

Return to nature of the Dünner river in Olten



As a balancing and replacement measure for the new relief road, a 900 m stretch of the Dünner near Olten is to be returned to nature and shaped to ensure protection from flooding.

The “Olten Region Relief” project (ERO) is a major road construction project. In order to compensate for the impact on the natural environment, ecological balancing and replacement measures have been implemented. The content of these measures involved the revitalisation of the Dünner river between Wangen b.O. and Olten, over a length of just under 900 m, enabling a natural river dynamic to flourish within the limitations of flood protection. Its new watercourse zone will cover a floodplain around 60 m in width, with the river bed once again following its original meanders. Intended to be close to nature, ecologically varied and provide an attractive landscape, the design offers a wide variety of habitats for terrestrial and aquatic fauna and flora. The landscape is based on the traditional riparian landscape typical of the locality.

The balancing and replacement project is based on a flood level occurring once every 100 years. The cross-section of the runoff was optimised accordingly in the project and various structural measures developed and hydraulically tested. Moreover, the stream Gheid was channeled into the Dünner River through a newly created shallow water pond and alluvial forest. This allowed the creation of a new amphibian biotope. On the left bank, the proposed runoff cross-section provides protection against HQ100 levels with height to spare.

Client

The canton of Solothurn Office of
Transport and Civil Engineering (AVT)

Facts

Period 2011 - 2016

Project Country Switzerland

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Around 2/3 of the project perimeter lies in groundwater protection zone 3. A groundwater monitoring system has been in place since 2009. The project will be completed in 2 phases. The first 600-meter stretch was completed between 2014 and 2016. The next 300m stretch will be built after the modification on a neighboring groundwater well.

The cost for the first stretch of Dünnern River summed up to around CHF 3.5 million, including the adaption of the lateral infrastructure.

The project was conducted in close collaboration with the Olten-based engineering and planning firm, KFB AG.