

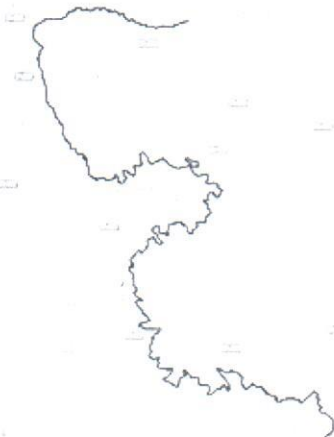


OC 3.9 - HYDROECOLOGICAL POTENTIAL AND SELF-CLEANING CAPACITY OF THE UDAY RIVER

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The Uday is a river in Ukraine, a right tributary of the Sula, in the basin of Dnieper. It is 327 kilometres long, and has a drainage basin of 7,030 square kilometres (Figure A).



A



B

Figure. Uday river: A - Location [<https://warper.wmflabs.org/wikimaps/new?pageid=90617890>]; B - Uday near Pryluky

The factual basis of research for the calculation of the hydroecological potential index (HEPI) indicator was the ecological monitoring data on hydrochemical and hydrobiological indicators for 7 of locations the Uday river for the period 2016 - 2021 on the basis of 22 indicators.

The low population density and the absence of significant man-made influence determine the high values of the HEPI in the areas within the villages of Lysky, Polonka, and Valka and correspond to the optimal state of the water ecosystem and a high capacity for self-purification. Low indicators of the index, which indicate a low capacity for self-cleaning and an unsatisfactory state of the water body, are the town of Pryluky, the villages of Deghtyari, which is associated with the influence of municipal wastewater and agricultural production waste. The hydro-ecological forecast of the development of the water ecosystem over time, provided that the existing level of anthropogenic load is maintained, is generally positive.