



Terengganu

Malaysia

First phase of the holistic Non-Revenue Water (NRW) concept which include the creation of a leakage monitoring system (based on District Metering Zones (DMZ)) using GIS and hydraulic modeling.

Strategic modeling on the trunk main system connecting intakes, water treatment plants and balancing reservoirs has been carried out. Pump characteristics have been applied for intakes, water treatment plants and local pump houses/booster stations. Uncalibrated AQUIS Models for 90 DMZ's were created. Furthermore several AQUIS models were built for planning purposes.

A few zones experienced low supply pressure and AQUIS models were used to determine the exact reason. Several models were built for future planning purpose to show that a sufficient supply pressure could be maintained. In general AQUIS models provided essential information regarding the behavior of pressure and head in future scenarios.



Terengganu is situated in north-eastern Peninsular Malaysia, and is bordered in the northwest by Kelantan, the southwest by Pahang, and the east by the South China Sea. Several outlying islands, including Pulau Perhentian, Pulau Kapas and Pulau Redang, are also a part of the state. The state has a total area of 12,955 km².

AQUIS was used in the following activities:

- Solving supply problem between a balancing reservoir and a smaller gravity controlled reservoir.
- Estimation of friction loss in several existing DMZ's in order to solve supply problems.
- Planning, modeling future scenarios. Regarding redesigning of new supply zones/construction of new reservoirs modeling was used to find the optimal supply solution.

System integrator

Danwater Malaysia is system integrator.