

Pronamics Case Study: Toowoomba Pipeline

Successful project delivery within a critical timeframe using Expert Estimation

A very real threat

By July 2008, the worst drought in Australia's recorded history combined with significant regional population growth had left the city of Toowoomba with a shortage of available drinking water. Approximately 83% of Toowoomba's population was dependant on surface water supplies which were expected to run dry in 2010.

In response, the Queensland Government committed AUD \$187 million towards construction of an underground pipeline to transport water from the Wivenhoe Dam to the Cressbrook Dam to ensure the safe, reliable and long-term supply of drinking water to Queensland's largest inland city.

The Government-owned LinkWater Projects formed the Toowoomba Pipeline Alliance with Clough Projects, WDS and AECOM to design and build the pipeline.



Expert Estimation involved from the beginning

Pronamics Expert Estimation software was used early in the project's planning phase by cost planners to help develop a high level estimate for the project's business case. A team of four estimators, led by Toowoomba Pipeline Alliance Estimating Manager Craig Doyle, went on to develop a detailed verifying estimate using the software, comparing estimated project costs with those of the business case. This verifying estimate was the first step towards preparation of the Target Outturn Cost (TOC) estimate which was completed within the project's planning, design and approvals stage. Following approval of the TOC, Expert Estimation was then applied in the preparation of the project's budget with costs being allocated against Work Breakdown Structure (WBS) codes.

As a result of early cost planning activities, the materials contract was able to be awarded prior to completion of the project development phase. A success factor associated with the use of estimating software is the ability to save time through eliminating risk associated with spreadsheet formulae errors. Doyle says this is one of many advantages that specialist estimating software can deliver.

"In addition to the reduced risk of errors associated with spreadsheet use, using specialist estimating software such as Expert Estimation gives us the ability to resource the estimate, apply group resources and review the estimate easily. Using Expert Estimation on the Toowoomba Pipeline also allowed us to easily convert to WBS for the budgeting phase of the project and we were also able to quickly generate a wide range of reports from within the system," he said.

"Of all the features contained in the Expert Estimation software, the ability to use Global Defines was particularly useful to us as we were able to adjust factors and values used throughout the estimate in a single place and have those changes replicated throughout the estimate."

Detailed early planning key to successful delivery in a critical timeframe

Pronamics Expert Estimation software was used to develop accurate and timely estimates at the project's crucial planning stages, helping to ensure the security of Toowoomba's water supply.

The first pipe was laid on 23 March 2009 and the project is currently on schedule to become operational in January 2010, delivering 14,200 megalitres of water a year to the people of Toowoomba.

Download your **FREE** trial version of Expert Estimation at www.pronamics.com.

