



Investigation of flooding for a large urban catchment

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ABSTRACT

A detailed flooding analysis for extreme events is a more and more upcoming task in urban drainage studies. For such studies an integrated model simulating the flow in the sewer system normally as a 1-D approach and a 2-D model simulation the flow on the surface is needed. This allows for the simulation of the interaction between the flow in the sewer system and the surface.

The simulation of flooding for a large urban catchment with a high resolution in time and space is not a technical problem but a computer time consuming process if one likes to simulate flooding the whole urban catchment.

The paper describes the methodology for a risk analysis in a stepwise procedure with the objective not to simulate the whole urban catchment but for those areas with a potential risk.

KEYWORDS

Flooding, modelling, urban, risk analysis