Geophysical Research Abstracts Vol. 16, EGU2014-7653, 2014 EGU General Assembly 2014 © Author(s) 2014. CC Attribution 3.0 License.



Historical flood information and their utility in contemporary flood risk assessment

Neil Macdonald (1), Thomas Kjeldsen (2), Michel Lang (3), and Luis Mediero (4)

(1) University of Liverpool, Department of Geography, University of Liverpool, United Kingdom, (2) Centre for Ecology and Hydrology, Wallingford, United Kingdom, (3) Hydrology-Hydraulics Research Unit, 5 rue de la Doua, 69100 Villeurbanne, France, (4) Department of Hydraulic and Energy Engineering, Technical University of Madrid, Madrid, Spain

The COST Action ES0901 on 'European procedures for flood frequency estimation' has initiated the collection information on how historical flood records are incorporated into flood frequency analysis across Europe, the survey also examines methods, practices and extent of historical information in each country, with notable variability across Europe. Currently, flood frequency is most commonly based on systematic instrumental data, collected by a variety of station authorities/bodies across Europe, these stations are of various form and complexity dependent on the level of data accuracy required. A well-know consequence of the extrapolation from short series is the high level of uncertainty associated with estimates of design floods with large return periods. Given that the average record length is typically in the range 20-40 years, hydrologists have attempted to reduce the uncertainty levels by extending available records by bringing flood data from before the beginning of systematic flow recording into the analysis in the form of historical and palaeoflood data, this is included with development and planning regulations in some EU countries and is identified within the EU Floods Directive (2007/60/EC).