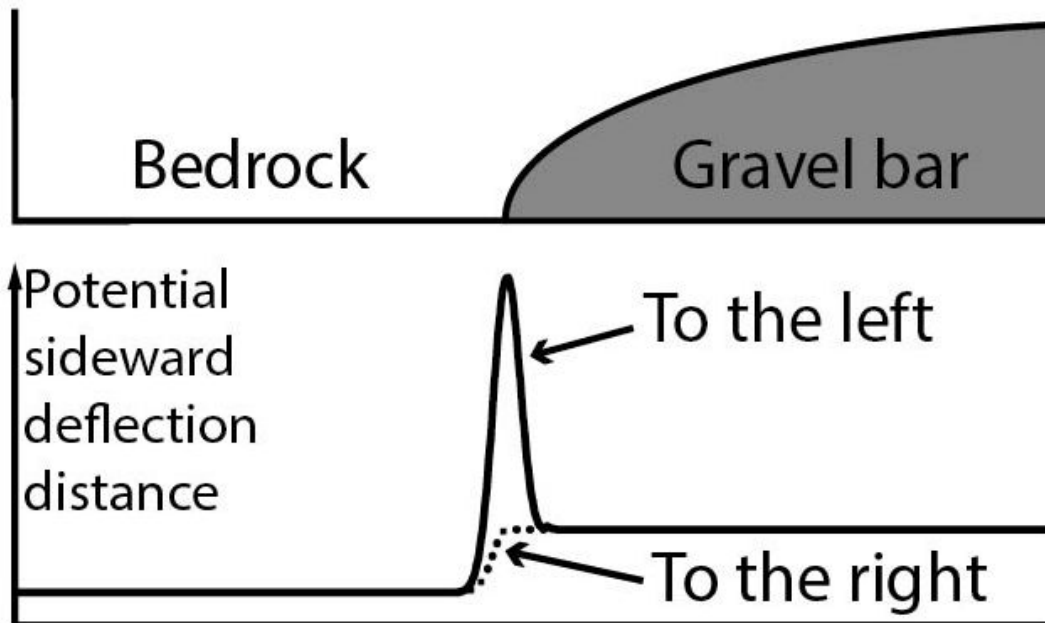


Fig. 2. Potential sideward deflection distance in a cross section.

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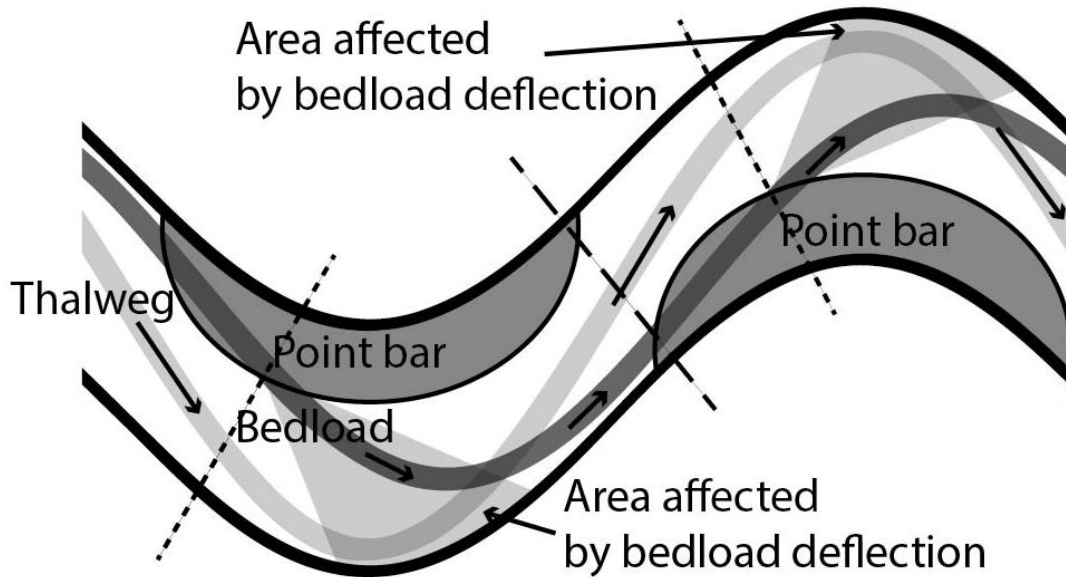


Fig. 3. Bedload path through a sinuous channel.

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