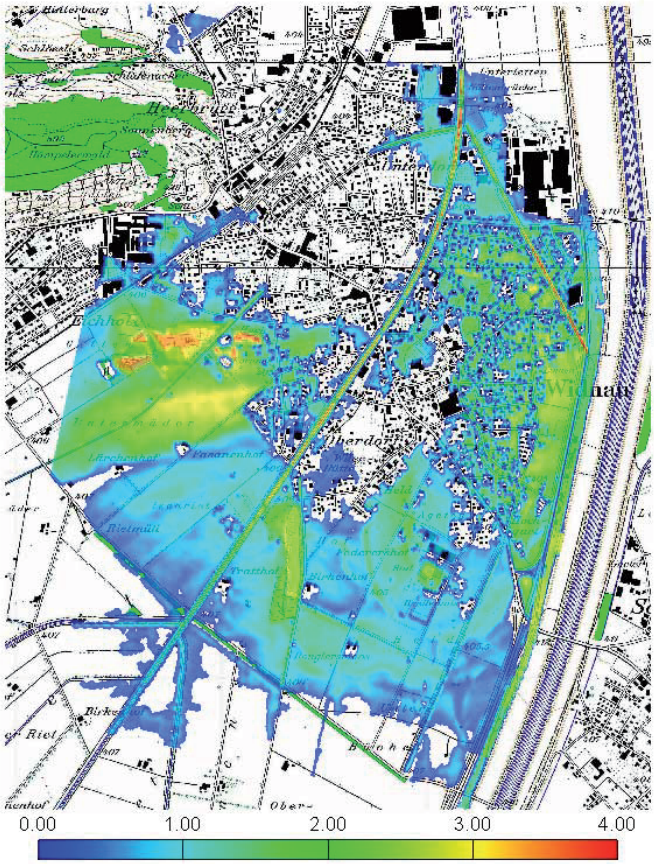
ETH zürich

Application of a 2D flow and sediment transport model to environmental problems

One of the fundamental problems in River Mechanics is to accurately predict the morphological change of rivers and river deltas in response to natural and anthropogenic changes in the supply of water and sediment. Our approach focuses on the continued development and application of a finite volume 2D flow and mobile-bed code (Faeh, 1997; Mitteilungen 153, VAW). The hydraulic portion of the code is based on the shallow water equations; the mobile bed portion includes, when available, physically-based relations describing the coupling between the flow and sediment motion, partitioning between the bedload, suspended load, bed surface, and bed subsurface grain size populations.



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