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TRANSPORT OF NUTRIENTS IN THE YOUNG-GLACIAL CATCHMENT IN RELATION TO SEASONAL CHANGES IN THE HYDROGRAPHIC STRUCTURE (THE BORUCINKA CATCHMENT EXAMPLE)

Summary

The aim of the study was to determine the role of individual hydrographic structure in the differentiation of pollutant migration routes in a small young-glacial catchments. The paper presents the results of research conducted in the catchment of the Borucinka River within the project “Innovative solutions to sewage and sludge management in non-urbanized areas”. The paper presents results for the dry (July) and wet (April) season obtained in the hydrological year 2010. The main work consisted of the query of source materials and fieldwork, during which the measurements of flow and water sampling for total nitrogen and total phosphorus analyses were made. Based on so obtained results it can be concluded that young-glacial catchments, including the Borucinka catchment, experience seasonal changes of elementary hydrographic structure. These changes result in an increase in unit loads of total nitrogen and total phosphorus in wet season compared with the dry season. This is because pollutants accumulated during the dry season in isolated areas can be mobilised by periodical stream and delivered to the surface drainage system.

Key words: dry and wet season, nutrients, transport, young-glacial basin