

The subject of the thesis is to characterize the vertical stratification of quality and to determine the source of contamination of groundwater in the north part of the Třeboň basin. In the thesis the quality of groundwater in peat bogs, in the sediments of the basin as well as in the underlying crystalline complex is described. The quality of groundwater was monitored in boreholes which are distributed in the whole area of the basin. The quality of groundwater in the collecting line Horusice – Dolní Bukovsko is also described in the thesis as it is the main source of drinking water in the area. The quality of groundwater is compared with the regulation 252/2004 Sb., which specifies drinking water hygienic requirements. For demonstrating groundwater flow and contamination propagation in parts of the basin a hydraulic model of groundwater flow was made.

A part of the thesis is an evaluation of significant sources of contamination in the north part of the Třeboň basin and of the tendency of development of contamination propagation. Measures to protect and to increase the quality of groundwater are subsequently proposed.

The quality of groundwater in the north part of the Třeboň basin is varying. There is groundwater meeting the drinking water criterion in the regulation 252/2004 Sb. but there is also contaminated water. The source of groundwater contamination in the north part of the Třeboň basin are buildings connected with agricultural production. The most serious source of groundwater contamination is the store of manure near Dynín. So it threatens the quality of groundwater used for drinking.