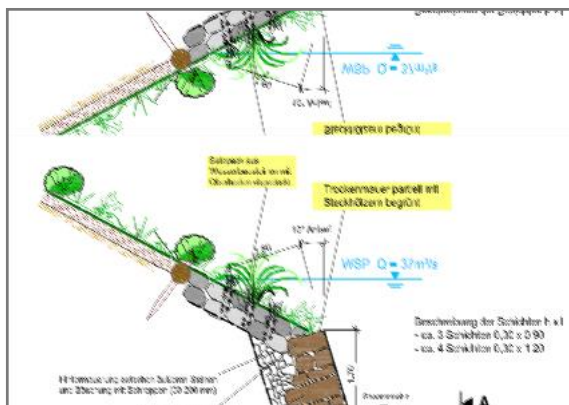


# Approval planning of Flood protection, Solingen-Unterbург, Germany

Wupperverband

| Service area   | Contract value | Project duration |
|--|----------------|------------------|
| Infrastructure Planning, Water Management and Water Efficiency | ca. €5 million | 2011 - 2014      |



## Project description:

Solingen Unterburg, flood protection of Eschbach, deepening of the river-bed, new construction of embankments, bridges and underpinnings of retaining walls, bridges and buildings in Solingen Unterburg, Eschbach, Update hydraulic model.

## Further project data:

- Bottom width of water from 4.80 m to 6.50 m, depth to 3.0 m
- Full board flood runoff 37.0 m³/s
- Up to 1.6 m lowering of the river bed approx. 500 m
- Partial profile expansion up to 1.0 m
- New construction, underpinning of left and right bank walls over a length of approx. 650 m
- New construction, underpinning of 9 bridge structures
- Fish upstream migration installation by a „Raugerinne Basin pass“

## Our services:

- HOAI Facility Planning of Structures and Structural Design Phases 1-4 (approval planning for a plan approval procedure acc. WHG)
- Surveying, preparation DGM (Digital elevation Model) foreland and river tubing
- Water level calculations
- Site investigations, investigation of existing structures
- Project presentations for public agencies (TÖB), residents, citizens and project participants

