



Instrumenting a hillslope-floodplain continuum to look at hydrological processes: the Leighton hydrology research site

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The Leighton hydrology research site on a floodplain of the River Severn (UK) has been running for nearly 10 years. Several previous studies have used the ESTEL, SUBIEF and TELEMAC models to investigate the hydrological processes of river flooding at the site, but were limited in scope to the floodplain. New instrumentation is now being deployed to extend the monitoring network towards the hillslope zone. This consists of nested tensiometers, piezometers and temperature probes. The data from the new instruments will allow us to model and also test the entire continuum of hydrological processes operating at the site, including: rainfall-runoff processes on the hillslope, overbank flooding, floodplain storage and hyporheic floodplain exchange.