Establishment of basis of dyke upgrading project for the Schwarzbach, km 0.030 to km 11.3

- Watercourses in the Emscher catchment area in the Essen and Gelsenkirchen conurbations
- City centre routing, section length approx. 11 km
- Watercourses in cuttings and dykes
- 1 culvert, 8 bridges
- Dyke height between 1.0 m and 8.0 m
- Geotechnical category II pursuant to DWA-M 507-1

Establishment of basis of the project and verification of the geostatic evidence pursuant to DWA-11 507-1, MSD and EC7

Preparation of the concept for investigative work to determine the condition of the dike

Preparation of tender documents for the award of contracts for subsoil investigation works to determine the condition of the dykes

Mapping of fouling and damage

Preparation of a subsoil and stability report inc. planning, monitoring and analysis of the subsoil boring, geophysical measurements and expert opinions, taking of soundings

Modelling of stability, analysis of hydrogeological data, stationary and non-stationary modelling of the dike seepage with regard to requirements under MSD and DWA 11-507-1, analysis of the results with the aid of geoinformation systems

Preparation of options for possible rehabilitation works in accordance with service phases 1 and 2