Abstract

This thesis is concerned in the state of the surface water quality of the catchment area of the Šlapanka river in regard of chemical and biological parametres. The thesis is divided into four parts. In the first part there is a list of physical geographic characteristics and socioeconomic activities of the catchment in regard to its influence on the quality of water. The sources of pollution were described in more detail. The second part is dedicated to the methodics, which deals with chosen parametres of pollution, description of the methods used when taking samples and analysing them and also with the methods of statistically analysing the results. In the third part of the thesis the results of chemical and biological anlyses are looked into. For analysing the data of estuary profile of Mírovka from the state observing network ČMHÚ Prague were also used. The analyses were done according to ČSN 75 7221 classifying the profiles to the classes of water quality. Dependent analyses were made, as well. Concluding chapters summarize the gained data and give concrete suggestions. The realization of these suggestions would positivelly influence the water quality.

The river Šlapanka is left tributary of the Sázava river. It runs through the central part of the Českomoravská highland through a typical rural landscape, which has evident influence on the water quality in all respects. From the results of the analyses there is obvious, that the surface water quality of the catchment is low. All profiles are in 5^{th} class of quality. The nitrogen compounds and chemical oxygen demand prove as the most critical. The main sources of pollution come from agriculture and rural settlements which do not save waste water.