

# Gladstone Harbour LNG Water Quality Assessments

There are plans for the future development of several Liquefied Natural Gas (LNG) facilities on Curtis Island, located between 8 and 12 km north of Gladstone. BMT WBM have undertaken recent estuarine water quality investigations in Gladstone Harbour on behalf of several of the development proponents for inclusion within EIS for the following development proposals:

- SANTOS – GLNG facility - Feb/June 2008
- QGC – QCLNG facility – April/July 2009
- Shell CSG Australia – SALNG facility – Feb/March 2010

All works on Gladstone Harbour were undertaken using BMT WBM field personnel, survey vessel 'Resolution II' and specialist water quality measurement and sampling equipment. All surveys were undertaken in accordance with the required Health, Safety and Environment requirements of the Gas industry.

The surveys all consisted of physical water quality measurements through the water column at multiple locations at different stages of the tide (high, mid and low tide) and some during different phases of the tide (spring and neap). The in-situ measurements of water temperature, salinity, dissolved oxygen pH and turbidity were supplemented with grab samples of water for laboratory analysis of total and dissolved nutrients, metals, and total suspended solids.

Separate reports were prepared on behalf of all proponents which summarised the range of physical measurements and trends with tidal stage and water depth for the respective areas of interest.

Analysis results from the water samples were compared with applicable coastal, estuarine and marine water quality criteria and the past results from the literature for Gladstone Harbour at different tidal stages and phases.

Executive summaries were prepared which outlined the major and important trends in water quality.

**Client**  
SANTOS  
QGC  
Shell CSG Australia

**Date**  
2008 – 2010

## Services & Expertise Provided

Specialist water quality measurement and sampling for laboratory analysis;

Measurement and sampling activities co-ordinated in accordance with strict HSE Requirements;

Analysis of collected water quality data;

Preparation of technical reports for inclusion into EIS; and

Summary of water quality information for Executive Summary.

