

Singapore Stanford Partnership Programme

MS Project MS08-08

Sediment and Nutrient Budgets in a Tropical Reservoir System

Lo Yat Man, Edmond

This project seeks to determine the overall sediment and nutrient budgets for a tropical reservoir, namely the Kranji Reservoir, and assess the impact of eutrophication potential in the reservoir. Under a separate on-going externally funded project, a computer model (ELCOM-CAEDYM) has been adapted for the Kranji Reservoir along with estimated inflow volume and sediment/nutrient loading for the year 2005 to 2006. The work to be done under this project is to analyze the nutrient and sediment budgets based on a combination of computer runs that have been generated and new runs to be performed. Results and observations are to be compared with results from other reservoirs, both under tropical and temperate regimes, as available in the literature. The results will help gain new insights to the behavior of local reservoir systems and the resulting water quality of such systems.