

On the Choice of Calibration Periods and Objective Functions: A Practical Guide to Model Parameter Identification

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A b s t r a c t

Despite the development of new measuring techniques, monitoring systems and advances in computer technology, rainfall-flow modelling is still a challenge. The reasons are multiple and fairly well known. They include the distributed, heterogeneous nature of the environmental variables affecting flow from the catchment. These are precipitation, evapotranspiration and in some seasons and catchments in Poland, snow melt also. This paper presents a review of work done on the calibration and validation of rainfall-runoff modelling, with a focus on the conceptual HBV model. We give a synthesis of the problems and propose a practical guide to the calibration and validation of rainfall-runoff models.

Key words: rainfall-runoff model, HBV, calibration, objective function, Wieprz catchment.