

Hydro-chemical Characteristic of Czarniawka River – Witold Nocoń, Maciej Kostecki

Summary

This study presents the results of investigations, carried out on the Czarniawka River from December 2003 to June 2004. The results indicate the changes of physicochemical parameters of water quality. High concentration of ammonium nitrogen, COD and orthophosphates are probably caused by discharge of municipal waste-water. A drop of ammonium nitrogen, nitrite nitrogen, nitrate nitrogen concentration along the river course is probably caused by inflow of water without these components. High salinity and very high concentration of suspended solids below the “Makoszowy” coal-mine is caused by discharge of coal-mine water and carbon dust from coal washer. All of the discussed parameters of water quality (except for pH-index and nitrate nitrogen) are beyond official classification. In comparison to previous analyses a slight improvement of water quality can be observed, especially in the top length. In the estuary water quality deteriorates. Although the Czarniawka River is small, it is one of the most important Kłodnica River contamination sources. Improvement of the existing situation will be possible only if firm waste-water management action will be taken, especially in the “Makoszowy” coal-mine area.