

**Authors' response to Associate Editor and referee comments (dated 15 June 2016) on
“Delineating incised stream sediment sources within a San Francisco Bay tributary basin”**

Responses are *italicized*

Comments to the Author:

Dear authors, I have now examined the second round of reviews of your paper. Both reviewers agree that the paper was greatly improved, and you satisfactorily answered to all the raised points. However, some minor issues still remain. The requested minor revision of the manuscript will be reviewed at the editorial level before acceptance.

Thank you for submitting to the Special Issue, and I look forward to receiving the revised manuscript.

Kind Regards.

Giulia Sofia

Thank you Giulia and thanks also to the referees for all your help in revising this manuscript. We have made the revisions noted below that are highlighted in red text in the revised manuscript. We also made a few minor editorial changes to the manuscript, also in red text. We added 5 lines of text (in red) on page 11 lines 23-27 that describe a few more approaches for promoting sediment storage within incised channels and initial approaches used in Arroyo Mocho: “Where appropriate, sediment storage from incised streams could also be promoted with check dams (Geyik 1986) and stone weirs (Shields et al. 1995), or more natural analogs using large wood (Shields et al. 2003), beaver dams (Pollack et al. 2014), and Native American techniques (Norton et al. 1995). In the Arroyo Mocho watershed, initial strategies to reduce erosion from incised channels include construction of a step pool channel (Chin et al. 2009), sediment retention ponds, and earthen check dams that also serve as cattle ponds (Bigelow et al. 2012a).”

Non-public comments to the Author:

Reviewer #2 rises a point about the methods description, where you write that "the contour length crossed by flow out of a DEM cell, which is used to calculate local contributing area". the reviewer thinks that this is not 100% correct - the contour length is needed together with the flow accumulation dataset in order to compute the specific contributing area. Could you clarify?

The referee is correct, we have revised this sentence to read: “The attributes calculated are surface gradient, the number of adjacent inflowing DEM cells, and the contour length crossed by flow out of a DEM cell, where the latter two attributes are used to calculate specific contributing area (see details in next section).”

in addition there is a typo at line 26 of page 3: “Define Sediment Source Area” instead of “Definine Sediment Source Area”.

We have corrected this typo in the revised manuscript.