



## **Flood resilience and uncertainty in flood risk assessment**

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Flood risk assessments do not normally take account of the uncertainty in assessing flood risk. There is no requirement in the EU Floods Directive to do so. But given the generally short series (and potential non-stationarity) of flood discharges, the extrapolation to smaller exceedance potentials may be highly uncertain. This means that flood risk mapping may also be highly uncertainty, with additional uncertainties introduced by the representation of flood plain and channel geometry, conveyance and infrastructure. This suggests that decisions about flood plain management should be based on exceedance probability of risk rather than the deterministic hazard maps that are common in most EU countries. Some examples are given from 2 case studies in the UK where a framework for good practice in assessing uncertainty in flood risk mapping has been produced as part of the Flood Risk Management Research Consortium and Catchment Change Network Projects. This framework provides a structure for the communication and audit of assumptions about uncertainties.