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## **Detecting parameters of impact assessment of SDW landfill sites on water bodies (on the example of the Samosyrovsk land fill, Kazan, Russia)**

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### **Abstract**

Annually in Russia there not less than 3,5 billions tones of wastes are produced, from which only a quarter is processed, the rest is burned or removed to special landfills. Most of landfills is situated directly nearby built-up and natural areas. The objective of investigation in this work is revelation of parameters for impact assessment of Samosyrovsk landfill in Kazan on water bodies on the example of the river Krutovka. The main tasks of investigation are: gathering and analyzing data about Samosyrovsk landfill in Kazan; hydrochemical analysis of water samples of the river Krutovka and waste waters of the Samosyrovsk landfill on chemical elements content in it; hydrobiological investigation of the river Krutovka; separation of the most important parameters for further monitoring. Analyses were made on the basis of the international laboratory of the urban explorations of the Institute of social investigations on modernization of society and department of nature development and water use of KFU. It has been analyzed the existing monitoring system of landfills. The ecological state of the river Krutovka on hydrochemical and hydrobiological parameters has been assessed. It has been revealed chloride, copper, magnesium, calcium pollution of the stream. It has been shown parameters of zoobenthos allowing to more precisely assess the state of the water body. Such indicators are: aspectual content, ratio of quantity and biomasses of the basic groups of organisms, calculation of Shannon and Simpson indices, account of presence chironomidae organisms in assays.

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### **Keywords**

Hydrochemistry, Impact assessment, Monitoring, Parameters of pollution, Small rivers, Zoobenthos