

# Projects

## Yangtze River Flood Control and Management Project



**Client: AusAid. The project is managed by SAGRIC International Pty Ltd, in association with Coffey MPW Pty Ltd and Water Studies Pty Ltd, all members of the Coffey Group of Companies**

Downstream of the famous "Three Gorges", the Yangtze River enters the middle reach. Some 80 million people live here among vast areas of cropland and major industrial development. For over 3000 years a complex system of levees has been constructed and continually raised in order to protect people and assets in these floodplains. While providing a measure of protection (1 in 15 year flood protection for less populated areas and 1 in 200 year flood protection for major cities such as Wuhan), there are risks associated with catastrophic failure should the levees be overtopped or fail.

Overtopping occurred in the disastrous 1954 flood and some 40,000 people perished in the middle and lower reaches of the Yangtze Basin. Following this flood, a series of substantial detention basins were constructed. When flood levels approach critical levels, the detention basins are deliberately flooded to reduce flood levels on the river and avert overtopping of the main levee systems. To function effectively, such a system requires accurate and timely flood forecasting information.

The Yangtze River Flood Control and Management Project was initiated with an overarching goal "To reduce the loss of life, damage to property and social disruption caused by flooding in China through improved basin flood management systems." The project involved the development of an integrated flood management system for the upper and middle reaches of the Yangtze River, with increased flood forecast accuracy and lead time and improved decision support.

Since 2002, Water Technology staff have provided a substantial commitment to the project through long term deployments in Wuhan, China. As part of the overall Decision Support System, we have been responsible for procurement, establishment and implementation of hydraulic modelling systems. We have developed a range



of one and two dimensional models of the Middle Reach of the Yangtze River for use in the Flood Forecasting and Options Analysis Systems. As well, our staff have a key role in the ongoing training and technology transfer of these systems to our counterpart engineers in China.

For more information contact Steve Clark ([steve.clark@watech.com.au](mailto:steve.clark@watech.com.au)), Tim Womersley ([tim.womersley@watech.com.au](mailto:tim.womersley@watech.com.au)) or visit the project website [www.yangtze.sagric.com](http://www.yangtze.sagric.com).

### Services Provided

- Decision Support System development
- Flood Forecasting System development
- Options Analysis Systems development
- Evaluation, procurement, establishment, calibration, training, implementation, operation and review of hydraulic modelling systems
- Preparation, conduct and evaluation of formal training courses
- Long term overseas deployment of water resources/modelling specialists