

Dmitruk, U., Jancewicz, A., Tomczuk, U. Hazardous Organic and Trace Element Occurrence in Bottom Sediments of Dam Reservoirs. *Ochrona Srodowiska* 2013, Vol. 35, No. 2, pp. 63–68.

Abstract: Quality of bottom sediments was examined for 15 reservoirs classified as the Sudeten, Carpathian or lowland reservoirs, according to their location. These reservoirs serve multiple functions including flood control, providing hydroelectric power, supplying water for general public, industry or agriculture and recreational. The study was conducted in 2008 and 2010. The scope of the analysis included trace elements (As, Cr, Zn, Cd, Cu, Ni, Pb and Hg) and organic compounds: polycyclic aromatic hydrocarbons (PAHs), polychlorinated biphenyls (PCBs) and chloroorganic pesticides. It was determined that concentration of trace element compounds ranged from <0.01 mg/kg to 422 mg/kg, while of PAHs from <0.0001 mg/kg to 7.5 mg/kg, PCBs from <0.0001 mg/kg to 0.78 mg/kg and of chloroorganic pesticides from <0.0002 mg/kg to 0.065 mg/kg. The sediments from the Sudeten reservoirs were found to be the most polluted, while the sediments from the lowland reservoirs the least.

Keywords: Bottom sediment quality, organic pollutants, inorganic pollutants, PAHs, PCBs.