

Analysis of the 2024 Flood Events in the Upper Biała Łądecka Basin up to the Łądek Zdrój Town

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A b s t r a c t

In this contribution, the authors developed a hydrological model based on the SCS-CN curve methodology and GIS (Geographic Information Systems) to estimate flood hydrographs in the upper parts of the Biała Łądecka River basin. The numerical models were calibrated based on the data available from the Polish Institute of Meteorology and Water Management (IMGW). The output of the model demonstrates the effect in the flood hydrograph at the town of Łądek Zdrój. The hydrological model was developed and enhanced using different hydraulic routing, transform, and loss methods. The results of these analyses can allow water stakeholders to make better decisions to diminish the negative effects of new hydrological flood events at the planning stage, occurring more often due to climate change.