DISCHARGE PREDICTION BY SWAT MODEL IN CASE OF OLEŠNÁ WATER RESERVOIR

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Mathematical models have been used in hydrology for decision making support for many years. They allow the realization of virtual experiments that can be done empirically either very difficult or not at all. The SWAT model, developed in the US, has gained world wide popularity but its application in the Czech Republic is quite rare yet. Its application is limited often by lack of aviable input data about soil properties and land management. On the example of the Olešná reservoir watershed, the necessary data was collected on the basis of the available sources and the model performance was verified in the flow forecast after the model calibration. Outputs in the daily step proved to be problematic especially in the case of more intense rainfall events, where the infiltration process, which in the case of smaller basins, can not be adequately calculated using just daily precipitations. The outputs of the simulations in the monthly step are assessed as very good and consistent in validation.