

## **VALIDATION OF A BASIN SCALE, LANDSLIDE SEDIMENT YIELD MODEL**

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The SHETRAN landslide model simulates the erosion and sediment yield caused by shallow landslides in river basins of up to 500 km<sup>2</sup>. A first validation is being carried out for a major landsliding episode during a three-day rainfall event in November 1982 in the 360-km<sup>2</sup> Llobregat basin above La Baells reservoir, eastern Spanish Pyrenees. The necessary soil and topographic data were collected at nine sites (using a penetration probe to measure soil depth and shear strength) and a map of spatial variability of soil properties was generated. In the first stage of the model application, the hydrological response was simulated, to obtain the soil saturation and water flow data which form the input to the landslide simulation. A good reproduction of the observed reservoir input hydrograph was obtained. In the second stage the landslide simulation will be assessed by comparing the simulated distribution of landslide occurrence with the inventory of measured occurrence made after the 1982 event. The sediment yield to the reservoir will also be determined.