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Influence of natural-anthropogenic parameters on runoff components

P. Zlabek (1), V. Bystricky (1), T. Kvitek (2), F. Zemek (1), and P. Ondr (1)

(1) University of South Bohemia, Department of land adjustment, Ceske Budejovice, Czech Republic (zlabek@zf.jcu.cz), (2) Research Institute for Soil and Water Conservation, Prague, Czech Republic

Twelve subcatchments within agricultural catchment (Kopaninský stream) were observed.
2-years long continuous runoff data set were used for 3-components runoff separation (calibration was carried out on 16-years continuous data set). Different methods for 3-components separation were used and subsequently the most appropriate one were chosen. GROUND method was chosen for direct flow separation whereas Chapman digital filter was used for base flow separation, hypodermic runoff is the residue.
Multivariate analysis of different parameters (slope, topographic index, proportion of infiltration zones, landuse, runoff coefficient, precipitation, antecedent precipitaion index) influencing runoff components were made in software Canoco for Windows 4.5. Two types of data set were applied for this analysis (i) the whole 2-years data set (ii) data set from chosen rainfall-runoff events. Results show that analysed parameters have different effect within long-term runoff balance and during medium up to extrem rainfall-runoff events.