

# Integral holistic approaches

Often, three main working areas are identified in the urban water management. First the sewer system, second the wastewater treatment plant and third the water body. Because of the complexity of each topic, engineers and technical planners often only specialized on one. However, the holistic approach is known to be beneficial in terms of an overall optimization. When integrating systems several conditions can be optimized e.g. minimization of storage volume, reduction of total emission.

## Focus of activity

- Optimization of the holistic model of sewer system, WWTP and waterbody
- Integrated real-time control concepts for sewer system and WWTP
- Higher-level control system for the entire drainage and water system

## Services

- Development and application of models for sewer system, WWTP, water system that can be combined as needed (HYSTEM-EXTRAN, KOSIM, SIMBA, GESIM)
- Control of the sewer system outflow regarding to the purification capacity of the WWTP
- Implementation of load balances
- Implementation of emission and immission approaches
- Holistic system solution concepts