



OUR STAFF TEST WATER THROUGHOUT THE REGION

The academics of the Faculty of Science & Technology of JDU in cooperation with the Eco-industrial Park - Park Technologiczny Ekoenergia – Woda – Bezpieczeństwo, operating within Ecoenergo Silesia (Ekoenergia Silesia S.A.) in Katowice, are currently carrying out scientific research that is part of the activities of the “University for the Earth”.

The idea of the Park is to bring together entities working for safety in the water supply for the inhabitants of the Silesian voivodeship, including, among others, providing hydrological safety of water reserves and drinking water intakes, and educating residents to raise their environmental awareness.

The first of the research tasks carried out by dr hab. Rajmund Michalski and dr Joanna Kończyk (- JDU academics) concerned the evaluation of surface water quality, which is a reservoir of drinking water for the Upper Silesian Waterworks - Górnośląskie Przedsiębiorstwo Wodociągów S.A. (GPW) in Katowice, based on qualitative and quantitative analysis of concentrations of selected inorganic substances (cations and inorganic anions, including chlorate(VII) and metals and metalloids) and organic (polycyclic aromatic hydrocarbons and petroleum substances) in terms of their tempo-spatial variability.

The area of Upper Silesia is the mostly polluted part in Poland. Specific industrial activities related to the exploitation and processing of natural deposits, strong urbanisation of the site and the associated intensified transportation have caused serious adverse environmental changes. Air, soil and environmental pollution has a direct impact on the quality of life and health of the inhabitants of these areas, and therefore their quantity should be regularly monitored in the various elements of the environment. Selected reservoirs of surface water of Upper Silesia are reservoirs of water intended for consumption by its inhabitants. The chemical purity of the waters in these reservoirs ensures the security of the supply of drinking water provided by the GPW. The aim of the project was to analyse the quality of the waters in five reservoirs – reservoirs of water intake in three aspects:

- 1.variability in metal and metaloid concentrations in the test waters;
- 2.the impact of communication pollution on the quality of the waters tested;
- 3.the presence of chlorate ions(VII) as new contaminants endangering human health.

The results of these studies can be viewed on: <https://parkwoda.pl/prace-badawcze/>

Another project is currently being carried out to analyse the level of concentrations of heavy metals in surface waters located in the drinking water area for the city of Częstochowa and neighbouring municipalities.