

Classification of Low Flow and Hydrological Drought for a River Basin

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A b s t r a c t

The occurrence of drought is one of the characteristic features of Polish climate. Drought usually lasts for many weeks and covers considerable area causing economic and social losses. Due to the influence which drought has on environment, economy and society, more and more research and implementation works are devoted to issues concerning its occurrence, risk assessment, monitoring, and forecasting. Literature indicates that hydrological droughts are most often associated with low flow periods on rivers. The paper presents analyses of hydrological drought periods on the basis of hydrological drought index (HDI) for selected Nysa Kłodzka study basin (SW part of Poland). Analyses were carried out in relation to the Maximum Credible Hydrological Drought (MCHD). In addition, attempts were taken to assess the hydrological drought based on atmospheric drought focused on application in ungauged basins in terms of hydrological monitoring.

Key words: low flow, hydrological drought index, the Maximum Credible Hydrological Drought.