The use of reclaimed water in the local urban cycle – a case study

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\textbf{ABSTRACT}

The practical implementation of solutions compatible with the circular economy is crucial in Europe. The authors present a case study for a small Polish agglomeration. The local wastewater treatment plant operator took up the challenge of closing the local water cycle and limiting the use of groundwater for purposes other than households. The solution was developed based on consultations with stakeholders and research results, with particular emphasis on microbiology. Water quality was compared to the requirements of European Union law. The developed solution consists in recovering water from municipal sewage for the internal needs of wastewater treatment plant and for the needs of municipal services. Reclaimed water can be used to wash equipment, power heat pumps, irrigate green areas, and clean streets. The social and environmental benefits consist in reducing the consumption of water from the drinking water network, building the value of water services and environmental corporate responsibility.

\textit{Keywords:} Water reuse; Reclaimed water; Circular economy

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