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AN ASSESSMENT OF THE IMPACT OF SEWERAGE SYSTEM FAILURE ON SURFACE WATER QUALITY. THE CASE GWANDA TOWN.

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ABSTRACT
The objective of the study was to assess the impact of Gwanda town sewage disposal on the Water quality of Mtshabezi River. In all 36 samples were collected from 3 sampling points from the entire stretch of the study area. Samples were collected during course of 2013. The samples of surface water quality were analyzed using EMA Effluent and Solid Waste Disposal Regulation of 2007. The samples were subjected to a multivariate method, namely One Way Anova and Multiple Comparison. It was found that the water available in Mtshabezi River is not absolutely environmental safe and contaminated with high phosphates loads. Physical parameters including pH, DO and EC are well within the permissible limit as per EMA ESWDR. The mean value of total suspended solids was relatively high during rainy season which can also contribute to high BOD values which is an indication of organic pollution. The study reveals that the water quality of Mtshabezi River is compromised by the sewerage flows from Gwanda town.