

Title: Evaluation of water pH levels in Dam one and five at the University of Embu, Kenya

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Abstract

Water pH levels in most aquatic sites have been compromised by introduction of modern technologies such as industries, mining, burning of fossil fuels and farming resulting in increased research interest in water quality due to anthropogenic pressure on water bodies. Despite research done on water pH in the dams at the University of Embu, there have been no studies on the pH levels in some dams. The main objective of this study was to assess the pH levels in dam one and dam five, including other physio-chemical parameters such as conductivity and temperature. In each dam, water samples were randomly collected from six points. The pH levels were determined using an Ohaus pH meter, conductivity and temperature were measured using conductivity meter. The data was subjected to one-way analysis of ANOVA using R software to determine the variations in pH level. The result of this study reveals that the physico-chemical parameters are within the maximum permissible limit (USEPA, 1976, 1986) with some significant variation in some parameters. Hence, water dam is safe and suitable for aquatic life survival and even irrigation. The results from this study provides information that will allow development and implementation of management strategies aimed at maintaining optimum pH level that is required for survival of aquatic life in the dams.