River Restoration in Stäfa

In the municipality of Stäfa, the river Grundbach flows in sections in an underground pipe. The last 100 meters' section to the outlet into lake Zurich will now be restored. The land owners, the municipality of Stäfa and a private client, commissioned EBP to conduct a feasibility study, devise various restoration options, develop a corresponding water resource project and implement the construction supervision.

In the framework of the Zürichsee-Gut development project, the Grundbach is to be restored aiming at re-establishing ecological functions as well as ensuring flood control. Grundbach river will be embedded attractively in its surroundings and upgraded to a natural and ecologically sound condition. The procedure related to the water resource project offered an opportunity to define the legal riverine zone and – at the same time - to enable a more appropriate development of the adjacent construction site by releasing the area the pipeline had occupied before. Although the river section close to the main road, remains piped, the pipe needs to be widened due to flood control requirements. Owing to the soft ground (land reclaimed from the lake), we selected a corrugated pipe with a low-profile arched shape. The design has been selected, among others, to permit quick installation and to reduce construction time at this critical location.
Depending on the season, the sediment transport will be lowered due to the backflow from lake Zurich. With the integration of underwater steps, the sediment transport will be attenuated by wave forces. Only natural, local materials were used to render all the relevant structures. The opening of the lowest section of the Grundbach, and the flattening of the banks, offers the opportunity to restore spawning grounds for the endangered fish species brown trout.

Client

Zürichsee Medien AG and the Municipality of Stäfa

Facts

Period	2014 - 2018
Project Country	Switzerland
Installed sandstone blocks	200 tons
River length	100 m
Construction time	3 years (phased)
Cost of river restoration	CHF 0.4 million

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EBP has executed the preliminary study, the detail planning, the tendering and the construction supervision). Construction work on the expansion of the lowest river section was finished in 2016. Execution of the remaining sections will begin in 2018 after the completion of the Zürichsee-Gut housing project. EBP is working on the project in a team with the architectural firm Lorenz Eugster Landschaftsarchitektur und Städtebau GmbH.