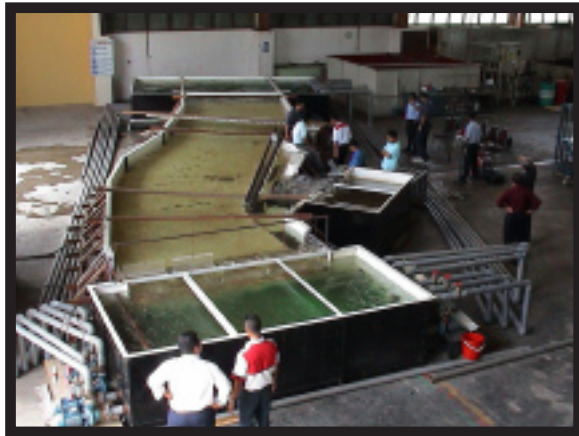
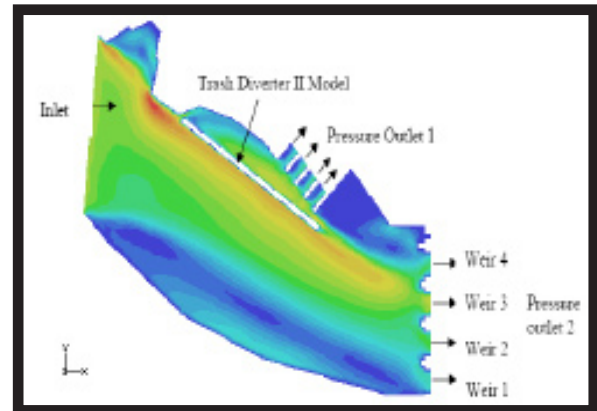


## Seeding Fund Project

### Study of Sediment and Trash Entrainment on TNB Run-Off-River Hydro Pant Water Intakes



Physical Model of Tenom Station Intake



Computer Model of Tenom Station Intake

#### Project Overview

Degraded water quality in terms of floating trash and sedimentation has affected many TNB run-off-river hydro power plants operation especially the Tenom Pangi Hydro Station. The problem is worst during monsoon season when there is high inflow with huge quantities of debris causing the intake to clogg and forcing the plant to shutdown. Physical and computer modeling methods have been used to investigate the influence of various river flow velocities on the accumulation of floating trash and sediment, and the dynamic characteristics of the trash diverter

#### Deliverables

- Specifications and engineering drawings for the enhanced trash diverter design
- Final report on the results of the study

#### Benefits

- Enable Tenom Station to increase its generation revenue and station availability by installing the trash diverter. Sixth months records indicate saving of RM 454,000.00
- The project has increased the technical competency of TNBR researchers and cooperation with local universities such as UNITEN, University Science Malaysia (USM), and government body such as Drainage & Irrigation Department (DID)
- The findings of the study can be used to formulate preventive measures or maintenance and operation policies for TNB hydro water intakes in managing the floating trash and sediment issues