

## **Abstract**

Tracer dilution method for measuring flow rate in surface streams is the main topic of the bachelor's thesis. The first part contains a summary of the most important flow measuring techniques for surface streams, including current meter, float method, FlowTracker, ADCP, volumetric method, and computing techniques based on channel cross-section data. Large part is dedicated to tracer dilution method. The findings of field measurements of flow made on the Loďnice River using the salt dilution approach are detailed in the second section. Five conductometers were used to measure the water conductivity at three different sites. Conductometry was performed simultaneously in two different distances from injection site. Throughout the experiment, a sixth conductometer recorded the background conductivity value as a standard.

The predicted flow values are compared to those acquired from nearby hydrometric station of the Czech Hydrometeorological Institute (CHMI) and from observations made using Flowtracker. Differences in measured flow rate were interpreted as tracer losses. These losses were estimated.

**Keywords:** hydrology, surface water, water stream, tracer dilution, conductivity, tracer