

Untreated sullage from residential areas - a challenge against inland water policy in Malaysia

ABSTRACT

Malaysian water policy was mainly focusing on the protection of the inland water resources by controlling point pollution from industrial activities and domestic sewage. Contribution of pollution loading from untreated sullage is not determined yet in Malaysia. This study was conducted to evaluate the quantity and quality of sullage discharged from an urban residential area in hot tropical climate. Median concentrations of the physical parameters, e.g. TSS, VSS, TDS, Turbidity and pH were 38, 7, 170, 36 mg L⁻¹ and 6.71, respectively. Concentrations of BOD, COD, DO, TKN, AN, OP, TOC, Zn and Oil & Grease were 49,120,1.6,7.08,4.85,1,.94,35.43,0.056 mg/l respectively. Generally, the pollutant concentrations in sullage were higher than the limits stated in the Environmental Quality Act (EQA) of Malaysia. However, the sullage issue is not seriously considered by the relevant authorities due to unavailability of data gathered from detailed study conducted in the country. The information on various parameters provided in this paper would be a reference material for the typical characteristics of sullage discharged from the urban residential areas in Malaysia and most likely for other developing countries.

Keyword: Pollution loading; Sullage characteristics; Urban residential area; Water quality index.