THE PLANNING AND IMPLEMENTATION OF DISCHARGE MEASUREMENT SITES IN URBAN DRAINAGE SYSTEMS

M.W. Ostrowski, J. Koch, A. Wetzstein
Section for Hydrology and Water Management, TU Darmstadt (koch@ihwb.tu-darmstadt.de)

Reliable measurements are indispensable for the modelling and the computation of hydrological processes as they are required for the verification, the validation and the improvement of computational simulations. Contrary to the common opinion the realisation of accurate measurements is mostly nontrivial and the achievable accuracies and resolutions are limited in certain fields of application. Particularly with regard to the operation of urban drainage systems and the inherent boundary conditions in sewerage networks the implementation of a measurement site requires well-founded knowledge and operational experiences.

Considering the requirements and the technical feasibilities the planning and implementation of a measurement site includes - the selection of suitable measuring methods and devices - the location of measurement points - the setup, calibration and maintenance of the measuring devices - the processing and evaluation of the measured data.

To set an example the implementation of a measurement site will be demonstrated on a stormwater overflow, which was equipped with discharge and waterlevel measurement devices within the scope of a research project, carried out in the section for Hydrology and Water Management of the Technical University of Darmstadt.