Prediction on water quality of point-source pollution for lunchoo river, Malaysia

Abstract

The growth in urbanization, industrialization and irrigated agriculture are imposing growing demands and pressure on water resources. As a case in point, Lunchoo River, Malaysia was considered on of the contributing factor to water quality deterioration with regional consequences on the aquatic ecosystem. Moreover, it also deemed to affect the health of the downstream sub-basin user group. Influenced by tidal, restricted exchange between estuaries and the open sea allows rapid change in salinity, temperature, nutrients and sediment load. Therefore, a balance is vital between development and a good quality of life. In the present study, limitation on point source pollutant and low flow conditions are investigated. An understanding of the existing river and waste stream characteristic is necessary to determine the background level of pollutant. In addition, output generated from this study is an important key towards an optimal management of water resources. Results showed that in making prediction of water quality for Lunchoo River, it is essential to characterize the volume and properties of the river and wastewater stream. Moreover, both hydraulic and constituent flow rate fluctuated greatly in most part of the experimental field.