

Continuous Surrogate Measurements of Bedload Sediment Transport using Hydrophone Installations

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2013 Mid-year status update

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As of the end of June, 2013, a prototype hydrophone instrument has been constructed and the software and hardware have been tested. No data were scheduled to be collected this water year, although we had hoped to be able to field-test the instrument during spring reservoir releases or during a spring storm. Unfortunately, due to this year's small snowpack, and a dry spring, flows were not predicted to be high enough to generate significant bedload movement.

At the end of June, the prototype hydrophone instrument will be sent to the USGS Colorado Water Science Center. In Colorado, the USGS is collecting bedload samples on a few snowmelt-fed streams and rivers. This may provide an opportunity to field-test the hydrophone instrument. Alternatively, we may send the instrument to a hydraulic flume to lab-test the hydrophone instrument by collecting acoustic measurements while other bedload experiments are being conducted. We anticipate having all instruments constructed by the end of this water year and ready for deployment in the winter and spring.

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