

DETAILED RESPONSES TO REVIEWER 2:

The comment in bold is followed by our response

Page 9017 line 21: unclear with respect to previous sentence “the value of 0.4 should be the case for...”

This sentence could be reworded to make it more clear regarding the selection of 0.4 as the “b” value (exponent) in Eq. 4. What was meant to be explained was that given the approximations and assumptions needed to reach the equation, an upper limit for the exponent would be 0.4 and that depending on how erodible the soil was this value would either stay at 0.4 or decrease. This would be taken into account by including the erodibility factor, β , that is multiplied by the “b” value (0.4) in the exponent.

Sentence will be changed to:

“This value will fluctuate by an erodibility factor, β , which is multiplied by the exponent, for the average sediment concentration. The erodibility factor is usually at or below a value of 1 ($\beta \leq 1$).”

Fig 3: consider to show it in log log scale (along with the power law), i) to emphasize also low C and q and ii) to show how the power function fits the data. This also applies to some of the following figures.

The graphs were originally produced in non-log scale and in log-log scale, however we decided that to in order to emphasize the scatter and later effect of the analysis on explaining this scatter, the non-log scale seemed more appropriate. If the reviewer insists we can produce the log log plots in the supplementary material