

Abstract

This bachelor's thesis summarizes the findings on the hydrological conditions in the Klenice River basin and all related aspects. Due to its structure, the catchment area responds very quickly to factors affecting the quantity and quality of water flowing through the stream channel. The first part of the thesis reviews literature that evaluates the physical and geographical characteristics of the basin, along with insights into the factors influencing runoff conditions and is followed by a review of both foreign and domestic literature on the topic of hydrological drought. Hydrological drought, a globally long-standing issue, primarily occurs after precipitation-deficit periods. The practical part analyses average daily flows and describes the precipitation-runoff process of the area of interest. Using the dry day method and the method of deficit volumes, the situation of hydrologically dry periods in this industrially and agriculturally intensively used area is assessed. The most significant hydrological drought was found in the summer months of 2018 and 2019.

Key words: physical-geographical conditions; catchment; land use; climate; surface runoff; hydrological drought; groundwater; water quality