

## Eulach River: Flood protection and river restoration

The city of Winterthur is protected against flooding by the Hegmatten flood retention area. In the event of an overload scenario, the existing Hegi flood relief channel is limiting the effectiveness of the retention area. In particular, the inlet determines the amount of water that can be conveyed into the relief channel. The situation would be particularly critical if blockages were to occur at the inlet. Proposals need to be developed on how to prevent blockages and optimize the inlet hydraulically. When considering floating debris, not only driftwood but also "civilization waste," such as garbage bags, containers, or vehicles, must be taken into account.



Fig. 1: Eulach river, intake of the flood retention tunnel (Source: AWEL)

Since a backwater can occur in the inlet area in case of an overload scenario, the section of the Eulach river upstream of the inlet must also be included in the considerations. Options need to be investigated on how to accommodate a corresponding backwater in the Eulach river without causing flooding. In this context, the feasibility and effectiveness of heightening the left bank or both banks should be investigated.

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**Remarks:** Project-oriented thesis;  
Topic can be distributed more than once.