Abstract

The Kadaň water reservoir was built on the river Ohře in 1971. It is considered as a deepend river bed rather then the water reservoir . As with others water reservoirs, there continues to be happening an intense siltation with various types of sediments. This bachelor thesis aims to identify a current state and the change that has passed over the last 18 years and based on those obtained informations create a bathymetric map. The thesis is based on data from 1984, 2000 and my own field mapping in 2018. For measuring water depths I used a system RiverSurveyor. The data were processed in programs Microsoft Office Excel and ArcMap. For creating a bathymetric map I used a Kriging interpolation method. The results showed that compared to year 2000, the siltation has increased by 5%. Currently, the reservoir is silted by 47%. It is located in an area of 545 941 m^2 and its volume amounts to 1 385 862 m^3. In 1972, when the reservoir was filled, it had a volume of 2 620 000 m^3. According to the results of measuerement we can conclude that over the last 46 years there has been created 1 234 138 m^3 of sediments in the reservoir.