

# National Coastal Vulnerability Assessment: Kakadu National Park Case Study

**Client**

Department of Climate Change

**Date**

2008 to 2010

**Services & Expertise Provided**

Hydrodynamic and catchment modelling;

Ecological, cultural and socio-economic impact assessment;

Consultation with stakeholders and Traditional Owners;

Risk identification and assessment; and

Identification and assessment of adaptation options.

BMT WBM was selected by the Australian Government Department of Climate Change (DCC) to undertake one of six national climate change coastal vulnerability assessments. Commencing in August 2008, the case study for Kakadu National Park by BMT WBM identified critical climate change impacts on these low-lying coastal wetlands of national and world heritage significance.

The study involved application of state-of-the-art hydrodynamic modelling and catchment modelling of the South Alligator River system to test the scale of impacts associated with the risk of flood discharge, salt water inundation, tidal surges and extreme climate events such as cyclones.

Based on the results of the modelling, a desktop assessment of potential impacts and risks of predicted climate change scenarios on wetland ecosystems was then conducted in order to determine risks to ecological, cultural and socio-economic values of the South Alligator River system. This included evaluation of potential impacts on tourism opportunities, indigenous communities both inside and adjacent to the park, infrastructure, changed landscapes and critical habitat. Adaptation options were then identified and assessed with stakeholders and traditional owners. Implications for government planning, management and policy responses were also identified.

A draft report was submitted to DCC for review, and the report was finalised in early 2010. It is expected to be published online by DCC in the near future.



*South Alligator River, Kakadu National Park*