



## **Changeability of suspended sediment concentration during snowmelt floods in lowland catchment**

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Suspended sediment transport during snowmelt floods in small, rural catchment (23 km<sup>2</sup>, Mazowian Lowlands, central Poland) has been investigated. The research was carried out during winter seasons between 2002 and 2009. The basic hydrological and meteorological data and turbidity of water were measured on Zagożdżonka Rivier in Czarna Gauging station. According to historical data collected in Zagożdżonka River catchment, the biggest amount of suspended sediment is transported during winter and spring time. Changeability of suspended sediment concentration (SSC) during 14 floods has been analyzed. The data from Zagożdżonka River demonstrated the individuality of snowmelt floods. The value of SSC evaluated between 16,3 – 24,0 [mg/l], with the average value 19,4 [mg/l ]. It is lower than the value of SSC observed in this same catchment during summer floods. Suspended sediment concentration increases with the increase of the discharge. The relationship between suspended sediment concentration and the discharge in most cases show the clock-wise hysteresis, but the 8 shape hysteresis and anti clock-wise were observed as well.