Wastewater collection in sewer systems

The hydraulic dimensioning of a sewer system is indispensable for an efficient urban and private drainage. For that reason, the optimization measures of sewer systems concerning impoundage and flooding is needed. Aiming for a minimization of combined sewer overflow into the receiving waters and a safe regulation after impoundage in the sewer system technical measures have to be taken. During construction planning a wastewater disposal concept is developed (and implemented) containing specific technical measures.

Focus of activity

- Remediation plans for urban sewer systems
- Hydraulic and substance-related verifications (pollution-load-simulations)
- Real-time control concepts of urban drainage systems
- Risk assessment and evaluation of possible impact of heavy rain events
- Flood protection concepts for sewer systems
- Concepts for the reduction of extraneous water

Services

- Development of master plans for urban drainage systems
- Create sustainable concepts for sewage, extraneous water and storm water disposal
- Hydrodynamic simulation of sewer systems (HYSTEM-EXTRAN)
- Hydrological and hydrodynamic pollution load calculations (KOSIM, HYSTEM-EXTRAN)
- Integrated 1D/2D simulation of sewer systems and flooding (HYSTEM-EXTRAN 2D)
- Dimensioning and proof of flood pumping stations
- Optimization of the waste water inflow into the waste water treatment plant (WWTP)
- Monitoring concepts for rainfall and flow/water level measurements
- Set-up and calibrate sewer system models

itwh GmbH | Engelbosteler Damm 22 | 30167 Hannover | Tel. +49 511 971 93-0 | itwh@itwh.de | www.itwh.de