

# Port of Townsville Port Expansion Project

The proposed expansion of the Port of Townsville in North Queensland will involve dredging of sea bed materials to provide for larger shipping vessel access, manoeuvring and berthing. Dredged material will be placed in a significant near shore reclamation area to provide land requirements for operation of the port expansion as well as at an approved offshore disposal site.

A multi-disciplinary team from BMT WBM and project partners AECOM were engaged by the Port of Townsville Limited in 2010 to assess the likely impacts from port expansion on the sensitive marine environments of Cleveland Bay and adjacent Great Barrier Reef Marine Park. This work is culminating in a detailed Environmental Impact Statement (EIS) to be presented to the Australian Government and State Government for assessment in late 2012.

The project has showcased BMT WBM's ability to effectively integrate marine science and engineering disciplines together to develop a robust understanding of physical, chemical and natural ecosystems such that the impacts of future port expansion can be accurately and confidently predicted.

Some of the key studies undertaken include:

- Oceanographic data collection of waves, currents, tides as well as turbidity and sedimentation processes;
- Water quality modelling of sediment plumes from dredging and dredged material placement using BMT WBM's in house software TUFLOW FV;
- Hydrodynamic modelling to assess how the new port configuration may affect seabed stability and shoreline processes in the long term; and
- A full suite of marine environmental assessments including potential impacts from dredging plumes and associated sedimentation on seabed invertebrates, seagrass meadows, coral reefs, fisheries values and other attributes of the Great Barrier Reef World Heritage Area.
- BMT WBM's collaboration with both Aecom and the Port of Townsville is set to continue with the recent award of a second Environmental Impact Assessment study for expansion of the Port's Berth 10 facility. This project will be undertaken during calendar year 2012.

## Client

Aecom/Port of Townsville Limited

## Date

2011 – On-going

## Services & Expertise Provided

Hydrodynamic and water quality numerical modelling assessment;

EIS report chapters for coastal processes, marine water quality and marine ecology;

Fieldwork and marine data collection;

Dredge material disposal options assessment;

Development of environmental mitigation measures and EMPs; and

Agency and public consultation and engagement.

