EuroSciCon

International Conference & Expo on

Recycling

August 20-21, 2018
Amsterdam, Netherlands

Expert Opin Environ Biol 2018 Volume: 6
DOI: 10.4172/2325-9655-C2-021

PROPOSED DESIGN OF GREYWATER TREATMENT SYSTEM IN BATANGAS STATE UNIVERSITY JPLPC MALVAR CAMPUS

Carla Antonette Aranez, Lavinia Mercado and Lisbeth Valiente
CEAFA, Batangas State University, Philippines

Potable water is becoming a rare resource in the world. It is therefore essential to reduce surface and ground water use in all sectors of consumption, to substitute freshwater with alternative water resources and to optimize water use efficiency through reuse options. A greywater comes from sinks, shower, baths, and washing machine or simply defines as any domestic wastewater, excluding sewage. Batangas State University Malvar Campus has a total population of 5233, including students from college, elementary, faculties, employee and personnel. Increasing population of BatstateU Malvar campus can be lead to water shortage and will cause high consume billing of water which is cost an average monthly bill of 6,006 PhP according to their accounting office. Batangas State University Malvar produce high effluent of greywater with a total discharge of 57.4 gpm and as regard to our major, the researchers decided to design a greywater treatment system in BatstateU Malvar for having a new source of water for flushing toilet in the campus. The researchers get the total effluent of BatstateU Malvar by using Drainage Fixture Unit of the campus. This method provides a simple, inexpensive, and practical means of estimating flow. Based on the result of Laboratory Analysis (ROLA) issued by Optimal Laboratory Incorporated, the Total Suspended Solid (TSS), Total Coliform Count (TCC), and Biochemical Oxgen Demand (BOD) exceeded the effluent standards set by DENR. Therefore, the greywater treatment system is needed. The researchers design a Greywater Treatment System where the treatment process to be applied is filtration and chlorination and to be constructed in Batangas State University JPLPC Malvar Campus with the capacity of 6.25 m^3.

mercadolavinia@gmail.com