Abstrakt EN

There is an intense exchange of water between the quaternary fluvial sediments and river. Although the precise amount of seepage flow is needed for various hydrogeological models and calculations, the systematic measurements of the seepage flux in our country are lacking. This Batchelor thesis describes 4 methods that can be used to measure the intensity of water exchange between quaternary sediments and river flows. These are manual and automatic seepage meters, which isolate a small part of the river bed and measure the amount of water that is lost or gained. These two approaches differ by frequency of measuremens. Secondly, there are methods that measure the temperature distribution in the river bed with heat-sensitive electric sensors (point measurements) and light distraction in an optic fiber. The measured temperatures are used to simulate the water and heat flow in the river bad. At each of these methods, I described the method principle, the equipment used for measurement, the measurement methodology as well as examples of where were these methods already used. Discussion in the final part of the thesis contains comparison of the practical use of the mentioned methods.
Key words: Seepage, Seepage meter, riverbed infiltration, water flow in riverbed.