



UNIVERSITY OF NAIROBI

A COMPARISON OF RAW AND TREATED WATER QUALITY CASE STUDY: KISERIAN DAM WATER TREATMENT PLANT

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Abstract

Water treatment is the process of eliminating contaminants which may be in the form of chemicals, suspended solids, microorganisms and gases from raw water transforming it into water that is acceptable for its desired end use, which may be domestic or industrial.

The Kiserian Dam and Water Treatment Scheme in Kajiado County is an example of a conventional modern water treatment complex that serves to purify water for domestic consumption in thousands of households and business premises in Kiserian, Ngong, Matasia, and Ongata Rongai towns.

The aim of this study is to evaluate the effectiveness of the water treatment process at the Kiserian dam scheme in purifying reservoir water for domestic consumption. The dam impounds water from three rivers that contain highly polluted water. This project aims at comparing the raw water and water that has undergone treatment to establish whether the treatment process is efficient and whether the treated water meets set water quality standards.

The methods used in this project to determine the efficiency of the treatment works include testing of water samples in the laboratory; observation and distribution of questionnaires to water consumers to find out how they rate the water they receive in terms of quality.