Utilization of the measured discharge activity of combined sewer overflows for performance review and improved system planning

In order to monitor the proper operation of combined sewer overflows and their performance, more and more measurement data is collected, evaluated and documented in annual reports. In the long term, these data should also contribute to more effective action planning in the sense of “rolling planning”. However, initial experiences show significant deviations between the actual behaviour on the one hand and the results of pollution load simulations on the other. Operators and authorities are uncertain about how to deal with this situation. In particular, the following questions arise:

• To what extent are deviations unavoidable and uncritical?
• How can the simulation be adapted to the observed behaviour?
• What effort is required for this?
• To what extent can this increase the cost-benefit ratio of planned measures?

These questions will be dealt with in the project. The aim is to show how the pollution load calculation on the basis of measured data can be improved in such a way that the actual behaviour of combined sewer systems can be reproduced realistically. The relevant interrelationships are systematically analysed in a simulation study. The core of the project is a pilot study. The practical feasibility, the required effort and the achievable savings are investigated using the example of a wastewater association. Based on the results, the methodology will be adapted and further developed.