Minor changes to final proof before publication:

TS2 change: “.25m x .25m” to “.25m x .13 m” – we realized we miss cited the resolution of our data. This does not affect any of our calculations as we used the correct resolution in all of our code. This is merely a typo that we caught last minute.

Ts3 change: “m3/hr” to “m2/hr” – this again is a correction of a minor typo. Equation 1 clearly results in a length squared per time estimate of bedload flux. To get a volumetric estimate (m3/hr) we multiplied by the width between each survey (3.67 m). We have added this information to the end of this paragraph (see TS4).

TS4 change: addition of “To gain volumetric estimates of flux (m^3 s^-1), we multiplied the result from Eq. (1) by the lateral spacing between BEPs, 3.67 m.” – see above comments for TS3. We added this merely to clarify how volumetric estimates of flux are made from Equation 1.

TS5 change: changes “SCUBA, or using a boat mounted sonar or ADCP) while installing or maintaining the echo sounder.” to “SCUBA, tethered boat-mounted sonar or ADCP (equipped with GPS) deployed from a bridge, or using an underway vessel equipped with sonar or ADCP).” – just rephrased for clarity how these sampling methodologies are being done.

TS6 change: rephrased “A less generally applicable extension to this procedure” to “An alternative to this procedure” for clarity that Guala et al., 2014 is a valid and applicable alternative method.

TS7 change: added a reference to end of the paragraph statement “which may not be strictly true.” Added text: “(e.g. Guala et al., 2014 show frequency and wavenumber spectra of bed elevation time-series exhibit different scaling)”