



"New Horizons Towards Sustainable Development"

Journal of Environmental Studies and Researches (2021), 11(4C):690

Microbial profile of drinking water operation on downstream canal in Belqas, Mansura, "Egypt.

Ahmed A. Abdelwahab, Abdelhameed M. Othman and Ibrahim E. Mouse* Environmental biotechnology department, Genetic engineering and biotechnology institute (GEBRI), University of Sadat city, Egypt.

Drinking water treatment is supposed to be one of the most important challenges. For that, raw water stream must be controlled and drinking water treatment plants must be qualified and be efficient to give a good quality. In this view, experiments were focus on microbial contamination of raw water downstream and removal of physico-chemical and biological contaminants during treatment process. Raw water during the period of study which extended for a full annual cycle had levels of contaminants which were suitable for proceeding through different stages of treatment (physically, chemically and biologically). The result of drinking water was accepted and good where there is removal of contaminants step by step during treatment process. This appeared in results of raw, clarified and treated results. On the other side, biological parameters had more interest which tests were applied on raw, clarified, filtered and treated. This study appeared that there was a high removal of microorganisms after injection of initial and final chlorine. The postchlorination gave more protection in distribution system that extends about 37 km north the plant.

Key Words: drinking water; microbial load, downstream canal, water quality.