

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



ROZPRAWA DOKTORSKA

**WYKORZYSTANIE NARZĘDZI INFORMATYCZNYCH  
DSS DO BUDOWY ELEMENTÓW SYSTEMU  
BEZPIECZEŃSTWA ZDROWOTNEGO WODY**

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PROMOTOR

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## **Streszczenie w języku angielskim**

Ensuring a water supply in the enough amount, right pressure and with right quality is basic tasks of water suppliers. Today, water suppliers are required to perform a risk analysis along the entire water supply chain from the source to the consumer's tap. Water safety assessment is a very important element and should be based on a wide range of information, not only water quality tests. The research undertaken so far to rate the state of water safety does not include the multifaceted nature of the issue. This state of affairs has created opportunities to propose new research methods to support the water safety assessment.

In the research work, the model was proposed as a DSS element risk classification for determining the areas sensitive to loss of water safety. The scope of the work carried out included use of various data sources, use of statistical tools and geographic information systems for spatial interpretation of the assessment. The analysis was carried out in the research horizon fives years. The proposed research model can be used in the applicable water safety plans as an element related to risk assessment and determination of water safety. The result of the proposed research model is\ classification and spatial distribution of risks (tolerated, controlled and unacceptable) and designation of areas sensitive to loss of water safety.

The proposed methodology has been verified for the actual operating conditions of the supply system.