POLITECHNIKA ŚLĄSKA
WYDZIAŁ INŻYNIERII ŚRODOWISKA I ENERGETYKI
KATEDRA INŻYNIERII WODY I ŚCIEKÓW
Dyscyplina: inżynieria środowiska, górnictwo i energetyka

ROZPRAWA DOKTORSKA

Zarządzanie ryzykiem w podnoszeniu efektywności operacyjnej funkcjonowania systemu zaopatrzenia w wodę Górnośląskiego Przedsiębiorstwa Wodociągów S.A.

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Streszczenie w języku angielskim

The water supplier's task is to deliver water in the appropriate quantity, at the correct pressure, and of the proper quality. Directive 2020/2184 introduced the obligation to manage water supply risks throughout the entire supply chain, from the area of the water supply point from the environment, all the way to the consumer's tap. The water supplied must be as safe as possible. Assessing the safety of water is a key element and should be based on a broad range of information, not just water quality tests. The research undertaken so far to assess the state of water safety does not consider the multi-aspect nature of the issue. This situation has created opportunities to propose new research methodologies supporting the assessment of water safety.

The research work proposes an algorithm for managing water supply risk in improving the efficiency of the water supply company. The construction of procedures and modules in the dissertation included the use of various data sources, statistical tools and geographic information systems to build the proposed risk assessment modules. The proposed research model can be used in applied water safety plans as an element related to risk assessment, risk control and verification of the water supply risk management process. The result of the proposed research model is a proposal for prioritization of the directions of operation of a water supply company. The proposed methodology has been verified for the actual operating conditions of the supply system.