

## **Boscastle and North Cornwall Floods, August 2004: Implications for dam engineers.**

Dr R. BETTESS, HR Wallingford

V. BAIN, HR Wallingford

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SYNOPSIS. On the 16 August 2004 over 180 mm of rainfall in 5 hours caused severe flooding in the River Valency and adjacent catchments. Following the flood event, HR Wallingford, CEH Wallingford and the Met Office jointly carried out a study to understand the flood and to determine the peak discharge. The flood in Boscastle was one of the best recorded extreme flood events in the UK and there was good photographic and trash mark evidence from the flood.

The hydrological and hydraulic simulations of the flood showed that the application of standard Flood Estimation Handbook methods did not reproduce the observed flood characteristics very well. A better simulation was provided by assuming high values of the Percentage Runoff and halving the Time to Peak of the unit hydrograph. This modification to the Time to Peak is more extreme than that recommended by the Flood Studies Report for dam studies. This has implications for the methods that should be used when assessing the Probable Maximum Flood for dams on small, steep catchments. The implications for dam engineers are discussed.