
WATER QUALITY IN DRINKING WATER RESERVOIR ŠVIHOV ON ŽELIVKA RIVER AND ITS RIVER BASIN, WITH FOCUS ON SPECIFIC ORGANIC COMPOUNDS

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River basin of the largest drinking water reservoir Švihov on the Želivka River is distinctly anthropogenically affected both by direct human activities and also by the agriculture. The quality of the surface water is endangered in long-term period mainly by the eutrophication, pesticides pollution and erosion. Higher concentrations of phosphorus originally from point sources cause higher degree of the river eutrophication. The way of agricultural management supports extensive farmland erosion and subsequently sedimentation of that material in the rivers and reservoirs. Increased concentrations of pesticides compounds coming mainly from agricultural production are found in drainage and surface water in the Švihov water reservoir catchment area. Not only nutrients but also other specific pollution compounds from wastewater are found in the rivers eg. drugs, hormonal substances, personal care products, anticorrosive substances, BPA and others. Pesticides and drugs turn in their individual metabolic products, which persist in various forms in the water. From the long term, the transition to the cultivation of industrial crops is very risky with serious consequences for water quality, especially in the river basin of water reservoirs.