

Hotlos, H. Variations in Water Consumption Observed in Some Municipalities in the Time Span of 1990 to 2008. *Ochrona Srodowiska* 2010, Vol. 32, No. 3, pp. 39–42.

Abstract: Upon transition to a free market economy in 1990, a continuing significant decrease has been observed in the volume of the water withdrawn for industrial and domestic purposes, which largely reduced the depletion of Poland's poor water resources. In view of a rational design, modernization and development of water-supply and sewerage systems, it is necessary to verify previous (overestimated) unit water demand forecasts. And this is concomitant with continuous monitoring of the trends of change in the water consumption pattern, and with analyzing pertinent forecasts. The aim of the study reported on in this paper was to analyze the volume and structure of water consumption in ten municipalities over the period of 1990–2008. The most significant decrease in water consumption was observed in the first half of the 1990ies (in the second half this decrease was found to be slightly lower). It seems probable that the almost constant level of unit water consumption which has been observed since 2005 in the investigated towns (with a population of up to 130,000) will undergo only insignificant changes. Presently, the unit water volume consumed by households varies between 86 and 112 dm³/capita/day, while that consumed by the industry (but provided by the municipality's waterworks), as well as the unit water volume consumed by other municipal users, ranges between 10 and 50 (60) dm³/capita/day. Compared to the year 1990, water consumption in the towns under study decreased by 30–60% and 45–85%, respectively. The water volume pumped into the water-pipe network was also found to decrease, but the decrease can not be regarded as satisfactory, since the water losses in the pipelines are comparatively high and must be significantly reduced.

Keywords: Water distribution system, water-pipe net-work, water resources, water supply, water consumption.