

Interactive comment on “Delineating incised stream sediment sources within a San Francisco Bay tributary basin” by P. Bigelow et al.

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Dear Authors, I have now examined the discussion on your paper entitled “Delineating incised stream sediment sources within a San Francisco Bay tributary basin”. I agree with the suggestions given by the reviewers, especially on the part about the assessment of erosion through DEMs of Differences (DOD) (thus the literature suggested, including also (Lane et al. 2003) in addition to (Wheaton et al. 2009; Wheaton et al. 2010). I also agree with the fact that the method part should be clarified more. As raised also during the review, I have one more question about the channel width size, I understand channel width is calculated from a regional regression based on drainage area (please cite such equation), however what is the goodness of the fitting of such equation to actual field-surveyed channel size in your study area? could you provide this information? This is important, since the proposed channel buffer width is depen-

dent on the bankfull channel width. The potential decoupling of the sediment respect to the network is also an interesting question raised during the review. I suggest the authors to consider for example (Cavalli et al. 2013, further investigated in Trevisani and Cavalli 2016) as another example to account for sediment connectivity. As one of the reviewers underlined, also the description of the channel network delineation needs clarification. You provided a series of replies which give a first overview of the steps you are going to take for the review. If you are willing to pursue these revisions, I will be pleased to reconsider your submission, with the help of the same reviewers who examined the present work. In submitting your revised version, please provide a detailed list of the changes made to the text, and a detailed list of your responses to each reviewer's comment. Please note that this editorial decision does not guarantee that your paper will be accepted for final publication in ESurf. A decision will be made only when the revised version will be available, and will be evaluated. Best regards
Giulia Sofia

Cavalli M, Trevisani S, Comiti F, Marchi L (2013) Geomorphometric assessment of spatial sediment connectivity in small Alpine catchments. *Geomorphology* 188:31–41. doi: 10.1016/j.geomorph.2012.05.007 Lane SN, Westaway RM, Hicks DM (2003) Estimation of erosion and deposition volumes in a large, gravel-bed, braided river using synoptic remote sensing. *Earth Surf Process Landforms* 28:249–271. doi: 10.1002/esp.483 Trevisani S, Cavalli M (2016) Topography-based flow-directional roughness: potential and challenges. *Earth Surf Dyn* 4:343–358. doi: 10.5194/esurf-4-343-2016 Wheaton JM, Brasington J, Darby SE, Sear DA (2009) Accounting for uncertainty in DEMs from repeat topographic surveys: improved sediment budgets. *Earth Surf Process Landforms* n/a–n/a. doi: 10.1002/esp.1886 Wheaton JM, Brasington J, Darby SE, Sear DA (2010) Accounting for uncertainty in DEMs from repeat topographic surveys: Improved sediment budgets. *Earth Surf Process Landforms* 35:136–156. doi: 10.1002/esp.1886

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Discussion paper

