

San Joaquin River Restoration Program – MAP Study #18 Update for 2013

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Task #18: Continuous Surrogate Measurement of Bedload Sediment Transport using Hydrophone Installations on the San Joaquin River, California

In the summer of 2013, the USGS developed several proto-type versions of a low power, stereo hydrophone system for use in estimating bedload mobilization and transport on the San Joaquin River and tributaries. The USGS tested these proto-types on an active bed load river in summer 2013. Due to the lack of bedload occurring on the San Joaquin River during the summer the North Fork Feather River was used as a test case. Following successful tests of the hydrophone system, the USGS constructed ten low-power stereo hydrophone systems and deployed them in November 2013 on the San Joaquin River at eight different sites, primarily in Reach 1A, but also in Reach 1B and the major tributaries. To date, there have been no significant flows on the San Joaquin River but data retrieval during the lower flow periods has occurred, which will be useful when comparing to the signals produced during higher flows. An update to SJRRP on the status of the hydrophones is anticipated in Spring 2014.