

**ERA-NET CRUE Funding Initiative  
Research project fact sheet**

**Risk Assessment and Risk Management in Small Urban Catchments**

Hamburg University of Technology, GER

University of Sheffield, UK

University of Manchester, UK

Ecole Nationale des Ponts et Chaussées, Marne-la-Vallee. France

**Executive summary**

Due to the special nature of their flood regime, small rivers in urban catchments need special consideration and their own strategies for flood management. As, at the moment, each city or district embarks on its own mitigation strategy - with more or less success, there is a strong need to exchange present practice of flood management for these urban catchments at a European level and to identify good practice solutions, and improved ways of managing urban streams to cope.

The project will develop a methodological framework for flood management in small urban catchments. Based on case studies of urban river catchments of the cities Hamburg, Manchester, Bradford, Glasgow, Cologne, Dresden, Paris and surrounding, and others the effectiveness and efficiency of non-structural measures to reduce flood damage will be analysed and evaluated with respect to the feasibility of assessing and mitigating flood risk from hidden watercourses and associated culverts in urban areas, the possibilities and ways to implement effective, non-structural solutions to minimise flooding from these sources and the value of "daylighting" urban streams by removing culverts and restoring open channels that include space for flood storage

**Intended outcome**

An understanding of the risk posed by small urban catchments  
Good practice solutions to managing the risk posed by urban catchments  
Stakeholder driven mitigation strategies to urban flooding by small catchments.  
A National and European assessment of how current planning systems both constrain, and also provide opportunities, to the sustainable and ecological management of small urban catchment

**Project duration**

12 months

**Project costs [€]**

240.000 €

**Dissemination and implementation actions**

4 interactive seminars during the duration of the project  
Workshop at the end of the project with stakeholders  
Academic papers  
Publication of the results via website  
Integration in a web-based information system for flood resilience

**Funded by**

Germany, France, England and Scotland

**Methods and data to be intended to use**

GIS-based analysis, statistical analysis, socio-economic analysis  
regulatory, societal, cultural and economic data,  
existing research reports and planning documents of the  
involved administrations and stakeholders,  
hydrological and geographical data of the test sites

**Contact details**

Erik Pasche, [pasche@tuhh.de](mailto:pasche@tuhh.de)  
Nigel Lawson, [nigel.lawson@manchester.ac.uk](mailto:nigel.lawson@manchester.ac.uk)  
Richard Ashley, [r.ashley@sheffield.ac.uk](mailto:r.ashley@sheffield.ac.uk)  
Daniel Schertzer, [Daniel.Schertzer@enpc.fr](mailto:Daniel.Schertzer@enpc.fr)

**Geographical focus of research (test sites)**

Manchester, Glasgow, Hamburg, Cologne, Dresden and Paris