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Soil and Water Research

Causes and Consequences of a Flood Wave on the Lower Reach of the Dyje River Near Břeclav

Palát M., Prax A., Palát M. jr., Rožnovský J.:

Soil & Water Res., 5 (2010): 121-127

[fulltext]

The settlements situated on broad flat floodplains of rivers are threatened by floods during increased water flows in the rivers. The floodplain of the Dyje river situated in the area between the Nové Mlýny water reservoir and Břeclav has been protected from former annual floods since the 70s of the last century due to the water-management measures. The realised measures including the construction of the new floodway protect the town of Břeclav as well. A long-term research into the soil water regime of the floodplain forest is underway in the region. The results obtained document its historical evolution and current status. Only in the early April of 2006 (i.e. after 34 years), an unexpected "flash flood" occurred again due to a specific climatic situation. The combination of the high snow cover in higher parts of the basin and a rapid warming up caused an intensive runoff. The so-called dry polder (floodplain forests, meadows and fields) above Břeclav protected the town and its infrastructure from potential catastrophic consequences.

neywords.

basin; climatic characteristics; dry polder; floodplain forest; floods; sewerage; soil water regime

[fulltext]

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