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## INFLUENCE OF PRAGUE CITY ON QUALITY OF WATER IN THE VLTAVA AND CZECH ELBE RIVERS

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Paper deals with the development of water quality of the river stretch of Elbe between the confluence Elbe/Vltava and the Hřensko/Schmilka on the frontier Czech Republic/Federal Republic of Germany in the period 1980–2020 and with the influence of Prague City on its pollution. After the significant improvement in the period 1985–2000, the quality of water discharged through the profile Hřensko generally complies with the German level at least. Assessment of the transport budgets shows that Vltava river contributes more to the system only as having higher water discharges. Prague City contributes to the pollution of Vltava and Elbe only by discharge of phosphorus, for the rest of common pollution items it functions only as a non-significant source.

In the period 2010–2020 a significant level of concentrations of pharmaceuticals appears, as discharged exclusively from communal wastewater treatment plants. Many drugs occur usually in concentrations at the level on tenths to hundreds nanograms per litre. Resistant drugs (gabapentin, metformin, oxipurinol and carbamazepine) are transported to Prague from the Vltava basin upstream, passing through Orlik and Slapy reservoirs with total mean retention time ca. 140 days. Transport of those resistant drugs primarily communicates with population in the watersheds of river profiles studied, as they obviously pass the wastewater treatment plants and they resist to degradation processes in the river, too.