## **Abstract**

This thesis deals with use of hydromorphological assessment methods and the application of the Hydroecological monitoring HEM (Langhammer, 2007, 2013) method in the model basin of lower part of Rakovnický potok stream. This thesis presents results of the terrain survey and based on this results, the parts with poor ecomorphological conditions should be identified and restoration measures should be suggested to improve the hydromorphological quality and physical habitat of Rakovnický potok stream. This stream represents both almost natural parts of the catchment in Křivoklátsko Landscape Protected Area as well as parts which are influenced by human activities, especially by the agriculture and the industry. Due to the results of applied terrain survey and literature research, it was suggested to apply complex restoration in the whole area of Rakovnický potok basin immediately.